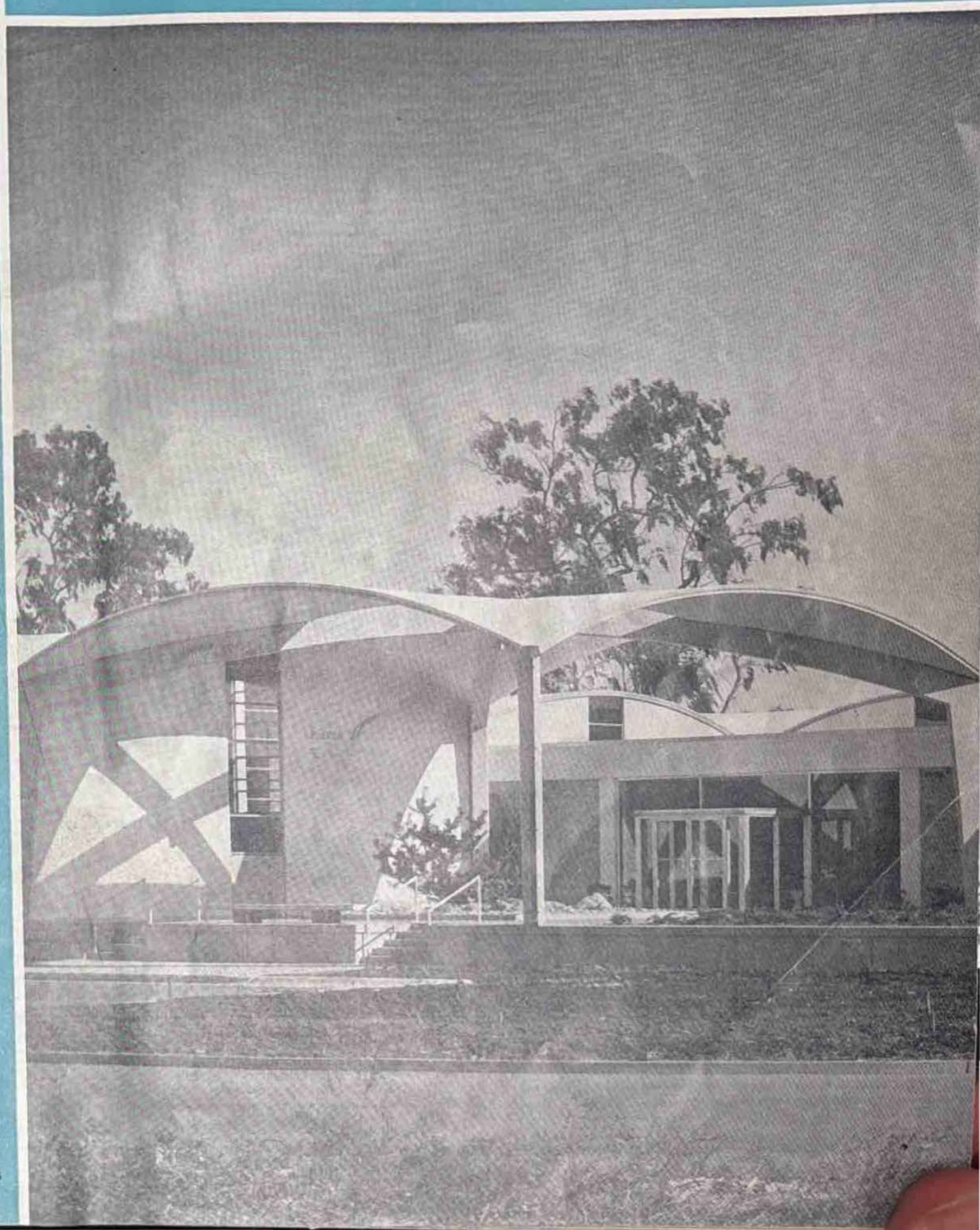
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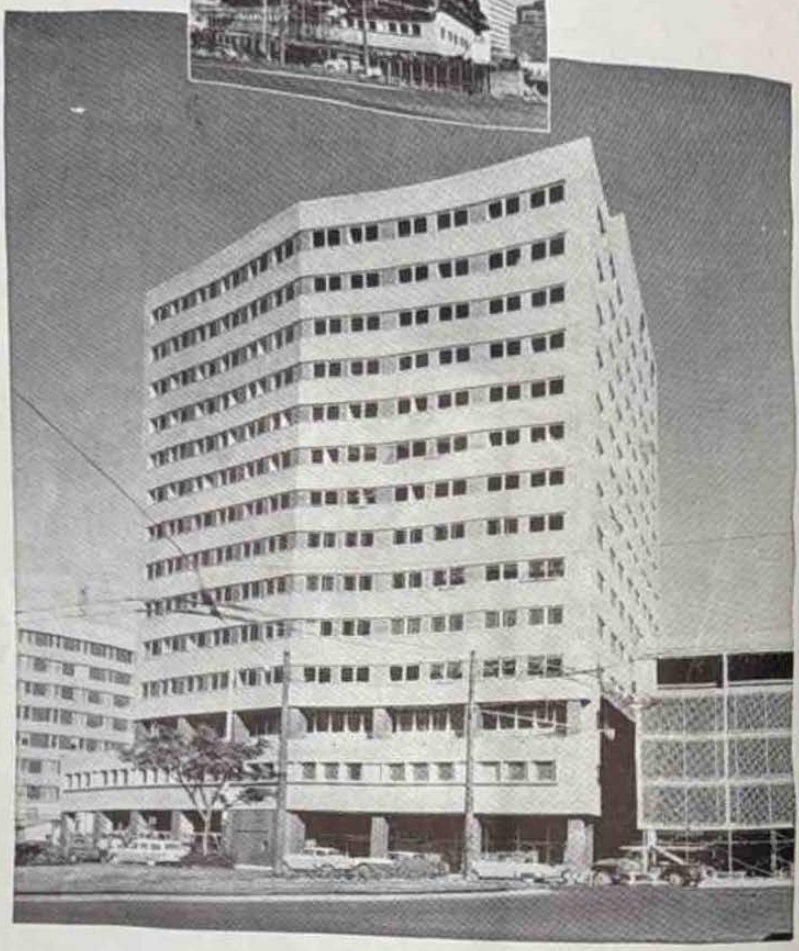
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# Good to the Core

## From Pilings to Frame to Masonry, a 100% LONE STAR Job







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Fifteen stories tall, the 140-ft. by 94-ft. office building contains 160,000 sq. ft. of floor area, including a branch bank and commercial stores on the ground floor. The center core frame of reinforced concrete—housing elevators, stairs and utilities—provides great stability with fewer columns, allowing greater floor utilization. The electrical duct distribution system was cast into the floor rib joists, and air conditioning ducts are located between exterior walls and columns. 21 day strength of 3,750 psi was specified for the concrete floors, and 5,000 psi for the columns.

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VOLUME 65, NUMBER 1 JANUARY 1959

*Covering California, Oregon, Washington, Idaho, Montana, Alaska and Hawaii—a $4 billion building market*

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JA 13 '60

# Record-breaking tally tops '57 by 12%

Building permit volume for 1958 in the five western states totals $2,620,412,492, higher than 1957 by 12% and an all-time record tally to boot. The strong comeback in PA&B territory is considerably better than the overall national picture, estimated at a bare 2% increase.

More important to the western economy is the fact that the 1958 total for the PA&B territory surpasses even the boom figures of 1956 when the total was $2,563,972,674 or 1955 ($2,500,425,102). All five states share in the increase, though in varying degrees. Oregon shows the most remarkable advance, 45% over 1957, followed by Montana with 28%, Washington, 22%; Idaho, 18%; and California, 9%. Actual dollar volume for 1958 and 1957 by states is tabulated below.

Among the major agencies reporting big increases are Los Angeles, up $51 million; Oakland, $25 million; Sacramento County, $28¾ million; San Diego, $23¾ million; San Diego County, $20¾ million; San Jose, $33¼ million; Portland, $40 million; King County, $26½ million; and Seattle $32½ million.

For December, the building permit tally is $192,340,710, an increase of $31 million over the same month last year and highest December total since PA&B began covering California.

### ANALYSIS OF TYPICAL AREAS—DECEMBER

(Number of permits is followed by total dollar volume)

| | Dwelling | | Commercial & Industrial | | Public | |
|---|---|---|---|---|---|---|
| King County | 500 | 6,232,970 | 41 | 271,020 | 2 | 510,000 |
| Seattle | 336 | 3,657,125 | 181 | 1,398,198 | ... | ... |
| Tacoma | 77 | 491,690 | 26 | 369,470 | ... | ... |
| Los Angeles County | 1,679 | 14,580,879 | 296 | 3,843,760 | 27 | 983,140 |
| Orange County | 172 | 2,526,289 | 22 | 183,377 | 2 | 230,000 |
| Sacramento County | 800 | 7,847,302 | 77 | 2,265,148 | 8 | 2,645,750 |

## Building Permits for 116 Western Agencies for December

| CALIFORNIA | Dec. 1958 | 1958 | 1957 |
|---|---|---|---|
| Alameda County | $ 1,047,900 | $ 16,158,575 | $ 29,971,118 |
| Anaheim | 3,889,495 | 44,324,434 | 32,449,790 |
| Bakersfield | 1,152,100 | 10,089,004 | 8,921,585 |
| Burbank | 719,057 | 10,603,689 | 12,023,753 |
| Contra Costa County | 2,507,669 | 37,088,366 | 29,014,401 |
| Fresno | 4,805,401 | 23,063,850 | 23,116,509 |
| Fullerton | 1,779,540 | 17,845,183 | 13,105,078 |
| Glendale | 2,078,442 | 22,342,100 | 17,693,043 |
| Inglewood | 1,343,885 | 12,551,169 | 11,807,218 |
| Long Beach | 5,574,355 | 73,812,520 | 49,706,083 |
| Los Angeles | 30,901,815 | 560,758,656 | 509,553,700 |
| Los Angeles County | 19,968,009 | 230,690,502 | 250,561,677 |
| Oakland | 5,812,906 | 69,986,764 | 44,904,795 |
| Ontario | 549,008 | 7,493,423 | 9,688,398 |
| Orange County | 3,172,169 | 46,233,783 | 60,872,808 |
| Palo Alto | 1,803,623 | 19,370,004 | 45,004,515 |
| Pasadena | 2,335,316 | 20,674,382 | 22,580,049 |
| Pomona | 1,316,682 | 11,580,312 | 18,773,952 |
| Richmond | 610,099 | 7,579,260 | 8,722,650 |
| Riverside | 900,315 | 22,031,921 | 12,606,296 |
| Sacramento | 2,666,223 | 38,153,469 | 24,026,035 |
| Sacramento County | 12,818,523 | 100,645,311 | 71,755,598 |
| San Bernardino | 1,109,720 | 24,053,958 | 23,222,559 |
| San Bernardino Cnty. | 6,489,040 | 62,666,470 | 82,702,713 |
| San Diego | 11,324,914 | 160,878,946 | 137,005,385 |
| San Diego County | 7,881,600 | 77,208,120 | 56,437,800 |
| San Francisco | 6,097,824 | 83,226,675 | 68,885,576 |
| San Jose | 6,819,669 | 91,096,437 | 57,845,289 |
| San Mateo | 760,009 | 11,484,484 | 16,110,409 |
| San Mateo County | 1,030,552 | 24,514,822 | 26,649,442 |
| Santa Ana | 590,532 | 23,413,780 | 20,701,856 |
| Santa Monica | 2,123,239 | 19,842,943 | 18,810,695 |
| Stockton | 979,644 | 11,479,496 | 18,463,041 |
| Sunnyvale | 1,029,025 | 34,685,797 | 30,635,271 |
| Torrance | 1,849,554 | 23,014,725 | 18,923,679 |
| West Covina | 666,646 | 12,332,005 | 16,470,936 |
| TOTAL | $156,504,500 | $2,062,975,335 | $1,899,724,302 |

| OREGON | Dec. 1958 | 1958 | 1957 |
|---|---|---|---|
| Albany | $ 456,900 | $ 2,016,700 | $ 1,731,525 |
| Astoria | 16,642 | 275,482 | 602,768 |
| Baker | 96,525 | 1,093,393 | 888,387 |
| Bend | 100,195 | 1,203,386 | 1,810,604 |
| Coos Bay | 68,224 | 1,041,779 | 865,982 |
| Corvallis | 450,525 | 5,767,171 | 2,967,728 |
| Eugene | 341,172 | 7,923,912 | 6,871,009 |
| Grants Pass | 86,450 | 1,170,810 | 914,220 |
| Gresham | 17,300 | 913,820 | 1,188,637 |
| Hillsboro | 43,557 | 863,973 | 2,180,207 |
| Klamath Falls | 50,821 | 1,751,131 | 2,189,546 |
| LaGrande | 37,480 | 617,725 | 1,540,685 |
| Lane County | 597,396 | 9,976,390 | 8,536,432 |
| Medford | 238,661 | 5,732,527 | 4,792,170 |
| Multnomah County | 1,533,930 | 33,373,019 | 24,344,175 |
| North Bend | 57,788 | 701,764 | 1,168,503 |
| Oregon City | 285,599 | 706,676 | 387,085 |
| Pendleton | 79,710 | 1,567,553 | 2,502,557 |
| Portland | 3,700,100 | 83,826,290 | 43,685,965 |
| Roseburg | 51,600 | 958,371 | 1,066,131 |
| Salem | 465,890 | 5,364,686 | 4,434,241 |
| Springfield | 209,429 | 1,209,010 | 1,685,936 |
| The Dalles | 118,478 | 1,089,365 | 567,334 |
| TOTAL | $ 9,104,372 | $ 169,144,933 | $ 116,921,827 |

| WASHINGTON | Dec. 1958 | 1958 | 1957 |
|---|---|---|---|
| Aberdeen | $ 40,586 | $ 2,027,526 | $ 1,581,807 |
| Anacortes | 142,700 | 1,612,602 | 984,362 |
| Auburn | 133,660 | 2,310,568 | 2,538,230 |
| Bellingham | 149,768 | 4,738,721 | 3,775,074 |
| Bremerton | 226,240 | 1,734,825 | 1,605,500 |
| Centralia | ... | ... | 1,348,985 |
| Chehalis | 2,079 | 254,577 | 599,956 |
| Clarkston | ... | ... | 555,382 |
| Ellensburg | 7,428 | 536,275 | 555,439 |
| Ephrata | 1,800 | 412,134 | 1,121,102 |
| Everett | 1,505,130 | 6,158,947 | 4,625,437 |
| Kelso | 4,000 | 847,300 | 400,000 |
| Kennewick | 101,840 | 1,109,091 | 1,136,085 |
| King County | 7,050,075 | 94,549,105 | 68,134,347 |
| Kirkland | 84,600 | 1,074,496 | 854,265 |
| Longview | 1,422,572 | 4,525,236 | 3,097,303 |
| Moses Lake | 28,534 | 3,049,314 | 1,073,685 |
| Olympia | 115,443 | 2,542,155 | 3,193,970 |
| Pasco | 368,220 | 2,543,146 | 1,767,320 |
| Pierce County | 1,360,523 | 19,231,461 | 14,792,811 |
| Port Angeles | 3,700 | 434,515 | 529,418 |
| Puyallup | 272,850 | 1,677,065 | 1,134,719 |
| Ritzville | 7,525 | 100,525 | 572,350 |
| Seattle | 5,224,758 | 105,863,042 | 73,458,521 |
| Shelton | 6,800 | 426,283 | 848,452 |
| Spokane | 2,140,698 | 21,099,215 | 26,775,305 |
| Spokane County | 1,095,178 | 18,380,475 | 16,454,652 |
| Sumner | 500,000 | 1,079,525 | 820,015 |
| Tacoma | 1,103,965 | 15,179,655 | 19,543,268 |
| Vancouver | 309,587 | 5,308,440 | 6,449,021 |
| Walla Walla | 25,300 | 2,810,194 | 1,182,517 |
| Wenatchee | 66,789 | 2,863,400 | 3,162,963 |
| Yakima | 175,945 | 4,197,322 | 5,962,201 |
| TOTAL | $ 23,678,293 | $ 330,095,942 | $ 270,746,983 |

| MONTANA | Dec. 1958 | 1958 | 1957 |
|---|---|---|---|
| Billings | $ 129,000 | $ 4,312,375 | $ 4,088,650 |
| Bozeman | 121,000 | 2,662,685 | 681,975 |
| Butte | 46,822 | 1,192,187 | 2,083,509 |
| Glasgow | 130,000 | 1,196,224 | 1,085,512 |
| Glendive | 6,400 | 503,000 | 623,954 |
| Great Falls | 547,815 | 11,091,697 | 7,861,480 |
| Helena | 79,000 | 3,624,221 | 2,685,868 |
| Kalispell | 24,300 | 971,184 | 948,172 |
| Lewistown | 22,500 | 569,425 | 306,145 |
| Livingston | 1,000 | 500,883 | 619,907 |
| Miles City | 59,275 | 752,802 | 374,554 |
| Missoula | 35,700 | 1,157,845 | 748,143 |
| TOTAL | $ 1,202,912 | $ 28,528,528 | $ 22,107,869 |

| IDAHO | Dec. 1958 | 1958 | 1957 |
|---|---|---|---|
| Boise | $ 217,713 | $ 7,127,839 | $ 4,591,670 |
| Caldwell | 56,865 | 1,127,674 | 1,009,148 |
| Coeur d'Alene | 105,296 | 1,031,745 | 1,056,785 |
| Idaho Falls | 139,650 | 9,133,987 | 6,737,612 |
| Jerome | 31,550 | 548,263 | 272,195 |
| Lewiston | 824,564 | 3,153,351 | 1,827,673 |
| Nampa | 70,710 | 1,636,248 | 1,322,707 |
| Payette | 27,875 | 626,260 | 268,485 |
| Pocatello | 104,360 | 2,712,212 | 5,574,398 |
| Sandpoint | 6,000 | 438,475 | 192,675 |
| St. Maries | 15,000 | 123,700 | 195,950 |
| Twin Falls | 251,050 | 2,008,000 | 2,016,845 |
| TOTAL | $ 1,850,633 | $ 29,667,754 | $ 25,066,143 |

| GRAND TOTAL | $192,340,710 | $2,620,412,492 | $2,334,567,124 |
|---|---|---|---|

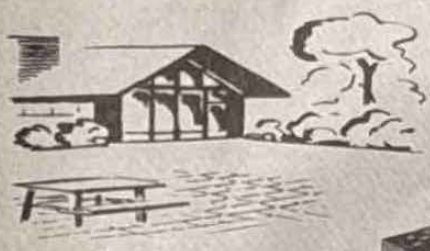
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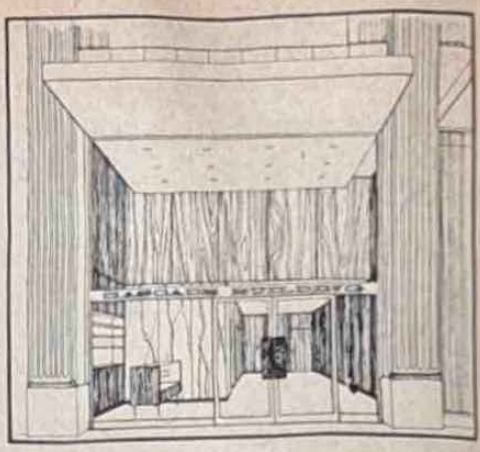
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## PALM SPRINGS BRANCH

of City National Bank will have open plan, resting on raised terrazzo platform shaped to conform to triangular site. Repeating platform shape, roof will appear to float over entrance wall composed of plate glass separated by slender aluminum mullions. Project will cost $500,000. Architects: Victor Gruen Associates.



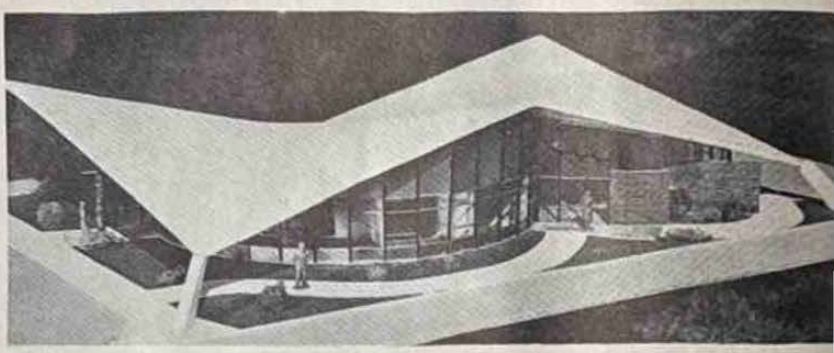


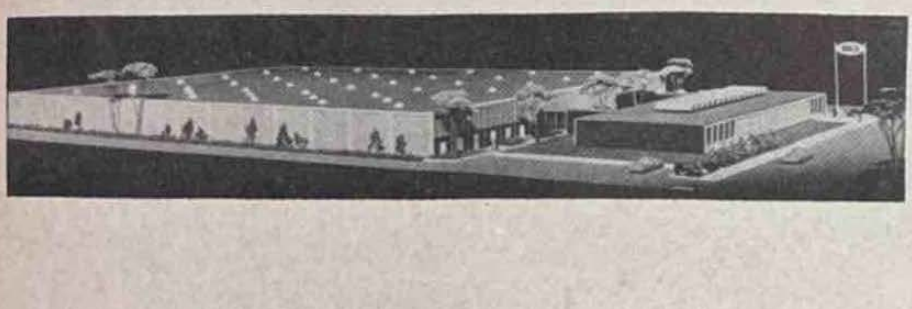
## LOBBY REMODELING

of Cascade Building recently finished as part of $250,000 modernization program for 12-story structure in downtown Portland features walnut paneling and exterior of large glass areas set in aluminum frames. Outer lobby ceiling is acoustical plaster; inner ceiling is lowered 10 ft., has illuminated louvers. Architects: Skidmore, Owings & Merrill.

## PRO-ARTS BUILDING

in Great Falls will be first with concrete hyperbolic paraboloid roof to be constructed in Montana. Three concrete piers will be its sole support to provide complete freedom of floor area planning for medical doctor, dental surgeon and architectural firm who designed structure. Exterior will have some masonry but primarily aluminum curtain wall with white porcelain enamel insulated panels overlaid with 24-carat gold. Architects: Hailand & Lund; structural engineer: Ben Hurlbut.



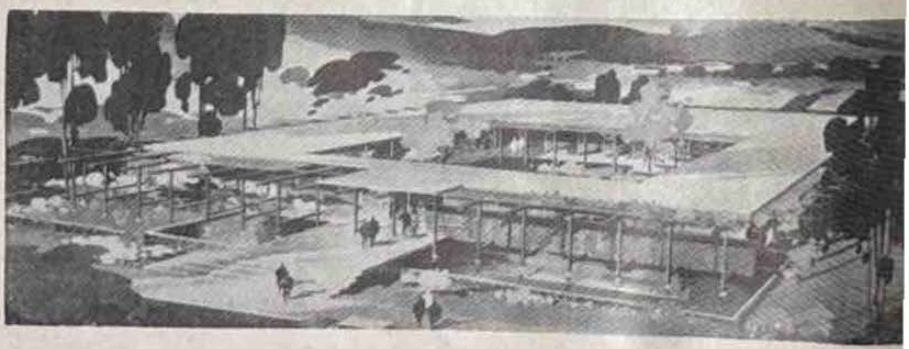


## OFFICE AND PLANT

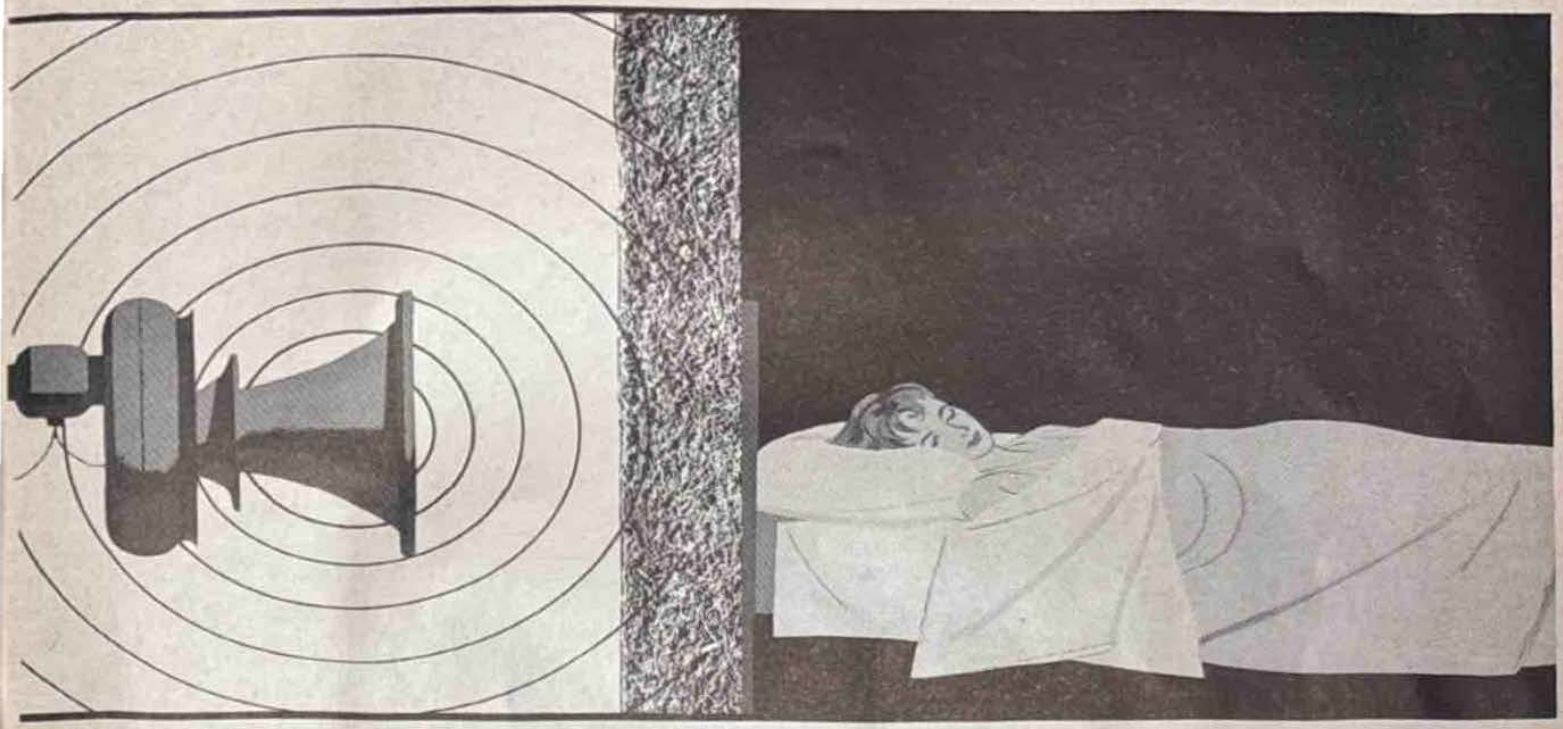
of DUX, Inc., Swedish furniture importers and manufacturers, to be built in Burlingame, Calif., will be joined by two corridor links to create landscaped courtyard for $500,000 project. Office portion will be of wood frame and plywood decking; tilt-up warehouse of exposed aggregate concrete. Architects: Knorr-Elliott Associates.

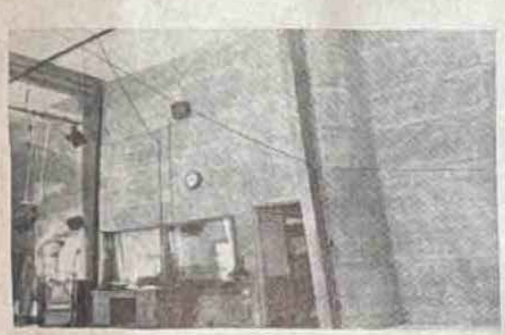
## TWENTY-BED HOSPITAL

in Fallbrook, Calif., will have all rooms opening directly onto central patio. One-story, $442,000 building will be constructed of wood frame, concrete block and stucco. Reflecting pool in front of hospital will be used for emergency water supply as well as design highlight. Facilities will include six-bassinet nursery, delivery and operating suites. Architects-engineers: Pereira & Luckman.



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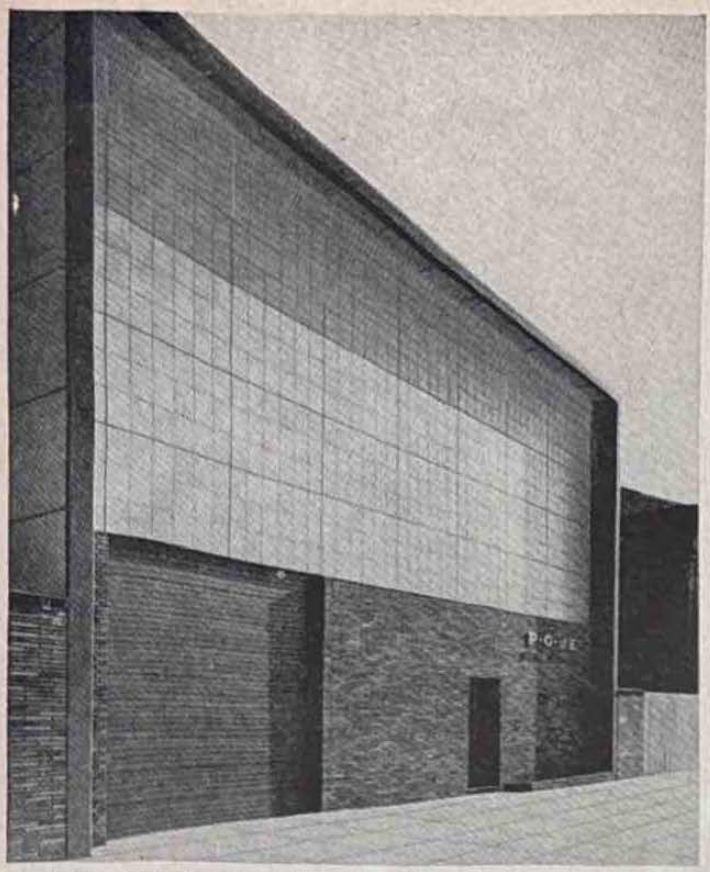
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# Oregon has state AIA meeting

In keeping with the increasing emphasis placed on regional and statewide meetings in the West, the Oregon and Southwest Oregon AIA chapters joined forces in Corvallis December 13 for their first annual convention. And the varied all-day program was excellent proof that, by eliminating the frills, a low budget conference based on "local" talent can be a real success.

Highlight of the meeting was an address by recently appointed Dean Walter L. Gordon of the School of Architecture and Allied Arts at the University of Oregon (photo across page), who summarized his ideas on "Education and Responsibility" in these paragraphs:

"I think you will agree that the frame of reference for thinking about architecture is expanding enormously, is becoming more comprehensive; that the sense of responsibility for our whole environment is becoming more widely felt. Evidence is piling up on how community groups are calling upon architects for leadership. For if architects are not to provide direction as to how our chaotic physical environment can be improved, who is? Real estate brokers, bankers, retail merchants? Certainly not lawyers, accountants, insurance men, undertakers.

"What is meant by responsibility? I like the old definition implying the idea of responding: 'liable to respond, likely to be called upon to answer; accountable, answerable—as a guardian is responsible to the court for his conduct in the office; answerable as the primary cause, motive or agent, whether of evil or good, creditable or chargeable to the result.'

"It seems to me that certain religious and moral values enter into the concept of responsibility. The importance of conscience, the doing of a thing because we feel we must; the feeling of guilt which comes when we evade our responsibilities.

"I am speaking now not about education, credit hours curriculum but the feeling of responsibility felt by the architect when he observes his environment or tackles a job. Carrying through with the feeling of responsibility, driven by his conscience, irrespective of fees, publicity or any tangible rewards, can lead to architectural results having an influence far beyond the original conception."

The morning program got underway with a number of committee meetings. Chief recommendation called for the establishment of a state board of appeals to deal with building codes and regulations as a major step in ending a current trend toward costly confusion in the construction of both public and private buildings in the state.

A luncheon discussion on "The Psychotic Professional—originally billed as "The Professional Psychotic"—between Drs. Irvin B. Hill, superintendent of Oregon Fairview Home, Salem, and John H. Waterman, director of the mental health section, Oregon State Board of Health, was an entertaining addition to the menu.

The afternoon session featured the review of design aspects of three public projects, a device becoming more and more popular at AIA conferences. Rollin H. Boles of Stanton, Boles, Maguire & Church talked on the Damasch Hospital, Wilsonville; John D. Annand of Annand Boone & Lei, Oregon State Correctional Institution, Salem and Robert Wilmsen (also convention chairman) of Wilmsen & Endicott, Oregon State Capitol Mall.

In line with the state's Centennial Exposition, scheduled to open in June, Marion D. Ross of the Eugene faculty gave a particularly noteworthy slide presentation of "Oregon Architects and Architecture: 1859." R.E.K.



Tom Burns Jr.

**DEAN WALTER GORDON** gives first major address before architects since assuming post at Oregon's School of Architecture and Allied Arts while Northwest AIA regional director Donald J. Stewart applauds (see across page).

•

## Architects to participate in sensitivity program

University of California Extension has expanded its sensitivity training program to include, for the first time, architects, along with physicians, dentists, lawyers and clergymen. The past 15 sessions have been limited to leaders in business and industry.

Representatives of all these groups will meet jointly at an opening weekend session March 13-15 at the University Conference Center on Lake Arrowhead. Participants subsequently will divide into small groups which will meet one afternoon and evening a week for nine successive sessions at UCLA, in Pasadena and in Orange County. Through discussion groups under restrained guidance, films, forums and demonstrations, they have a chance to see themselves more objectively.

The program is made up of UCLA faculty members of the department of psychology and the Institute of Human Relations and outside experts. Additional information may be obtained from Management Programs, Institute of Industrial Relations, University of California, Los Angeles 24.

# Church architects to meet on coast

### • February conference set for Los Angeles

Los Angeles will play host to the first nationwide church architectural conference to be held on the West Coast February 17-19 in the Hotel Statler. The annual meeting will bring together church leaders, building committees and architects to hear major speeches, participate in 13 workshops and view two exhibits—one of current religious buildings, the other of materials, furnishings and crafts. February 20 will be reserved for tours of outstanding churches in the Los Angeles area.

Rev. Edward S. Frey, executive director, Department of Church Architecture, the United Lutheran Church in America, will use the conference theme, "Building for the Christian Community," as his subject for the opening address. Dr. Ganse Little, pastor of the Pasadena Presbyterian Church and president of the board of christian education of the United Presbyterian Church, will be the principal speaker, outlining the total program of the church.

Two major workshops will be devoted to church worship and the general field of christian education. Eleven other smaller workshops will cover:

- Christian worship: functional planning and its relationship to the atmosphere of worship and the attitude of the worshiper.
- Christian education: functional planning and its relationship to the needs of teacher and student.
- Building committee and the program: how to develop a program of requirements for a building.
- How to review architectural drawings: what to look for on a set of plans so you know what you are getting.
- Selecting and working with the architect: how to go about the selection and the building committee's responsibility in working with him.
- The church in city planning: criteria for selecting adequate church sites in the light of neighborhood environment and city planning.
- The first unit and master plan: what unit should be built first in a master plan development.
- Financing: fund-raising methods; how and where to obtain loans.
- Site selection: what makes a good church site; how much ground should be a minimum.
- Fine arts: the use and place of stained glass, paintings and sculpture in the church building.
- Recreation and fellowship: what facilities are required in contemporary churches and how to meet these needs.

The conference is sponsored jointly by the Church Architectural Guild of America and the Department of Church Building of the National Council of Churches. Reservations can be made through architect Robert H. Orr, 3142 Wilshire Blvd., Los Angeles 5.

## Nominations for Reynolds prize due in February

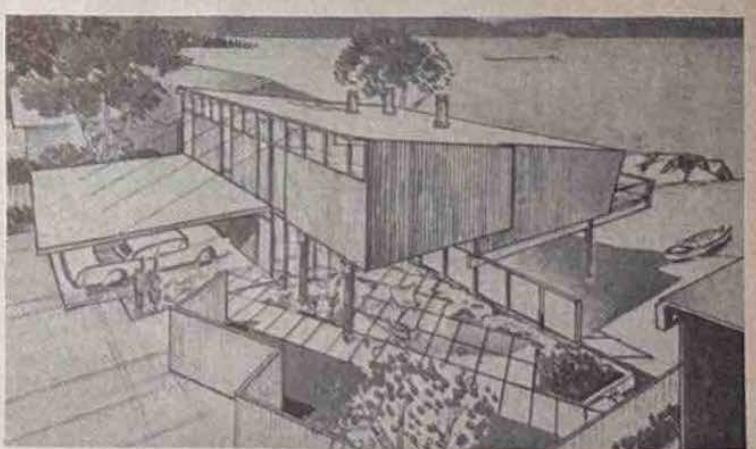
Nominations for the 1959 $25,000 R. S. Reynolds Memorial Award for significant use of aluminum in architecture will be accepted until February 2. New rules set up for the international competition increase the emphasis on the creative and architectural value of the structure to be selected.

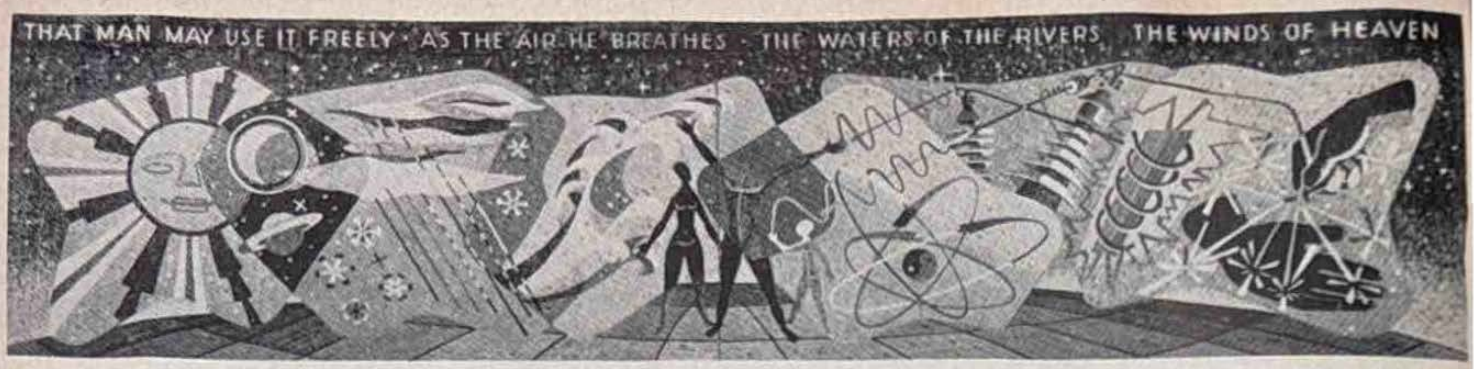
Under the new regulations, an architect may be nominated for the award by anyone, including himself or his firm. Forms can be obtained from the AIA at 1735 New York Ave. N.W., Washington, D.C.

## Seattle picks 1958 'Home of the Year'

A waterfront residence on Puget Sound designed by Harold J. Nesland has been named winner in the 1958 "Home of the Month" competition, co-sponsored by the Washington State Chapter, AIA, and the Seattle Times. The house for Mr. and Mrs. Gordon Cheney is built partly on stilts to gain full use of the 75x60-ft. lot, and provides parking underneath and a drive-through to the beach for boat trailers.

At the awards banquet in the New Washington Hotel January 8, the architect was presented a sculpture by Philip McCracken, young Northwest artist, depicting a family of owls in its nest. The clients received a $500 cash prize from the newspaper and the builder, Frank J. Haupt, a special certificate of merit. Architects, owners and contractors of the 11 other houses entered also were honored.






**MOSAIC MURAL** at entrance of Seattle's City Light Building features man, woman and child on planet Earth, with symbols representing elements of nature at left and electric energy derived from harnessing nature at right. Inscription is in gold letters on blue background.

## Art is given impetus in Seattle public buildings

The much-talked about integration of art and architecture finally is getting more than just lip service in downtown Seattle. Last month was highlighted by 1) the unveiling of the first large glass mosaic to be installed in a Pacific Northwest office building and 2) the announcement that three artists have been commissioned to execute works of art for the new Seattle Public Library now under construction.

The mural is located at the entrance to the City Light Building depicting the harnessing of the elements of nature to produce electricity for the benefit of mankind. Designed by Mrs. Wellwood Beall and made in Italy, it is 32 ft. 4 in. long and 8 ft. 2 in. high and contains more than 300,000 pieces of glass.

At the unveiling, Mayor Gordon S. Clinton said: "This mosaic mural has a tremendous significance over and beyond the symbolical meaning of the design itself. First, it dramatically shows the change being made in building ornamentation. Today, office buildings have become plain and functional without any ornamentation on the structure. Instead, a small amount of the building cost is allocated to a harmonizing piece of art which is down where people can see and feel it and thoroughly appreciate its existence.

"Another point of significance about this mosaic is that it appears on a publicly owned building, maintaining the leadership of government in promoting the inclusion of art in office buildings. I feel that this mosaic has given impetus to the inclusion of art in the many buildings now being built in the downtown area."

Architect Robert L. Durham, chairman of the Municipal Art Commission made this comment: "The art of each age is an accurate reflection of the culture of its people. Until recently, contemporary buildings with little use of art have been sterile and cold. In Seattle, Northwest art is making both our public and private buildings more interesting and important. In our land of light and power it is significant that our new City Light Building features a mosaic, one of the oldest arts, to dramatically illustrate our greatest resource."

The mural commission was part of a recently completed modernization and expansion program which included a seven-story addition to the original two floors. Architects for the project were Bindon & Wright and Decker, Christenson & Kitchin.

The library building will feature the work of sculptors George Tsutakawa and Ray Jensen and painter James FitzGerald. Tsutakawa will design a combination sculpture and fountain in the forecourt; Jensen will execute a second outdoor sculpture for the west terrace; and FitzGerald will create a large screen to serve as a colorful divider between the public concourse on the first floor level and the large Northwest Room. The library building was designed by Bindon & Wright, in association with Decker, Christenson & Kitchin.

## National housing code plan dies on vine

Initiation of a standardization project for the development of a nationwide building code for one- and two-family houses has gone by the boards. The American Standards Association, following a general conference of 89 organizations in New York last fall, found that there was no concensus among those "substantially concerned" as to the desirability of starting such a program.

The final vote recorded after arrival of letter ballots and a few switches in previously cast votes was: yes, 29; no, 24; not voting, 21; no votes received from 10. Negative votes includes those of three of the leading code-writing groups—the Building Officials Conference of America, the International Conference of Building Officials and the Southern Building Congress.

In order to dispel any misunderstandings, ASA chairman Lloyd Barron pointed out that his organization does not write standards or codes. The proposal before ASA was not to write a new code but rather to unify the existing requirements to produce a single national code, designated "American Standard."

## Better housing statistics would help industry

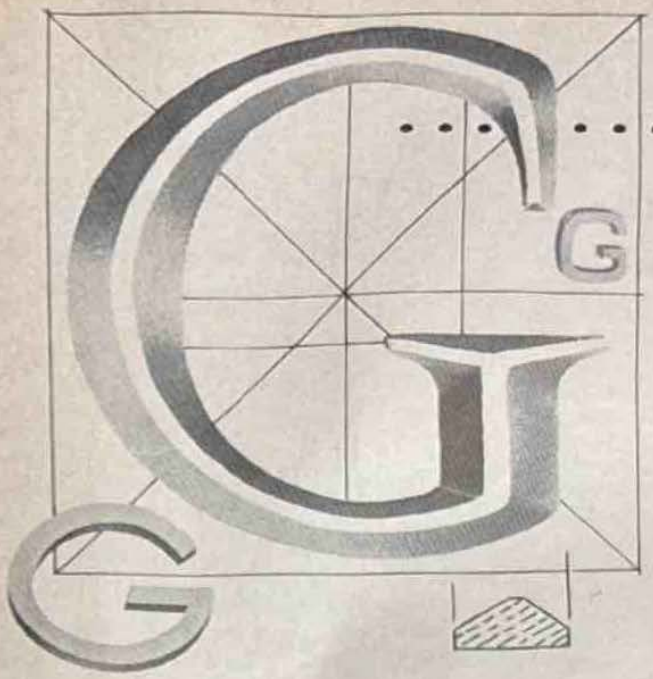
Facts and figures are as important as sticks and bricks in the home building industry, say the men who know the inside working of the housing market best.

A poll of 100 delegates to the National Housing Center's first annual Institute for Housing Statistics Users last month indicated that private industry could do a much better job of meeting the needs of home buyers if it could get statistical materials to fill at least three serious gaps: 1) improved data on new homes and the materials that go into them; 2) more accurate figures on housing starts; 3) substantial information on both amount and dollar volume of home repair and modernization.

"One very apparent need is for much broader support from private industry for the whole statistics process," according to NAHB chief economist Nathaniel Rogg, who presided over the two-day conference.

## ACI picks Los Angeles

Latest projects and construction methods in the West will be emphasized when the American Concrete Institute holds its 55th convention February 23-26 in Los Angeles at the Statler Hilton Hotel. First two mornings will be devoted to working sessions of ACI technical committees



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## Atomic architecture

*R. J. Jaske, General Electric engineer at the Hanford Atomic Products Operation, Richland, Wash., addressed the first annual Building Officials Short Course at the State College of Washington, Pullman*

It takes a special breed of architect to design a nuclear reactor.

Three categories of buildings are constructed for atomic energy use. Administrative and office structures differ little from those in other industries. Included in the second group of buildings are research laboratories where radioactive materials are handled. The main concern here is the maintenance of adequate health and safety conditions without disrupting scientific effort.

The third type of building involves structures primarily related to enclosing and operating and manufacturing process involving radioactive materials. In this case, process requirements dictate the type of building. The nuclear reactor building approaches a ship in its complexity and actually requires a special kind of architectural skill and treatment.

Security provisions present a problem. In many cases building areas must be subdivided into various restriction zones. This means that designers must recognize the effects of security early in the layout if the building's normal business and traffic are not to be seriously affected.

The architectural specialists must have the services of other specialists in the handling of radioactive materials. Massive shielding requirements, articulated handling devices and location of carefully integrated facilities are factors which must be considered. Ventilation of laboratory buildings is very important to guard against possible spread of radioactive contamination. Filtered and temperature-controlled air is introduced in offices and corridors only and is withdrawn only in the laboratories themselves, either through hoods or auxiliary registers. Normally, fresh air is provided on the basis of a change every two minutes.

Atomic reactors require wall thicknesses of from 4 to 5 ft. to guard against very penetrating radiation. In addition, the handling of fuel elements, processing tubes and other material which has been in the reactor causes contamination problems in the rear face area of the reactor. Access to various levels for maintenance of the equipment must be provided. Heavy shielding doors or labyrinths are used depending on the economics of the situation.

When irradiated fuel elements are discharged from the reactor they are extremely radioactive and must be stored under many feet of water until the short-life radioactivity has disappeared. This introduces the structural problem of building a water basin immediately adjacent to an area of high footing pressure and special efforts are required to prevent differential settlement and basin leakage.

Reactor control rods become radioactive and require special handling when withdrawn from the reactor. A helium atmosphere is maintained in the reactor to conserve neutrons and the sealing of this gas envelope must include the control rods.

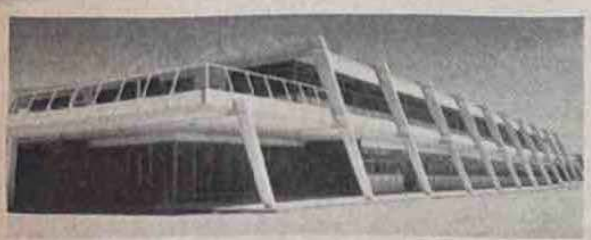
Ventilation of a building as large and complex as the ones that house reactors means design specifications must take into account the different ventilating needs of various sections of the building. From 150,000 to 200,000 cu. ft. per minute of ventilating air is required. Air is discharged from stacks up to 300 ft. high.

Electrical services must be kept in top operating condition and this means the conduits, raceways and ducts must be designed so shielding properties against radiation have not been sacrificed. The number and variety of electrical conduits can destroy either the strength or the shielding properties desired by the designer.

Because of radioactive problems, maintenance of reactors and reactor buildings is difficult and expensive. Work platforms are provided on both the rear and front face of the reactor. These platforms are 60 ft. long and 12 ft. wide, can support eight tons and move up and down the face of the reactor, like an elevator.

Transportation problems also influence the design of a reactor. Provision must be made for moving 70-ton railroad cars into the reactor building to pick up irradiated fuel elements. The handling of this material must be integrated into the reactor design. Severe structural problems arise since the railroad tracks must be located next to the storage basins.

Generally speaking, the primary consideration in the design of nuclear reactor facilities is careful planning in advance, leaving as little as possible to be determined in the field.





**ATOMIC AGE ARCHITECTURE** from coast to coast—administration-engineering building (top) at John Jay Hopkins Laboratory for Pure and Applied Science in San Diego: Pereira & Luckman, architects-engineers; aluminum skin structure housing research reactor of Industrial Reactor Laboratories, Inc., near Princeton, N.J.: Skidmore, Owings & Merrill, architects (Overly-Goodwin batten roofing system).

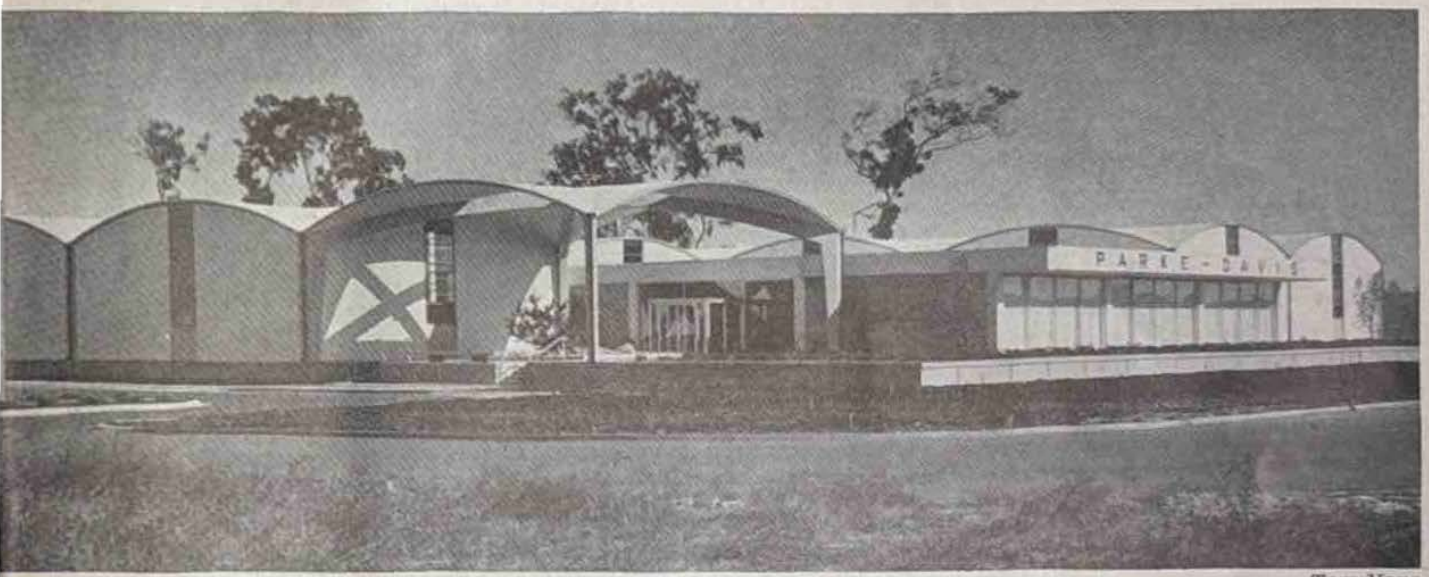
## Artist and culture

*Sculptor Claire Falkenstein, onetime California art teacher and critic, now living in Paris and Rome, was the only woman panelist at the 1958 International Design Conference in Aspen, Colo*

"Design" as a symbol, sign or physical fact encompasses the whole phenomena of existence. From scientific investigation to manifestations in the arts, order emerges. Measurable qualities in nature reveal relationships of form, color, motion and function arising from juxtaposition in space and sequence in time. Man's continuing observation, testing and findings in science have given him power of prediction which, in turn, has enhanced his potency in so far as controlling the physical world is concerned. At the same time, in his cultural awareness, he is becoming ever more nakedly exposed; ever more consciously associated with the laws which govern the universe. His responsibilities both as an individual and as a social being are becoming more clear.

Within the continuous flow of matter, from simple to complex structures, man finds his place. He is acted upon by the same forces as all natural phenomena. Within his identity, however, his pattern of molecular structure is peculiar to him. Di

Continued on p. 3




Tom Vano

# Design expresses new philosophy of client

Parke-Davis Co. Branch Office
and Warehouse Building
Menlo Park, California

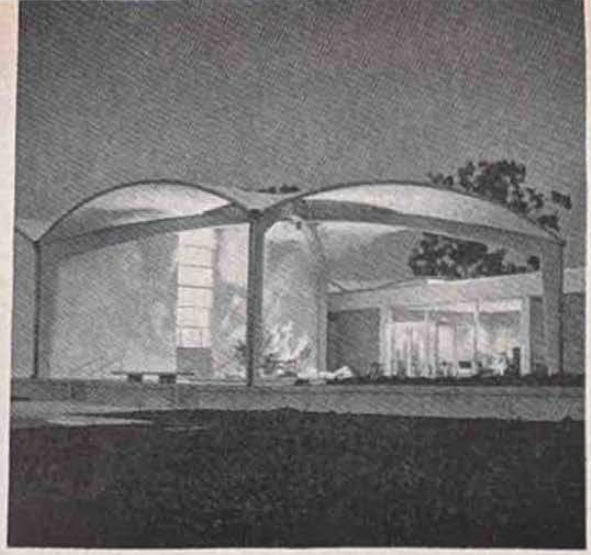
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YAMASAKI, LEINWEBER & ASSOCIATES
Architects

KNORR-ELLIOTT ASSOCIATES
Associate Architects

AMMANN & WHITNEY
Structural Engineers

WILLIAMS & BURROWS, INC.
General Contractors



**PROJECT** is aimed at three major effects: to create interesting silhouette against sky; to provide economical, fire-resisting structure to roof required 40-ft. square bays; to achieve clean interior look appropriate to pharmaceutical products handled.

IN THE PAST the client, a 91-year-old pharmaceutical firm, has followed the principle that utility buildings should "be along classical lines, conservative and inconspicuous. The idea now is that they should be more than just functional; that they should be seen and appreciated; and that they should contribute something to the overall composition of the area in which they are located, rather than just occupy space."

Transition in building design at Parke-Davis has been gradual, beginning in 1954 in Detroit where a new branch sales office was erected. The project embodied bits of the new philosophy—one story, bright colors and liberal use of glass. "A building in one way is a form of public relations," the client explains. "The Detroit operation helped us to realize the advantages of an attractive structure in a well-traveled area." Newest addition to the company's five-year expansion program, an assembled concrete building (see p. 16 for construction details) which rests on a podium and is topped by a poured concrete roof resembling a square-tufted cushion, carries this philosophy several giant steps ahead.

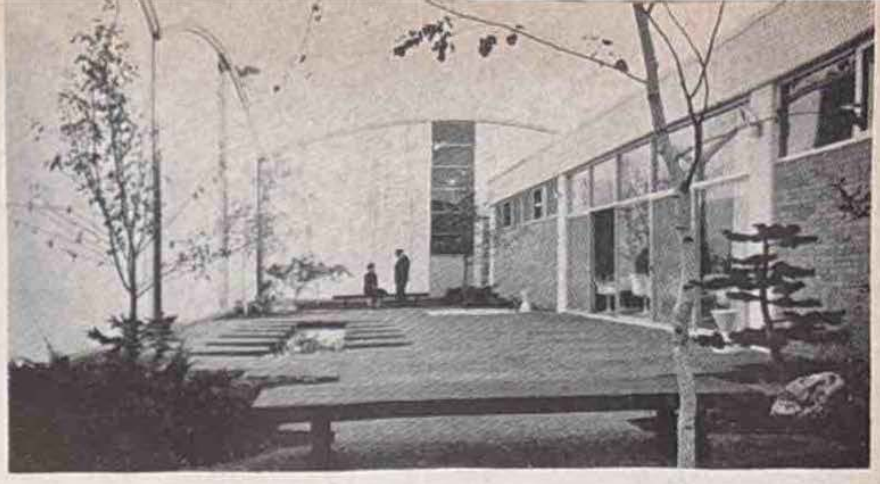
The site is in the highly restricted Bohannon Industrial Park, sloping downward from the Bayshore Freeway, 28 miles south of San Francisco. Since motorists whizzing by would only be able to view upper sections of the building, it was decided to utilize a 200x160-ft. concrete podium which places the structure on a level with the highway and still maintains natural land contours. Regarding the roof, the

**PLAN** allows ideal arrangement for installation of specially designed equipment and conveyorized system of moving packed orders.

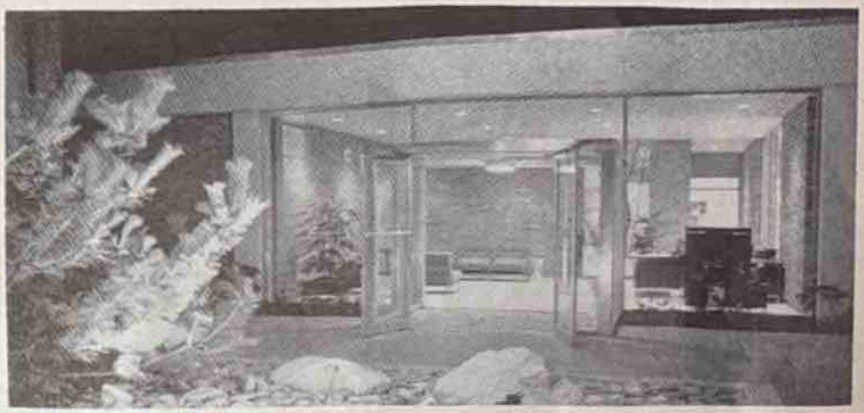


architects comment, "We could have designed it with a flat roof but the thicknesses to cover 24,000 sq. ft. would have raised the cost and forced the use of more supporting columns. And too many columns are not conducive to economic operation of a warehouse where unobstructed floor space is the most important factor next to location."

In order to flood the building with bright sunlight, the glass-walled administration offices have been separated from the larger warehouse portion on three sides by broad sidewalks, while a spacious patio with fountain is located on the fourth side. The entire industrial park will be landscaped with expanses of lawn, trees, flowering shrubs and terraces. The area is limited to industries which are free from disturbing noises, vibrations, smoke and odor; and controls require off-street parking for personnel, visitors and trucks.



**REDWOOD BENCHES** rim easily accessible patio which also can be entered through sliding glass walls from dining room at right.

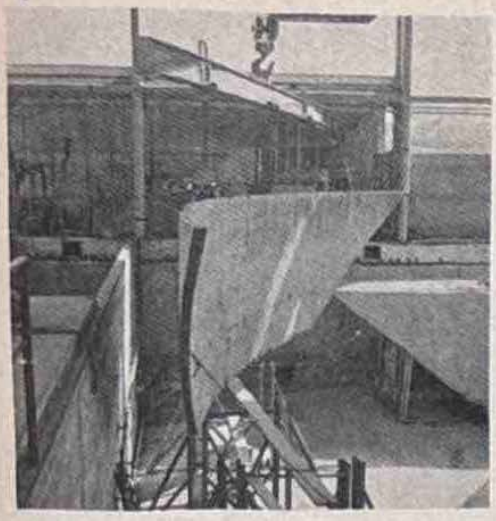


**LOBBY** has natural brick wall with photo-mural by Ernest Braun, reflects architects' belief that buildings "ought to have pleasant surprises, should warm you up, make you feel good."

Tom Vano photos



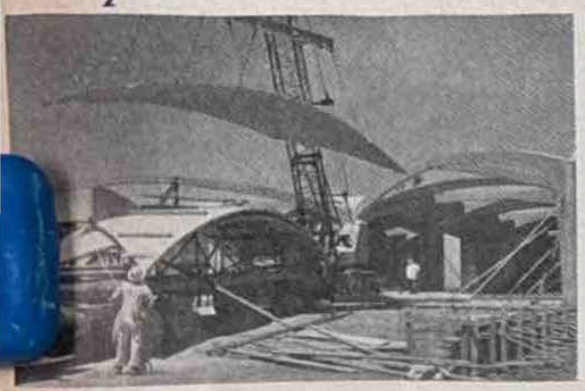
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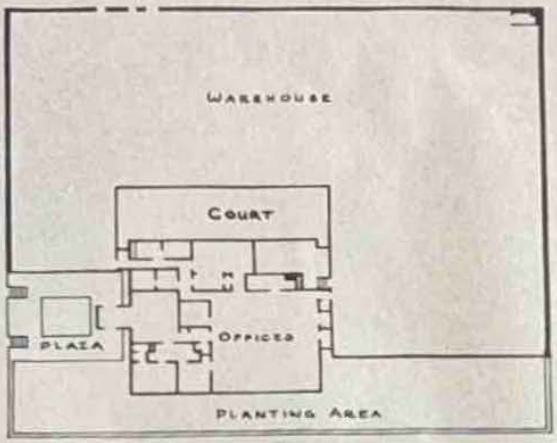


## PARKE-DAVIS OFFICE-WAREHOUSE

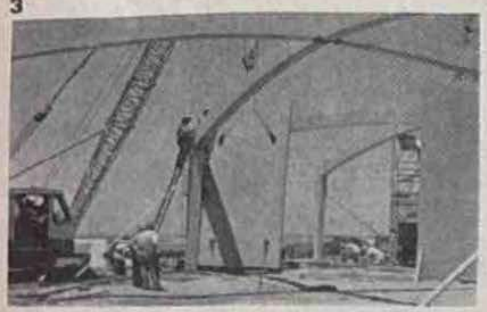
Only four basic precast components—columns and curved roof-support bents, triangular roof shells and wall panels of two sizes—were used in assembling this building. The thin shell roof sections of conventionally reinforced lightweight concrete were plant-cast in steel forms at the rate of two a day (1) and hauled to the job on special truck bed frames (2). Also cast at the plant were the walls of lightweight expanded shale aggregate concrete with 3,000 psi. at release and 4,000 psi. ultimate. The 84 panels were stressed with 13⅜-in. seven-wire strands, having an initial load of 14,000 lb. and a working load of 12,000 lb. The rigid bent pieces, stack-cast at the jobsite, were locked together diagonally with steel ties to form the pattern of 40-ft. bays (3) and supported by six interior columns and the solid cement walls. Sixty-four quarter sections, each measuring 20x40 ft. and 3½ in. thick (cast in two parts for highway transportation), were fitted into the framework (4). The concrete shells were covered with white marble chips. All precast components were placed with a mobile crane. The design permitted multiple use of forms to reduce costs.

2

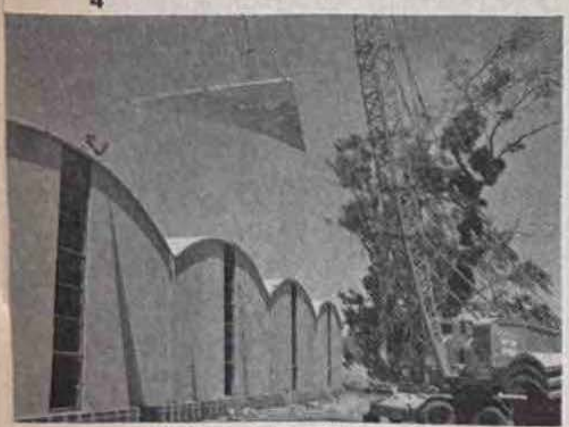





3



4



Photos courtesy of Basalt Rock Co., Inc.

### OUTLINE SPECIFICATIONS

**Structure:** foundations: continuous reinforced concrete exterior walls; drilled type cassion interior footings through reinforced first floor about 3 ft. above normal slab supported on engineering fill; frame: precast concrete columns and vaulted bents, welded connections; roof: precast concrete triangular thin shells—plant-cast by Basalt Rock Co., Inc.; poured-in-place concrete over office area; walls: precast prestressed concrete—plant-cast by Basalt Rock Co., Inc., floors: poured-in-place concrete.

**Exterior Finish:** exposed concrete; aluminum window wall—Kawneer Co.

**Roof Surfacing:** built-up 20-year thermal.

**Windows:** aluminum projected with porcelain enamel paneling in warehouse—Michel & Pfeffer Iron Works.

**Doors:** exterior: tubular aluminum—Kawneer Co.; hollow metal—Krieger Steel Products Co.; overhead steel rolling door at shipping dock—Kinnear Mfg. Co.; interior: hollow metal—Krieger Steel Products Co.

**Floor Surfacing:** concrete treated with hardener and sealer—(Lapidolith and Son No Mar) L. Sonneborn Sons, Inc.

**Interior Finish:** painted concrete in warehouse; plaster and walnut paneling in office areas; ceramic tile wainscoting in toilets.

**Ceilings:** exposed concrete in warehouse; fissured mineral acoustical tile in offices—(Acoustone) United States Gypsum Co.; plaster in toilets.

**Lighting Fixtures:** fluorescent surface mounted on curved roof contours in warehouse; recessed fluorescent in offices; luminous in general office—United Light & Ceiling Co.

**Heating:** water heater—General Holly Co.; circulating pumps—Bell & Gossett; boiler—Bryan Steam Corp.; fin radiation pipes—Sarco Co.; unit heaters—Crane Co.; cooling tower—Acme Industries; heating and ventilating units—American Blower Co.

**Plumbing and Sanitary:** fixtures—Crane Co.; closet carriers, clean-outs and floor drains—Zurn Co.

**Total Area:** 33,484 sq. ft. (28,000 sq. ft. in warehouse).

**Total Cost:** about $765,000.

**Date of Completion:** November 1958.




# Low cost project with a colorful character

Washington Aircraft
and Transport Corp.
Office and Hangar

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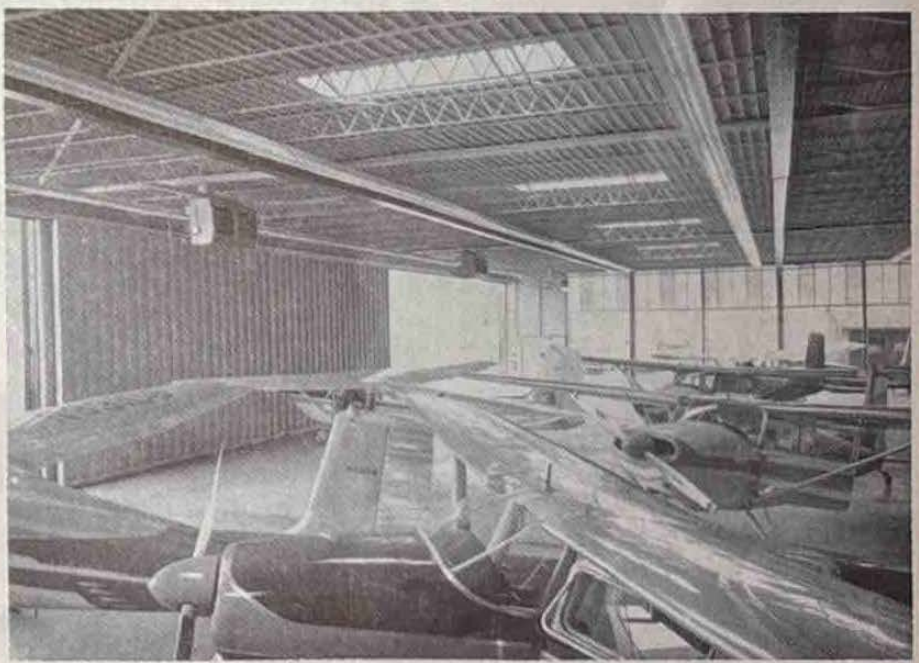
MITHUN, RIDENOUR & COCHRAN
Architects

PUGET SOUND CONSTRUCTION CO.
General Contractor



Art Hupy photos

**COLORFUL** inside and out, both buildings have light beige walls, ultramarine blue structural members and open web joists. Cathedral glass in office vents is yellow and blue; in top portion of hangar showroom window is yellow, tan and rust.



FLEXIBILITY was the chief requirement in the program set up by the client who needed two buildings—one for office, parts and sales; the other for storage, maintenance and display of its airplanes. Both achieve free spans by the use of steel frames; both combine these utilitarian spaces with a pleasing and fresh character; both employ color for accent on structural members and in small glass areas.

To gain maximum vertical clearance within the hangar, the welded rigid frame is expressed on the exterior. Free access to the planes for service and display is provided by one long side consisting entirely of sliding doors. Masonry filler panels are used on solid wall areas, steel decking for the roof.

The Stuft Shirt
Upland, California

•

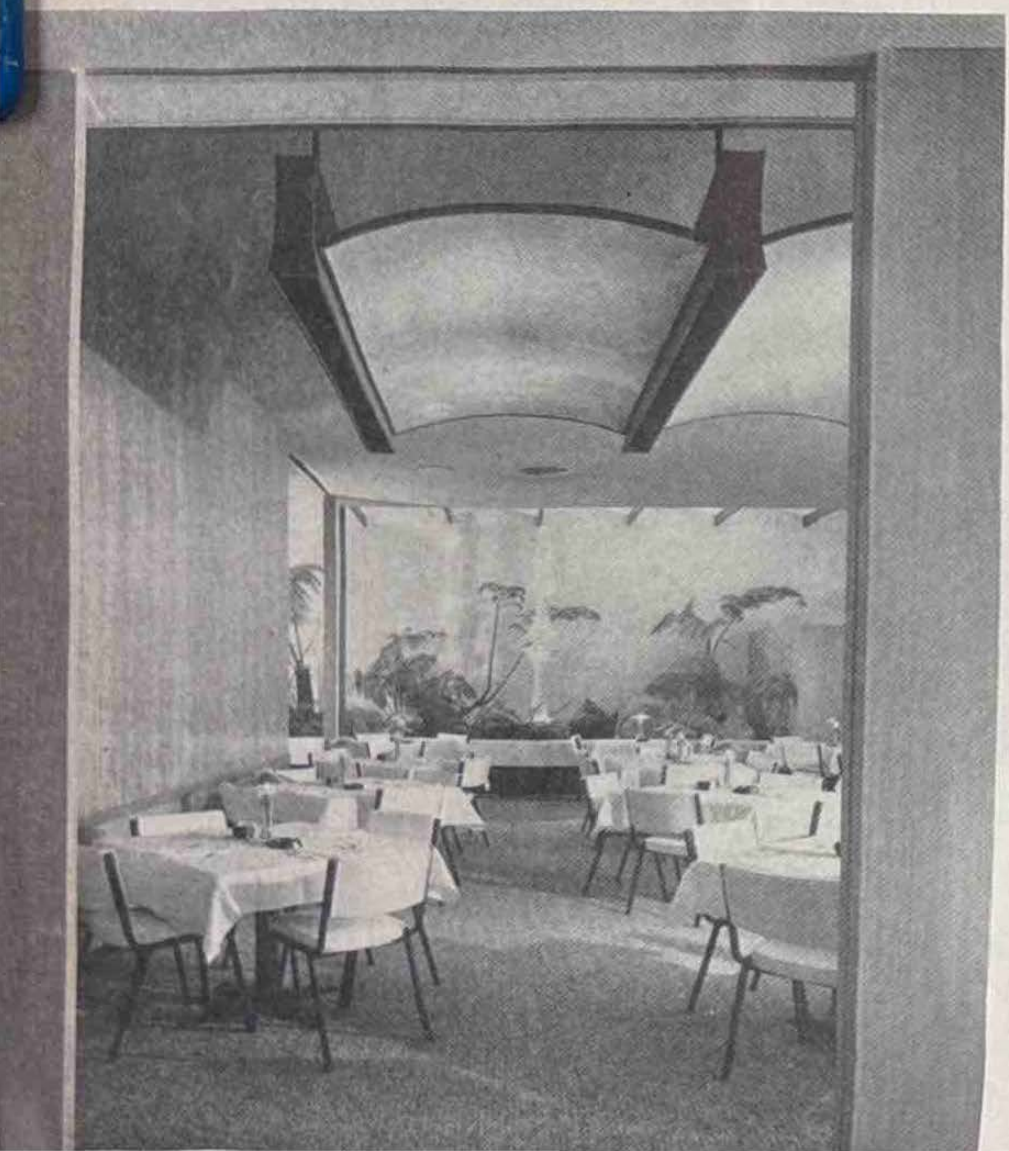
THORNTON LADD & ASSOCIATES
Architects

W. J. RITCHEA CO.
General Contractor



**VAULTED PANELS** of obscure plastic at either end of dining room diffuse sunlight during day, create illusion of moonlight by night.

# Quiet splendor within a simple shell



IN EXECUTING his first restaurant commission, the architect was controlled by 1) a rather limited budget and 2) a desire to be free of typical cliche-ridden decoration. For $137,000 (including site development but no furniture or equipment) he has provided 9,000 sq. ft. which is shared by a main dining room, banquet room and lounge, accommodating in all more than 300 guests.

The exterior is almost laconic in its simplicity, an arrangement of horizontal and vertical plane surfaces of silver-green plaster and obscure glass punctuated by square black steel columns and an occasional redwood panel. Even the walks of white terrazzo and black concrete reflect the rectilinear design of the facade.

Inside, however, off-white plaster walls and honey-toned limba paneling become a background for a setting of quiet splendor, with brightly colored Indian saris, illuminated from within, forming iridescent "columns" throughout the dining room. One entire wall has been transformed into a water garden of Hawaiian tree ferns, large boulders and 12-ft. Noguchi lanterns. Decorative lighting fixtures of brass and black metal were designed by Paul Tuttle, as were seat dividers which permit complete flexibility of table arrangements. The front kitchen is separated from the dining room by only a counter, sheltered beneath curved plastic panels, repeated at the opposite end of the room.

## OUTLINE SPECIFICATIONS

**Structure:** foundation: continuous footings; frame, roof and walls: wood; floors: concrete.

**Exterior Finish:** plaster and redwood paneling.

**Roof Surfacing:** gray rock over four-ply built-up composition.

**Windows:** aluminum—Rebco, Inc.

**Doors:** aluminum—Rebco, Inc.

**Floor Surfacing:** terrazzo, lithochrome colored concrete and carpeting.

**Insulation:** rock wool batts—(Spintex)—Johns-Manville Corp.

**Partitions:** plaster on wood studs.

**Interior Finish:** painted plaster; limba paneling — (Korina) United States Plywood Corp.

**Ceilings:** acoustical plaster.

**Lighting Fixtures:** recessed incandescent—(Marco) Marvin Manufacturing Co.

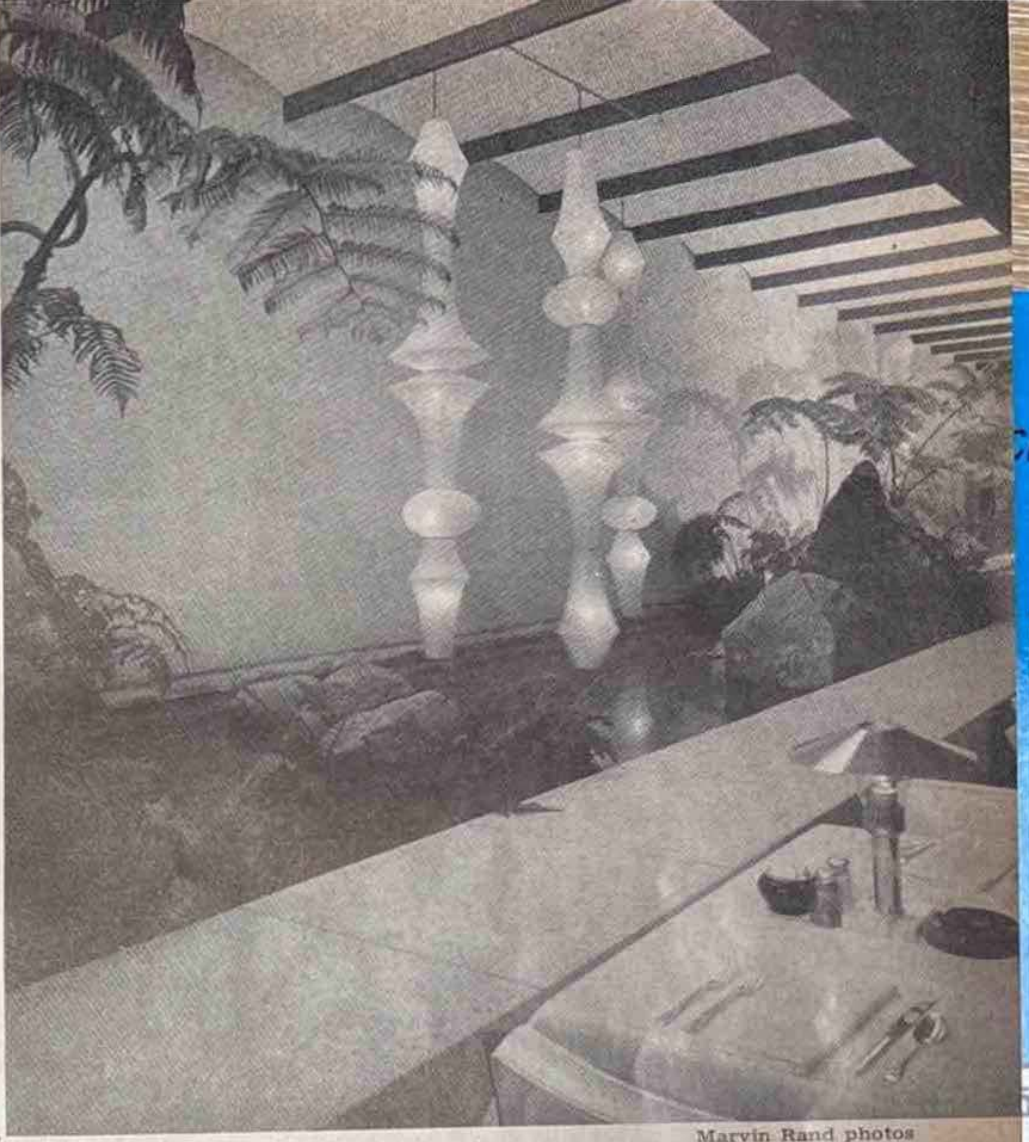
**Heating and Air Conditioning:** Day & Night Division, Carrier Corp.

**Plumbing and Sanitary:** water closets and lavatories—American-Standard.

**Total Area:** 9,000 sq. ft.

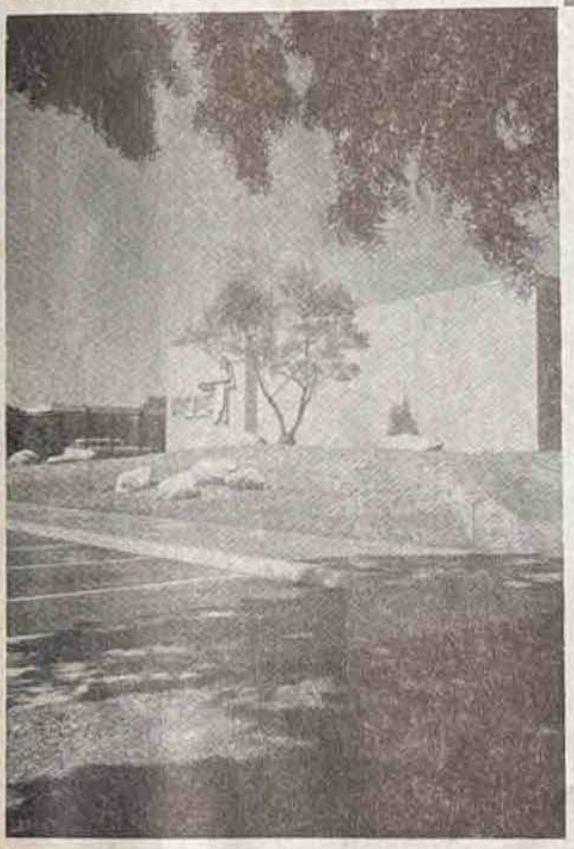
**Total Cost:** $137,000 (including site development but not furniture and equipment).

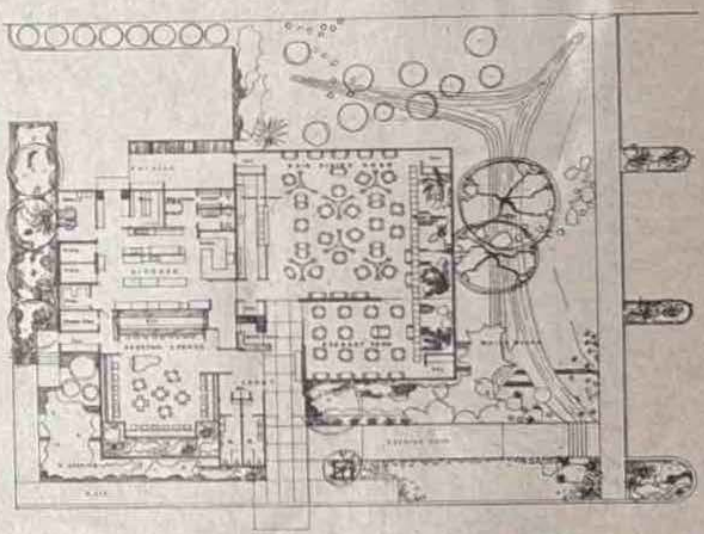
**Date of Completion:** April 1957.

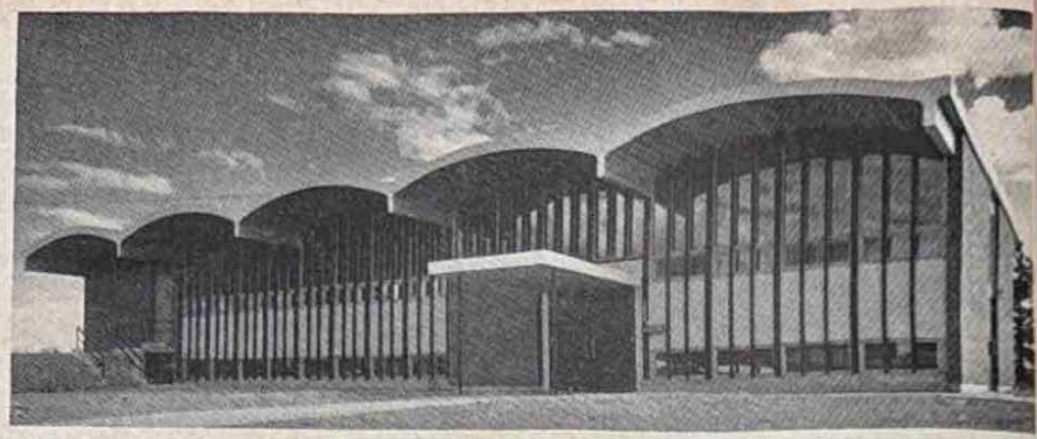


**CHASTE CLASSICISM** of exterior is relieved by grape trunk in square planter, feathery plants suspended in pots from ceiling of covered arcade and weathered native rocks; gives way to water garden stretching along entire length of dining and banquet rooms.

Marvin Rand photos







**FIRST UNIT** of church plant is 33x80-ft. two-story structure faced with red mission brick and applied grill at window areas stained dark blue.



Westview Congregational Church
School and Meeting Unit
Spokane, Washington

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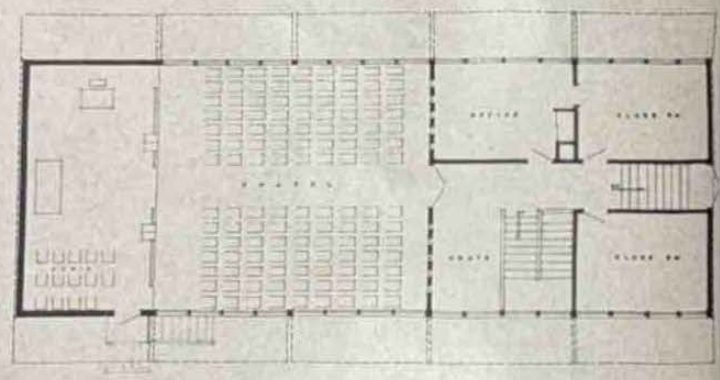
WARREN CUMMINGS HEYLMAN
Architect

A. J. POPP CONSTRUCTION CO.
General Contractor

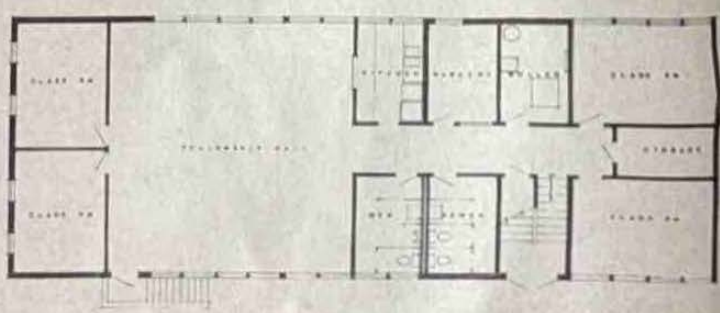
# Wood vaults designed to unify church plant

THE SITE is a gently sloping hill in a new section of northwest Spokane. The land area is large, yet it has a unique triangular shape, slanting down to the apex. This lower portion is the most prominent part of the property, being viewed from several converging streets. It was decided to use this location for the sanctuary end of the proposed large church and the slope of the lot for a fellowship hall underneath. This lower area is planned to open at grade level at the west and will take advantage of a view overlooking the valley.

First unit of the project was constructed at the high level and comprises a school building with church offices. Upper floor is being employed presently as a temporary place of worship but has been designed for eventual use as a classroom space. Most striking detail of the building is the wood vaulted roof supported on glued-laminated beams 16 ft. o.c. and made of 1½x6½ timber arch sections. The 1x4 fir ceilings of the arches have natural finish, as do the beams, and continue outside under the 8-ft. wide overhanging eaves. In the final design, the vaulted roof of the first unit will continue into the nave of the church as a vaulted side aisle. Exterior has 4x4 and 2x4 vertical fins repeating the beams and module of the interior. Red mission brick is used in accent panel locations and for a mass at the east termination.



UPPER FLOOR



LOWER FLOOR

## OUTLINE SPECIFICATIONS

**Structure:** frame: steel columns; roof: glued-laminated beams — Timber Structures, Inc.; floors: steel joists—Dix Steel Co.

**Exterior Finish:** red mission brick—Washington Brick & Lime Co.; 4x4 and 2x4 applied grill at window areas.

**Roof Surfacing:** built-up with gravel surface —Johns-Manville Corp.

**Windows:** fixed glass in wood; wood sash operating sections—(Pella) Rolscreen Co.

**Doors:** vertical grain fir.

**Floor Surfacing:** asphalt tile—(Matico) Mastic Tile Corporation of America.

**Partitions:** ½-in. gypsum board on 2x4 studs—United States Gypsum Co.

**Ceilings:** upper floor: 1x4 fir boards; lower floor: acoustical tile—(Acousti-Celotex). Celotex Corp.

**Lighting Fixtures:** incandescent—Lightolier, Inc.

**Heating:** hot water continuous fin system—Trane Co.

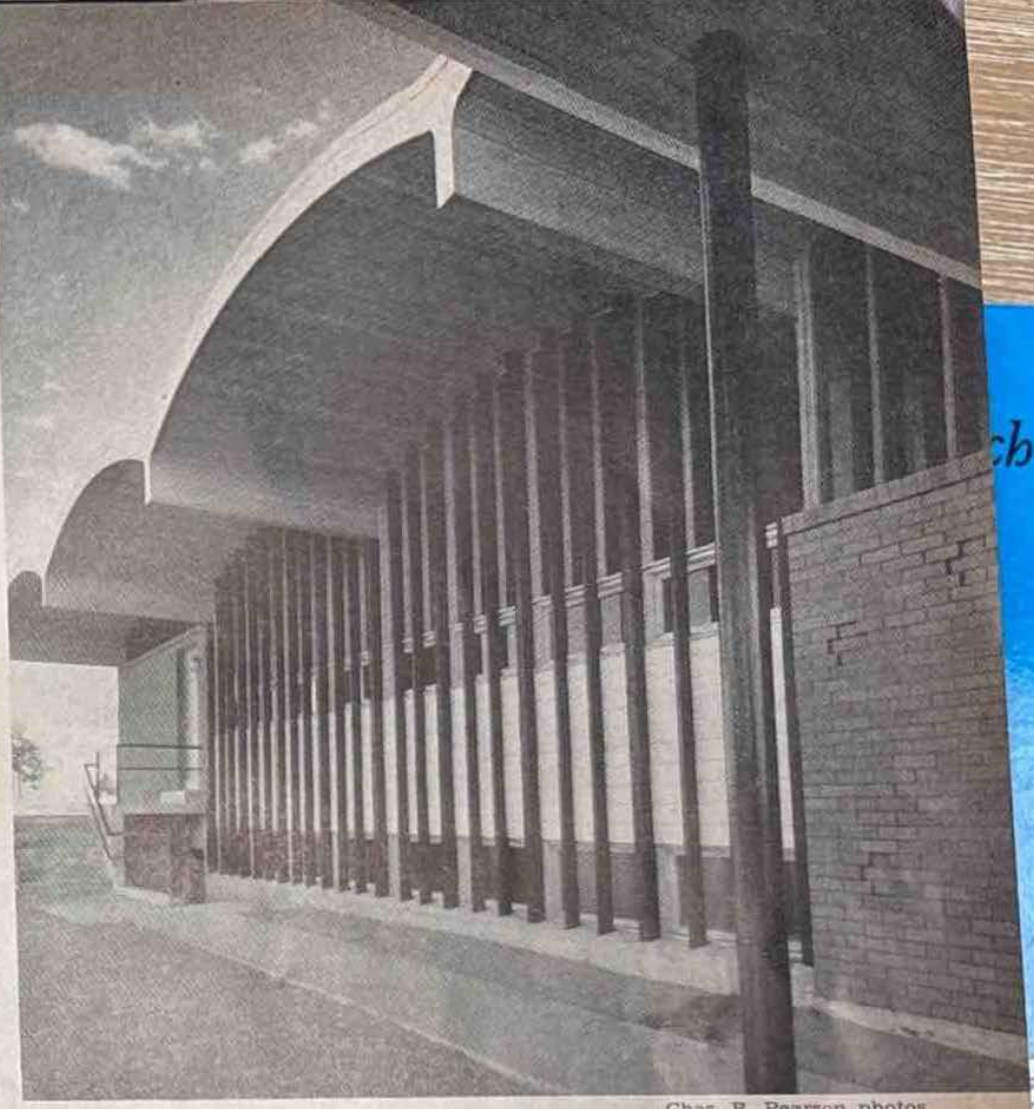
**Plumbing and Sanitary:** water closets and lavatories—American-Standard.

**Total Area:** 5,240 sq. ft.

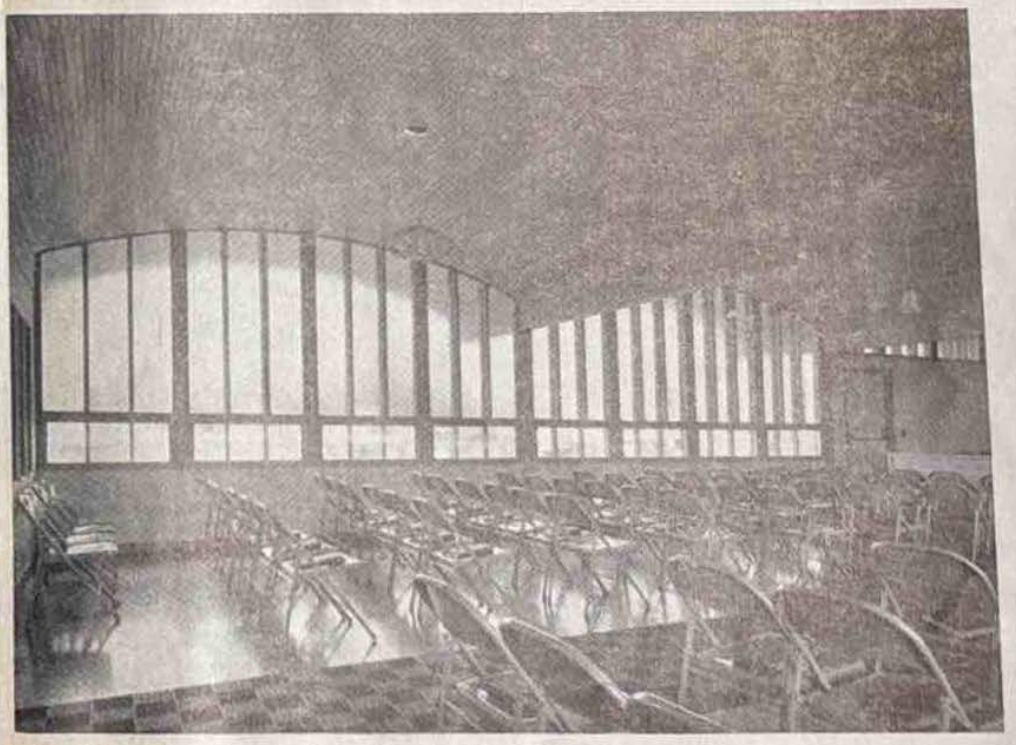
**Total Cost:** $54,592.

**Cost per Square Foot:** $10.40.

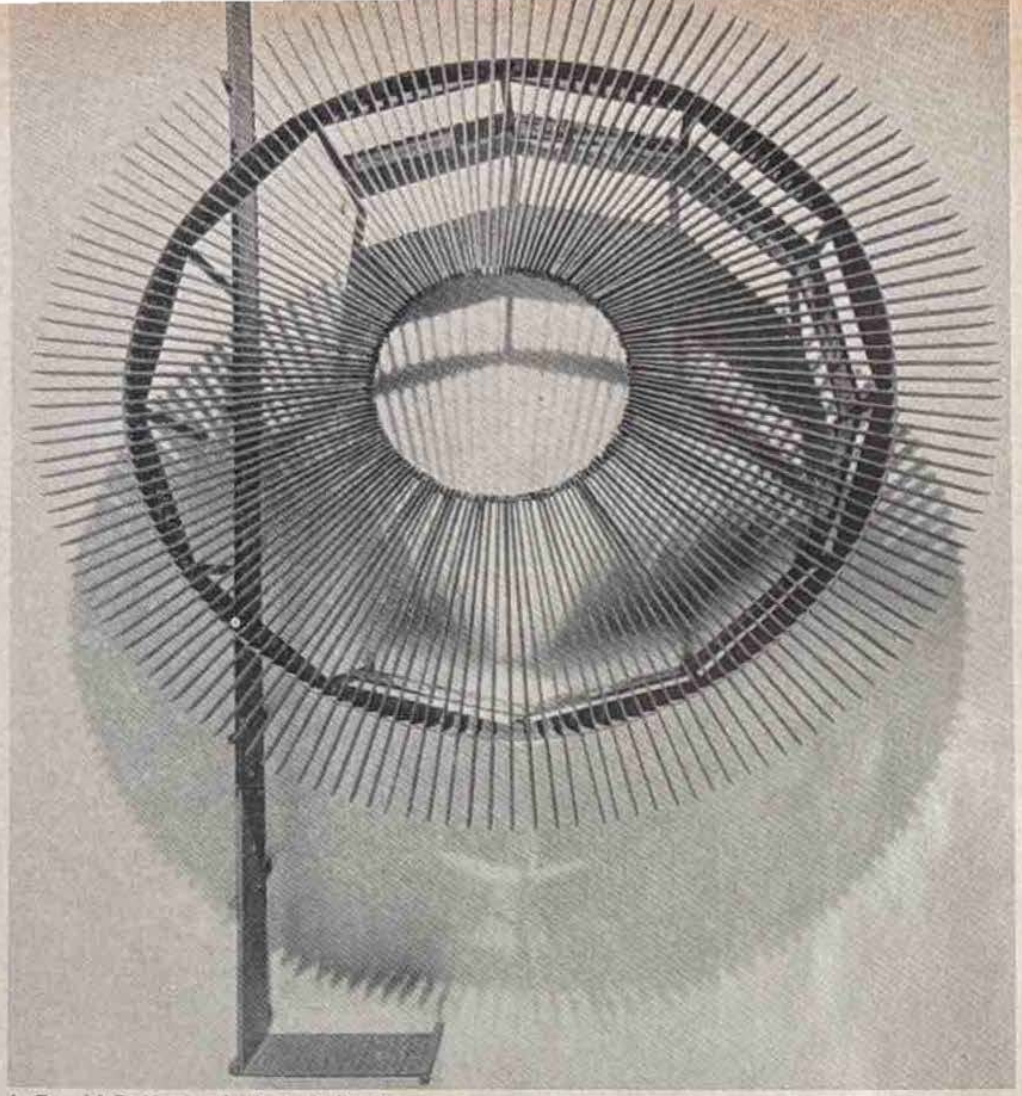
**Date of Completion:** May 1957.



Chas. R. Pearson photos



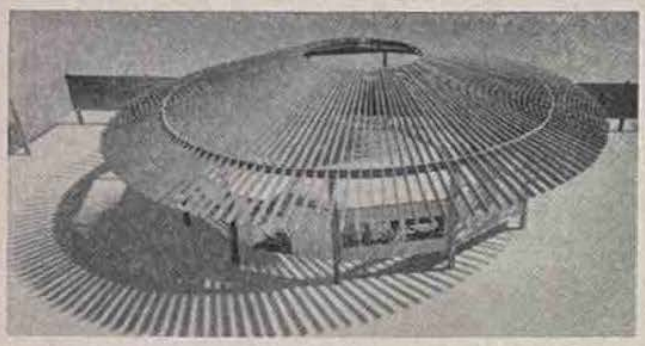
**CEILINGS** of 1x4 arch sections are in natural finish, as are glued-laminated beams, and continue outside under 8-ft. wide overhanging eaves.



A Gerald Ratto (and photo below)

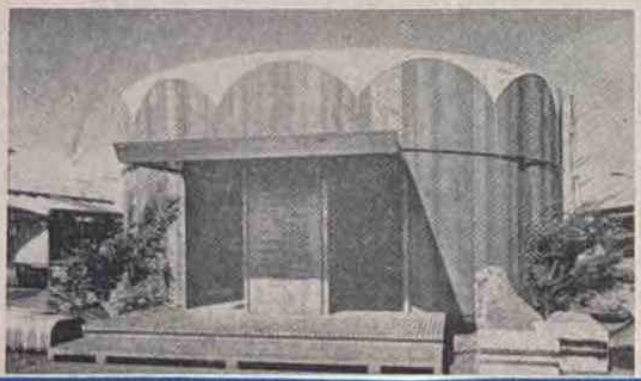
## PROJECT ROUNDUP

## Structures at San Francisco Arts Festival



### Redwood pavilion

Designed for the Northern California Chapter, AIA, to house architectural exhibits at the 1958 show, this redwood structure is 40 ft. in diameter and 14 ft. high. The roof is made of 252 1x6 redwood boards on edge, cantilevered from an outer ring to a center compression ring. Extending along one side of the pavilion is a fence 80 ft. long which was used for display. Inside was a special photo-essay exhibit depicting the procedure that a client goes through when building a house. Structure will become a garden pavilion in Golden Gate Park. Architects: Marquis & Stoller; engineer: William B. Gilbert.



### Redwood drum

The religious exhibit was housed in a tank house developed to simulate a large redwood drum with twin doors. As seen at the festival, it was 24 ft. in diameter with floors of 3-in. redwood. A transparent plastic sheet was stretched over the top and drawn down at the sides. In actual use, this could be a conical wood roof. Architects: Evelyn and George Kosmak.

# Low cost sound control for schools

A NEW METHOD of effective, low cost sound control for schools combines the best properties of two completely different materials: acoustical insulating batt and punched Sandalwood hardboard, the latter made by Forest Fiber Products Co. of Forest Grove, Ore. Actual application simply consists of placing the batts between wood framing members, overlaid with hardboard.

The batt used in this method is a loosely interwoven, felted insulating material such as rock wool, wood fiber or fiberglass, having a density of 1 to 4 lb. per cu. ft. and a thickness of 1 in. or more. The hardboard is ⅛, 3/16 or ¼ in. thick, with perforations on ½ or 1-in. centers. Once applied, it requires no additional finishing, the light blond color being baked into the board in production. Since it is impervious to stains, mars, dents and heavy abuse, it is an ideal facing for wall and ceiling surfaces in school buildings.

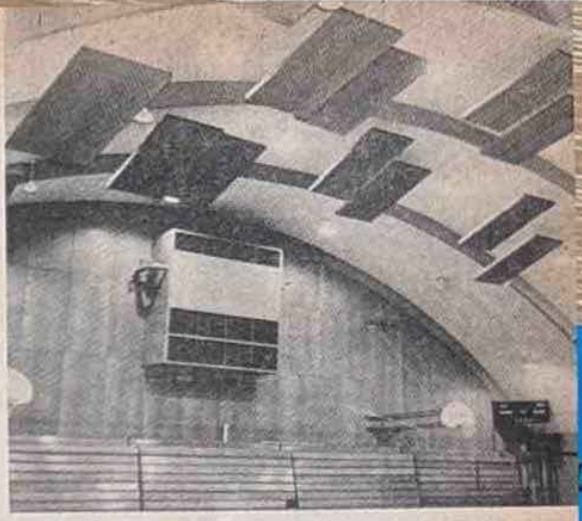
The punched hardboard batt type of acoustical control is particularly effective on low frequency ranges where it is usually more difficult to obtain good absorption. A comparison of hole punching on ½- and 1-in. centers reveals that the latter has better sound absorption at lower frequencies below 200 cps, while ½-in. center punching is better at 700 to 800 cps. and higher. Both facing materials, however, show good absorption at 125 cps.

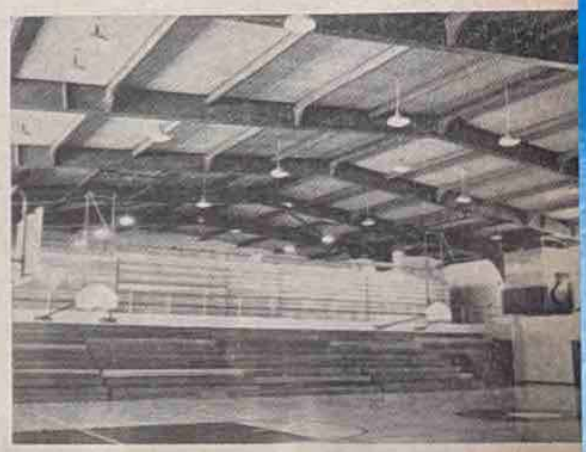
Among the western projects in which this sound treatment has been used is the Bandon, Ore., Junior-Senior High School (top photo) where the method was employed not only for walls but also in a series of sound baffles throughout the gymnasium ceiling. Reaching to a height of 33 ft., it presented special acoustical problems.

Each baffle was suspended a specific distance from the roof and at varying angles. These were constructed by making four 4x8-ft. lumber frames to which a single 4x8-ft. sheet of punched hardboard was nailed over fiberglass insulating batt 1 in. thick. Supplementing this baffle system, the entire north wall of the 11,000-sq. ft. gymnasium was paneled with the same hardboard over identical batting.

Punched hardboard with ½-in. hole spacing was specified for this particular application to extend the rate of absorption to lower frequencies as well as increase total absorption at all frequencies. Dougan & Heims were architects for the school; Dr. A. R. Tunturi, acoustical consultant; and Stewart Griffin Co., acoustical contractor.

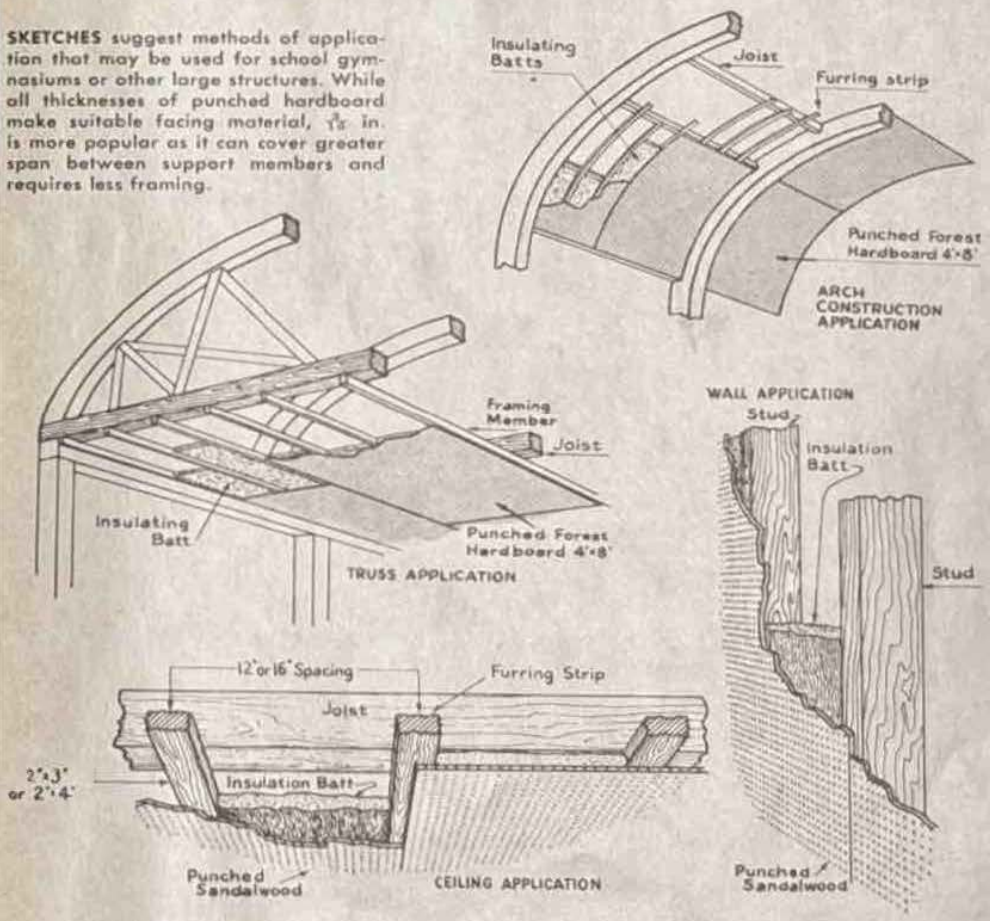
In the McMinnville, Ore., High School, (bottom photo), 1-in. Aero-Cor batting was stapled to the underside of the roof deck separated by 1x4-in. framing members spaced 12 in. o.c. Hardboard panels were then nailed to the furring strips between beam supports. Due to use of large sheets of overlay material, application time was lessened considerably. In this case the entire gymnasium ceiling was given full acoustical treatment. Hayslip, Tuft, Hewlett & Jamison were architects; Johnson & Sorenson, acoustical contractors.

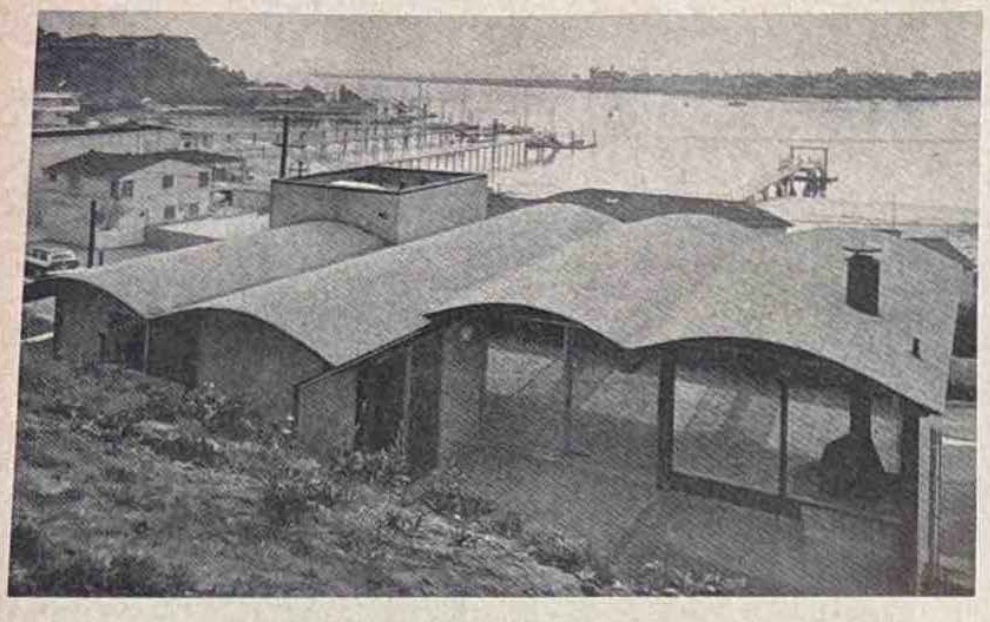




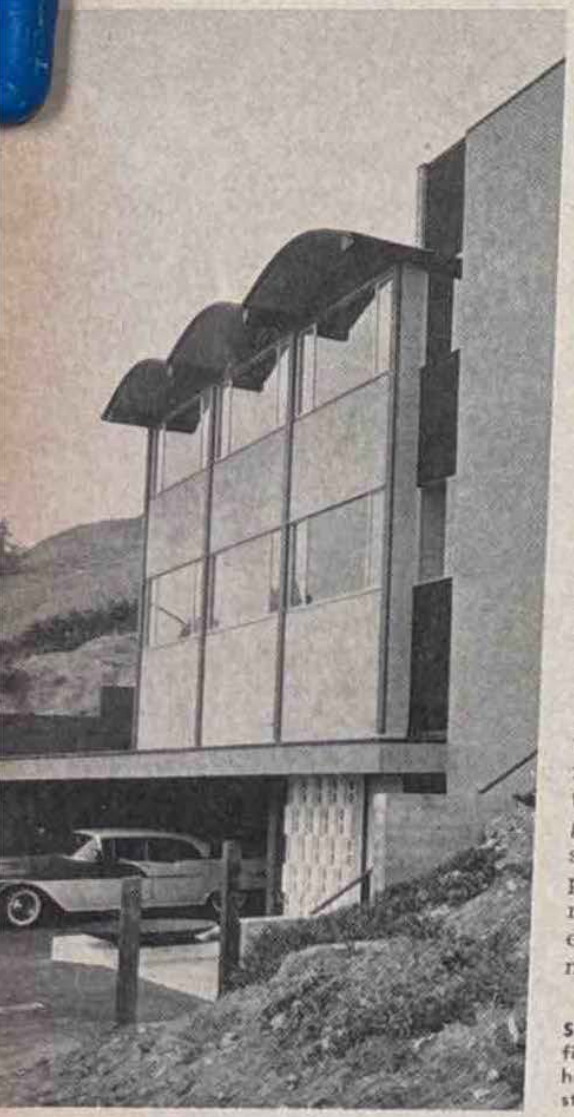
**ACOUSTICAL MATERIAL** used top produce baffles (top) and to treat entire ceiling (below) in two high school gymnasiums.

**SKETCHES** suggest methods of application that may be used for school gymnasiums or other large structures. While all thicknesses of punched hardboard make suitable facing material, 3/16 in. is more popular as it can cover greater span between support members and requires less framing.





# Vaults relieve cubelike severity



## • Fir plywood panels roof California residence

A four-bay vaulted roof of fir plywood supported by glued-laminated beams dominates a house in Corona del Mar, Calif., designed by the architectural firm of Pleger, Blurock, Hougan & Ellerbroek. Overlooking Balboa Bay, it is on a steep slope and has a three-story front elevation, one story in the rear.

Vaults were fabricated on the site; beams, spaced 9 ft. o.c., were beveled in two directions to form a wide V-groove in which the edges of the panels butt. Solid sawn ribs were cut to the desired curvature and placed 24 in. o.c. along temporary ledgers fastened to each side of the beams. Three layers of ¼-in. plywood were formed over the ribs, butting the edges and nailing the ends into the beams. Edges of the panels for layers two and three were staggered to mid-width of the preceding panel. Waterproof glue and ⅜-in. power staples were used to hold the curvature. Tie rods were concealed within wall partitions, 16 ft. o.c. The roof was built-up gravel over ½-in. insulation. Interior surfaces of the curved panels were painted. Contractor A. C. Clemence reports that this was a simple and economical method of fabrication, almost as fast as standard construction.

**SCALLOPED ROOF LINE** is achieved by bending fir plywood panels to create four vaults. (Right-hand vault is partially concealed by three-story elevator section.)

## Design factors studied by window producers

Window design factors which be investigation are being reviewed b the Aluminum Window Manufactur ers Association as part of a yea long research program. These include

• Standardization of sizes. A though one of the advantages of th aluminum window industry is th ease of tooling for new sizes—a flexi bility which permits the architect t design with freedom — it is believe that standardization of sizes woul permit the industry to produce bette windows without increasing cost o to produce windows of current qual ity at reduced cost. Size standardiza tion would also permit production fo stock.

• Window installation. Field inves tigations indicate that little is known of the behavior of rigid fastening such as integral nailing fins. It i recommended that a program be ini tiated to develop a fastening tech nique, including the optimum loca tion of anchoring points that would prevent or reduce the distortion o jamming of windows due to move ment of the building structure.

• Durability. Test apparatus for simulating the rapid operation of a window should be built. At certain intervals during the test, measure ments can be made of infiltration and of the force required to operate the window. In addition, any loosening and backlash could be evaluated du ring the accelerated-wearing test.

• Condensation problems. A study should be initiated to develop an inexpensive means of reducing con densation.

• Effects of deflections on perform ance. It is recommended that a pro gram be initiated to evaluate the ef fects of deflection on the performance of windows, particularly its relation to infiltration, ease of operations and loosening of glass panes.

In its initial report the research committee listed these seven char acteristics of a good window:

1. It should transparently separate indoors from outdoors.

2. It should function smoothly, eas ily and quickly throughout the life of the building.

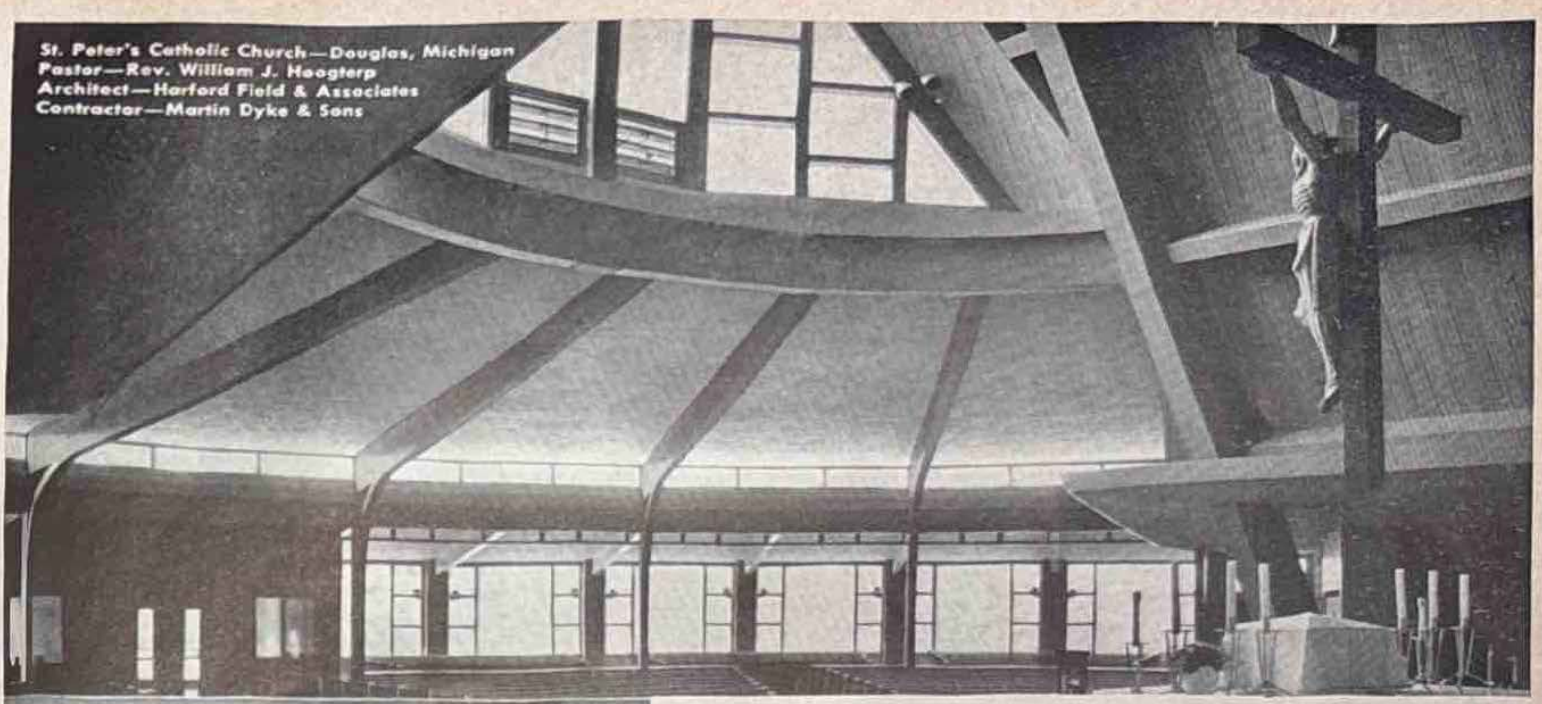
3. It should perform its function safely.

4. It should have dimensional stabil ity and be attractive for the life of the building with minimum maintenance.

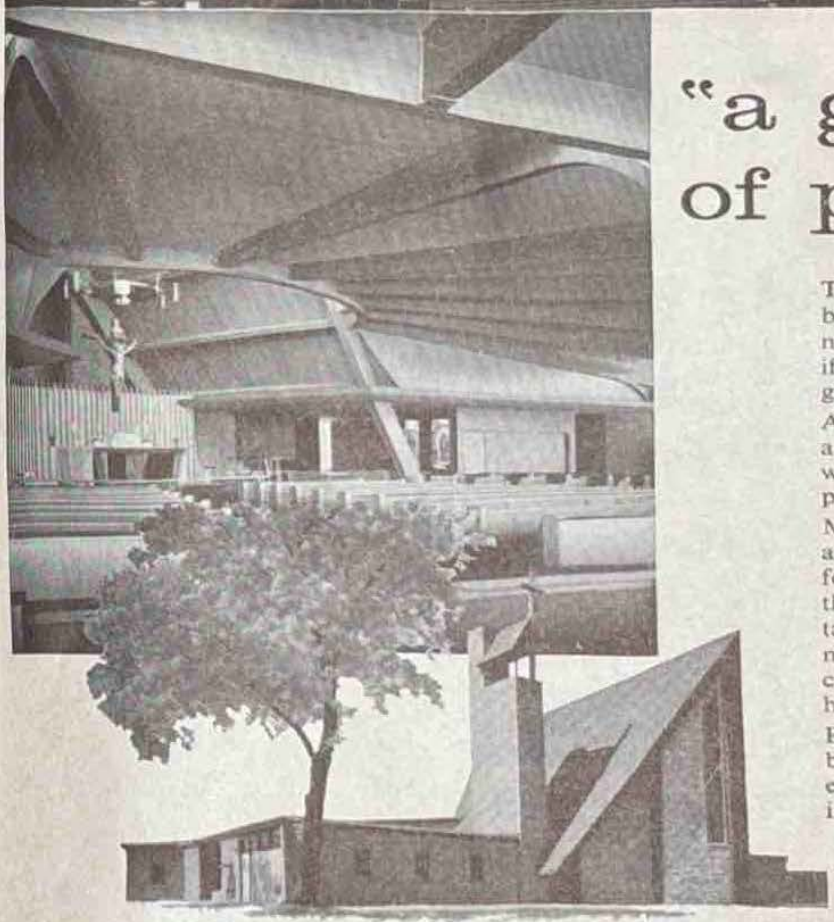
5. It should provide effective glaz ing.

6. It should be strong enough to withstand the stresses of shipping handling, storage and installation.

7. It should be easy to install.



St. Peter's Catholic Church—Douglas, Michigan
Pastor—Rev. William J. Hoogterp
Architect—Harford Field & Associates
Contractor—Martin Dyke & Sons



# "a greater sense of participation"

The architect and pastor agreed that, because of its beautiful and ample country setting, St. Peter's "should not be limited to the usual rectangular form of church if another shape would centralize the altar more and give a greater sense of participation."

Architect Field volunteered, "Rilco's well engineered and detailed shop drawings of this unusual and somewhat complicated framing demonstrated a high competency in this field."

Martin Dyke and Sons, contractors, report "Rilco did a magnificent job of engineering the laminated members for the project. Due to the curves and angles involved in this unusual building design, it obviously was no simple task to coordinate the various members and to make a near perfect fit at all connections. In our opinion the cost would have been much higher if any other material had been used to obtain this design."

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236 TACOMA BLDG., TACOMA, WASH.

# How to properly care for forms

by JOHN G. SYMONS, President, Symons Clamp & Mfg. Co.

PURCHASE of a set of factory built forms represents a substantial investment on the part of a contractor. If he is to reap the maximum return on this investment, it is imperative that he be familiar with methods of maintaining this equipment and impress his crews with the importance of this maintenance. In the past this phase of forming procedure has been looked upon as a kind of "busy work" —something to give a good crew to do during the slack periods to hold them together—but actually it should be a part of the year-round daily routine, done so often that it becomes habit forming.

Cleaning the forms is the most important part of this routine. Frames and metal parts, if any, on the forms should be thoroughly scraped to remove any concrete deposits which may have accumulated. This is especially true for an all-metal frame. A clean form is very important for efficient performance. Inspect the frames also for wear and tear. On a wood frame look for the possibility of split or damaged lumber that should be replaced.

Next the plywood face should be cleaned. A good scraper is the best tool here. But care must be taken to avoid gouging or damaging the face. When the plywood face is thoroughly cleaned, a good oil preservative should be applied. This will not only increase the life of the forms as much as 50%, but it will decrease stripping time and greatly improve the appearance of the pour.

Once the forms have been cleaned and an oil preservative applied, they should be stored in a clean, dry place and at a slight pitch for runoff. Ideally, strips of wood should be placed between forms to promote the evaporation of moisture.

If it is necessary to reverse or replace the plywood, here is the procedure we recommend. First remove bolts or rivets from the backside of the forms. Next, drive mason's chisel between plywood and frame where nailed. A 3-lb. sledge is suggested to hammer the chisel. After several nails have been cut this way, insert wooden wedges between plywood and frame to speed the operation. In renailing the plywood, figure three nails per square foot or 1 lb. of nails per 26 sq. ft. Drive nails every 6 in. along the frame. Drive the rivets or add bolts last. Rivets are driven against a steel plate so that the ends will curl. Steel plate should be placed above old form supported by saw horses. Plywood may be reversed or changed at low cost using this method and by doing it contractors can get as many as 500 or more uses out of a frame.

Maintenance is not something that should be done after a job is completed. Like safety, it should be practiced during every working hour. During a pouring operation, for example, forms should never be dumped or thrown from a truck, but always passed from man to man or to the stack. Every time you throw or dump a panel you run the risk of weakening it, jarring it out of alignment or even breaking a corner that will have to be replaced.

Hardware used to join or brace prefab forms can become a costly item unless this same habit is followed and this is the simplest part of maintenance. It involves simply cleaning excessive concrete deposits from the hardware with a special solvent designed for this purpose and placing the reusable hardware in buckets or carpenters aprons to avoid loss when stripping.

Reputable form manufacturers are constantly seeking new materials which will lengthen the life of their products. This saving can be passed on to contractors and their crews who are willing to take the time to maintain their forms properly.

## MOVIES

**Functions of a Modern Ceiling.** United States Gypsum Co., 300 W. Adams St., Chicago, Ill. 16mm sound, color, 22 min.

Illustrates details which are primary considerations in selecting acoustical materials for ceilings of new structures and remodeling projects.

**Twice for the Money.** The Dow Chemical Co., Midland, Mich. 16mm sound, color, 17 min.

Informs contractors about the uses and construction methods of pole type construction, showing a huge industrial project being built and many examples of industrial applications.

**Redwood Roundtable.** Simpson Redwood Co., Arcata, Calif. Slide film, color, 20 min.

Tells the story of selective redwood logging with scenes of timbering operations; provides data on redwood grades and their uses.

**The Modern Touch.** Resin Division, National Starch Products, Inc., 750 Third Ave., New York, N.Y. 16mm sound, color, 15 min.

Presentation of how vinyl base paints, when properly formulated specifically for interior or exterior applications, can easily be applied to provide durable and colorful protection.

**Span and Save.** Spanall of the America Inc., 787 United Nations Plaza, New York 17, N.Y. Sound, color, 15 min.

Depicts stripping and installation methods in applying all-metal horizontal shoring for beam and slab concrete forms at building sites in various parts of the country.

**Cement—Stone of the Ages.** Permanente Cement Co., 1924 Broadway, Oakland 12, Calif. 16mm sound, color, 30 min.

Revised edition follows development, role and products of cement industry from the stone age to powered missiles, showing some of the West's great construction projects.

**Birdbagger's Guide.** Simpson Logging Co., Shelton, Wash. Slide film, color, 20 min.

Described through cartoon approach how modern life is beset by common irritating noises; designed for distributor and dealer meetings with salesmen, builders, remodeling contractors etc.

**Heat in Harness: The Story of Gas Venting.** Metalbestos Division, William Wallace Co., Belmont, Calif. Slide film, color, 27 min.

Covers popular misconceptions concerning gas venting, recent scientific advances in the field and the contribution of correct gas venting to total gas heat comfort.

**The Wonder Wood.** Osmose Wood Preserving Co., 980 Ellicott St., Buffalo 9, N.Y. 16mm sound, color, 21 min.

Describes qualities of wood, its weak points and how they are eliminated; the story of pressure wood preservation.

**The World of Mosaic.** University Extension, University of California, Los Angeles 24, Calif. 16mm sound, color, 28 min. $12 rental.

Focuses the relationship between architecture and 4,000 years of epic mosaics, climaxed by presentation of Los Angeles muralist Joseph Young; narrated by film star Richard Widmark.

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### versatile asbestos-cement

Colorlith, an asbestos-cement material confined until recently to laboratory tabletops, now is being used for chalkboards, walls, baseboards, spandrels, wainscoting, toilet compartments, shower stalls, sinks and fume hoods. A mixture of portland cement and asbestos fibers integrally combined with chemically resistant colorings and fillings, it is subjected to enormous hydraulic pressure to form a dense, homogenous sheet whose surface can be polished to a high degree of smoothness while retaining a soft textured appearance. Colorlith is reported to be at least twice as strong as stone, twice as strong as most other materials now on the market for similar applications. It comes in 4x8-ft. sheets in thicknesses of ¼, ⅜, ½, ¾, 1 and 1¼ in.—Johns-Manville Corp. **(Item No. 1)**

### aluminum-faced door

Bellwood is using an embossed, anodized aluminum facing on a masonite sheet with a solid cedar core to form a standard 1¾-in. thick door for the Kaiser Foundation Hospital now under construction in Honolulu. Aluminum sheeting is applied to the wood under extreme heat and pressure, using a special adhesive. Because it requires no maintenance or painting, the door is expected to find acceptance not only in institutional structures but in school facilities and other public buildings. Among its other features: lower heat transmission qualities, noise resistance and reasonable price, being no more expensive than a quality flush door after finishing.—Bellwood Co. **(Item No. 2)**

### acoustical ceiling

Gridtone, newest of Armstrong's metal pan type acoustical materials, con-



sists of a 2x2-ft. metallic facing of aluminum or steel and a mineral fiber pad bonded to the back of the facing to absorb up to 70% of the noise that strikes it. It has random perforations in two sizes scattered over a field of directional bars set in relief. Each metal pan comes with a factory applied white finish and is completely washable.—Armstrong Cork Co. **(Item No. 3)**

### form lubricant

A form lubricant for prestressed concrete beams and pipe that permits quick stripping, leaves concrete with a glossy surface and does not build up on the forms has been introduced by Shell Oil. The compound is a water-emulsion material mixed just before use. Ordinary spraying equipment is adequate for application to steel and wood forms. It sets almost on contact and cannot be squeezed out by pressure of wet concrete or tamping. The company points out that it is particularly suitable for production of architectural grade beams where clean, unmarred surfaces are mandatory.—Shell Oil Co. **(Item No. 4)**

### precast terrazzo tile

Made by an age-old Italian process, Bello precast terrazzo tile now is being offered in the American market in 30 colors and in 16- and 12-in. squares for both interior and exterior surfacing. Installations need no dry-



ing or grinding time, allowing allie trades to work simultaneously in th area under construction. Tile can b laid with or without brass or alum num stripping.—The Haves Corp. **(Item No.**

### colored sliding doors

Sun Valley has introduced its alum num sliding glass doors in 10 colors— gold, beige, coral, yellow, blue, gree pink, brown, black and white—fo residential, commercial and institu tional use. Color finish has a resi base, applied to the extrusions b special process so that it is almos totally chip resistant. Colored doo are available in the usual range o sizes and can also be custom mad for any type of installation.—Su Valley Industries, Inc. **(Item No.**

### trapezoid window

To meet the demand for a trim, na row framing in a trapezoid windo Maco-Craft has designed an all-alu inum, completely assembled unit, i cluding jam, sill, stool and head, rea to be nailed into the rough openin It is tailored to the specific requir ments in any pitch not exceeding 6/ or when the shortest leg of the trap zoid is not less than 6 in. Heavy e truded aluminum frame sections ha a depth of about 6⅞ in. and are en neered for insulating glass and wi warp-free stability. Trapezoid wi dows can be assembled with oth Maco-Craft models for any arrang ment or window expanse layout. The Maco Corp. **(Item No.**



## READER SERVICE

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**Please send without obligation the data about the products or the literature listed on these pages.**

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**JANUARY 1959**

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### aluminum handrail

An aluminum handrail system which combines contemporary styling with ease of installation offers economy not previously obtainable with such railings. Rail-to-post assembly, wall bracket connection and base flange are made of components that are precision machined for accurate fit. Friction joints and specially designed mechanical fasteners make for quick field assembly. Bolt anchorage to walls and floors is concealed and no pipe threading or welding is required. —Aluminum Company of America.

(Item No. 8)

### wood folding doors

Pella wood folding doors are now available in American walnut and white ash in addition to the regular line of birch, oak, pine and Philippine mahogany. The walnut paneling is especially suitable for commercial installations while the white ash follows the trend toward more extensive use of this wood in homes. As with all Pella models, spring hinging is completely concealed and the appearance of an all-wood door is maintained from any angle.—Rolscreen Co.

(Item No. 9)

### wood preservative paint

Especially adapted for wood buried in the ground, laid on the earth's surface or subjected to continuous moisture, Wood-Rem is reported to provide maximum resistance to rot and decay. Applied by brush, dip or spray, it penetrates deeply into pores and seals out dampness, and its creosote content kills wood-destroying bacteria.—Speco, Inc. (Item No. 10)

### ceramic tile design

Latest in Pomona Tile's "Distinguished Designer Series" is an Oriental pattern named Fishnet, created by water colorist Dong Klingman, sixth participant in the program. Brown netting appears to be tied at intervals with knots of red and blue, providing a versatile and interesting color combination. Design is available in 4¼-in. square modules and in satin of Perma-Glaze finishes.—Pomona Tile Manufacturing Co. (Item No. 11)

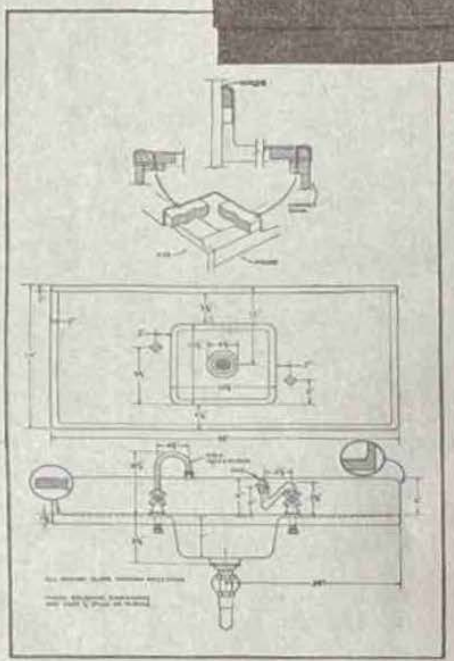


### residential heat pump

A heat pump for the home in actual operation is being shown for the first time at the NAHB exposition in Chicago this month. The Revco unit will alternately heat and cool a 6x8-ft. glass-walled room entirely through refrigeration using only electric power. It is basically an air conditioning (cooling) plant, operating on the principle of reverse refrigerant flow. For heating, a reversing valve actuated by an indoor thermostat reverses the direction of Freon gas flow and draws heat from the outside air, transferring it to the inside coil which acts as the condenser. For cooling, the outside coil is the condenser and the inside coil becomes the evaporator.—Revco, Inc. (Item No. 12)




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Readers are requested to write directly to manufacturers for the following literature.

**Lighting the Modern Stage:** handbook for architects, engineers and drama directors as a guide to designing installations for theater, hotel, school and church; first section is devoted to planning auditorium and stage; second section to lighting stage itself, covering such subjects as required circuits, stagelighting layout, power distribution systems and switchboard design; 28 pp.—Ariel Davis Manufacturing Co., 3687 S. State St., Salt Lake City 15, Utah.

**Fluoresign Outdoor Luminaire:** discusses performance features, component parts and specifications for new very high output lamps; 4 pp.—Revere Electric Co., 7420 Lehigh Ave., Chicago 48, Ill.

**A Specification Guide for Cabinet and Fixture Work:** defines fabrication, finishing and installation practices followed by industry in California; 30 pp. —Cabinet & Fixture Manufacturers Guild, Box 34694, Los Angeles 34, Calif.

**Color Kit (AIA 25-A):** includes four brochures, each giving detailed color specifications for one of following: motels, schools, hospitals and industrial plants; has set of recommended color standards, with 36 paint chips.—Colorizer Associates, 345 N. Western Ave., Chicago 12, Ill.

**Leadlight Price List Catalog:** indexed for easy reference: 50 pp.—Leadlight Fixture Co., 800 100th Ave., Oakland, Calif.

**Single Strand Tensioning for Prestressed Concrete:** explains process and contains description of single strand jacking unit developed by manufacturer; 4 pp.—Prestressed Equipment Co., P. O. Box 1264, Lakeland, Fla.

**Johns-Manville Transite Air Duct** (AIA 30-B-2): features diagrams and self-explanatory pictures for installation of air duct for perimeter heating and cooling systems; has data on different kinds of heat systems for slab-on-grade homes without basement and multilevel homes; 12 pp.—Johns Manville, 22 E. 40th St., New York 16, N.Y.

**Book Case Shelving:** illustrates four styles and 10 sizes of Penco steel shelving for book storage, library, office and storeroom; 4 pp.—Penco Division, Alan Wood Steel Co., 200 Brower Ave., Oaks, Pa.

**Centrifugal Refrigeration:** explains and illustrates complete refrigeration cycle of operation, complete with flow diagram; 28 pp.—Worthington Corp., Harrison, N. J.

**Green Acres School** (AIA 4-K): shows how Birmingham, Ala., school made use of split-level roof design to provide more natural light; 6 pp.—The Flexicore Co., Inc., 1932 E. Monument Ave., Dayton 1, Ohio.

**Profitable Swimming Pool Forming** (AIA 4-D-3): presents basic form layouts, detailed drawings and spacing tables for four pool designs; 8 pp.—Gates & Sons, Inc., 80 S. Galapago, Denver 23, Colo.

**Super-Bondsit:** four picture case histories illustrate advantages of white liquid latex emulsion added to cement floor topping mixtures; 4 pp.—A. C. Horn Companies, 550 Third St., San Francisco 7, Calif.

**Exciting Interior Ideas:** describes applications for fiberglass reinforced plastic panels as room dividers, shoji screens, luminous ceilings, etc.; 6 pp.—Filon Plastics Corp., 2501 E. Maple St., El Segundo, Calif.

**Miller Aluminum Sliding Glass Doors** (AIA 16-E): covers 250 Series for single glazing applications and 1000 Series for dual or single glazing applications; 8 pp.—Miller Sliding Glass Door Co., Inc., Burbank, Calif.

**Nervastral Rigid** (AIA 7-A-1): introduces recently developed extremely durable sheet flashing which is corrosion proof, impermeable and formable; has 22 detail drawings; 8 pp.—Rubber & Plastics Compound Co., Inc., 10 Rockefeller Plaza, New York 20, N.Y.

**Low Voltage Switching Systems:** covers design, installation, basic components; has typical home floor plan with detailed layout showing suggested installation; 18 pp.—Touch-Plate Mfg. Corp., P. O. Box 1970, Long Beach, Calif.

**High Velocity Dual Duct Systems for Multi-Zone Installations:** first complete reference material available on design, layout and installation practice; 24 pp.—Buensod-Stacey, Inc. W. 18th St., New York 11, N.Y.

**Super/Air-Van in Fiberglas** (AIA D-1): contains performance and mensional data; 6 pp.—The Galla Co., 4108 Dodge St., Omaha 31, Ne

**New Load-Bearing Punched Cha** properties and engineering data all five sizes of channel studs desig to meet demand for more versa lightweight steel framing; 8 p Stran-Steel Corp., Detroit 29, Mic

**Hollow Metal Doors and Frames Commercial Buildings** (AIA 16- gives details on 27 styles of flush recessed panel doors and on comp ion steel frames; 8 pp.—Ameri Welding and Manufacturing Building Products Division, N Ohio.

**Chart for Logarithmic Mean Temp ature Difference:** allows user of h transfer equipment to do own desi ing and cost estimating; single sh —Dean Thermo-Panel Coil Divis Dean Products, Inc., 616 Frank Ave., Brooklyn 36, N.Y.

**Colorcron** (AIA 3-K, 3-B-1, 23- describes method for building l long color in concrete floors—pat swimming pools, driveways, wa terraces; 4 pp.—The Master Build Co., 7016 Euclid Ave., Cleveland Ohio.

**Shower Door and Tub Enclosure** contains actual glass and railing sa ples, catalog and architectural s plement giving specifications and stallation features.—American Sho Door Co., Inc., 936 N. Cahuenga Bl Hollywood, Calif.

**Spang Standard Underfloor Duct** (A 31-C-62): includes detailed dimensio various types and sizes of junct boxes, ducts, accessories and serv fittings; 8 pp.—Spang-Chalfant Di sion, The National Supply Co., 2 Ga way Center, Pittsburgh, Pa.

**Ceco Aluminum Windows and Scree** (AIA 16-E): gives specifications, c struction drawings and installati details for three groups—double-hu projected and heavy awning styl 24 pp.—Ceco Steel Products Co 5601 W. 26th St., Chicago 50, Ill.

**Electro Lighting Catalog:** has illustr tions, descriptions, dimensional da and lighting curves on fluorescent, i candescent and floodlighting fixture 112 pp.—Electro Lighting Corp., 15 S. Paulina St., Chicago 8, Ill.

**New Ceilings of Acousti-Celotex for Restaurants:** illustrates actual examples of how installations of sound conditioning tile have been used to improve such areas as employee cafeterias, private dining rooms, kitchens, etc., as well as restaurants; 8 pp.—The Celotex Corp., 120 S. La Salle St., Chicago 3, Ill.

**Far-Air Roll-Kleen:** has detailed information about component parts of automatic renewable media air filters; 8 pp.— Farr Co., P. O. Box 45187, Airport Station, Los Angeles 45, Calif.

**B-H Panatone Specifications** (AIA 39-B): features line drawings showing erection and section details of acoustical pads and supporting metal pans; 4 pp.—Baldwin-Hill Co., Trenton, N.J.

**How to Design, Specify and Buy Booster Water Heating Systems:** contains instructions, tables and charts to simplify estimating water heating requirements for various commercial type installations; 24 pp.—The Cleveland Heater Co., 2310 Superior Ave., Cleveland 14, Ohio.

**Clad-Rex Wall Panels** (AIA 23-L): describes construction applications of prefinished wall panels in homes, hospitals, offices, restaurants, hotels, etc.; 8 pp.—Clad-Rex Corp., 2101 S. Indiana Ave., Chicago 16, Ill.

**Zone Control Package for Hydronic Heating:** shows piping and wiring diagrams; 6 pp.—White-Rogers Co., 1209 Cass Ave., St. Louis 6, Mo.

**Stone—A Comprehensive Review of Its Uses in Contemporary Architecture** (AIA 8): illustrated with close to 200 instances, well organized for easy reference; 44 pp.—Chicago Cut Stone Contractors Association.

**All-Brass Fittings:** covers recently introduced all-brass line in two series: the Galaxy in brushed or polished chrome and the Constellation in polished chrome only; 25 pp.—Kohler Co., Kohler, Wis.

**Swartwout Pyrojector:** explains automatic heat, smoke and explosion relief unit with photos and engineering specification data; 4 pp.—The Swartwout Co., 18511 Euclid Ave., Cleveland 12, Ohio.

**Modular Bibliography:** lists books, articles and technical papers dealing with modular system of coordinated dimensions for buildings and products used in their construction; first to be compiled since the AIA undertook task in 1950.—Modular Building Standards Association, 2029 K St. N.W., Washington 6, D.C.

**Reliance Grating and Treads:** covers panel sizes, weights and safe loads, surface treatments and fastening methods; 16 pp.—Reliance Steel Products Co., P. O. Box 510, McKeesport, Pa.

**Automatic Controls Catalog No. 26:** describes and illustrates Barber-Colman line for heating, ventilating and air conditioning control systems; 48 pp.—Barber-Colman Co., 1300 Rock St., Rockford, Ill.

**Just Stainless Steel Drinking Fountains and Classroom Sinks** (AIA 29-H-6): illustrates newly introduced line available in wide range of styles and sizes; 4 pp.—Just Manufacturing Co., 9233 King Ave., Franklin Park, Ill.

**Power Roof and Sidewall Ventilators** (AIA 30-D-1): contains engineering drawings, performance data, capacities, accessories, etc.; 34 pp.—Carnes Corp., Verona, Wis.

**Alcoa Aluminum Electrical Rigid Conduit:** outlines mechanical and electrical advantages; has comprehensive table of dimensions and weights of conduits, couplings and elbows; 12 pp.—Aluminum Company of America, 1501 Alcoa Building, Pittsburgh 19, Pa.

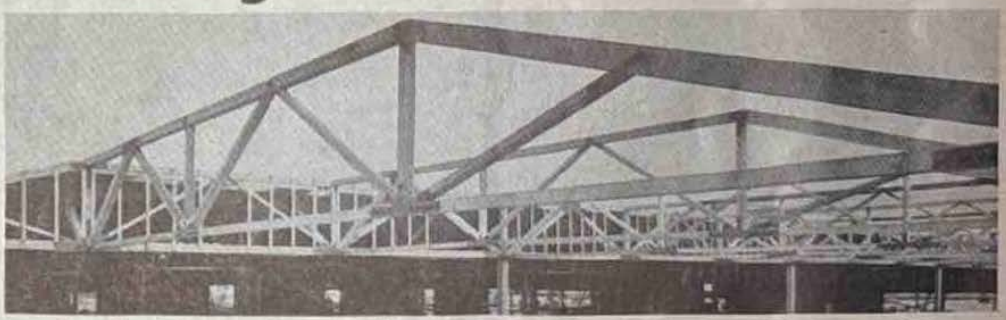
**Configuration and Voltage Charts:** diagrams standarized receptacle openings and plug blade arrangements of 28 different types of polarized, nonpolarized and grounding devices for 2-, 3- and 4-wire installations.—Arrow-Hart & Hegeman Electric Co., Hartford, Conn.

**Painting Hardboard:** contains nontechnical data on characteristics of hardboard, both interior and exterior painting and repainting of surfaces; 8 pp.—Hardboard Association, 205 W. Wacker Drive, Chicago 6, Ill.

**American Blower Ventura Fans:** has tables on expanded line and chart which explains significance of different quietness ratings; 4 pp.—American-Standard, American Blower Division, Detroit 32, Mich.

**School Plant Designs:** presents architects' solutions to typical structural requirements on school buildings using Armco's modular panel wall construction; 6 pp.—Armco Drainage & Metal Products, Inc.


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### elections

Southwest Oregon Chapter, AIA, has elected these officers: Eyler Brown, president; Ken Morin, vice president; Jim Hosey, secretary-treasurer; and Sheldon Haatvedt and Clare Hamlin, directors. All are from Eugene except past president Haatvedt of Albany.



**NEW OFFICERS**
of East Bay Chapter, AIA, are (seated) W. Roland Gibbs, Oakland, vice president; George T. Kern, Oakland, president; Francis A. Lockwood, Berkeley, secretary; (standing) Robert John Gianelli, Vallejo, director; and Arthur Iwata, Berkeley, treasurer.

### new offices

Ralph Appleman, architect, has opened an office at 200 Concord Building, Portland.

Cushing, Terrell & Associated Architects of Billings, Mont., have opened a branch office in Worland, Wyo., known as Cushing, Terrell & Toohey.

### new partners, associates

The Fairbanks architectural firm of McEntire, White & Pendergrast has been succeeded by McEntire, White, Pendergrast & Jellison and has opened an office in Anchorage at 131 Fifth Ave. Principals are Merle R. McEntire, who established the original office in 1954; F. Wayne White, who became a partner in 1957; Myron J. Pendergrast, who became the third partner last November; and Morris R. Jellison. Pendergrast maintained an architectural office in Kirkland, Wash., prior to his present affiliation, while Jellison was associated with the Seattle office of Paul Thiry for 4½ years.

Charles W. Johnston, architect of Payette, Idaho, has announced a new firm name of Johnston & Smith, with Robert J. Smith as junior partner.

George W. Heideman and Don B. Van Wieringen have formed an architectural partnership known as Heideman & Wieringen at 527 Fairview Ave. N., Seattle.

The San Jose architectural firm of Higgins & Root has appointed four new associates: Frederick B. Barss, specifications chief; W. Leslie Heald, head of material research and cost analysis; and Lee W. Bold and A. S. Morris, architectural planners.

Lawrence H. Peden has become an associate in the firm of Jack M. Lyerla, consulting structural engineer of Spokane.

### firm changes, additions

The Seattle architectural-engineering firm of Decker, Christenson & Kitchin has announced the withdrawal of Charles E. Kitchin, structural engineer. The firm has reverted to its original name, Decker & Christenson, with offices in the 1411 Fourth Avenue Building, where the partners continue to conduct a general architectural practice.

Wayne F. Owens has joined the staff of Park & Lee, Honolulu engineers-architects, as director of the architectural division. Most recently an associate in the office of Vladimir N. Ossipoff, Owens is a graduate of the University of Nebraska.

Three former vice presidents of Pereira & Luckman have become partners in the Los Angeles architectural firm of William L. Pereira & Associates. Gin D. Wong, formerly in charge of planning and design; James H. Langenheim, chief designer; and Jack L. Campbell, master planner, have joined Pereira in his new offices in the Union Oil Center which he organized following the recent dissolution of the Pereira & Luckman firm.

Charles Luckman Associates, Los Angeles architects-engineers, have promoted Richard G. Niblack from chief designer to director of design; and have named Marvin G. Sturgeon, Ventura (Calif.) County director of public works for the past three years, to a vice presidency.

### new addresses

Lutes & Amundson, architects-community planners, to 628 N. A Springfield, Ore.

Drake & Gustafson, architects 935 Grand Ave., Billings, Mont.

Hawley A. Dudley Jr., architect 1504 Olive Way, Seattle.

### deaths

Harry M. Michelsen, 67, San Fr cisco architect who helped de the Mark Hopkins Hotel, the Sir Fr cis Drake and the San Francisco port terminal building, died Nov ber 24. Self-trained in the field architecture, he was a native of G Falls, Mont., and attended the E des Beaux Arts in Paris.

Byron Frederick Jacobson, an chitect with Lea, Pearson & Richa of Tacoma, died December 13 at age of 56 after being unexpecte stricken. A native Tacoman, he tended the University of Washing UCLA and the University of South California and was a member of Southwest Washington Chapter, A

Dan Kirkhuff, 69, architect in Los Angeles office of Paul R. liams, died December 4.

### art notes

The Portland architectural firm Annand, Boone & Lei has preser 30 color renderings completed clients to the University of Ariz as the beginning of an art collec in the new department of architect Sidney W. Little, dean of the Col of Fine Arts at Tucson, was a de consultant for the architects for eral years.

**VAN GOGH EXHIBITION**
will hang at Portland Art Museum Januar March 1 and at Seattle Art Museum Mar April 19. Show contains 84 paintings an drawings, same group which broke all at ance records in San Francisco last fall, comprises most comprehensive collection assembled outside Holland. Pictured here i of best known of Van Gogh's works, his room at Arles in house which he share dramatic, stormy period with another pa Gaughin.



**'Limited license' for designers**

Pacific Architect and Builder:

Earlier attempts made by several designer groups to secure a licensed status in California are being renewed with the beginning of the legislative session in Sacramento.

Representatives of the California Society of Designers and of the United Building Designers have presented their proposed bills to the Senate interim committee on business and professions. Representatives of the California Council, American Institute of Architects, appeared in opposition to the licensing of the designer.* As the news goes in well-informed circles, the bitter fight over the amendment to the Architectural Practice Act and over the licensing of the designers will continue in this session.

Although it seems at first glance that the registered/licensed and the unlicensed professional designers—especially the building designers—are in two camps violently opposed to each other, I am nevertheless convinced that they have innumerable common interests and only a few rather insignificant differences. The separation which will inevitably increase during the anticipated fight will equally hurt the architects and the designers, not to mention the damaging bad publicity for all of us.

The designing profession—I am using this expression to embrace architects and all kinds of designers—has one great vocation: to improve the spiritual well-being of the people of our day by means of creating harmony out of the existing disorderly elements of our exploding technological age. The architects-engineers of this atomic age should be master planners and master builders—the position their ancestors occupied in all culture-creating periods of our history—and thus, in my opinion, the architects must find a solution to accept and include the designers in their sphere of activity; otherwise they will lose more and more areas of design and will never regain the supremacy over the rapidly growing technical staff shaping the world of tomorrow.

The group of building designers, industrial designers and all sorts of specialized technical designers is steadily growing and the respectable talented members of this group are contributing valuably to the creative arts in California.

I think that we architects should recognize the existing situation and if a designer would meet certain requirements and would show certain experience in an architect's office, then he should be given a temporary limited license. During the period that the designer would hold such a license, each of his works would have to be submitted to a board consisting mainly of members of the architectural profession, with a delegate of the designers sitting in. Each work would be examined by this board, graded on a point system covering various phases of planning, such as site development, function, appeal, etc., and accepted or rejected. In this way able and satisfactorily trained designers would not be prevented from work and their group would lose the strongest argument, namely, that architects want to eliminate competition and are trying to create monopoly. Public opinion would appreciate that architects are assisting every capable applicant in the field.

In fact, the architects have never tried to monopolize the designing field, in spite of the thorough and time-consuming university education they must complete; on the contrary, the architectural examinations are open to anyone having the required competence and experience. In the past 10 years one-third of those passing the state architectural examination were without college degrees in architecture.**

Thus all the designers holding temporary limited licenses would have the opportunity to achieve the status of a registered architect, depending only on their determination to study and practice assiduously. The required approval of each work of a designer by the aforementioned board would be an assurance that incompetent men could not mislead the public.

GEORGE DE MASIREVICH
Architect
Los Angeles

*Ed. note: The "Counciletter" for December carried the official position as presented by CCAIA executive director Melton Ferris and counsel Robert E. Burns before a hearing in Sacramento: "that there is no need from the standpoint of public health or safety to license designers of exempt work; that licensing of either 'professional designers' or 'building designers' would mislead the public into believing that the licensees had the same capacity and training as architects, and that it would inevitably lead to abuses no matter how carefully the legislation stated that the designer must employ an engineer for non-exempt work."

The monthly bulletin further stated: "Both measures received a cool reception from the committee. Also opposed to the measures are the Construction Industry Legislative Council and the Legislative Council of Professional Engineers."

**Of this figure, one-third have degrees in architecture but not from accredited schools, according to Frank B. Cronin, executive secretary of the California State Board of Architectural Examiners.


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• **Inland Steel Products Co.** has entered the Pacific Coast market with the purchase of Pacific Metal Decking Co. of Hayward, Calif. Allan Garrett of Berkeley will continue as president of the Hayward plant, whose capacity will be tripled to a $5 million annual operation under an expansion program to get underway soon.

• **All-Brite Fluorescent Fixtures, Inc.**, of South San Francisco, recently incorporated for purposes of expansion to succeed Fluorescent Fixtures of California, has promoted C. D. Buchanan to the presidency, E. O. Anders to chairman of the board and Fred J. Bertolone to San Francisco district sales manager. A new Los Angeles plant being erected will triple the capacity in that region. All-Brite plants also are maintained in Seattle and Vancouver, B.C.

• **Permanente Cement Co.** and its subsidiaries in Washington, Oregon and Alaska has a new public relations representative with headquarters in Seattle, Robert E. Balster, most recently advertising manager of Shell Chemical Corp., in New York.

• **L.O.F. Glass Fibers Co.**, one of whose seven plants is located in Corona, Calif., has sold its assets and business to Johns-Manville Corp., becoming the 10th operating division of the purchaser.

• **Globe Illumination Co.** is the new corporate name of what was formerly the Los Angeles operation of Globe Lighting Products, Inc.

• **Portland Cement Association** has established a San Francisco office in the Russ Building, 235 Montgomery St., with Charles F. Moran as structural engineering specialist and Robert E. Jones as paving engineer and general field engineer, and has extended its field activities to the state of Oregon, with Byron E. Jones as paving and general field engineer, working out of Portland.

• **General Electric Co.** has appointed E. R. (Dick) Speraw as regional sales manager for Textolite, decorative plastic counter and wall surfacing, serving northern California, Nevada and Utah from headquarters in Burlingame, Calif.

### 'MAN OF THE YEAR'

The National Association of Manufacturers has presented its 1958 "Man of the Year" award to Herbert V. Kohler, president of Kohler Co. The Wisconsin industrialist was cited for "his forthright and courageous defense of fundamental American principles, his devotion to protecting the rights of people as individuals ... his awareness of the responsibilities of good citizenship and fearless leadership in industrial relations which will be an inspiration to all Americans for many years to come."

## The artist and culture (Cont'd from p. 14)

Roger Williams claims that "much of the charm of biochemistry is that while it deals with very tangible details which can be explored experimentally, its ultimate concern must extend to the mystery of human consciousness and aspiration, to the spirit of man himself."

The present desire to conquer outer space is an aspect of this aspiration. The theory and practice associated with its success are the result of a content within civilizations over the entire world. From our opposable thumb, which gave us a technological edge over our contemporaries in the beginning, we have moved on to controlling machine-controlled machines. The conditioning and sharpening of our faculties for such an accomplishment has come about through a historical process of living together. The interplay between society and the individual brings both into focus. Only through the most demanding of all creations—a culture— is the individual able to make a contribution. For example, the magnificent architectural achievement of Notre Dame in Paris was possible because of a society able to call forth the potentialities of a great architect.

Out of the needs of the culture arise the responses by the artists. Predictions as in science are made by those avant-garde pioneers who play the most active role in the adjustment of the psychosensorial reactions to the content of an existing society in which they live. The integration with life is of special concern now due to the cataclysmic changes in constant acceleration resulting from man's penetrating knowledge of the universe. The single continuum of time-space, putting everything in the universe into motion, setting every single object in motion in relation to every other object, requires a qualitive change in point of departure for the arts. Meaning, vitality, unity are achieved only outside the academic framework of the rules held over from another time.

In architecture, I wish to recall the integration that Antoni Gauid achieved during the span of his life. Having been on the spot in Barcelona a year ago, I marveled at the work of this great artist. What a joy to realize that here was an artist who rejected puritanical restrictions and joyfully created a world of plastic fullness painting and sculpture participating equally inside and out of the organized spaces. That these structures carry vitality as an original form that throughout the manifold directions to which he applied himself he was able to create a unity, expressive and rich, affirms the place of the artist in the world.

## The college architect

*Philip E. Keene, college architect at the State College of Washington, Pullman, summarized the duties of his position in an interview with PA&B*

What is the proper role of a college architect when an outside architectural firm is commissioned to design a building? It is one of coordination with touches of advisory service and supervision. The college architect's office at a single point provides 1) the contacts needed by the off-campus firm and 2) packages of information and requirements for the building that may well have been years in the gleaning and have required endless consultations to acquire and solidify. For representatives of a firm to come on campus and adequately do this kind of orientation would be costly and difficult out of all proportion to the fee.

Thus the college architect who is in residence, serves as a two-way bridge to an understanding of people, problems, program and progress. And then the outside architect is freed to do the main job of design, fortified by the knowledge that he is being backstopped from start to finish by those who are just as concerned as he that his structure will stand effectively and proudly—a building that, even on a tradition-haunted campus, does not copy mistakes of the past.

# Construction News Bulletin

*(A weekly summary of Pacific Construction Daily)*

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## BUILDING NEWS

Oregon, Washington, Idaho, Montana, Alaska

- ● Bids Called
- ★ Contract Awards
- ▲ Low Bids—Bids Received
- ■ Planholders—Prospective Bidders

## OREGON

**●STORAGE BUILDING, FIRE STATION—** Camp Adair, Ore.

Bids will be opened 2:15 p.m., P.S.T., January 20, by Corps of Engineers, 1519 S. Alaskan Way, Seattle, Wash., for construction of a cold storage building and a fire station at Camp Adair Air Force Station, Ore.; ENG-45-108-59-34. Plans with Seattle office. Bid bond 20%. Completion time 210 calendar days.

Project involves construction of 1,920 sq. ft. fire station and 1,693 sq. ft. cold storage building. Buildings are to be of reinforced concrete and masonry with steel joist metal roof deck and insulated built-up roofing. Exterior work includes grading, constructing water, sewer and electrical service, paving with asphaltic concrete approximately 900' of road. RM 1-9. Previous report 12-30

**CHURCH (Lutheran)—** Coos Bay, Ore.

Working drawings will be underway soon by Oliver Olson, architect, 2437 Market, Seattle, for the 10,000 sq. ft., two-level, partial basement Gloria Dei Lutheran Church, which will be constructed on a site adjacent to the highway between Coos Bay and North Bend.

PD 1-14. Previous report 10-16

**CITY HALL ADDITION—** Estacada, Ore.

Preliminary plans are underway by F. Marion Stokes, architect, 115 S.W. 4th Ave., Portland, for a small addition to the city hall at Estacada, in Clackamas County.

WB 1-13

**CHURCH (LDS)—** Grants Pass, Ore.
(Estimated cost $250,000)

Preliminary plans for construction of a new LDS church in Grants Pass have been submitted to Church of Jesus Christ Latter Day Saints headquarters for approval.

New structure will have 300' frontage; parking areas and outdoor recreation facilities. AC 1-13

**●ELEMENTARY SCHOOL, GYMNASIUM—** Helix, Ore.

Bids will be opened 8 p.m., February 16, by School District No. 1, Umatilla County, Helix, for construction of a six-classroom, elementary school and gymnasium in Helix. Plans available from Wesley V. Korman, architect, Raley Bldg., Pendleton. $50 deposit.

School approximately 12,000 sq. ft.; gymnasium about 15,000 sq. ft. Both buildings one-story, no basement. Frame walls in school, block in gymnasium; concrete slab floors for both; timber beams in school, steel rigid frame in gymnasium roof; flat roof; frame partitions in school, masonry in gym; aluminum windows; brick exterior wall finish; drywall interior wall finish; drywall interior partitions in school and exposed masonry in gym; maple flooring in gym, vinyl tile elsewhere; acoustical, exposed t&g ceilings; wood interior and aluminum exterior doors; wood cabinets; plastic panels; walk-in refrigeration in kitchen; fluorescent lighting in school, incandescent in gym; steam boiler oil-fired; heating and ventilating units, exhaust fans.

DM 1-10. Previous report 12-24

**RESIDENCE (Star Ranger)—** Jackson County, Ore.

Bids rejected by U.S. Forest Service, administrative services section, 729 N.E. Oregon St., Portland, for construction of a one-story, 57'x40' frame residence at the Star Ranger Station on the Rogue River National Forest, Jackson County, Oregon.

WB 1-9. Previous report 1-2

**●VORTAC FACILITIES (Buildings, Roads, Cable)—** Klamath Falls, Ore.

Bids will be opened 3:30 p.m., P.S.T., January 19, by Civil Aeronautics Administration, procurement branch, 5651 W. Manchester Ave., Los Angeles, Calif. (Box 90007) for construction of standard Vortac Facility at Klamath Falls, Ore. (Sched. 1); Proposal No. 4-59-1025. Plans with Los Angeles office. Bid bond 10%. Completion time 30 calendar days.

Project involves construction of transmitter building; clearing and grubbing; grading; removing existing wire fence; digging trench for control cable (installation of cable is by others); furnishing outdoor metering equipment, mounting and wiring this equipment on the substation enclosure. Building is to be prefabricated and erected on concrete slab; footings to be carried down 36" below ground; floors to have asphalt tile covering.

In the advance notice, construction of Schedules 2 and 3 was announced for Stockton and Peters, Calif., respectively.

DM 1-13. Previous report 12-13

**★SERVICE STATION—Klamath Falls, Ore.**

Contract negotiated with Engineering Construction Co., 3536 S.E. 29th Ave., Portland, by Standard Stations, Inc., Esplanade and Spring streets, Klamath Falls, for removing present Standard Oil service station building at 1203 Main St., Klamath Falls, operated by Harold Cloake, and rebuilding double-bay building at same location. ZZ 1-9

**★PLANT ADDITION—Klamath Falls, Ore.**

Contract has been negotiated with H. Gleav Day, 1130 Homedale Road, Klamath Falls, no figure available, by Chris Litzenberg, owner, 3005 Anderson Ave., Klamath Falls, for an 80'x100' building addition to Chris' Moulding Co., 3005 Anderson Ave., Klamath Falls. ZZ 1-14

**★LAUNDRY BUILDING—** Klamath Falls, Ore.

Contract negotiated with Brosterhous Construction Co., 1541 Elm Ave., Klamath Falls, (no figure available), by Clarence M. Gilmore, owner, 217 E. Main St., Klamath Falls, for construction of a 50'x60', one-story, pumice block, laundry building at 2000 S. 6th St., Klamath Falls. Plans by Mrs. C. M. Gilmore, mechanical engineer, 217 E. Main St., Klamath Falls.

Electrical and mechanical contracts will be sublet by above general contractor.

ZZ 1-14

**■BANK REMODELING—** Klamath Falls, Ore.
(Estimated cost $150,000)

Planholders announced for extensive interior and exterior remodeling of the 10,800 sq. ft. First Federal Savings & Loan Association building and 2,800 sq. ft. main floor of adjacent building, 5,000 sq. ft. of second floor and 5,000 sq. ft. of third floor of adjacent building, plus basements, 540 and 538 Main St., Klamath Falls. Plans and specifications with Morrison and Howard, architects, 203-05 Williams Bldg., Klamath Falls. $50 deposit. Mechanical engineer, John W. Merryman, 225 Grant St., Klamath Falls. Electrical engineer: Carrol C. Colvin, 346 Riverside St., Klamath Falls. Certified check, cashier's check or surety bond 5%.

Bids will be opened 2 p.m., January 20, in the office of George W. McIntyre, president, First Federal Savings & Loan Association, 540 Main St., Klamath Falls.

PLANHOLDERS: H. G. Carl Construction Co., Box 387, Salem; Thompson and Georgeson Construction Co., 1924 S.E. 6th Ave., Portland; H. Barnhart Construction Co., Box 68, Medford; Brosterhous Construction Co., 1541 Elm St., Klamath Falls; Gilbert Ballantyne, 121 Nevada St., Klamath Falls.

ZZ 1-15. Previous report 1-6

**▲SCHOOL ADDITION (Pleasant View)—** Milton-Freewater, Ore.

Bids were opened for the second time on January 6 by Pleasant View School District No. 22, Route 2, Milton-Freewater, in the office of the architect, H. Brandt Gessel, 215 E. Birch, Walla Walla, Wash., for construction of a one-story, 5,442 sq. ft. addition to the Pleasant View Elementary School in northern Umatilla County about two and one-half miles from Milton-Freewater. Five bids ranging from a low of $66,000 by Elmer T. Holsten, Walla Walla, to a high of $80,880 were submitted.

DC 1-10. Previous report 12-27

**●WAREHOUSE—** North Bend, Ore.

Bids will be opened 4 p.m., January 30, by Industrial Steel and Supply Co., North Bend, for construction of a storage warehouse. Plans available from R. H. Erichsen, architect, 4th and Highland, Coos Bay.

Plans call for 100'x244'; no floor (gravel); poured-in-place reinforced concrete walls extending upward 25' above ground level; 99' clear span bolstering trusses; plywood roof with cold mastic roof coating; steel sash; three steel roll-up doors. DC 1-10

**HOSPITAL—** Pendleton, Ore.

Preliminary plans are being discussed by a citizens group, according to R. D. Eller, spokesman, 236 S.E. 1st, Pendleton, for con-

struction of a one-story 40-to-60-bed community hospital in Pendleton. AC 1-15

**● FIRE STATIONS (City of Portland)— Portland, Ore.**
(Estimated cost $279,000)

Bids will be opened 2 p.m., January 30, by L. W. Rayner, city purchasing agent, 208 City Hall, Portland, for construction of three brick and wood fire stations at the following locations: Southwest corner of Alberta Park, N.E. 19th Ave. and Killingsworth St.; northwest corner of S.E. Bybee Blvd. near 23rd Ave.; north side of S.E. Mall St. between 52nd and 54th Ave. Plans by Holman J. Barnes, architect, 514 Henry Bldg., Portland. Plans with purchasing agent. $25 deposit. Certified check or bid bond 10%.

The stations will all be on the same basic plan, a drive-through type for an average of three pieces of equipment. The apparatus room and hose tower portion will have a sloping roof, and the remainder will have a flat roof. Facilities include dormitory for eight men, locker room, toilet and shower, lounge, dining and kitchen quarters; officers' facilities, including bath; combined public entry and watchroom; partial basement for heating plant and multipurpose use. SCR brick bearing walls; glued laminated beams with timber decking; built-up roof (slag surface on sloping portion); concrete slab floor on grade; interior walls exposed brick with some hemlock or vertical grain fir; exposed wood deck ceiling in apparatus room; acoustical tile ceilings elsewhere; vinyl asbestos flooring with top set base; ceramic tile floors and walls in showers; aluminum sash; metal lockers; incandescent lighting; oil-fired, hot water heating (baseboard and convectors).

Four additional fire stations are scheduled to be constructed later this year under the $3,000,000 fire bureau improvement program. Tentative sites are at N. Prescott and Maryland streets; S.W. Sunset Blvd. and DeWitt St.; Lombard St. and Interstate Ave., and Guilds Lake. Refurbishing the fire bureau alarm system may also start this year.

Bids will be called soon on $397,500 worth of fire apparatus, include two 100' aerial ladder trucks at $40,000 each; two 85' aerial ladder rigs at $38,000 each, and seven 1,000-gal. pumpers at $28,500 each.

WB 1-13. Previous report 8-23

**★ELECTRICAL SERVICE; AIR COMPRESSOR (Air Base)—Portland, Ore.**

Award to Owen-McIntyre Electric Co., Oregon Shipyards, Portland, $4,316, by 337th Fighter Group, Portland International Airport, Portland, for replacement of an air compressor in Bldg. T-720; Inv. IFB-59-35. Bids opened December 29. The portion of the bid invitation calling for installing electrical service for mobile towers was cancelled. WB 1-10. Previous report 12-5

**BARRICADE (Ammunition Storage Building)— Portland, Ore.**

All bids rejected by U.S. Air Force, 337th Fighter Group, Portland International Airport, Portland, for construction of a barricade around ammunition storage building No. T-1503, at the airport; Inv. IFB-59-34. Bid was cancelled due to lack of funds.

WB 1-10. Previous report 12-26

**■ RECREATIONAL CENTER—Portland, Ore.**

Planholders announced for construction of the Portland Exposition-Recreation Center, including 360'x360' main arena building, and 135,650 sq. ft. main exhibition hall on site between Broadway and Steel bridges on right bank of Willamette River. Bids will be opened 2 p.m., January 29, by the E-R commission, Gale Livingston, chairman, in offices of Skidmore, Owings & Merrill, architects, 2040 S.W. Jefferson St., Portland. Plans with architects. $150 deposit (cashier's check). Plans on file at Builders' Exchange, Portland, and at Exposition-Recreation Commission offices, Park Bldg., 729 S.W. Alder St., Portland.

WB 1-13. Previous report 1-7

**●■ WAREHOUSE (Davidson Bakery)— Portland, Ore.**

Bids will be opened 3 p.m., January 22, in office of Sundeleaf & Hagestad, architects, Portland Trust Bldg., Portland, for construction of 100'x100' tilt-up concrete warehouse for Davidson Baking Co., 700 N.E. 22nd Ave., Portland, at N.E. Oregon St. and 20th Ave. Select list of bidders.

Planholders: Bingham Construction Co., 437 N.E. 11th Ave.; Wilson & Dean Construction Co., Inc., 1016 N.E. 61st Ave.; Thompson & Georgeson, Inc., 1924 S.E. 6th Ave.; Supreme Builders, Inc., 4232 N. Williams Ave.; Carroll Co., Inc., 4507 S.E. Milwaukie Ave. All of Portland.

Warehouse includes 100'x80' storage portion; 20'x100' drive-through area for washing and gassing trucks; toilet facilities. Tilt-up concrete construction; concrete slab floor; glued laminated tied arches; wood joists under 1" sheathing; built-up roof; sacked and rubber exterior; incandescent lighting; overhead doors for both washing and storage areas. Unit heaters will be furnished by owner. WB 1-9

**■ NURSES' HOME ADDITION— Portland, Ore.**

Planholders announced for construction of three-story, two-wing addition to the nurses' home at Emanuel Hospital, 2800 N. Commercial St., Portland. Bids will be opened 7 p.m., February 2, by Paul Hanson, administrator, at Reinhard Hall, above address. Plans with Church, Newberry, Roehr & Schuette, architects, 619 Builders Exchange Bldg., Portland. $50 deposit.

Planholders: Smith-Phillips Co., 7402 S.W. Macadam Ave.; Henry M. Mason Co., 2206 N.W. Thurman St.; Robertson, Hay & Wallace, 1801 S.E. Grand Ave.; E. E. Settergren, 3723 S.W. 21st Ave.; O. R. Wayman, 3125 N.W. Front Ave.; A. V. Petersen Co., 2827 N.E. Glisan St.; James S. Hickey, Inc., 523 S.E. Stark St.; Frank Ralph & Son, 2207 N.E. Alberta St.; C. M. Corkum Co., 2630 S.W. 2nd Ave.; Ross B. Hammond Co., Box 2111. All of Portland.

WB 1-14. Previous report 1-7

**● VENTILATION TOWER (Restoration)— Portland, Ore.**

Bids will be opened a second time at 2 p.m., January 26, by L. W. Rayner, city purchasing agent, 208 City Hall, Portland, for restoration of ventilating tower at S.W. 6th Ave. and Yamhill St. for Bureau of Parks. Certified check or bid bond 10%.

WB 1-14. Previous report 1-9

**HOTEL EXPANSION (Congress)— Portland, Ore.**

Willamette Hotels, Inc., owners of the Congress Hotel, 1024 S.W. 6th Ave., Portland, have purchased the adjoining Fifth Avenue Hotel Bldg., S.W. 5th Ave. and Main St. Improvement of the property is planned to double the 160-room capacity of the existing hotel. The newly-acquired building is a three-story, 100'x100' building. The Congress Hotel is across the street from the site of the proposed Hilton Hotel. WB 1-14

**●■ WAREHOUSE— Portland, Ore.**

Bids will be opened 3 p.m., January 21, in office of Leslie Poole, consulting engineer, 301 Royal Bldg., Portland, for a 45,000 sq. ft., tilt-up concrete warehouse for Northwest Packing Co., 440 N. Columbia Blvd., Portland. Select list of bidders.

Planholders: Teeples & Thatcher, 8850 S.E. Otty Road; Monson & Sivers Co., 5000 S.E. 25th Ave.; Reimers & Jolivette, Builders Exchange Bldg.; R. L. Greene Construction Co., 5103 N.E. 42nd Ave.; John A. Schrag, 3540 S.E. 28th Ave.; D. Diamond Corp., 2839 S.W. 2nd Ave. Of Portland.

The warehouse will be used for storage of canned products, and will be built on the foundations of the packing plant which was destroyed by fire two years ago. Concrete floor; tilt-up concrete walls; wood trussed roof; composition roofing; row of posts through center of building; full sprinkler system; minimum warehouse incandescent lighting; wood overhead doors; no heating.

WB 1-15. Previous report 11-26

**■ RECREATIONAL CENTER— Portland, Ore.**

Planholders announced for construction of the Portland Exposition-Recreation Center, including 360'x360' main arena building, and 135,650 sq. ft. main exhibition hall on site between Broadway and Steel bridges right bank of Willamette River. Bids be opened 2 p.m., January 29, by the commission, Gale Livingston, chairman offices of Skidmore, Owings & Mer architects, 2040 S.W. Jefferson St., Portla Plans with architects. $150 deposit (cash check). Plans on file at Builders' Excha Portland, at Exposition-Recreation Com sion offices, Park Bldg., 729 S.W. Alder Portland.

Planholders: Hoffman Construction 715 S.W. Columbia St., Portland; Ander Westfall Co., 3427 N.E. Halsey St., Portla Donald M. Drake Co., 1600 N.W. Savier Portland. WB 1-15. Previous report

**CANNERY— Portland,**

Plans are being discussed by the No west Berry Association, 13102 S.E. Salm Portland, for construction of a new can in Salem or Woodburn. AC

**SALMON HATCHERY— Port Orford,**

Bids rejected by Oregon State Fish C mission, 307 State Office Bldg., Portland, construction of the Elk River Salmon Ha ery, to be located approximately 9 mi. no east of Port Orford, Curry County, on Elk River Road. Funds for the project be sought from the 1959 Oregon Legisla WB 1-13. Previous report

**▲BUILDING, STORAGE TANK, ROAD, FENCE— Salem,**

Six bids ranging from a low of $ by Abe & Post, 404 E. Isabella, Leba to a high of $12,449, were submitted to National Guard Bureau, office of prop and fiscal officer, 2150 Fairgrounds R Salem, for miscellaneous work, includi 200 sq. ft. oil storage building, gas pump and 1,000-gal. storage tank, a road and parking area, chain link f Bid opening January 8.

AM 1-10. Previous report

**● PARTITIONS— Salem,**

Bids will be opened 2 p.m., January by Department of Finance and Admini tion, Capitol Bldg., Salem, for insta movable partitions in room 100 of the P Service Bldg., Salem; Inv. No. S-6940-5 DC

**●■ TELEPHONE BUILDING— Shedd,**

Bids will be opened 2 p.m., January 2 Pacific Telephone & Telegraph Co., Fleming, building engineer, 301 Li Bldg., Portland, for one-story, 20'x22', crete building to house dial swit equipment at Shedd.

Planholders: John Carrick & Sons, S. Pacific Blvd., Albany; Robert C. W 2301 N. Highway 99-N, Corvallis; Qu Greenough, Box 868, Corvallis; Wood, son & Rose, Box 127, Corvallis; Abe & Lebanon; Westward Ho! Homes, Inc Harlow Road, Eugene; Vik Constru Co., 160 Madison St., Eugene; Indu Building Co., Box 869, Eugene. WI

**● HIGH SCHOOL REMODELING (Interior)— Shedd,**

Bids will be opened 8 p.m., Februa by School District 552C, Linn Count Emmett H. MacKay, superintendent, H for interior remodeling at the Shedd School. Plans with Dougan & Helms, tects, 401 Royal Bldg., Portland. $25 de Certified check, cashier's check or bid 10%.

Work includes partitions, plumbing, ing, acoustical tile, millwork and some and glazing. WI

**ADDITION (Golf Club)— Stayton,**
(Estimated cost $3,000)

Construction will start early in the on a 2,400 sq. ft. addition to Santiam Club, Stayton, according to W. treasurer, Stayton. Structure will p new recreation room. A

**● ELEMENTARY SCHOOL— Winston**

Bids will be opened 8 p.m., January School District No. 116, Douglas Coun the office of superintendent, at Dillar construction of the 12-classroom WI

Grade School at Winston. Plans may be obtained from Hayslip, Hewlett & Jamison, architects, 2040 S.W. 3rd Ave., Portland. $25 deposit. Certified check, cashier's check or bid bond 5%.

Wood frame; concrete slab; post and glued laminated beams; 2" roof decking under 1" rigid insulation topped by built-up roofing (cafetorium roof of tectum); aluminum sash; plastic skylights; composition tile flooring (asphalt tile in cafetorium); plastic-faced plywood wainscoting; hardboard, gypsum board and cement board wall finish; acoustical tile ceilings. DC 1-15

## WASHINGTON

**●ELEMENTARY, JUNIOR HIGH ADDITIONS— Arlington, Wash.**
(Estimated cost $300,000)

Bids will be received until 8 p.m., January 30, by Arlington Consolidated School District No. 16, Thomas Terjeson, superintendent, French St., Arlington, for construction of 21,000 sq. ft. of additions to Lincoln Elementary School, and to the junior high school, both located on the same site in Arlington. Plans with Mallis & DeHart, architects, Lyon Bldg., Seattle. Structural engineers are Stevenson & Rubens, Olympic National Bldg., Seattle; mechanical engineer is C. A. Pangborn, Arcade Bldg., Seattle; electrical engineers are Beverly A. Travis & Associates, Medical Arts Bldg., Seattle.

Elementary school addition will consist of five classrooms, multipurpose room, kitchen, storage, toilet rooms (estimated cost $210,645); junior high school addition will be a wood shop building, office, storage room, agricultural and mechanical drawing room (estimated cost $66,802).

Concrete slab-on-grade; concrete and concrete block walls; glued laminated beams, steel beams; exposed wood joist deck; steel sash; plaster, concrete block partitions; acoustically treated ceilings; asphalt tile, vinyl, maple, ceramic tile flooring; connection with existing low pressure steam heating system.

PD 1-14. Previous report 1-9

**STORE (J. C. Penney Co.)— Bellingham, Wash.**

Plans are being completed to raze the American Theater Building, 1308 Cornwall, Bellingham, and to construct a new building for the S & W Co., landlords, S.W. 6th and Washington, Portland, Ore. Structure will be on solid sandstone foundation, 165'x125', two-story and basement. J. C. Penney Co. will occupy most of the space. Contractor has been named but not announced. Razing will start early in February. Construction of new building to start soon thereafter. ET 1-14

**★TELEPHONE BUILDING (Sage Installation)— Blaine AFS, Wash.**

Award to Erickson Construction Co., 1611 Northwest Road, Bellingham, $14,064, by Farmers Mutual Telephone Co., 108 6th St., Lynden, for construction of a 25'x45', concrete block, telephone building at the Sage Site at Blaine Air Force Station, Wash. Plans by Richard H. Stradling, architect, Herald Bldg., Bellingham. Bids were opened January 7. ET 1-10. Previous report 1-2

**●■PLANT ADDITION (Perry Brothers)— Chehalis, Wash.**

Bids will be received until 4:30 p.m., January 19, in the office of William Aitken, architect, 408 Marion, Seattle, and will be privately opened by Perry Brothers, 512 State, Chehalis, owners, for construction of a 55'x60' shed addition and remodeling of existing plant.

Addition will have concrete foundation; concrete block walls; concrete slab-on-grade floor; steel pipe columns; wood frame roof, with corrugated metal and some corrugated plastic roofing; aluminum sash. Remodeling of existing 60'x120' plant building includes new aluminum screening on all windows; new cement floor; removing masonry partitions, and substituting steel pipe columns; painting interior with industrial enamel; constructing new office area, toilet rooms, balcony with lunchroom; partitions of drywall some masonry; addition of gas-fired unit heaters.

Planholders: Moore Construction, 2000 15th; Langford Construction, 1888 Kelly; C. S. Seines Construction, Box 537; of Chehalis. C. M. Purvis & Son, 2614 N. Pearl; Everett Duckett Builder, 614 S. Cedar; C. E. Skinner, Box 706, Orting; of Centralia. PD 1-13

**★BOILER, WATER SYSTEM— Chehalis, Wash.**

Award to Chinook Heating & Plumbing Co., RFD 10, Olympia, $5,775, by Department of General Administration, General Administration Bldg., Olympia, for completion of water main loop system at Green Hill School for Boys in Chehalis.

Contract award is still pending on repair to walls, boiler and stoker. S. M. Gilbert Co., Inc., 7100 E. Marginal Way, Seattle, $4,965, submitted apparent low bid on repairs to exterior walls, and encasement on boiler. Hendricksen Heating Service, 1060 Chehalis St., Chehalis, $6,757, submitted low bid on stoker repair.

DE 1-14. Previous report 12-17

**▲SHOP BUILDING (Plumbers and Riggers)— Clark County, Wash.**

Six bids received ranging from a low of $15,901, by Lorentz Bruun Co., 3636 S.E. 20th Ave., Portland, to a high of $19,302, were received January 9 by Bonneville Power Administration, 1001 N.E. Lloyd Blvd., Portland, Ore., for construction of a plumbers and riggers shop at the J. D. Ross Substation, Clark County, Wash.; Inv. No. 8914. WB 1-13. Previous report 1-8

**SUPERMARKET— Colfax, Wash.**

Hochsprung Investment Co., Ed Hochsprung, owner, Colfax, is planning to build a supermarket on S. Main St. in Colfax to the specifications of Ace Food Store, Cliff Presnell, owner, Colfax, prospective tenant. Structure will be 60'x100', one story (no basement), cement blocks, tile floor. Completion is scheduled for April. MH 1-15

**★STORE ADDITION (Safeway)— Edmonds, Wash.**

Award to Gwinn Construction Co., 914 Rainier Ave., Seattle, (no amount disclosed), by Safeway Stores, 1200 Westlake N., Seattle, for construction of an addition to the Safeway Store in Edmonds. Plans by Harold W. Hall, architect, Commerce Bldg., Everett. Bids were opened November 20.

AM 1-9. Previous report 11-15

**★MAINTENANCE REPAIR AND PAINTING— Ephrata, Wash.**

Award to H. J. Emmerson, 121 L St. S.W., Quincy, $4,355, by Bureau of Reclamation, Division Ave. and C St. N.W., Ephrata, for maintenance repair and painting Quincy Operation and Maintenance Headquarters Building, Columbia Basin Project; Spec. No. 117C-519. RM 1-9. Previous report 12-18

**REST ROOM FACILITIES (Kopa-Chuck State Park)— Gig Harbor, Wash.**

Bids will be called soon by the State Park Commission for construction of public restroom facilities in Kopa-Chuck State Park, located six miles southwest of Gig Harbor.

AC 1-13

**●SWIMMING POOL— Hoquiam, Wash.**

Bids will be called soon for the second time, and will be received until 5 p.m., February 2, and opened at 8 p.m. the same date, by City Council, City Hall, Hoquiam, for construction of a municipal swimming pool for Hoquiam. Plans available on and after January 20 with city clerk, City Hall, Hoquiam, and with Dale D. Pedersen, architect, 306 Grosvenor House, Seattle. $50 deposit. Bids were previously opened on August 25, and subsequently rejected.

One-story and mezzanine; pumice block; steel columns; 75'x115' with 14'x21' stair tower appendage; glued laminated beams; timber decking; concrete floor; aluminum sash; mezzanine will have resilient tile flooring; pool will be 35'x75', with poured concrete structural frame, gunnite lining. The building will be constructed on piling.

PD 1-15. Previous report 12-12

**WAREHOUSE— Kennewick, Wash.**
(Estimated cost $15,000)

Construction will start soon on a new one-story warehouse at E. Kennewick Ave. and Date St., Kennewick, for Snyder's Bread, Inc., of Yakima, according to Jim Snyder, secretary-treasurer, Snyder's Bread, Inc., 31 N. 4th Ave., Yakima. AC 1-13

**CHURCH (First Presbyterian)— Kennewick, Wash.**
(Estimated cost $250,000)

Construction will start in the spring on the first unit of Kennewick Presbyterian Church at Kennewick Ave., between Sharon and Underwood streets, according to Robert Brown, chairman of the church building council. Plans by Durham, Anderson & Freed, architects, 1100 Denny, Seattle.

The first unit of the structure will consist of a 275-seat sanctuary; Fellowship Hall, and several church school rooms. AM 1-15

**MOTEL— Kennewick, Wash.**
(Estimated cost $500,000 to $750,000)

Plans are being formulated by an undisclosed hotel firm to construct a motel on Clover Island, Kennewick. Structure to be two-story, with 70 units. MH 1-15

**REPAIR SHOP— Larson AFB, Wash.**

Invitation for bids is cancelled on construction of an aircraft engine inspection and repair shop at Larson Air Force Base near Moses Lake, Grant County, Wash.; ENG-45-164-59-17. A previous announcement stated that Corps of Engineers, Bldg. 602, City County Airport, Walla Walla, would open bids in April. The project has been delayed indefinitely. If and when the project is advertised, another notice will be issued.

DM 1-13. Previous report 1-3

**●SWIMMING POOL— Longview, Wash.**

Bids will be opened 5:30 p.m., P.S.T., February 11, by Longview School District No. 112, Scott Milligan, Superintendent, 28th and Lilac, Longview, for construction of an L-shaped, 122'x122' building to contain an 82'x75' poured concrete swimming pool, at Lower Columbia Junior College, west of Mark Morris High School gymnasium.

Plans with McGuire & Muri, architects, 231 Broadway, Tacoma.

Slanted built-up roof, rising to a height of 28'; t&g decking; rigid insulation in roof; brick veneer over concrete blockwalls (locker portion); reinforced concrete; upper portion of building will have plastic panels set in sash; lower part will be vertical lift glass doors, opening pool to outdoor area in warm weather; connection with existing steam heating system; cement concrete terrace with 30' wading pool.

KT 1-15. Previous report 12-17

**●BUILDING (BPA)— Longview, Wash.**

Bids will be opened 2 p.m., P.S.T., February 16, by Bonneville Power Administration, procurement section, Branch of Supply, 1001 N.E. Lloyd Blvd., Portland, Ore., for construction of a communications maintenance building, Longview Substation, Cowlitz County; Inv. No. 8918. Specifications available from Portland office. $10 deposit. Bid guaranty 25%. Completion time 120 calendar days. RM 1-9

**★ELECTRICAL SERVICE— Monroe, Wash.**

Award to Industrial Electric, 2701 Hewitt, Everett, $8,646, by Department of General Administration, General Administration Bldg., Olympia, for electrical service to the Industrial Furniture Factory at the Washington State Reformatory at Monroe. Bids were opened December 15.

DE 1-14. Previous report 12-17

**ELEMENTARY SCHOOL (Shasta Park)— Mountlake Terrace, Wash.**

Bids may be called about February 1 by Edmonds School District No. 15, Edmonds, for construction of the 38,500 sq. ft., eight-building, semi-campus plan, Shasta Park Elementary School on 39th W. near 222nd S.W., Mountlake Terrace. Working drawings are nearing completion by Dan Miller, architect, 404 Main St., Edmonds. Structural engineers are Anderson-Bjornstad-Kane, Hoge Bldg., Seattle; mechanical engineers are Kane &

Ervin, 3105A Eastlake, Seattle; electrical engineer is Beverly A. Travis, Medical Arts Bldg., Seattle.

Flat built-up roof; rigid insulation in roof; open web steel joists; concrete block exterior walls; aluminum sash; plastic skylights; some concrete block, some drywall partitions; 2" plank ceiling with acoustical system with conversion units to warm air; drive-in area surfaced with crushed gravel (alternate bituminous surfacing).

PD 1-14. Previous report 11-13

**●JUNIOR HIGH SCHOOL—** **Oak Harbor, Wash.**
(Estimated cost $637,506)

Bids will be received until 3 p.m., January 29, by Oak Harbor School District No. 201, Wilbur Gilbert, superintendent, Oak Harbor, for construction of the three-building, one-story, 52,986 sq. ft., 18-classroom Oak Harbor Junior High School. Plans with Charles Rueger & Associates, architects, 225 Tacoma Ave. S., Tacoma. $50 deposit. Certified check, cashier's check, bid bond, 5%.

Building will contain 18 classrooms, gymnasium, shower and locker rooms, kitchen facilities, administration area, library, music room.

Structural components—concrete footings, foundation; block walls with brick veneer; concrete slab floor; glued laminated beams; flat roof with steel in gymnasium; masonry and frame partitions; aluminum windows with steel alternate; porcelain enamel insulated panels. Finish construction — brick veneer, aluminum trim; exposed masonry, drywall, painted partitions; maple floor in gymnasium; other flooring of asphalt, vinyl and ceramic tile; acoustical ceilings; wood doors and cabinets. Plastic skylights, blackboards and corkboard; fluorescent and incandescent lighting.

PC 1-14. Previous report 1-6

**PANCAKE HOUSE—** **Opportunity, Wash.**
(Estimated cost $65,000)

Plans have been announced by PAR Realty Co., S. 159 McClellan, Spokane, to erect a pancake house at Park Road and Sprague, Opportunity (Spokane Valley). Structure will be 60'x32', with seating capacity for 110, and parking for 50 cars. Construction will start in the spring. MH 1-15

**●METAL FIRE ESCAPE—** **Pasco, Wash.**

Bids will be opened 10 a.m., January 22, by Pasco School District No. 1, Herman Jaeger, superintendent, 517 N. 3rd, Pasco, for furnishing and installing metal outside stairways to replace present fire escape ladders at Whittier School, E. Lewis St., Pasco. Specifications with Victor Louis Wulff, architect, W. 1526 Riverside, Spokane. $10 deposit. DM 1-13. Previous report 12-30

**COOP BUILDING—** **Pasco, Wash.**

Plans are being formulated by Washington Cooperative Farmers Association, Robert E. Scott, manager, 1929 S. Hartford, Kennewick, for construction of a building on 12th St., Pasco. Construction will start in the spring. MH 1-15

**STORE ADDITION (WSC)—Pullman, Wash.**
(Estimated cost $60,000)

Bids may be called later this year by Washington State College, Pullman, on construction of an addition to the college's Central Stores Bldg. located on Farmway, according to Sherman C. Markley, college superintendent of buildings and grounds. HH 1-9

**RAILWAY DEPOT (Great Northern)—** **Quincy, Wash.**
(Estimated cost $50,000)

Construction will start in May or June on a new 125'x30' railway depot, to replace present depot, located at 3rd Ave. N., Quincy, according to R. H. Shober, railroad division superintendent. Railway construction crews will build the new structure.

The building will consist of a waiting room, ticket office, telegraph office, facilities for handling mail and baggage, express room, freight warehouse, heating plant. AC 1-13

**★BUILDING ADDITIONS (AEC)—** **Richland, Wash.**

Award to Raymond J. Britton, Box 667, Richland, $68,320, by Atomic Energy Commission, Box 550, Richland, for constructing additions to buildings in the 100-K area at Hanford Works. Completion time 120 calendar days. RM 1-14. Previous report 1-9

**●REMODEL TELEPHONE BUILDING—** **Richland, Wash.**

Bids from a select list of contractors will be received until 2 p.m., January 27, by General Telephone Co., in office of Culler, Gale, Martell & Norrie, architects and engineers, Realty Bldg., Spokane, for remodeling the company's central office building, 236 Williams Blvd., Richland. Work will include additional facilities for heating and air conditioning, and space for additional telephone equipment to be owner-installed. PC 1-14

**●BUILDING ADDITION (AEC)—** **Richland, Wash.**

Bids will be opened February 17 by Atomic Energy Commission, Box 550, Richland, for construction of a 28'x10' building addition for personnel decontamination facilities in the 200-W area at Hanford Works. Specifications available from above office. Completion time 90 calendar days.

Single-story wood frame unit; concrete foundation; porch; asbestos-cement shingle siding and roofing; cabinet; exhaust fans; lighting; miscellaneous piping. RM 1-14

**MAPLE VALLEY LIBRARY—Renton, Wash.**

Volunteer labor will be used for construction of the 600 sq. ft. Maple Valley Library, a branch of King County Library, 1100 E. Union, Seattle. Structure will be located next to the telephone building and will be on stilts and pier posts. Plans by Johnston & Campanella, architects, 213 Wells St., Renton, call for cedar and plywood panel exterior, flat built-up roof; t&g roof; glass stopped in wood; asphalt tile flooring; acoustical tile ceiling; electric baseboard heating. Construction will allow for future expansion. PD 1-9. Previous report 8-27

**★FEED MILL—** **Rosalia, Wash.**
(Estimated cost $150,000)

Award to Rosalia Ready Mix, Rosalia, (amount not released) by Rosalia Producers, Inc., Gil Anderson, manager, Rosalia, for construction of foundation for a feed mill at Rosalia. Other contract awards for construction of the mill will be announced later. Completion date, end of March. MH 1-4

**▲BUILDING ADDITIONS (AEC)—** **Richland, Wash.**

Eight bids were received January 8 by Atomic Energy Commission, Box 550, Richland, for constructing additions to buildings in the 100-K area at Hanford Works. LOW BIDS: Raymond G. Britton, Box 667, Richland, $68,320; Frank H. Lohse, 2700 E. Lewis, Pasco, $69,690; Jensen-Rasmussen & Co., Box 89, Sunnyside, $69,890. Government estimate $75,000. DM 1-9

**★APARTMENT—** **Seattle, Wash.**

Award to E. T. Hinrichs, 418 Lloyd Bldg., Seattle, (no amount given), by Marie Baines, owner, for construction of a 12-unit, three-story, partial basement, 13,500 sq. ft. apartment building in the 500 block on Belmont N., Seattle. Bid were opened October 24. AM 1-13. Previous report 10-18

**★RECTORY (Sacred Heart)—Seattle, Wash.**

Award to N. D. MacDonald, 1518 4th N., Seattle, $217,901 (basic), by Sacred Heart Parish, Very Reverend Gerald Bolger, C.SS.R., Seattle, for construction of an 18,500 sq. ft., two-story rectory to house Redeptorist Fathers, on the northwest corner of 2nd Ave. N. and John St., Seattle. Plans by John W. Maloney, architect, 754 Central Bldg., Seattle. Eight bids received at January 8 bid opening. PD 1-13. Previous report 12-26

**▲WAREHOUSE—** **Seattle, Wash.**

Twelve bids ranging from a low of $80,485, by Century Construction Co., 2301 Western, Seattle, to a high of $96,250, were submitted to Hancock Building Co., owners, for construction of a 94'x180' warehouse at 512 Westlake N., Seattle. Plans by Bittman Sanders, architects, 301 Securities Bl Seattle. Bids opened January 9. PD 1-13. Previous report 1

**▲SCHOOL (South Angle Lake)—** **Seattle, Wa**

Twelve general, nine mechanical and electrical bids received at January 8 opening by Highline School District No. Carl Jensen, superintendent, 253 S. 15 Seattle, for construction of the 16-classro 34,400 sq. ft., two-building South An Elementary School. Plans by Bassetti Morse, architects, Tower Bldg., Seat LOW BIDS—GENERAL: Anderson Constr tion Co., 1155 S. 9th, Tacoma, $256, MECHANICAL: Harold Jewell, 6605 6th A Tacoma, $113,465. ELECTRICAL: Hor Electric Co., 215 Marion St., Seattle, $32, PD 1-10. Previous report 12

**●FLOOR COVERING—** **Seattle, Wa**

Bids will be opened 9:30 a.m., January by King County Commissioners, 402 Cou City Bldg., Seattle, for furnishing and stalling approximately 2,125 sq. ft. asphal tile floor covering, 1/8"x9"x9" Armstr C907 or approved equal. Specifications w building superintendent's office, 317 Cou City Bldg. Certified check or bid bond DM 1

**●BANK (Seattle-First National)—** **Seattle, Wa**

Bid opening has been extended to 2 p. January 20, for construction of the Int national Branch bank building on 6th Ave and Jackson St., Seattle. Bids will opened by Seattle-First National Bank private opening, 2nd Ave. and Che Seattle. Plans by Durham, Anderson Freed, architects, 1100 Denny Way, Seat Previous bid opening date was January Reinforced concrete with slab-on-gra brick veneer; aluminum trim; flat built insulated, concrete roof structure; pla partitions, steel studs; terrazzo flooring, tral steam heating system. PD 1-14. Previous report

**●ROOF REPAIRS, COATING—** **Seattle, W**

Bids will be opened 2 p.m., Februar by 13th Naval District, Public Works Of Bldg. 250, U. S. Naval Station, Seattle, roof repairs and coating, Bldg. No. 4, Naval Supply Depot, Seattle; Spec. 18463/58. Specifications available from lic Works Office. Bid guarantee 20%. includes patching the roof, preparatio surfaces, application of glass cloth m brane and application of asphalt base e sion roof coating. RM

**●HEATING SYSTEM—** **Seattle, W**

Bids will be received until 2 p.m., Fe ary 3, by Seattle Housing Authority, Yesler Way, Seattle, for furnishing installing gas-designed gravity warm heating systems at the High Point Hou Project, 3000 W. Graham St., Seattle. includes furnshing labor and materia quired for installation of heating syste any or all of four groups of 746 apartm at the housing project. PC

**●ROOF REPAIRS—** **Seattle, W**

Bids will be opened 2 p.m., February 13th Naval District, Public Works Of Bldg. 250, U. S. Naval Station, Seattle roof repairs and coating, Bldg. No. 5, Naval Supply Depot, Seattle; Spec. 18465/58. Specifications available from lic Works Office. Bid guarantee 20%. includes patching, preparing surfaces, a ing glass cloth membrane and asphalt e sion roof coating. RM

**RECREATION CENTER—Soap Lake, W**
(Estimated cost $1,100,000)

Construction will start in the spring recreation center in Soap Lake, accor to E. K. Rushton, mayor, Soap Lake. center will consist of three large alumi dome buildings, the first of which wi 145' in diameter and 46' high, estimate cost $150,000, and will be located o acres of city-owned beach. A

▲**SCHOOL (Sacajawea Junior High)— Spokane, Wash.**

Awards have been recommended to low bidders by Spokane School District No. 81, 503 4th Ave., Spokane, on construction of Sacajawea Junior High on a 12½-acre site at 33rd Ave. and Lamonte St., Spokane. Plans by Whitehouse, Price, DeNeff & Deeble, architect, 715 Hutton Bldg., Spokane. Bids were opened January 7.

LOW BIDS—GENERAL: Selkirk Co., Inc., S. 1508 Chestnut, $931,500; Johnson-Busboom-Rauh, N. 601 Cedar, $960,951; Henry George & Sons, Hutten Bldg., $998,627. MECHANICAL: James Smith Plumbing and Heating, N. 216 Division, $241,254; Standard Plumbing and Heating, E. 1801 Sprague, $247,900; Warren, Little & Lund, 120 W. 2nd, $249,022. ELECTRICAL: Power City Electric, E. 601 Trent, $129,780; L & I Electric, N. 1321 Ash, $130,903; Kehne-Crabtree Electric, N. 416 Helena, $131,213. All of Spokane.

DM 1-10. Previous report 12-27

■ **POST OFFICE ANNEX— Spokane, Wash.**

Additional planholders announced for construction of a terminal annex facility for the post office department in Spokane. Bids will be opened 2 p.m., January 20, by post office headquarters in Washington, D.C. Plans may be seen at office of Whitehouse, Price, DeNeff & Deeble, Hutton Bldg., Spokane.

Additional planholders: Patterson-Emerson-Comstock, 3247 Grand, Oakland, Calif.; Utah Construction Co., 100 Bush St., San Francisco, Calif.; Norris, Beggs & Simpson, 711 S.W. Alder, Portland, Ore.; Ryan Construction Co., 333 Griggs Midway Bldg., St. Paul, Minn. PC 1-13. Previous report 1-3

● **BUILDINGS, PARKING APRON (Geiger Field)— Spokane, Wash.**

Bids will be opened 2 p.m., P.S.T., February 4, by National Guard Bureau, office of the U.S. property and fiscal officer, Bldg. 4, Tacoma Naval Annex, 5114 Steilacoom Blvd. S.W., Tacoma, for construction of approximately 53,200 sq. yd. of building facilities (four buildings), relocation of two buildings and related utilities, and construction of a parking apron at National Guard facilities at Geiger Field in Spokane; Inv. No. NG-45-113-59-4. Plans may be obtained at Bldg. 2501, Geiger Field, Spokane. $50 deposit. Bid bond 20%. DM 1-9

**FRUIT STAND— Spokane Valley, Wash.**

(Estimated cost $10,000)

Plans have been announced by Scott Renfrom, E. 13204 Sprague, Spokane, for possible construction of an 80'x40' brick veneer fruit stand on a two-acre plot adjacent to an existing stand. MH 1-10

■ **LIBRARY— Tacoma, Wash.**

Planholders announced on construction of a one-story (100'x63') and basement (27'x19') masonry, library for the South Tacoma Branch at S. 56th and Puget Sound streets, Tacoma. Bids will be opened 11 a.m., January 19, by Board of Trustees of Tacoma Public Library in the office of the city clerk, 305 City Hall, Tacoma. Plans with E. L. Mills & Associates, architect, 308 S. Tacoma Ave., Tacoma. $20 deposit. Certified check, cashier's check or bid bond 5%. Mechanical engineer is Whitson & Mill & Associates; electrical is Howard Schroedel, 2903 S. 40th St., Tacoma.

Planholders: Construction Engineers and Contractors, 801 Port of Tacoma Road, Tacoma; Lauren L. Shafer, 3802 N. Adams, Tacoma; Bona Fide Builders, 11012 Pacific Ave., Tacoma; Mel Pedersen, Box 2366, Tacoma; Woodard Construction Co., 3842 Frace, Tacoma; Ketner Bros., Inc., 419 St. Helens, Tacoma; Kirkebo & Son, 1410 Mountain View, Tacoma; Merritt Construction Co., Century Bldg., Tacoma; Lloyd Green, 5625 S. Adams, Tacoma; Rome Co., 3721 S. Tacoma Way, Tacoma; Perry Construction Co., 2220 Peasley Canyon Road, Federal Way; Brynestad Builders, 8906 S. 35th, Tacoma; Levage Construction Co., Inc., Box 2355, Parkland.

Tacoma Builders, 7808 S. 48th, Tacoma; J. F. Graham Co., Inc., 1408 S. 141st, Tacoma; Korsmo Bros., 5944 Lake Grove Ave. S.W., Tacoma; Jardeen Bros., 1240 S. Sprague, Tacoma; Claude C. Purvis, 4936 S. Sheridan, Tacoma; Absher Construction Co., RFD 5, Box 134, Puyallup; Rushforth Construction Co., 102 S. 24th, Tacoma.

DM 1-10. Previous report 12-24

▲**LODGE (Eagles)— Walla Walla, Wash.**

Bids were opened by Fraternal Order of Eagles, Aerie No. 26, 7 E Alder St., Walla Walla, for construction of a lodge and bowling alley in Walla Walla. Plans by Thomas O. Williams & Associates, architect, 20 S.E. 3rd St., College Place. Bids were opened January 7.

GENERAL: E. Chuck Mardis, 1208 S. 3rd, Walla Walla, $169,700; O. D. Keen Co., 515 N. Bellevue, Walla Walla, $181,204; Johnson-Busboom-Rauh, 601 N. Cedar, Spokane, $183,631; A. Ritchie & Co., 2102 Melrose, Walla Walla, $199,616; Raymond J. Britton, Box 667, Richland, $218,300.

MECHANICAL: W. R. O'Rourke Co., S. 2nd, Walla Walla, $91,210.

ELECTRICAL: Noland-Gage Electric Co., 1540 E. Alder, Walla Walla, $31,700; Royal Co., Kennewick, $34,265.

COMBINED BID: Sceva Construction Co., N. 2928 Madelia, Spokane, $375,000.

DM 1-10. Previous report 1-6

● **OFFICE BUILDING (General Telephone)— Wenatchee, Wash.**

(Estimated cost $30,000)

Bids will be opened 2 p.m., January 29, by General Telephone Co., 100 S. Chelan, Wenatchee, in office of Culler, Gale, Martell & Norrie, architects and engineers, Realty Bldg., Spokane, for construction of a one-story, 65'x52' office and equipment building in Wenatchee. PC 1-14

★**STATE HIGHWAY PROJECT (Ventilating System)— Yakima, Wash.**

Award recommended to low bidder, Central Steel & Paint Co., Box 13, Yakima, $4,316, by R. H. Pyle, district engineer for Washington State Highway Commission at the Yakima office, for construction of a truck and diesel equipment gas ventilating system in the shop building at Yakima.

IG 1-10. Previous report 12-20

● **CHURCH ADDITION— Yakima, Wash.**

(Estimated cost $30,000)

Bids will be opened 8 p.m., February 3, in office of architect, Champ Sanford, 602 S. 5th Ave., Yakima, for construction of an educational wing addition to the Broadway Christian Church, Loren Arney, pastor, 1115 S. 5th Ave., Yakima. Plans available from architect, above address.

A main floor is to be added to the basement. Concrete block and Shalex exterior walls; exposed masonry with paint finish interior walls; built-up, gravel and sloping roof; heavy 4x6 roof decking; some masonry and some frame with plaster and paint finish partitions; aluminum sashes; plywood with asphalt tile floors.

In addition to this main floor, a new wing will be added and will consist of concrete basement and a main floor of same type of construction as other part of building. Extension of existing oil-fired forced warm-air heating system.

IG 1-14. Previous report 12-26

★**DEMOLISH BUILDINGS— Yakima, Wash.**

Award to C & E Construction Co., Inc., 2002 Rudkin Road, Yakima, amount not released, by Louden Estate, National Bank of Commerce, Trustee, Yakima, for demolition of four buildings from alley on Chestnut St. to Front St., and two buildings on S. Front St., Yakima. Space to be made into parking lots for the bank. IG 1-14

**SCHOOL ADDITION (Summitview Elementary)— Yakima, Wash.**

Bond issue has been approved by Yakima voters to finance construction of a five-classroom addition to Summitview Elementary School, Yakima County, for West Valley School District No. 208, Route 4, Yakima. Plans are being prepared by John S. Villesvik, architect, and Maurice Smith, associate, 109 N. 3rd Ave., Yakima. Previous report PCD 1-9 was in error.

IG 1-14. Previous report 1-9

## IDAHO

**FAIR GROUNDS— Lewiston, Idaho**

The Nez Perce County Fair Board, Hugh Parks, chairman, Juliaetta, Idaho, has decided to purchase a new site for the Nez Perce County fair. The new, 12½-acre site is located in Lewiston Orchards, which means separating the fair program from the Lewiston Roundup location in North Lewiston. Some new buildings will be constructed, and possibly one building, previously used by the fair, will be moved from the present Roundup site to the new location. MH 1-9

**MEDICAL BUILDING— Priest River, Idaho**

Plans are being discussed by a group of Priest River citizens for construction of a medical and dental building in Priest River, P. K. Woods, acting chairman. A drive is being held by civic and fraternal organizations for financing the project. MH 1-14

**CHURCH (Lutheran)— Sand Point, Idaho**

Working drawings will soon be underway by Oliver Olson, architect, 2437 Market St., Seattle, for a one-level and partial basement, three-unit church plant for First Lutheran Church in Sand Point.

PD 1-14. Previous report 10-15

**MUSEUM— Spalding, Idaho**

Decision on a possible fund raising campaign for construction of a museum building in Spalding has been postponed by the Spalding Museum Foundation, Inc. Members of the foundation said that they would meet again soon to consider a goal for the drive and to set a time to start the proposed fund raising. The foundation plans a museum building to preserve historical items from the settlement of north central Idaho towns. The structure would be built west of Spalding Park on land optioned by the non-profit corporation. Chairman of the foundation is Howard Hechtner, Lapwai, Idaho. DC 1-15

▲**DOORS— Twin Falls, Idaho**

Four bids received January 13 by General Services Administration, Room 126, 909 1st Ave., Seattle, for construction of new entrance doors at the U.S. Post Office and Courthouse in Twin Falls; Proj. No. SEA-1286. BIDS: Reynolds & Walker, Box 363, Twin Falls, $994; Watkins Construction Co., Box 1786, Boise, $1,033; Earl B. Peck, 1410 Poplar Ave., Twin Falls, $1,566; Jensen & Ullman Contractors, 120 Larkspur Drive, Twin Falls, $1,586.

PD 1-15. Previous report 12-24

## MONTANA

● **BUILDING, UTILITIES— Billings, Mont.**

Bids will be opened 2:30 p.m., February 4, by Corps of Engineers, Bldg. 602, City County Airport, Walla Walla, Wash., for construction of ARC building, motor vehicle shed and related facilities at Billings, Mont.; ENG-45-164-59-16. Plans with Walla Walla office. Bid bond 20%. Completion time 300 calendar days for building and utilities, and 450 days for lawn.

Work will involve 1—construction of one two-story, 15,600 sq. ft. reinforced concrete and masonry building with electric, sewer, water and gas utilities; air conditioning will be as an additive dependent upon available funds, 2—construction of one 3,800 sq. ft. reinforced concrete and masonry building with electric, water and gas utilities, 3—construction of water, sewer, electric and gas utilities; asphaltic concrete pavement; curbs and gutters, concrete sidewalks, chain link fencing; lawn grass establishment.

AC 1-13. Previous report 12-24

**AIRMEN'S DORMITORY (Repair)— Cut Bank AFS, Mont.**

Bids held under advisement until January 28 by 4061st Air Base Group, procurement

office at Malmstrom Air Force Base, for repair of an airmen's dormitory at Cut Bank Air Force Station. Five bids were submitted December 29.
KT 1-15. Previous report 1-8

**▲OFFICE, STORE BUILDING— Helena, Mont.**

Seven bids ranging from a low of $28,630 by Fred Strandberg, 2112 Villard, Helena, to a high of $33,764, were submitted for remodeling the second floor of the Sanford Wilson Bldg., 316 N. Main St., Helena. Plans by Ostheimer & Compreau, architect, Granite Bldg., Helena. Bids were opened January 6. LS 1-10. Previous report 1-2

**▲ELECTRICAL WORK— Malmstrom AFB, Mont.**

Ten bids were received by Corps of Engineers, Bldg. 602, City County Airport, Walla Walla, for electrification of a hangar at Malmstrom Air Force Base, Great Falls, Mont.; ENG-45-164-59-13. LOW BIDS: Cascade Electric Co., 903 10th Ave. N., Great Falls, $10,750; G. S. Electric Co., 3010 67th S.E., Mercer Island, Wash., $10,881; Rainbow Electric Co., 2220 River Drive, Great Falls, $11,516. HI: A. J. Popp Construction Co., E. 2810 Garland Ave., Spokane, Wash., $18,556. DC 1-10. Previous report 12-23

**▲BUILDING ADDITION— Malmstrom AFB, Mont.**

A low basic bid of $4,680 with alternates of $4,340 and $3,860 was submitted to procurement office, Malmstrom Air Force Base by Canoy Construction Co., 1304 2nd S.W., Great Falls, for construction of an addition to an existing building on the base. Government estimate was $5,000. DC 1-9

**▲CHURCH (First Presbyterian)— Missoula, Mont.**

Nine basic bids ranging from a low of $121,367 by Walter Varnum Construction Co., Box 983, Coeur d'Alene, Idaho, to a high of $145,826, were submitted to First Presbyterian Church, 201 S. 5th W., Missoula, for construction of a two-story, 6,100 sq. ft. (each floor) Christian education building to existing church. Bids opened January 9. Plans by Eddy, Carlson & James, architects, 1205 N. Washington, Spokane, Wash. Alternates will probably reverse order of low bidders.

OTHER BIDS: Pew Construction Co., Box 1222, Missoula, $121,585; Hefte Construction Co., E. 11607 Trent Ave., Spokane, Wash., $122,984; Gyrion Construction Co., Box 72, Kalispell, $126,000; Gordon Construction Co., Box 319, Missoula, $126,463; Petersen Construction Co., Box 922, Missoula, $127,000; Pulley & Lesley Co., 1719 River Road, Missoula, $139,910; Smith & Roberts, Box 6086, Spokane, Wash., $142,233; Sceva Construction Co., N. 2829 Madelia, Spokane, Wash., $145,826. PC 1-14. Previous report 12-30

**▲AIRMEN'S DORMITORY (Repair)— Opheim AFS, Mont.**

An apparent low bid of $18,800 was submitted by Riordan Construction Co., 2009 2nd S., Great Falls, for repair of airmen's dormitory at Opheim Air Force Base. Bids were opened at the procurement office at Malmstrom Air Force Station. Government estimate was $13,000. DC 1-9

**MACHINERY BUILDING—Townsend, Mont.**

Plans to rebuild a hardware-farm machinery building in Townsend, destroyed by fire have been announced by D. W. Neifer and H. G. White, owners, Townsend. Estimated fire loss $165,000. AC 1-15

**●HIGH SCHOOL— Wibaux, Mont.**

Bids will be opened 10 a.m., February 20, by Wibaux School District in the office of county clerk, Courthouse, Wibaux, for construction of a new high school building at Wibaux. Plans with Edwin G. Osness, architect, 2714 10th Ave. N., Billings. Separate bids on general, mechanical and electrical contracts.

A bond issue for $500,000 to finance construction of the school was recently approved by voters.
EE 1-15. Previous report 7-3

# ALASKA

**OFFICE BUILDING— Anchorage, Alaska**

Construction will start in the spring on the proposed 11-story Hickel-Halbouty office building in downtown Anchorage. Owner is Hickel-Halbouty Investment Co. The firm was formed by Walter Hickel, contractor, 720 Gambell St., Anchorage, and Michael T. Halbouty of Houston, who recently formed the Halbouty Alaska Oil Corp., First National Bank Bldg., Anchorage. Plans are being prepared by Hedrick & Stanley, architects, Houston, Tex., and Edwin B. Crittenden & Associates, architects, 835 9th Ave., Anchorage.

The above firm is also planning an 11-story hotel in downtown Anchorage. Cost of the two structures will total approximately $10,000,000.
DC 1-9. Previous report 11-26

**HOTEL (Captain Cook)—Anchorage, Alaska**

Construction will be started in the spring on an 11-story hotel in downtown Anchorage. Owner is Hickel-Halbouty Investment Co. This firm was formed by Walter Hickel, contractor, 720 Gambell St., Anchorage, and Michael T. Halbouty of Houston, Tex., who recently formed the Halbouty Alaska Oil Corp., First National Bank Bldg., Anchorage.

The above firm is also planning an 11-story office building in downtown Anchorage. Cost of the two structures will total approximately $10,000,000. DC 1-9

**★APARTMENT (CAA)— Bettles, Alaska**

Award to Smith & Co., Graehl, $150,167 (building with full basement), by Civil Aeronautics Administration, contract and purchase section, 219 E. 5th Ave., Anchorage, for construction of a three-unit, court-type, frame apartment building at Bettles Field; No. 5-59-58.

The following items are included in the contract: 1,950 c.y. borrow excavation; 800 c.y. stripping; 6,000 sq. ft. lawn; 2,000 gal. underground fuel storage tank; 60' of 4" cast iron soil pipe; one reinforced concrete septic tank; 345' of 4" wood stave effluent line; 30' water well and pipe; shallow well pump; reinforced concrete manhole with effluent pumps and controls; 115' effluent drainage ditch. PC 1-14. Previous report 1-3

**●TERMINAL (Railroad)—Fairbanks, Alaska**

Bid opening has been extended to 2 p.m., February 20, on construction of a passenger terminal building in Anchorage. Bids will be opened by superintendent of operations of Alaska Railroad in the office of the Alaska Architectural and Engineering Co., architects and engineers, 710 3rd Ave., Fairbanks (Box 509). Plans with architects. Previous bid opening date was January 15.

Plans have been changed to relocate the new building in the area near the existing passenger terminal. The new structure will have space for lobby, ticket agent's office, traffic offices, railway express office, baggage space, accessory areas.

Reinforced concrete foundation; concrete floor slab; glued laminated beams and columns; wood roof deck; built-up roofing; acoustical tile; wood frame walls; plasterboard, vinyl fabric and cedar on interior walls; cedar and A.C. board panels on exterior walls; insulating glass; asbestos plastic floor tile; ceramic tile in toilets; acoustical tile ceilings; hot water heating system with ventilating units in lobby; combined fluorescent and incandescent lighting.

Planholders: Moore & Mosley Construction Co., Box 1011, Fairbanks; Industrial and Commercial Construction, 1412 4th, Fairbanks; Fairbanks Builders, Inc., 1446 Turner St., Fairbanks; Pacific Construction Co., 1051, Fairbanks; Canoro Construction, 750, Fairbanks; Morrison-Knudsen Co., 603 Hoge Bldg., Seattle, Wash.; Smith & Box 230, Fairbanks; Wilbur & Bell Co., Noble, Fairbanks.

Gordon R. Johnson Plumbing and Hea 1012 Kellum, Fairbanks; Whitney Plumbing and Heating, Box 926, Fairba Urban Plumbing and Heating, 28 Graehl, Fairbanks; Acme Electric Co., Box 532, Fairbanks; Lilley Electric Co., 1681, Fairbanks.

Pitcher Construction Co., 613 Fair Burgess Construction Co., Box 1410, banks; Rosentreter & Findley Construc 906 Woodlawn, Fairbanks; The Bachner 1603 Bannister Road, Anchorage; Inlet struction Co., Box 3095, Anchorage; C Builders, Inc., 1619 8th Ave. N., Se Wash.; J. B. Warrack, 400 2nd Ave. Seattle, Wash.

Chandler Plumbing and Heating, Inc. 534, Fairbanks; Y & O Plumbing and ing, Inc., 513 Gaffney Road, Fairbanks Electric of Anchorage, Box 3698, Eastc Branch, Anchorage; Hall Electric Co., Box 1062, Fairbanks; Modern Electric, 4515, Spenard. DM 1-9. Previous report

**●HOSPITAL— Kotzebue, A**

Bid opening has been extended to 2 January 27, on construction of a 50-bed eral hospital at Kotzebue, Alaska; Proj ABU-PH-7. Bids will be opened in office of the Bureau of Indian Af Geology Bldg., University of New Me Albuquerque, New Mexico. Earl R. is chief of the contract unit of the Bu Plans may be obtained from Virgil R. F Seattle liaison officer, 107 Federal Bldg., Seattle. Bids were to have opened January 8.

Drawings and specifications must b turned to the B.I.A. Terminal, Pie Seattle, after opening of bids. Certifi cashier's check 5%.

Plans are on file for examination at office, Box 741, Anchorage; area Room 603, Lincoln Bldg., 208 S.W. 5th, land, Ore., and branch of plant desig construction, B.I.A., 3005 Central N.E. buquerque, New Mexico.

Description of Work—Total floor ar approximately 56,200 sq. ft., which wi clude a one-story hospital building two penthouses; a one-story service w two-story hospital building with two houses; a one-story service wing; a story duplex apartment with full base a two-story, 20-unit apartment building full basement.

General Construction — Hospital, frame with insulated metal roof deck, forced concrete floors, wood studs, pl board partitions, cement-asbestos wall e ing over insulated exterior walls, hot heat. Hospital operating room and de room, air conditioned; forced venti main kitchen and dishwashing; gravity tilation elsewhere. Duplex apartment, construction. 20-unit apartment bu similar to hospital except main floor second floor, wood over steel bar Concrete walks, gravel drives, and all ities included. DM 1-10. Previous repo

**CURLING RINK— Ladd AFB, A**

Bids were rejected at the January opening by U.S. Air Force, base pr ment office, Ladd Air Force Base, Fair for modification of Bldg. T-3517 to p a curling rink on the base; IFB 65-500 AM 1-9. Previous report

**●BUILDING REHABILITATION— Sitka,**

Bids will be opened 1 p.m., Febru by U.S. Army, Alaska Communi System, in the office of the contr officer, 421 Federal Office Bldg., S Wash., for rehabilitation of Quarters Building No. 4, Alaska Communicatio tem, Sitka, Alaska; SC 45-041-59-9. with above Seattle office and Alaska munication System offices in Juneau, I ikan, and Sitka. Bid bond 5%. Comp time 170 days.

Work involves painting, replacing g downspouts and 300' of outside drop flooring, other items. D

**Advance news on contemplated construction projects that are not yet on the drawing boards; profitable leads on building and engineering jobs; the latest information on bid openings; contract awards for buildings, highway and street work, sewer and water works, reclamation jobs, throughout the Far West and Alaska, will be found in these columns.**

# ENGINEERING NEWS

**Oregon, Washington, Idaho, Montana, Northern California, Alaska**

- ● Bids Called
- ★ Contract Awards
- ▲ Low Bids—Bids Received
- ■ Planholders—Prospective Bidders

## OREGON

**▲LIGHTING (Airport)— Albany, Ore.**

Nine bids ranging from a low of $12,743 by Lebanon Electric Co., 66 E. Sherman, Lebanon, to a high of $38,671, were submitted to City Council, City Hall, Albany, for construction of medium intensity lighting system at the municipal airport in Albany. Bid opening January 9.

AM 1-14. Previous report 12-23

**▲RUNWAY, TAXIWAY (Municipal Airport)— Albany, Ore.**

Three bids received by City Council, City Hall, Albany, for widening the north-south runway and constructing a taxiway at the Municipal Airport, Linn County, Albany; Federal Proj. No. 9-35-001-03. Bids were submitted on two proposals at the January 9th bid opening.

BIDS: Roy L. Houck & Sons, 1585 N. 20th St., Salem, $19,940 (Proposal 1), $17,900 (Proposal 2); Western Paving & Construction Co., 115 E. 2nd Ave., Albany, $24,117, $20,280; Morse Bros. Construction Co., 66 E. Sherman, Lebanon, $25,827, $21,137.

AM 1-14. Previous report 12-31

**●SEWAGE PLANT EQUIPMENT (Installation)— Chiloquin, Ore.**

Bids will be opened at 8 p.m., February 6, P.S.T., by City Council, City Hall, Chiloquin, on rebid for installation of necessary piping, equipment, controls and other accessories required to place in operation a trickling filter and rotary clarifier plus other incidental work necessary to complete the city sewage treatment plant. Specifications containing addendum regarding City of Chiloquin furnishing all vitrified clay filter under drainage tile for trickling filter available from William L. Wales, Jr., civil and structural engineer, 4512 Clinton Ave., Klamath Falls, or from Lloyd Peters, city clerk, City Hall, Chiloquin. $25 deposit. Certified check, cashier's check or bid bond 5%.

Five bids ranging from $6,500 to $16,600 received January 9 by City Council, City Hall, Chiloquin, for installation of necessary piping, equipment, controls and other accessories required to place in operation a trickling filter and rotary clarifier plus other incidental work necessary to complete the city sewage treatment plan. All bids were rejected because of a misunderstanding among bidders as to amounts of pipe and concrete to be furnished by City of Chiloquin. ZZ 1-15. Previous report 1-6

**★FURNISH ROCK— Eugene, Ore.**

Awards announced by Lane County Commissioners, Courthouse, Eugene, for furnishing rock at three project sites—Wolf Creek Road, 45,000 c.y.; Cottage Grove, 15,000 c.y.; Bloomberg Road, 4,400 c.y. Bids were opened December 23.

AWARDS—Wolf Creek: L. P. Stubblefield, Box 341, Eugene, $84,250. Cottage Grove: Cottage Grove Sand & Gravel Co., Mt. View, Cottage Grove, Ore., $22,500. Bloomberg Road: T. C. Wildish, Box 345, Eugene, $6,540.

AM 1-10. Previous report 1-3

**■SEWAGE PLANT, SEWERS— Hood River, Ore.**

Planholders announced on construction of a sewage treatment plant (Sched. T) and interceptor sewer (Sched. I) on which bids will be opened 2 p.m., P.S.T., January 28, by City Council, City Hall, Hood River. Plans with Cornell, Howland, Hayes & Merryfield, consulting engineers 1600 Western Ave., Corvallis. $40 deposit. Certified check, cashier's check or bid bond 5%. Separate or combination bids on the two schedules.

Planholders—PRIME: Mid-State Construction Co., 810 Union, The Dalles; Lee Hoffman, 415 N.W. Cedar, Beaverton; Trio Construction Co., 3170 W. 11th, Eugene; Edington Plumbing and Electric, 921 12th, Hood River; Charles R. Schmiedeskamp, 1008 S.W. 6th Ave., Portland; George W. Lind, 5000 N.E. Killingsworth, Portland; P. S. Lord Mechanical Contractors, 4507 S.E. Milwaukie, Portland; Cherf Bros. Inc. and Sandkay Contractors, Inc., Ephrata, Wash.; Riverside Construction Co., Box 3853, Portland; L. F. Henshaw, 2260 Olive, Eugene; Jensen-Rasmussen & Co., Inc., Box 89, Sunnyside, Wash.; Buchanan Co., Inc., 1518 N.E. Killingsworth, Portland; Phoenix - Matthews, Inc., 2415 N.E. Alberta; Pettijohn Engineering Co., Inc., 4145 N.E. Cully Blvd., Portland; Lord-Carroll, Inc., 4507 S.E. Milwaukie, Portland; Schrader Construction Co., Inc., 3621 S.E. 52nd Ave., Portland; L. D. Copenhagen, Box 493, Oswego.

Suppliers: Pacific Water Works Supply Co., 2900 1st Ave. S., Seattle, Wash.; American Pipe and Construction Co., Box 1898, Portland; The Burhans-Sharpe Co., 1731 1st Ave. S., Seattle; Dorr-Oliver, Inc., 420 1st Ave. W., Seattle; Packard Pipe and Pump Co., 554 14th Ave., Longview; United Concrete Pipe Corp., Box 425, Baldwin Park, Calif.; Wallace & Tiernan, Inc., 337 Pittock Block, Portland; William S. Turner & Co., Pacific Bldg., Portland; Link-Belt Co., 400 Paul Ave., San Francisco, Calif.; R. H. Brown & Co., Dexter Horton Bldg., Seattle; Hammon Iron Works, Box 310, Provo, Utah; Pacific Pumping Co., 526 N.W. Broadway, Portland; Southern Pipe and Casing Co., Box C, Azusa, Calif.; Process Engineers, Inc., 420 Peninsular Ave., San Mateo, Calif.; H. D. Fowler Co., Inc., Box 3084, Seattle.

DM 1-10. Previous report 12-23

**●APRON ACCESS, TAXIWAY— Kingsley Field, Ore.**

Bids will be opened 11 a.m., February 6, by 408th Fighter Group, base procurement office, Kingsley Field, Klamath Falls, for construction of apron access taxiway at Kingsley Field; Proj. KLF 47-8, Inv. No. 59-24. Plans and specifications with above office.

Work includes excavation of 1,010 cu. ft. of earth, and surfacing as specified. ZZ 1-13

**●CONCRETE PARKING APRON (Kingsley Field)— Klamath Falls, Ore.**

Bids will be opened at 11 a.m., February 5, by Harry F. Keating, base procurement officer, 408th Fighter Group, Kingsley Field, for constructing a concrete parking apron at Kingsley Field, Klamath Falls; Proj. KLF 34-6; Bid 59-23.

Unit bids will be received for furnishing and applying 1,190 c.y. of concrete and doing all necessary work to construct a parking apron at Kingsley Field. ZZ 1-13

**▲SEWER— Medford, Ore.**

Five bids ranging from low of $11,891 (basic), $11,456 (alternate) by F. L. Somers, 2410 N. Pacific Highway, Medford, Ore., to a high of $15,914, $15,414, were submitted to City Council, City Hall, Medford, for construction of sanitary sewer lines, pumping station and installation of pumping equipment in Eastover Terrace and Hillcrest Road, Medford. Bid opening January 8.

AM 1-13. Previous report 1-3

**■FENCING— Mt. Hebo AFS, Ore.**

Planholders announced by Corps of Engineers, 1519 S. Alaskan Way, Seattle, Wash., for security fencing in operation area at Mt. Hebo Air Force Station, Ore.; ENG-45-108-59-39. Bids will be opened 2 p.m., P.S.T., January 21. Plans with Seattle office. Bid bond 20%. Completion time 180 calendar days.

Planholders: R. L. Greene, 5103 N.E. 42nd Ave., Portland; John M. King Co., 1601 Taylor Way, Tacoma, Wash.; R. I. Randolph Construction Co., 3815 Welty Ave., Salem; Cyclone Fence Dept., 1150 Fairview Ave. N., Seattle; El Dorado Fence Co., Box 6531, Seattle; Colorado Fuel & Iron Corp., 3150 N.W. 31st Ave., Portland; Hannan Bros. Co., 3225 N.E. Going St., Portland; Permapost Products Co., 806 E. Main St., Hillsboro, Ore.; Allied Construction Co., Inc., Box 124, Parkwater Station, Spokane; W. J. Browning Construction Co., Beaver, Ore.; Paul Tholl, 910 F St., Sparks, Nev.; Mt. Hood Fence Co., 13249 S.E. King Road, Portland; San Jose Steel Co., Inc., 723 N. Tillamook St., Portland. AM 1-15. Previous report 1-9

**●SEWAGE PLANT HEATING SYSTEM— Myrtle Point, Ore.**

Bids will be opened 7:45 p.m., February 2, by City Council, City Hall, Myrtle Point, for installation of a heating system in the secondary sewage treatment plant. Plans available from R. H. Erichsen, 5th and Highland, Coos Bay. $20 deposit.

The plant was built six years ago without a heating system. Plans call for steam injection system to heat digester sludge; a supernatant recirculation pump with cast iron steam boiler; repair of cracked concrete dome on digest. DC 1-10

**STREETS— Portland, Ore.**

Bids rejected by City Auditor, Ray Smith, City Hall, Portland, for improvement of N. Saratoga St. from N. Newcastle Ave. to N. Boston Ave. WB 1-13. Previous report 10-28

**MOTOR TRUCK SCALE— Portland, Ore.**

Bids rejected by City Purchasing Agent, 208 City Hall, Portland, for a motor-truck scale with ticket printing device, installed in place for the Bureau of Refuse Disposal.

WB 1-13. Previous report 11-22

**★FILTERS, SLURRY TANKS— Portland, Ore.**

Award to Sparkler Manufacturing Co., Weatherly Bldg., Portland, $21,019, by City Purchasing Agent, 208 City Hall, Portland, for three diatomaceous filters, slurry tanks and feed pump units for the Bureau of Parks. WB 1-9. Previous report 12-27

**●VENTILATION TOWER (Restoration)— Portland, Ore.**

Bids rejected by City Purchasing Agent, 208 City Hall, Portland, for restoration of the ventilation tower in public restroom on the northeast corner of S.W. 6th Ave. and Yamhill St. A. C. Bardi submitted the only bid, $2,484. WB 1-9. Previous report 12-20

**★METER BOXES (Cast Iron)— Portland, Ore.**

Award to Northwest Foundry & Furnace Co., 2345 S.E. Gladstone Ave., Portland, $35,079, by City Purchasing Agent, 208 City Hall, Portland, for cast iron meter box frames and covers, valve boxes, manhole frames and covers, sidewalk frames and covers, for Bureau of Water Works.

WB 1-9. Previous report 12-18

**▲INLET GRATINGS, FRAMES— Portland, Ore.**

Three bids ranging from a low of $8,610 by Industrial Iron Works, 6011 S.W. Macadam Ave., Portland, to a high of $12,375, were received January 7, by City Purchasing Agent, 208 City Hall, Portland, for furnishing cast steel inlet gratings and frames during 1959, to Department of Public Works.

WB 1-9. Previous report 12-20

**●CHECK VALVES— Portland, Ore.**

Bids will be opened 2 p.m., January 21, by City Purchasing Agent, 208 City Hall, Portland, for flanged horizontal swing and flanged tilting disc check valves for Bureau of Water Works. Certified check or bid bond 10%. WB 1-9

**●TEMPERATURE ASSEMBLIES— Portland, Ore.**

Bids will be opened 2 p.m., P.S.T., January 30, by Corps of Engineers, 628 Pittock Block,

Portland, for fabricating, factory testing and delivering six sanitary temperature assemblies to C. F. Georgeson, U. S. Warehouseman, Corps of Engineers, 636 Pittock Block, Portland; CIVENG-35-026-59-108. Plans may be obtained from 628 Pittock Block. DM 1-9

**PARKING LOT— Portland, Ore.**

The former Francis and Hopkins Motor Co. building at S.W. 6th Ave. and Madison St., Portland, is being razed in preparation for construction of a surface parking lot. The property is owned by Standard Insurance Co., 812 S.W. Washington St., and will be leased. Razing is to be completed in March, with the lot completed by June 1. WB 1-9

**PARKING LOT— Portland, Ore.**

The old Y.W.C.A. building at S.W. Broadway and Taylor St., Portland, will be razed to make way for a surface parking lot. The property was acquired by Jensen Investment Co., Jackson Tower, in exchange for land on the Hilton Hotel site. WB 1-9

**PAVING (Airfield)— Portland, Ore.**

Bids will be called soon for opening late in January by Corps of Engineers, 1519 S. Alaskan Way, Seattle, Wash., for runway access taxiway and airfield paving at the Portland International Airport, Portland, Ore.; ENG-45-108-59-52. Plans available at above Seattle office. Bid bond 20%. Completion time 180 calendar days.

Work involves removal or demolition of two buildings, barbed wire entanglement, and brick chimney; relocation of two buildings; construction of a runway storm drainage system; removal and replacement of approximately 150' of 15" sanitary sewer lines; lowering approximately 220' of 6" water line; construction of approximately 160' of water line protective sleeving; approximately 64,000 c.y. of excavation; 36,000 sq. yd. subgrade preparation; 5,000 c.y. select fill; 8,000 c.y. base course; 4,000 c.y. subbase course; 6,000 tons asphaltic concrete; 370 tons asphaltic cement; 70 tons asphaltic prime coat; 30 tons asphaltic tack coat; 1,100 c.y. topsoil; 16 acres of fertilizing and seeding; 400' of security fence; taxiway lighting system including lights, conductors, concrete duct banks. DM 1-10

**▲WELL DRILLING— Portland, Ore.**

Three bids ranging from a low of $3,624 by A. M. Jannsen Drilling Co., 21075 S.W. Tualatin Valley Highway, Aloha, to a high of $4,268, were received January 8 by Oregon Centennial Commission in the office of Stewart & Richardson, architects, 219 S.W. Stark St., Portland, for drilling and casing a 165' well, at the Pacific International Bldg. Jannsen asked $19.50 per foot over 165. WB 1-10

**●HYDRAULIC TURBINES— Portland, Ore.**

Bids will be opened 2 p.m., P.S.T., February 17, by Corps of Engineers, 628 Pittock Block, Portland, for furnishing two 21,700 hp hydraulic turbines fob Oakridge, Ore., for use at Hills Creek Reservoir, Willamette River Basin, Ore.; CIVENG-35-026-59-107. Plans with Portland office. DM 1-10

**●GRADING, BRIDGE (BPR)— Portland, Ore.**

Bids will be opened 2 p.m., January 27, by Bureau of Public Roads, 824 Morgan Bldg., 720 S.W. Washington, Portland, for grading 4.2 mi. and constructing 160' reinforced concrete bridge, Ore. Timber Access Road Project BLM-68-D, Smith River Road, Bureau of Land Management-Coos Bay District, Douglas County, Ore. Plans with Portland office.

Quantities: 151,600 c.y. excavation; 34 acres clearing, grubbing; 244 c.y. concrete; 56,500 lb. reinforcement steel; 332' steel bridge railing; 2,100' culvert pipe. DM 1-13

**●ENGINE-GENERATOR UNIT (BPA)— Portland, Ore.**

Bids will be opened 2 p.m., P.S.T., January 30, by Bonneville Power Administration, 1001 N.E. Lloyd Blvd., Portland, for furnishing two engine-generator units, trailer mounted, to consist of liquid or air-cooled engine suitable for operation on gasoline, a-c generator with exciter, steel skid base, weatherproof housing, necessary controls and transporting trailer; Inv. No. 8919. Specifications with above office. DM 1-13

**●POWER CIRCUIT BREAKERS (BPA)— Portland, Ore.**

Bids will be opened 2 p.m., P.S.T., January 29, by Bonneville Power Administration, 1001 N.E. Lloyd Blvd., Portland, for furnishing and delivering three power circuit breakers, 115/92 kv, 450 kv BIL, 1,200 ampere, 3,500,000 kva interrupting rating, five cycle interrupting time, for line and bus switching duty; and one power circuit breaker, 230/180 kv, 825 kv BIL, 1,600 ampere, 15,000,000 kva interrupting rating, three cycle interrupting time for line and bus switching duty; plus spare parts set; Inv. No. 8908. Specifications with Portland office. DM 1-13

**●CRUSHED GRAVEL— Portland, Ore.**

Bids will be opened 10:30 a.m., January 27, by Multnomah County Commissioners, John W. West, purchasing agent, 504 County Courthouse, Portland, for furnishing screened crushed bank gravel production at Vance Pit; Proj. No. 326. Specifications with roadmaster, 2115 S.E. Morrison St., Portland. $2 charge. Certified check or cashier's check, 10%. WB 1-14

**▲PINTLE CHAINS— Portland, Ore.**

Electric Steel Foundry Co., 2141 N.W. 25th Ave., Portland, submitted only bid, $11,316, to City Purchasing Agent, 208 City Hall, Portland, for four sets pintle chains, each set with two lengths 115' long, for Bureau of Sewage Refuge & Disposal. VC 1-15. Previous report 12-31

**★DISCONNECTING SWITCH (BPA)— Portland, Ore.**

Award to Schwager-Wood Corp., 8024 S.W. 35th Ave., Portland, $68,565, by Bonneville Power Administration, 1001 N.E. Lloyd Blvd., Portland, for furnishing two disconnecting switches, 115 kv, 1200 amperes, three-pole, group-operated, for horizontal upright mounting without grounding blades, with insulators and one of same with grounding blades; Inv. No. 8907. Delivery 170 calendar days at Eavan Spur, Vancouver, Wash. Bid opening December 30. AM 1-15. Previous report 12-12

**★CRUSHED ROCK MATERIALS, FENCING— Salem, Ore.**

Awards announced by Marion County Commissioners, room 110, Courthouse, Salem, for crushing and stockpiling rock and for fencing. Bids were open December 29.

AWARDS—Crushing and Stockpiling rock near Maclay: Central Paving Co., Box 38, Independence, Ore., $70,425. Crushing and stockpiling near Little North Fork of the Santiam River; Stevenson Rock Products Co., 2575 Mission, Salem, $43,586.

San Jose Steel Co., Inc., 2472 Willamette, Eugene, $7,688, had previously been awarded contract for installing chain link fencing topped by three strands of barbed wire at county shops. AM 1-13. Previous report 1-10

**■STATE HIGHWAY PROJECTS— Salem, Ore.**

Planholders announced on 17 state highway projects on which bids will be opened 9 a.m., January 20, by Oregon State Highway Commission, 418 State Highway Bldg., Salem. Awards will be made at the commission meeting in Salem on January 22.

STOCK PRODUCTION, Burnt Hill Creek-Brookings Section—Approximately 7,700 c.y. crushed materials in stockpile on Oregon Coast Highway north of Brookings, Curry County; a State Project.

Planholders: Asphalt Paving Co., Box 547, Klamath Falls; Dolan Construction Co., Box 113, Tillamook; Peter Kiewit Sons' Co., Box 1777, Vancouver, Wash.; F. L. Sommers, Box 668, Medford.

ROCK PRODUCTION, Sisters Vicinity—Approximately 10,000 c.y. crushed materials in stockpiles on Santiam, McKenzie and McKenzie-Bend highways, Deschutes County; a State Project.

Planholders: Asphalt Paving Co., Box 547, Klamath Falls; Bend Aggregate and Pav... Co., Route 2, Box 66, Bend; Babler Br... Inc., 4617 S.E. Milwaukie Ave., Portla... Central Heating Co., 865 Olive St., Euge... J. N. Conley, 4332 N.E. Royal Court, Po... land; Dolan Construction Co., Box 113, Til... mook; Vernie Jarl, 438 S. Roberts St., Gr... ham; F. H. McEwen, 1673 Villard, Euge... McNutt & Sons, Inc., Springfield; C. ... Meisel, Box 206, McMinnville; Charles ... Parker, N.E. Cully and Columbia Blv... Portland; Arthur Simonsen & Co., ... Grandview, Baker; N. A. Toole Construct... Co., 1211 N.W. 3rd, Ontario; F. E. Wilbur... 924 E St., Springfield.

TRAFFIC SIGNALS, Bend—Install traf... signals on Greenwood Ave. at 3rd St. ... Bend, Deschutes County; State Project.

Planholders: Brighter Homes Electric... 855 1st Ave. W., Eugene; Econolite Cor... Lloyd Bldg., Seattle; Electric Corp., 1270 W... bur St., Salem; Lebanon Electric Co., Leb... non; Leo J. Proby, Smith Tower, Seatt... Trowbridge & Flynn, 214 W. Main St., Me... ford; Trowbridge Electric Co., 622 'S... Jackson, Roseburg.

BRIDGE, Bear Creek—Widening bridge ... Curtin Interchange on Pacific Highw... about 10 mi. south of Cottage Grove, Dou... las County; FAP I-5-3(5)163. Involves co... struction of 32.9' additional width to existi... 200' reinforced concrete deck girder brid... over Bear Creek and Bear Creek Road.

Planholders: Orlando C. Bennard, 222 N... Holland St., Portland; B & H Construct... Co., Boring; M. J. Brassfield Co., 975 In... perial Drive, Salem; H. G. Carl Construct... Co., 1210 S. 22nd, Salem; M. R. Holst, Oa... ridge; Hamilton & Thoms, Box 728, Euge... Inter City Sand and Gravel Co., Inc., 2... Franklin Blvd., Eugene; Tom Lillebo Co... struction Co., Reedsport; George W. Mill... Jr., 330 Sunset Drive, Eugene; Pacific Co... crete Co., 10401 N.E. Marx, Portland; Gle... Snook, 2191 Friendly, Eugene; Steel Co... struction Co. of Oregon, 5300 N.W. Fre... W., Portland; Valley Construction Co., 6... N.E. Columbia, Portland; Sig Anderso... 1371 Bayview, Coos Bay.

ROCK PRODUCTION, Princeton-Foll... farm — Approximately 10,000 c.y. crush... materials in stockpiles on the Crane-Sco... Butte Highway about 58 mi. southeast ... Burns, Harney and Malheur counties; ... State Project.

Planholders: Asphalt Paving Co., Klam... Falls; Central Heating Co., Eugene; Do... Construction Co., Tillamook; C. E. Lesebe... Nyssa; C. C. Miesel, McMinnville; Charles ... Parker, Portland; Arthur Simonsen & ... Baker; N. A. Toole Construction Co., ... tario; Willis Bros., Winnemucca, Nev.

GRADING, Hood River-Shogren Sectio... Grading 6.02 mi. of Columbia River Hi... way east from Hood River, Hood River ... Wasco counties; FAIHP No. I-80N-3(9... Involves 574,000 c.y. embankment in pla...

Planholders: J. M. Arenz, 1601 N.E. ... lumbia Blvd., Portland; P. J. Anderson ... Sons, 13501 Aurora Ave., Seattle; Bab... Bros., Inc., Portland; George E. Blaisdell ... Son and Shirley G. Stone & Son, Oswe... Cedar Creek Logging Co. and A. O. Farb... Sweet Home; J. N. Conley, Portland; K. ... Dack, Pendleton; G. D. Dennis & Sons, Po... land; Durbin Bros., Route 5, Box 490, ... gene; General Construction Co., 4850 N... Front, Portland; Gibbons & Reed Co., B... 4989, Portland; Carl M. Halvorson, Inc., B... 1449, Portland; A. L. Hardin, Inc., Stayt... Roy L. Houck & Sons, 1589 N. 20th, Sale... E. C. Hall Co., 12012 S.W. Barbur Blv... Portland; R. A. Heintz Construction Co., ... N.E. Columbia Blvd., Portland; John Havil... Scappoose; Erland & Blickle, Box 1945, Po... land; Vernie Jarl, Gresham.

John L. Jersey, Inc., 3647 S.E. 34th, Po... land; Peter Kiewit Sons' Co., Vancouv... Wash.; Kuckenberg Construction Co., 11... N.E. Holman, Portland; Max J. Kuney C... N. 102 Ralph, Spokane, Wash.; Natt M... Dougall Co., 824 Pittock Block, Portla... Morrison-Knudsen Co., Inc., 212 S.E. 1... Pendleton; Miller & Hutchins, Roseburg... S. S. Mullen, Inc., 646 Holgate, Seattl... Earl L. McNutt Co., 351½ E. Broadwa... Eugene; Newport Construction Co., 7031 N... Halsey, Portland; C. R. O'Neil, Creswe... Charles T. Parker, Portland; Rogers Co... struction Co., 11760 N.E. Glisan, Portland... Fred H. Slate Co., 7805 S.W. 40th, Portland... S. D. Spencer & Son, 4614 N.E. 72nd, Va...

couver; White Bros. Construction Co., Inc., Box 376, Walla Walla, Wash.

GRADING, Grants Pass-Jackson County Line Section—Grading 5.68 mi. of relocated Pacific Highway, north and east of Grants Pass, Josephine County; FAIHP No. I-5-1 (6)53.

Planholders: Guy F. Atkinson Co., 10 W. Orange Ave., South San Francisco, Calif.; George E. Berry, 2640 S.W. Cedar Hills Blvd., Beaverton; Babler Bros., Inc., Portland; Cherf Bros. Inc. and Sandkay Contractors, Inc., Box 938, Ephrata; J. C. Compton Co., McMinnville; J. N. Conley, Portland; G. D. Dennis & Sons, Portland; Donald M. Drake Co., 1600 N.W. Savier Portland; Durbin Bros., Route 5, Box 490, Eugene; Funderburk & Stoen, Sutherlin; Gibbons & Reed, Box 4989, Portland; Carl M. Halvorson, Inc., Portland; Roy L. Houck & Sons, Salem; E. C. Hall Co., Portland; R. A. Heintz Construction Co., Portland; Erland & Blickle, Portland; Vernie Jarl, Gresham; Peter Kiewit Sons' Co., Vancouver; Kuckenberg Construction Co., Portland; McCammon-Wunderlich Co., Box 359, Palo Alto, Calif.; Natt McDougall Co., Portland; Morrison-Knudsen Co., Inc., Hoge Bldg., Seattle; S. S. Mullen, Inc., Seattle; Earl L. McNutt Co., Eugene; Newport Construction Co., Portland; C. R. O'Neil, Creswell; Charles T. Parker, Portland; Fred H. Slate Co., Portland; F. L. Somers, Medford.

MAINTENANCE BUILDING, Halsey—Construct 36'x97'4" masonry block building with trussed rafters and aluminum roof, office plumbing and sewage disposal system, Linn County; a State Project.

Planholders: Gilbert Ballantyne, 121 Nevada Ave., Klamath Falls; Bardi General Contractors, Inc., Portland; Bickford Construction Co., Inc., 823 S.E. 28th Ave., Portland; Den Herders Construction Co., Inc., Box 307, Lebanon; B & H Construction Co., Boring; C. M. Corkum Co., Inc., 2630 S.W. 2nd Ave., Portland; Kern Electric Co., 122 N. Broadalbin, Albany; Meyer Construction Co., 208 Masonic Bldg., Silverton; George W. Millett, Jr., Eugene; Gilbert Roberts, Route 4, Box 419, Hood River; Lloyd G. Sperling, Tillamook; John M. Steinmuller, Jr., 907 W. 3rd, Eugene; Robert C. Wilson, Box 47, Corvallis; Wood, Johnson & Rose, Inc., Box 127, Corvallis.

ROCK PRODUCTION, Mehama Vicinity—Approximately 10,000 c.y. crushed materials in stockpiles on North Santiam, Mehama-Mill City and Albany-Lyons highways, Marion and Linn counties; a State Project.

Planholders: Central Paving Co., Independence; J. N. Conley, Portland; Dolan Construction Co., Tillamook; Vernie Jarl, Gresham; F. H. McEwen, Eugene; McNutt & Sons, Inc., Springfield; C. C. Meisel, McMinnville; Charles T. Parker, Portland; Stevenson Construction Co., 2045 S. 19th, Salem.

STORAGE BUILDING ADDITION, Salem—Construct 36'x112'3" concrete, tilt-up structure with aluminum roof, block partitions, toilet plumbing, septic tank and electric service, Marion County; a State Project.

Planholders: Erwin E. Batterman, 147 N. Commercial St., Salem; Bardi General Contractors, Inc., Portland; Bickford Construction Co., Inc., Portland; B & H Construction Co., Boring; Electric Corp., Salem; Kern Electric, Albany; C. A. Lantz, Salem; Monson & Sivers, 5000 S.E. 25th Ave., Portland; Mills Construction Co., 502 Kingwood Drive, Salem; John Steinmuller, Jr., 907 W. 3rd, Eugene; Wood, Johnson & Rose, Inc., Corvallis.

OVERCROSSING, Dodson—Construct 630' reinforced concrete and welded steel plate girder structure to carry Columbia River Highway traffic over the Union Pacific Railroad and the Crown Point Highway at Dodson, approximately four mi. easterly from Multnomah Falls, Multnomah County; FAIHP No. I-80N-2(10)3.

Planholders: Birkemeier Construction Co., Milwaukie; George E. Berry, Beaverton; Bethlehem Pacific Coast Steel Corp., Portland; Babler Bros., Inc., Portland; Orlando C. Bennard, Portland; M. H. Brassfield Co., Salem; J. E. Brown Co., 1000 S.E. 12th, Portland; C. M. Corkum Co., Inc., 2630 S.W. 3rd, Portland; Donald M. Drake Co., Portland; Louis Elterich Co., Box 868, Port Angeles, Wash.; Gibbons & Reed Co., Portland; General Construction Co., Portland; Gunderson Bros. Engineering Corp., Portland; Hannan Bros. Co., 3525 N.E. Going, Portland; Hamilton & Thoms, Eugene; Inter City Sand and Gravel Co., Inc., Eugene; Independent Iron Works, Inc., Oakland, Calif.

Peter Kiewit Sons' Co., Vancouver; Kuckenberg Construction Co., Portland; Lewis-Riffel, Inc., Swan Island, Portland; Lockyear & White, Inc., Box 687, Longview; Marshall Construction Co., Hermiston; C. J. Montag & Sons, 7805 N.E. Halsey, Portland; Richard L. Martin Co., Oswego; Pacific Concrete Co. and Otis P. Jordan, Portland; Pettijohn Engineering Co., Inc., 4145 N.E. Cully Blvd., Portland; Raymond Concrete Pile Co., 2323 N.W. Flanders, Portland; Rogers Construction Co., Portland; C. H. Savage Co., 4126 S.E. Milwaukie, Portland; Charles R. Schmiedeskamp, 1008 S.W. 6th, Portland; Schrader Construction Co., Inc., 3030 S.E. Hawthorne, Portland; Steel Construction Co. of Oregon, Portland; Valley Construction Co., 6100 N.E. Columbia Blvd., Portland; Willamette Tug and Barge Co., Portland; A. Young & Son Iron Works, Portland.

GRADING, PAVING, Rooster Rock State Park Area Extension—Grading and paving with asphaltic concrete about 22 mi. easterly of Portland, Multnomah County; a State

Planholders: Rex C. Ayres Construction Co., 7305 N.E. 29th, Portland; Howard Angell, Portland; J. Bacaloff Co., 6009 N.E. 60th, Portland; George E. Blaisdell & Son and Shirley G. Stone & Son, Oswego; Central Paving Co., Independence; J. N. Conley, Portland; K. C. Dack, Pendleton; G. D. Dennis & Sons, Portland; Dolan Construction Co., Tillamook; Walter Goodat, 1735 S.E. Union, Portland; A. L. Hardin, Inc., Stayton; E. C. Hall Co., Portland; John Havlik, Scappoose; Erland & Blickle, Portland; Inter City Sand and Gravel Co., Inc., Eugene; Vernie Jarl, Gresham; John L. Jersey, Inc., Portland; K. F. Jacobsen & Co., Inc., Portland; Kuckenberg Construction Co., Portland; John Luyben & Son, Inc., Portland; F. H. McEwen, Eugene; C. C. Meisel, McMinnville.

O & K Construction Co., Gresham; Oregon Asphaltic Paving Co., 0441 S.W. Porter, Portland; Pacific Concrete Co., Portland; H. M. Peterson Co., 13548 N.E. Glisan, Portland; Rogers Construction Co., Portland; Q. L. Rufener, Inc., Portland; Fred H. Slate Co., Portland; S. D. Spencer & Son, Vancouver; Silver Falls Construction Co., Silverton; The United Contracting Co., Box 5075, Portland; Walker & Green, Oregon City; Warren Northwest, Inc., Box 5072, Portland.

ROCK PRODUCTION, Elgin Rock Vicinity—Approximately 13,150 c.y. crushed materials in stockpiles on Weston-Elgin and Wallowa Lake highways near Elgin, Union County; a State Project.

Planholders: Cartwright Construction Co., Durkee; K. C. Dack, Pendleton; Dolan Construction Co., Tillamook; Vernie Jarl, Gresham; C. E. Leseberg, Nyssa; F. H. McEwen, Eugene; McNutt & Sons, Inc., Springfield; C. C. Meisel, McMinnville; Charles T. Parker, Portland; Arthur Simonsen & Co., Baker; N. A. Toole Construction Co., Ontario.

BRIDGE, Holgard Detour—Construct 440' pile trestle bridge with 22' roadway, consisting of four steel beam spans and 18 timber beam spans, to carry traffic on Old Oregon Trail Highway over the Grande Ronde River, and the Union Pacific Railroad tracks, approximately 4.5 mi. westerly of La Grande, Union County; FAP No. I-80N-6(12)247.

Planholders: George E. Berry, Beaverton; Bethlehem Pacific Coast Steel Corp., Portland; Bechtel Bros., 2107 Depot St., La Grande; Orlando C. Bennard, Portland; J. E. Brown Co., Portland; H. G. Carl Construction Co., Salem; C. M. Corkum Co., Inc., Portland; Louis Elterich Co., Port Angeles, Wash.; General Construction Co., Portland; Gunderson Bros. Engineering Corp., Portland; Hansen & Parr Construction Co., W. 315 Boone Ave., Spokane; Inter City Sand and Gravel Co., Inc., Eugene; Independent Iron Works, Inc., Oakland, Calif.; R. H. Jones, Hillsboro; Peter Kiewit Sons' Co., Vancouver; Tom Lillebo Construction Co., Reedsport; Morrison-Knudsen Co., Inc., Pendleton; Marshall Construction Co., Hermiston; Pacific Concrete Co., Portland; Roberts, Trout & Roberts, Hood River; Steel Construction Co. of Oregon, Portland; Valley Construction Co., Portland; A. Young & Son Iron Works, Portland; J. O. Young & Sons, Box 52, Nampa, Idaho.

BRIDGE, Eight Mile Creek—Construct 100' reinforced concrete deck girder structure on The Dalles-California Highway about seven mi. south of The Dalles Bridge, over the Columbia River, Wasco County; FAP No. F-102(3).

Planholders: D. Duane Amens, McMinnville; Bickford Construction, Inc., Portland; Orlando C. Bennard, Portland; B & H Construction Co., Boring; M. J. Brassfield Co., Salem; H. G. Carl Construction Co., Salem; Erick Enquist, Troutdale; R. H. Jones, Hillsboro; Richard L. Martin Co., Oswego; Pacific Concrete Co., Portland; Roberts, Trout & Roberts, Hood River; Rogers Construction Co., Portland; Q. L. Rufener, Inc., Portland; Schrader Construction Co., Inc., Portland; Glenn Snook, Eugene; Steel Construction Co. of Oregon, Portland; Valley Construction Co., Portland Willamette Tug & Barge Co., Portland; A. Young & Son Iron Works, Portland; J. O. Young & Sons, Nampa, Idaho.

TRAFFIC SIGNALS, Beaverton-Hillsdale Highway—Construct traffic signals on S.W. Laurelwood Drive two mi. east of Beaverton, Washington County; a State Project.

Planholders: Ace Electric Co., 3525 N.E. Broadway, Portland; Cascade Electric Co., Portland; Econolite Corp., Seattle; Gateway Electric Co., Portland; W. R. Grasle Co., Portland; Lebanon Electric Co., Lebanon; Leo J. Proby, Seattle; Trowbridge Electric Co., Roseburg.

UNDERCROSSING, Votaw Vicinity—Construction 160' reinforced concrete and rolled steel beam structure to carry SPRR over Middleton-Yamhill County Line section of Pacific Highway West, approximately nine mi. southerly from Tigard, with appurtenant grading and paving, Washington County; FAP No. FG-73(16).

Planholders: Birkemeier Construction Co., Milwaukie; George E. Berry, Beaverton; Bethlehem Pacific Coast Steel Corp., Portland; Babler Bros., Inc., Portland; Orlando C. Bennard, Portland; B & H Construction Co., Boring; Central Paving Co., Independence; J. C. Compton Co., McMinnville; C. M. Corkum Co., Inc., Portland; General Construction Co., Portland; Gibbons & Reed Co., Portland; Walter Goodat, Portland; Gunderson Bros. Engineering Corp., Portland; Hannan Bros. Co., Portland; Hamilton & Thoms, Eugene; Erland & Blickle, Portland; Inter City Sand and Gravel Co., Inc., Eugene; Inland Construction Co., Milwaukie; Independent Iron Works, Inc., Oakland, Calif.; Johnston & Bryant, Newberg; Peter Kiewit Sons' Co., Vancouver; Lewis-Riffel, Inc., Portland; Lockyear & White, Inc., Longview; C. J. Montag & Sons, Portland; Oregon Iron Works, Portland; Pacific Concrete and Otis P. Jordan, Portland; Palmberg Paving Co., Inc., Astoria; Pettijohn Engineering Co., Inc., Portland; Raymond Concrete Pile Co., Portland; C. H. Savage Co., Portland; Charles R. Schmiedeskamp, Portland; Schrader Construction Co., Inc., Portland; Steel Construction Co. of Oregon, Portland; Valley Construction Co., Portland; Willamette Tug & Barge Co., Portland; A. Young & Son Iron Works, Portland.

DM 1-15. Previous report 1-16

**★STATE HIGHWAY PROJECTS—**
**Salem, Ore.**

Award announced by Oregon State Highway Commission, Salem, on Overcrossing, SPRR and Pelican City Road, Klamath County. Bids were opened December 9.

OVERCROSSING, SPRR, and Pelican City Road—Construct 224' reinforced concrete overcrossing to carry The Dalles-California Highway over Southern Pacific Railroad and Pelican City Road, approximately 0.3 mi. north of city limits of Klamath Falls, Klamath County; FAP No. F-205(10).

AWARD: Peter Kiewit Sons' Co., Box 1777, Vancouver, Wash., $71,648.

AM 1-10. Previous report 12-13

## WASHINGTON

**▲WATER DISTRIBUTION SYSTEM—**
**Alderwood Manor, Wash.**

Bids were opened January 12 by Alderwood Water District, Alderwood Manor, on

two water system projects, 1—a supply main on 4th Ave. W., et al, involving 7,700' of 16" and 2,600' of 12" cast iron water main, and 2—LID 70 for water main from Nellis Road to Filbert Drive, et al, involving 8,700' of 6" cast iron water main and 13 fire hydrants.

SUPPLY MAIN, 4th Ave. et al—BIDS: Mallory & Compton, Inc., 13751 Aurora Ave., $95,752; Argentieri & Colarossi, 1815 Jackson, $95,923; Matt Malaspina, 1901 23rd S., $96,185; O. R. Alia, Inc., 3319 Dose Terrace, $96,506; Ace Construction Co., 7510 Roosevelt Way, $98,408; A. Jacaboni, 5232 49th S.W., $98,749; Shoreline Construction Co., 12519 15th N.E., $101,699; Frank Coluccio Construction Co., 7778 Seward Park Ave., $102,797; Thorburn & Logozo, 4608 36th S.W., $103,072; Harbert Construction Co., Box 491, Longview; $103,671; Valley Construction Co., 7722 Rainier, and Morrison-Knudsen Co., Inc., Hoge Bldg., (joint) $103,671; Tri-State Construction Co., 4025 45th S.W., $103,898; Westco Construction Co., 4347 Brooklyn, $109,021. Of Seattle unless otherwise indicated. Engineer's estimate $102,600.

LID 70 WATER MAIN—BIDS: Mallory & Compton, Inc., $31,028; Shoreline Construction Co., $31,915; Matt Malaspina, $32,745; O. R. Alie, $33,322; Argentieri & Colarossi, $33,919; Valley Construction Co. and Morrison-Knudsen Co., Inc., $35,682; Harbert Construction Co., $35,739; Tri-State Construction Co., $36,075; Westco Construction Co., $39,380. Engineer's estimate $34,000.

KC 1-15. Previous report 1-6

■ **SEWAGE TREATMENT PLANT—** **Bellevue, Wash.**

Additional planholders announced for construction of a sewage treatment plant, providing complete treatment for design flow of 0.75 MGD, together with effluent disposal facilities. Bids will be received until 8 p.m., January 22, by Lake Hills Sewer District, Thomas A. Kilburn, secretary, 15450 Lake Hills Blvd., Bellevue. Plans and specifications with Howard T. Harstad & Associates, consulting engineers, 2512 2nd Ave., Seattle.

Additional planholders: B. F. Turnbull, Inc., 4351 Leary Way, Seattle; Ostruske-Murphy, Inc., 1515 Center St., Tacoma; John Schade Construction Co., 151 N. 79th, Seattle; West Coast Mechanical Contractors, Milton; Process Engineers, Inc., Box 300, Salt Lake City, Utah; William S. Turner & Co., Pacific Bldg., Portland, Ore.; Ed Brehm, 9406 N.E. 32nd, Bellevue; Donald W. Close Co., 2921 13th S.W., Seattle; Frank Coluccio Construction Co., 7778 Seward Park Ave., Seattle.

PD 1-14. Previous report 1-7

● **LATERAL SEWERS— Bellingham, Wash.**

Description has been given below on construction of the Birchwood lateral sewer project involving 50,000' of lateral sewer mains. Bids will be opened 9:30 a.m., January 19, by Board of Public Works, City Hall, Bellingham. Proposals may be submitted on any or all of the four branches of the lateral system—north, west, east and south. Specifications available from W. E. Cameron, city engineer, City Hall. $5 deposit. Certified check or cashier's check 5%.

Planholders: Croy Construction Co., 2502 Lakeway Drive, Bellingham; Bay Enterprises Co., 1155 Ellis, Bellingham; Richard J. Minor, 3300 W. Maplewood Bellingham; Axel Lind & Son, 1530 State St., Bellingham; Joe A. Jussell, 2084 Delesta Park, Bellingham; Bellingham Builders Supply Co., C and Maple St., Bellingham; Pacific Concrete Products, 8107 Highway 99, Everett.

The work includes some clearing and grubbing, trench excavation and backfill, installation of 8" and 12" sewer pipe, manholes, service tee side sewer connection, a pumping station.

1—North Branch: 24,500' of trench excavation and backfill; 22,800' of 8" sewer pipe; 6,900' of 4" side sewer connections. 2—West Branch: 9,300' trench excavation and backfill; 6,600' of 8" sewer pipe; 2,700' of 12" sewer pipe; 2,300' of 4" side sewer connections. 3—East Branch: 16,200' of trench excavation and backfill; 12,900' of 8" sewer pipe; 3,300' of 12" sewer pipe; 4,200' of 4" side sewer connections. 4—South Branch: 9,600' trench excavation and backfill; 7,700' of 8" sewer pipe; 1,900, of 12" sewer pipe; 900' of 4" side sewer connections; pump station.

Manholes, service tees, and other sewer line appurtenances included in each section.

DM 1-13. Previous report 1-6

**ROAD IMPROVEMENTS—** **Bellingham, Wash.**

(Estimated cost $21,000)

Whatcom County Commissioners, Courthouse, Bellingham, have authorized expenditures in the amount of $21,000 for county road improvements. Custer School Road will be improved with 9" of selected roadway ballast and 2" of crushed stone surfacing from the Creasy to the Blaine-Lynden roads, at a cost of $12,500; Jess Road, 9" of selected roadway ballast and 2" of crushed stone surfacing, for one mile from the Delta Line Road to the Sunrise Road, $4,200; 1,800' on the Central and LaSalle streets and Oriental Ave., 9" selected roadway ballast and 2" crushed stone surfacing, $4,500. ET 1-9

■ **DIVERSION TUNNEL—Bellingham, Wash.**

A revised list of planholders has been issued on construction of a 9,000' horseshoe section tunnel, from the site of the future dam on the Middle Fork of the Nooksack River, to Mosquito Lake flats. Bids will be opened 10 a.m., January 23, by Alfred B. Loop, city comptroller, City Hall, Bellingham. Plans with John W. Cunningham & Associates, consulting engineers, 1112 Portland Trust Bldg., Portland, and with the comptroller's office, City Hall, Bellingham. $25 deposit. Certified check or cashier's check 5%.

Planholders: Bay Enterprises, 1155 Ellis, Bellingham; Lewis Hopkins Co., Box 930, Pasco; Eiford Co., Inc., 1750 State, Bellingham; C. V. Wilder Co., 1840 State, Bellingham; Northwood, Inc., Box 366, Concrete; Belleview Enterprises, Vancouver, B.C.; Roy C. Hansen, 614 Donovan, Bellingham; Mountain States Construction Co., Golden, Colo.; A. J. Cheff Construction Co., 10054 W. Marginal Way, Seattle; Morrison-Knudsen Co., Inc., Hoge Bldg., Seattle; Northwest Consolidation and Gunite Co., 815 Blanchard, Seattle; Peter Kiewit Sons' Co., Box 968, Oroville, Calif.; Walsh Construction Co., 2 Pine St., San Francisco, Calif.; Gibbons & Read Co., San Francisco, Calif.; The Commercial Shearing and Stamping Co., Box 2036, Salt Lake City, Utah; Armco Drainage and Metal Products, Inc., Box 751, Portland, Ore.; Guy F. Atkinson Co., 10 W. Orange Ave., South San Francisco; Gates & Fox Co., Inc., Box 292, Sandy, Ore.; Fruin-Colnon Contracting Co., 1706 Olive St., St. Louis, Mo.

A. A. Mathews, 117 E. Colorado St., Pasadena, Calif.; Lord Bros. Contractors, 9233 N. Calvert, Portland, Ore.; Kemper Construction Co., 3701 Overland Ave., Los Angeles, Calif.; Gibson & Roberts, Box 200, Yardley; Perini Corp., 1404 Russ Bldg., San Francisco, Calif.; Valley Construction Co., 7722 Rainier Ave., Seattle. ET 1-10. Previous report 1-9

▲ **STEEL BARGE— Bellingham, Wash.**

Bids received by Port of Bellingham, Port Dock, Bellingham, for construction of a 90'x40' floating steel barge. Plans by Phil Brinck & Associates, naval architects and marine engineers, 1102 Westlake N., Seattle. Bids opened January 13. LOW BIDS: Star Iron and Steel Co., 435 E. 11th, Tacoma, $57,500 (delivery 41 days after April 1); $61,000 (delivery on April 1); Bellingham Shipyards Co., Squalicum Waterway, Bellingham, $59,225 (delivery April 1); Weldit Tank and Steel Co., 1806 Cornwall, Bellingham, $71,082 (delivery April 1).

PD 1-15. Previous report 12-30

**SCREEN, CASING, FITTING—** **Blaine, Wash.**

Bids will be called late in January by City Council, City Hall, Blaine, for 20" screen, 16" casing and fitting for test well development five mi. east of Blaine. Bid call is pending results of drilling by G. A. Benzona & Son, Ferndale.

ET 1-14. Previous report (Water Well) 11-5

● **POWER TRANSFORMER—** **Columbia Basin Project, Wash.**

Bids will be opened 2 p.m., M.S.T., February 3, by Bureau of Reclamation, Bldg. 53, Denver Federal Center, Denver, Colo., for power transformer for radar pumping plant switchyard (Block 21), Wahluke Branch Canal laterals, Columbia Basin Proj... Wash.; Inv. No. DS-5128. Rl...

■ **SEWERS, TREATMENT PLANT— Centralia, W...**

Additional planholders announced for ... struction modifications and improvem... to sewage treatment plant (Sched. 1), sew... pump station (Sched. 2) and sewage p... sure main (Sched. 3) in Centralia. ... will be opened 2 p.m., P.S.T., January ... by City Council, City Hall, Centralia. P... and specifications with Carey & Kra... consulting engineers, 1917 1st Ave., Sea...

Additional planholders: Cascade-Olym... Route 2, Box 133, Shelton; R. J. McCar... 17860 Ballinger Way, Seattle; Tri-State C... struction Co., 4025 45th S.W., Seattle; J... Luyben & Son, 14005 N.E. Halsey, P... land, Ore.; James Electric Co., 1504 Mar... Chehalis; Renaud Electric, 1166 Comme... Longview. PC 1-10. Previous report ...

★ **DRAINS (BuRec)— Ephrata, W...**

Award to Knapton & Yearout, Mou... Route, Moses Lake, $8,127, by Bure... Reclamation, Division Ave. and C St. N... Ephrata (Box 368) for construction of D... drain in Block 44 and DPE 218 drain ex... sion in Block 49, about eight mi. we... Othello, Adams County, Columbia ... Project; Spec. No. 117C-528. Bid ope... December 9. AM 1-10. Previous report ...

★ **LATERAL REVISION (BuRec)— Ephrata, W...**

Award to Duncan Construction Co... Broadway, Moses Lake, $12,068, by Bu... of Reclamation, Division Ave. and C... N.W. Ephrata (Box 368) for ELI8 la... revision—Block 40, located approxim... three mi. north of Moses Lake, Grant C... ty; Spec. No. 117C-529. Bid opening ... cember 11. AM 1-10. Previous report ...

★ **LATERALS, SIPHON (BuRec)— Ephrata, ...**

Award to M & S Construction Co., Eph... $6,362, by Bureau of Reclamation, Di... Ave. and C St. N.W., Ephrata (Box 368... lining extensions and siphon alteratio... laterals PE16.4 and PE14.7, Block 49, ... and south of Othello, Adams County, Co... bia Basin Project; Spec. No. 117C-533. ... opening December 18.

Am 1-14. Previous report ...

▲ **LATERALS, STRUCTURES— Ephrata, ...**

Bids received January 13 by Bure... Reclamation, Division Ave. and C St. ... Ephrata (Box 368), for construction of ... als and structures for additional d... facilities and for DE81C drain in Blo... and 46, Columbia Basin Project, ... Spec. 117C-537. Completion time 60 ...

LOW BIDS: Paul E. Hughes, 3023 W. ... Ave., Kennewick, $16,584; John M. ... Box 504, Pasco, $18,394; Floyd R. Grub... 20th S.E., Salem, $20,675. Governmen... mate $17,281. Five bids were submitte...

AM 1-14. Previous repor...

● **EARTHWORK, LINING, STRUCT... (BuRec)— Ephrata, ...**

Bids will be opened 10 a.m., P.S.T., ... ary 29 by Bureau of Reclamation, D... Ave. and C St. N.W., Ephrata, for earth... lining and structures, Blocks 45 and ... vicinity of Othello, Adams County, Col... Basin Project; Spec. No. 117C-544. ... with Ephrata office. Bid guarantee ...

Quantities: 570 c.y. lateral exca... 1,700 c.y. excavation from borrow; 3... c.y. overhaul; 320 c.y. placing earth ... for lateral; 320 c.y. compacting earth ... for lateral; 70 c.y. refill above earth ... 10 c.y. structure excavation; 620 c.y. ... fill about structures; 100 c.y. comp... backfill about structures; 280 c.y. pu... backfill about structures; 25 c.y. ripr... c.y. sand and gravel bedding for ripr... c.y. coarse gravel protection; 30 c.y. co... in structures; 45 bbl. furnishing, ... cement; 2,600 lb. furnish and place ... forcement bars; 0.37 MBM furnish, ... timber in walk planks; 216' of 15" st... strength, reinforced concrete culver... with type B joints; 144' of 18" same; ... 6" concrete irrigation pipe for air ...

three 18"x12" steel slide gates; six 24"x18" same; one 36"x24" same; six 15" cast iron slide gates; four 18" same; 140 lb. miscellaneous metalwork.

Completion time 40 days for all work except electrical and portions of automatic controls which will not be submerged after irrigation water is flowing in the laterals; all other work 70 days. DM 1-9

**● EMBANKMENT (BuRec)—Ephrata, Wash.**

Bids will be opened 10 a.m., P.S.T., January 29, by Bureau of Reclamation, Division Ave. and G St. N.W., Ephrata (Box 368), for repair of right embankment of East Low Canal, Fifth Section, Station 3447+00 to 3449+00, Grant County, about one mi. southwest of Warden, Columbia Basin Project; Spec. No. 117C-545. Specifications with above office. Bid guarantee 10%.

Quantities: 90 c.y. common excavation; 5 c.y. rock excavation; 400 c.y. excavation from borrow; 300 c.y. compacting embankment; 310 c.y. refill above compacted embankment; 200 mi. c.y. overhaul; 7 c.y. concrete in cutoff wall; 25 bbl. cement; 280 lb. reinforcement bars; 15' of 1½" grout pipes; 44' drilling grout holes; 50 cu. ft. grouting first 50 cu. ft., and 100 cu. ft. over 50 cu. ft. DM 1-13

**● TRACTOR— Everett, Wash.**

Bids will be opened 10 a.m., January 26, by Snohomish County Commissioners, Courthouse, Everett, for furnishing one used, 3-axle tractor for use by Snohomish County Road District No. 1. Specifications available from county purchasing department, above address. Price quoted to be fob Arlington. Delivery date must be given. HH 1-14

**▲ CEMENT-MORTAR LINING— Everett, Wash.**

Two bids received by City Council, City Hall, Everett, for cement mortar lining certain portions of Pipe Line No. 2 across the Snohomish River flat. Plans by John W. Cunningham & Associates, consulting engineer, 714 Portland Trust Bldg., Portland. Bid opening January 14.

BIDS: United American Pipe Co., Box 467, Auburn, Wash., $45,570, Pipe Lining Division of American Pipe Co., Box 1898, Piedmont Station, Portland, Ore., $64,500. HH 1-15. Previous report 12-16

**● APPROACH LIGHTING— Fairchild AFB, Wash.**

Bids will be opened 2 p.m., P.S.T., February 4, by Corps of Engineers, 1519 S. Alaskan Way, Seattle, for construction of approach lighting, Fairchild Air Force Base; ENG-45-108-59-50. Plans with Seattle office. Bid bond 20%. Completion time 150 calendar days.

Work includes installation of approach lighting system, involving 163,000' of Government-furnished cable, 17,000' of contractor-furnished cable and 1,700' direct burial duct bank; construction of substation vault, including equipment and 6,000' concrete encased duct bank; 4,000' of security fence and addition to generator room; furnishing and installing 250 kw diesel generator including generator switchgear, engine starting equipment, fuel tank and fuel lines, the cooling system, exhaust equipment, air lines, electrical conduit and wiring to the generator and switchgear and testing; electrical and other work in the existing night lighting vault and control tower; miscellaneous work. RM 1-14. Previous report 1-10

**● UNDERGROUND STORAGE— Fairchild, Wash.**

Bids will be opened 2 p.m., P.S.T., January 26, by Corps of Engineers, 1519 S. Alaskan Way, Seattle, for modification for storage of Nike Hercules underground missile storage structure type C at Fairchild, F-87L, Special AAA; ENG-45-108-59-47. The work under this invitation has been determined to be capable of performance by small business concerns and only bids from such concerns will be considered for award of contract. Plans with Seattle Corps of Engineers. Bid bond 20%. Completion time 60 calendar days.

Work will consist of exterior underground electrical work, installation of government furnished frequency changer, modification to interior electrical work in generator building and modification of elevator in underground storage structure. AM 1-15. Previous report 1-7

**★ WATER SYSTEM (Kopa-Chuck State Park)— Gig Harbor, Wash.**

Award to Harbor Pump & Drilling Co., Gig Harbor, $6,148, by State Park Commission for installation of water system, including pump and piping, throughout Kopa-Chuck State Park, located six miles southwest of Gig Harbor. AC 1-14

**● WASTEWAY, LATERAL EXTENSION— Grant County, Wash.**

Bids will be opened 10 a.m., P.S.T., January 29, by Bureau of Reclamation, room 218, Division Ave. and C St. N.W., Ephrata, for W53.1E1 wasteway and lateral extension—Block 79, located in Grant County, 21 mi. south of Quincy; Spec. No. 117C-543. Work includes (a) earthwork for and construction of 30' of 2-ft. bottom width lateral, a CHO turnout, and a check and pipe inlet; (b) earthwork for and construction of 2,430' of pipeline wasteway consisting of 15" irrigation pipe, 15" HC50 pressure pipe, and 18" corrugated metal pipe. Specifications available from P. R. Nalder, project manager, Box 368, Ephrata, or R. C. Lovelace, construction engineer, Othello Construction Field Division, Othello. Bid bond 10%. Completion time—30 days for riprap protection within the West Canal prism, 55 days for all other work.

Quantities: 1,255 c.y. excavation; 20 c.y. backfill about structures; 125 c.y. compacting backfill; 110 c.y. puddling backfill; 5 c.y. riprap; 4 c.y. coarse gravel protection; 6 c.y. concrete; 9 bbl. cement; 380 lb. reinforcement bars; 9' of 6" irrigation pipe; 2,250' of 15" concrete irrigation pipe, type A joints; 72' of 15" HC50 concrete pressure pipe, type R joints; 16' of 18" standard-strength reinforced concrete culvert pipe, type B joints; 110' of 18", 16 gauge, corrugated-metal pipe; 1 steel slide gate and lift, 24"x18"; 1 cast-iron slide gate and lift, 18"; .042 MBM timber in structures; 125 lb. miscellaneous metalwork. RM 1-9

**SWITCHBOARDS— Ice Harbor, Wash.**

Bids will be opened in mid-February by Corps of Engineers, Bldg. 602, City County Airport, Walla Walla, for furnishing station service switchboards at Ice Harbor Lock and Dam, Wash.; CIVENG-45-164-59-36. Specifications with Walla Walla office. Bid bond 20%. Delivery to be made not later than October 1. DM 1-13

**● EXCAVATION (Navigation Lock, Abutment)— John Day Dam, Wash.**

Bid opening has been extended to 2:30 p.m., January 22, for excavation for navigation lock and right abutment embankment and construction of railroad embankment at John Day Lock and Dam, Wash.; CIVENG-45-164-59-34. Bids will be opened by Corps of Engineers, Bldg. 602, City County Airport, Walla Walla. Plans with Walla Walla office. Bid bond 20%. Previous bid opening was set for January 14. DC 1-13. Previous report 1-2

**▲ ROCK CRUSHING— Kelso, Wash.**

Six bids received by Cowlitz County Commissioners, Courthouse, 309 Academy, Kelso, for crushing of several thousand yards of rock for the county. Rock is to be taken from Stella quarry, to be used on county roads. LOW BID: Vernie Jarl, Gresham, Ore., $98,815. PC 1-15

**STREET IMPROVEMENTS— Kennewick, Wash.**

(Estimated cost $1,400,000)

Plans are being formulated by City Council, William E. Hansen, city manager, City Hall, Kennewick, for various street improvements in Kennewick. Major project is paving a new roadway in East Kennewick, including two railroad underpasses (estimated cost $800,000). MH 1-14

**● WATER DISTRIBUTION SYSTEM— Kent, Wash.**

Bids will be received until 2 p.m., January 27, by King County Water District No. 87, at Thomas Fire Station, S. 280th St., Kent, for furnishing and installing approximately 15,000' of 8", 6" and 4" water mains, fire hydrants, fittings and appurtenances. Plans and specifications with Hill & Ingman, consulting engineers, 3104 Western Ave., Seattle. $5 deposit for special specifications. $3.50 deposit for standard specifications. Certified check, 5%.

Quantities: 8,000' of 8", 6,500' of 6" and 560' of 4" pipe; two hydrants; 100 service connections and meters. Bids will be for steel pipe (alternate A), asbestos-cement pipe (alternate b), or cast iron pipe (alternate C). PD 1-14

**▲ RIVER CLEARING— Lake River, Wash.**

Three bids ranging from a low of $5,920 by General Construction Co., Box 3860, Portland, to a high of $9,300, were received January 8 by Corps of Engineers, 628 Pittock Block, Portland, for removal and disposal of snags and other obstructions to navigation from Lake River, Wash.; CIVENG-35-026-59-96. WB 1-10. Previous report 12-27

**● PAVING (Airport)— Larson AFB, Wash.**

Bid opening has been delayed indefinitely on cement concrete paving of apron and hangar access and on construction of utilities at Larson Air Force Base near Moses Lake, Grant County; ENG-45-164-59-15. Bids were to have been opened February 3 by Corps of Engineers, Bldg. 602, City County Airport, Walla Walla. DM 1-9. Previous report 1-7

**● BRIDGE REMOVAL— Mount Vernon, Wash.**

Bids will be opened 10 a.m., January 26 by Skagit County Commissioners, Courthouse, Mount Vernon for removal of the Old North Fork Bridge No. 287. Specifications from county road engineer, Courthouse. DC 1-9

**STEAM PLANT (Reformatory)— Monroe, Wash.**

(Estimated cost $594,628)

Kane & Ervin, consulting engineers, 3105A Eastlake, Seattle, have been retained by Department of General Administration, 218 General Administration Bldg., Olympia, to plan a steam plant for the state reformatory at Monroe. PD 1-13

**■ DREDGING— Olympia, Wash.**

Planholders announced on dredging and disposal for fill of approximately 60,000 c.y. of material in the Olympia Marine. Bids will be opened 3 p.m., January 19, by Port of Olympia at the port offices in Olympia (Box 827). Specifications with above office. Certified check, cashier's check or bid bond 5%.

Planholders: Manson Construction and Engineering Co., 5209 E. Marginal Way, Seattle; Larson Construction Co., Colman Bldg., Seattle; Puget Sound Dredging Co., 2929 16th S.W., Seattle; General Construction Co., 3840 Iowa, Seattle; Owen Bros. Engineering and Construction Co., Railroad and Oak streets, Port Angeles; American Pile Driving Co., Inc., Pier 2, Everett; Van Davidson, 1234 Columbia St., Port Angeles; Palmberg Construction Co., Box 991, Astoria, Ore.; Willamette Tug and Barge Co., Foot of N. Portsmouth Ave., Portland, Ore. DM 1-10. Previous report 12-27

**■ STATE HIGHWAY PROJECTS— Olympia, Wash.**

Planholders announced for three highway construction projects on which bids will be opened 10 a.m., January 20, by Washington State Highway Commission, Transportation Bldg., Olympia.

PAVING, Coker Road to Tokio—Draining, grading, surfacing, constructing cement treated base and bituminous surface treatment, asphaltic concrete paving, fencing on 6.470 mi. PSH No. 11, Adams County; FAP I-90-5-(10)220.

Planholders: American Bitumuls & Asphalt Co., Box 4062, Portland, Ore.; Inland Asphalt Co., Box 4116, Sta. B, Spokane; J. N. Conley, 4332 N.E. Royal Court, Portland; Acme Construction Co., Box 651, Redmond; Carbon Bros. & United Paving Co., Inc., Box 5025, Sta. C, Spokane; Clifton & Applegate, Box 8, Yardley; F. H. DeAtley

& Co., Box 648, Lewiston, Idaho; E. C. Hall Co., 11655 S.W. Barbur Blvd., Portland; Sjoboen Bros., 3205 Hoadley Road, Olympia; Dorman Construction Co., 2818 E. 1st St., Vancouver; Asphalt Paving & Engineering Co., Box 356, Tacoma.

Central Paving Co., Box 38, Independence, Ore.; Hardisty Construction Co., Inc., 219 Medical Arts Bldg., Vancouver; Materne Bros. Co., Box 7052, Spokane; Geo. V. Nolte & Co., Box 1446, Moses Lake; S. D. Spencer & Son, 4614 N.E. 72nd Ave., Vancouver; C & E Construction Co., Inc., Box 1545, Yakima; Lake City Gravel & Materials, Inc., 10728 Bothell Way, Seattle; F. R. Hewett Co., E. 5916 Baldwin, Spokane; McAtee & Heathe, Inc., Box 4187, Sta. B, Spokane; Sather & Sons, 1410 N. Howe, Yardley; J. D. Shotwell Co., 3113 S. Pine St., Tacoma; D. A. Sullivan, Box 37, Parkwater Sta., Spokane; L. W. Vail Co., Inc., 1948 N. 4th St., Pasco; Washington Asphalt Co., 309 W. 39th St., Seattle; Ray Weist, Box 191, Yakima; Wilder Construction Co., Inc., 1840 State St., Bellingham; Porter W. Yett, Oregon Ltd., 6500 N.E. Ainsworth St., Portland.

SURFACING, B - Z Corner Glenwood — Draining, grading, surfacing on 2.823 mi. of Klickitat County road; FAS S-0398(1).

Planholders: J. N. Conley, 4332 N.E. Royal Court, Portland, Ore.; Rex C. Ayers Construction Co., 7305 N.E. 29th Ave., Portland; K. C. Dack Construction Co., Box 642, Pendleton, Ore.; Vernie Jarl, Box 507, Gresham, Ore.; J. L. Johnston, Rt. 1, Box 3755, Issaquah; John M. Keltch, Box 504, Pasco; Natt McDougall Company, 824 Pittock Block, Portland; Ernest G. Nielsen, Box 87, Bingen; Empire Machinery, Attn. Don Glascock, The Dalles, Ore.; Hardisty Construction Co., Inc., 219 Medical Arts Bldg., Vancouver.

Murphy Bros., Inc., E. 3728 Broadway, Spokane; Archie Radakovich, 2361 E. Lynnwood Drive, Longview; Q. L. Rufener, Inc., 4729 S.E. Ash St., Portland; S. D. Spencer & Son, 4614 N.E. 72nd Ave., Vancouver; Strong & Macdonald, Inc., 4045 Ruston Way, Tacoma; C. W. Bignold, Box 126, Elma; Russell J. Boe, 9685 Empire Way, Seattle; C & E Construction Co., Inc., Box 1545, Yakima; Erwen Construction Co., 831 S. 4th Ave., Pasco; Lake City Gravel & Materials, Inc., 10728 Bothell Way, Seattle; C. E. Oneal, Inc., Box 270, Ellensburg; Smith Bros., Inc., 3801 Fourth Plain Road, Vancouver.

MAINTENANCE BUILDING, Blewett Pass —Constructing a prefabricated metal building in Chelan County; a State Project.

Planholders: Structural Products, Inc., 1805 N.W. Thurman St., Portland, Ore.; Soule' Steel Company, Box 3685, Terminal Annex, Seattle; Dale M. Madden Construction, 3010 E. 163rd, Seattle.

RM 1-13. Previous report 1-2

**★STATE HIGHWAY PROJECT— Olympia, Wash.**

Award announced by Washington State Highway Commission, Transportation Bldg., Olympia, on the following construction project on which bids were opened January 6.

ILLUMINATION, Renton to May Creek—Installing illumination on PSH No. 1, King County; FAP No. I-B5-3(43)161.

AWARD: Electric Construction Co. of Tacoma, Inc., 1650 Center St., Tacoma, $9,342.

DE 1-13. Previous report 1-8

**●STATE HIGHWAY PROJECT— Olympia, Wash.**

Bids will be opened 10 a.m., February 3 by Washington State Highway Commission, Transportation Bldg., Olympia for the following construction project. Specifications with above office. Certified check, cashier's check or surety bond 5%.

DRAINING, GRADING, Franklin County Line to Hedrick-Coleman Road—Draining and grading 11.090 mi. of Primary State Highway No. 11, Adams County; FAP No. F-033-2(6).

Quantities: 1,103,440 c.y. common excavation and borrow; 45,680 c.y. solid rock excavation; 3,380 c.y. unsuitable foundation excavation; 9,380 ton loose riprap; 9,879' concrete pipe; 526' metal pipe; an alternate lump sum bid for metal culvert pipe; an alternate lump sum bid for reinforced concrete underpass; other items. DM 1-15

**AIRPORT IMPROVEMENTS— Omak, Wash.**

Plans are being discussed by City Council, City Hall, Omak, for improvements to the airport, Omak. Improvements include radio homing beacon (estimated cost, $2,600) and asphalt loading and parking ramp, asphalting of walkways and protective fencing (estimated cost $5,000). Financing is planned through Federal loan to supplement local funds. MH 1-14

**SANITARY FILL— Pullman, Wash.**
(Estimated cost $12,000)

Construction of the proposed sanitary fill in Pullman may be delayed until 1960, according to Allen Miller, mayor, City Hall, Pullman. Land has not been purchased as yet. Bonds in amount of $12,000 were approved by voters in the November election. MH 1-9. Previous report 11-7

**UTILITIES TUNNELS (WSC)— Pullman, Wash.**

Bids will be called in April or May by Washington State College, Pullman, for a 1,500' extension to the WSC system of underground utilities tunnels to carry heat and power from Spillman Hall to the site of the new science building, now under construction on the campus. MH 1-10

**WATER SYSTEM EXPANSION (WSC)— Pullman, Wash.**

Sherman C. Markley, superintendent of buildings and grounds, Washington State College, Pullman, has announced plans for expansion of the school's present water system. MH 1-10

**STREET, DRAINAGE IMPROVEMENTS— Puyallup, Wash.**

Bids will be called in mid-April, by City Council, 218 Pioneer W., Puyallup, for street and drainage improvements from 5th to 12th avenues, bounded by Main Ave. and the railroad tracks. Plans are being prepared by C. C. Seabrook, city engineer, City Hall, Puyallup. AM 1-10. Previous report 12-6

**▲PUMPING STATION— Puyallup, Wash.**

Five bids ranging from a low of $23,025 by Freigang Construction Co., 7424 Bridgeport Way, Seattle, to a high of $35,227, were submitted to the City Council, 218 Pioneer W., Puyallup, for construction of Maplewood Springs pumping station, and several hundred feet of connecting steel water mains; Imprv. No. 59-A. Bids were opened January 5. AC 1-10. Previous report 12-24

**▲PUMPING PLANT (BuRec)— Quincy, Wash.**

Bids received January 8 by Bureau of Reclamation, Division Ave. and C St. N.W., Ephrata (Box 368) for construction of auxiliary, outdoor type, pumping plant at the Quincy Pumping Plant, Block 73, Columbia Basin Project, in Grant County about eight mi. east of Quincy; Spec. No. 117C-534.

Eight bids received. LOW BIDS: William L. Hilton Co., E. 41 Gray, Spokane, $27,766; H. J. Emmerson, 121 L Southwest, Quincy, $29,069; R. J. MCarthy, 17860 Ballinger Way, Seattle, $32,403. Government estimate $30,989. PD 1-9. Previous report 12-20

**●TELEPHONE CABLE— Richland, Wash.**

Bids will be opened January 27 by Atomic Energy Commission, Hanford Operations Office, Box 550, Richland, for replacement of telephone cable within the plant area of the Hanford Works near Richland. Plans with Richland office.

Furnish, install, test approximately 14,300' of 13 quad telephone cable on an existing messenger, including loading stations, gas valves, terminal and gas pressure contactor; remove existing cable and equipment. Completion time 130 calendar days. DM 1-13

**●PUMPING PLANT, LINE (BuRec)— Sand Hollow Site, Wash.**

Bids will be opened 10 a.m., P.S.T., February 19, by Bureau of Reclamation, Box 368, Ephrata, for construction of Sand Hollow pumping plant and discharge line, Block 83, about 22 mi. south of Quincy, Columbia Basin Project; Spec. No. DC-5140. Plans with Ephrata office. Completion time days.

Quantities: 4,350 c.y. excavation; 575 concrete; 700' furnishing and laying 66" crete pipe; 53,000 lb. furnishing and erec structural steel for pumping plant su structure; installing five main pump units; furnishing and installing other ite of equipment and materials; other work. DM

**▲WATER MAIN— Seattle, Wa**

Bids received by Board of Public Wor 512 County City Bldg., Seattle, for furnish and installing 42,140' of 4" to 16" water ma on E. 88th St., et al, Seattle, LID 6193

Nine bids received at January 7 bid ope ing. LOW BIDS: Argentieri & Colaro 1815 Jackson St., $310,582; Valley-Morris Knudsen Co., 7722 Rainier Ave., $336,7 Ace Construction Co., 7516 Roosevelt Wa $335,939; of Seattle.

PD 1-9. Previous report

**★SUBMARINE CABLE— Seattle, Wa**

Award to Northcoast Electric Co., Jackson, Seattle, $629 per M ft., by Board Regents of University of Washington, S attle, for manufacturing and deliver 22,500' of electrical submarine cable—t reels, each containing 10,000' of cable, c tinuous length, and one reel of 2,500', c tinuous length. Bid opening December AM 1-9. Previous report

**★CHAIN LINK FENCE— Seattle, Wa**

Award to El Dorado Fence Co., 1442 Tre Glen, Oakland, Calif., $8,414, by Paul Hendricks, city purchasing agent, 511 Cou City Bldg., Seattle, for furnishing 8,600 2" mesh fencing, 6' high.

PD 1-10. Previous report

**●GATE VALVES— Seattle, Wa**

Bids will be opened at 10 a.m., January by Paul R. Hendricks, city purchasing ag 511 County City Bldg., Seattle, for furni ing 61 gate valves. Specifications with ab office. PD

**●HYDRAULIC WINCHES— Seattle, Wa**

Bids will be opened 10 a.m., January by Paul R. Hendricks, city purchasing ag 511 County City Bldg., Seattle, for furn ing two hydraulic winches. Specificati with above office. PD

**●VIADUCT REPAIR (Spokane St.)— Seattle, Wa**

Bids will be opened 2 p.m., January by Board of Public Works, E. G. Hen secretary, 512 County City Bldg., Seat for repairs to west and east timber portio and revision of illumination system on Spokane St. Viaduct, in Seattle.

Plans and specifications available on after January 12 in room 404 County C Bldg., Seattle. $10 deposit.

Quantities: 147 MBM creosoted lumb 537 stringers to be grouted; 1,046' exist concrete bridging removed; 1,022' exist timber bridging removed; 696' remove t ber caps. PD

**●FENCING (GSA)— Seattle, Wa**

Bids will be opened 3 p.m., P.S.T., Ja ary 23, by General Services Administrati 909 1st Ave., Seattle, for patching the ex ing damaged concrete curb post and repa ing and replacing existing damaged me fence at the U.S. Public Health Serv Hospital in Seattle; Proj. No. SEA-1 Plans with above GSA office. Complet time 30 calendar days. DM

**●POWER, COPPER CABLE WIRE— Seattle, Wa**

Bids will be opened 10 a.m., January by Paul R. Hendricks, city purchasing age 511 County City Bldg., Seattle, for furni ing 40,000' of power cable wire, and furnishing 27,375 lb. copper cable wi Separate contracts for power cable wire a for copper cable wire. Specifications wi above ofice. PD

**●POWER MOWERS— Seattle, Wa**

Bids will be opened 9:30 a.m., January by King County Commissioners, 402 Cou

City Bldg., Seattle, for furnishing two power mowers. Plans with 606 County City Bldg. Certified check or bid bond 5%. DM 1-13

**● EARTH-BORING MACHINE— Seattle, Wash.**

Bids will be received until 10 a.m., January 27, by Paul R. Hendricks, city purchasing agent, 511 County City Bldg., Seattle, for furnishing one skid-mounted earth-boring machine. Specifications with above office. PD 1-14

**▲ TEST CELL (Boeing)— Seattle, Wash.**

Six bids ranging from a low of $41,900 by John H. Selien Construction Co., 228 9th N., Seattle, to a high of $46,349, were submitted to Boeing Airplane Co., Plant 2, Seattle, for construction of a high temperature test cell in Bldg. 201, Plant 2, Seattle. Plans by Cuykendall, Iles & Blean, architects, Arcade Bldg., Seattle. Mechanical and electrical engineer is G. E. Wieland, Arcade Bldg., Seattle. The test cell consists of a concrete building with a reinforced concrete blast wall, with the whole structure enclosed in a wood frame building. PD 1-15

**▲ TRANSFORMER— Seattle, Wash.**

Eight basic bids ranging from a low of $17,632 from Central Transformer Co., 129 1st W., Seattle, to two identical high bids of $22,268, were submitted to Paul R. Hendricks, city purchasing agent, 511 County City Bldg., Seattle, for furnishing one 3,750-kva transformer. Bids opened January 13. PD 1-15. Previous report 1-9

**▲ WATER MAIN PARTS— Seattle, Wash.**

Bids received by Paul R. Hendricks, city purchasing agent, 511 County City Bldg., Seattle, for furnishing 130,800′ of copper water tubing; Iowa hydrant parts; 150 brass body gate valves; bell and spigot joint packing; watchdog water meter parts. Bids opened January 13.

Ten bids received for copper tubing. LOW BIDS: Pioneer Supply Co., 4521 Leary Way, Seattle, $13,503 (30,000′), $35,300 (100,800′). HI: Eagle Metals Co., 4755 1st S., Seattle, $15,165, $41,096.

Fourteen bids received for gate valves. LOW: Consolidated Supply Co., W. 1121 Gardner, Spokane, $1,161. HI: Pacific Water Works Supply Co., 2900 1st S., Seattle, and Charles H. Harden & Co., 2221 4th S., Seattle, identical bids of $1,485.

Only bid received for hydrant parts was that of Pacific Water Works Supply Co., Seattle, $2,874.

Two bids received for packing. BIDS: Garlock Packing Co., 814 Lane, $954; Anchor Packing Co., 2207 1st S., Seattle, $1,590.

Only bid received for meter parts was that of Gamon Meter Co., 2616 Western Ave., Seattle, $2,932. PD 1-15. Previous report 1-2

**★ WATER MAIN— Seattle, Wash.**

Award to Argentieri & Colarossi, 1815 Jackson St., Seattle, $439,779, by Board of Public Works, 512 County City Bldg., Seattle, for furnishing and installing 42,140′ of 4" to 16" water main on E. 88th St., et al, Seattle; LID 6193.

PD 1-15. Previous report 1-9

**★ WATER, SEWER MAINS— Sunnyside, Wash.**

Award to Emil Gostovich, Ida Belle St., Sunnyside, $44,598 (Sched. 1), $57,631 (Sched. 2), by City Council, City Hall, Sunnyside, for construction of extensions to the sanitary sewage collection system and the water distribution system in Sunnyside. Plans by Gray & Osborne, consulting engineers, 228 S. 2nd St., Yakima. Bids were opened January 5. AC 1-13. Previous report 1-7

**▲ PAVING, STORM DRAINAGE— Tacoma, Wash.**

Three bids received by city clerk, City Hall, Tacoma, for construction of asphaltic concrete pavement, concrete curb and gutter, and storm drainage in LID No. 4644. Bids opened January 12. BIDS: Woodworth & Co., Inc., 1200 E. D St., Tacoma, $79,630; Cascade Asphalt Paving Co., 6238 S. Tacoma Way, Tacoma, $82,461; Lige Dickson Co., 3315 S. Pine, Tacoma, $89,052. PC 1-13. Previous report 1-7

**★ STORM TRUNK, GRADING— Tacoma, Wash.**

Award to Woodworth & Co., 1200 E. D St., Tacoma, $470,518, by City Council, City Hall, Tacoma, for construction of about 12,500′ of storm drains (Imprv. No. 1981) and for 1.1 mi. of grading and oil mat surfacing (Imprv. No. 2286) in the Arlington District. Bid opening December 15.

AM 1-9. Previous report 12-16

**SEWER— Tacoma, Wash.**

Approval, by the voters, has been given for formation of a sewer district to serve Brown's Point and Dash Point areas of Tacoma. Voters, however, rejected a five-mill levy to finance a sewer survey.

DC 1-13. Previous report 12-18

**● GRADING, SURFACING, STORM DRAINAGE— Tacoma, Wash.**

Bids will be opened 11 a.m., January 19, in office of city clerk, 305 City Hall, Tacoma, for grading, ballasting, surfacing, and storm drainage on N. 11th St. from Orchard to Pearl streets, and for cement concrete sidewalk on the south side of N. 14th St. from Huson to Shirley streets in Tacoma; LID No. 2289. Specifications available from city clerk. Bid bond 5%. RC 1-14

**ACCESS ROAD— Waterville, Wash.**

Douglas County Commissioners, Courthouse, Waterville, have been asked by a group of landowners between East Wenatchee and Orondo, for the establishment of a road along a section of the proposed new state limited-access highway. DC 1-9

**★ FENCE— Wenatchee, Wash.**

Award, subject to approval of CAA, has been recommended to Pybus Steel Company, Columbia and Orlando St., Wenatchee, $3,453, by City Council, City Hall, Wenatchee, for 1—furnishing and installing 1,550′ of class D fence along the access road, 2—relocating 400′ of existing class E fence and constructing 700′ of new class E fence at the administration area, Pangborn Field, Wenatchee.

AM 1-10. Previous report 12-17

**● ROCKY REACH ROAD, RAIL RELOCATION (Third Section)— Wenatchee, Wash.**

Additional description is given below on construction of the third section of highway and railway relocation, made necessary by construction of Rocky Reach Dam. Bids will be opened 10 a.m., P.S.T., February 6, by Public Utility District No. 1, Chelan County, at the office, 327 N. Wenatchee Ave., Wenatchee. Plans may be obtained from Stone & Webster Engineering Corp., 707 Lloyd Bldg., in Seattle or at the field office on site of project (Box 158, Wenatchee). Plans may be inspected at PUD office in Wenatchee.

Project involves relocation of Great Northern Railway grade, State Highway 10 and Chelan County Road No. 18 and No. 240, in an area north of Entiat. Work will begin at a point 14.2 mi. upstream from Rocky Reach dam site and will extend a total of 7.9 mi. The Great Northern Railway's Okanogan branch line is to be relocated for 7.3 mi. under this contract with the railway doing its own ballast and track work. State Highway 10 (U.S. Highway 97) is to be relocated for 5.4 mi. and the Chelan County road project is 2.5 mi. in length.

Principal quantities: 850,000 c.y. common excavation; 860,000 c.y. common borrow; 326,000 c.y. rock borrow; 8,300 ton asphaltic concrete. DC 1-9. Previous report 1-8

**● CRUSHED ROCK, BITUMINOUS MIX, PAINT— Yakima, Wash.**

Bids will be opened 10 a.m., P.S.T., January 26, in office of city clerk, City Hall, Yakima, for furnishing 700 tons crushed rock, 1250 tons bituminous mix, 800 gals. white traffic line paint (Washington specifications 9-34) and 500 gals. yellow traffic line paint (Washington specifications 9-32) for City of Yakima street department. Specifications with City Purchasing Agent, City Hall. IG 1-14

## IDAHO

**● STRUCTURES (BuRec)— Burley, Idaho**

Bids will be opened 10 a.m., M.S.T., February 5, by Bureau of Reclamation, Box 663, American Falls, for construction of structures on Main Canal East, Main Canal West, open laterals and drains near American Falls, Power County, Michaud Flats Project, Idaho; Spec. No. 100C-358. Specifications from above office and from the following BuRec offices: Box 937, Boise; 11th and E St., Rupert; 1359 Hanson Ave., Burley. Bid bond 10%. Completion time for all work on Main Canal East, Main Canal West and open laterals by April 15; remaining work by May 15.

Quantities: 280 c.y. structure excavation; 250 c.y. backfill about structures; 250 c.y. compacting backfill about structures; 46 c.y. concrete in new structures; 4 c.y. concrete in structure alterations; 75 bbl. cement; 4,800 lb. reinforcement bars 21.7 MBM untreated timber; 3.72 MBM treated timber; 20′, 15" standard strength, reinforced concrete culvert pipe; one 15" screw-lift vertical gate; one 15" open flow meter; drilling holes for 40 dowels; 1,000 lb. miscellaneous metalwork; install five trackracks. DM 1-13

**▲ REACTOR, INCREMENT 2 (AEC)— Idaho Falls, Idaho**

Eight bids ranging from a low of $64,250 by Anderson Burke Corporation, 10662 N.E. 8th, Bellevue, Wash., to a high of $122,555, were submitted to the Atomic Energy Commission, Idaho Operations Office, 550 2nd St., Idaho Falls, (Box 2108) for construction of GCRE 1, Increment 2 at the National Reactor Testing Station in Idaho; Inv. No. AT(10-1)-999. Bids were opened January 7.

OTHER BIDS: AEC Engineering & Construction Co., Box 1005, Los Angeles, Calif., $84,080; Farnsworth & Chambers Co., Inc., Houston, Texas, $88,080; Arrington Construction Co., Box 881, Idaho Falls, Idaho, $88,540; Teller Construction Co., Box 435, Idaho Falls, $91,637; Diversified Builders, Inc., 6855 Rosecrans Blvd., Paramount, Calif., $94,640; Bingham Plumbing & Heating Co., 429 W. 18th, Idaho Falls, $112,866; Davis Construction Co., Box 874, Idaho Falls, $122,555.

AM 1-13. Previous report 12-11

**★ PIPELINE CROSSING— Idaho Falls, Idaho**

Award to Davis Construction Co., Provo, Utah, $28,751, by City Council, City Hall, Idaho Falls, for construction of a pipe line suspension crossing of the Snake River. Bid opening December 12.

AM 1-13. Previous report 12-19

**▲ DEMINERALIZATION PLANT— Idaho Falls, Idaho**

Seven bids ranging from a low of $67,873 by Kenneth H. Latham Co., 475 Linden Drive, Idaho Falls, to a high of $109,000, were submitted to the Atomic Energy Commission, Idaho Operations Office, Box 1221, Idaho Falls, for construction of a demineralization plant in the ANP area at National Reactor Testing Station in Idaho; Inv. No. AT(10-1)-996. Bids opened January 8.

OTHER BIDS: Arrington Construction Co., Inc., Box 881, Idaho Falls, $69,450; Watkins Construction Co., Box 1786, Boise, $71,579; AEC Engineering & Construction Co., Box 1005, Los Angeles, Calif., $73,292; Diversified Builders, Inc., 6855 Rosecrans Blvd., Paramount, Calif., $85,822; Manco Construction Co., Long Beach, Calif., $103,000; Weyher Construction Co., Inc., Box 628, Salt Lake City, Utah, $109,000.

AM 1-13. Previous report 1-7

**★ SLIDE REPAIR— Lucky Peak Reservoir, Idaho**

Award to MacGregor Triangle Co., 200 Sunrise Rim, Boise, $124,427, by Corps of Engineers, Bldg. 602, City County Airport, Walla Walla, for slide repair of Arrowrock Road and reconstruction of Bureau of Reclamation access road in vicinity of Lucky Peak Reservoir near Boise, Boise and Elmore counties, Idaho; CIVENG-45-164-59-23. Completion time 180 calendar days. Bids were opened November 18.

AM 1-10. Previous report 11-15

■ **STREET IMPROVEMENTS—** **Mountain Home, Idaho**

Planholders announced for improvements to city streets in LID No. 11. Bids will be opened 8 p.m., January 19, by City Council, Mountain Home, Elmore County. Plans and specifications available from Roy E. Meyer, city clerk, City Hall, or from the city engineer. $20 charge. Consulting engineers for the project are Johnson & Underkofler, 1022 12th Ave. S., Nampa. Certified check or bid bond 5%.

Planholders: Kieley Construction Co., Box 246, Butte, Mont.; Olaf Nelson Construction Co., Logan, Utah; J. A. Clawson Construction Co., 129 Carney, Twin Falls, Idaho; Neilsen & Miller, 1235 Filer Ave. E., Twin Falls; Holmes Construction Co., Route 1, Heyburn, Idaho; Central Paving Co., Box 38, Independence, Ore.; Karl Woodall, 2114 Pond St., Boise, Idaho; Boise Paving & Asphalt Co., 1007 S. 17th, Boise; Robert V. Burggraf Co., Box 397, Idaho Falls, Idaho; Ben F. Walton, 706 3rd Ave. N., Twin Falls; Max A. Boesiger, Inc., 185 E. 2nd N., Mountain Home, Idaho; Jack B. Parson Construction Co., Logan, Utah; Wilson & Dodge, Mountain Home; T & S Construction Co., Box 1114, Twin Falls; Peter Kiewit Sons' Co., Box 253, Idaho Falls; Quinn-Robbins Co., 703 S. 16th St., Boise; George V. Nolte & Co., Box 505, Moses Lake, Wash.; Pickett & Nelson, Box 755, Idaho Falls; Brown Industries, McCall, Idaho; Eagle Construction Co., Box 1496, Boise; Andrew H. Anderson & Son, Inc., 1125 9th S., Great Falls, Mont.; L. W. Vail Co., Inc., Box 847, Pasco, Wash.

AM 1-13. Previous report 1-3

★**MAGAZINE—Mountain Home AFB, Idaho**

Award to R. I. Randolph Construction Co., 3815 Welty Ave., Salem, Ore., $72,776, by Corps of Engineers, Bldg. 602, City County Airport, Walla Walla, Wash., for construction of one-ten cubicle magazine and related facilities at Mountain Home Air Force Base, Mountain Home, Elmore County, Idaho; ENG-45-164-59-8. Bids were opened December 23. AM 1-13. Previous report 12-26

★**TRANSFORMERS (BuRec)—Rupert, Idaho**

Award to R. E. Uptegraff Manufacturing Co., Scottdale, Pa., $7,649, by Bureau of Reclamation for three 100-kva and three 75-kva distribution transformers for pumping substations 10A824 and 24C823, North Side Pumping Division, Minidoka Projects; Inv. No. 100S-53. Delivery to Rupert, Idaho.

DM 1-13

▲**CRUSHED ROCK—** **Sandpoint, Idaho**

Three bids received by Bonner County Commissioners, Courthouse, Sandpoint, for furnishing and delivering 20,000 ton crushed rock to the Priest Lake area. Bids were opened January 5.

BIDS: Merchants Transfer & Storage Co., Main at S1 Railway, Sandpoint, .85c per ton for ¾", .85c per ton for ⅝; Frank G. Bauine, Box 84, Yardley, Wash., $1.05, $1.15; Carbon Bros., Box 5025, Station C, Spokane, Wash., $1.09, $1.14.

AM 1-10. Previous report 12-27

## MONTANA

●**SUPPLY DITCH—** **Fairfield, Mont.**

Bids will be opened 11 a.m., January 27, by Montana Fish and Game Commission, E. J. Everin, director, State Capitol Bldg., Helena, for construction of the North Supply Ditch on Freeze-out Lake, a water fowl development located near Fairfield. Plans available from above Helena office.

Planholders: Robertson & Cave, Inc., Box 1488, Great Falls; R. T. Naughton, 2716 6th Ave. N., Great Falls. LS 1-13

**WATER SYSTEM IMPROVEMENT—(Distribution Mains)—** **Great Falls, Mont.**

Bids will be called late this summer by City Council, City Hall, Great Falls, for furnishing and installing various distribution mains under the overall water system improvement program. PC 1-10

**WATER SYSTEM IMPROVEMENT (Water Mains)—** **Great Falls, Mont.**

Bids will be called in January by City Council, City Hall, Great Falls, for installation of water mains isolating the booster district in the southeastern section of the city. Area will be served by the new 750,000-gal. high level tank which is now under construction by Chicago Bridge and Iron Co., Salt Lake City, Utah. This is part of the overall water system improvement program. PC 1-10

**WATER SYSTEM IMPROVEMENT (Contract No. 8)—** **Great Falls, Mont.**

Bids will be called in spring or early summer by City Council, City Hall, Great Falls, for another phase of improvement to the water system in Great Falls. This portion of the work will be under Contract No. 8, and will include pumping station improvements. PC 1-10

▲**AMMUNITION MODIFICATION—** **Malmstrom AFB, Mont.**

A low basic bid of $12,486 with alternates of $11,482, $10,880 and $10,560 was submitted by Canoy Construction Co., 1304 2nd S.W., Great Falls, for modification of the air defense command ammunition area at Malmstrom Air Force Base. Bids were opened by the base procurement office. Government estimate was $10,000. DC 1-10

**WATER SUPPLY— Miles City AFS, Mont.**

Bids will be called soon for opening early in February by Corps of Engineers, 1519 S. Alaskan Way, Seattle, Wash., for construction of additional water supply at Miles City Air Force Station, Mont.; ENG-45-108-59-51. Plans with above Seattle office. Bid bond 20%. Completion time 120 calendar days.

Work consists of construction of a concrete well pit and installation of a submersible well pump in an existing well, installation of approximately 1,900' of 3" water line to existing pumphouse and rehabilitation of existing pumphouse. Rehabilitation includes removal of existing pumps, piping and equipment; installation of two new booster pumps, piping and control and electrical equipment. Work also consists of installation of buried 50,000-gal. reinforced concrete water storage tank adjacent to pumphouse and related pipe.

DM 1-10

## ALASKA

▲**LFM/HW FACILITY (Antenna, Generators, Piping)—** **Coghlan Island, Alaska**

Four bids ranging from a low of $79,960 by Gastineau Contractors, Box 1136, Douglas, to a high of $99,770, were received at the January 12 bid opening by Civil Aeronautics Administration, contract and purchase section, 219 E. 5th Ave., Anchorage (Box 440), for construction of LFM/HW facility and related work at Coghlan Island near Juneau; No. 5-59-59.

●**BREAKWATER (APW)—Douglas, Alaska**

Bids will be opened 10 a.m., P.S.T., January 28, by Alaska Public Works, 123 W. 3rd St., Juneau (Box 1181) for construction of breakwater at Douglas; Proj. Aaa 50-A-307. Plans with Juneau office. Certified check or bid bond 5%.

Quantities: 493 c.y. pit run gravel surfacing; 2,906 c.y. armor rock; 5,621 c.y. filter rock; 14,833 c.y. core material; 74' of 60" corrugated metal pipe. DM 1-13

■ **COMMUNICATION SYSTEM (Ducts, Cables, Earthwork)—** **Fort Richardson, Alaska**

Planholders announced on modification of an existing communication system at Fort Richardson, Alaska; ENG-95-507-69-21. Bids will be opened 2 p.m., A.S.T., January 22, by Corps of Engineers, Box 7002, Anchorage. Specifications with Anchorage office. Bid bond 20%. Completion time July 15.

Planholders: City Electric of Anchorage, 2929 13th Ave. S., Seattle, Wash.; Cable Construction Co., 1512 Center St., Tacoma, Wash.; Gustav Hirsch Organization, 1347 W. 5th Ave., Columbia, Ohio; W. R. Grasle Co., 437 N.W. 16th Ave., Portland, Ore.; Macri Construction Co., 4347 Brooklyn Ave., Seattle; Northern Enterprises, 12556 Bothell Way, Seattle; Cascade Distributors, 1918 Ave. S., Seattle; Jan-Pacific Co., 1718 Bo... way, Seattle; Century Metal Works, 712... Marginal Way, Seattle; Chris Berg, Inc., ... Westlake Ave. N., Seattle; Holert Elec... Inc., 2300 W. Spokane, Seattle; Lent's, I... 279 4th St., Bremerton; Kehne-Crab... Electric Co., Inc., E. 3801 Riverside, Spok... J. B. Warrack Co., 400 2nd Ave., Seattle.

DM 1-10. Previous report 1...

■ **SEWER, WATER EXTENSIONS—** **Skagway, Al...**

Planholders announced on construction sewer and water extensions at Skag... Proj. Aaa 50-A-302. Bids will be ope... 10 a.m., P.S.T., January 21, by Alaska Pu... Works, Box 1181, Juneau. Plans avail... from Juneau office. $25 deposit. Cert... check or bid bond 5%.

Planholders: Berg Construction Co., ... Box 1804, Juneau; Kell & Peterman Co., ... Box 770, Juneau; John C. Miller, Box ... Anchorage; Century Metal Works, 712... Marginal Way, Seattle, Wash.; Stock... Grove, Inc., Box 2051, Anchorage; Phoe... Matthews, Inc., 2415 N.E. Alberta, Porti... Ore.; Inlet Construction Co., Box ... Anchorage; Southern Pipe and Casing ... Box C, Azusa, Calif.; H. D. Fowler Co., ... Box 3084, Seattle; Pacific Waterworks ... ply Co., 2900 1st Ave. S., Seattle; Hall... Co., 1252 1st Ave. S., Seattle.

John Luyben & Son, Inc., 14005 N.E. ... sey, Portland; Ramstad Construction ... Box 1454, Anchorage; Lent's, Inc., 279 ... Bremerton; Scheumann & Johnson, ... Lloyd Bldg., Seattle; S. S. Mullen, Inc., ... 3886, Terminal Annex, Seattle; Wesco ... structors, Inc., 4347 Brooklyn Ave., Se... Gastineau Contractors, Box 1619, Juneau.

DM 1-13. Previous report ...

## NORTHERN CALIFORNIA

▲**PENSTOCK—** **El Dorado, ...**

Bids received January 8 by Sacram... Municipal Utility District, 1708 59th ... Sacramento, for furnishing and deliv... Jaybird penstock, Jaybird tunnel liner ... appurtenances, Upper American River ... ect, El Dorado County; Inv. No. 2114. ... BIDS: Kaiser Steel Corporation, Napa, ... 305; C. F. Braun and Co., 235 Montgo... San Francisco, $1,048,000; Consolidated ... ern Steel Division, U. S. Steel Corpor... 120 Montgomery, San Francisco, $1,0...

PB 1-17. Previous repo...

★**BOAT RAMPS—** **Folsom, ...**

Award to Sutherland Construction ... Box 786, Auburn, $16,650, by State Di... of Beaches and Parks, 272 Mull Bldg., ... ramento, for completion of boat laun... area at Folsom Lake State Park (G... Bay Area) near Folsom. Bids were o... December 30. PB 1-17. Previous report ...

▲**WATER MAINS, PUMP STATION— Hayward, ...**

Bids received January 6 by City ... Hayward, for the installation of 16" a... water mains from Mission Blvd. (fo... Castro St.) to Highland "500" Reservo... for construction of the Highland "250" ... station in Hayward. LOW BIDS: V... Rodrigues, 226 Jackson St., Hayward, $... Galbraith Construction Co., Inc., 834 ... som Way, Hayward, $76,481; Engl... Limited Pipeline Co., 11858 San Pablo ... El Cerrito, $79,441.

RM 1-17. Previous report ...

★**FLOOD CONTROL PIPELINE— Hayward, ...**

Award to Galbraith Construction Co., ... 995 Blossom Way, Hayward, $71,09... Alameda County Board of Super... Courthouse, Oakland, for construction ... flood control pipeline between Mee... Ave. and A St. near Hayward. Work ... includes improvement of a line be... Seven Hills Road and Almond Ro... Castro Valley. RM 1-17. Previous report ...

▲**STORAGE BASE MULTICUBICLE MAGAZINE— Mather AFB, ...**

Bids received December 30 by Cor...

Engineers, 305 Wright Bldg., 1209 Eighth St., Sacramento, for construction of reinforced concrete multicubicle magazine; portland cement concrete paved areas; asphaltic concrete paved access road; electrical service lines; temporary fencing; seeding; Mather Air Force Base, Sacramento County; ENG-04-167-59-23. LOW BIDS: Jay Bailey Contractors, Inc., Box 148, Woodland, $44,294; Bingham Construction Co., 6329 Elvas Ave., Sacramento, $46,812; W. J. Kubon Co., 39A Mary St., San Rafael, $50,-223. Government estimate $44,814.
RM 1-17. Previous report 12-6

▲**STREET IMPROVEMENT—** **Oakland, Calif.**

Bids received January 8 by City Council, City Hall, Oakland, for the improvement of Beaumont Ave. between E. 38th St. and Excelsior Ave. in Oakland. LOW BIDS: Ransome Company, 4030 Hollis St., Emeryville, $34,104; J. R. Armstrong Construction Co., 7541 Central Ave., El Cerrito, $34,936; Gallagher & Burk, Inc., 344 High St., Oakland, $34,986. RM 1-17. Previous report 1-3

●**TEST DRILLING—** **Oroville, Calif.**

Bids will be opened 1:30 p.m., January 21, by State Department of Water Resources, 401 Public Works Bldg., 1120 N St., Sacramento, for drilling exploration test holes in vicinity of Oroville, Butte County; Spec. No. 59-3. Specifications available from 1730 24th St. or Box 388, Sacramento. RM 1-17

★**WATER DISTRIBUTION SYSTEM—** **Sacramento, Calif.**

Award to Luppen and Hawley, Inc., 3126 J St., Sacramento, $25,845, by City Council, City Hall, Sacramento, for construction of water distribution system, 29th Ave., Franklin Blvd., city farms, Sacramento; Res. 3278. Bids were opened December 30.
PB 1-17. Previous report 12-20

●**STATE HIGHWAY PROJECT—** **Sacramento, Calif.**

Bids will be opened 2 p.m., February 11, by California Division of Highways, 510 Public Works Bldg., Sacramento, on the following highway construction project. Plans with state highway engineer, above address.

X-SJ-4-C—Grade, plantmix surface on untreated base, 0.3 mi. of speed change lanes, at Hammer Lane about three mi. north of Stockton, San Joaquin County. PB 1-17

★**STATE HIGHWAY PROJECTS—** **Sacramento, Calif.**

Awards announced by California Division of Highways, 510 Public Works Bldg., Sacramento, on the following highway construction projects for which bids were opened December 17.

III-YOL-50-F—Construct bridge approach by grading, plantmix surfacing, construct welded steel girder and reinforced concrete deck bridge, 0.3 mi., between west end of I St. bridge across Sacramento River and 3rd St. in Broderick, Yolo County. AWARD: Stolte, Inc., 8451 San Leandro, Oakland, $344,451.

IV-SM-68-SM—Grade, plantmix surface 770' of two-lane road and 560' of one-lane ramps, at Norfolk St. connection to E. Hillsdale Blvd. interchange, San Mateo, San Mateo County. AWARD: Bragato Paving Co., 500 Bragato Rd., Belmont, $49,963.
PB 1-17. Previous report 11-22

▲**TEST HOLE DRILLING—** **Sacramento, Calif.**

Bids received January 14 by State Department of Water Resources, 401 Public Works Bldg., 1120 N St., Sacramento, for drilling exploration test holes at proposed Los Banos Dam site, Merced County; Spec. No. 59-2

LOW BIDS: Fred Cannon Co., Box 669, Compton, $8,125; Continental Drilling Co., 2810 N. Figueroa, Los Angeles, $9,000; Carl P. Lilly, Wellington, Utah, $9,915.
PB 1-17. Previous report 12-27

★**STATE HIGHWAY PROJECT—** **Sacramento, Calif.**

Award to Fisher and Stokes Construction, San Gabriel, $969,246, by California Division of Highways, 510 Public Works Bldg., Sacramento, for grading, plantmix surfacing, constructing reinforced bridge, 0.9 mi., four-lane divided highway, between Carpenter St. and south city limit of Monterey, Monterey County; V-MON-56-I.

Bids were opened December 10.
PB 1-17. Previous report 12-13

▲**STONE PROTECTION—** **Sacramento, Calif.**

Bids received December 30 by Corps of Engineers, 305 Wright Bldg., 1209 Eighth St., Sacramento, for stone protection at 35 locations along right and left banks of the Stockton Deep Water Channel, from west of Stockton to Winter Island in Sacramento, San Joaquin and Contra Costa counties; CIVENG-04-167-59-31. ONLY BIDS: Basalt Rock Company, Inc., 8th and River streets, Napa, $350,625; Blake Brothers Co., Box 1002, Richmond, $364,427. Government estimate $274,340. RM 1-17. Previous report 12-6

▲**STATE HIGHWAY PROJECTS—** **Sacramento, Calif.**

Bids received January 14 by California Division of Highways, 510 Public Works Bldg., Sacramento, on the following highway construction projects.

IV-SCL-68,5,69-B SJS, A—Construct four-lane divided highway, 4.1 mi., by grading, portland cement concrete and plantmix surfacing, constructing ten major structures, in and near San Jose, between 0.4 mi. north of Brokaw Rd. and 0.1 mi. south of Taylor St. and between 1st St. and 0.4 mi. north of Bayshore Highway, Santa Clara County.

LOW BIDS: Gordan H. Ball, Gordan Ball, Jr., Ball & Simpson and Jones Construction Co., 685 Delaware, Berkeley, $3,870,609; Fredrickson & Watson Construction Co., and Ransome Co., 873 81st, Oakland, $3,915,-333; L. C. Smith and Dan Caputo Co., 1st and Railroad, San Mateo, $3,978,065.

I-MEN-505—Grade, install drainage facilities, construct rock slope protection, 3 mi., Longvale-Dos Rios-Covelo Rd., portions between Longvale and Dos Rios, Mendocino County.

LOW BIDS: Huntington Bros., Box 474, Napa, $389,694; Syar & Harms, 5261 Stockton Blvd., Sacramento, $397,174; Wright Bros., Route 1, Box 226, Gridley, $403,032.
PB 1-17. Previous reports 12-27, 1-3

●**SEWAGE PLANT, SEWERS—** **Sacramento, Calif.**
(Estimated cost $559,000)

Bids will be opened 10 a.m., January 28, by Sacramento County Board of Supervisors, 827 7th St., Sacramento, for construction of sewage treatment plant, lift station and trunk sewer lines, Rosemont Sewer Assessment District, Sacramento County. Specifications available from Arthur Kiefer, room 404, above address. Consulting engineer: Joseph Spink, 907 5th St., Sacramento. Quantities: 413' of 18", 1,845' of 15", 1,120' of 10", 3,461' of 8" vitrified clay sewer pipe; 23 concrete manholes. PB 1-17

●**PAVEMENT REPLACEMENT—** **Travis AFB, Calif.**

Bids will be opened 2 p.m., January 28, by Corps of Engineers, 305 Wright Bldg., 1209 Eighth St., Sacramento, for airfield pavement replacement, Travis Air Force Base, Solano County; ENG-04-167-59-37. Specifications with Sacramento office. Bid bond 20%. Completion time 240 calendar days.

Quantities: 23,600 sq. yd. remove, dispose of portland cement concrete pavement; 23,-900 c.y. unclassified excavation; 14,200 c.y. select material subbase course; 3,900 c.y. base course; 600 ton stabilized aggregate base course; 3 ton liquid asphalt, MC-1 prime coat; 14 ton asphalt cement, 85-100 penetration; 215 ton asphaltic concrete surfacing; 19,200 bbl. portland cement; 12,-600 c.y. portland cement concrete pavement; 1,300 sq. ft. painting, reflective 1,700 sq. ft. painting, nonreflective; lump sum electrical duct system; 1,570' water line, 10"; 3,190' of 4", 135' of 6" gas line; 935' of 15" nestable corrugated metal pipe sleeve for gas line; 940' of 21" nestable corrugated metal pipe sleeve for water line; 690' fuel line, 10".
RM 1-17

●**WATER MAINS—** **Walnut Creek, Calif.**

Bids will be opened 2 p.m., January 23, by East Bay Municipal Utility District, 2130 Adeline St., Oakland, for construction of 3,300' of 20" and 8,400' of 17.8" cement mortar lined and coated steel water mains and appurtenances in San Ramon Valley, south of Walnut Creek, Calif.; Spec. No. 762. Specifications available from District's Engineering Dept., above address. RC 1-17

# Advertisements for Bids

**Advertisements reaching us not later than Wednesday noon will appear the same week.**

THE RATE for Advertisements for Bids is 35 cents per line for the first insertion; 25 cents per line for each insertion thereafter.

**SEWER, WATER EXTENSIONS**
**BIDS CLOSE 10 A.M., P.S.T., JANUARY 21**
**Skagway, Alaska**
**NOTICE TO CONTRACTORS**

Reference, Project Aaa. 50-A-302 Sewer and Water Extensions, Skagway, Alaska. Date, December 17, 1958. Name and Location of Project, Sewer and Water Extensions, Project Aaa. 50-A-302, Skagway, Alaska. Department or Agency, Alaska Public Works Office of Territories, Department of the Interior. By (issuing office), Thomas G. Mooney, Director, Alaska Public Works, Office of Territories, Department of the Interior, Post Office Box 1181, Juneau, Alaska. **Sealed bids** in single copy for furnishing all labor, equipment, and materials and performing all work for the project described herein will be received until 10:00 A.M., Pacific Standard Time, January 21, 1959, in the mailroom of the Office of the Director, Alaska Public Works, Office of Territories, Department of the Interior, 123 West Third Street, P.O. Box 1181, Juneau, Alaska, and then publicly opened and read aloud. **Information regarding bidding material, bid guarantee, and bonds** follows: Plans and specifications and other proposed contract documents are open for public inspection at the Director's office, Juneau, Alaska; at Room 6070 Interior Bldg., Washington 25, D. C.; and Associated General Contractors of America offices as follows: Seattle Chapter, Construction Center, 215 West Harrison St., Seattle, Wash.; Mountain Chapter, 220 West Harrison St., Seattle, Wash.; Tacoma Chapter, 1605 Center St., Tacoma 3, Wash.; Portland Chapter, 129 S.W. Third Avenue, Portland, Oregon; and the Alaska Chapter, Anchorage, Alaska; at the Plan Bureau, 2413 Western Ave., Seattle, Wash.; and Builders Exchange Cooperative, 317 Builders Exchange Bldg., Portland, Oregon. A set of such documents may be procured from the office of the Director at Juneau, Alaska, upon deposit of $25.00, all of which will be

refunded upon the return of the plans and specifications in good condition within twenty (20) days from date or bid opening. Each bid must be accompanied by a satisfactory bid security (certified check or, bid bond) in an amount not less than 5 per cent of the total bid in dollars and cents. No bid will be withdrawn until thirty days after the scheduled closing date for the receipt of bids. The successful bidder will be required to furnish a performance bond and payment bond, each in the amount of 100 per cent of the contract price. The Government reserves the right to award a contract for the project on the basis of the acceptance of any or all of the alternates, whichever course is in the best interest of the Government. DESCRIPTION: WATER AND SEWER EXTENSIONS, Project Aaa. 50-A-302, Skagway, Alaska. **SEWER:** 1584 lin. ft. of 10-inch pipe, 4,941 lin. ft. of 8-inch pipe, 360 lin. ft. of 6-inch pipe and 15 manholes. **WATER:** 6260 lin. ft. of 6-inch pipe, 100 ft. of 4-inch pipe, 25 service connections and 9 fire hydrants. Information regarding liquidated damages (if any), payments, etc., is attached or made a part of the specifications. Bids shall be submitted on the forms furnished or copies thereof.
6373—12-27; 1-3, 10

**PAVING, CONSTRUCTING WALL**
**BIDS CLOSE 11 A.M., P.S.T., JANUARY 27**
**Juneau, Alaska**
**NOTICE TO CONTRACTORS**

December 30, 1958, Juneau, Alaska. Department of Commerce, Bureau of Public Roads, Region 10. Sealed bids in single copy for furnishing all labor, equipment and materials and performing all work for Project AD-N-D-AD-2(3), Contract No. 2, Kodiak—Kodiak Naval Air Station Access Road, Territory of Alaska, described herein, will be received until 11:00 a.m., P.S.T., January 27, 1959, in Room 319, Federal Building, Juneau, Alaska. This project consists of paving the 1.2 miles of road between Kodiak and the Naval Air Station on Kodiak Island, Alaska, and installation of 2,893 square feet of metal bin type retaining wall extending an existing section of retaining wall. Principal items of work are as follows: excavation for structures—750 cubic yards; foundation fill—300 cubic yards; crushed aggregate base, grading D-1—7,650 tons; hot bituminous concrete pavement—2,200 tons; asphalt cement, 85-100 penetration—120 tons; galvanized metal bin type wall—2,893 square feet. Work shall be completed within 180 days after date of receipt of notice to proceed. Plans and specifications may be obtained free of charge by all who have a bonafide need for them for bidding purposes at Room 311, Federal Building, Juneau, Alaska. It is requested that plans be returned to the Division Engineer, Bureau of Public Roads, Anchorage, Alaska. A bid guaranty in a minimum amount of 5% of the bid amount and conforming to the requirements of Standard Form 22 shall be required with each bid. If the bidder fails to accompany his bid with the required bid guaranty, his bid will not be read or otherwise considered. Telegraphic notification of execution of a bid bond does not meet the above requirement of a bid bond, accompanying a bid. E. H. Swick, Regional Engineer.
6383—1-10, 17

**STATE HIGHWAY PROJECTS**
**BIDS CLOSE 10 A.M., FEBRUARY 3**
**Olympia, Washington**
**NOTICE TO CONTRACTORS**

Sealed bids will be received by the Washington State Highway Commission at Olympia, Washington, on Tuesday, February 3, 1959, until 10:00 A.M. and will then and there be opened and publicly read for the construction of the improvement listed below.

Bid proposals delivered in person will be received only at the Reception Desk located on the first floor of the Transportation Building.

All bid proposals shall be accompanied by a bid proposal deposit in cash, certified check, cashier's check or surety bond in an amount equal to five per cent (5%) of the amount of such bid proposal. Should the successful bidder fail to enter into such contract and furnish satisfactory performance bond within the time stated in the specifications, the bid proposal deposit shall be forfeited to the State of Washington.

Prequalification of bidders is required. Maps, plans and specifications may be obtained from this office upon written request therefor and payment to the Director of Highways by cash, certified check, cashier's check or money order in the sum of two dollars ($2.00) for each copy of such maps, plans and specifications as a rental for the use of them. Plans will be forwarded by First Class Mail.

Informational copies of maps, plans and specifications are on file in the office of the County Engineer of the County in which the work is situated, the Chapter offices of the Associated General Contractors of America in Seattle, Spokane, Tacoma and Portland and the offices of the District Engineers of the Department of Highways where they may be inspected.

Federal Funds have been allocated for item no. 1.

The improvement for which bids will be received follows:

1. Draining and Grading on 11.090 miles of Primary State Highway No. 11 in Adams County, FRANKLIN COUNTY LINE TO HEDRICK-COLEMAN ROAD, FAP No. F-033-2(6), involving about 1,103,440 cubic yards of Common Excavation and Borrow, 45,680 cubic yards of Solid Rock Excavation, 3,380 cubic yards of Unsuitable Foundation Excavation, 9,380 tons of Loose Riprap, 9,879 linear feet of Concrete Pipe, 526 linear feet of Metal Pipe, an alternate lump sum bid for a Metal Culvert Pipe, an alternate lump sum bid for a Reinforced Concrete Underpass and other items.

ERNEST J. KETCHAM, Chairman
W. A. BUGGE, Director of Highways
6387—1-17, 24

**PUMPING PLANT, DISCHARGE LINE**
**BIDS CLOSE 10 A.M., P.S.T., FEBRUARY 19**
**Ephrata, Washington**
**NOTICE TO CONTRACTORS**

DEPARTMENT OF THE INTERIOR, Bureau of Reclamation. Sealed bids (Specifications No. DC-5140) will be received at Ephrata, Washington, until 10 a.m., Pacific Standard Time, February 19, 1957, for furnishing labor and materials for the construction of Sand Hollow Pumping Plant and Discharge Line, Block 83, Columbia Basin Project, Washington. Location approximately 22 miles south of Quincy, Washington. Principal items are 4,350 cu. yds. excavation; 675 cu. yds. concrete; 700 lin. ft. furnishing and laying 66-inch dia. concrete pipe; 53,000 lbs. furnishing and erecting structural steel for pumping plant superstructure; installing 5 main pumping units; furnishing and installing other items of equipment and materials; and other work. Completion time 360 days. For particulars, address Bureau of Reclamation, P.O. Box 368, Ephrata, Washington; or Building 53, Denver Federal Center, Denver 2, Colorado. W. A. Dexheimer, Commissioner.
6386—1-17

**BANK REMODELING**
**BIDS CLOSE 2 P.M., JANUARY 20**
**Klamath Falls, Oregon**
**NOTICE TO CONTRACTORS**

Sealed bids will be received until 2 p.m. on Tuesday, January 20, 1959, by George W. McIntyre, President, First Federal Savings and Loan Association, 540 Main Street, Klamath Falls, and will then and there be opened and publicly read for the construction of the improvements listed below.

All bid proposals shall be accompanied by a bid proposal deposit in cash, certified check, cashier's check or surety bond in an amount equal to five per cent (5%) of the amount of such bid proposal. The successful bidder shall be required to furnish a one hundred per cent (100%) performance bond as a condition of the contract.

Plans and specifications are available from the offices of the architects, Morrison, Howard, 203-05 Williams Building, Klamath Falls, upon deposit of $50, said deposit to be refunded upon the return in good and satisfactory condition of the plans and specifications in case the bidder is not successful.

Work includes extensive exterior and interior remodeling and excavation of a basement and erecting of supports at certain lines of spans for the existing First Federal Savings and Loan Association building on the corner of Sixth and Main streets, Klamath Falls, and 25 feet of the building immediately adjacent to the south; also remodeling of entire second and third floor portions of the adjacent building.

The owner reserves the right to waive informalities and to accept or reject any or all bids.

George W. McIntyre, President
First Federal Savings & Loan Association
Klamath Falls, Ore.
6384—1-6, 13

**EARTHWORK, STRUCTURES, WASTEWAYS**
**BIDS CLOSE 10 A.M., FEBRUARY**
**Ephrata, Washington**
**NOTICE TO CONTRACTORS**

DEPARTMENT OF THE INTERIOR, Bureau of Reclamation. Sealed bids (Specifications No. DC-5135 will be received at Ephrata, Washington, until 10 a.m., Pacific Standard Time, February 17, 1959, for furnishing labor and materials for earthwork and structures, Block 83 laterals, wasteways, and drain, Branch Canal Laterals, Columbia Basin Project, Washington. Location northeast of Beverly, Washington. Principal items are 375,000 cu. yds. excavation; 75,000 cu. yds. earth lining; 720 cu. yds. concrete in structures; 10 units furnishing and installing outdoor-type pumping units; and other work. Completion time 400 days. For particulars, address Bureau of Reclamation, P.O. Box 590, Othello, Washington; P.O. Box 368, Ephrata, Washington; or Building 53, Denver Federal Center, Denver 2, Colorado. W. A. Dexheimer, Commissioner.
6374—1-10

**WATER WELLS**
**BIDS CLOSE 10 A. M., JANUARY**
**Anderson, California**
**NOTICE TO CONTRACTORS**

U. S. Department of the Interior, Fish and Wildlife Service, Bureau of Sport Fisheries and Wildlife, the Interior Bldg., 1001 N.E. Lloyd Blvd., P.O. Box 3737, Portland, Oregon. Telephone BElmont 4-3361, Extension 246. Sealed bids will be received in this office until 10:00 A.M., P.S.T., January 1959, and then publicly opened, for the furnishing of all labor, materials and equipment necessary to drill, case and test two water wells at the U.S. Fish Cultural Station, Anderson (Shasta County), California. Plans and specifications may be obtained at the above address. Leo L. Laythe, Regional Director.
6380—1-6, 10

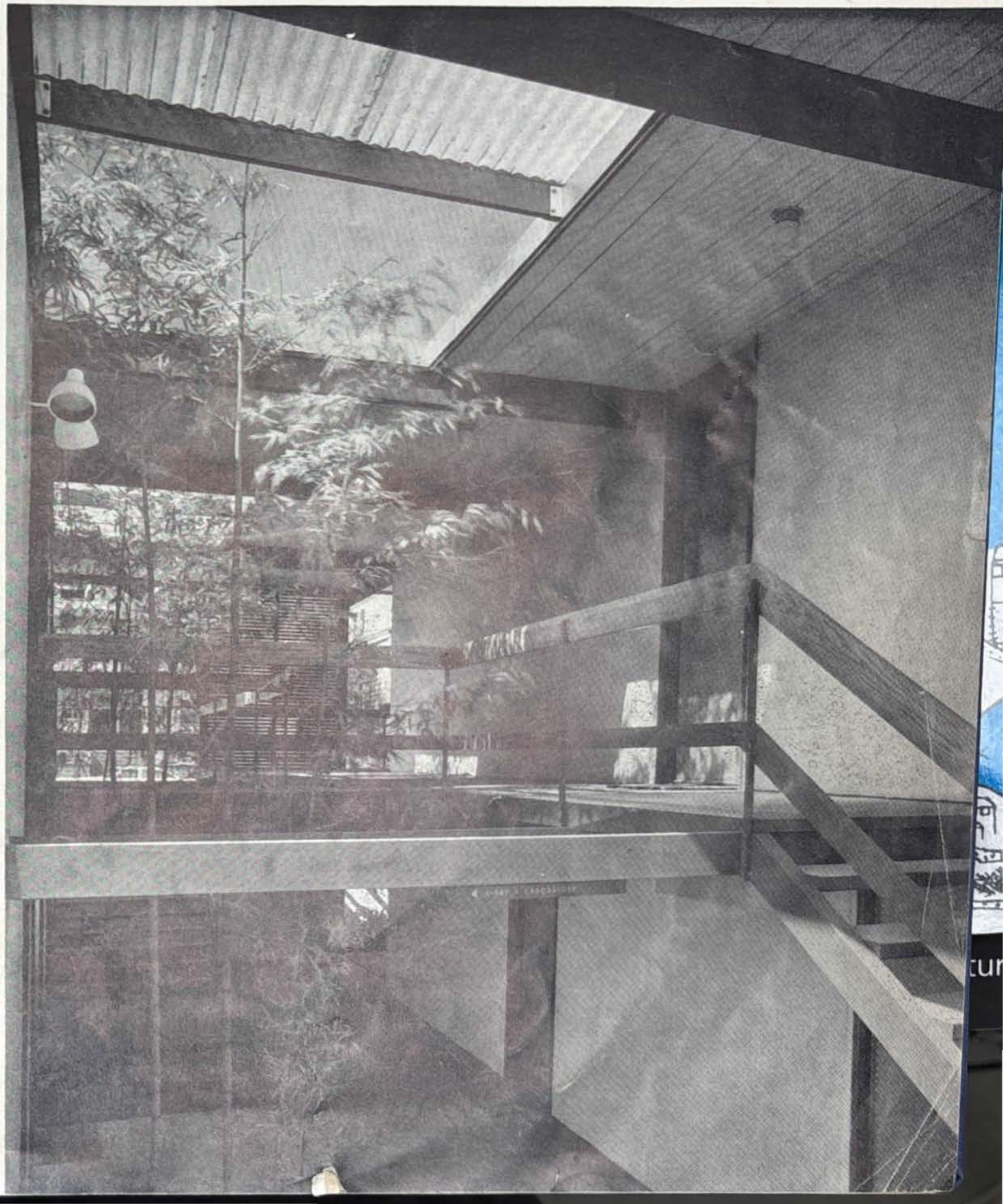
**GRADING, BRIDGE**
**BIDS CLOSE 2 P. M., JANARY**
**Portland, Oregon**
**NOTICE TO CONTRACTORS**

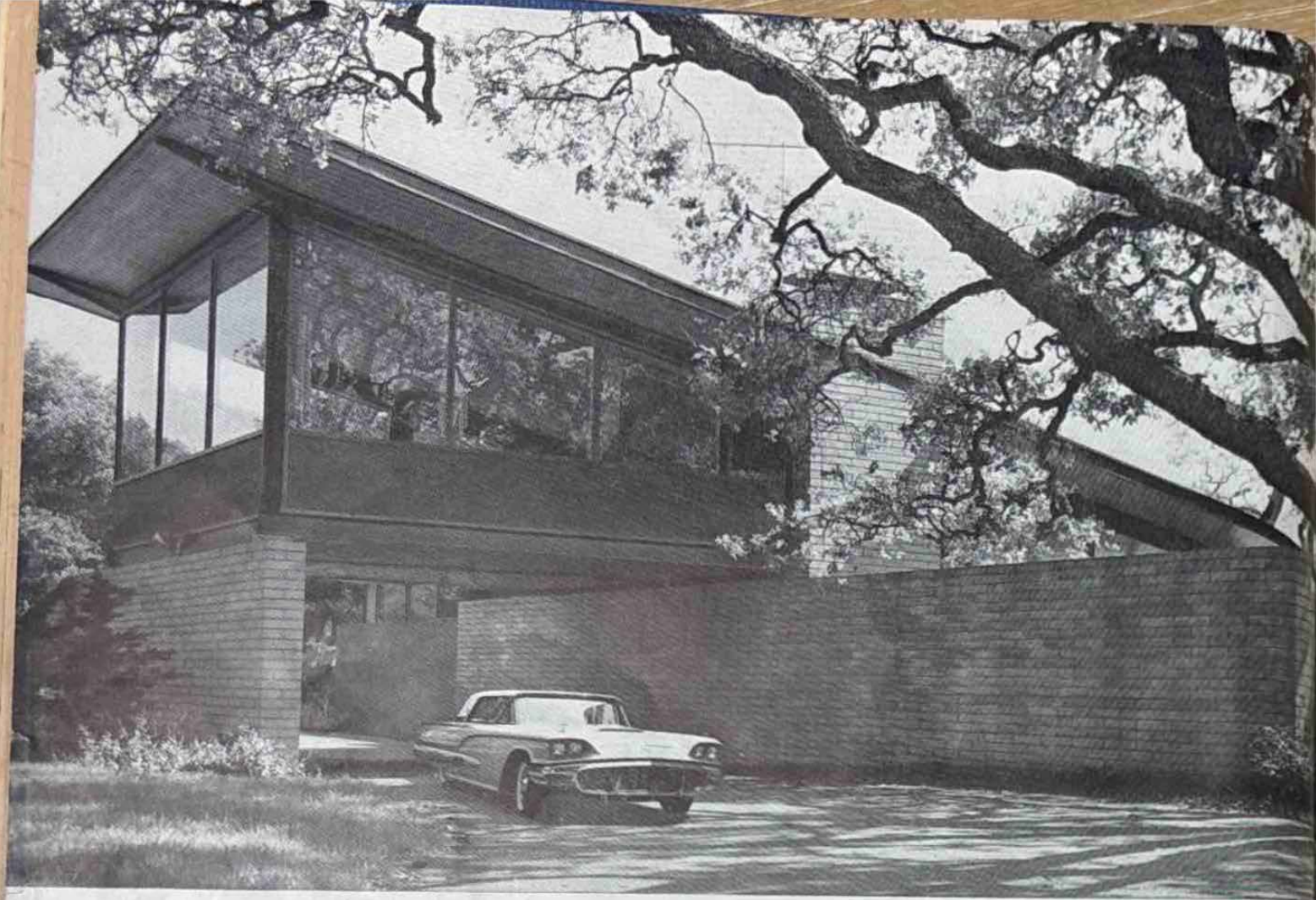
DEPARTMENT OF COMMERCE, BUREAU OF PUBLIC ROADS, January 13, SEALED BIDS will be received at the office of the Bureau of Public Roads, Room Morgan Building, 720 S.W. Washington Street, Portland 5, Oregon, until 2 p.m. January 27, 1959, for furnishing the materials and performing the work for constructing 4.2 miles grading and a 160-ft. reinforced concrete bridge, Oregon Timber Access Road Project BLM 68-D, Smith River Road, Bureau of Land Management-Coos Bay District, Douglas County, Oregon, involving 34 acres Clearing and grubbing; 151,600 cu. yds. Excavation; 244 cu. yds. Concrete; 56,500 lbs. Reinforcement steel; 332 lin. ft. Steel bridge railing; 2,100 lin. ft. Culvert pipe and other small items of work. Plans, specifications and proposals may be obtained at the address shown above or by phoning CA 6-3361, Extension 460. B. M. FRENCH, Regional Engineer.
6389—1-17

**Legal advertisements published in our columns are read throughout the Pacific Northwest and Alaska.**

Architecture & Allied Arts
MAR 5

# pacific architect and builder



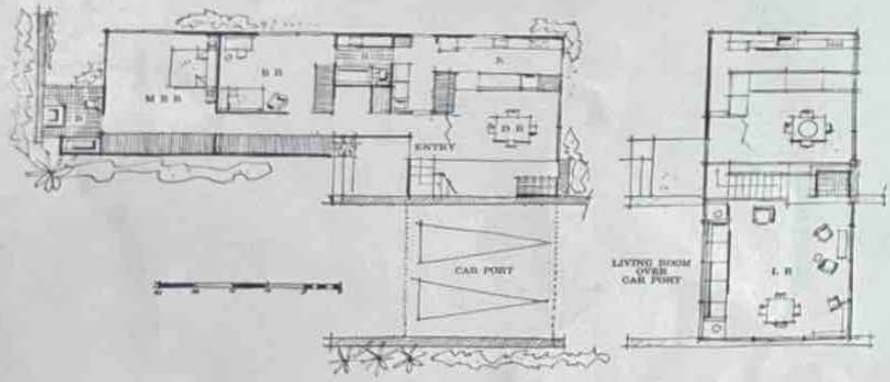


Owner: Harry C. Nail, Atherton, Calif.; architect: David Thorne, Berkeley; consulting engineer: Carl Replogle, Piedmont; contractor: John C. Davenport; steelwork: San Jose Steel Company.

# It's Completely Framed in Steel

Two big bents, shop-fabricated, carry the living room over the carport. Smaller bents frame the ground-level wing.

This handsome residence illustrates these advantages of steel framing for light-occupancy structures:




1. Competitive Cost—Erected cost was $2200 to frame 2000 sq ft.
2. Fast Construction—The bents were erected in two hours.
3. Imaginative Design—The architect used steel's strength to achieve both functional and esthetic objectives. Since the bents carry the load, interior and exterior walls are non-load-bearing. The plan is free of columns. The house is brightened with a band of clerestory windows completely around the perimeter.
4. Strength and Permanence—Here is a home with "the strength of a skyscraper," designed to resist seismic forces and fire, and immune to termite damage.

Structural steel is in ready supply, and it is produced to long-accepted standards. You can count on its uniform quality.

For literature describing light-occupancy structures designed with steel, write to Publications Department, Bethlehem Pacific Coast Steel Corporation, Box 3494 Rincon Annex Station, San Francisco 19.

BETHLEHEM STEEL

**BETHLEHEM PACIFIC**

pa&b
Magazine of West Coast Architecture

# pacific architect and builder

VOLUME 65, NUMBER 2 FEBRUARY 1959

*Covering California, Oregon, Washington, Idaho, Montana, Alaska and Hawaii—a $4 billion building market*

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**COVER:** Physicians' Building, Everett, Wash.: Paul Hayden Kirk & Associates, Architects; Dearborn-Massar photo.

# Year starts off with $40 million gain

Building permit volume in the PA&B territory for January is $40 million higher than a year ago. The total, $223,682,013, is also $31¼ million higher than the previous month.

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(Number of permits is followed by total dollar volume)

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| Tacoma | 84 | 108,950 | 26 | 83,760 | | |
| Orange County | 514 | 8,203,958 | 29 | 313,160 | 2 | 1,605,000 |
| Los Angeles County | 1,488 | 12,789,363 | 280 | 3,347,957 | 16 | 118,800 |
| Sacramento County | 611 | 6,589,723 | 61 | 1,068,606 | 4 | 48,088 |

## Building Permits for 116 Western Agencies for January

| CALIFORNIA | Jan. 1959 | Dec. 1958 | Jan. 1958 |
|---|---|---|---|
| Alameda County | $ 728,200 | $ 1,047,900 | $ 906,600 |
| Anaheim | 2,012,450 | 3,889,495 | 3,216,840 |
| Bakersfield | 808,275 | 1,152,100 | 742,268 |
| Burbank | 969,059 | 719,057 | 726,086 |
| Contra Costa County | 1,993,628 | 2,507,669 | 2,064,757 |
| Fresno | 3,605,010 | 4,805,401 | 1,637,566 |
| Fullerton | 1,414,696 | 1,779,540 | 520,111 |
| Glendale | 2,801,721 | 2,078,442 | 1,564,058 |
| Inglewood | 938,802 | 1,343,885 | 1,050,994 |
| Long Beach | 5,609,365 | 5,574,355 | 3,730,690 |
| Los Angeles | 48,780,532 | 30,901,815 | 46,264,686 |
| Los Angeles County | 16,906,475 | 19,968,009 | 18,928,557 |
| Oakland | 2,220,445 | 5,812,906 | 2,469,118 |
| Ontario | 229,589 | 549,008 | 1,341,958 |
| Orange County | 10,341,389 | 3,172,169 | 2,816,808 |
| Palo Alto | 852,372 | 1,803,623 | 892,236 |
| Pasadena | 1,168,290 | 2,335,316 | 924,916 |
| Pomona | 818,657 | 1,316,682 | 769,236 |
| Richmond | 477,735 | 610,099 | 587,593 |
| Riverside | 2,328,660 | 900,315 | 888,957 |
| Sacramento | 2,255,758 | 2,666,223 | 2,635,303 |
| Sacramento County | 7,692,712 | 12,818,523 | 3,116,382 |
| San Bernardino | 955,627 | 1,109,720 | 2,917,098 |
| San Bernardino County | 5,961,771 | 6,489,040 | 4,724,025 |
| San Diego | 18,236,768 | 11,324,914 | 10,544,881 |
| San Diego County | 8,161,600 | 7,881,600 | 4,737,200 |
| San Francisco | 12,275,159 | 6,097,824 | 6,081,392 |
| San Jose | 5,676,106 | 6,819,669 | 4,995,741 |
| San Mateo | 577,447 | 760,009 | 608,220 |
| San Mateo County | 977,230 | 1,030,552 | 4,006,704 |
| Santa Ana | 1,536,591 | 590,532 | 1,752,189 |
| Santa Monica | 2,078,655 | 2,123,239 | 3,065,638 |
| Stockton | 1,083,092 | 979,644 | 428,385 |
| Sunnyvale | 1,594,309 | 1,029,025 | 4,546,317 |
| Torrance | 591,941 | 1,849,554 | 7,023,419 |
| West Covina | 370,639 | 666,646 | 1,751,745 |
| TOTAL | $175,084,755 | $156,504,500 | $154,960,674 |

| OREGON | Jan. 1959 | Dec. 1958 | Jan. 1958 |
|---|---|---|---|
| Albany | $ 130,900 | $ 456,900 | $ 94,900 |
| Astoria | 13,680 | 16,642 | 3,450 |
| Baker | 476,660 | 96,525 | 8,513 |
| Bend | 64,300 | 100,195 | 50,940 |
| Coos Bay | 139,125 | 68,224 | 63,917 |
| Corvallis | 236,595 | 450,525 | 263,750 |
| Eugene | 425,498 | 341,172 | 78,968 |
| Grants Pass | 30,300 | 86,450 | 49,895 |
| Gresham | 11,600 | 17,300 | 67,505 |
| Hillsboro | 19,955 | 43,557 | 21,200 |
| Klamath Falls | 244,000 | 50,821 | 29,022 |
| LaGrande | 9,500 | 37,480 | 250 |
| Lane County | 608,166 | 597,396 | 372,778 |
| Medford | 390,825 | 238,661 | 314,575 |
| Multnomah County | 2,442,729 | 1,533,930 | 1,162,425 |
| North Bend | 16,150 | 57,788 | 31,141 |
| Oregon City | 72,900 | 285,599 | 28,175 |
| Pendleton | 59,440 | 79,710 | 45,200 |
| Portland | 3,158,195 | 3,700,100 | 4,219,070 |
| Roseburg | 28,240 | 51,600 | 52,735 |
| Salem | 279,254 | 465,890 | 111,920 |
| Springfield | 84,877 | 209,429 | 15,600 |
| The Dalles | 100,100 | 118,478 | 18,775 |
| TOTAL | $ 9,042,989 | $ 9,104,372 | $ 7,123,704 |

| WASHINGTON | Jan. 1959 | Dec. 1958 | Jan. 1958 |
|---|---|---|---|
| Aberdeen | $ 52,253 | $ 40,586 | $ 31,087 |
| Anacortes | 63,500 | 142,700 | 129,100 |
| Auburn | 109,050 | 133,660 | 114,900 |
| Bellingham | 107,930 | 149,768 | 144,600 |
| Bremerton | 101,345 | 226,240 | 54,155 |
| Centralia | 257,789 | 48,851 | 29,345 |
| Chehalis | 45,429 | 2,079 | 9,031 |
| Clarkston | 52,095 | | 6,432 |
| Ellensburg | 3,150 | 7,428 | 8,830 |
| Ephrata | 6,150 | 1,800 | 13,460 |
| Everett | 146,410 | 1,505,130 | 129,160 |
| Kelso | 122,300 | 4,000 | 7,300 |
| Kennewick | 72,600 | 101,840 | 36,500 |
| King County | 10,285,165 | 7,050,075 | 6,224,465 |
| Kirkland | 166,500 | 84,600 | 119,070 |
| Longview | 445,429 | 1,422,572 | 314,953 |
| Moses Lake | 167,544 | 28,534 | 386,470 |
| Olympia | 127,583 | 115,443 | 380,870 |
| Pasco | 88,930 | 368,220 | 149,650 |
| Pierce County | 1,330,785 | 1,360,523 | 1,117,268 |
| Port Angeles | 7,600 | 3,700 | 2,650 |
| Puyallup | 128,170 | 272,850 | 113,050 |
| Ritzville | 300 | 7,525 | Nil |
| Seattle | 20,163,999 | 5,224,758 | 6,124,256 |
| Shelton | 21,100 | 6,800 | 14,782 |
| Spokane | 718,679 | 2,140,698 | 545,728 |
| Spokane County | 526,240 | 1,095,178 | 571,216 |
| Sumner | 50,250 | 500,000 | 29,020 |
| Tacoma | 842,739 | 1,103,965 | 1,803,265 |
| Vancouver | 240,516 | 309,587 | 434,688 |
| Walla Walla | 23,700 | 25,300 | 186,315 |
| Wenatchee | 141,325 | 66,789 | 100,450 |
| Yakima | 156,375 | 175,945 | 260,862 |
| TOTAL | $ 36,772,930 | $ 23,678,293 | $ 19,591,955 |

| MONTANA | Jan. 1959 | Dec. 1958 | Jan. 1958 |
|---|---|---|---|
| Billings | $ 135,600 | $ 129,000 | $ 180,750 |
| Bozeman | 31,700 | 121,000 | Nil |
| Butte | 32,500 | 46,822 | 67,547 |
| Glasgow | Nil | 130,000 | 5,400 |
| Glendive | Nil | 6,400 | 6,000 |
| Great Falls | 303,632 | 547,815 | 497,521 |
| Helena | 94,600 | 79,000 | 169,378 |
| Kalispell | 20,000 | 24,300 | 13,600 |
| Lewistown | 85,800 | 22,500 | Nil |
| Livingston | 72,200 | 1,000 | 31,900 |
| Miles City | 46,275 | 59,275 | 20,700 |
| Missoula | 51,200 | 35,700 | 8,300 |
| TOTAL | $ 873,507 | $ 1,202,912 | $ 1,001,096 |

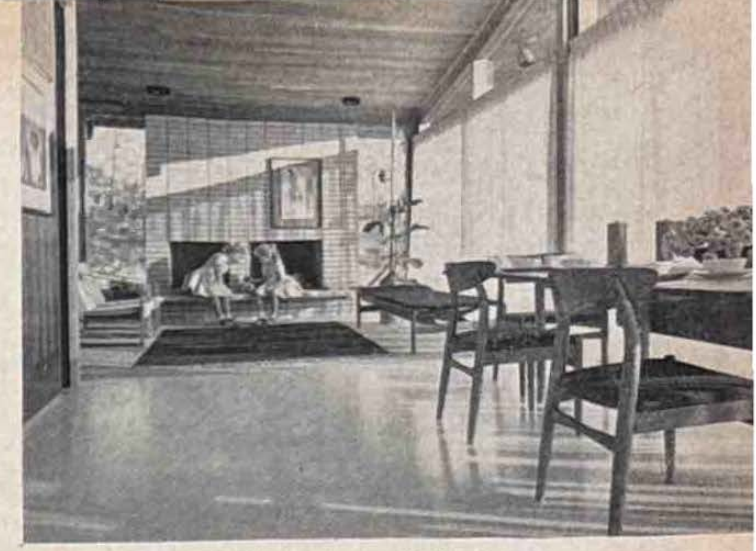
| IDAHO | Jan. 1959 | Dec. 1958 | Jan. 1958 |
|---|---|---|---|
| Boise | $ 249,322 | $ 217,713 | $ 580,777 |
| Caldwell | 27,155 | 56,865 | 9,485 |
| Coeur d'Alene | 39,700 | 105,296 | 43,450 |
| Idaho Falls | 830,505 | 139,650 | 52,625 |
| Jerome | 8,500 | 31,550 | 5,500 |
| Lewiston | 180,580 | 824,564 | 68,238 |
| Nampa | 228,775 | 70,710 | 31,250 |
| Payette | 63,400 | 27,875 | 16,900 |
| Pocatello | 71,275 | 104,360 | 108,965 |
| Sandpoint | 128,000 | 6,000 | 7,000 |
| St. Maries | Nil | 15,000 | Nil |
| Twin Falls | 80,620 | 251,050 | 84,100 |
| TOTAL | $ 1,907,832 | $ 1,850,633 | $ 1,008,291 |

| GRAND TOTAL | $223,682,013 | $192,340,710 | $183,685,720 |
|---|---|---|---|

# Coast photographers in exhibit

Of 36 prints chosen to hang in the third architectural photography exhibition sponsored by the American Institute of Architects, eight are the work of West Coast photographers. Art Hupy of Seattle took third prize with the interior shot at the right and is represented in the show with another picture.* More than 150 submissions were reviewed.

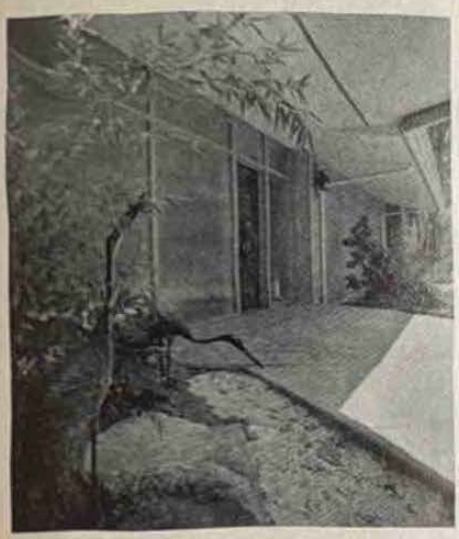
*Ed. note: All are shown here except one which was not released to PA&B because of a commitment with another publication.



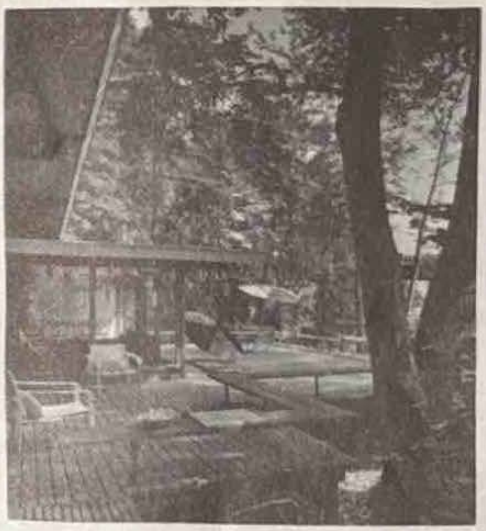
**ALCOA CAREFREE HOUSE,** Bellevue, Wash.: Art Hupy, photographer; Charles M. Goodman Associates, architects.



**PAUL THIRY CABIN,** Ellensburg, Wash.: Art Hupy, photographer; Paul Thiry, architect.



**BENJAMIN B. COLE, RESIDENCE,** Mercer Island, Wash.: Charles R. Pearson, photographer; Wilkin & Ellison, architects.



**MARTIN RIND RESIDENCE,** Bellevue, Wash.: Dearborn-Massar, photographers; Tucker & Shields, architects.

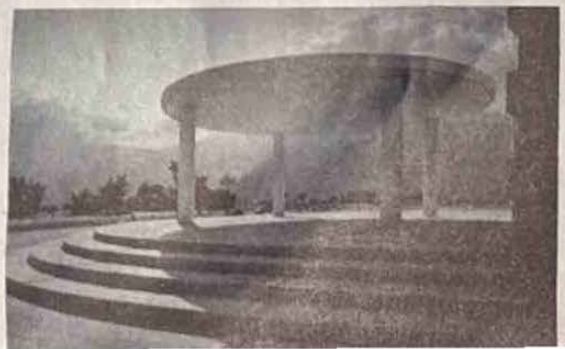


**MIRAMAR CHAPEL,** Miramar Naval Air Station, San Diego: Julius Shulman, photographer; Neutra & Alexander, architects.

**PRIVATE INDOOR SWIMMING POOL,** Mexico City: Erwin G. Lang, photographer; Felix Candela, architect.



**PALM SPRINGS (CALIF.) CITY HALL:** Julius Shulman, photographer; Frey & Chambers, architects.



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| Ontario | 229,589 | 549,008 | 1,341,958 |
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| Palo Alto | 852,372 | 1,803,623 | 892,236 |
| Pasadena | 1,168,290 | 2,335,316 | 924,916 |
| Pomona | 818,657 | 1,316,682 | 769,236 |
| Richmond | 477,735 | 610,099 | 587,593 |
| Riverside | 2,328,660 | 900,315 | 888,957 |
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| San Diego | 18,236,768 | 11,324,914 | 10,544,881 |
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| Santa Monica | 2,078,655 | 2,123,239 | 3,065,638 |
| Stockton | 1,083,092 | 979,644 | 428,385 |
| Sunnyvale | 1,594,309 | 1,029,025 | 4,546,317 |
| Torrance | 591,941 | 1,849,554 | 7,023,419 |
| West Covina | 370,639 | 666,646 | 1,751,745 |
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| OREGON | Jan. 1959 | Dec. 1958 | Jan. 1958 |
|---|---|---|---|
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| Astoria | 13,680 | 16,642 | 3,450 |
| Baker | 476,660 | 96,525 | 8,513 |
| Bend | 64,300 | 100,195 | 50,940 |
| Coos Bay | 139,125 | 68,224 | 63,917 |
| Corvallis | 236,595 | 450,525 | 263,750 |
| Eugene | 425,498 | 341,172 | 78,968 |
| Grants Pass | 30,300 | 86,450 | 49,895 |
| Gresham | 11,600 | 17,300 | 67,505 |
| Hillsboro | 19,955 | 43,557 | 21,200 |
| Klamath Falls | 244,000 | 50,821 | 29,022 |
| LaGrande | 9,500 | 37,480 | 250 |
| Lane County | 608,166 | 597,396 | 372,778 |
| Medford | 390,825 | 238,661 | 314,575 |
| Multnomah County | 2,442,729 | 1,533,930 | 1,162,425 |
| North Bend | 16,150 | 57,788 | 31,141 |
| Oregon City | 72,900 | 285,599 | 28,175 |
| Pendleton | 59,440 | 79,710 | 45,200 |
| Portland | 3,158,195 | 3,700,100 | 4,219,070 |
| Roseburg | 28,240 | 51,600 | 52,735 |
| Salem | 279,254 | 465,890 | 111,920 |
| Springfield | 84,877 | 209,429 | 15,600 |
| The Dalles | 100,100 | 118,478 | 18,775 |
| TOTAL | $ 9,042,989 | $ 9,104,372 | $ 7,123,704 |

| WASHINGTON | Jan. 1959 | Dec. 1958 | Jan. 1958 |
|---|---|---|---|
| Aberdeen | $ 52,253 | $ 40,586 | $ 31,087 |
| Anacortes | 63,500 | 142,700 | 129,100 |
| Auburn | 109,050 | 133,660 | 114,900 |
| Bellingham | 107,930 | 149,768 | 144,600 |
| Bremerton | 101,345 | 226,240 | 54,155 |
| Centralia | 257,789 | 48,851 | 29,345 |
| Chehalis | 45,429 | 2,079 | 9,031 |
| Clarkston | 52,095 | | 6,432 |
| Ellensburg | 3,150 | 7,428 | 8,830 |
| Ephrata | 6,150 | 1,800 | 13,460 |
| Everett | 146,410 | 1,505,130 | 129,165 |
| Kelso | 122,300 | 4,000 | 7,300 |
| Kennewick | 72,600 | 101,840 | 36,500 |
| King County | 10,285,165 | 7,050,075 | 6,224,465 |
| Kirkland | 166,500 | 84,600 | 119,070 |
| Longview | 445,429 | 1,422,572 | 314,953 |
| Moses Lake | 167,544 | 28,534 | 386,476 |
| Olympia | 127,583 | 115,443 | 380,875 |
| Pasco | 88,930 | 368,220 | 149,650 |
| Pierce County | 1,330,785 | 1,360,523 | 1,117,268 |
| Port Angeles | 7,600 | 3,700 | 2,650 |
| Puyallup | 128,170 | 272,850 | 113,050 |
| Ritzville | 300 | 7,525 | Nil |
| Seattle | 20,163,999 | 5,224,758 | 6,124,296 |
| Shelton | 21,100 | 6,800 | 14,783 |
| Spokane | 718,679 | 2,140,698 | 545,726 |
| Spokane County | 526,240 | 1,095,178 | 571,216 |
| Sumner | 50,250 | 500,000 | 29,020 |
| Tacoma | 842,739 | 1,103,965 | 1,803,265 |
| Vancouver | 240,516 | 309,587 | 434,660 |
| Walla Walla | 23,700 | 25,300 | 186,315 |
| Wenatchee | 141,325 | 66,789 | 100,450 |
| Yakima | 156,375 | 175,945 | 260,882 |
| TOTAL | $ 36,772,930 | $ 23,678,293 | $ 19,591,955 |

| MONTANA | Jan. 1959 | Dec. 1958 | Jan. 1958 |
|---|---|---|---|
| Billings | $ 135,600 | $ 129,000 | $ 180,750 |
| Bozeman | 31,700 | 121,000 | Nil |
| Butte | 32,500 | 46,822 | 67,547 |
| Glasgow | Nil | 130,000 | 5,400 |
| Glendive | Nil | 6,400 | 6,000 |
| Great Falls | 303,632 | 547,815 | 497,521 |
| Helena | 94,600 | 79,000 | 169,378 |
| Kalispell | 20,000 | 24,300 | 13,600 |
| Lewistown | 85,800 | 22,500 | Nil |
| Livingston | 72,200 | 1,000 | 31,900 |
| Miles City | 46,275 | 59,275 | 20,700 |
| Missoula | 51,200 | 35,700 | 8,300 |
| TOTAL | $ 873,507 | $ 1,202,912 | $ 1,001,056 |

| IDAHO | Jan. 1959 | Dec. 1958 | Jan. 1958 |
|---|---|---|---|
| Boise | $ 249,322 | $ 217,713 | $ 580,777 |
| Caldwell | 27,155 | 56,865 | 9,485 |
| Coeur d'Alene | 39,700 | 105,296 | 43,450 |
| Idaho Falls | 830,505 | 139,650 | 52,625 |
| Jerome | 8,500 | 31,550 | 5,500 |
| Lewiston | 180,580 | 824,564 | 68,239 |
| Nampa | 228,775 | 70,710 | 31,250 |
| Payette | 63,400 | 27,875 | 16,900 |
| Pocatello | 71,275 | 104,360 | 108,965 |
| Sandpoint | 128,000 | 6,000 | 7,000 |
| St. Maries | Nil | 15,000 | Nil |
| Twin Falls | 80,620 | 251,050 | 84,100 |
| TOTAL | $ 1,907,832 | $ 1,850,633 | $ 1,008,291 |

| GRAND TOTAL | $223,682,013 | $192,340,710 | $183,685,720 |
|---|---|---|---|

# Coast photographers in exhibit

Of 36 prints chosen to hang in the third architectural photography exhibition sponsored by the American Institute of Architects, eight are the work of West Coast photographers. Art Hupy of Seattle took third prize with the interior shot at the right and is represented in the show with another picture.* More than 150 submissions were reviewed.

*Ed. note: All are shown here except one which was not released to PA&B because of a commitment with another publication.



**ALCOA CAREFREE HOUSE,** Bellevue, Wash.: Art Hupy, photographer; Charles M. Goodman Associates, architects.



**PAUL THIRY CABIN,** Ellensburg, Wash.: Art Hupy, photographer; Paul Thiry, architect.



**BENJAMIN B. COLE, RESIDENCE,** Mercer Island, Wash.: Charles R. Pearson, photographer; Wilkes & Ellison, architects.

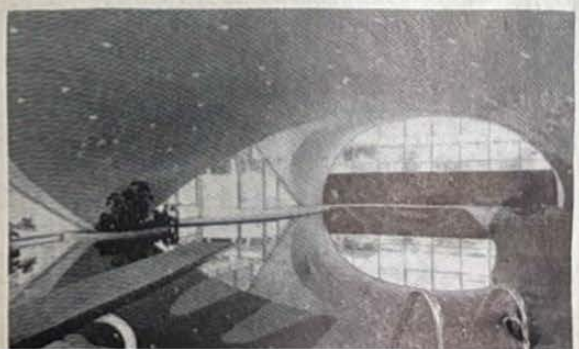


**MARTIN RIND RESIDENCE,** Bellevue, Wash.: Dearborn-Massar, photographers; Tucker & Shields, architects.



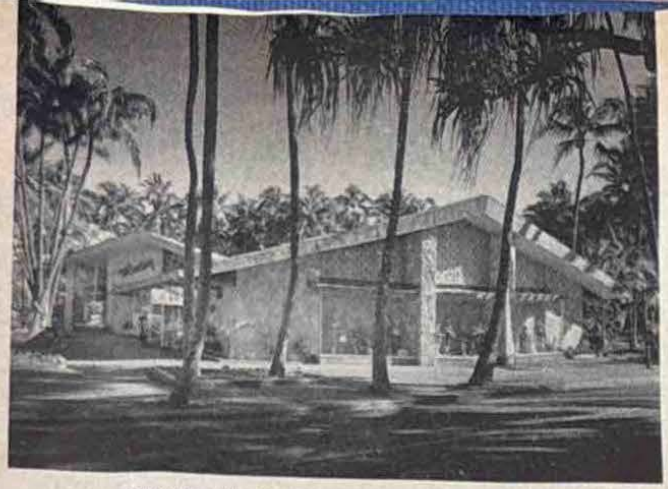
**MIRAMAR CHAPEL,** Miramar Naval Air Station, San Diego: Julius Shulman, photographer; Neutra & Alexander, architects.

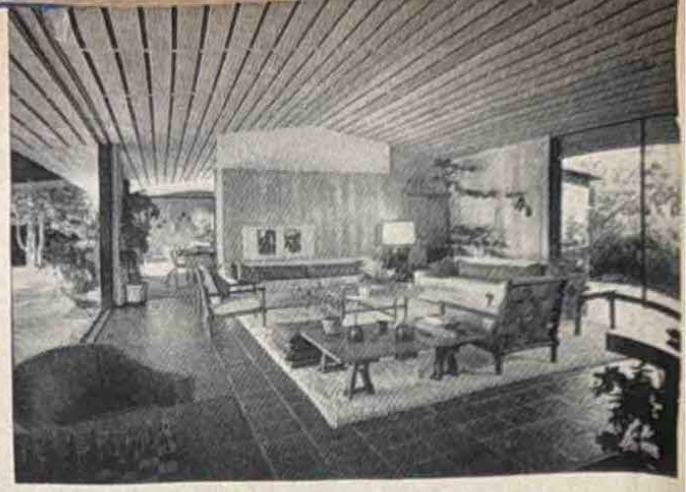
**PRIVATE INDOOR SWIMMING POOL,** Mexico City: Erwin G. Lang, photographer; Felix Candela, architect.



**PALM SPRINGS (CALIF.) CITY HALL:** Julius Shulman, photographer; Frey & Chambers, architects.





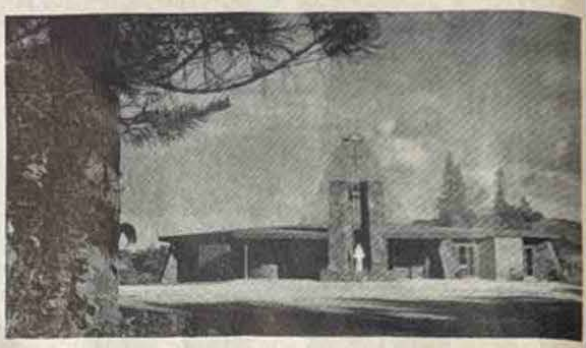


**GRAND AWARD** for two buildings to Vladimir Ossipoff for McInerny Store and architect's own residence.

# Hawaii cites six buildings, makes two special awards

Six buildings in the Honolulu area were honored for excellence of design when the American Institute of Architects met at the Reef Hotel January 30. The projects are shown here, along with a seventh cited as an example of the work of an architect who received a posthumous award for his overall contributions. The Hawaii Chapter presented a special citation to sculptor Edward Malcolm Brownlee in the field of artist craftsmanship. The all-architect jury consisted of Alfred Preis, Richard N. Dennis and Albin Kubala.

The meeting also featured the installation of these officers: Douglas Freeth, president; Frank S. Haines, vice president; Clifford F. Young, secretary; Gordon Bradley, treasurer; Howard L. Cook, Alfred Preis and John H. McAuliffe Jr., directors.

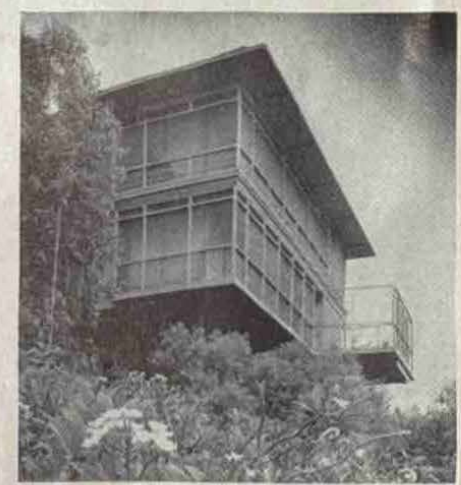


**HONOR AWARD** to John H. McAuliffe Jr. and Edwin L. Bauer for Kilauea Catholic Mission Church.

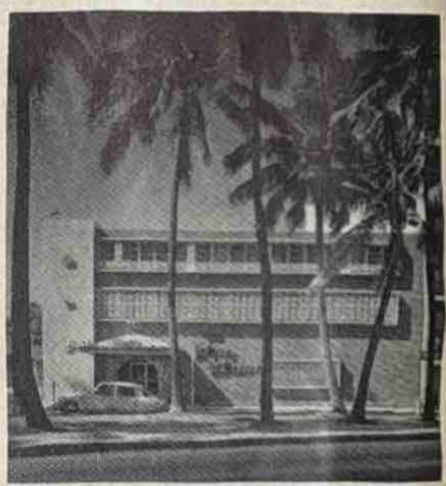
R. Wenkam photos



**HONOR AWARD** to Merrill, Simms & Roehrig for C. S. Wo Building.



**HONOR AWARD** to Johnson & Perkins for Thomas D. Perkins' own residence.

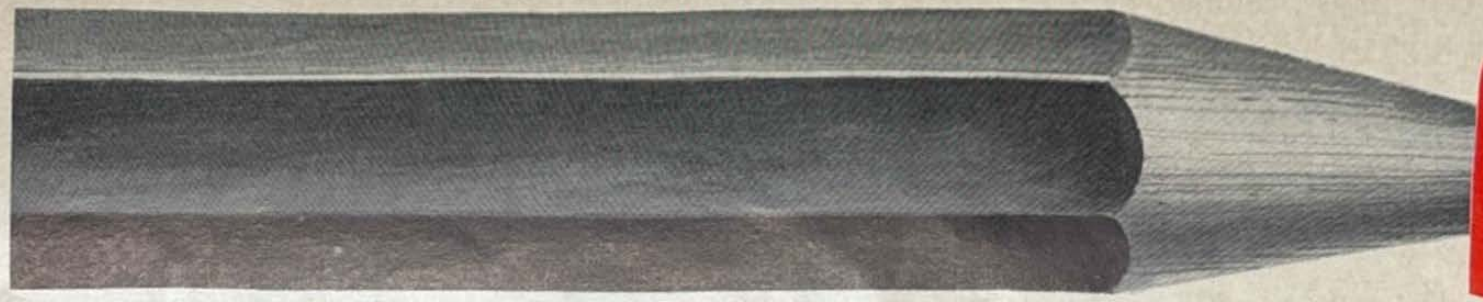


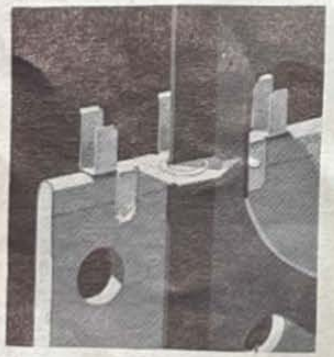
**POSTHUMOUS AWARD** to late Philip C. Fisk for his contribution to architecture with his final building, Ciro's Merry Monarch Restaurant.



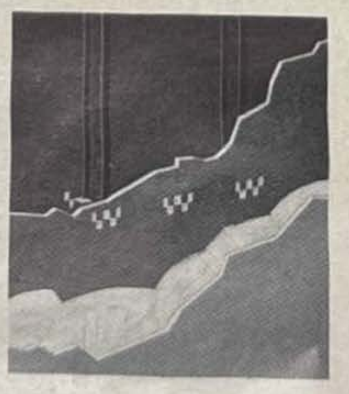
**HONORABLE MENTION** to Lemmon, Freeth, Haines & Jones for Wesley Foundation Student Center and Chapel adjacent to University of Hawaii campus.

# Two FIRE and SOUND Resistant Partition Systems





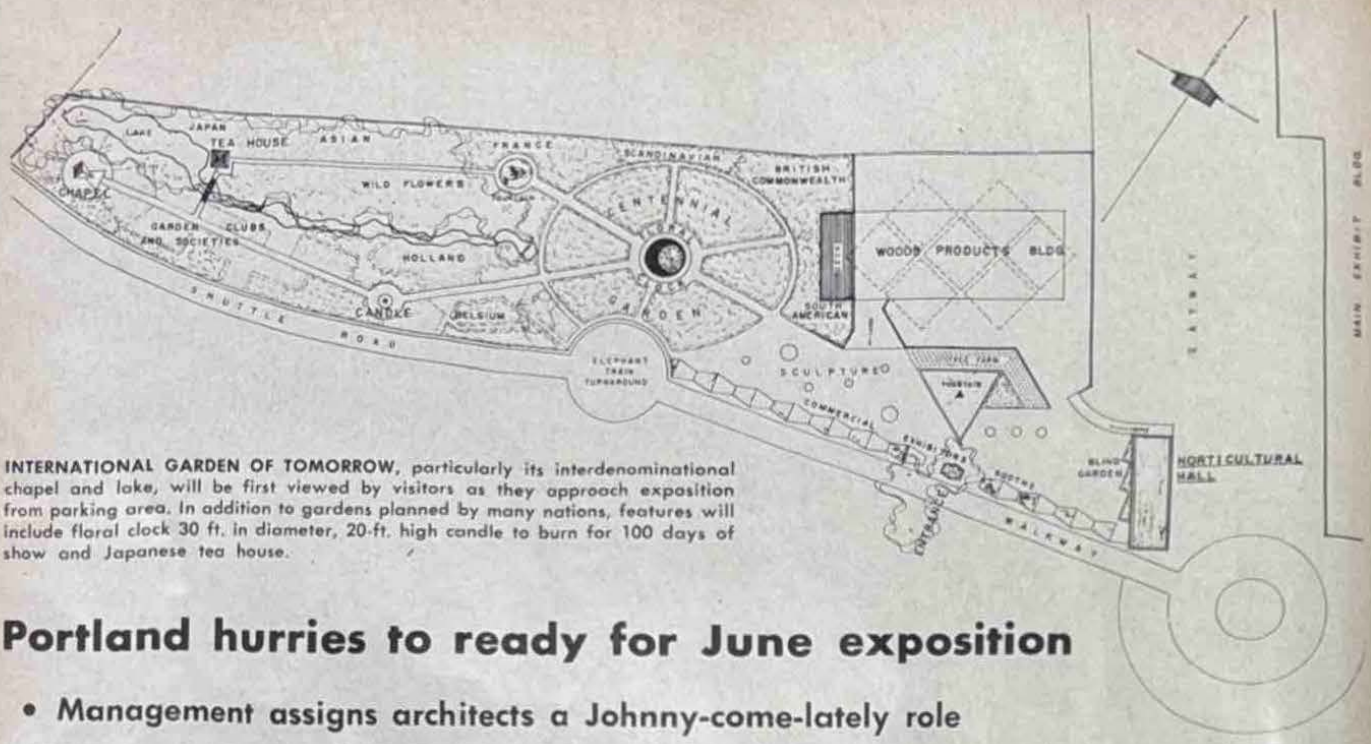
Kaiser offers Western architects two proven interior partition systems (wallboard or lath and plaster) to meet any job requirement. Both feature incombustible framing and Kaiser Spee-Dee Clips. The lath and plaster system has a one hour fire rating, the laminated wallboard system, 1 or 2 hour fire ratings.



Average sound transmission performance: Plaster system (Spee-Dee Clip), 44 decibels; Wallboard (Perma Wall), 45 decibels. Call your nearest Kaiser Gypsum office for information and technical bulletins.

KAISER GYPSUM

**KAISER GYPSUM COMPANY, INC.** Kaiser Building–1924 Broadway, Oakland, California




**INTERNATIONAL GARDEN OF TOMORROW,** particularly its interdenominational chapel and lake, will be first viewed by visitors as they approach exposition from parking area. In addition to gardens planned by many nations, features will include floral clock 30 ft. in diameter, 20-ft. high candle to burn for 100 days of show and Japanese tea house.

# Portland hurries to ready for June exposition

## • Management assigns architects a Johnny-come-lately role

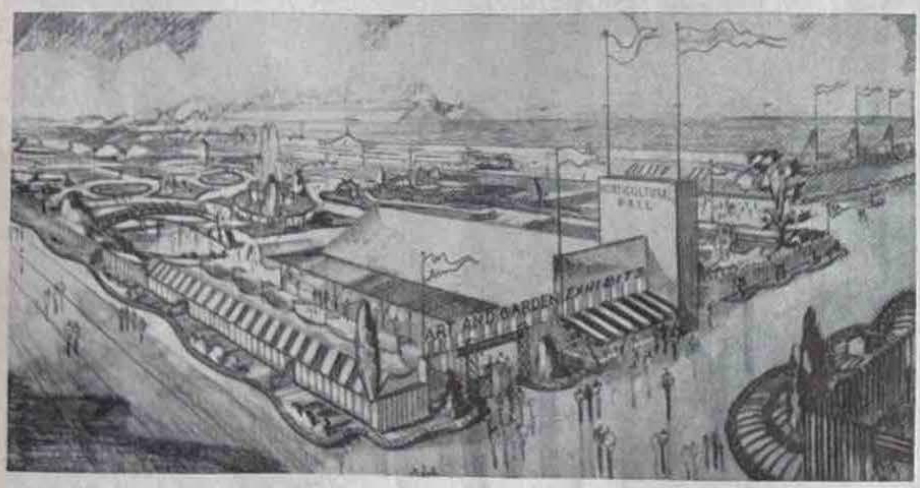
Three major obstacles have stood in the path of good planning for Oregon's Centennial Exposition and Trade Fair, scheduled to open June 10 and run through September 17 in Portland. In the first place, early plans evolved around the completion of the Exposition-Recreation Center in time for the event. But site squabbles delayed start of construction, which got underway early this month, almost five years since the bond issue was approved.

The second difficulty has been lack of money. The 1957 state legislature cut down the Centennial Commission's request from $1,100,000 to $830,000, as compared with $500,000 appropriated for the Lewis and Clark Exposition in Portland in 1905. Of the 1957 appropriation, $500,000 was earmarked for rehabilitation of the Pacific International Livestock Building and grounds on a 65-acre site. Finally, just four months before the show is set to open, the lawmakers have okayed $1,790,000 for the exposition. This is a reduction of $256,000 from the requested amount but most of that was for a contingency fund which can be met from the state emergency fund. There has been no change in the $298,000 for further site work.

A third and important factor in the overall planning picture has been concerned with the design development itself, particularly the delay in engaging an architect for the celebration. As late as March 1958, the Oregon Chapter of the American Institute of Architects, through president John K. Dukehart, expressed strong disapproval to Anthony Brandenthaler, Centennial Commission chairman, with a plea "that architects be engaged immediately to sort out the design mess and make the 1959 centennial a credit to our state." The Portland architectural firm of Stewart & Richardson was given the nod the following month.

What then is the status of the exposition today? Repairs to the existing 400,000-sq. ft. building are nearly completed under the direction of the centennial architects and Moffatt, Nichol & Taylor, engineers. An embellishment for the main entrance or east plaza is being designed by the architects. Three new access roads, a total of 3½ miles, have been completed by the Oregon State Highway Commission and Multnomah County at a cost of $102,000. Site work is well underway.

Now under construction is the Portland General Electric Pavilion, designed by architect Donald Blair. The triangular shaped structure will contain 3,000 sq. ft. of exhibit space. The building itself will be about 25 ft. high, topped with an 80-ft. tower symbolic of power transmission.




**"ARCHITECTURAL DRAWINGS"** such as this, released to press long before architects were retained, drew criticism from design profession. Commented president John Dukehart of Oregon Chapter AIA, at annual banquet a year ago: "The State of Oregon, from all sketches and renderings put forth up to this time, is planning to show itself to the world with an International Trade Fair looking like the carnival gayway at a county fair or a Friday surprise at a shopping center. There are to be masses of flags and pennants with soaring tetrahedrons spotted here and there, surmounted in turn by more flags."

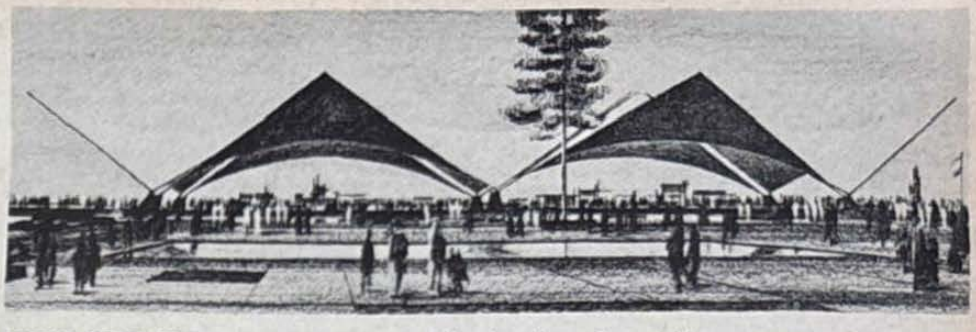
The center roof structure will be lightweight steel sections covered with ribbons of cathedral plastic in various brilliant colors; the outer, flat portion of the roof will be vaulted plywood; the three sides of the building will be of a lightweight block screen to allow light to filter through. There will be no windows or doors.

In planning the all-wood Forest Products Pavilion architect John Storrs and engineer James G. Pierson have employed seven hyperbolic paraboloids. The 1½-in. solid wood roof will be topped with a sprayed-on roofing material with a white surface. Skylights will be constructed between each of the seven shells. Water will be drained off the roof at six points into downspouts. The moats originally planned have been deleted for safety reasons. Since the pavilion is 1 ft. off the ground, wooden bridges will carry foot traffic to the continuing outside display area. Construction was scheduled to start the middle of February under sponsorship of the Forest Products Centennial Committee. Donations were made from every segment of the industry.

The $75,000 "Centennial House of Ideas," sponsored by the Northwest Natural Gas Co. and the Portland Home Builders Association, is now being built. Employing wood and wood products, it will be located outside the builders' exhibit, which replaces their 1959 home show.

A 10-acre "International Garden of Tomorrow," being planned by a separate non-profit corporation and including an interdenominational chapel, is expected to be one of the show's outstanding features. Edward L. Erickson, landscape architect for the City of Portland, made the overall design. The garden will be moved later to Washington Park, near Portland's new zoo (see next column).

Douglas County, the only county intending to exhibit outside the main building, plans a 40x70-ft. wooden structure.



**FOREST PRODUCTS PAVILION** will remain following close of exposition as permanent structure. It will be donated to 4-H clubs of Oregon. Total cost of building and exhibits is set at $250,000.

## Underground water halts work on Portland's new zoo

Drainage of underground water from the site of Portland's new $4 million zoo was underway the first week in February in an effort to halt a serious slide which threatened several of the buildings. Cracks appeared in the earth, some utility lines were severed and it appeared that the lower 20 acres of the zoo would slide into Canyon Road. Construction was stopped on the hay barn and administration building.

The water was discovered by Dames & Moore, soil engineers, after three weeks of test drilling, near the new Oregon Museum of Science and Industry. The Portland City Council speedily appropriated $100,000 to bring in a special Calweld earth drill to dig up to 200 steel-encased holes, from 60 to 80 ft. deep, parallel to the fracture line. The rig is drilling holes 30 to 36 in. in diameter, about 8 ft. apart along a 1,500-ft. line. They will be connected at the bottom with tiles and backfilled with gravel or crushed rocks to intercept ground water from higher elevations. The water will be collected at a central point and pumped out or, if possible, a horizontal drain will be installed.

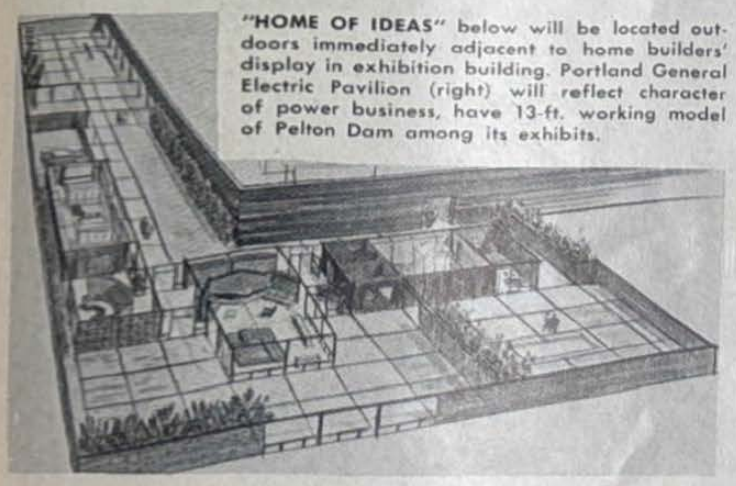
The State Highway Department had trouble with a road built last summer to the west of the zoo site and on the same contour. Horizontal pipes were successfully used to drain the area after two civilian homes had been damaged. It was felt that vertical holes would be more reliable in draining the zoo proper.

### WINNING MOSAIC PICKED

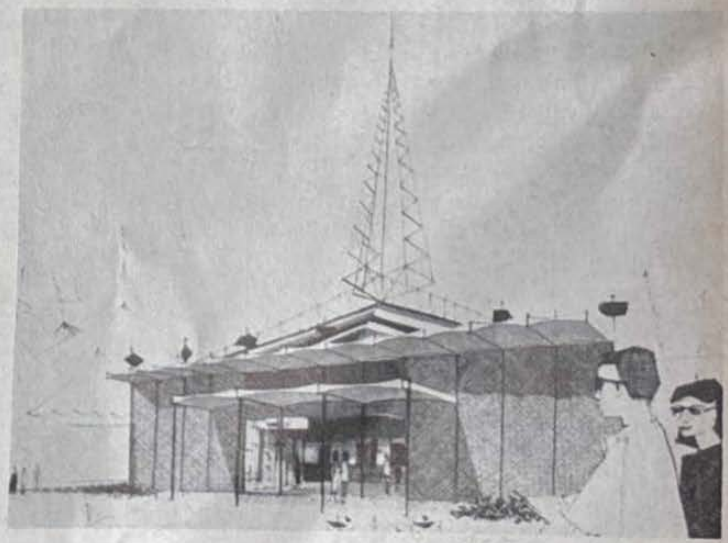
Willard K. Martin, with the Eugene architectural firm of Wilmsen & Endicott, has received the $300 first prize in a competition for a 50-ft. mosaic decoration at the entrance to the Portland Zoological Gardens in Hoyt Park. Second and third prize winners, Milton Wilson of Portland and Martha Glogau of Monmouth, each won $100.

The mosaic will be the background for a "tree of life" free-standing sculpture and pool.

Jurors were James Hanson, Vancouver, Wash., sculptor; Dr. Francis Newton, curator of the Portland Art Museum; and Dean Walter Gordon of the School of Architecture and Allied Arts, University of Oregon.



**"HOME OF IDEAS"** below will be located outdoors immediately adjacent to home builders' display in exhibition building. Portland General Electric Pavilion (right) will reflect character of power business, have 13-ft. working model of Pelton Dam among its exhibits.





Ford Motor Company, Milpitas, California
Architect: Albert Kahn, Associated Architects & Engineers
Glazed structural tile by Kraftile

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# Soviets to get U.S. exhibit

A 200-ft. diameter aluminum dome, whose components have been fabricated at a rolling mill in Trentwood, Wash., will be a major feature of the U.S. scientific, cultural and technological exhibit in Moscow August 2 to September 13. Plans by the U.S. Department of State call for locating the display on a triangular shaped section of Sokoniki Park. The Russians will have a similar exhibit in the New York City Coliseum.

The dome, which will house a show of scientific activities, was developed by R. Buckminster Fuller and is being built by Kaiser Aluminum & Chemical Corp. Components have been shipped to Lydick Roofing Co. of Fort Worth, who will be the contractor in charge of erection of the dome in Moscow. Panels will be anodized gold before they are shipped flat to Russia, where they will be formed in a special sunburst pattern before being preassembled with the struts in preparation for erection, scheduled to begin about April 15.

Largest building in the exhibit, being designed by Welton Becket & Associates, will be a fanlike structure with an accordion pleated metal roof 500 ft. wide. The 50,000 sq. ft. of space will be devoted to a display of American products.

Other buildings planned for the 300,000-sq. ft. landscaped site are a concert shell opening to an audience area of 5,500 persons, a tentlike food concessions building that will serve such standbys as hot dogs and hamburgers and a circlarama building similar to the popular highlight of the American exhibit at the Brussels World Fair. Thirteen flagpoles in a semicircle between the dome and fan shaped buildings will fly the colors of the orginal American colonies.

"The idea of the structures is to present the Russian people with a striking example of our building technology," Becket points out. "The entire exhibit, except the dome, will be prefabricated in Milan and quickly assembled in Moscow."



**FIRST MODERN AMERICAN BUILDINGS** behind Iron Curtain are due for construction in Moscow as site for next summer's U.S. cultural and industrial exhibit. Soviet Union has agreed to purchase structures after six-week show ends.

## Southern California inspectors elect

Joe E. Fetters, now in his fifth year as building inspector for the Alamitos School District, has been named president of the Construction Inspectors Association of Southern California. The group is composed of more than 200 members who work together for uniformity in inspection services, education in methods and materials and improvement of relationships among architects, contractors and state agencies. Monthly meetings are held at different locations, ranging from Bakersfield to San Diego, and the association publishes an annual guide.

# AGC installs Cawdrey, hits federal aid

The Associated General Contractors of America at its January annual meeting in Miami Beach installed James W. Cawdrey of Seattle as president and focused a great deal of attention on the federal government's role in construction. Delegates indicated a wariness about the Small Business Administration and spoke out strongly against federal aid for school construction.



CAWDREY

A member of the firm of Cawdrey & Vemo, the new AGC head has been in the construction industry since 1934. He was national vice president last year, has served as president of the Seattle Chapter and as chairman of the Building Contractors' Division of the national association.

**Resolutions**

A resolution concerning the SMA was prompted by an address by Deputy Administrator Donald A. Hipkins who indicated that the tentative regulations of his group governing the construction industry were to be adopted as permanent regulations. AGC requested postponement of the effective date of their adoption to allow time for further study.

In another resolution AGC pointed out that school construction in this country has been traditionally and constitutionally the responsibility of the states and local communities; that the use of federal funds is a step toward federal control of education; and that federal control would add greatly to the cost of school construction.

**'A helter-skelter mess'**

John Noble Richards, president of the American Institute of Architects, told the contractors that America has pushed forward its frontiers of knowledge, science and technology but "we have found no time to tidy up our backyards. With few exceptions our cities are hasty improvisations. They are not only lacking in beauty but in simple efficiency. Our suburbs are largely a helter-skelter mess.

"We all know what is needed. We need green spaces and plazas, proper traffic arteries and parking provisions, space for our children to play and for all of us to relax. We need order and efficiency and beauty in our habitations."

In citing the progress made by the joint cooperative committee between the AGC and the AIA, he commented, "We have both gained increasing respect and appreciation for each other. We can confidently look forward to an even greater degree of unity and cooperation between our two organizations, not just at the top level but down in the grass roots—in local chapters and on the building sites."

The New H. B. Alexander Award for the AGC member with the most outstanding safety record for 1958 went to J. A. Jones Construction Co., with home offices in Charlotte, N.C., for work it is doing for the Atomic Energy Commission in Richland, Wash.

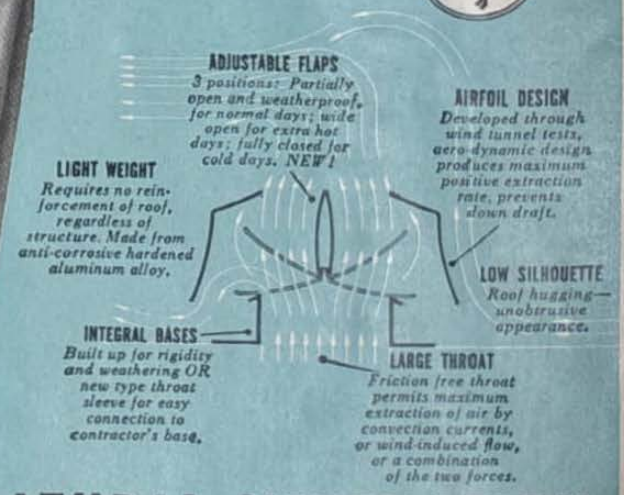
Other awards to West Coast building contractors: H. Halvorson, Inc., Yardley, Wash.: first place, between 500,000 and 200,000 hours exposure; Quality Builders, Tacoma: first place, less than 100,000 hours; Holmes & Narver, Inc., Los Angeles: second place, over 500,000 hours; Midstate Construction Co., San Francisco: second place, over 1,000,000 hours.


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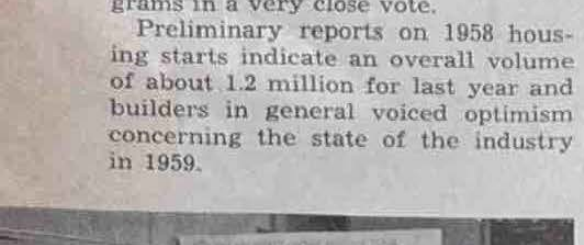
**DISCUSSING** program to introduce aluminum "House of Ease" in 160 cities during year are this threesome at NAHB show: David P. Reynolds, vice president of Reynolds Metals Co.; Albert M. Cole, who is leaving top HHFA post to guide manufacturer's promotions; and Nels G. Severin, NAHB president. Cole will be succeeded by Norman P. Mason, federal housing administrator.

## NAHB convention is largest in history

Certainly the largest and probably the best annual convention ever staged by the National Association of Home Builders drew an estimated attendance of more than 30,000 to Chicago last month. During the five-day meeting the registrants had a choice of 281 speakers and panelists on 39 programs, with six to eight major events running simultaneously each morning and afternoon, and toured 225,000 sq. ft. of exhibit space in the Coliseum. In business sessions the delegates:

- Elected Carl Mitnick of Merchantville, N.J., as president.
- Named Herman S. Sarkosky of Tacoma and George Pardee of Los Angeles as regional vice presidents.
- Picked Seattle as site of the 1961 fall conference, which will center around NAHB's "House of the Future" program and is expected to attract 8,000 participants.
- Endorsed a plan for a central mortgage reserve facility.
- Asked that the association lobby for continuation of government programs in a very close vote.

Preliminary reports on 1958 housing starts indicate an overall volume of about 1.2 million for last year and builders in general voiced optimism concerning the state of the industry in 1959.



**"ARCHITECT-HOME BUILDER TEAM,"** an exhibit prepared by AIA, points up need for and value of architect designed houses and architect-builder cooperation at NAHB convention.

## Product information makes news from coast to coast

Growing emphasis on building products information—from basic research to better communication among architects, manufacturers and salesmen—has been very much in evidence this past month. In Washington, D.C., the American Institute of Architects launched a new reference service and Producers' Council announced plans to conduct an extensive study of marketing and distribution problems; back on the West Coast an architect addressed the final session of a salesmen's seminar.

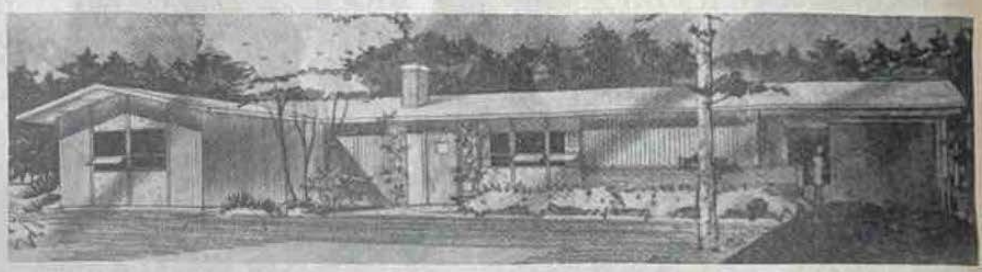
The Building Products Registry Service, with headquarters in the Octogan, offers to all AIA members for a $25 subscription fee a four-point program consisting of:

1. The register itself which will list and tabulate building products and equipment according to performance, installation and use conditions, tests performed and other technical data needed for preselection analysis.
2. A reporting service on completed installations which will include information on product behavior and other data resulting from practical experience.
3. A field inspection service on the part of experienced building technicians who will visit architects' offices to collect data on installations.
4. Reports on new products and test data prior to listing in each annual edition of the register.

The first register, listing 18 product and equipment categories, is scheduled for distribution by mid-June.

The marketing and distribution study will be conducted by Dr. Reavis Cox and Dr. Charles S. Goodman from the Wharton School of Finance and Commerce at the University of Pennsylvania. In explaining the purpose of the study, PC president H. Dorn Stewart says, "It has become more apparent that manufacturers must ask themselves the question: has efficiency in marketing and distribution kept pace with increases in production efficiency?"

Addressing the PC seminar in Los Angeles, C. M. Deasy told the salesmen that they are among the most important on whom the architect must rely in rendering his services. "In his capacity as advisor, the salesman must recommend the proper material for the designated job. It is not enough to get a product specified detailed; it must stand the test of time. If a product is used in a manner for which it was not intended, time will reveal the error. When this happens the client suffers and, after all, the architect, the salesman and his company are dedicated to the best interests of the client."



**SINGLE FAMILY RESIDENCE** for Project 3, designed by Jones, Lovegren, Helms & Jones. Architects for Projects 4 and 5 are Miller & Ahlson.

## Army to launch one of largest housing jobs at Fort Lewis

One of the Army's largest housing jobs, whose total construction cost will exceed $12 million, will get underway this spring on various sites in and adjacent to Fort Lewis. The program calls for 856 two-and three-bedroom units for officers and non-commissioned officers.

The greater portion will be built as duplexes with the carports separating the houses, although some of the officer units will have two stories. For variety in appearance, three different types of cedar siding and a hardpressed fiberboard with wood battens will be used for exterior finish. Plastic surfaced plywood panels will accent the houses. Cedar siding will be finished with pigmented oil stain and eight different color schemes used for exterior painting, six for interior painting.

Associated with the architects—Jones, Lovegren, Helms & Jones for Project 3; Miller & Ahlson for Projects 4 and 5—are Roy L. Gardner, civil engineer; Johnson & Duncan, electrical engineers; and James B. Notkin & Associates, mechanical engineers, all of Seattle.




Dearborn-Massar

# A clinic with some pleasant surprises

Physician's Building
Everett, Washington

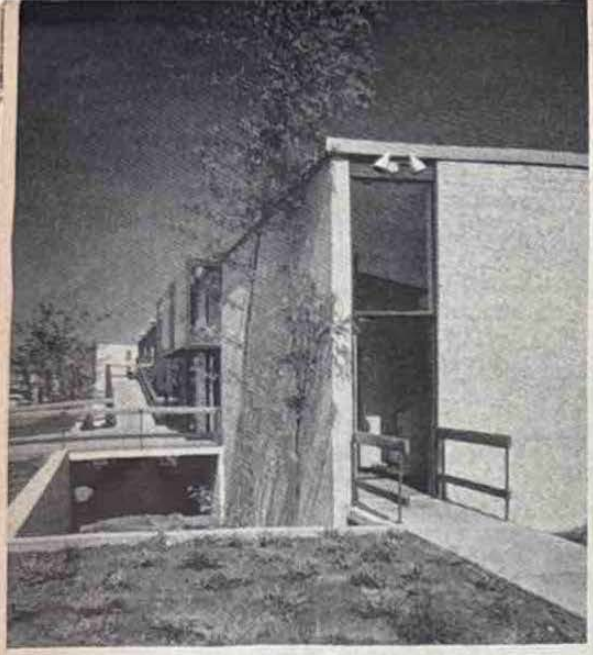
•

PAUL HAYDEN KIRK & ASSOCIATES
Donald S. Wallace
David A. McKinley Jr.
Architects

STEVENSON & RUBENS
Structural Engineers

STERN & TOWNE
Mechanical Engineers

ODEGARD CONSTRUCTION CO.
General Contractor



**SOUTHWEST CORNER** with service door to pharmacy, upper floor and employees' lounge in basement. Italian tile facing at right is repeated at pharmacy entry (see preceding page).

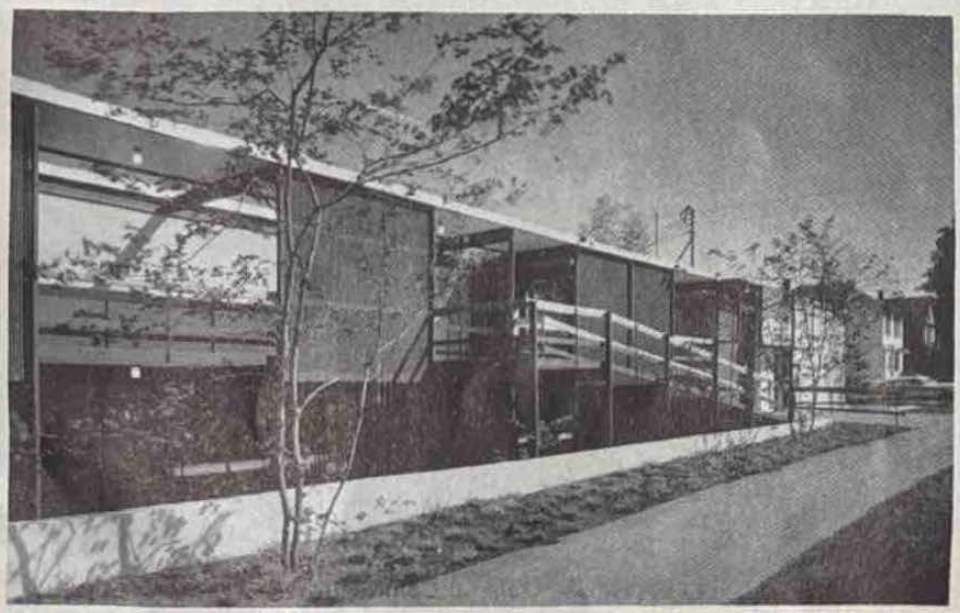
## PHYSICIANS' BUILDING

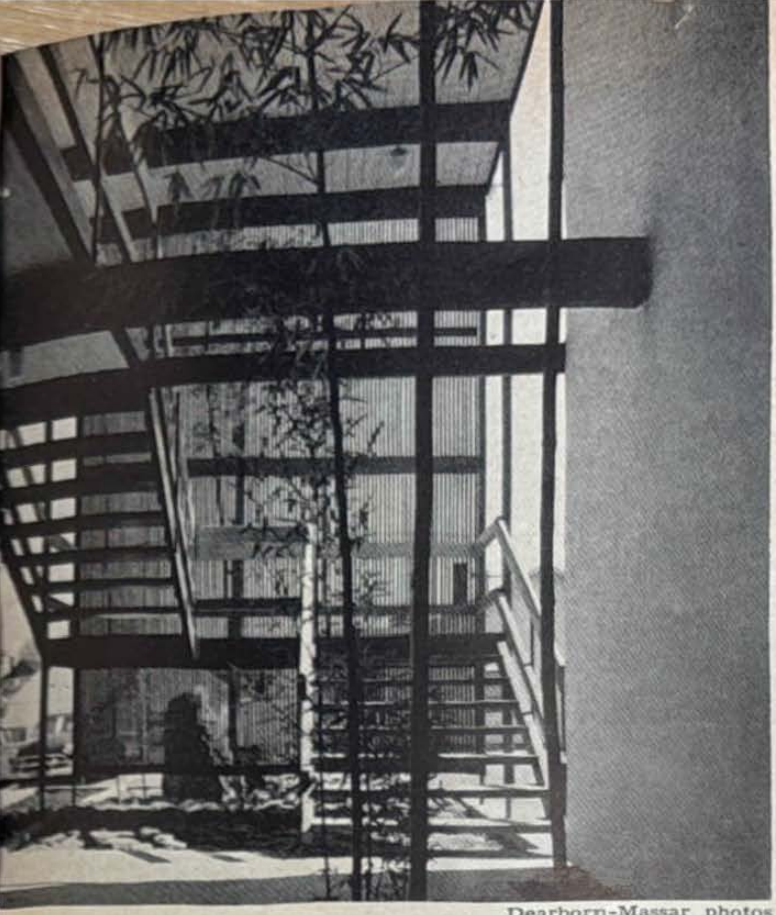
IN MAKING the most economical use of the site to provide quarters for five doctors, a pharmacy, an x-ray and laboratory suite and parking for 26 cars, the architects introduced a number of amenities which set this building apart from the ordinary clinic. Space requirements dictated a two-story scheme; and the slope of the property indicated that the lower floor be at the parking level, which is about 5 ft. below the main sidewalk. A ramp leads to the second floor where all units are connected by covered walkway screens, serving as a visual and natural buffer from the hubbub of traffic. Plantings at the central stairway and in a sunken moat and a heather strip adjacent to the sidewalk are little details which add up to a pleasant environment.

The building is oriented to the north and south. Offices and consultation rooms for the most part have a western exposure, while examination rooms are to the east, thus maintaining a simple elevation with some degree of control. Fenestration for the latter is achieved through honeycomb reinforced plastic panels with built-in sun louvers which eliminate cleaning problems and, when the structure is lighted, produce a stimulating effect.

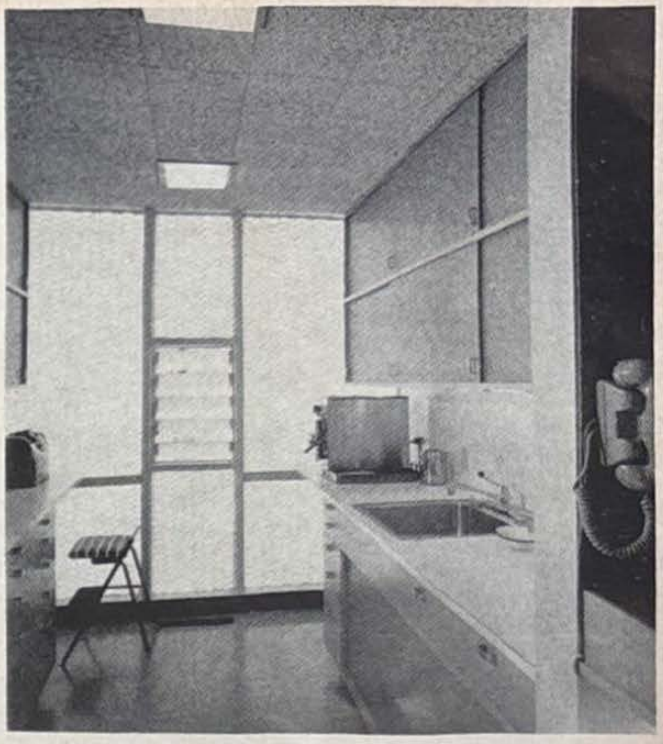
**PAVED PARKING AREA** is at east elevation. Central stairway leads to street level and upper floor. West elevation has covered walkway screens.







Dearborn-Massar photos



**LABORATORY SUITE** opens to corridor and receptionist. Honeycomb reinforced plastic panel has colored sheet plastic in ventilating louvers. Stairway at left is dramatized by vertical fir slat screen, bamboo in planting area.

## OUTLINE SPECIFICATIONS

**Structure:** foundation: reinforced concrete; frame: structural steel tube columns and wood; roof: wood joists; walls: wood; floors: wood joists on upper; 2x6 t&g on beams on lower; concrete slab in basement.

**Exterior Finish:** white stucco; 1x4 V-joint t&g cedar siding; Lake Como Italian tile.

**Roof Surfacing:** tar and pea gravel.

**Windows:** ¾-in. thick plastic surfaced honeycomb core—(Architectural Plastics Corp.); sheet plastic in Sun Sash louvers—(Tropiglas) Architectural Plastics Corp.; ¼-in. plate glass in wating room.

**Doors:** exterior: 1¾-in. solid core vertical grain fir; metal frame for pharmacy entry—Kawneer Co.; interior: 1⅜-in. hollow core flush birch.

**Floor Surfacing:** vinyl asbestos—(Aristoflex) Mastic Tile Corporation of America, (Vina-Lux) Uvalde Rock Asphalt Co.; asphalt tile in basement; carpeting in doctors' private offices.

**Insulation:** accordion type aluminum foil in ceiling, cantilevered soffits and exterior walls—Infra Insulation Co.; 1-in. quilt between suites.

**Partitions:** ½-in. gypsum wallboard on wood studs —(Sheetrock) United States Gypsum Co.

**Interior Finish:** painted gypsum wallboard; prefinished walnut and cherry plywood in private offices—(Architectural Craftwall) Roddis Plywood Corp.

**Ceilings:** ½-in. gypsum wallboard—(Sheetrock) United States Gypsum Co.; ¾-in acoustical tile over wallboard in corridors and reception areas—(Forestone) Simpson Logging Co.

**Lighting Fixtures:** incandescent—John C. Virden Co., Prescolite Manufacturing Corp., National Electric Co., General Lighting Corp., Edwin F. Guth Co.; fluorescent in pharmacy.

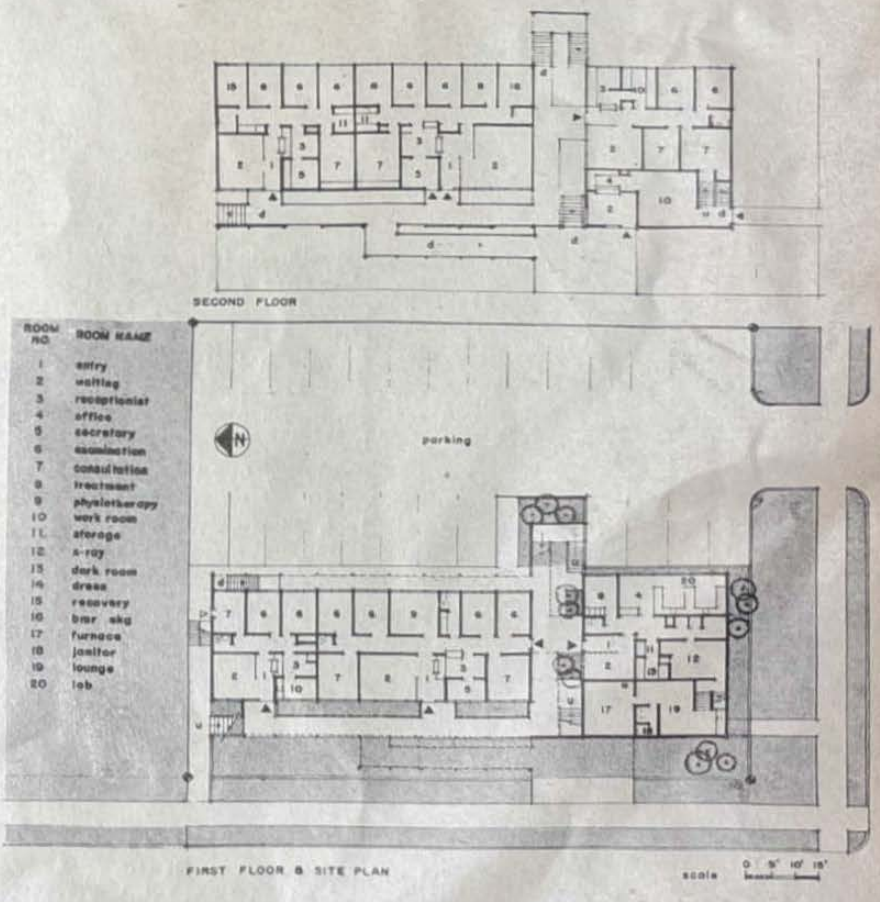
**Heating:** gas fired, forced warm air individual units —A. O. Smith Corp.

**Plumbing and Sanitary:** water closets and lavatories —Crane Co., American Standard, Elkay Mfg. Co. gas fired, hot water heater—A. O. Smith Corp.

**Special Equipment:** room dividers—Paul Heinley Movable Shutters. (Tropiglas) Architectural Plastics Corp.; folding doors—(Modernfold) New Castle Products, Inc., (Ra-Tox Fashionfold) Hough Manufacturing Co.; skylights—Wasco Products, Inc.

**Total Area:** 9,230 sq. ft.

**Date of Completion:** January 1958.



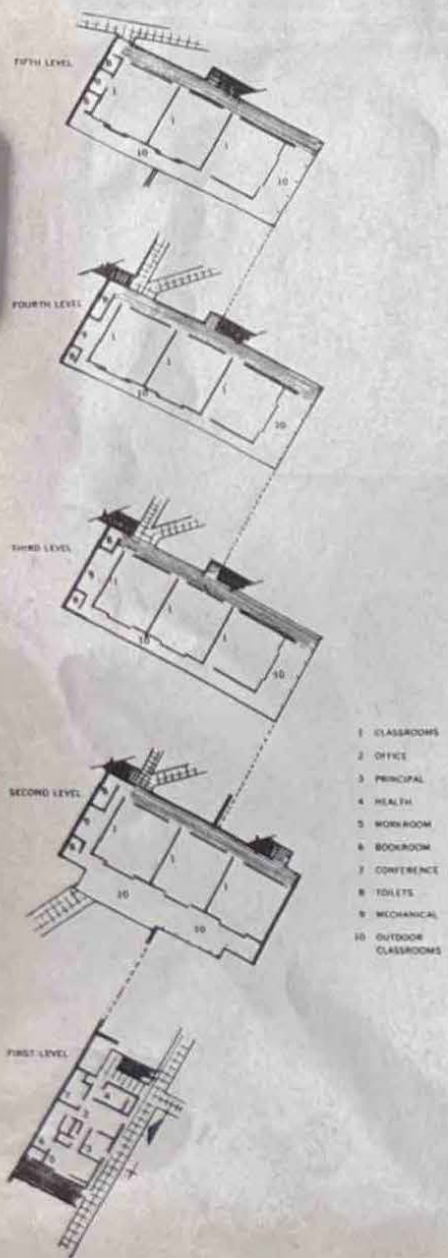


# Giant staircase is answer to sand dune site

Ladera Elementary School
Manhattan Beach, California

DANIEL, MANN, JOHNSON & MENDENHALL
Architects-Engineers

BILL A. SMITH & CO.
General Contractor




THE SITE PROBLEM here has been translated into a fresh outlook on structure and function as related to school design. While the majority of citizens looked upon the property as merely a hill of shifting sand dropping 150 ft., it was the only land that could be obtained without removing houses and the $2,867 purchase price made it even more desirable.

Numerous preliminary schemes led to a single, five-level building which follows the steep slope, rather than a series of separate units. The resultant plan achieves a remarkable compactness and an extensive utilization of outdoor classrooms for $15.33 per square foot. Largest single cost was in the grading and the construction crew's feet "burned out" from having to work on the loose sand banks. All the concrete was poured by crane and bucket.

Structurally the building is an open framework with the cross walls serving as earth-retaining walls as well. Steel frame and wood joists have been employed for the roof and floors. Lighting control, very critical due to the problem of glare in a beach locality, has been accomplished through roof overhangs and continuous clerestory fenestration of low transmission glass. Each level is individually zoned for heating, which is achieved by means of continuously circulating hot water coils. Forced air units are used in the administration level.

The school was designed so that the initial phase—12 classrooms, administrative and health offices and attendant facilities to accommodate 396 pupils—can be used in conjunction with the established elementary school on top of the hill. When the entire plan is completed, it will become an independent school plant. The second phase, now under construction, includes a multipurpose building, four additional classrooms and two kindergartens for an ultimate enrollment of 635.

The architects explain: "This school from its inception has been a more

emotional project than any other the office has had in a long time. From the comments we have received, we note that it also has challenged the imagination of most of the persons who have seen it. Even the construction workers, normally as blase' and disinterested a crowd as possible, remarked that it was one of the most interesting jobs on which they had ever worked."



Marvin Rand photos

## OUTLINE SPECIFICATIONS

**Structure**: foundation: reinforced concrete; frame: welded steel—Riverside Steel Co.; roof: steel—Riverside Steel Co.; 5/8-in. plywood sheathing; walls: frame and stucco; floors: reinforced concrete on grade; 3/4-in. plywood sheathing.

**Exterior Finish**: plaster.

**Roof Surfacing**: 20-year, built-up—Koppers, Inc.

**Fenestration**: glass: double strength, low light transmission—House Glass Co.; 1/4-in. polished wire—Mississippi Glass Co.; 1/8-in. double strength—Libbey-Owens-Ford Glass Co.; sash: steel—Soule' Steel Co.; aluminum; jalousies: vertical glass louvers—(California Vis-ulite) Acker & Acker Mfg. Co.

**Doors**: exterior: sliding steel—Arcadia Metal Products; flush solid core lumber; interior: flush Philippine mahogany.

**Floor Surfacing**: asphalt tile in offices and classrooms; terrazzo in toilets; painted concrete in utility and maintenance rooms, corridor and patio on first floor; mastic on wood in corridor on second floor and outdoor classrooms.

**Partitions**: floor mounted, overhead braced in toilets—Mills Co.

**Interior Finish**: stained 1/4-in. mahogany wainscoting; painted 5/8-in. gypsum board; acoustical tile in audio room; fire-resistant gypsum board in utility and maintenance rooms; terrazzo base and wainscoting in toilets; Keene's cement finish.

**Ceilings**: 1/2-in. rigid fiberboard; 1/2-in. perforated acoustical tile.

**Lighting Fixtures**: fluorescent in classrooms —Smoot-Holman Co.; incandescent elsewhere.

**Heating and Ventilating**: forced air room units in classrooms—(Amervent) Herman Nelson Unit Ventilator Products; forced air heating and ventilating unit in administration area—Herman Nelson Unit Ventilator Products; gas fired boiler circulating hot water; ceiling exhaust fans in toilet and utility areas—Trade-Wind Motorfans, Inc.

**Plumbing and Sanitary**: water closets, lavatories and sinks—American Standard; drinking fountains — Haws Drinking Faucet Co.

**Total Area**: 19,608 sq. ft.

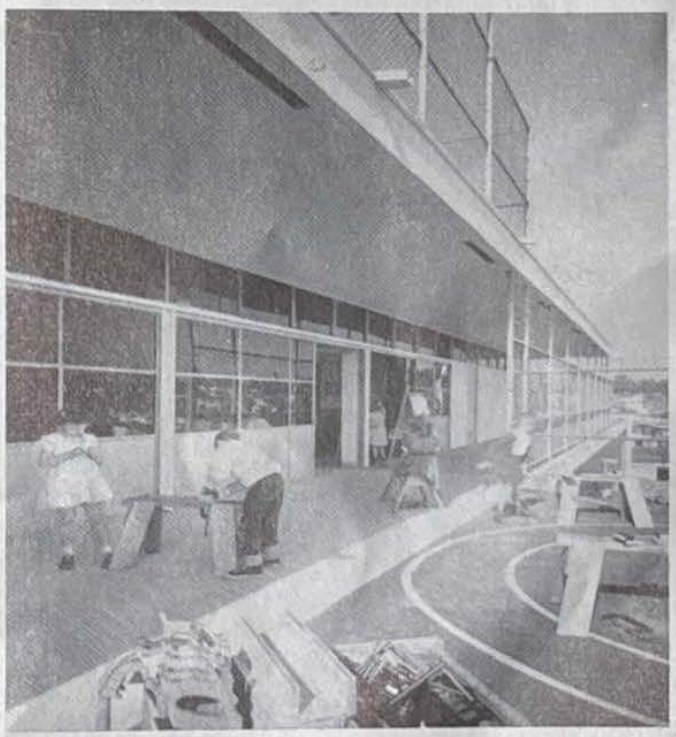
**Total Cost**: $411,053.

**Cost per Square Foot**: $15.23.

**Date of Completion**: September, 1957.

**SLIDING DOORS** provide easy access to outdoor classrooms on each roof deck and to series of playgrounds, likewise on each level. Fenced circulation areas and continuous connecting ramps, in addition to stairways, are designed to insure maximum safety. Classrooms open to the east, while high walls to the west protect against ocean wind.








Fred English

## Project roundup

### Three recent structures from a big office

Work that comes from the drafting boards of a large architectural firm can be versatile indeed. One example: the projects designed by Welton Becket & Associates shown here range from a service station to a public bathhouse to a high-rise office building.

### For campus mortorists

MOBIL SERVICE STATION, PALO ALTO, CALIF.: Sited on the Stanford University campus, this colorful project is designed to harmonize with a nearby shopping center. The main building, which houses an office, salesroom, lubrication and wash areas and restrooms, combines black tubular steel, red glazed brick and white porcelain enamel fascia to carry out the traditional General Petroleum colors. The tubular columns are arranged on a 6-ft. module with plate glass filling most sections and the brick accenting the remainder. A large free-standing canopy protecting the pump stations also is framed in black tubular steel.

The red brick is repeated in a separate enclosure which screens vending machines, rubbish disposal and storage for station accessories. Both structures cover a total of 1,500 sq. ft. Black rails and posts are used in the fencing behind and to the side of the station, further enhanced by landscaped areas. General contractor: Oscar Liebert.



Vanguard Photography

### For ocean bathers

SANTA MONICA (CALIF.) BEACH STATE PARK: Thin shell concrete vaults are becoming a part of the landscape along this oceanfront development, the first phase of which has been completed. The cement block structure contains customary beachhouse facilities and a concession stand. Other features: shaded recreation areas, barbecue hearths, a children's playground enclosed by a chain link fence and a 2,000-car parking lot.

The 2½-acre second phase, which is nearing completion, will be the largest of the $430,000 beach improvement program. It will have facilities similar to the initial unit, along with a "Junior Muscle Beach," complete with gym equipment, parallel bars and bar bells for older youngsters. Also on tap is a new lifeguard headquarters just south of the Santa Monica Municipal Pier. Landscape architects: Jack Evans & Associates; structural engineer: Richard R. Bradshaw; general contractor (first unit): Encino Construction Co.

Julius Shulman




### For office employees

TEXAS CO. WEST COAST HEADQUARTERS, LOS ANGELES: Rising 175 ft. on Wilshire Boulevard, the T shaped, limit-height building houses more than 700 employees who serve eight western states. The 217,000-sq. ft. structure has a curtain wall framework of aluminum and porcelain enamel panels, while reinforced concrete covers the ends of the T. Extensive glass areas have been engineered for sun control and reduced air conditioning load.

Offices employ a wall system of laminated gypsum panels, movable in connection with an underfloor conduit duct system which permits frequent outlets and a special ceiling treatment to provide freedom of space division as well as sound control. Most areas have suspended ceilings composed of demountable acoustical tile and recessed fluorescent lighting; public areas have luminous ceilings. Floors, except for terrazzo in the main entrance lobby, are of various tiles—resilient in office areas, ceramic in restrooms.

The building includes a dumb waiter package delivery system, a lunchroom, assembly and conference rooms and IBM equipment rooms. Off-street parking is provided in a connecting four-story, 330-car garage.

The duel-duct, high velocity air conditioning system, installed at about $2.90 per square foot, is believed to be the most economical of its type ever accomplished in this country. Savings were achieved by careful specification writing and by timing the manufacture of the system into slack construction periods. A penthouse, finished in the same enameled metal as the fascia of the street level canopy, houses mechanical equipment and bears the Texaco name. General contractor: Del E. Webb Construction Co.

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(Actual tile size is 4¼" x 4¼")



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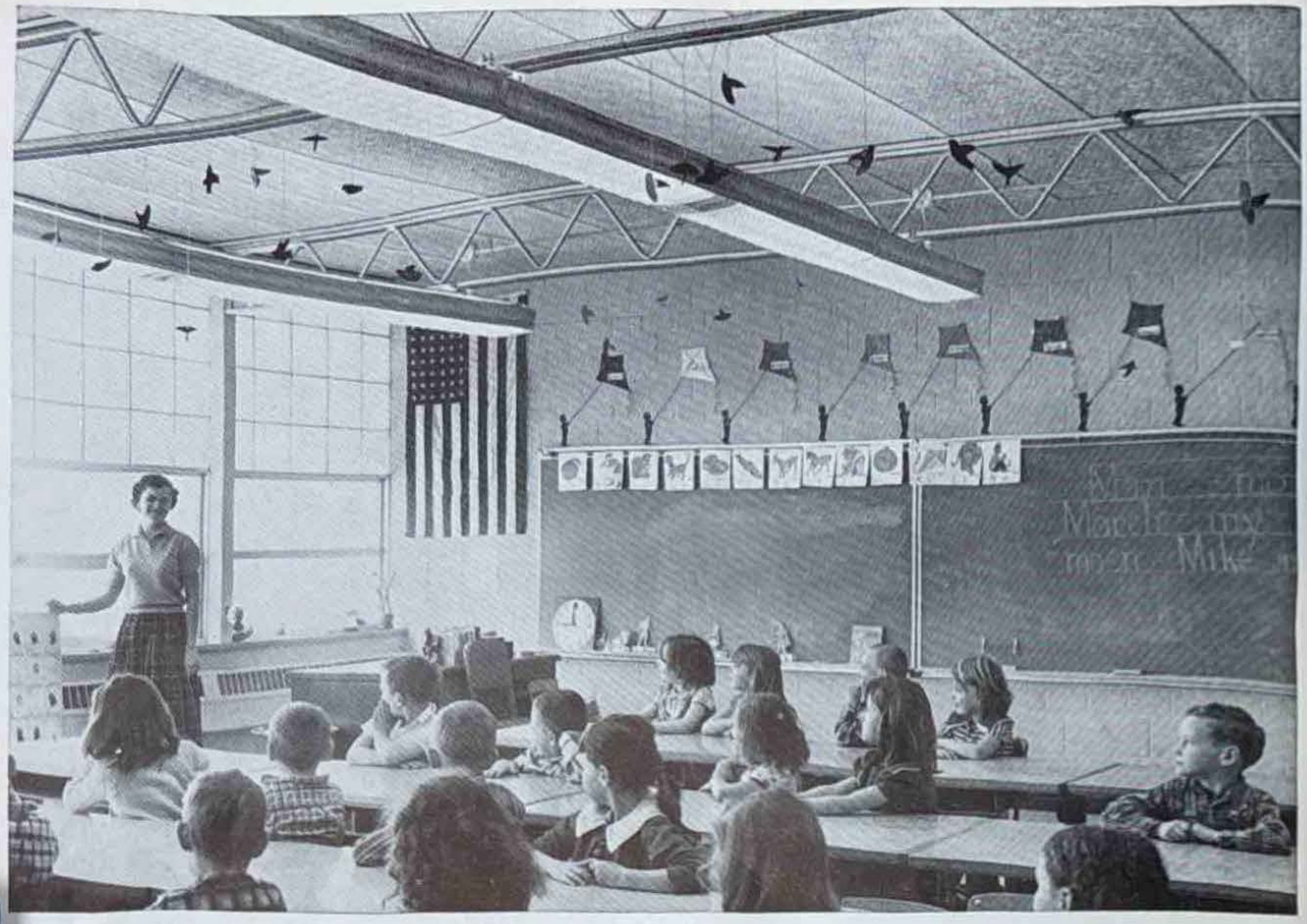
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# *The arts, architecture and the man-made environment*

by VICTOR GRUEN, AIA



Gordon Sommers

**VALLEY FAIR,** San Jose, Calif.: "This space sculpture covered with colorful glass mosaic tile is certainly not fine art. In fact, it is the smoke stack of the central power plant. It is the work not of a sculptor but of an architect, Rudi Baumfield. Yet it seems to express closest integration of art and architecture."

Warren Reynolds



**SOUTHDALE CENTER,** Edina, Minn.: unicyle by Dorothy Berge.

A WEEK from today (Sept. 11, '58) I will be sailing to Europe and I am looking forward with impatience to the moment when I can sit again on one of the loveliest of city squares, the Piazza San Marco in Venice. When I was there last, sipping a cup of coffee at one of the little tables in front of Florian's, it was a warm starry night, there was an open air concert and the beauty of music, of architecture and the sculptures along the roof lines of the Duomo allied themselves to an unforgettable experience. I asked myself then, "Why is it that we, the citizens of the richest nation in the world, have to travel thousands of miles to find restfulness and serenity and beauty of this kind?"

And as my thoughts trailed off across the Atlantic Ocean, a nightmarish transformation of the Piazza Marco took hold. Suddenly the noise of thousands of motors vibrated in the air. Automobiles streamed in from all directions. They came from the Piazetta, they drove through the arches of the arcades, they scrambled for parking space until every last place was filled; and as they did, parking meters shot out of the mosaic pavement and a multitude of signs appeared:

NO PARKING
STOP
GO
CAUTION

Around the campanile grew lean-to structures: a gas station and a hamburger stand and telephone booths. Wires were strung along in weblike fashion overhead. Fluorescent lighting flared up, drowning the moonlight. The large clock in the tower carried neon lights saying, "The pause that refreshes." The four bronze horses on the Duomo suddenly glowed red and announced a brand of gasoline.

I woke from my nightmare with a shock as the final chord of the music sounded. A swarm of pigeons flew by the table and I sat for a long time lost in thought.

Our miraculous technological progress which has showered upon us the gifts of mechanization makes it possible for us to go anywhere fast but it has reduced the number of places to which it is worthwhile to go, slow or fast, to a minimum. The physical manifestations of our progress—dump heaps, car cemeteries, second hand car lots, billboards, tract developments, industrial trash—cover, like a spreading rash, our environment. There is no longer any place where art could be viewed and appreciated in our everyday surroundings.

In those areas where creative activity is a constant part of our daily routine, we take great pains to point out that we are not confronted with "true" or "fine" art but with commercial art or industrial design or graphic design. By making this distinction, we betray a deep sense of guilt, insecurity and dissatisfaction with our self-inflicted mode of living. Everything which we regard as inherently good, spiritually valuable and morally sound we call art—and we therefore carefully hide it away to protect it from the poisoning breath of our time. Everything, on the other hand, which is in harmony with our mode of living we feel cannot possibly be morally good and therefore cannot possibly be art.

Thus we have introduced in the world of arts the same kind of schizophrenia with which our overall bus-

A digest of an address delivered by the Los Angeles architect before the Architectural League of New York.

Alexandre Georges photos






**EASTLAND CENTER**, Detroit: fountain (above) by Lindsey Decker; "marine metamorphosis" by Morris Brose.

## THE ARTS, ARCHITECTURE AND THE MAN-MADE ENVIRONMENT

iness civilization is drenched. The "true" and "fine" arts, which today lead a carefully guarded existence, have taken on many of the characteristics common to humans like exiles, or recluses who are forcefully removed from their habitat. In the hothouse atmosphere of the small world of experts and connoisseurs, many of art's expressions become overly self-conscious, neurotic, snobbish. A secret language has been developed for the connoisseurs, unintelligible to the outsider, and its secrecy is carefully guarded by those who feel that exposure to fresh air would kill the delicate, artfully coddled growth.

On the other side of the railroad track, in the slums of business activities, lives commercial art; and being relegated to the slums, it has acquired a feeling of independence from the obligation to live up to the ideals of integrity, restraint, good taste and morals because it has finally concluded that its reputation is tarnished anyhow and that ideals are nicely taken care of by the sister arts in the fine art district.

In considering art for our discussion here, I propose to lift the iron curtain between the fine arts and the commercial arts. The line of distinction becomes more difficult to draw, as we all seem to be aware of the fact that there are some very fine commercial artists and some very commercial fine artists. Instead we will try to discuss simply how creations of the painter, the sculptor, the graphic designer, the muralist can be successfully welded into oneness with the creations of the architect, the planner, the landscaper, the designer. Let us approach the problem without prejudice against those artists who quote their prices in advance and work on a contract basis in contrast to those who are moved by the desire for self-expression and for whose work prices are established afterwards by dealers or agents. We will, however, out of necessity have to direct our attention to applied arts, taking the word "applied" in its widest sense because in considering integration with architecture we will have to rely on artists who are willing, ready and able to apply themselves to the task of integrating expressions of their own creativity with other environmental elements. In this framework of reference we can proceed without prejudice against any stylistic differences. Realism, neo-realism, abstractionism, non-objectivism—they all can become successfully part of the environmental pattern.

But even after we have removed the stumbling block of differentiation between the so-called fine and the so-called commercial arts, we still realize that the whole field of integration of arts with architecture has a striking similarity to the problem of the weather: everybody talks but nobody does anything about it. And yet it could be so simply achieved. All we have to do is to change the prevailing attitude of the architects, of the artists, of the clients and of the public at large. And most of all, we have to change our attitude toward our environment, which is one of general apathy, an apathy prevailing against anything which serves the public interest rather than individual well-being. As my friend and partner, Edgardo Contini, recently stated, "Nobody is interested in good environment because it can't be mass produced."

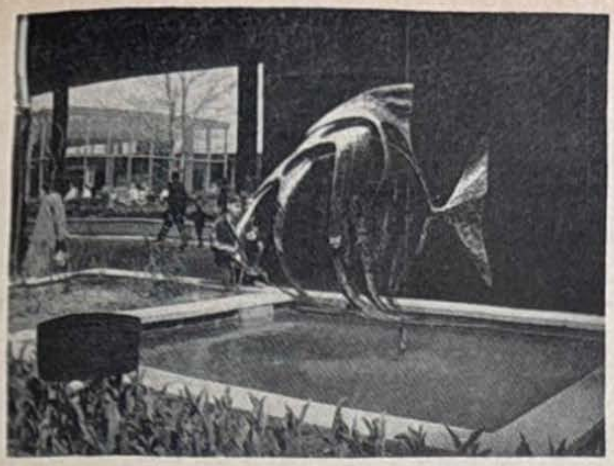
* * *

Art and architecture are like two people who haven't seen each other since early childhood and suddenly meet again, acting clumsy and awkward. Their communications are slow and troublesome. They have grown apart over the years. They can't remember each other's faces and characteristics and both feel upset about the peculiarities which each of them has acquired over the years.

In architecture, as in the arts, the problem lies not in style. Organic architecture and functional architecture both can be happy with art in their fashion. There is, however, one style of architecture rather dominant in this country which, in its relationship to the arts, is definitely segregationist. I am talking about the JANITORIAL STYLE. Its expressions are guided by the broomstick of the maintenance man who, for example, may decree that all interiors must be painted a dirtyish brown so they won't show dirt. The janitorial style is opposed to anything which needs cleaning, washing, polishing or any other type of maintenance.

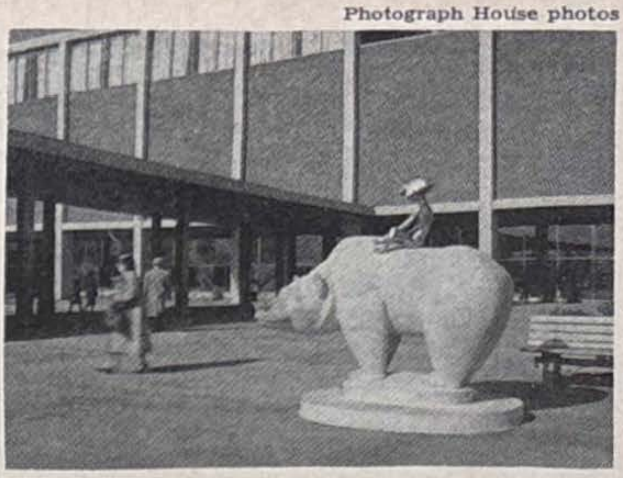
Behind the janitor stands, of course, the client. In order to change his attitude, we have to use specific arguments. In most cases we have to convince him that an inspiring environment, that expressions of art, are good for business. He wants it to be proven to him that the capital investment in art can be amortized quickly and profitably. Inasmuch as these are facts which can be proven to be true, we are not engaging in any devious activity if we proceed along these lines. We are only living up to our professional duty of giving to the client not just what he wants but what he ought to want.

And finally, we have to sell the idea of integrating art with our environment to the public. The public, which



**NORTHLAND CENTER,** Detroit: fish fountain by Malcolm Moran; bear and boy by Marshall Fredericks.

Photograph House photos



for a century and a half has seen art only in the zoos or museums and art galleries, is bewildered and scared if it meets up with the beasts outside their cages. Maybe art, when left out of the cages should, at least for a time, not roar too loudly in order not to create the panicky screaming that "the lions are loose!"

Art itself, used to the life behind the iron bars of the zoological gardens, accustomed to being fed by expert keepers in cages labeled as to species, is, when left free, just about as scared as the public. It has forgotten how to live in the open spaces, exposed to wind and weather, to sunshine and the wide blue sky. It is embarrassed to be observed and touched by people engaged in their daily tasks.

For the inmates of the zoo and the zoo visitors to meet out in the open with full understanding and real mutual enjoyment will take some years, maybe a century. Herbert Read says, "Art must be regarded as a necessity, like bread and water; but like bread and water, it must be accepted as a matter of course, it must be an integral part of our daily life and must not be made a fuss of. It should be treated, not as a guest, not even as a paying guest, but as one of the family."

In order for us to be familiar with art, it must become part of our daily environment. In order to make this possible, our environment has to be replanned and reshaped, and this is where the contribution of the architect is overpoweringly important. It is his task to re-create our man-made environment in such manner that it is both fully utilitarian and, to rephrase Corbusier, "full of grace, of smile and of delight." ARCHITECTURE'S NOBLEST AIM AND GREATEST OBLIGATION IS TO HOLD BODY AND SOUL TOGETHER.

We have to stop the anachronistic spreading of cities and suburbia and the destruction of nature and landscape. We have to reshape our cities into places where one can not only work but also really live. We have to unscramble the melee of machines and flesh, of automobiles and pedestrians. We have to bring order into the chaotic conglomeration of the urban scene —and we will have to act pretty fast because soon we will be a nation with 60 million cars and no place to go.

* * *

The slides which I have shown illustrated how our office has used expressions of art in three shopping centers. I know from my own experience of the sweat and blood which was involved in the achievement and the tremendous amount of energy which was spent in persuading clients, not only to make the necessary financial investment, but also to risk public criticism. A great amount of work was expended both by the artists and architects in the new experience of cooperating with each other. At first we had to reach, in the beginning stages of the project development, an understanding about our roles; we had to agree on points of basic philosophy as to the character, size, placement, color, materials, etc. Then there were hundreds of technical difficulties, all arising from the fact that the artists were confronted with a task which was generally foreign to them, of creating work for outdoors. Close cooperation was necessary to assure proper effectiveness, weather resistance, wind resistance and proper outdoor scale.

Looking back at all these difficulties, I am asking myself, "What are the results of the common efforts of the 20 artists participating on these projects and ourselves?"

I am fully aware that nothing earth-shaking has been accomplished. The individual works of art will be judged differently by various people. Some might be regarded as outright corny and others as too highbrow but that seems to me rather unimportant. What is significant is that we have striven in creating environments which, freed of mechanical traffic and other disturbing influences, give an opportunity for people on foot to look, observe and contemplate. We have tried to live up to this newly found change of bringing people and the arts together. We have done so not only through sculpture and murals but also through graphic expressions, landscaping and street furniture.

The concrete results of these efforts, I believe, are the following:

1. We have broken through the "UN-sound barrier" which clients had erected in their own minds against the use of anything not purely utilitarian in architecture.

2. We have done so in the framework of projects which are true expressions of our society which, whether we like it or not, is a business society and we have met the problem head-on in purely commercial surroundings.

3. We have brought the public on a familiar footing with art. The 25 million shoppers who visit these centers yearly now take these expressions of art in their daily stride. Housewives arrange their rendezvous at the "giraffe" or "the golden trees" and the children climb the "bear." There is a general naive enjoyment of the fountains and the sculptures.

Finally, the artists who have worked with us enthusiastically have come to the realization that their work can be a dynamic part of man-made environment. Thus we have progressed somehow against certain prejudices prevailing between art and society.



**PREASSEMBLED ROOF SECTIONS,** ready to be set in place immediately after walls and columns are up, consist of trusses, joists and plywood sheathing.

# How to raise the roof--and faster

A new method for rapid erection of roof structures—the preassembly of complete bowstring truss sections at the jobsite—used on a warehouse near Santa Rosa "easily cut a month off construction time," according to general contractor R. R. Todd. The subcontractor, Taylor Structures, Inc., employed the Easybow Span-Over system as developed by Easybow Engineering and Research Co. on the 40,000-sq. ft. project for California Wood Products, Inc.

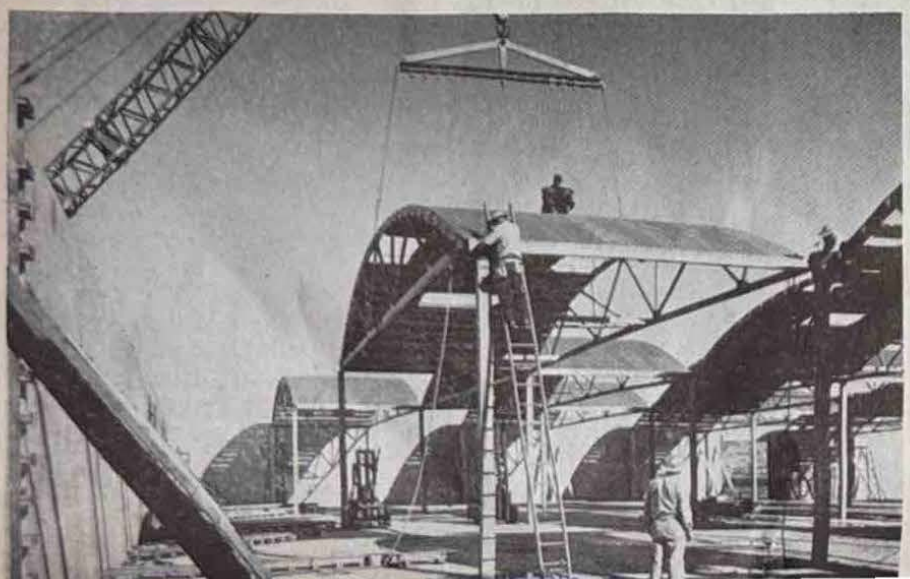
Components for this job consisted of two 50-ft. trusses assembled with roof joists and diaphragm to make a 20x50-ft. section, each weighing about 7,500 lb. Placing of each section required only from 10 to 15 minutes, accounting in part for the exceptionally fast construction of the building. Complete sections were set in a checkerboard pattern, with open spaces enclosed later.

As work on the warehouse got underway, Taylor began assembling 16 sections around the building area so that they would be ready when walls were up. About a month later, after walls were tilted up and the last column in place, the crane raised the first section, the operation taking 13 minutes.

Several days later the remaining 15 sections were lifted in place and all were set by 2:40 p.m. the same day. Work then commenced on the simple task of filling in the joists and plywood sheathing between the sections. Thus the job was substantially ready for roofing less than six weeks after construction started.

To assure maximum speed, the contractor precast at the site 18 columns to go along the two walls that support the trusses, eliminating 10 days or more time usually required to form, pour and cure poured-in-place columns.

Structural engineers for the project, Fuller & Welisch, comment that the Easybow system "is an extension of prefabrication, with great savings in time and labor while in no way detracting from structural stability." Only prerequisite for its application is the availability of space around the jobsite to assemble the sections.



## Effect of fixture angles on lighting studied

Extensive studies of glare reflected from printed and handwritten materials indicate that up to one-half of the effectiveness of lighting in most schools and offices throughout the country is lost each year because of insufficient attention to lighting fixtures and to scientific mounting.

Prof. Dan M. Finch, research engineer at the University of California's Illumination Field Station, Richmond, in Los Angeles last month issued a report on a project he has undertaken since 1954.

Interpreting the report, C. L. Crouch spokesman for the Illuminating Engineering Research Institute, project sponsor, said that the studies prove that reflected glare from reading materials can be partially controlled by mounting light bulbs in fixtures shielded at the bottom. "In this way the major amount of illumination is reflected to and across the white ceiling and then re-reflected to the working or reading area," he explained. "The glare can be reduced further by mounting the light sources behind or at either side—but not in front—of the working surface."

Professor Finch made these further comments: "Lighting scientists have known for years through simple observations that printed and written materials, when viewed under various lighting conditions, reflected light glaringly into the reader's eyes and made lettering difficult to see. We also knew that the condition was at its worst when glossy paper was used and we therefore recommended that commercial printing and handwriting be done on dull surface or 'matte' paper.

"But we did not realize, until we performed several types of scientific measurements in the course of our studies with 'visibility meters' specially designed at the university, that matte papers also reflected startling amounts of glare under certain lighting conditions. Nor did we know, until we experimented extensively with the shielding and measured positioning of lighting fixtures, the most effective method of controlling the glare."

The experiments were conducted in a laboratory in which several dozen fluorescent tubes, each of which could be separately controlled, were mounted at various angles to the normal working or reading position. The brightness of each lamp could be separately raised or lowered and each could be masked to govern the direction of its rays. Testing materials including commercial printing as well as samples of school child handwriting.

## Tube may revolutionize fire, explosion warning systems

An ultraviolet-sensitive tube that can simultaneously detect fire, smoke and combustible vapors is said to be the first device ever designed to sense all three of these phenoma at once. This "break-through" in basic research by scientists of Minneapolis-Honeywell Regulator Co. has occurred after five years of work.

Dr. Finn J. Larsen, research director, predicted that the new tube—about the size of an index finger—would revolutionize the design of fire and explosion warning systems, making possible devices that are more accurate and versatile than any now available. He describes this use of ultraviolet-sensing principles as one of the most significant research developments of the last decade.

Honeywell already is working with a major coal mining equipment manufacturer on application of the tube in that industry.

Ultraviolet is at the opposite end of the color spectrum from infra-red. It is similar to blue light but its wave length is too short to be seen by the human eye.

"The new tube could be used, for example, to detect potentially explosive gases that sometimes accumulate in coal mines," Dr. Larsen says, "and thus avoid terrible disasters such as we have had in the past. It also could serve as a furnace flame watchdog to assure greater heating system safety in homes and commercial buildings, or as the heart of new fire detection systems to provide warning much faster than is now possible.

"One of the shortcomings of existing devices in this field is the fact that they function only as single sensing elements, i.e., a fire sensing unit, a flume detector, etc."

In a typical warning system, the tube would work with an amplifier circuit to add up the impulses of electrical energy generated by the tube as it counts ultraviolet rays. Whenever the rate of these impulses exceeded a specific rate, an alarm would be sounded, equipment turned off, sprinkler started, etc.

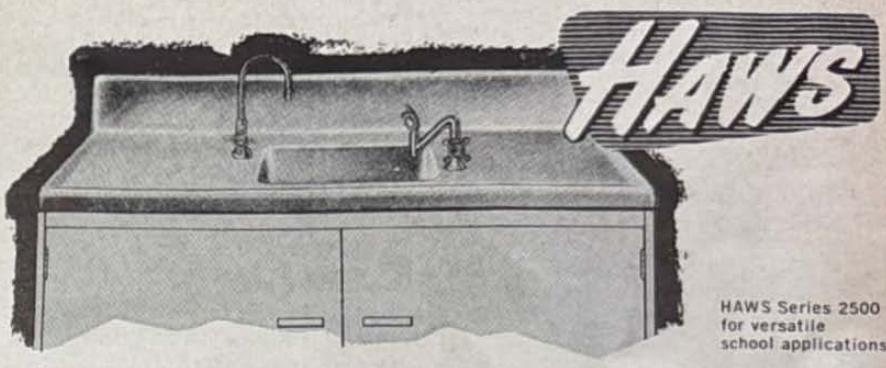
Dr. Larsen points out that the new tube is the first of its type ever developed that has an almost unlimited life expectancy and also can be mass produced economically. "In fact, we have had one of the tubes under 24-hour testing in a maximum on-off cycling operation for more than a year without the slightest decline in its efficiency.

In developing the device, researchers had to overcome these problems: design a cathode tube sensitive to ultraviolet rays; make it with stable characteristics; make it relatively immune to radioactive impulse; design it so that it would ignore the ultraviolet given off by artificial lights to prevent the occurrence of false warning alarms.

New control systems using the tube already are on the Honeywell drawing boards. Pilot production currently is being carried on at the company's research center in the Minneapolis suburb of Hopkins.

## Seattle library to have electric stairways

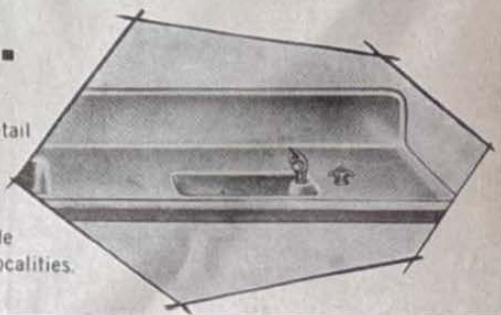
The new Seattle Public Library will be the first on the Pacific Coast to have electric stairways. Westinghouse Electric Corp. will install four of them to serve the entire public portion of the building, the first to second and second to third floor of the seven-story structure. Scheduled for completion next November, it will replace the library erected in 1906. Architects are Bindon & Wright, in association with Decker, Christenson & Kitchin.


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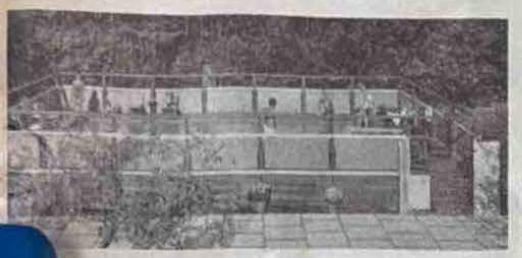
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### fire-retardant paint

Equal in appearance to the finest architectural finishes and offered in seven colors and white, this fire retardant paint will not stop fires but it will slow down the spreading rate. It can be applied by brush, roller or spray gun and at least three coats are recommended for optimum results. The flat enamel has passed the U.S. Navy thermoelectric tests proving its ability to hinder the spread of fires on fireproof or fire-resistant walls and barriers due to heat generated by fire on the opposite side of a wall or partitions.—E. I. du Pont deNemours & Co. (Item No. 1)

### redwood pool

California redwood has moved into the swimming pool business with a



basic 16x20-ft. prefabricated model, built above ground, with steel bracing and vinyl liner. The redwood structure also serves to fence the pool as a safety measure, entrance being made through louvered doors which can be locked. A deck large enough for lounging surrounds the pool.—International Swimming Pool Corp. (Item No. 2)

### sliding glass door

Newest addition to the Slide-View line of sliding glass doors is designed for ⅝-in. double glazing, consisting of two pieces of ⅛-in. heavy sheet glass with ¼-in. air space. Convertible to single glazing, the Thermoslide has a corrosion-resistant alumilite finish and weathersealing on all four sides. It is offered in two- and three-panel units in widths ranging from 6 ft. 1 in. to 12 ft. 4¼ in.—Slide-View Door and Window Co. (Item No. 3)

### faucet aerator

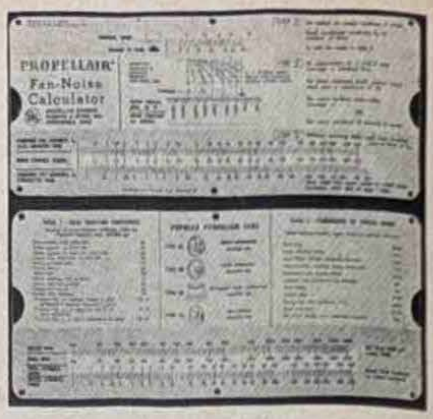
A vandal-proof aerator for use on faucets in public buildings can be removed only with a thin steel key. Key slots in the recessed ring are not in view after installation and are too narrow to accommodate a coin or screwdriver. Outer body housing turns freely to prevent removal by hand.—Chase Brass & Copper Co. (Item No. 4)

### flush valve system

Particularly designed for wall mounted toilet bowls, H-K Silent-Service brings efficiency and quietness of flush valve operation into the home bathroom by eliminating noise from refilling of tanks and of leaky valves. With the concealed flush valve, there is no exposed tank to cause condensation. Electric push button operation



is provided, although the system can be operated manually by oscillating handle or by mechanical push button. For electric installation, the push button can be placed in any location.—Haws-Kramer Flush Division, Haws Drinking Faucet Co. (Item No. 5)




### fan noise calculator

To speed calculation of noise increase resulting from addition of fans to a room, this handy device uses the new "sones" system of loudness rating as developed within such groups as the Acoustical Society of America and the National Noise Abatement Council. A series of acoustical formulas have been translated into linear units on the calculator, permitting rapid and simple computation of noise levels when given the sone ratings of the fans, room size and construction and amount of sound insulation used.—Propellair Division, Robbins & Myers, Inc. (Item No. 6)

### ceramic mosaic tile

Unlike any other product currently on the market, a glazed ceramic



mosaic tile called Horizon features the informal irregularity of shape and surface texture. Individual pieces are about ¾-in. square. Offered in 58 colors, the tile is available in any custom designed pattern and blending of tones or in 10 buckshot patterns.—Cambridge Tile Mfg. Co. (Item No. 7)

### wood fiber formplank

Much of the generally cold atmosphere of concrete construction can be eliminated with wood fiber formplank which is left in place after curing to form an efficient, acoustical ceiling. In thicknesses from 1 to 3 in., it is shored for the slab pouring. After the formplank is in place and

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leveled, reinforcing steel, electrical conduit and forms for other utilities are installed. Concrete is poured and after the slab has cured, only the shoring is removed. The process is equally adaptable for single- or multiple-story buildings.—Tectum Corp. **(Item No. 8)**

### welding agent

One of the biggest and oldest problems of the construction industry—joining fresh wet concrete to cured concrete—has been overcome with a structural welding agent known as Uniweld. It is an alloy of epoxy and nylon type synthetic resins which forms a permanent joint and water and vapor barrier, literally welding the entire contact area without any mechanical interlocking. Tension, compression, shear and impact tests show that the bond is stronger and tougher than even fully hardened concrete.—Permagile Corporation of America. **(Item No. 9)**

### automatic entrance

First complete automatic entrance package on the market comes with a door, frame and operating mechanism designed as an integral unit. Since it is a completely electrical unit, the system requires no bulky hydraulic or pneumatic actuating devices. Entire operating mechanism is contained



within the 4½-in. wide transom bar above the door. This eliminates the expensive and ungainly under-floor or over-ceiling preparation for installation of power units, controls and compressors of conventional systems. —Kawneer Co. **(Item No. 10)**

**Readers are requested to write directly to manufacturers for the following literature.**

**Concrete Forming:** illustrates and describes a variety of jobs; 16 pp.—Universal Form Clamp Co., 1238 N. Kostner Ave., Chicago 51, Ill.

**Monarch Wall Color Guide Folder** (AIA 15-M-1): features 26 actual colors in which architectural porcelain panels are available; 4 pp.—Davidson Enamel Products, Inc., 1123 E. Kibby St., Lima, Ohio.

**Instant-Lok Fact File:** incorporates technical bulletins describing each type of contact cement, its properties, recommending bonding techniques and handling.—National Starch Products, Inc., 750 Third Ave., New York, N.Y.

**General Engineering Catalog:** features self-indexing system for quick reference and easy ordering of more than 1,400 fittings for all-purpose bolted metal framing system; 180 pp.—Unistrut Products Co., 933 W. Washington Blvd., Chicago 7, Ill.

**Scott Washroom Advisory Service and Scott Fixtures:** designed to assist architects and engineers in selection of equipment for washrooms, locker and shower rooms and lounges on basis of light, average or heavy traffic flows; 4 pp.—Scott Paper Co., Chester, Pa.

**Klemp Data and Specification Manual** (AIA 14-P): contains safe load tables for welded and riveted gratings; data on new aluminum gratings; panel width constant charts; methods of anchoring; tables on stair treads and methods of ordering grating; 20 pp.—Klemp Metal Grating Corp., 6601 S. Melvina Ave., Chicago 38, Ill.

**Beautify and Protect Buildings with Hydrocide Colorcoat** (AIA 3-B-1, 25-B-25, 25-B-30, 25-C-2): outlines properties and advantages of textured decorative coating for exterior masonry walls above grade; includes 10 color chips; 4 pp.—L. Sonneborn Sons, Inc., 404 Fourth Ave., New York 16, N.Y.

**Gold Bond Acoustirco** (AIA 39-B-1): contains description, details of installation, design dimensions NRC ranges and specifications for felted mineral wool tile; 2 pp.—National Gypsum Co., 325 Delaware Ave., Buffalo 2, N.Y.

**Marcolite Aluminum and Fiberglas Panel Skylights** (AIA 12-J): consolidates data of all previously issued literature in one booklet; 12 pp.—The Marco Co., 45 Greenwood Ave., East Orange, N.J.

**Chromlox Far-Infrared Electric Radiant Comfort Heaters:** covers new ceiling type radiant heater and previously announced angular mounted model; 4 pp.—Edwin L. Wiegand Co., 7500 Thomas Blvd., Pittsburgh 8, Pa.

**Hi Fi Guide and Catalog:** explains both stereophonic and monophonic high fidelity; shows various means of building a system; 20 pp.—H. H. Scott, Inc., 111 Powdermill Road, Maynard, Mass.

**Owens-Illinois Thinlite Curtain Wall:** describes system which makes it possible to construct buildings that "control" the sun; shows basic colors; 4 pp. —Kimble Glass Co., Box 1035, Toledo, Ohio.

**Fiberglas Roof Insulation** (AIA 37-B-2): includes four tables, eight photos and four sketches; 8 pp.—Owens-Corning Fiberglas Corp., Toledo 1, Ohio.

**Haws Electric-Hydraulic Folding Partitions:** contains specifications and installation photos; 8 pp.—Robert Haws Co., 15722 Telegraph Road, Detroit 39, Mich.

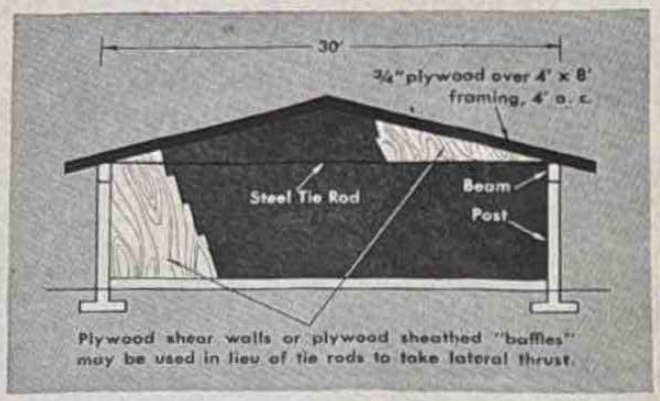
**FlexAngle Universal Slotted Angle System:** covers applications, various assembly methods, packaging data and load tables; 8 pp.—The FlexAngle Corp., 3760 Oakwood Ave., Youngstown 1, Ohio.

**Stal-Lok Handbook for Easier Panel Selection:** pocket-sized aid to help architects and electrical contractors determine proper enclosures for a specific application; features enclosure selector chart; 44 pp.—Federal Pacific Electric Co., 50 Paris St., Newark, N.J.

**Herman Nelson Heating Coils:** has specifications, dimensional data, surface charts, circuiting and piping diagrams; 30 pp.—American Air Filter Co., Inc.

**Homeshield Screen and Storm Sash Components** (AIA 35-P-12): illustrates various types of roll formed aluminum screen frames and storm sash frames plus combinations of both that make up six different matching screen and window sets; 4 pp.—American Screen Products Co., 61 E. North Ave., Northlake, Ill.

# new approaches to structural design with fir plywood




Tilted roof planes (each a rigid plywood diaphragm) provide mutual support at ridge, permit long, clear spans. Diaphragm action transfers horizontal thrust to steel ties or fir plywood end walls.

# FIR PLYWOOD

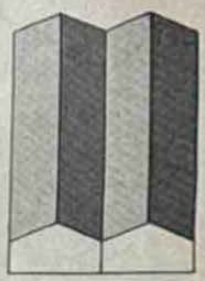
## TENT-SHAPED ROOF UNITS

**ARCHITECTS AND ENGINEERS:**
**John Lyon Reid & Partners, San Francisco, Calif.**
Partners in Charge: William A. Gillis, A. I. A., and Dr. Alexander Tarics, Structural Engineer

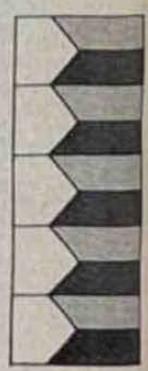
THIS folded plate plywood roof system developed for an expandable community school offers a straightforward solution to the problem of obtaining a high degree of design flexibility at low cost.

The basic tent-shaped canopy units may be placed separately or combined in series or rows to cover any given area. With supports needed only at wide intervals, walls and partitions may be arranged or re-arranged as needed.

Structurally, the system relies on the outstanding diaphragm strength of the plywood sheathing. The roof planes—each a rigid plywood diaphragm—are inclined to form a giant inverted "V" beam, eliminating posts or trusses normally required for support under the ridge. Because the roof is self-supporting at the center, rafter spans can be nearly doubled, e.g., up to 50 feet with 4 x 14's on four foot centers. Diaphragm action also permits ties and supporting columns to be placed at wide intervals.



Basic units can be arranged in series or rows as needed



**ONE OF A SERIES FROM "SCHOOLS OF THE FUTURE"**

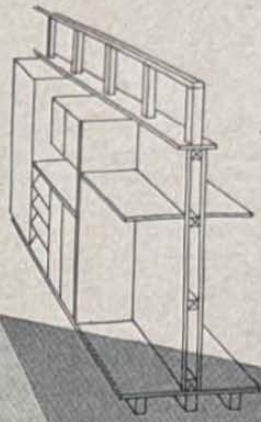
. . . a portfolio collection of outstanding designs by six leading architectural firms. Material includes details on folded plate roof system shown above. For free copy, write (USA only) Douglas Fir Plywood Association, Tacoma, Wash.

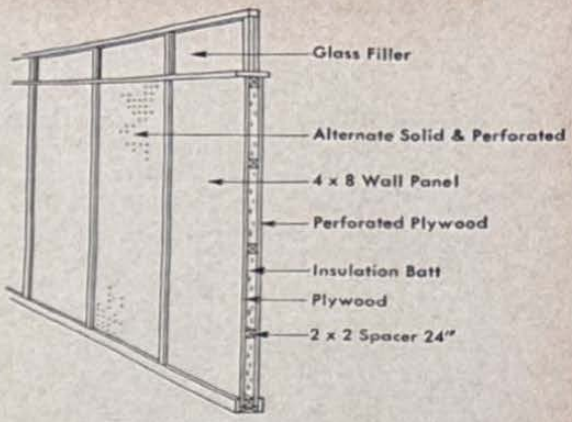
Also write for information about design and engineering consultation services.





The interior may be left open for classroom uses
. . . or divided into smaller areas by movable partitions



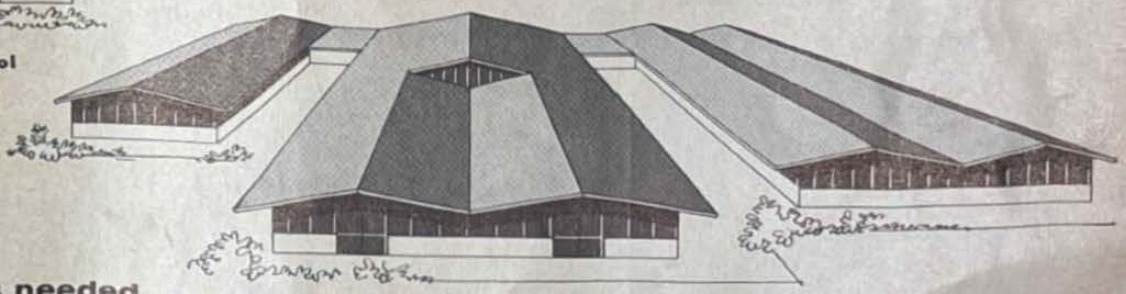



# FOLDED PLATE ROOF

## PROVIDE MAXIMUM FLEXIBILITY FOR AN EXPANDABLE SCHOOL

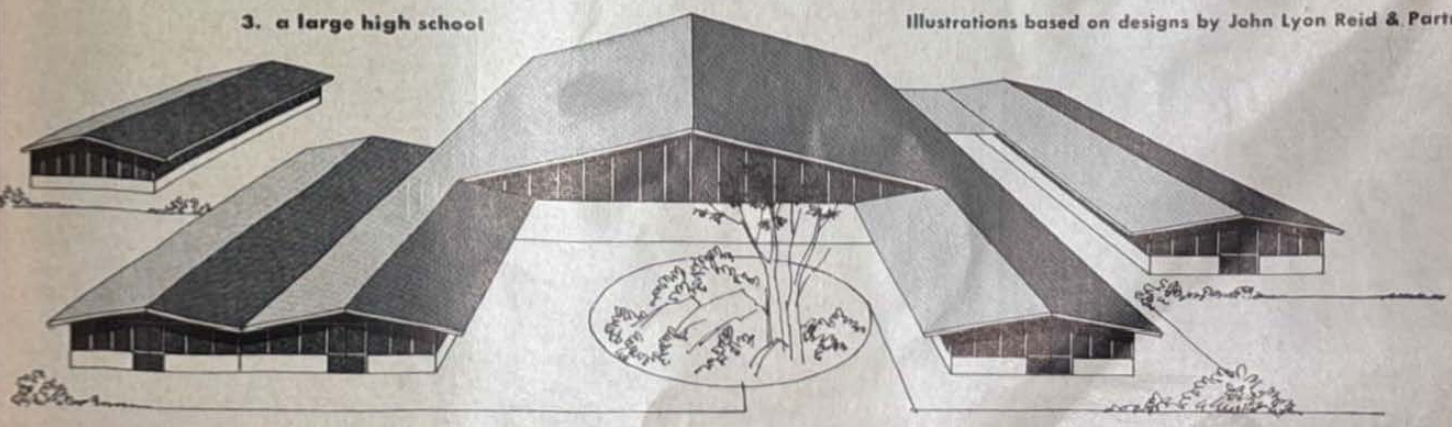


1. a small elementary school



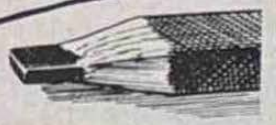
**Units can be added as needed**

3. a large high school



Illustrations based on designs by John Lyon Reid & Partners

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### firm changes, additions

The architectural firm of Eugene E. Crawford has become Crawford & Banning and has moved to 15 W. End Ave., San Rafael, Calif.

The firm of Wohleb & Wohleb & Associates, founded by the late Joseph H. Wohleb, will continue to offer architectural and engineering services under the name of Robert H. Wohleb & Associates at the same address, 715 S. Washington, Olympia, Wash.

Stephen G. Oppenheim, Polish-born architect and engineer and a graduate of three European universities, has joined Daniel, Mann, Johnson & Mendenhall, Los Angeles architects-engineers, as director of design.

Phillip L. Jacobson has become a member of the firm of Young, Richardson & Carleton, Seattle architects-engineers.

### new offices

Stevens & Thompson, consulting engineers of Portland, have opened an office in the Hoge Building, 705 Second Ave., Seattle, headed by Ray E. Charles, who recently joined the organization as a general partner.

### new addresses

Detlie & Peck, architects, to 1266 Mercer St., Seattle.

Loners, Stroebe & Johnson, architects, to the Hoiness-Labor Building, 201 N. 24th St., Billings, Mont.

Wisbeck & Konzen, architects, to Room 809 Tower Building, Seattle.

Harold T. Johnson, architect, to 160 10th Ave., Twin Falls, Idaho.

Chandler C. Cohagen, architect, to 511 N. 32nd St., Billings, Mont.

Robert W. Beatty, architect, to 1657 Olive Way, Seattle.

Ben F. Hurlbut, structural engineer, to 937 Grand, Billings, Mont.

### appointments

Albert O. Jarvi of Cleveland has been appointed head of the structural engineering department of Cornell, Howland, Hayes & Merryfield, engineering firm of Corvallis, Ore., and Boise, Idaho. He was on the faculty of the University of Washington from 1945-51.

Charles Jones, with Victor Gruen Associates of Los Angeles for seven years as architectural and interior designer and project coordinator, has been named an associate.

Max R. Horwitz has been elected vice president and director of architecture for Charles Luckman Associates of Los Angeles.

### deaths

Aleoys Max Runtz, 51, former Portland architect, died January 18 at Oak Harbor, Wash. While in Portland he was active in civic affairs and in 1955 was named "Congressman of the Year" by the Oregon Building Congress, of which he was executive secretary.

### honors

San Francisco architect John S. Bolles has received the Merit Award from the government of Saudi Arabia for his design of the King Saud University in Riyadh. He is the only American architect to be honored in this international competition for his plans of a complete university city for 10,000 students.

Architect Paul Thiry was one of seven representatives of the arts in the Northwest selected to be honored by the Little Orchestra of the Seattle Symphony at an after-concert supper party last month.

### elections

Oregon State Chapter, AIA, has elected Albert W. Hilgers as president; Robert C. Douglas, vice president; Everett B. Franks, secretary; John W. Foster, treasurer; and Joseph H. Rudd and Norman C. Zimmer, directors.



HILGERS

Two Honor Awards and seven Awards of Merit will be presented by the chapter at its first annual awards banquet March 6 at the Columbia Edgewater Country Club. Other citations will be a Citizens Award and two Craftsmen Awards. General chairman Neil Farnham says the program will be a panel discussion by the jurors on the Honor Awards. The all-architect jury con-

sists of Walter Gordon and Robert Wilmsen of Eugene and Fred Bassetti of Seattle.

Southern California Chapter, AIA, has named Maynard Lyndon as president; A. Quincy Jones, vice president; Howard Morgridge, secretary; and Henry Silvestri, treasurer.

Southern California Chapter, WAL, is headed by Mrs. Kemper, Normland, president; Mrs. Joe B. Jordan, vice president; Mrs. Richard M. Hennessy, recording secretary; Mrs. Arthur B. Gallion, corresponding secretary; and Mrs. Everett V. Bertoia, treasurer.

Orange County Chapter, AIA, has named these officers: Don W. Williamson, president; J. Herbert Brownell, vice president; Ray W. Johnson, secretary; Kermit Dorius, treasurer; and Jack M. George, three-year director.

Orange County Chapter, WAL, has picked this slate: Mrs. Jack George, president; Mrs. Gates W. Burrows, vice president; Mrs. Gared Smith, secretary; and Mrs. Wilson Woodman, treasurer.

Seattle Chapter, Structural Engineers Association, has elected the following: Harold L. Worthington, president; Horace J. Whitacre, vice president; and Victor O. Gray and Arthur B. Anderson, directors.

Allied Arts of Seattle has elected two architects to serve as president and vice president: John S. Detlie, its first president and one of the founders, and Nathan Wilkinson.

## Long Beach architects form AIA district

Charter ceremonies establishing the Long Beach District, AIA, were held at the Virginia Country Club last month, ending the 40-year life of the Architects Association. (It joins the Inland District as a part of the Southern California Chapter.)

Architect Hugh Gibbs, largely through whose efforts the new district was created, pointed out that the preceding organization "has outlived its usefulness" and that "the profession's day-to-day problems are becoming more regional in character and must be related on the national level." Among those present were Warren Dedrick and Hugh Davies, two of the earliest members of the association.

Installing officer U. Floyd Rible, national AIA director of Los Angeles, urged the group to focus its attention on the solution of critical community problems which desperately need the insight, experience and responsibility of the architectural profession for their solution. He also warned the members to prepare for the intensified criticism which inevitably accompanies participation in community affairs.

Serving as the initial officers are Kenneth S. Wing, president; Delma J. Daniel, vice president; Marvin Rosvold, secretary; and Stanley Goldin, treasurer.

## Home awards program planned for West

Entries in the second biennial Western Home Awards program co-sponsored by the American Institute of Architects and Sunset Magazine will be accepted through June 1. Any house in the 11 western states and Hawaii designed by a registered architect and completed since January 1956 is eligible.

Separate Awards of Merit will be given for top designs in each of three regional groupings—Pacific Northwest, California-Hawaii and Desert-Mountain. All-Western Honor Awards will then be made for the entire competition. Separate awards also will be made for custom built houses in two classes: less than 2,000 sq. ft. of living space and more than 2,000 sq. ft.; and for builder houses in two classes: less than $20,000 and more than $20,000.

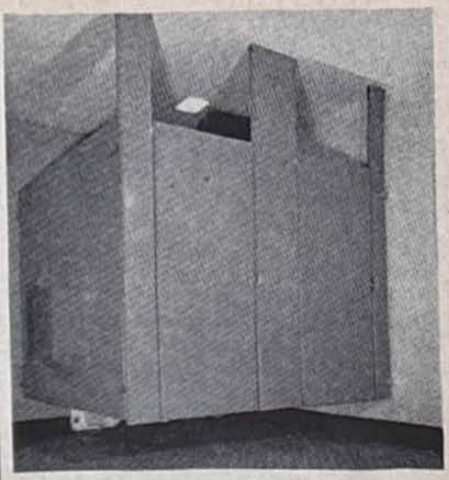
The jury will represent the fields of architecture, landscape architecture, planning, building and publishing. Award presentations will be made at AIA regional conferences in the fall.

Entry applications should be made to the AIA-Sunset Western Home Awards Committee, Box 222, Menlo Park, Calif.

## $25,000 design competition based on housing problem

Middle-income development housing is the subject of a $25,000 architectural competition being sponsored by Mastic Tile Corporation of America and open to all registered architects, architectural assistants, students and graduates of recognized schools of architecture.

Dean Pietro Belluschi of MIT heads the five-man jury, which includes Edward H. Fickett, Los Angeles architect. June 30 is the deadline for submission of entries. Entry kits are available from the sponsor by writing Box 128, Vails Gate, N.Y.

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### firm reorganizations

Two of California's principal testing engineering and inspection firms —Testing Engineers, Inc., of San Diego and Woodward-Clyde-Sheraud & Associates of Oakland—have entered a working agreement to provide greater diversification and increased specialization. The former has opened a northern California division at 1150 28th St., Oakland, where it will assume the W-C-S contracts in the fields of general testing and inspection. It now has under construction in San Diego a $100,000 administration and laboratory building, which will also house the new southern California division of W-C-S, concentrating on foundation and soil engineering.

### retirements

Dallas (Pete) Young will retire from MacDonald, Young & Nelson, Inc., after 13 years of service with the Oakland firm and a total of 45 in the contracting business. His retirement will be gradual, however, for although he has sold his interest in the company, he will continue as a vice president, supervising construction of the Candlestick Point Stadium for the San Francisco Giants.

### appointments

J. Paul Oppenheim, vice president and general manager of Bishop-Mattel Construction, Inc., of San Francisco, has received an additional appointment as vice president of C-B Building Corp. of Los Angeles.

### deaths

Henry Stoneson, who built an estimated 15,000 homes in the Bay area, died December 30 at the age of 63. He was president of Stoneman Development Co., among whose projects was Stonetown, large residential and shopping area in San Francisco.

George Norbeck, 58, building contractor in Escalon, Calif., for 22 years, died January 21. A native of Sweden, he became a U. S. citizen in 1941.

Howard Burkhard, 58, head of Burkhard Construction Co. of Klamath Falls, Ore., died November 8.

**MEETING RESCHEDULED**

The Pacific Northwest Branch, AGC, comprising the states of Oregon, Washington, Idaho, Montana and Alaska, has rescheduled its meeting for March 26-27 in the Olympic Hotel. The Seattle Chapter will be host to the two-day affair, originally set for February.

### honors

Bay area builder Joseph L. Eichler of Atherton has received the City of Hope's 1958 "Man of the Year" award for his civic and philanthropic activities and for his efforts to advance friendly race relations on the community level.

Building Industry Conference Board has presented its 1958 achievement honors to two San Franciscans: builder John R. Cahill and architect William Mooser.

### elections

Seattle Chapter, AGC, has named Andrew P. Wick of Wick Construction Co. as its new president. Other officers: Arthur Hainsworth, first vice president; Phil Carlson, second vice president; Hugh Ferguson, secretary; and John Frodesen, treasurer.

Southern California Chapter, AGC, has named J. W. Bernard of William J. Moran Co. as president. Serving with him on the executive committee are vice presidents Warren Driver, M. A. Matich and S. A. Wattson and treasurer D. E. Kelbey.

Building Contractors Association of California has elected these officers: John H. Kuhl, Los Angeles, president; Kenneth J. Bourguignon, Encino, first vice president; and Warren Hanby, Rosemead, secretary-treasurer.



**OUTGOING PRESIDENT**

of Seattle Post, Society of American Military Engineers, Col. R. J. B. Page, district engineer for Seattle District, Corps of Engineers, receives pin in recognition of year's service from his successor, Maynard C. Falconer, director of design, District Public Works Office, 13th Naval District. Other officers for 1959: Raymond C. Smith, first vice president; Kenneth C. Helms, second vice president; George L. Moulton, secretary; Abbott W. LaGrelius, treasurer; and Lt. Col. Harold G. Brown, director-at-large. Colonel Page has been named to attend National War College at Washington, D.C., for 1959-60 term.



**OFFICERS** of consolidated Northern and Central California Chapter, AGC, are sworn in by Judge Homer R. Spence, justice of California Supreme Court. Shown at January 5 ceremony are Justice Spence; J. P. Silvestri, Charles L. Horney, Inc., vice president of heavy engineering division; Paul A. Elsner, Swinerton & Walberg Co., vice president of building division; Milt Simpson, Ball & Simpson, president; John Delphia, Patterson contractor, vice president of highway division; and Curtis E. Smith Jr., Dinwiddie Construction Co., Inc., treasurer.

## AGC chapters merge in San Francisco

Merger of the Northern California and Central California chapters of AGC became effective January 1. Previously the former concentrated on heavy-highway contractors, while the latter claimed mostly building contractors.

The two groups, now known as the Northern and Central California chapter, have shared the same address in San Francisco, 850 Battery St. (Sacramento office is at 1400 S. St.), since the building presently occupied was acquired. Areas of operation overlapped, creating some conflicts and duplication which will be eliminated. However, each of the former chapters will retain its own identity, at least where social functions are concerned.

# Construction News Bulletin

*(A weekly summary of Pacific Construction Daily)*

Vol. 65—No. 4 (PA&B) News Section of Pacific Architect and Builder February 21, 1959

Dorothy McCormick ..... News Editor  Rita Boshell ..... Editorial Assistant
Dorene Davis, Katharine Tirrill, Anne Matthey ..... News Staff
Win Romtvedt ..... Portland Correspondent

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## BUILDING NEWS

**Oregon, Washington, Idaho, Montana, Alaska**

- ● Bids Called
- ★ Contract Awards
- ▲ Low Bids—Bids Received
- ■ Planholders—Prospective Bidders

## OREGON

●**HIGH SCHOOL ADDITIONS—** **Albany, Ore.**

Bids will be opened 8 p.m., March 5, by School District No. UH-8, Linn County, John Cox, clerk, Albany High School, Albany, for construction of three additions to Albany High School. Plans with Annand, Boone & Lei, architects, 1530 S.W. Taylor St., Portland. $50 deposit. Bid bond, certified check or cashier's check 5%.

A one-story 11-classroom wing will have concrete floor slab and concrete walls; wood joist and deck under built-up roofing; steel sash; vinyl asbestos floors in corridors and classrooms; terrafloor toilet floors; vinyl upper walls in corridors; lath and plaster walls with wood studs; fir cabinet work; fluorescent light.

A shop area will have concrete floor and walls; steel beam and wood frame roof under built-up roofing; top lights; balcony in shop room; incandescent light; unit ventilators.

A bus loading area will have a wood purlin and corrugated plastic roof, supported by steel frame; chain link fence at both ends of area.

Plans also call for paving new parking areas and surfacing other areas with gravel. VC 2-13

★**OFFICE BUILDING ADDITION, STORAGE BUILDING (Forest Service)— Butte Falls Ranger Station, Ore.**

Award to Rogue Valley Construction Co., Medford, $12,354, by U.S. Forest Service, 729 N.E. Oregon St., (Box 4137), Portland, for an addition to and renovation of an office building, and the construction of an equipment storage building at the Butte Falls Ranger Station on the Rogue River National Forest, Jackson County, Ore.; Bid No. R6-59-185. WB 2-18. Previous report 2-13

**STORES AND OFFICES— Coos Bay, Ore.**

Plans have been announced by Dr. George E. Dix, owner, 965 S. 5th, Coos Bay, to remodel the former Lou Blanc Bldg., Anderson Ave., Coos Bay, into a two-story concrete building with commercial space on first floor and offices on second floor. KC 2-6

**CHURCH (Lutheran)— Coos Bay, Ore.**

Bids will be called this spring by Gloria Dei Lutheran Church for construction of a one-story, 10,000 sq. ft. church building on a site adjacent to the highway between Coos bay and North Bend. Working drawings have been completed by Oliver Olson, architect, 2437 Market St., Seattle, Wash. Financial arrangements will be made prior to bid call. Plans call for a choir balcony.

Flat built-up roof; batt type insulation in roof; vertical cedar siding exterior; chancel wall of mosaic tile on exterior, and above altar in interior; black anodized aluminum sash set in structural wood mullions; plaster partitions; asphalt tile, quarry tile, flooring; carpeting; oil-fired warm air heating. A parking area is planned. Plans call for chancel end of nave to be cantilevered over a 6″ deep reflective pool.

PD 2-17. Previous report 1-14

●**BUILDING FURNISHINGS (O.S.C.)— Corvallis, Ore.**

Bids will be opened 2 p.m., March 17, by Oregon State Board of Higher Education, Earl M. Pallett, secretary, (Eugene), at the Administrative Council Room, Commerce Bldg., Oregon State College, Corvallis, for interior furnishings for the Women's Residence Hall and Dining Hall and Men's Dormitory, Unit "3," Oregon State College, Corvallis. Plans and specifications with Burns, Bear, McNeil & Schneider, architects, 2940 S.E. Belmont St., Portland. $25 deposit. Certified check or bid bond 10%. Items may be bid separately or in combination.

The furnishings will include (1) furniture; (2) bed spring and frame combination; (3) draperies; (4) carpeting. VC 2-18

**ELKS CLUB— Eugene, Ore.**

Plans are being formulated by Elks Lodge, Arnold Thom, exalted ruler, 7th and Olive streets, Eugene, to rebuild the clubhouse destroyed by fire on December 11. KC 2-6

**CITY HALL— Eugene, Ore.**
(Estimated cost $1,000,000)

Preliminary plans are underway by City Council, City Hall, Eugene, for construction of a new city hall at 191 8th Ave. E., Eugene. Voters approved the bond issue for financing the project at the November election. KC 2-6. Previous report 4-30

▲**HOSPITAL REMODELING— Hillsboro, Ore.**

No bids received February 16 by Washington County Court, Hillsboro, for remodeling of main floor and construction of fire escape ramp of the Washington County Hospital, 27280 S.W. Tualatin Valley Highway, Hillsboro. WB 2-18. Previous report 2-10

**LUTHERAN CHURCH— Grants Pass, Ore.**

Preliminary plans are nearing completion by Grant, Copeland & Chervenak, architects, 420 E. Howell, Seattle, Wash., for a new church building for Lutheran Church E.L.C., Grants Pass. PD 2-17. Previous report 8-27

**LUTHERAN CHURCH— Gresham, Ore.**

Working drawings are underway by Grant, Copeland & Chervenak, architects, 420 E. Howell, Seattle, Wash., for the Redeemer Lutheran Church in Gresham. PD 2-17. Previous report 8-28

●**TRANSMITTER RECEIVER BUILDING, UTILITIES (Kingsley Field)— Klamath Falls, Ore.**

Bids will be opened 11 a.m., March 9, by base procurement office, 408th Fighter Group, Kingsley Field, Klamath Falls, for construction of a transmitter receiver building and utilities at Kingsley Field, Klamath Falls; Inv. No. 59-28. Plans and specifications with above office.

Work includes—Item 1: construction of a 16′x23′ concrete block building; concrete foundation; floor slab and reinforced block walls; installing steel bar joints; insulation; built-up roof; metal doors and windows; standby generator and interior wiring. Item 2—Installing approximately 1600′ buried power cable; three transformers; concrete pad; fencing; gasoline tank; construction of 500′ gravel road. ZZ 2-18

**AIRPORT BUILDING— Medford, Ore.**

Plans have been announced by Jarrick, Inc., Dick Nyhof, manager, Medford, to construct a building south of main airport terminal structure, Municipal Airport, Medford, to house helicopters for a charger service at the airport. Financing will be by sale of common stock to Medford businessmen. KC 2-7

**RETIREMENT HOME— Newberg, Ore.**
(Estimated cost $1,500,000)

Tentative plans have been made by Friendview Manor Corp., Frank Cole, chairman, 1513 N.E. 58th Ave., Portland, to construct Friendsview Manor Retirement Home in Newberg. Construction may start in September. Completion date late 1960. Five-story, reinforced concrete, exterior balconies on all floors, elevator, 126 living units, five lounges, library, auditorium, chapel, dining room, recreation room, craft and hobby rooms, infirmary, beauty shop and other facilities. Cottages to be constructed adjacent to the building. KC 2-10

**SCHOOL— Ocosta, Ore.**

An election will be held March 24 by School District No. 7J, Ocosta, on a $120,000 bond issue to finance a building program. DC 2-7

●**EIGHT-PLEX (Garvison) (Sub-bids)— Oregon City, Ore.**

Sub-contract bids are being received by James Garvison, owner, Route 3, Box 793, Oregon City, for a wood frame eight-plex at corner of 10th and John Adams in Oregon City. Plans by Stuart B. Mockford, architect, 723 Washington St., Oregon City.

The apartment building will contain four single-bedroom units and four two-bedroom units. Some brick veneer exterior; electric heating. WB 2-13

**APARTMENTS (Bridges & Lahti)— Portland, Ore.**
(Estimated cost $160,000)

Plans have been completed by Jossy, Witt & Balsiger, architects, 12730 S.E. McLoughlin Blvd., Portland, for construction of three 2-story, 8-plexes at 2219 S.E. 66th Ave. for Bridges & Lahti, owner and contractor, 2938 S.E. 74th Ave., Portland.

One building will have a basement with laundry, storage and heating facilities. One brick wall, one concrete block wall, and other walls frame with vertical cedar tongue

and groove siding; wood joist roof with plywood sheathing and built-up roofing; wood partitions. WB 2-13

**▲PAROCHIAL SCHOOL (St. John Fisher)— Portland, Ore.**

Seven bids received February 11 by Catholic Archdiocese of Portland in Oregon, 2053 S.W. 6th Ave., Portland, for the initial unit of St. John Fisher parochial school in Vermont Hills area of southwest Portland. Plans by Jacobberger, Stanton, Franks & Norman, architects, McKay Bldg., Portland. LOW BIDS: Sterner Construction Co., 13845 S.E. Rhine St., Portland, $231,040; Wilson & Dean, 1016 N.E. 61st Ave., Portland, $244,377. HI: Teller Construction Co., 845 N. Graham St., Portland, $263,581.

WB 2-13. Previous report 2-10

**★CHURCH (Lutheran)— Portland, Ore.**

Contract negotiated with second low bidder, Weston Construction Co., 7415 N.E. Glisan St., Portland, $137,000, by Saint Michaels Lutheran Church, 2811 N.E. Holman St., Portland, for construction of a 10,500 sq. ft. wood frame church building adjacent to Concordia College in Portland. Plans by Oliver Olson, architect, 2437 Market St., Seattle. WB 2-14. Previous report 12-11

**★STAGE EQUIPMENT— Portland, Ore.**

Award to Stagecraft Industries, 2850 N.W. 31st Ave., Portland, $1,208, by Portland School District No. 1, Multnomah County, L. J. Baker, business manager, 620 N.E. Halsey St., Portland, for stage equipment at Bridger School. Three bids ranging to a high of $1,361 were received February 5.

Other bids were: Allied Products, Inc., 2109 S.W. 3rd Ave., Portland, $1,267; B. F. Shearer Co., 1947 N.W. Kearney St., Portland, $1,361. WB 2-14. Previous report 1-23

**▲PAROCHIAL SCHOOL (St. John Fisher) Portland, Ore.**

Seven bids ranging from a low of $231,040 by Sterner Construction Co., 13845 S.E. Rhine St., Portland, to a high of $263,581, were received February 11 in office of Jacobberger, Stanton, Franks & Norman, architects, 512 McKay Bldg., Portland, for construction of first two units of St. John Fisher parochial school at S.W. 46th Ave. and Nevada St., in Vermont Hills area. The owner is Catholic Archdiocese of Portland in Oregon, 2053 S.W. 6th Ave., Portland.

Separate bids received on Unit 1, two-story school with four classrooms, library and offices on main floor, and unfinished lower floor which will later have four classrooms; Unit 2, parish hall to be used as temporary church, with covered play area underneath, and Item 3, sewer installation. A kitchen and storage unit will be added later.

Construction is frame with brick veneer, aluminum sash and panelled spandrels.

BIDS: Sterner Construction Co., (1) $146,322, (2) $77,718, (3) $7,000, (total) $231,040; Wilson & Dean, 1016 N.E. 61st Ave., $151,520, $85,843, $7,014, $244,377; Norman Builders, 2805 S.W. 3rd Ave., $157,878, $81,821, $7,093, $246,792; Allen C. Lawson, 2520 S.W. Hamilton Court, $163,570, $79,860, $6,500, $249,930; O. R. Wayman, 3125 N.W. Front Ave., $170,492, $82,143, $7,110, $259,745; A. N. Minden, 11320 N.E. Marx St., $173,953, $79,938, $6,500, $260,391; Teller Construction Co., 845 N. Graham St., $168,148, $88,597, $6,836, $263,581. All of Portland.

WB 2-14. Previous report 2-10

**★PAROCHIAL SCHOOL (St. John Fisher)— Portland, Ore.**

Award to Sterner Construction Co., 13845 S.E. Rhine St., Portland, $231,040, by Catholic Archdiocese of Portland, 2053 S.W. 6th Ave., Portland, for construction of first two units of St. John Fisher parochial school at S.W. 46th Ave. and Nevada St. in Vermont Hills area. Plans by Jacobberger, Stanton, Franks & Norman, architects, 512 McKay Bldg., Portland.

WB 2-18. Previous report 2-14

**BRANCH BANK (1st National)— Portland, Ore.**

Bids to be called late in March by First National Bank of Oregon, C. B. Stephenson, president, 404 S.W. 6th Ave., Portland, for construction of a new branch bank building on the southeast corner of N.E. 42nd Ave. and Going St., Portland. Balzhiser, Seder & Rhodes, 1920 Franklin Blvd., Eugene, are the architects. Construction is expected to begin about April 1.

The building will be a modified version of First National's Coburg Road branch in Eugene, by the same architects. Site is 100'x155'; construction will be frame on concrete slab; light-toned Roman brick exterior trim; inverted double arch roof on natural finish exposed glu-lam beams; vault and safe deposit facilities; offstreet parking.

VC 2-18

**★HIGH SCHOOL ADDITION— Rockaway, Ore.**

Award to Lloyd Sperling and Rodney W. Dallas, Box 92, Tillamook, $18,095, by School District No. UH-2, Tillamook County, Mrs. Clara Glenger, clerk, Manhattan Rural Station, Rockaway, for construction of a two-classroom wood frame addition to Neahkahnie High School, located one mile north of Rockaway. Plans by Kendall & West, architects, 1132 S.W. 13th Ave., Portland. Four bids ranging to a high of $22,768 were received February 11.

Other bids were: Bickford Construction Co., 823 S.E. 28th Ave., Portland, $18,550; Wallace A. Green, Hermiston, $21,889; Duoos & Son, Box 222, Astoria, $22,768.

WB 2-14. Previous report 2-7

**▲CHAPEL (Methodist Home)— Salem, Ore.**

Three bids received February 10 by officials of Methodist Home, 1625 Center St., Salem, for construction of a one-story, wood and concrete chapel addition to the home. Architect is James L. Payne, 725 S. Commercial St., Salem, mechanical and electrical engineer, Cornell, Howland, Hayes & Merryfield, 1500 Western Ave., Corvallis. BIDS: Cecil A. Lantz, 1053 S. Commercial St., Salem, $16,500; George I. Johnston Construction Co., 260 Luther S., Salem, $17,354; Robert D. Morow, 3365 Commercial S.E., Salem, $18,456.

DC 2-14. Previous report 2-3

**WAREHOUSE— Salem, Ore.**

A building permit for $22,243 was issued by the city for construction of a 13,000 sq. ft. addition to the Hicks Sundry, Inc., warehouse at 3060 River Road N.E., Salem.

DC 2-17

**★POST OFFICE— Sandy, Ore.**

The Post Office Department, G. W. Eiden, regional real estate officer, Box 3703, Portland, has accepted the bid of Elmer S. Ferguson, Milton-Freewater, to construct and lease a one-story, 2,730 sq. ft. pumice block post office building at Main and Marie streets, Sandy. Completion by June 1.

WB 2-18

**▲HIGH SCHOOL REMODELING— Shedd, Ore.**

A contract award is expected to be made February 17 by School District 552C, Linn County, L. Emmett H. McKay, superintendent, Halsey, for interior remodeling at the Shedd High School. Bids were opened February 9, but figures were not released pending a decision on a late bid. Plans by Dougan & Heims, architects, 401 Royal Bldg., Portland. WB 2-14. Previous report 2-4

**LIVESTOCK AUCTION YARD— The Dalles, Ore.**

The Wasco County Court has rezoned for commercial use a 10-acre tract near Lower Three Mile Creek, above relocated U. S. Highway 197, and will sell the land to Columbia Land & Livestock, Inc., a recently formed corporation. Edward F. Coles, Prineville, and Paul Muller, Wamic, have announced plans to build and operate a livestock auction yard on the site. Construction is scheduled to start this spring on the facility, which will be large enough to handle 500 head of cattle and 500 head of sheep and hogs. RC 2-17

**★SCHOOL ADDITION (Elementary)— Turner, Ore.**

Award to Abe & Post, 404 E. Isabella, Lebanon, $93,205, by School District No. 79C, Marion County, Turner, for construction of additions and alterations to the Elementary School building in Turner. Plans by William I. Williams, architects, 1390 Capitol N.E., Salem. Bid opening February 2.

AM 2-14. Previous report 2-3

## WASHINGTON

**●BUILDING REPAIRS (Reserve Training Center)— Aberdeen, Wash.**

Bids will be opened 2 p.m., March 5, by 13th Naval District, Bldg. 250, U. S. Naval Station, Seattle, for miscellaneous repairs at the U.S. Naval and Marine Corps Reserve training center in Aberdeen; Spec. No. 18454/59. Plans with above Seattle office. No deposit.

Work consists of the replacement of rotted wood, doors, windows and trellises; reroofing porch, providing fabric fence around a substation. AM 2-14

**★VFW BUILDING— Aberdeen, Wash.**

Award to George Bushnell, 615 Hanna St., Aberdeen (no figure available), by Veterans of Foreign Wars, Post No. 224, 109 Heron St., Aberdeen, for remodeling the ground floor of the post-owned building, located at 109 Heron St., in Aberdeen. Remodeling will consist of a modern frontage with brick and aluminum exterior, and construction of two professional offices.

Long range plans by VFW Post No. 22[illegible] call for the remodeling of the rear of their building to provide a large meeting hall, which will be done under another contract.

AC 2-1[illegible]

**APARTMENT (Marble)— Bellevue, Wash.**

Preliminary drawings are underway by Ted LaCourse, architect, 1826 Broadway, Seattle, for the first six units of a planned 24-unit apartment on 104th N.E., in Bellevue, for Paul Marble, owner-contractor. Structure will be type 5 construction, with each unit to be approximately 600 sq. ft.

PD 2-1[illegible]

**OVERLAKE MEMORIAL HOSPITAL— Bellevue, Wash.**

(Estimated cost $760,000)

Bids will be called in August for construction of the one-story 36,000 sq. ft. Overlake Memorial Hospital on a site at N.E. 8th and State Highway No. 1, Bellevue. Working drawings will be completed about mid-June by Jones, Lovegren, Helms & Jones, architects, Republic Bldg., Seattle.

Wood frame walls and roof; four-foo[illegible] crawl space; reinforced concrete foundation and floor system; built-up roofing; bat[illegible] type insulation in roof; wood siding, ply[illegible] wood, brick veneer exterior; one-hour gyp[illegible] sum board walls and ceiling; flooring wi[illegible] be conductive ceramic tile (surgery), ce[illegible] amic tile (restrooms), quarry tile, asphal[illegible] tile, ceramic tile wainscoting; metal doo[illegible] frames; wood, metal doors; aluminum sash[illegible] oil-fired hot water heating; asphaltic con[illegible] crete parking area; cement concrete walk[illegible]

PD 2-17. Previous report 1-[illegible]

**●FIRE STATION ADDITION— Bellevue, Wash.**

Bids will be received until 6 p.m., March 6, in office of Lindahl & Bacon, architects, 20 102nd N.E., Bellevue, for construction of an 18'x45', one-story addition to existing Fire Station No. 1, 14 102nd N.E., Bellevue. Plans with the architects. $10 deposit. Certified check, bank cashier's check, bid bond, 5%. Addition will be used for truck storage and repair shop.

Flat built-up roof; wood joists, pumice block walls; concrete slab-on-grade floor; 14'x10' wood overhead door. PD 2-1[illegible]

**CLASSROOMS— Bellingham, Wash.**

Expansion program is being discussed by the Meridian School District No. 505, 16[illegible] Laurel Road, Bellingham, for construction of six to eight additional classrooms on th[illegible]

high school site. Method of financing has not been settled, but project will be figured on a $13 to $14 per foot basis. ET 2-5

**●REROOFING WAREHOUSE (United Boat Works)— Bellingham, Wash.**

Bids will be opened February 25 by Port of Bellingham Commissioners, Port Dock, Bellingham, for reroofing a warehouse on Port property occupied by United Boat Works (formerly Georgia-Pacific warehouse). ET 2-14

**●SCHOOL SEATS— Bellingham, Wash.**

Bids will be opened March 24 by Bellingham School District No. 501, 1306 Dupont, Bellingham in business manager's office, for furnishing school seats estimated at $16,000. Specifications with above office. ET 2-14

**▲SCIENCE BUILDING, ADDITIONS (Olympic College)— Bremerton, Wash.**

Bids received February 12, by Bremerton School District No. 100-C, Burwell and Montgomery streets, Bremerton, for construction of 1—English-Social Science Building, and 2—additions to the Science Building at Olympic College in Bremerton.

LOW BIDS—GENERAL: Cascade-Olympic Construction Co., Route 2, Box 131, Bremerton, $284,500 (combined base bid); Del Guzzi, Inc., Box 591, Port Angeles, $280,000 (combined base bid); Linden Construction Co., 903 Broadway, Bremerton, $278,000 (base bid 1), $42,650 (base bid 2). MECHANICAL: Standard Plumbing & Heating Co., Box 188, Manette Station, Bremerton, $87,704 (combined base bid); Lest's, Inc., 279 4th St., Bremerton, $95,657 (combined base bid). ELECTRICAL: Rhodes Electric Co., Box 32, Silverdale, $43,366 (combined base bid); Peterson Electric, 339 N. Callow, Bremerton, $45,250 (combined base bid); Pacific Electric Co., 644 5th, Bremerton, $46,600 (combined base bid). Nine bids were received on general, two on mechanical, and five on electrical.
AM 2-14. Previous report 2-7

**●POST OFFICE— Brewster, Wash.**

Bids will be received until March 15 by Post Office Department, E. Jennings Beard, regional real estate officer, Box 1857, Seattle, (phone Main 3-8600, Ext. 243), for construction of a 2,530 sq. ft. post office on site on Lots 17, 18, 19, 20, Block 25, second addition to Brewster, Okanogan County. The contractor will lease the building to the post office department for period of 10 years, with two five-year renewal options. The post office will include 2,530 sq. ft. net interior space; 10,212 sq. ft. parking, driveway and maneuvering space, and 288 sq. ft. platform space. An assignable land option is held on the site, priced at $6,850. WB 2-14. Previous report 1-7

**SUPERMARKET, DRUG STORE (A.&P.)— Burien, Wash.**

(Estimated cost $1,000,000—entire project)

Bids may be called from a select list of contractors this summer for construction of a 23,500 sq. ft. supermarket and drugstore for A.&P. in Burien, at S.W. 157th St. and 1st Ave. S. This would be the first phase of a $1,000,000 project. John A. Burkheimer is owner-developer, 7th and Olive, Seattle, and H. B. Friele is northwest representative of A.&P. Working drawings are underway by Joseph L. Skoog, architect, Colman Bldg., Seattle. Plans include parking for more than 250 cars. PD 2-13

**LUMBER MILL— Camas, Wash.**

Construction is underway on a lumber mill by Port of Camas-Washougal, owners, for lease to Hambleton Bros., to replace the former mill destroyed by fire. Structure to be 40'x144'. KC 2-13

**★SALES, SHOP BUILDING—Camas, Wash.**

Contract negotiated with low bidder, White Construction Co., 6008 N.E. 4th Plain Blvd., Vancouver, $21,634, by Belz Fuel Service, Camas, for construction of a 50'x65', one-story, wood and block building in Camas. Plans by Donald Lindgren, architect, 219 Central Bldg., Vancouver.
WB 2-18. Previous report 1-21

**●SCHOOL (Betz Addition)— Cheney, Wash.**

Bids will be opened 8 p.m., P.S.T., March 5 by Cheney School District No. 360, Cheney, for construction of a masonry and frame addition to the Betz Elementary School. Plans with Victor Louis Wulff, architect, 1526 W. Riverside Ave., Spokane. $25 deposit. Certified check, cashier's check or bid bond 5%. General contract will include mechanical and electrical. DM 2-14

**●SCHOOL (Sunset Elementary)— Cheney, Wash.**

Bids will be opened 8 p.m., P.S.T., March 5 by Cheney School District No. 360, Cheney, for construction of a masonry and frame addition to Sunset Elementary School. Plans with Victor Louis Wulff, 1526 W. Riverside Ave., Spokane. $25 deposit. Certified check, cashier's check or bid bond 5%. General contract will include mechanical and electrical. DM 2-14

**★HIGH SCHOOL (First Unit)— Chimacum, Wash.**

Awards announced by Chimacum School District No. 49, Jefferson County, Chimacum, for construction of the first unit of the new high school in Chimacum. Plans by Fred B. Stephens, architect, 1820 Smith Tower, Seattle. GENERAL: Winterburn Construction Co., Box 202, Port Townsend, $155,445. MECHANICAL: Port Townsend Plumbing & Heating Co., 702 Water St., Port Townsend, $64,375. ELECTRICAL: Thackery Electric Co., 217 Cota St., Shelton, $26,300. AC 2-18. Previous report 2-10

**CHURCH (Plymouth Congregational)— Colfax, Wash.**

Cost of a proposed new church structure is being investigated by officials of Plymouth Congregational Church, Colfax. Plans call for a bowling alley in the basement. Pastor is Rev. R. H. Satterfield, E. 310 James St., Colfax. MH 2-5

**GYMNASIUM— Dayton, Wash.**

(Estimated cost $100,000)

Publicity campaign is underway by Dayton School District No. 2, Columbia County, Dayton, for approval of a proposed bond issue to finance construction of a new gymnasium at Pietrzycki High School in Dayton. Two previous bond issues held in 1958 were defeated. MH 2-13

**▲STUDENT HOUSING— Ellensburg, Wash.**

Bids received February 11 by Central Washington College of Education, Ellensburg, for construction of married student apartments on 8th Ave., and men's dormitory on Walnut St. in Ellensburg. Plans by Cowan & Paddock, architect, 1117 Larson Bldg., Yakima.

LOW BIDS—GENERAL: Vandivort Construction Co., Box 1647, Wenatchee, $864,509; Eiford Construction Co., 1750 State St., Bellingham, $865,168; Earley Construction Co., 321 Middle Waterway, Tacoma, $873,500. HI: Hills Construction Co., 102 S. 5th Ave., Yakima, $1,038,000. MECHANICAL: Central Plumbing & Heating Co., 510 S. 1st St., Yakima, $242,940; Valley Plumbing & Heating Co., 609 W. Yakima Ave., Yakima, $287,752; Lentz Inter-State Plumbing and Heating Co., 12 S. 3rd Ave., Yakima, $290,167. HI: James Smyth Plumbing & Heating Co., N. 216 Division, Spokane, $307,870. ELECTRICAL: Power City Electric, Inc., N. 920 Howard St., Spokane, $90,800; Creamer Electric, 1902 Nob Hill Blvd., Yakima, $97,854; Electric Smith, 123 E. Sprague, Spokane, $102,762. HI: Mills Electric Co., 1511 Cornwall, Bellingham, $113,161.
IG 2-13. Previous report 2-4

**SCHOOL (Catholic Elementary)— Ephrata, Wash.**

Preliminary drawings are underway by John I. Mattson & Associates, and T. Gregory Saito, A.I.A., architects, 636 1st S.W., Ephrata, for Roman Catholic Diocese of Yakima, Most Rev. Joseph P. Dougherty, Liberty Bldg., Yakima, on a new elementary school in Ephrata. Construction planned for spring.

Reinforced concrete exterior concrete slab-on-grade floors, maple and asphalt or vinyl tile flooring, masonry interior walls, steel window sashes, glued laminated beams, built-up roof; hot water heat with conversion system in fan, nine classrooms, library, cafeteria, kitchen, offices, toilets, faculty and nurses' rooms, gymnasium with 650-seating capacity (bleacher type seats), storage rooms, lockers, showers and dressing rooms. IG 2-13. Previous report 12-2

**●INSULATION, SIDING, STORM WINDOWS— Ephrata, Wash.**

Bids will be opened 10 a.m., P.S.T., March 5, by Bureau of Reclamation, room 218, Division Ave. and C St. N.W., Ephrata, for furnishing and installing insulation, siding, and storm windows in each of 11 type A residences, located at five O. and M. housing sites, Grant and Franklin counties, Columbia Basin Project; Spec. No. 117-550. Specifications available from Box 368, Ephrata; Construction Engineer, Othello Construction Field Division, Othello. Bid bond 10%. Completion time 60 days. RM 2-13

**●CHURCH (South Everett Mission Church)— Everett, Wash.**

(Estimated cost $36,500)

Bids will be opened at 5 p.m., March 4, at a private bid opening, in the offices of Johnson-Austin & Associates, architects, 8810 Bridgeport Way, Tacoma, for construction of a one-story, no basement, 3,320 sq. ft., South Everett Mission Church at Holly Drive and South 84th St., Everett. Owner is the Northwest District of the Lutheran Church, Missouri Synod. Plans with above architect. $15 deposit. Bid bond 5%.

Bids are to be delivered to the architects office, or sent via certified mail, post marked on or before above due date.

Reinforced concrete footings and foundation; masonry and frame walls; concrete slab-on-grade; timber truss beams; truss joist roof; frame partitions; wood frame, jalousie vent windows; t&g cedar vertical exterior finish, fir exterior trim; plasterboard, wood panelling interior walls; fir, mahogany, cedar, metal at frames interior trim; asphalt tile flooring; t&g decking; some 1" cedar panelling on ceilings; mahogany doors; wood cabinets; one folding door; fiberglass insulation in ceiling


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**MISSILE SHOP— Fairchild AFB, Wash.**

Bids will be called soon for opening in mid-March by Corps of Engineers, 1519 S. Alaskan Way, Seattle, for construction of a Nike guided missile field maintenance shop at Fairchild Air Force Base; ENG-45-108-59-60. Plans with Seattle office. Bid bond 20%. Completion time 210 calendar days.

Plans call for 7,595 sq. ft. floor area; reinforced concrete frame with masonry block filler walls; steel roof joists and steel roof decking; five-ply built-up roof with insulation; 2½-ton monorail crane; 5-ton twin post automobile hoist; air conditioning; automatic sprinkler system; steam heating system; steam distribution system; asphaltic concrete pavement approximately 3,000 sq. yd.; gravel parking area approximately 900 sq. yd.; sanitary sewers; storm sewers; aerial electrical distribution system; security fence and gates. DM 2-17

**●FIRE STATION— Granger, Wash.**

Bids will be opened 8 p.m., March 3, by Yakima County Fire Protection District No. 5, in Zillah, for construction of a new 36'x50', fire station in Granger. Plans may be obtained from Doudna, Williams & Phipps, architects, Miller Bldg., Yakima. $25 deposit.

Clay block exterior walls; concrete floors, glue-laminated beams, wood decking and built-up doof. Structure will house two fire trucks, meeting room and toilet facilities. IG 2-17. Previous report 1-15

**PARISH HALL— Harrington, Wash.**

John P. O'Neill, architect, Columbia Bldg., Spokane, has been retained to prepare plans for a new parish hall for the St. Francis of Assisi Church in Harrington. Construction will start in the spring. MH 2-5

**APARTMENT (Coop)— Hoquiam, Wash.**
(Estimated cost $80,000 to $100,000)

Emerson Hotel, 701 Simpson, Hoquiam, has been purchased by A. A. Hunt Realty and Associates, A. A. Hunt, owner, 2410 3rd Ave., Seattle, for remodeling into a cooperative apartment. Plans call for conversion of the structure into 90 apartment units involving plumbing, wiring, installation of automatic elevator, carpentering and other work. KC 2-13

**★SWIMMING POOL— Hoquiam, Wash.**

Award to John P. Peterson, 205 4th, Hoquiam, $165,130, by City Council, City Hall, Hoquiam, for construction of a one-story, pumice block municipal swimming pool for the city. Plans by Dale D. Pedersen, architect, 306 Grosvenor House, Seattle. PC 2-14. Previous report 2-5

**APARTMENTS (Yarrow)— Houghton, Wash.**

Construction of apartment buildings will be started soon on a site near Yarrow Point and the city of Houghton, on Bellevue-Kirkland Highway. This will be first portion of an overall plan for an $11,000,000, 150-acre development. Plans include man-made island, surrounded by a canal. Project will include a resort hotel and apartments on the island; 185 residences on mainland; a large marina with covered moorage for 400 boats; a shopping center; paved streets, sewer and water lines; bulkheads. Plans for entire project were designed by Stephens and Thompson, consulting engineers, 2234 S.W. 5th Ave., Portland, Ore. (PCD 8-8 Housing Shopping Center.) Plans for apartments are by Thomas E. Dunstan, architect, 10630 Woodhaven Lane, Bellevue. DC 2-14

**BULK PLANT— Ilwaco, Wash.**
(Estimated cost $70,000)

Preliminary plans are being discussed by Union Oil Co., 2901 Whetstone, Seattle, for construction of a bulk plant in Ilwaco, on a site recently purchased from the Port of Ilwaco. MH 2-13

**SCHOOL ADDITION—Lake Stevens, Wash.**

Voters in Lake Stevens School District approved a $55,000 bond issue at a special election February 10 to finance construction of a multipurpose room for the Lake Stevens Junior High School and to purchase classroom equipment. KC 2-14

**▲SWIMMING POOL— Longview, Wash.**

Bids received February 11 by Longview School District No. 122, 28th and Lilac, Longview, for construction of an L-shaped, 122'x122' building to contain an 82'x75' poured concrete swimming pool at Lower Columbia Junior College, west of Mark Morris High School gymnasium. Plans by McGuire & Muri, architects, 231 Broadway, Tacoma. LOW BIDS: J. J. Flaskerud, 2151 Delaware, Longview, $241,664; Quoidbach Construction Co., 1422 Commerce St., Longview, $248,290; K. T. Henderson, 1362 Columbia, Longview, $254,848.
AM 2-13. Previous report 2-7

**▲BUILDING (BPA)— Longview, Wash.**

Ten bids ranging from a low of $12,430 by Quoidbach Construction Co., 1422 Commerce Ave., Longview, to a high of $18,985, were received February 16 by Bonneville Power Administration, 1001 N.E. Lloyd Blvd., Portland, Ore., for construction of a communications maintenance building, Longview Substation, Cowlitz County; Inv. 8918.

Other bids were: Sam Steiner, 707 14th St., Longview, $12,995; Lorentz Bruun, 3636 S.E. 20th Ave., Portland, $14,712; Teller Construction Co., 845 N. Graham St., Portland, $15,122; Mann Construction Co., Redmond, $15,336; Thompson & Georgeson, 1924 S.E. 6th Ave., Portland, $16,186; Amos J. Peters, 1767 20th Ave., Longview, $16,380; L. B. Read, 2607 S.W. Sunset Blvd., Portland, $16,820; Bardi General Contractor, 8105 S.E. Duke St., Portland, $17,393; The Brandon Co., 6401 Lincoln, Vancouver, $18,985.
WB 2-18. Previous report 2-12

**HIGH SCHOOL ADDITION (Lynden Christian)— Lynden, Wash.**
(Estimated cost $60,000)

Plans will be presented soon by James Sussex, designer, Lynden, to the board members of Lynden Christian School, 408 1st St., Lynden, for approval of a four-classroom addition to the high school on Drayton St. Plans include restrooms and other facilities. ET 2-13

**SWIMMING POOL— Lynden, Wash.**

Funds in the amount of $15,000 have been raised to finance construction of a new 75'x42' swimming pool in Lynden, according to Jack Louws, chairman of the swimming pool building committee. A total of $60,000 is needed. Plans for the pool are being prepared by Richard Stradling, architect, Herald Bldg., Bellingham.
MH 2-17. Previous report 1-7

**DRIVE-IN RESTAURANT— Lynnwood, Wash.**

Working drawings will soon be started by Maurice Sullam, architect, 1826 Broadway, Seattle, for a 3,500 sq. ft., one-story and basement restaurant with an attached covered car area with 50 car stalls for drive-in service, to be constructed at S. 212th and Highway 99, Lynnwood. Owner is M. Hansell. Extensive glass areas are planned, and a roof composed of a series of trianguar plywood sections mounted on a steel frame. PD 2-17

**TELEPHONE BUILDING (Evergreen)— Morton, Wash.**

Preliminary sketches have been completed by Grant, Copeland & Chervenak, architects, 420 E. Howell, Seattle, for a telephone Building at Morton for Evergreen Telephone Co., Ilwaco, a subsidiary of Telephone Utilities, Inc. PD 2-13

**MANUFACTURING PLANT— Mountlake Terrace, Wash.**

Preliminary drawings have been completed by George W. Heideman and Don B. Van Wieringen, architects, 527 Fairview Ave. N., Seattle, for a 20,000 sq. ft., first unit of a planned 40,000 sq. ft. manufacturing plant for Marine Fiber-glass & Plastics, Inc., 2901 Blakely, Seattle, to be located in Mountlake Terrace Industrial Park, Mountlake Terrace. Working drawings will be started in late spring. PD 2-13

**SCHOOL ADDITION (Jefferson)— Mount Vernon, Wash.**

Bids may be called in May by Mount Vernon Consolidated School District No. 320, 314 N. 9th St., Mount Vernon, for construction of a 6,200 sq. ft., six-room detached addition to Jefferson Elementary School, 16th and Blackburn, Mount Vernon. Working drawings are underway by Hovind, Harthorne & Smith, architects, 1500 Westlake Ave. N., Seattle. PD 2-17

**SCHOOL ADDITION (Conway)— Mount Vernon, Wash.**

Bids will be called the first part of March by Conway School District No. 317, Route 3, Mount Vernon, for construction of a 6,500 sq. ft., five-classroom and teachers' room addition to Conway Elementary School, Mount Vernon. Working drawings are near completion by Hoving, Harthorne & Smith, architects, 1500 Westlake N., Seattle. PD 2-17

**SWIMMING POOL— Naches, Wash.**

Plans are being formulated by Naches Lion's Club, Ron Nelson, president, Naches, to construct a swimming pool for the city. Club members have voted to construct the pool. Engineer not yet named. IG 2-17

**CHURCH WING ADDITION (St. Stephens)— Oak Harbor, Wash.**

Preliminary sketches have been completed by Grant, Copeland & Chervenak, architects, 420 E. Howell, Seattle, for a wing addition to St. Stephens Episcopal Church, Simard St., Oak Harbor. PD 2-17

**LUTHERAN CHURCH—Oak Harbor, Wash.**

Working drawings are underway by Grant, Copeland & Chervenak, architects, 420 E. Howell, Seattle, for an addition to Oak Harbor Lutheran Church, 50th St. and 300 East Ave., Oak Harbor. Pastor is Arne Aakre. PD 2-17. Previous report 2-27

**★CLINIC— Omak, Wash.**

Award to Armstrong & Armstrong (figures not released) Box 627, Okanogan, by Dr. L. S. Dewey and Dr. A. P. Bratrude, Omak, for construction of a clinic, north of Omak hospital. Completion date, May. Structure will include two waiting rooms, consultation room, two examining rooms, minor surgery room, electric cardiograph room and ear-nose-throat room. KC 2-13

**★BOWLING ALLEY— Omak, Wash.**
(Estimated cost $120,000)

Award to Earl Joy, Route 1, Snohomish (amount not released) by David Fairchild, owner, 208 E. Allen Ave., Chelan, for construction of a bowling alley building on Okom Ave., Omak. Completion date June 1. KC 2-13

**CHURCH (Holy Trinity Lutheran)— Opportunity, Wash.**

Preliminary drawings have been prepared by Creative Builders, Inc., for Holy Trinity Lutheran Church, Rev. Ronald Kragthorpe, E. 12118 Skyview, Spokane, for a new church with chapel and Sunday School wing to be constructed at 26th and Pine, Opportunity. Contemporary-modern style. Construction will start in the spring. MH 2-17

**BOWLING ALLEY— Pomeroy, Wash.**

Construction of a bowling alley adjacent to the Pa-Ha-Ta Cafe in Pomeroy is being considered by owner, George Brenner. MH 2-17

**ELEMENTARY SCHOOL— Prosser, Wash.**

Cowan and Paddock, A.I.A., architects, Larson Bldg., Yakima, have been retained by Benton County School District No. 116, Kenneth Raby, superintendent, to make preliminary studies of the need for a new elementary school in Prosser. Work is contingent upon a bond issue to be placed on the ballot at a coming election, (date not yet set). IG 2-17

**HIGH SCHOOL ADDITION—Prosser, Wash.**

Cowan and Paddock, A.I.A., architects, Larson Bldg., Yakima, have been retained by Benton County School District No. 116, Kenneth Raby, superintendent, Prosser, to

make preliminary studies of the need for an addition to the Prosser High School, Prosser. Work is contingent upon a bond issue to be placed on the ballot at a coming election, date not yet set). IG 2-11

**SANCTUARY— Prosser, Wash.**

The congregation of United Presbyterian Church, Prosser, has authorized Harold Thomas, chairman, to proceed with planning of a new sanctuary for the church. MH 2-5

**▲RESIDENCE (Kappa Delta Sorority)— Pullman, Wash.**

Bids will be opened 2 p.m., February 26, in office of Whitehouse, Price & DeNeff, Hutton Bldg., Spokane, for construction of a 1,100 sq. ft., four-story addition to and the interior remodeling of the Kappa Delta Sorority residence, Pullman. Plans with architect. No deposit.

Addition — Brick veneer over frame; painted drywall interior walls; asphalt tile and oak flooring. Alterations—New partitions, painting, decorating, fixtures. A concrete terrace will also be constructed. DC 2-14

**SCHOOLS— Puyallup, Wash.**

Election will be held in May, by Puyallup School District No. 3, Puyallup, on a $475,000 bonding measure and a $150,000 millage proposal, to finance construction of a new elementary school in Puyallup. MH 2-5

**GARAGE— Puyallup, Wash.**
(Estimated cost $10,000)

Plans are being discussed by City Council, City Hall, Puyallup, for construction of a municipal garage. Concrete block, flat, sloping roof. MH 2-17

**LUTHERAN CHURCH— Redmond, Wash.**

Working drawings will be started, following approval of preliminary sketches, by Grant, Copeland & Chervenak, architects, 90 E. Howell, Seattle, for a new Lutheran Church in Redmond.
PD 2-17. Previous report 8-27

**REMODEL OFFICE BUILDING— Seattle, Wash.**
(Estimated cost $200,000)

Remodeling is underway by Don Williams & Co., 314 Fairview Ave. N., Seattle, on a two-story building at E. 71st St. and Woodlawn Ave., Seattle, for Western Pacific Insurance Co., 312 1st N., Seattle. Structure was formerly the Green Lake Theater, and work includes remodeling 6,000 sq. ft. (each floor), addition of a 4,000 sq. ft. basement, and a new exterior. Aluminum window wall exterior; asphalt tile flooring; plaster and drywall partitions. PD 2-13

**FIRE STATION (Angle Lake)— Seattle, Wash.**

Working drawings will be started soon by Maurice Sullam, architect, 1826 Broadway, Seattle, for a 4,000 sq. ft., one-story fire station at Angle Lake for King County Fire Station No. 24, 19810 Pacific Highway S., Seattle. PD 2-13

**SYNAGOGUE— Seattle, Wash.**
(Estimated cost $750,000)

Bids will be called about mid-February by Congregational Temple De Hirsch, 1424 15th Ave., Seattle, for construction of a 1,050-seating capacity sanctuary on corner of 16th Ave. and Pike St., Seattle. Plans by Detlie & Peck, architects, 1266 Mercer St., Seattle, and Marcus Priteca, architect, Palomar Bldg., Seattle.
PD 2-13. Previous report 9-17

**APARTMENT (Swimming Pool, Deck)— Seattle, Wash.**
(Estimated cost $18,500)

Construction will start soon on a 16'x37' swimming pool and surrounding wood deck, ramp and boat moorage facilities, as the final part of construction of the four-story, 30-unit Surf Apartment at 714 Lakeside S., Seattle. Apartment structure is nearly completed, and was originally called the Olympiad Apartment. Plans by Ted LaCourse, architect, 1826 Broadway, Seattle.

Contractor for the pool is King Coral Pools, Inc., 7631 Sunset Highway, Mercer Island, for the moorage deck and piling. McCray Marine Construction Co., 2370 Fairview N., Seattle; for utilities, filler housing, miscellaneous work, Century Construction Co., 2301 Western, Seattle. Century were contractors for construction of the apartment. PD 2-13. Previous report 7-22

**SERVICE CENTER (Boy Scouts)— Seattle, Wash.**
(Estimated cost $200,000)

Working drawings will be started soon by Ibsen A. Nelsen and Russell Sabin, architects, 1314 E. 43rd, Seattle, for a two-story, no basement, 11,600 sq. ft. service center building to house administrative and secretarial staff for Boy Scouts of America. T. Byron Hunt is council executive.

Heavy timber structure will have some stone masonry exterior walls; concrete slab-on-grade; 65-car surfaced parking lot. PD 2-13

**▲COFFEE SHOP ALTERATIONS (U. of W.)— Seattle, Wash.**

Bids received by University of Washington, Seattle, for alterations to coffee shop in the Division of Health Sciences building on the campus. Plans by Naramore, Bain, Brady & Johanson, and McClellan & Jones, architects and engineers, 904 7th Ave., Seattle.

Ten bids ranging from a low of $18,290 by E. F. Shuck Construction Co., 535 Pontius, Seattle, to a high of $25,990, were submitted at February 11 bid opening.

OTHER BIDS: W. G. Clark Construction Co., 408 Aurora Ave., $19,416; Red-E Construction Co., 6056 37th N.E., $19,787; Wallace B. Questad, Inc., 2858 30th W., $19,800; Willar Construction Co., 9709 Greenwood, $19,964; Roxbury Construction Co., Corp., 616 Mercer St., $20,365; Lindbrook Construction Co., 11738 35th N.E., $20,497; O. E. Turnquist Construction Co., 1305 Republican, $22,921; Nick Dubick, 3627 Findlay St., $23,600; Hedeen Construction Co., 1404 N. 143rd, $25,990.
PD 2-13. Previous report 2-7

**BRANCH LIBRARY (West Seattle)— Seattle, Wash.**
(Estimated cost $200,000)

Durham, Anderson & Freed, architects, 1100 Denny Way, Seattle, have been retained to prepare plans for a branch library in West Seattle area, Seattle. Site may be in south end of the district. PC 2-13

**▲117-UNIT APARTMENT— Seattle, Wash.**
(Estimated cost $1,400,000)

George E. Teufel, White-Henry-Stuart Bldg., Seattle, was apparent low bidder (no figure released) for construction of a 117-unit, 10-story and basement, reinforced concrete apartment building at 1221 Minor Ave., Seattle, for 1221 Minor, Inc., owner. Three selected contractors presented bids at the February 12 bid opening. Plans by Donald N. McDonald & Associates, architects, 719 2nd Ave., Seattle. Structural engineer is George Runciman, Lloyd Bldg., Seattle. Mechanical and electrical engineer is Erwin L. Weber, Medical Arts Bldg., Seattle. Basement parking will be supplemented by roof deck parking on garage. Some units will have private lanais. Provision will be made for construction of a swimming pool.
PD 2-14. Previous report 9-26

**CHURCH ADDITION, ALTERATIONS (North City)— Seattle, Wash.**

Working drawings are underway by Robert F. Rathjen, architect, 213 Lake St. S., Kirkland, for an 8,000 sq. ft., one-story and basement addition, and alterations to North City Free Methodist Church, Donald V. Atkinson, pastor, 17424 5th N.E., Seattle.

Addition will include Sunday School rooms, combination social hall and chapel, nursery, restrooms and kitchen. Alterations will include renovation of existing building and a new exterior.
PD 2-14. Previous report 12-5

**PARKING GARAGE— Seattle, Wash.**
(Estimated cost $3,000,000)

Working drawings will be completed the latter part of February by George A. Applegarth, architect, 1045 Sansome St., San Francisco, Calif., for a 330,000 sq. ft. nine-story plus roof area and basement, parking garage to be constructed at 3rd and Pine, Seattle, by Utah Construction Co., 100 Bush St., San Francisco, Calif., for Sierra Corp., owner. Structural engineer is Ellison, Sedgwick & Associates, 1045 Sansome St., San Francisco; mechanical engineer is J. Marion Thomas, 580 Market St., San Francisco.

The structure will have poured concrete walls for elevator area; Seco pan floors; concrete beams; Laykold roof; concrete block partitions; some plaster partitions; metal stairways; aluminum sash; terrazzo flooring; fluorescent lighting; wood doors; steel cabinets; basement sprinkling system, ventilating system; hot-air heating in lobby.
PD 2-14. Previous report 1-29

**CHURCH (Lutheran Church of the Good Shepherd)— Seattle, Wash.**

Johnson-Austin Associates, architects, 8810 Bridgeport Way, Tacoma, have been retained to develop plans and specifications from a detailed plot plan study by T. Norman Mansell, architect, Philadelphia, Pa., for the 10,000 sq. ft. first unit of a building project for Lutheran Church of the Good Shepherd, to serve Bow Lake, McMicken Heights and Angle Lake areas. Architects will also supervise bid call and construction. Pastor is Richard I. Crossland, 17716 42nd S., Seattle. Plans call for stone veneer exterior, and it is hoped construction will be underway by June 1. Church will eventually be 25,000 to 30,000 sq. ft. PD 2-14

**LABORATORY ALTERATIONS (U. of W.)— Seattle, Wash.**

Preliminary drawings are underway by Rich and Trimble, architects, 4507 University Way, Seattle, for remodeling of the fifth floor of Applied Physics Laboratory building on the University of Washington.
PD 2-14. Previous report 12-23

**WAREHOUSE, OFFICE— Seattle, Wash.**
(Estimated cost $150,000)

Construction will start by March 1 by Austin Co., 2930 4th S., Seattle, on a 179'x202' (warehouse) plus 80'x88' (office) building to be constructed at 2231 6th S., Seattle, for Westinghouse Electric Corp., Seattle. Plans by Austin Associates, engineers, 2930 4th S., Seattle, call for wood bowstring roof trusses.

Concrete slab-on-grade; reinforced concrete tilt-up walls; aluminum sash; drywall or concrete block partitions; asphalt tile flooring; hot water heating system. PD 2-4

**SCHOOL ADDITION (T. T. Minor)— Seattle, Wash.**

Schematic drawings have been started by Naramore, Bain, Brady & Johanson, architects and engineers, 904 7th Ave., Seattle, on an eight-room addition to T. T. Minor School, 1701 E. Pike St., Seattle, for Seattle School District No. 1, 815 4th Ave. N., Seattle.
PD 2-14. Previous report 11-25

**▲BUILDING DEMOLITION— Seattle, Wash.**

Three bids received at February 16 bid opening by King County Commissioners 402 County City Bldg., Seattle, for demolition and removal of building at 407-416 5th Ave., Seattle. BIDS: B & B Wreckers, 4915 180th S.W., Lynnwood, $3,140; Matheny & Bacon, Inc., 1705 4th Ave. S., Seattle, $4,900; McFarland Housewrecking Co., 9360 Forest Court S.W., Seattle, $5,725.
PD 2-17. Previous report 2-6

**▲VETERINARY CLINIC— Seattle, Wash.**

Three bids received for construction of the two-story, 2,305 sq. ft. Central Veterinary Clinic near John St. and 5th St. N., Seattle. Bids opened February 12. Plans by Nelsen & Sabin, architects, 1314 E. 43rd, Seattle. Figures represent basic, and alternates 1, 2 and 3. LOW BID: Strand, Inc., 1801 N. 34th, Seattle, $32,175.

OTHER BIDS: CBS Construction Co., 11115 7th N.W., Seattle, $35,009; Nels Hedin, 2312 Federal, Seattle, $36,450.
PD 2-17. Previous report 2-10

**EPISCOPAL CHURCH— Seattle, Wash.**

Bids will be called the latter part of February by St. George's Episcopal Parish of Lake City, James G. Long, Jr., vicar,

4037 E. 109th, Seattle, for construction of the first unit of a 500-person capacity church and parish hall on a three-acre site on the north side of E. 125th St. between 22nd and 23rd avenues N.E., Seattle. Working drawings are near completion by Grant, Copeland & Chervenak, architects, 420 E. Howell, Seattle. PD 2-18. Previous report 6-3

**★CHURCH (Unitarian)— Seattle, Wash.**

Contract is being negotiated with Norge Construction Co., 5008 Admiral Way, Seattle, (bid figure was $44,769) for construction of a 3,600 sq. ft., one-story, wood frame church building, access road, parking facilities and site development, for First Unitarian Church of Seattle, on a four-acre site on S. 258th St., adjacent to Salt Water State Park. Structure is designed for future expansion to 4,800 sq. ft. Plans by Van Horne & Van Horne, architects, 2909 Fuhrman Ave., Seattle. Mechanical engineers are Stern & Towne, Seattle; electrical engineer is Thomas Sparling, all at 615 Lakeview Blvd., Seattle.

Glued laminated beams with 16' high ceiling in chapel; cedar siding exterior; outdoor area adjoining chapel which will serve for church services in warm weather; glass wall on one side of chapel will have sliding doors which will open on garden court; clerestory amber plastic windows in other walls; central warm air heating system, separately zoned with two furnaces. PC 2-18

**★BANK (Seattle-First National)— Seattle, Wash.**

Award to Sellen & Anderson, Inc., 228 9th N., Seattle, (no figure available), by Seattle-First National Bank, for construction of the International Branch bank building on 6th Ave. S. and Jackson St., Seattle. Plans for the one-story and mezzanine, 50'x100' structure were prepared by Durham, Anderson & Freed, architects, 1116 Denny Way, Seattle. AM 2-18. Previous report 1-14

**CONVENT (St. Alphonsus)—Seattle, Wash.**

Bids rejected by Catholic Archdiocese of Seattle, Most Rev. Thomas A. Connolly, archbishop, 907 Terry Ave., Seattle, for construction of a two-story and basement, 13,000 sq. ft. food frame convent for Saint Alphonsus Parish, 5704 15th N.W., Seattle. Plans by Johnston & Campanella, architects, 213 Wells St., Renton. No information available on future plans for the project. PD 2-18. Previous report 1-30

**★HEATING SYSTEM— Seattle, Wash.**

Award to Heating & Wiring Installers, Inc., 3612 1st S., Seattle, $143,527, by Seattle Housing Authority, 825 Yesler Way, Seattle, for furnishing and installing gas-designed gravity warm air heating systems in any or all of four groups of 746 apartments at the High Point Housing Project, 3000 W. Graham St., Seattle. Bids were opened February 3. AM 2-18. Previous report 2-5

**▲ACOUSTICAL TREATMENT— Seattle, Wash.**

Five firms submitted bids to Seattle School District No. 1, 815 4th Ave. N., Seattle, for acoustical treatment at B. F. Day School, 3921 Lynden, and Lake City Elementary School, 2611 E. 125th, both of Seattle. Bids opened February 16. BIDS: Wabco, Inc., 308 W. Republican St., $13,777 (B. F. Day, basic), $444 (B. F. Day, alt.), $8,777 (Lake City Elementary); William L. Henson, 127 N. 35th, $13,950, $400, $8,950; Audio Acoustic, Inc., 2730 Westlake N., $14,104, $387, $9,040; Brower Co., 114 Virginia, $14,778, $388, $9,539; Noise Control of Seattle, 600 W. Nickerson, $15,450, $500, $10,020; of Seattle. PD 2-18. Previous report 2-11

**●JUNIOR HIGH SCHOOL— Snohomish, Wash.**

Bids will be received until 8 p.m., March 5, by Snohomish School District No. 201, G. A. Moore, superintendent, 5th and D streets, Snohomish, for construction of a 22-classroom, one-story, 57,000 sq. ft. junior high school on a 21-acre site on Glen St. in Snohomish. Plans with Klontz & Wrede, architects, 784 Dexter Horton Bldg., Seattle. $25 deposit. Separate contracts for general, mechanical and electrical contracts. Certified check, cashier's check, bid bond, 5%.

Steel frame; masonry exterior and interior walls; glued laminated beams; rigid insulation in roof; aluminum sash; masonry partitions, some plaster partitions; concrete slab-on-grade floors; asphalt tile, vinyl tile flooring; maple floor in 7,200 sq. ft. gymnasium; glazed structural units in locker rooms; some glass skylights, some plastic skylights; gas-fired hot water boiler heating. PD 2-18. Previous report 1-28

**★BUILDINGS, PARKING APRON (Geiger Field)— Spokane, Wash.**

Award announced by National Guard Bureau, Bldg. 4, Tacoma Naval Annex, 5114 Steilacoom Blvd. S.W., Tacoma, for construction of approximately 53,000 sq. yd. of buildings (four buildings), relocation of two buildings and related utilities, and construction of a parking apron at National Guard facilities at Geiger Field in Spokane; Inv. No. NG-45-113-59-4. AWARDS: Gibbons & Reed Co., Box 2429, Salt Lake City, Utah, $670,435 (Sched. B, Parking Apron and related facilities); Rudd Construction Co., 602 Realty Bldg., Spokane, $557,338 (Sched. A, Buildings). AM 2-14. Previous report 2-6

**★OFFICE BUILDING— Spokane, Wash.**

Award to Ed Iwata, W. 8 Sprague Ave., Spokane, $43,181, by Western Soap Co., N. 1402 Ash St., Spokane, for construction of a new office building. Plans by Henry Bertelsen, architect, Empire State Bldg., Spokane. KT 2-17. Previous report 2-10

**●PAROCHIAL SCHOOL (Assumption)— Spokane, Wash.**

Bids will be received until 2 p.m., March 17, from a select list of contractors, in the Chancery Bldg., by the Most Rev. Bernard J. Topel, Bishop of the Spokane Diocese, S. 317 Howard St., Spokane, for construction of a 54'x257', one-story, 12-classroom, elementary school building for the Assumption parish. The new school will be located in the northwest section of Spokane, north of Francis Ave., near the Indian Trail road. Plans by John P. O'Neill, architects, E. 1703 18th Ave., Spokane.

Plans call for frame construction, brick trim; built-up composition roof. Approximately one-half of building will be left unpartitioned. AC 2-18

**★FREEZING EQUIPMENT—Tacoma, Wash.**

Award to Lewis Refrigeration Co., 429 Westlake N., Seattle, $41,600, by Port of Tacoma, Pier 2, Port of Tacoma Terminal, for furnishing and installing freezing equipment in rooms 4, 5, and 6, of the Port of Tacoma Cold Storage Plant. Completion time 75 calendar days.

Two bids were received at the February 11th bid opening. OTHER BID: Western Engineers, Inc., 2027 5th Ave., Seattle, $50,466. AC 2-18. Previous report 2-3

## IDAHO

**●SCHOOL ADDITION (Hillcrest Elementary)— Boise, Idaho**

Bids will be opened 4 p.m., March 2, by Independent School District, T. C. Bird, superintendent, 1207 Fort St., Boise, for construction of a six-classroom and library addition to Hillcrest Elementary School. Plans with Wayland & Cline, architects, 624 Idaho Bldg., Boise. KC 2-14. Previous report 12-31

**▲CHURCH (First Christian)— Boise, Idaho**

Six base bids (including mechanical), ranging from a low of $202,487 by G & M Construction Co., Box 1276, Boise, to a high of $224,374, and seven electrical bids, ranging from a low of $14,685 by Acme Electric, 1515½ N. 13th, Boise, to a high of $19,710 were received February 11 by First Christian Church, 903 Franklin, Boise, for construction of the first unit of a new church and educational unit on a 454'x403' lot off Capitol Blvd., across from the Boise Junior College campus. The first unit includes a Sunday school, fellowship hall, administrative suite and kitchen. The sanctuary will be constructed later. Architects: Wayland & Cline, 624 Idaho Bldg., Boise.

OTHER BIDS—BASIC: F. E. Patterson, 1712 Hervey, $204,200; Welsh Brothers Construction Co., 920 Broadway, $205,917; R. E. Rice Construction Co., Box 5046, $215,624; Babbitt Construction Co., 1620 Taggart St., $222,506; Watkins Construction Co., Box 1786, $224,374. All of Boise. ELECTRICAL: B & B Electric, 2202 Main, $15,578; Kruse-Hammack, 4418 Overland, $16,331; F & M Electric, 1407 Chrisway, $16,950; Alloway Electric, 704 Main, $18,195; Gem State Electric, 714 Grove, $19,655; Electric Service Co., 821 State, $19,710. All of Boise. RM 2-17. Previous report 2-4

**SCHOOL ADDITION (West Junior High)— Boise, Idaho**

Plans have been tabled by Independent School District, T. C. Bird, superintendent, 1207 Fort St., Boise, on proposed construction of a four-classroom addition to West Junior High School. Preliminary plans have been prepared by Dropping Kelley & Finch, architects, 2504 Kootenai, Boise. KC 2-18. Previous report 2-4

**SHOPPING CENTER (Country Club)— Idaho Falls, Idaho**

Sub-bids from a select list of contractors will be called in March by Hilp Rhodes Realty Co., owner-contractor, 819 Harrison St., San Francisco, Calif.; on the first phase of the Country Club Shopping Center, located between U. S. Highway 191 and Lewisville highways in northern Idaho Falls. Plans by A. E. Alexander, architect, 1162 Glen Road, Lafayette, Calif.

First phase of multi-million dollar shopping center consists of store for Sears, Roebuck & Co. Later plans include F. W. Woolworth store and supermarket. GH 2-18. Previous report 1-2

**●SCHOOL BUILDINGS—Montpelier, Idaho**

Bids will be received until 8 p.m., February 26, at the City Hall, Montpelier, and will be opened in the study hall, Montpelier High School, by School District No. 33, Bear Lake County, Montpelier, for construction of a 15 to 17-classroom elementary school at Clay St., between 5th and 6th St., and an Industrial Arts Bldg., to be located on 7th Ave., southwest of the present high school. Plans by Norman J. Hamill & Associates, A.I.A., architects, 216 Earl Bldg., Idaho Falls. Plans may be obtained from above architect. $25 deposit on school, $25 on Industrial Arts Bldg. Certified check, bid bond 5%. Separate or combination bids on one or both buildings may be submitted. Contract to consist of general, mechanical and electrical.

Item No. 1—Elementary School: 25,000 sq. ft., one-story, partial basement; masonry walls; prestressed concrete roof; steel columns and beams; concrete-slab-on-grade; glass block and aluminum windows; built-up, asphalt, gravel roofing; cabinets and shelving in classrooms and service rooms; blackboards, tackboards; gas-fired, forced warm air and steam radiation heating system; fluorescent and incandescent lighting.

Item No. 2—Industrial Arts Building: 7,500 sq. ft., one-story with balcony at one end; masonry walls; prestressed concrete roof, reinforced concrete columns and beams; colored concrete-slab-on-grade floor; glass block and aluminum windows; built-up, asphalt and gravel roofing; blackboards, tackboards; gas-fired, forced warm air heating system; fluorescent and incandescent lighting. Structure will house welding booths material racks, work benches, tool cases and lockers. AM 2-13. Previous report 12-8

**●PAINTING, IMPROVEMENTS— Weiser, Idaho**

Bids will be opened 3 p.m., P.S.T., March 5, by General Services Administration, room 126, 909 First Ave., Seattle, for exterior painting and installing acoustical tile and asphalt tile in room 2, U. S. Post Office, Weiser; Proj. No. SEA-1289. Specifications with above address. Completion time 30 calendar days. RM 2-14

# MONTANA

★**VESTIBULES, LOUVERS—**
**Brockway, Mont.**

Award to R and N Electric Co., 907 Main St., Miles City, $1,421, by 4061st Air Base Group, base procurement office, Bldg. T-1308, Box 5000, Malmstrom AFB, for installation of vestibule hoods over louvers and thresholds at the Brockway Gap Filler Facility. Bids were opened January 30.
KT 2-14. Previous report 1-24

●**LIGHTING CHANGES (Post Office, Courthouse)— Butte, Mont.**

Bids will be opened 3 p.m., P.S.T., March 4, by General Services Administration, 166 Federal Office Bldg., 909 First Ave., Seattle, for lighting changes in U.S. Post Office and Courthouse, N. Main and E. Copper streets, Butte; Proj. No. SEA-1266. Specifications available from building custodian, Butte, or regional office, above address, Seattle. Bid bond 2%.
RM 2-14

●**CHURCH, RECTORY (St. Richard Parish)— Columbia Falls, Mont.**

Bids will be opened 7 p.m., March 6, in the parish hall, Rev. William Molloy, pastor, St. Richard Parish, Columbia Falls, for construction of a one-story church, and a rectory, in Columbia Falls. Plans available with Taylor, Thon, Scwartz & Kirkpatrick, architects, 556 3rd Ave. E.N., Kalispell. $50 deposit.

The church structure will consist of 7,500 sq. ft., with basement. A parish hall and kitchen will be housed in the basement. The 2,600 sq. ft. rectory will have a partial basement. Plans call for brick and pumice block walls; glued laminated beams, exposed SCR brick and block interior walls; exposed roof decking, acoustical ceilings; asphalt tile and hardwood flooring.
AC 2-18

**BUILDING MODIFICATIONS (Army Engineers)— Glasgow AFB, Mont.**

Contract for supplementary modifications to masonry buildings, generator room addition, miscellaneous alterations at Glasgow Air Force Base, ENG-45-164-59-14, was terminated for the convenience of the Government. Bids were opened January 20 by Corps of Engineers, Walla Walla, on this project, and contract was awarded late in January to Morgen & Oswood Construction Co., Box 226, Glasgow, $33,340. Recently the Government terminated the contract. Project will be redesigned and advertised at a later date with other line items.
KT 2-13. Previous report 1-7

■**SHOP ADDITION— Glasgow AFB, Mont.**

Planholders announced for construction of shop addition to existing organization maintenance hangar, Glasgow Air Force Base, near Glasgow, Mont.; ENG-45-164-59-18. Bids will be opened 2:30 p.m., February 25, by Corps of Engineers, Bldg. 602, City County Airport, Walla Walla, Wash. Plans with Walla Walla office. Bid bond 20%. Completion time 300 calendar days.

Planholders: Fred J. Barrett, E. 1310 43rd Ave., Spokane; Cerovski Cement Products, Inc., 204 W. McKinley, Lewistown, Mont.; Federal Construction Co., 3420 E. Sprague Ave., Spokane; H. Halvorson, Inc., Box 6, Yardley; Hi-Line Steel Co., Malta, Mont.; Lindbrook Construction Co., 1640 Main St., Edmonds; Lowe Construction Co., Box 1956, Billings; Morgen & Oswood Construction Co., Box 226, Glasgow; Refer Construction Co., Box 449, Miles City; Sletten Construction Co., Box 1188, Great Falls; Wade Construction Co., 2202 E. 4th, Casper, Wyo.; L. W. Worthington, Box 2036, Billings; Lewis Hopkins, 221 S. 3rd St., Pasco; George E. Weed, Box 166, Bigfork, Mont.; Star Iron & Steel Co., 435 E. 11th St., Tacoma; Jack Sommer, Route 2, Rexburg, Idaho; Collins Construction Co., Box 75, Kalispell, Mont.; M. M. Barker, Inc., Box 1472, Great Falls. Allen Electric, Helena, Mont.; Christensen Plumbing & Heating Co., Box 2056, Billings; M. D. Culbertson, Route 2, Missoula; Fullerton's Plumbing & Heating Co., 401 W. Main, Hamilton, Mont.; Byron Jackson Co., 314 Lloyd Bldg., Seattle; Jensen-Rasmussen Co., Box 89, Sunnyside; Kalispell Plumbing & Heating Co., 333 1st Ave. E., Kalispell; Madden Construction & Supply Co., Box 1522, Billings; Northern Enterprises, Inc., 12556 Bothell Way, Seattle; H. H. Robertson Co., White-Henry-Stuart Bldg., Seattle; John M. Schroeder, Inc., Box 366, Grand Forks, N. Dak.; Teton Plumbing & Heating Co., Box 647, Choteau, Mont.; L. W. Worthington, Box 2036, Billings; Yellowstone Electric Co., Box 1871, Billings; Purvis Construction Co., Box 64, Yardley, Wash.; Peter Kiewit Sons' Co., Box 388, Glasgow; Hollingsworth Electric Co., 419 1st Ave. E., Kalispell; G. L. Cavanaugh, 3871 Piedmont Ave., Oakland, Calif.
AM 2-14. Previous report 1-28

■**READINESS CREW BUILDING— Glasgow AFB, Mont.**

Planholders announced for construction of Readiness Crew Building at Glasgow Air Force Base; ENG-45-164-59-22. Bids will be opened 2:30 p.m., P.S.T., March 4, by Corps of Engineers, Bldg. 602, City County Airport, Walla Walla, Wash. Plans with Walla Walla office. Bid bond 20%. Completion time 360 calendar days.

Planholders: General—Detweiler Bros., Inc., Box 870, Twin Falls, Idaho; Otto J. Eickhof & Sons, Inc., Box 599, Crookston; E. B. Kaiser Co., Box 47, Glenview, Ill.; Lewis Hopkins, 221 S. 3rd, Pasco, Wash.; Peter Kiewit Sons' Co., Box 388, Glasgow, and Box 1854, Billings; Larsen & Co., 365 W. 4th S., Salt Lake City, Utah; Line Material Industries, 700 W. Michigan Ave., Milwaukee, Wis.; Lowe Construction Co., Box 1956, Billings; Midland Constructors, Inc., Box 501, Glasgow; Morgen & Oswood Construction Co., Box 226, Glasgow; Mueller Engineering Co., Box 1968, Butte; Northern Enterprises, Inc., 12556 Bothell Way, Seattle, Wash.; Refer Construction Co., Box 449, Miles City; Sletten Construction Co., Box 1188, Great Falls; Sprague's Inc., Box 458, Lynnwood; Sound Construction and Engineering Co., 1300 Aloha, Seattle; Van Vetter Inc., 2130 Harbor Ave. S.W., Seattle.

G. M. Wallace & Co., Denham Bldg., Denver, Colorado; American Bridge Co., 309 S.W. 6th Portland, Ore.; Fred B. Comb Co. Inc., 2901 Aldrich So., Minneapolis, Minn.; COP Construction Co., 615 Central, Billings; Ekblad Inc., Box 754, Williston, N.D.; H. Halvorsen Inc., Box 1387, Grand Forks, N.D.; Purvis Construction Co., Box 64, Yardley, Wash.; St. Paul Foundry & Mfg Co., 500 Como Ave., St. Paul, Minn.; Sheffield Steel Corp., Sheffield Station, Kansas City, Mo.; Yager Construction Co., Box 895, Ephrata, Wash.

Mechanical—Crane Co., Box 751, Great Falls; Empire Heating & Cooling, Box 1516, Billings; Fullerton's Plumbing & Heating Co., 401 W. Main, Hamilton; Lent's Inc., 279 4th St., Bremerton, Wash.; Christensen Plumbing and Heating, Box 2056, Billings; Hi-Temp Liquid Heating Co. Inc., 52 Vanderbilt Ave. New York; Kalispell Plumbing and Heating Inc., 333 1st Ave. E., Kalispell.

Electrical — Rainbow Electric Co., 2220 Riverdrive, Great Falls; Westinghouse Electric Corp., 1 E. Broadway, Butte; General Electric Co., S. 162 Post, Spokane, Wash.; Yellowstone Electric Co., Box 1871, Billings.

Others—Armco Drainage & Metal Products, Inc., 4345 Lyndale No., Minneapolis; Associated Asbestos & Cork Co., Inc., Box 1773, Spokane; H. D. Fowler Co., Inc., Box 3084, Seattle; Idaho Acoustical and Building Specialties Co., 110 E. 29th, Boise, Idaho; Montana Steel & Supply Co., Box 1137, Great Falls; Omaha Steel Works, Box 2127, Cheyenne, Wyo.; Paper Calmenson Steel Co., Box 444, Billings; Southern Pipe & Casing Co., Box C, Azusa, Calif.; Stainless Equipment Co., 1318 10th St., Denver, Colo.; American Accordion-Fold Doors, Inc., 175-35 Liberty Ave., Jamaica, N.Y.; American Steel Products Corp.; Rewe St., Brooklyn, N.Y.; Atlas Fireproof Door Co., Inc., 73 Provost St., Brooklyn, N.Y.; Grigg Building Supplies, Box 731, Pasco; Kalispell Sheet Metal Works, Inc., 201 2nd St. W., Kalispell; Midwest Builders Supply, Inc., Box 1486, Rapid City, S.D.; Security Metal Products Corp., 909 E. El Segundo Blvd., El Segundo, Calif.; Star Machinery Co., 241 Lander St., Seattle.
KT 2-18. Previous report 2-10

★**BUILDING RELOCATION—Helena, Mont.**

Award to Teichrow & Gue, Great Falls, $1,315, by Bureau of Reclamation, Gold Block Bldg., Helena, for moving five-car garage and oil house from Tiber Dam Government Camp and erecting on foundations at O&M headquarters, Helena Valley Irrigation District, Helena; Spec. No. 636C-2(SF). Bids opened February 9.
EE 2-13. Previous report 1-28

●**BUILDING, WATER WELL, PAINTING— Helena, Mont.**

Bids will be opened 10 a.m., M.S.T., March 17, by Bureau of Reclamation, Box 551, Helena, for drilling a water supply well, constructing a building and painting various buildings at headquarters site of Helena Valley Unit, Missouri River Basin Project, adjacent to U.S. 91, one mi. north of Helena, Lewis and Clark County; Spec. No. 600C-184. Specifications available from Helena office or Box 2553, Billings, or Box 1629, Great Falls. Bid bond 10%. Completion time—Sched. 1: 30 calendar days. Sched. 2: 120 calendar days. Sched. 3: 60 calendar days.

SCHED. 1: 60′ drilling hole for 6″ casing; 30′ furnishing and placing 6″ plain casing; 30′ furnishing and placing 6″ perforated casing; lump sum testing and developing. SCHED. 2: Lump sum constructing well manhole; 150 lb. furnishing and installing well piping; 350 lb. installing pump pressure tank and controls; 200 c.y. excavation; 150 c.y. backfill; 53 c.y. concrete; 55′ furnishing and laying 4″ cast iron sewer pipe; lump sum constructing septic tank, 4″ vitrified clay sewer line and tile field; lump sum furnishing and installing hydraulic hoist; lump sum furnishing and installing air compressor; lump sum furnishing and erecting or constructing 32′x64′ shop and office building (alternates for prefabricated metal with partial brick veneer facing or reinforced hollow-block masonry building). SCHED. 3: Painting interior and exterior of shop and office building; painting exterior walls and roof of 25′x60′ garage; painting exterior walls and roof of 16′x20′ oilhouse; painting exterior surfaces of 20′x48′ quonset warehouse.
RM 2-13

■**DINING HALL—Malmstrom AFB, Mont.**

Planholders announced for construction of an airmen's dining hall at Malmstrom Air Force Base, Great Falls, Cascade County, Mont.; ENG-45-164-59-21. Bids will be opened 2:45 p.m., February 26, by Corps of Engineers, Bldg. 602, City County Airport, Walla Walla. Plans with Walla Walla office. Bid bond 20%. Completion time 360 calendar days.

Planholders: Haggart Construction Co., Box 1310, Fargo, N. Dak.; H. Halvorson, Box 6, Yardley, Wash.; Lewis Hopkins, 221 S. 3rd St., Pasco; Jensen-Rasmussen & Co., Box 89, Sunnyside; J. Jones Contractor, Inc., 943 E. 14th St., Casper, Wyo.; H. S. Leigland & Sons, 1501 N. 35th St., Seattle; E. F. Matelich Construction Co., Box 456, Kalispell; Nilson-Smith Construction Co., Box 1147, Great Falls; Sletten Construction Co., Box 1188, Great Falls; J. G. Watts Construction Co., Box 300, Salem; Canoy Construction Co., Box 736, Great Falls; Collins Construction Co., Box 75, Kalispell; Lindbrook Construction Co., 1640 Main St., Edmonds; Otto J. Eickhof & Sons, Inc., Box 599, Crookston, Minn.

M. M. Barker, Inc., Box 1472, Great Falls; Federal Construction Co., 3420 E. Sprague Ave., Spokane; Fullerton's Plumbing & Heating Co., 401 W. Main, Hamilton, Mont.; Edwin Johnson, 117 Central Ave., Great Falls; Kalispell Plumbing & Heating, Inc., 333 1st Ave. E., Kalispell; Holmes Electric Co., 10 2nd St. N.E., Minot, N. Dak.; Edwin Johnson, 117 Central Ave., Great Falls; Northern Enterprises, Inc., 12556 Bothell Way, Seattle; Pinski Bros., 1020 Central Ave., Great Falls; Rainbow Electric Co., 2220 Riverdrive, Great Falls; Reber Plumbing & Heating Co., 805 N. Main, Helena; Sprague's, Inc., Box 458, Lynnwood; Teton Plumbing & Heating Co., Box 647, Choteau; Purvis Construction Co., Box 64, Yardley; Jack Sommer, Route 2, Rexburg, Idaho.
AM 2-17. Previous report 2-6

●**LABORATORY (Mechanical Contract)— Missoula, Mont.**

Bids will be opened 2 p.m., M.S.T., March 24, by U.S. Forest Service, 1036 Federal Bldg., Missoula, for construction of mechani-

cal system for the northern forest fire laboratory Units A, B & C, and a water pumping plant to be located approximately seven mi. west of Missoula; Bid No. 5018-59. Plans with L. E. Noel, contracting officer, procurement and supply division, 1037 Federal Bldg., Missoula. $100 deposit. Technical information from Fox, Ballas & Barrows, architect, Savings Center Bldg., Missoula. Bid guarantee 5%. Completion time 550 calendar days. DM 2-13

● **LABORATORY (General Contract)— Missoula, Mont.**
(Estimated cost $700,000)

Bids will be opened 2 p.m., M.S.T., March 24, by U.S. Forest Service, 1036 Federal Bldg., Missoula, for general construction contract on a northern forest fire laboratory, Units A, B and C, including well house at the building site located about seven mi. west of Missoula; Bid No. 5017-59. Plans with L. E. Noel, contracting officer, procurement and supply division, 1036 Federal Bldg., Missoula. $100 deposit. Technical information on plans and specifications may be obtained from Fox, Ballas & Barrows, architects, Savings Center Bldg., Missoula. Bid guarantee 5%. Mechanical and electrical engineer is Bouillon, Griffith & Christofferson, 1411 Fourth Avenue Bldg., Seattle, Wash. Associate architects are Witwer & Price, 107 E. Main, Missoula.

Concrete footings and foundation; solid masonry walls; concrete slab floors; precast and prestressed concrete girders; some glued laminated beams; flat roof; concrete stairways; aluminum windows; rigid insulation in roof; vinyl tile and some quarry tile flooring; acoustical ceilings; wood doors and cabinets; glass panels; steam heating system, gas fired; air conditioning.

Building will include two wind tunnels, a combustion laboratory, facilities for research. DM 2-13. Previous report 1-6

● **LABORATORY (Electrical Contract)— Missoula, Mont.**

Bids will be opened 2 p.m., P.S.T., March 24, by U.S. Forest Service, 1036 Federal Bldg., Missoula, for construction of an electrical system for the northern forest fire laboratory Units A, B and C, and water pumping plant to be located approximately seven mi. west of Missoula; Bid No. 5019-59. Plans with L. E. Noel, contracting officer, procurement and supply division, 1036 Federal Bldg., Missoula. $50 deposit. Technical information from Fox, Ballas & Barrow, architect, Savings Center Bldg., Missoula. Bid guarantee 5%. DM 2-13

## ALASKA

**LUTHERAN CHURCH— Anchorage, Alaska**

Working drawings are underway by Oliver Olson, architect, 2437 Market St., Seattle, for a two-story, 10,000 sq. ft. Lutheran church in Anchorage. PD 2-14

● **ALASKA METHODIST COLLEGE (First Academic Building)— Anchorage, Alaska**
(Estimated cost $1,100,000)

Bids will be received until 10 a.m., Anchorage Time, March 25, by Alaska Methodist University at 102 Anchorage Hotel, Anchorage, for construction of the first academic building in the four-year construction program planned by the university. Bids will be opened in the Keni Studio, Lathrop Bldg., Anchorage. Plans obtainable from Manley & Mayer, architects, 210 Loussac-Sogn Bldg., Anchorage, and from Howard E. Schroedel, consulting engineer, Room 219, 500 Wall St., Seattle, Wash. $50 deposit.

Long range plans call for a campus of six classroom buildings, four men's dormitories, three women's dormitories, a student union building, library, auditorium, chapel, gymnasium and hockey field, athletic field and bleachers, president's house married students apartments, trailer court, faculty housing area and on-campus shopping center. Each classroom building will include 14 classrooms, a conference room and 20 offices. The student union building will contain a large social room, six student committee rooms and lobby.
DM 2-17. Previous report 7-3-58

### GUAM HOUSING

Bid opening has been extended to 11 a.m., March 3, for construction of 220 units of Capehart housing at the U.S. Naval Station, Guam; Spec. No. NBY 13301. Bids will be opened by 12th Naval District, Pacific Division, director, Bureau of Yards and Docks, Honolulu, T.H. Plans with U.S. naval advance base, personnel office, San Bruno, Calif. $175 deposit. Limit of three sets to general contractors, one set to subcontractors and dealers. Plans also available for inspection at public works office, 13th Naval District, Bldg. 250, U.S. Naval Station, Seattle.

● **COMPOSITE BUILDING— Clear, Alaska**

Bids will be opened 2 p.m., March 18, by Corps of Engineers, Alaskan District, in the Seattle District office at 1519 Alaskan Way, Seattle, for construction of composite building No. 2, and related facilities, at Clear, Alaska; Inv. No. ENG-95-507-59-61. Plans with Corps of Engineers, Box 7002, Anchorage, and with Seattle office. Bid bond 20%.

Work involves construction of a permanent masonry type warehouse containing approximately 24,000 sq. ft., and a driveway containing approximately 1,500 sq. yds. of area. Completion date November 30, 1959. AM 2-18

**HOUSING— Fairbanks, Alaska**
(Estimated cost $5,000,000)

Construction will start in June on the first unit of a 206-home housing development on a 77-acre tract on the west side of Fairbanks. The Taku Development Co., of which August A. Johnson, Northward Bldg., Fairbanks, is a member, will develop the project. Construction of the homes will be contracted to Alaskan builders. DC 2-14

★ **PAINTING (Ladd AFB)— Fairbanks, Alaska**

Award to McNair Painting Co., 407 Northward Bldg., Fairbanks, $17,136, by U.S. Air Force, base procurement office, Ladd Air Force Base, Fairbanks, for interior painting of 76 air force family apartments at the base; IFB-65-500-59-84. Bid opening February 4. AM 2-18. Previous report 2-10

● **BUILDING, UTILITIES— Indian Mountain AFS, Alaska**

Bid opening has been extended to 2 p.m., February 26, on construction of a composite building at Indian Mountain Air Force Station, Alaska; ENG-95-507-59-45. Bids will be opened by Corps of Engineers, Box 7002, Anchorage. Previous opening was February 19. Plans with Anchorage office or with Seattle district office, 1519 S. Alaskan Way. Bid bond 20%. Completion time September 30. DM 2-14. Previous report 2-12

● **VORTAC FACILITY (Buildings, Utilities)— King Salmon, Alaska**

Bids will be opened 11 a.m., A.S.T., March 6, by Federal Aviation Agency, Box 440, Anchorage, in the procurement branch office, Pioneer Bldg., 219 E. 5th Ave., Anchorage, for construction of a Vortac facility, quarters building and supplemental facilities at King Salmon, Alaska. Plans with Alaska branch office, 2400 4th Ave. S., Seattle, and above Anchorage office. $20 deposit. Bid bond 10%.

Work involves construction of a standard Vortac facility, incluing an access road, site grading, 36'x36' wood frame equipment building, complete with utilities, power and control lines and related work; construction of a 24'x57', one-unit frame quarters building on a concrete foundation, complete with all utilities. AM 2-14

● **APARTMENTS— Kotzebue, Alaska**

Bids will be opened 11 a.m., A.S.T., March 21, by Federal Aviation Agency, procurement branch, 219 E. 5th Ave., Anchorage (Box 440) for construction of two apartment buildings in Kotzebue. Plans may be obtained from above office or from branch office at 2400 4th Ave. S., Seattle. Bid bond 10%. One structure will be one-unit, the other two-unit and both will be wood frame, court-type. AM 2-14

★ **BUILDINGS (Air Force)— Shemya Island, Alaska**

Award to Beck Constructors, Morrison-Knudsen Co., Inc., Raber & Keif, Inc., McLaughlin, Inc. (joint venture), 603 Hoge Bldg., Seattle, $8,682,451 (Items 1-14), by Corps of Engineers, 1519 S. Alaskan Way, Seattle, for construction of three new buildings, and rehabilitation of three existing structures at the U.S. Air Force station on Shemya Island in the Aleutians (Phase 3); ENG-95-507-59-42. Completion date August 30, 1960. AM 2-14

● **BUILDING, TANK, UTILITIES— Sparravohn AFS, Alaska**

Bid opening has been extended to 2 p.m., February 26, for construction of a composition building, water storage, tank, outside utilities, roads and grading, removal of existing buildings, earthwork at Sparravohn Air Force Station, Alaska; ENG-95-507-59-44. Bids will be opened by Corps of Engineers, Box 7002, Anchorage. Previous opening was February 19. Plans with Anchorage office. Bid bond 20%. Completion time December 13. DM 2-14. Previous report 2-11

# ENGINEERING NEWS

## Oregon, Washington, Idaho, Montana, Northern California, Alaska

● Bids Called
★ Contract Awards
▲ Low Bids—Bids Received
■ Planholders—Prospective Bidders

## OREGON

**LOG DUMP, BOOM— Brownsmead, Ore.**

Edsel Aspmo, Rt. 3, Box 232, Astoria, has applied to the Portland District, Corps of Engineers, 730 Pittock Block, Portland, for a permit to construct a log dump and boom and dredge in Prairie Channel near Aldrich Point in the Columbia River, 1.2 mi. northeast of Brownsmead, Ore.

Work will include driving five single piling in a recessed area extending riverward 90 ft. from the low water line. From that point eight single piling will be driven extending upstream 60 ft. with upstream piling 90 ft. riverward from the low water line. Piling for the log dump will be driven landward of low water to form a 100-ft. boom pocket. Six piling will be driven within 16 ft. of low water, 500 ft. upstream with the uppermost five ft. riverward at low water. A small area will be dredged landward of low water and riverward to minus 2 ft. within the book pocket. Dredged material will be used for a road fill. RM 2-14

★ **SEWAGE PLANT EQUIPMENT (Installation)— Chiloquin, Ore.**

Award to William Lorenz, Chiloquin, $6,500, by City Council, City Hall, Chiloquin, for installation of necessary piping, equipment controls and other accessories required to place in operation a trickling filter and rotary clarifier plus other incidental work necessary to complete the city sewage treatment plant at Chiloquin. Bids opened February 6. Plans by William L. Wales, Jr., civil and structural engineer, 4512 Clinton Ave., Klamath Falls.

Other Bids: Riverside Construction Co., Box 3853, Portland, $6,800; Den Herder

Construction Co., Box 307, Lebanon, $8,209; P. J. Bush & Sons, 4731 South 6th St., Klamath Falls, $8,440; Jeske Bros. Construction Co., Box 3097, Eugene, $9,660; Phoenix-Matthews Construction Co., 2415 N.E. Alberta St., Portland, $11,780.
ZZ 2-14. Previous report 1-22

**SANITARY SEWER— Chiloquin, Ore.**

Plans and specifications to be completed soon and bid invitation expected late in February for extension of sanitary sewer system in West Chiloquin, Civil and structural engineer, William L. Wales, Jr., 4512 Clinton Ave., Klamath Falls. Bids will be received by Lloyd Peters, city clerk, City Hall, Chiloquin.

Extension of sanitary sewer system in East Chiloquin completed by Jeske Bros. Construction Co., Eugene, on February 4, three and one half weeks prior to contract completion date.
ZZ 2-14

**DREDGING— Corvallis, Ore.**

The Corvallis Sand and Gravel Co., Box 691, Corvallis, has applied to the Portland District, Corps of Engineers, for a permit to dredge in the Willamette River upstream from Corvallis. Site of the proposed hydraulic dredging is 500 feet upstream from the mouth of Marys River, extending upstream 3,400 feet. Material will be removed for commercial purposes to a depth not to exceed five feet below low water.

The pipeline will be opened immediately for passage of approaching vessels. DM 2-17

**●SEWERS— Gresham, Ore.**

Bids will be opened 8 p.m., March 2, by City Recorder, Ruth Hillis, Gresham, for construction of sanitary sewers for the Gresham west end sewer project. Bids will be received by Elden W. Carter, consulting engineer, 1207 Portland Trust Bldg., Portland, until 4 p.m., March 2, or at the City Hall until 8 p.m. Plans with the engineer. $5 deposit (including $10 charge). Bid bond 5%.

Quantities: 3,900' of 12", 4,800' of 10", 1,900' of 8", and 750' of 6" concrete sewer pipe; 46 manholes; and appurtenances.

The line will be installed mainly outside the city limits and will follow the Portland Traction Co. right-of-way south from Ruby Junction, crossing Division St., then following private easements to Powell Blvd. and Birdsdale Ave. It will tie into the 30" main trunk sewer which leads to treatment plant near the Columbia River.
VC 2-17. Previous report 11-22

**▲CONCRETE PARKING APRON (Kingsley Field)— Klamath Falls, Ore.**

Three bids received by 408th Fighter Group, Harry F. Keating, base procurement officer, Kingsley Field, for construction of a concrete parking apron at the field; Proj. KLF 34-6, Inv. No. 59-23, at bid opening February 5. Bids have been referred to higher authority for approval. BIDS: John Kovtynovich, 395 Skyline Loop, Eugene, $21,919; Asphalt Paving Co., Box 547, Klamath Falls, $24,893; Thompson - Georgeson Construction Co., 1924 S.E. 6th, Portland, $28,898.

Work involves furnishing and applying 1,190 c.y. of concrete and doing all necessary work to construct a parking apron.
ZZ 2-14. Previous report 1-16

**★APRON ACCESS, TAXIWAY (Kingsley Field)— Klamath Falls, Ore.**

Award to Asphalt Paving Co., Box 547, Klamath Falls, $16,435 (only bid), by 408th Fighter Group, Harry F. Keating, base procurement office, Kingsley Field; Proj. KLF 47-8, Inv. No. 59-24, for construction of apron access taxiway at the field. Bids were opened February 6. Work includes excavation of 1,010 cu. ft. of earth, and surfacing as specified.
ZZ 2-14. Previous report 1-16

**▲ANTENNA— Klamath Falls, Ore.**

Bids received by 13th Naval District, Public Works Office, Bldg. 250, U.S. Naval Station, Seattle, for providing new antenna poles at Antenna Farms, AC&W Facility TM-180, (KENO) Klamath Falls, Ore.; Spec. No. 18443/58.

Four bids received at February 18 bid opening. LOW BIDS: Trowbridge & Flynn, 214 W. Main St., Medford, $17,285; Nichols Construction Co., Box 336, Grandview, Wash., $17,800; Mattoon Construction Co., Heppner, $20,741. Government estimate $22,491.
PD 2-18. Previous report 1-31

**●GRADING, SURFACING, STOCKPILING (BPR)— Lane County, Ore.**

Bids will be opened 9 a.m., March 3, by Bureau of Public Roads, 824 Morgan Bldg., 720 S.W. Washington St., Portland, for constructing 1.9 mi. grading, 8.4 mi. surfacing, and stockpiling crushed rock, Oregon Timber Access Road Project BLM 24-B and 26-B, Siuslaw River Road and Whittaker Creek Road, Bureau of Land Management-Eugene District, Lane County. Specifications with above address. The Oregon State Highway Commission on the same day will receive bids for a Federal Aid Project providing that crushed rock for use on Richardson-Siuslaw River section of Richardson-Eugene highway, Oregon Project FAS-234(13), may also be produced from the Whittaker Creek quarry. Bidders may wish to consider the state FAP and the BLM projects jointly, because of the limited working space available at the quarry site.

Quantities: 18 acres clearing and grubbing; 44,000 c.y. excavation; 59,000 c.y. crushed rock; 64' of 96" structural-plate pipe; 40' metal pipe - arch; 1,300' culvert pipe.
RM 2-14

**★SEWAGE PLANT HEATING SYSTEM— Myrtle Point, Ore.**

Award to Bick Plumbing & Heating Co., 135 Curtis, Coos Bay, $6,525, by City Council, City Hall, Myrtle Point, for installation of a heating system in the secondary sewage treatment plant. Plans by R. H. Erichsen, consulting engineer, 5th and Highland, Coos Bay. Bid opening February 2.
AM 2-14. Previous report 2-7

**●PUMPS— Portland, Ore.**

Bids will be opened 2 p.m., February 26, by City Purchasing Agent, 208 City Hall, Portland, for three electric motor-driven centrifugal water pumps for Bureau of Parks. Certified check or bid bond 10%.
WB 2-13

**● CHLORINATORS (Pool)— Portland, Ore.**

Bids will be opened 2 p.m., February 26, by City Purchasing Agent, 208 City Hall, Portland, for four swimming pool chlorinators with trade-ins for Bureau of Parks. Certified check or bid bond 10%. WB 2-13

**★FAULT-INITIATING SWITCH— Portland, Ore.**

Award to only bidder Westinghouse Electric Corp., U.S. National Bank Bldg., Portland, $38,940, by Bonneville Power Administration, 1001 N.E. Lloyd Blvd., Portland, for furnishing one fault-initiating switch, 230 kv single-pole, 750 kv BIL, 58,500 amperes closing current, with cuurrent transformers; and six sets of spare contacts; Inv. No. 8922. Bids opened January 30.
WB 2-13. Previous report 1-16

**▲PAVING (City of Portland)—Portland, Ore.**

Six bids ranging from a low of $7,403 by Charles T. Parker Construction Co., Box 7588, Portland, to a high of $9,607, were received February 11 by Ray Smith, city auditor, City Hall, Portland, for improvement of N. Commercial Ave. from N. Columbia Blvd. 710.6' south; Resolution No. 27882.

Other bids were: Logan, Taylor & Co., 7800 N. Killingsworth St., $8,130; Oregon Asphaltic Paving Co., 1220 S.E. 190th Ave., $8,581; K. F. Jacobsen Co., Inc., 1107 N. Russell St., $8,665; Harold G. LaVelle, 10430 S.E. Bush St., $8,884; Portland Road & Driveway Co., 7295 S.E. King Road, $9,607. All of Portland.
WB 2-13. Previous report 2-6

**▲HOSE (Fire)— Portland, Ore.**

Four bids ranging from a low of $1,760 by American Rubber Manufacturing Co., 1145 Park Ave., Oakland, Calif., to a high of $2,020, were received February 11 by City Purchasing Agent, 208 City Hall, Portland, for furnishing 1½" fire hose for Bureau of Fire.

Other bids were: Empire Rubber & Supply, 714 N.E. 1st Ave., Portland, $1,920; Munnell & Sherrill, Inc., 1163 N.E. 63rd Ave., Portland, and Ken R. Humke, 207 N.W. 14th Ave., Portland, each bid $2,020.
WB 2-13. Previous report 1-23

**▲SEWER (City of Portland)—Portland, Ore.**

Only one bid, Atlas Construction Co., 9400 S.E. Powell Blvd., Portland, $698, was received February 11 by Ray Smith, city auditor, City Hall, Portland, for 126' of 8" sanitary sewer in S.W. Moss St. from existing sewer in S.W. 27th Ave.; Ordinance No. 109443.
WB 2-13. Previous report 2-6

**●POWER CIRCUIT BREAKERS (BPA)— Portland, Ore.**

Bid call cancelled by Bonneville Power Administration, 1001 N.E. Lloyd Blvd., Portland, for furnishing and delivering three power circuit breakers, 115/92 kv, 450 kv BIL, 1,200 ampere, 3,500,000 kva interrupting rating, five cycle interrupting time, for line and bus switching duty; and one power circuit breaker, 230//180 kv, 825 cycle interrupting time for line and bus switching duty; plus spare parts set; Inv. No. 8908.
WB 2-13. Previous report 1-31

**▲IRRIGATION SYSTEM, LANDSCAPING— Portland, Ore.**

Six bids ranging from a low of $42,998 by E. P. Baltz & Son, 9817 E. Burnside St., Portland, to a high of $46,606, were received February 12 by Port of Portland, John J. Winn, Jr., general manager, 5848 N. Lagoon Ave., Portland, for landscape construction, second stage, at Portland International Airport, Portland. Plans by David E. Thompson, landscape architect, 319 Davis Bldg., Portland. The estimate was $50,485.

Other bids were: Staab's Nursery, 16504 N.E. Glisan St., Portland, $42,999.80; Rich & Sons, Route 1, Hillsboro, $43,347; Ernest Ferrante, 3908 S.E. Bybee Blvd., Portland, $44,500; H. L. Pearcy and Dan Hallowell (joint venture), Ridgefield, Wash., $45,688; Shady Lane Nursery, Beaverton, $46,606.
WB 2-14. Previous report 1-24

**★GRADING AND SURFACING (County)— Portland, Ore.**

Awards made by Multnomah County Commissioners, John W. West, purchasing agent, 504 County Courthouse, Portland, for grading and asphaltic concrete surfacing on four streets. AWARDS: Warren Northwest, Inc., 9860 N.E. Hancock St. Drive, Portland, $3,464 (N.E. Siskiyou St. from 108th Ave. west), and $9,002 (N.E. Siskiyou from 10th Ave. to 111th Drive); Logan, Taylor & Co., 7800 N.E. Killingsworth St., Portland, $12,277 (S.E. 196th Ave.); Portland Road & Driveway Co., 7295 S.E. King Road, Portland, $18,356 (S.E. 70th Ave. from Ogden to Duke).
WB 2-14. Previous report 2-7

**★GRADING, PAVING (County)— Portland, Ore.**

Award to Oregon Asphaltic Paving Co., 1220 S.E. 190th Ave., Portland, $8,387, by Multnomah County Commissioners, John W. West, purchasing agent, 504 County Courthouse, Portland, for constructing rock base and asphaltic paving on S.E. 70th Ave. from S.E. Flavel St. to S.E. Ogden St.; Proj. D-303.
WB 2-14. Previous report 2-7

**●POWER CIRCUIT BREAKERS (BPA)— Portland, Ore.**

Bids will be opened 3 p.m., P.S.T., March 9, by Bonneville Power Administration, 1001 N.E. Lloyd Bldg., Portland, for power circuit breakers; Inv. No. 8933. Plans with above office.

One power circuit breaker, 115/92 kv, 450 kv BIL, 400 ampere, 1000 mva interrupting rating, fob Silver Bow, Mont., or bidder's shipping point; one same except having 1,200 ampere, fob Mapleton, Ore., or bidder's shipping point; one same except having 400 ampere, fob Cosmopolis, Wash.
DM 2-17

**▲TRACTOR— Portland, Ore.**

Two bids received February 13 by City Purchasing Agent, 208 City Hall, Portland, for furnishing one diesel-powered tracklaying tractor with straight dozer for Bureau of Sewage and Refuse Disposal. BIDS:

Eimco Corp., Salt Lake City, Utah, $22,624; Halton Tractor Co., 2439 N.W. 29th Ave., Portland, $23,689.
WB 2-17. Previous report 1-31

**▲PINTLE CHAINS— Portland Ore.**

Four bids ranging from a low of $2,986 by Northwest Chain & Sprockets, Inc., 31 N.W. 1st Ave., Portland, to a high of $3,384, were received February 13 by City Purchasing Agent, 208 City Hall, Portland, for four sets, 6" pitch, 115' long pintle chains for Bureau of Sewage Disposal.

Other bids were: H. W. Sharp & Co., 71 S.W. Oak St., Portland, $2,990; Ardies Machinery Co., 425 S.E. 9th Ave., Portland, $3,200; Chain Belt Co., 2310 N.W. 24th Ave., Portland, $3,384.
WB 2-17. Previous report 2-3

**●FENCING (BPR)— Portland, Ore.**

Bids will be opened 2 p.m., March 10 by Bureau of Public Roads, 824 Morgan Bldg., Portland, for furnishing and installing 4.322 mi. of fencing on Cow Creek Road, Oregon, TARP BLM 42-A2, B1, Bureau of Land Management-Roseburg District, Douglas County. Plans with above office. Project involves 22,800' barbed wire fence and three gates. DM 2-18

**▲POOL, SEWAGE TREATMENT PLANT, TURN-AROUNDS (Centennial)— Portland, Ore.**

Twelve bids ranging from a low of $88,150 by Bickford Construction Co., 823 S.E. 28th Ave., Portland, to a high of $107,813, were received February 12 by Oregon Centennial Commission, at office of Stewart & Richardson, architects, 219 S.W. Stark St., Portland, for construction of rest rooms, concrete block screens, fishing pool, sewage treatment plant and elephant train turnarounds at the Oregon Centennial Exposition site in North Portland.

Other bids were: E. Carl Schiewe, 1024 N.E. Davis St., $89,637; Larry O. Collins, 7017 Highway 99, Vancouver, $89,879; Boden Bros., 8900 N.E. Vancouver Ave., $91,800; Teller Construction Co., 845 N. Graham St., $92,694; C. M. Corkum, 2630 S.W. 2nd Ave., $92,875; Russ Todd, 9335 S.W. Fir Grove Lane, $92,997; A. C. Bardi, 8105 S.E. Duke St., $94,969; Teeples & Thatcher, 8850 S.E. Otty Road, $97,400; Charles R. Schmiedeskamp, 1008 S.W. 6th Ave., $97,812; A. R. Nieman & Co., 2001 Main St., Vancouver, $106,927; Donohue & Co., 1518 N. Killingsworth St., $107,813. Of Portland except as noted. WB 2-14. Previous report 2-7

**▲SURFACING— Roseburg, Ore.**

One bid that of WWD Corp, Drain, Ore., $57,075, was received by Douglas County Court for grading, draining, constructing base course and gravel surfacing on 3.5 mi. of the Scotts Valley Road, extending eastward from Highway 99. The proposal was taken under consideration. DC 2-14

**SEWER— Roseburg, Ore.**

The City Council, City Hall, Roseburg, has authorized a sewer construction program for 1959 involving installation of lateral sewer connections in a large portion of Miller's and Sleepy Hollow additions, and sewer construction in Luellen addition. DC 2-14

**OVERHEAD TRANSMISSION LINE— Rufus, Ore.**

The Wasco Electric Cooperative, Inc., 105 E. 4th, The Dalles, Ore., has applied to the Portland District, Corps of Engineers, 730 Pittock Block, Portland, for a permit to construct an overhead electrical transmission line across the Columbia River, two mi. east of Rufus, to provide construction power for John Day Dam.

A minimum vertical clearance of 95 ft. above a normal pool elevation of 160 ft. will be provided on the north side of the river. More than 100 ft. vertical clearance will be provided over the navigation channel above a 50-year flood of 920,000 cu. ft. per sec. The towers for both crossings will be set landward of ordinary high water elevation. RM 2-14

**★STATE HIGHWAY PROJECTS— Salem, Ore.**

Award announced by Oregon State Highway Commission, State Highway Bldg., Salem, for the following project, for which bids were opened January 20.

OVERCROSSING, Dodson—Construct 630' reinforced concrete and welded steel plate girder structure to carry Columbia River Highway traffic over the Union Pacific Railroad and the Crown Point Highway at Dodson, approximately four mi. easterly from Multnomah Falls, Multnomah County; FAIHP No. I-80-N-2(10)3.

AWARD: C. M. Corkum Co., Inc., 2630 S.W. 3rd, Portland, $218,709.
AM 2-17. Previous report 1-24

**▲STANDPIPE, WATERMAINS— Springfield, Ore.**

Eight firms submitted bids on February 9 to Rainbow Water District, Box 701, Springfield, for installation of water mains in the district. Plans by Howard T. Harstad & Associates, consulting engineers, 2512 2nd Ave., Seattle, involve Schedule A (standpipe), Schedule B (standpipe foundation), Schedule C (watermain), Schedule D (electrical, telemetering and appurtenant work). Bid opening on standpipe was extended to February 13. No information available on bids received for Schedule D.

BIDS: Gale Zysset, 1565 Roosevelt, Salem, $14,965—combined bid for Schedules B and C ($7,290—B, $7,675—C); Trio Construction Co., Eugene, $15,492 ($9,200, $5,942); Jeske Brothers Construction Co., 1870 Pacific Highway 99 N., Eugene, $19,319 ($8,969, $10,350); C. H. Strong Engineering and Construction Co., 3871 Royal Ave., Eugene, $27,445 ($10,420, $17,025).

Vik Construction Co., 160 Madison, Eugene, $10,956 (Sched. B); John Dovtynovich, 395 Skyline Loop, $12,860 (Sched. B); M. J. Butts, 1162 Tyler, Eugene, $18,363 (Sched. C); W. H. Shields Construction Co., 252 Taylor, Eugene, $19,496 (Sched. C).
PC 2-13. Previous report 2-11

**▲STANDPIPE— Springfield, Ore.**

Ten bids received by Rainbow Water District, Box 701, Springfield, for construction of a 1,000,000-gal. standpipe (Schedule A) as part of a water-main installation in the district. Bids for the other portions of the work (Schedules B, C and D) were opened Feb. 9 (PCD 2-13). Plans by Howard T. Harstad & Associates, consulting engineers, 2512 2nd Ave., Seattle.

BIDS: Chicago Bridge & Iron Co., White-Henry-Stuart Bldg., Seattle, Wash., $45,415 (Basic), $37,125 (Alt. a-1 Steel Tank); Hammond Iron Works, Provo, Utah, $43,302, $40,834; Pittsburgh-Des Moines Steel Co., 500 Wall, Seattle, $53,500, $43,360; American Pipe and Construction Co., Box 1898, Portland, Ore., no bid, $41,800; Graver Tank Co., 669 White-Henry-Stuart Bldg., Seattle, $53,534, $43,972; Hydraulic Supply Mfg. Co., 7500 8th S., Seattle, no bid, $58,200; General American Transportation, San Francisco, Calif., $52,700, $49,625; Gunderson Brothers Engineering Co., Box 3616, Portland, $50,120, $47,342; Henshaw Construction Co., 2260 Olive St., Eugene, $58,498 (Alt. a-2, Pre-Stressed Concrete Tank); E. E. Settergren, 3723 S.E. 21st, Portland, $70,155.
PD 2-17. Previous report 2-13

**★SHORE PLANTING—Tillamook Bay, Ore.**

Award to Wave Beach Grass Nursery, Box 457, Florence, $3,662, by Corps of Engineers, 628 Pittock Block, Portland, for planting shore pine and Scotch Broom and fertilizing Holland grass at Bayocean, Tillamook Bay and Bar, Ore.; CIVENG-35-026-59-116. WB 2-14. Previous report 2-7

## WASHINGTON

**●BACKHOE— Bellingham, Wash.**

Bids will be received until 10:30 a.m., February 24, by Alfred B. Loop, city comptroller, City Hall, Bellingham, for furnishing one new ½ yd. gasoline-powered backhoe, for use by water department. Bidder to specify date of delivery, F.O.B., Bellingham. Specifications with above office, or with water superintendent. Certified check, 5%.
ET 2-13

**●PUMPER— Bellingham, Wash.**

Bids will be opened March 9 by Fire Department, Central Fire Station, Bellingham, for furnishing one new 1,000 g.p.m., class A, triple combination pumper to be delivered f.o.b., Bellingham. Specifications available from fire chief, above address, or from city comptroller. Certified check or bid bond 5%. ET 2-13

**PIPELINE, DIVERSION DAM— Bellingham, Wash.**

The next bid call by Bellingham City Council on the municipal water supply project, will be the diversion dam on the Middle Fork of Nooksack River. Following this will be the pipeline job. Award has been made to A. J. Cheff, Seattle, and Guy James, Oklahoma City, on a low bid of $1,062,200 on the diversion tunnel (See PCD 2-12). Each project is timed so that the three completions will coincide.
ET 2-13. Previous report 10-4-58

**ROAD IMPROVEMENTS, BULKHEAD— Bellingham, Wash.**

Whatcom County Commissioners, Courthouse, Bellingham, have approved two new improvements for District No. 3 roadways. Item 1—500' precast concrete bulkhead on Lummi Shore Road, estimated cost $4,500, to be placed by county road crews. Item 2—Improvement of Loomis Train Road, estimated cost $4,800, to involve 3,050 c.y. of selected roadway ballast and 1,220 c.y. of crushed stone surfacing. ET 2-14

**▲HARBOR FLOATS— Blaine, Wash.**

Port of Bellingham Commissioners, Port Dock, Bellingham, have rejected the bids for harbor floats for Blaine. Tom Glenn, Jr., port engineer, indicated it was difficult to be specific in float design plans, allowing for competitive bidding. The Port will purchase float elements as needed. ET 2-13

**★PUMP STATION— Bremerton, Wash.**

Award to only bidder, Pacific Pumping Co., 114 W. Harrison St., Seattle, $7,735, by City Council, City Hall, Bremerton, for furnishing and installing one complete factory built, automatic duplex pneumatic sewage ejector pump sation. Bids were opened February 11. AM 2-13. Previous report 1-7

**NATURAL GAS SYSTEM— Colfax, Wash.**

Distribution system maps are being drawn by Frank Ceserani, chief gas engineer for the Washington Water Power, Spokane, and will be presented to the City Council, City Hall, Colfax, for approval on construction of a natural gas system in Colfax. The main pipe line will run into town center from the intercity pipeline one mile southwest of Colfax. Several miles of natural gas pipeline will be constructed through Colfax.
MH 2-13

**●POWER TRANSFORMER (BuRec)— Columbia Basin Project, Wash.**

Bids opening postponed until further notice by Bureau of Reclamation, Bldg. 53, Denver Federal Center, Denver, Colo., for power transformer for radar pumping plant switchyard (Block 21), Wahluke Branch Canal laterals, Columbia Basin Project, Wash.; Inv. No. DS-5128. Bids were to have been opened February 19.
KT 2-13. Previous report 1-5

**●RADIAL GATES, HOISTS (BuRec)— Columbia Basin Project, Wash.**

Bid call has been postponed until further notice by Bureau of Reclamation for furnishing radial gates and hoists for Potholes East canal enlargement, Columbia Basin Project, Wash. RM 2-13

**SEWER SYSTEM (Phase 2)— Cosmopolis, Wash.**

(Estimated cost $275,000)

General obligation bond election was approved February 10 by voters in Cosmopolis to finance construction of a sewage treatment plant and sewer line in Cosmopolis. Howard T. Harstad & Associates, consulting engineers, 2512 2nd Ave., Seattle, surveyed sewer system needs and cost estimates.
PD 2-13. Previous report 11-3

**SUBSTATION— Coupeville, Wash.**

Site selection is underway by Puget Sound Power & Light Co., Coupeville, according to Harry McMeekin, manager, for a new substation at Coupeville. This will be a new terminus for a $150,000, 12½ mi. 55,000 volt line now under construction from Oak Harbor to Coupeville. MH 2-14

**★GUARD RAIL— Eatonville, Wash.**

Award to Peterson Bros., 2110 1st N.E., Auburn, $2,603, by Pierce County Commissioners, Court House, Tacoma, for construction of 950' beam guard rail on the Eatonville cutoff road, Pierce County; CRP No. 1876. Five bids were received February 10.

Work involves 650' rail between Little Mashell River Bridge and C.M.St.P.&P. railroad overpass; 250' on each side of overpass structure.

RM 2-17. Previous report 1-29

**●STORM SEWER— Edmonds, Wash.**

Bids will be received until 8 p.m., March 3, by City Council, City Hall, Edmonds, for furnishing and installing storm sewers on 9th Ave. between Main and Dayton streets, Edmonds. Plans with James H. Reid & Associates, consulting engineers, 324 Main, Edmonds. $10 deposit.

Quantities: 291' of 10", 90' of 8" 60' of 6" concrete storm sewer pipe; 250' sidewalk replacement. PD 2-18

**●PAVING, SEWER— Edmonds, Wash.**

Bids will be opened 8 p.m., March 3, by City Council, City Hall, Edmonds, for paving of Railroad Ave. between Dayton and Main streets, Edmonds. Plans with James H. Reid & Associates, consulting engineers, 324 Main, Edmonds. $10 deposit.

Quantities: Schedule A includes 400' of 10" concrete storm sewer pipe and three catch basins; Schedule B involves 400 ton asphaltic concrete paving. PD 2-18

**●ALLEY PAVING— Edmonds, Wash.**

Bids will be received until 8 p.m., March 3, by City Council, City Hall, Edmonds, for asphaltic concrete paving of four alleys in downtown Edmonds—Blocks B, D, 1, and 139; LID 91. Plans with James H. Reid & Associates, consulting engineers, 324 Main, Edmonds. $10 deposit.

Quantities: 375 ton asphaltic concrete; 810 c.y. crushed gravel; miscellaneous appurtenant work. PD 2-18

**★TRANSFORMER ADDITION (BPA)— Ellensburg, Wash.**

Award to John M. King Co., 1601 Taylor Way, Tacoma, $15,493, by Bonneville Power Administration, 1001 N.E. Lloyd Blvd., Portland, Ore., for construction of 12 mva transformer addition at the Ellensburg Substation, Kittitas County, Wash.; Inv. No. 8621. WB 2-13. Previous report 2-5

**★EMBANKMENT (BuRec)—Ephrata, Wash.**

Award to Cherf Brothers, Inc., and Sandkay Contractors, Inc., Box 938, Ephrata, $3,510, by Bureau of Reclamation, Division Ave. and C St. N.W., Ephrata (Box 368), for repair of right embankment of East Low Canal, Fifth Section, Station 3447+00 to 3449+00, Grant County, about one mi. southwest of Warden, Columbia Basin Project; Spec. No. 117C-545. Bids were opened January 29. AM 2-27. Previous report 1-30

**●PUMPING PLANT (BuRec)— Ephrata, Wash.**

Bid opening has been postponed until further notice on construction of Radar Pumping Plant, Lateral WB3, and discharge line WB3A and WB3B, Columbia Basin Project, south of Othello; Spec. No. DC-5122. Bids were to have been opened February 19 by Bureau of Reclamation, Box 368, Ephrata. Drawings will be revised and bids taken at a later date.

Original specifications called for 600 days completion time and the following quantities: 55,300 c.y. excavation; 2,800 c.y. concrete; 712' furnish and lay 66" concrete pipe; 4,097' furnish and lay 72" concrete pipe or alternative of 7' steel pipe; lump sum for installing five main pump units; furnish and install other items of equipment and materials; other work.

Planholders: The Ballard Co., 1537 Ballard Way, Seattle; Central Steel & Tank Co., Box 13, Yakima; Commercial Shearing & Stamping Co., Box 239, Youngstown, Ohio; Commercial Shearing & Stamping Co., Box 2036, Salt Lake City, Utah; Northern Steel & Supply Co., Box 637, Ephrata; Warren, Little & Lund, 120 W. 2nd Ave., Spokane. HH 2-13. Previous report 1-27

**★CONCRETE LINING (BuRec)— Ephrata, Wash.**

Award to Triangle Construction Co., Box 696, Kennewick, $54,392, by Bureau of Reclamation, Division Ave. and C St., N.W., Ephrata (Box 368), for placing concrete lining in the laterals W44C and W447, Block 77, Columbia Basin Project; Spec. No. 117C-539. Completion time 50 days.

The work is situated about 10 mi. south and six mi. west of Quincy, Block 77, Grant County, Wash.

Quantities: 1,000 c.y. excavation from laterals; 250 c.y. fill above lining; 2,200 c.y. bedding for concrete lining; 10 c.y. coarse gravel protection; 975 c.y. concrete in lateral lining; 1,465 bbl. furnishing and handling cement. AM 2-17. Previous report 1-23

**★EARTHWORK, LINING, STRUCTURES (BuRec)— Ephrata, Wash.**

Award to Cherf Brothers, Inc., and Sandkay Contractors, Inc., Box 938, Ephrata, $16,216, by Bureau of Reclamation, Division Ave. and C St. N.W., Ephrata, for earthwork, lining and structures, Blocks 45 and 46, in the vicinity of Othello, Adams County, Columbia Basin Project; Spec. No. 117C-544.

Features of work include 1—earthwork for approximately 0.2 mi. of laterals, with 2' bottom width, 2—earthwork for and construction of structures along new and existing laterals including turnouts, weir, road and ditch crossing, road crossings, concrete checks, 3—modification of a wasteway control structure including a new motor-operated steel slide gates, electrical controls and stilling well, and modifications of an existing division box with CH0, 4—construction of about 100' of blended earth lining in laterals with 16' bottom widths.

AM 2-17. Previous report 1-30

**★DISCHARGE LINES— Ephrata, Wash.**

Award to Gro-Bar Engineering Co., Yakima, $13,528, by Corps of Engineers, Ephrata, for construction of discharge lines for Lake Lenore groundwater interception works and for Soap Lake Well X. Bids were opened January 30. This project was scheduled for opening in the fall of 1958 but was postponed indefinitely at that time. DM 2-17

**▲SURFACING (BuRec)— Ephrata, Wash.**

Bids received February 17, by Bureau of Reclamation, Division Ave. and C St. N.W., Ephrata (Box 368), for 15 mi. of surfacing O and M Road, Blocks 85 and 86, west and north of Othello, Grant County, Wash., Spec. No. 117C-546.

LOW BIDS: Otis Williams, 319 W. Lewis St., Kennewick, $16,696; Lewis Hopkins, Box 930, Pasco, $26,912; John M. Keltch, Box 504, Pasco, $29,412. Government estimate $28,412. Thirteen bids received.

AM 2-18. Previous report 1-20

**▲EARTHWORK, STRUCTURES (BuRec)— Ephrata, Wash.**

Bids received February 17, by Bureau of Reclamation, Division and C St. N.W., Ephrata (Box 368), for earthwork and structures, Block 83 laterals; wasteways and drains, Royal Branch Canal laterals, both in Columbia Basin Project, Wash.; Spec. No. DC-5135. Completion time 400 days.

LOW BIDS: Otis Williams, 319 W. Lewis St., Kennewick, $478,810; Cherf Bros., Inc., and Sandkay Contractors Inc., Box 938, Ephrata, and Pfeiffer & Pontius, Othello, (joint venture), $484,290; Lewis Hopkins, Box 930, Pasco, $486,433. Government estimate $511,261. Seven bids received.

AM 2-18. Previous report 12-20

**▲CIRCUIT BREAKER— Everett, Wash.**

Bids rejected by Board of Commissioners, PUD No. 1, 2320 California St., Everett, for one 1200 amp., 115 kv outdoor circuit breaker. Bids were submitted by four electric manufacturing Co., each at $40,000, at bid opening February 5.

KC 2-13. Previous report 1-7

**●WATER PIPELINE (Phase 3)— Everett, Wash.**

(Estimated cost $1,000,000)

Additional information given below on furnishing and installing pipe in Unit No. 3 of the Sultan River transmission pipe line on which bids will be opened 10 a.m., February 26, by City Council, City Hall, Everett. Specifications with city clerk or water superintendent in Everett or with consulting engineers, John W. Cunningham & Associates, 714 Portland Trust Bldg., Portland. $20 deposit. Certified check, cashier's check or bid bond 5%.

Unit 3 extends from the Panther Creek screening plant to a connection with the existing No. 4 pipeline on the hill above Cavalero's Corner, an approximate distance of 26,200'. The pipe will be 48" internal diameter. For one section, with some steep slopes and heads running up to over 400', the pipe will be electric welded steel with welded field joints. For adjacent sections with lesser heads, alternate bids will be received on all welded steel pipe, welded steel pipe with rubber gasket field joints, and concrete cylinder pipe, and selection will be made by the city commissioners after bids have been compared. The pipeline is to be furnished and installed in trench, tested and read for service, including air valves, blow-offs and other appurtenances.

Project is located about five mi. east of Everett. QUANTITIES: 45,000 c.y. trench excavation and backfill, unclassified; 2,800 c.y. bedding and backfill gravel; 200 c.y. bedding and anchor concrete; furnish and install 3,800' of 48"x3/8", 1,500' of 48"x5/16", 22,900' of 48"x1/4", 22,900' of 48"x1/4" all welded steel pipe; alternate bid for furnishing and installing 22,900' of 48"x1/4" steel pipe "O" ring joints or 22,900' of 48"x125 psi concrete cylinder pipe; six 6"' 15, 4" and four 2" air valve assemblies; four 12" and eight 8" blow-off assemblies; 12 precast blow-off chambers.

DM 2-13. Previous report 2-5

**●ASPHALT— Everett, Wash.**

Bids will be opened 2:30 p.m., March 2, by Snohomish County Commissioners, Courthouse, Everett, for furnishing 1959 requirements (approximately 14,000 lbs.) of asphalt additive for liquid bituminous. Price quoted to be unit price per lb., fob Snohomish.

HH 2-17

**●GRAVEL CRUSHER— Everett, Wash.**

Bids will be opened 2:30 p.m., March 2, by Snohomish County Commissioners, Courthouse, Everett, for furnishing gravel crushing equipment for use by the Snohomish County Road District No. 3, ase follows: Four C386 stationary jaws; four C387 movable jaws to fit Pioneer Jaw Crusher 936 RB. Immediate delivery desired. HH 2-17

**●TRUCKS— Everett, Wash.**

Bids will be opened 11 a.m., February 24, by Snohomish County Commissioners, Courthouse, Everett, for furnishing the following trucks for County Road District No. 3: one new two-axle, 6-cylinder gas truck; two new three-axle 6-cylinder gas trucks; three new ½-ton pickups; one new two-three-yd. dump truck; one new four-five-yd. dump truck; one new ½-ton long wheelbase pickup truck; two new four-five-yd. dump trucks, and one new two-three-yd. dump truck to be used for another road district in the county. Bids will be submitted on each item separately. HH 2-17

**●CONVEYOR BELTING— Everett, Wash.**

Bids will be opened 2:30 p.m., March 2, by Snohomish County Commissioners, Courthouse, Everett, for furnishing 250' conveyor belting, 24" wide, 5-ply, 28 oz. duck. Delivery date must be specified fob Arlington.

HH 2-17

**★APPROACH LIGHTING— Fairchild AFB, Wash.**

Award to Olson Electric Co., 710 W. 8th,

Vancouver, $182,305, by Corps of Engineers, 1519 S. Alaskan Way, Seattle, for construction of approach lighting, Fairchild Air Force Base; ENG-45-108-59-50.
PD 2-17. Previous report 2-5

**● DRILLING— Franklin County, Wash.**

Bids will be opened 2:30 p.m., March 5, by Corps of Engineers, Bldg. 602, City County Airport, Walla Walla, for overburden exploratory drilling on the Snake River, North Shore at River Mile 41.6, Franklin County; CIVENG-45-164-59-39. Plans and specifications with Walla Walla office. Bid bond 20%. Completion time 90 calendar days.

Project involves overburden drilling explorations on the North Shore of the Snake River at River Mile 41.6 in vicinity of Mathews, Wash., consisting of drive sample boring and sampling through overburden (8 minimum diameter) of approximately 1,000' and approximately 200 drive samples (6" diameter). All drilling to be accomplished by churn drills.
PC 2-13. Previous report 2-6

**★WASTEWAY, LATERAL EXTENSION— Grant County, Wash.**

Award to Duncan Construction Co., Box 582, Moses Lake, $10,930, by Bureau of Reclamation, Division Ave. and C St. N.W., Ephrata, for W53.E1 wasteway and lateral extension—Block 79, located in Grant County, 21 mi. south of Quincy; Spec .No. 117C-543.

Work includes (a) earthwork for and construction of 30' of 2-ft. bottom width lateral, a CHO turnout, and a check and pipe inlet; (b) earthwork for and construction of 2,430' of pipeline wasteway consisting of 15" irrigation pipe, 15" MC50 pressure pipe, and 18" corrugated metal pipe.
AM 2-17. Previous report 1-30

**● GRADING, DRAINAGE (Campbell Hill)— King County, Wash.**

Bids will be received until 2 p.m., March 4, by Renton School District No. 403, 1525 4th Ave. N., Renton, for grading and drainage revisions at Campbell Hill Elementary School, S. 124th St. and 64th Ave. S., King County. Plans with Mallis & DeHart, architects, 631 Lyon Bldg., Seattle. Certified check, cashier's check, bid bond, 5%.
PD 2-14

**★INDUSTRIAL SPUR TRACK— Kennewick, Wash.**

Award to Triangle Construction Co., 503 E. 1st Ave., Kennewick, $19,738 by Port of Kennewick, Benton County, Port Dock, Kennewick for construction of the Hedges industrial spur track. Seven firms submitted bids ranging from the above low to a high of $33,880.
DM 2-14. Previous report 2-10

**TRANSFORMERS— Lynden, Wash.**

City Council, City Hall, Lynden, has authorized Wilbur Kirkpatrick, city engineer, to obtain prices on two 10 kva transformers for the Lynden Water Plant. A 220-110 volt transformer burned out recently and an electrical engineer from Bellingham has recommended an increase in size of transformers.
ET 2-13

**● ■ FENCING— Makah AFS, Wash.**

Bids will be opened 2 p.m., February 26, by U. S. Air Force, base procurement office, Paine Air Force Base, for construction of boundary fencing for the family housing at Makah Air Force Station, Neah Bay, Wash.; Inv. No. 45-602-59-81. Plans with Paine office. Bid bond 20%.

Planholders: Walter W. Sprague Co., Box 117, Lynnwood; Jack Fast, 22 Etruria St., Seattle; Metropolitan Construction Co., 1008 Broadway, Everett; Lindbrook Construction Co., 11738 35th N.E., Seattle; Eklund Lumber, Route 2, Port Angeles; Del Guzzi Construction Co., 1020 E. Front St., Port Angeles; Emil Olson Co., 2305 S., Bellingham; Ursin Construction Co., 932 State St., Bellingham; Olympic Builders, Inc., 736 W. 13th, Port Angeles; Owen Bros., Railroad and Oak, Port Angeles; Colorado Fuel & Iron Corp., 3434 2nd S., Seattle; McBride Fences, 810 Bright St., Seattle; Northwestern Fence Co., 9757 Greenwood, Seattle; Lumberman's Mercantile Co., 107 S.W. 160th, Seattle; Cyclone Fence Dept., 1150 Fairview N., Seattle.

Work consists of furnishing all plant, labor, equipment and materials and all necessary work in connection with the construction of approximately 192' of 6' high chain-link fence around sewage treatment plant; two 12' chain-link gates; 1,177' of 4' high woven wire fence with cedar post around perimeter of housing area. HH 2-17

**● STATE HIGHWAY PROJECT (Bridges)— Olympia, Wash.**

Bids will be opened 10 a.m., March 3, by Washington State Highway Commission, Transportation Bldg., Olympia, for the following project. Specifications with above office. Certified check, cashier's check or surety bond 5%.

BRIDGES, Pierce County line to Junction PSH No. 5—Constructing two precast, prestressed concrete bridges, one reinforced concrete flat slab bridge, and one reinforced concrete box girder bridge on 0.037 mi. PSH No. 1, King County; FAP Nos. I-5-3-(46)140 and I-5-3(47)141.

Quantities: 3,750 c.y. common excavation; 900 c.y. selected roadway borrow; 300 c.y. crushed surfacing; 290 ton asphaltic concrete; 2,091' standard bridge railing; 1,730 c.y. concrete; 368,000 lb. steel reinforcing bars; lump sum for superstructure (1,363 c.y. concrete, 381,000 lb. steel reinforcing bars); 4,272' prestressed concrete girders; 381' downspouts.
RM 2-13

**▲STATE HIGHWAY PROJECTS— Olympia, Wash.**

Bids were opened by Washington State Highway Commission, February 17, on the following highway construction projects.

BRIDGE, SURFACING, SIGNING, Koren to Junction PSH No. 11—Clearing, draining, grading, bituminous surface treatment, reinforced concrete flat slab bridge and signing on 12.905 mi. SSH No. 7-C, Adams County; FAS No. S-0972(3).

LOW BIDS: Erickson Paving Co., 14446 Sunset Highway, Bellevue, $865,793; P. J. Anderson & Sons, 13501 Aurora Ave., Seattle, $891,035; J. W. Hardison, Box 48, Yakima, $899,990. Fifteen bidders.

PAVING, FENCING, Ritzville to Coker Road—Draining, grading, surfacing, constructing cement treated base and bituminous surfacing treatment, asphaltic concrete paving, fencing on 6.413 mi. PSH Nos. 11 and 18, Adams County; FAP Nos. I-90-4(20) 214 and I-90-5(9)216.

LOW BIDS: Dorman Construction Co., 2818 E. 1st, Vancouver, $807,943; Inland Asphalt Co., Box 46116 Station B, Spokane, $838,133; McAtee & Heathe, Inc., Box 4187, Spokane, $852,619. Twelve bidders.

PAVING, CULVERT, Satus Pass to Satus Creek—Clearing, draining, grading, surfacing, constructing cement treated base, asphaltic paving, constructing reinforced concrete box culvert on 3.001 mi. PSH No. 8, Klickitat County; FAP No. F-014-3(6).

LOW BIDS: C. E. Oneal, Inc., Box 270, Ellensburg, $695,627; Natt McDougall Co., Inc., 824 Pittock Block, Portland, Ore., $723,-922; P. J. Anderson and Stoen Construction Co., Seattle, $763,869. Seventeen bidders.

PAVING, BRIDGES, FENCING, ILLUMINATION, SIGNING, Junction SSH No. 11-G to Wheeler Road—Draining, grading, surfacing, constructing cement treated base and bituminous surfacing treatment, asphaltic concrete paving, two reinforced concrete slab bridges, fencing, installing illumination, signing on 2.680 mi. PSH No. 18, Grant County; FAP No. I-IG-90-4(18)176.

LOW BIDS: Cherf Bros., Inc., and Sandkay Contractors, Inc., Box 938, Ephrata, $649,384; Murphy Bros., Inc., 3728 E. Broadway, Spokane, $707,447; Peter Kiewit Sons' Co., Vancouver, $722,860. Nine bidders.

PAVING, BRIDGE, ILLUMINATION, S. M St. Overcrossing in Tacoma—Draining, grading, surfacing, asphaltic concrete paving, installing illumination, reinforced concrete box girder bridge on 0.044 mi. PSH No. 1, Pierce County; FAP No. I-5-3(45)133.

LOW BIDS: Woodworth & Co., Inc., E. D St., Tacoma, $328,439; Ostruske-Murphy, Inc., 1515 Center, Tacoma, $356,722; MacRae Bros., 2900 2nd S., Seattle, $402,375. Six bidders.

SURFACING, FENCING, McIntyre Road and White Trail Road East—Draining, grading, surfacing, constructing bituminous surface treatment, fencing on 13.493 mi. Grant County roads; FAS Nos. S-1054(2) and S-1218(2).

LOW BIDS: F. H. DeAtley & Co., Box 648, Lewiston, Idaho, $114,466; D. A. Sullivan, Box 37, Parkwater Station, Spokane, $125,-724; C. J. Painter, Box 51, Pasco, $128,094. Five bidders.

SURFACING, Lake McMurray Vicinity—Draining, grading, surfacing, constructing bituminous surfacing treatment on 0.322 mi. SSH No. L-A, Skagit County; a State Project.

LOW BIDS: Morrison & Cecotti, Box 388, Mount Vernon, $22,252; Robert L. Marsh, Seattle, $23,746; Russell J. Boe, 8685 Empire Way, Seattle, $24,461.
DE 2-18. Previous report 2-10

**▲STATE HIGHWAY PROJECT (Canal Bridge Approach)— Olympia, Wash.**

Fourteen bids were opened February 17 by Washington State Highway Commission, Olympia, on construction of the north approach, Seattle Freeway-Lake Washington Canal Bridge.

NORTH APPROACH, Seattle Freeway-Lake Washington Ship Canal Bridge—Constructing a reinforced concrete box girder approach on 0.186 mi. of PSH No. 1, King County, Seattle; FAP No. I-5-3(48)169.

LOW BIDS: MacRae Bros., 5900 2nd Ave., Seattle, $1,838,402; Troy T. Burnham Co., 18666 Beverly Road, Seattle, $1,914,687; Morrison-Knudsen Co., Inc., 603 Hoge Bldg., $1,953,430.
DE 2-18. Previous report 2-10

**● FUELING SYSTEM (Inspect, Repair)— Port Angeles, Wash.**

Bids will be opened 2 p.m., P.S.T., February 26, by 13th Coast Guard District, 618 2nd Ave., Seattle, for inspecting and repairing aviation gasoline aqua fueling system at U.S. Coast Guard Air Station, Port Angeles; Bid No. FS-1905. Specifications available from Seattle office. Bid bond 5%. Completion time 30 calendar days.
RM 2-13

**● RUNWAY REPAIR—Port Angeles, Wash.**

Bids will be opened 2 p.m., March 2, by 13th Coast Guard District, 618 2nd Ave., Seattle, for repairs and seal coating to main runway at U.S. Coast Guard Air Station, Port Angeles, Wash.; Bid No. FS-1907. Plans with Seattle office. Bid bond 5%. Completion time 120 calendar days.
AM 2-11

**● ROAD IMPROVEMENTS— Port Townsend, Wash.**

Bids will be opened 11 a.m., March 2, by Jefferson County Commissioners, Courthouse, Port Townsend, for draining, grading, surfacing and placing selected roadway borrow on 2.008 mi. of County Road No. 11. Plans with county engineer, Courthouse, Port Townsend. $10 deposit.

Work involves: 37,420 c.y. of common excavation, 16,750 c.y. of selected roadway borrow and other related items.
AC 2-11

**★ROAD WORK— Prosser, Wash.**

Award to F. H. DeAtley, Box 648, Lewiston, Idaho, $63,720, by Benton County Commissioners, Courthouse, Prosser, for road construction in CRP 357 on two roads and stockpiling for Proj. No. 59-2. Bids were opened February 2.

Quantities: 20,655 c.y. excavation including haul; 6,935 ton surfacing in place; 16,870 ton selected roadway borrow in place; 29,640 ton surfacing in stockpiles; 294' relay culvert pipe; 697' culvert pipe; other items.
KT 2-13. Previous report 2-4

**STORM SEWERS, LATERALS (Valley Road)— Pullman, Wash.**

There will be a hearing at 7:30 p.m. February 26, in the City Council chambers, City Hall, Pullman, on a proposed LID to cover the laying of 21" storm sewers, plus a system of laterals, in a large area of the Valley Road section in Pullman. The State College of Washington has already agreed to pay $4,500 toward the cost, to cover property in the area owned by the College.
MH 2-11

**● PUMP STATION ADDITION— Renton, Wash.**

Bids will be received until 11 a.m., March 3,

by King County Water District No. 58, R. F. Bristow, secretary, 17010 Benson Road, Renton, in office of Hill & Ingman, consulting engineers, 3104 Western Ave., Seattle, for additions to existing pump station, intersection of S.E. 160th St. and 114th Ave. S.E., King County, southeast of Renton. Plans with the engineers. $2.50 deposit. Work will involve construction of an 18'x14' concrete block, electrically heated pump house; furnishing and installing a 75 hp centrifugal pump, pipe and electrical controls. Production capacity will be tripled by this project. PD 2-14

**SEWER— Rockford, Wash.**

Surveys have been completed by William E. Thompson, consulting engineer, N. 915 Bowdish Road, Spokane, for a sewer system for Rockford. Financing of the project is under discussion by the City Council, Town Hall, Rockford. MH 2-14

**★VALVES, FITTINGS, COUPLINGS— Seattle, Wash.**

Awards announced by Paul R. Hendricks, city purchasing agent, 511 County City Bldg., Seattle, for furnishing two 10" ball valves; brass water works fittings for copper pipe; dresser couplings. AWARDS—Valves: Davis Manufacturing Co., Beverly Hills, Calif., $6,618. Fittings: Palmer Supply Co., 222 Westlake N., Seattle, $2,084; Pacific Water Works Supply Co., 2900 1st S., Seattle, $1,558; Western Utilities Supply Co., 3409 Ohio, Seattle, $876; Hallgren Co., 1252 1st S., Seattle, $13,826. Award for couplings has not yet been made.
PD 2-12. Previous report 2-5

**★FENCING— Seattle, Wash.**

Award to low bidder Colorado Fuel and Iron Corp., 3434 2nd S., Seattle, $1,142, by Paul R. Hendricks, city purchasing agent, 511 County City Bldg., Seattle, for furnishing and installing standard chain link fabric fencing around city building department's storage shed yard at 1100 10th S., Seattle. Four bids received at February 11 bid opening.

OTHER BIDS: Anchor Post Products, 4502 14th N.W., Seattle, $1,160; Cyclone Fence, 1150 Fairview N., Seattle, $1,193; El Dorado Fence Co., 1442 Trestle Glen, Oakland, Calif., $1,532. PD 2-13. Previous report 2-3

**●WATER METERS— Seattle, Wash.**

Bids will be received until 10 a.m., February 24, by Paul R. Hendricks, city purchasing agent, 511 County City Bldg., Seattle, for furnishing three Hersey water meters. Specifications with above office. PD 2-13

**★BOLTS— Seattle, Wash.**

Award to John Perine Co., 524 1st S., Seattle, $1,740, by Paul R. Hendricks, city purchasing agent, 511 County City Bldg., Seattle, for furnishing 30,000 hot dip galvanized carriage bolts.
PD 2-13. Previous report 2-5

**▲METER PARTS— Seattle, Wash.**

F. W. Hanks Co., 1414 Shenandoah Drive, Seattle, $795, submitted the low bid to Paul R. Hendricks, city purchasing agent, 511 County City Bldg., for furnishing Rockwell Meter meter parts. Only other bid at February 11 bid opening was that of Rockwell Mfg. Co., 119 W. Denny Way, Seattle, $1,857. PD 2-14. Previous report 2-4

**●SEWER— Seattle, Wash.**

Bids will be opened 2 p.m., February 25, by Board of Public Works, E. G. Henry, secretary, 512 County City Bldg., Seattle, for construction of a sewer line on 51st Ave. S., Seattle; Ord. No. 87543, LID 6191.

**Plans and specifications available on and after February 16 in room 404 County City Bldg., Seattle. $10 deposit.**

Quantities: 500' of 8" pipe sewer (clay or concrete); 180' of 6" side sewer connections (clay or concrete); two manholes; 175 ton crushed rock surfacing. PD 2-14

**●STEEL FENCE— Seattle, Wash.**

Bids will be received until 2 p.m., February 25, by Board of Public Works, E. G. Henry, secretary, 512 County Bldg., Seattle, for furnishing and installing 1,295' of 8' high galvanized woven wire steel fence at Beverly Park tank, Seattle. Work will include clearing and grubbing.

**Plans and specifications available on and after February 16 in room 404 County City Bldg., Seattle. $10 deposit.** PD 2-14

**●PROTECTORS, TRANSFORMERS— Seattle, Wash.**

Bids will be received until 10 a.m., February 24, by Paul R. Hendricks, city purchasing agent, 511 County City Bldg., Seattle, for furnishing three network protectors, and three network transformers. Separate contracts for protectors and for transformers. Specifications with above office. PD 2-14

**▲FENCING— Seattle, Wash.**

Four bids ranging from a low of $1,804, by Anchor Post Products, Inc., 4502 14th N.W., Seattle, to a high of $2,078, were submitted to King County Commissioners, 402 County City Bldg., Seattle, for furnishing and installing 5' chain link fence. Bids opened February 16.

OTHER BIDS: El Dorado Fence Co., 1442 Trestle Glen, Oakland, Calif., $1,899; San Jose Steel Co., Inc., 131 W. Massachusetts, Seattle, $1,932; Cyclone Fence Co., 1150 Fairview Ave. N., Seattle, $2,078.
PD 2-17. Previous report 2-6

**▲ALUMINUM CASTINGS— Seattle, Wash.**

Three bids received at February 16 bid opening by Paul R. Hendricks, city purchasing agent, 511 County City Bldg., Seattle, for furnishing 1,500 aluminum castings. BIDS: Zandt Brass Foundry, 3400 Harbor S.W., Seattle, $2,781; Sunset Foundry Co., Inc., 2926 1st S., Seattle, $2,940; Rogers Machinery Co., 5035 S.E. 17th St., Portland, Ore., $3,525. PD 2-17. Previous report 2-4

**▲WIRE— Seattle, Wash.**

Seven bids for conductor wire, and nine bids for guy wire, were received February 16 by Paul R. Hendricks, city purchasing agent, 511 County City Bldg., Seattle, for furnishing 20,000' of conductor wire and furnishing 50,000' galvanized guy wire. LOW BIDS—Conductor Wire: Graybar Electric Co., King and Occidental, Seattle, $1,568. Guy Wire: Maydwell & Hartzell, Inc., 306 Dexter, Seattle, $3,437.
PD 2-17. Previous report 2-11

**▲SURFACING— Seattle, Wash.**

Bids received by King County Commissioners, 402 County City Bldg., Seattle, for draining, grading, surfacing with crushed stone 1.4 mi. of Whitney Hill Road (212th Ave. S.W.) from S.E. 376th St. to Bridge No. 148-A, approximately eight mi. easterly of Auburn.

Eight bids received at February 16 bid opening: R. J. Boe Construction Co., 9685 Empire Way S., Seattle, $39,798; Anderson & Johnson, 11037 Roosevelt Way, Seattle, $39,-991; Bass Construction Co., 12526 Aurora Ave., Seattle, $42,374; J. J. Welcome Co., Cleveland and Leary, Redmond, $44,441; Aall City Excavating Co., 8114 9th S.W., Seattle, $44,626; L. L. Newburn Construction Co., 6262 14th S., Seattle, $48,247; Pacific Construction Co., 121 River, Seattle, $51,838; O. R. Alia, Inc., 3319 Dose Terrace, Seattle, $59,659.

Quantities: lump sum for clearing, grubbing; 31,540 c.y. common excavation including haul; 2,500 c.y. unsuitable foundation excavation including haul; 164 c.y. structure excavation 70 M gal. water; 50 c.y. gravel backfill for foundations; 8,480 ton selected roadway borrow; 1,820 ton crushed stone surfacing top course; 3,120 ton crushed stone surfacing base course; 54' of 12" plain concrete culvert pipe; 402' of 18", 54' of 24", 21' of 36", 5' of 60" standard reinforced concrete culvert pipe; 72' of 24", ½ round corrugated spillway; 97 guide posts.
PD 2-17. Previous report 2-12

**▲ANTENNA POLES (Install)— Seattle, Wash.**

Bids received by 13th Naval District, Publice Works Office, Bldg. 250, U.S. Naval Station, Seattle, for installation of antenna poles and grounding mat Bldg. 248, U.S. Naval Station, Seattle; Spec. No. 18450/58.

Eight bids received at February 18 bid opening. LOW BIDS: Service Electric Co., Inc., 12304 32nd N.E., Seattle, $2,322; Fellstrom Electric Co., 2211 9th Ave., Seattle, $2,525; Electric Associates, 2911 S. Chandler, Tacoma, $2,630. Government estimate $1,982.
PD 2-18. Previous report 1-31

**WATER WORKS— Selah, Wash.**

Gray & Osborne, consulting engineers, 228 S. 2nd St., Yakima, have been retained by City Council, City Hall, Selah, to make preliminary studies for a five-year water works expansion program.

Project involves drilling city water well No. 6 (in vicinity of abandoned well Nos. 1 and 2 at Speyers Road and 5th St.); installation of a new pump; installation of water mains and booster pump. IG 2-13

**■SHUNT CAPACITOR (BPA)— Snohomish County, Wash.**

Planholders announced for construction of 230 kv shunt capacitor addition, at Snohomish Substation about ½ mi. north of Snohomish and west of State Highway No. 15, Snohomish County; Inv. No. 8929. Bids will be opened 2 p.m., P.S.T., February 24, by Bonneville Power Administration, 1001 N.E. Lloyd Blvd., Portland, Ore. Plans with Portland office. $25 deposit.

Planholders: O. Brandon, 6401 Lincoln, Vancouver; Pettijohn Engineering Co., 4145 N.E. Cully Blvd., Portland; Harold G. Moffatt, Inc., Box 745, Troutdale; John M. King Co., 1601 Taylor Way, Tacoma; Tyee Construction Co., 1901 23rd Ave. S., Seattle; Lebanon Electric, 66 E. Sherman, Lebanon; H. B. Nesheim, 6714 36th Ave. S.W., Seattle; Joe E. Venne, 507 12th St., Sunnyside; Associated Sand & Gravel Co., Box 914, Everett. WB 2-17. Previous report 2-12

**ROADWAY— Sumner, Wash.**

Sumner city officials have acquired a large part of the land necessary for the proposed Valley Avenue extension project. It is possible that Pierce County and the State of Washington will construct an 80' wide highway along the new roadway. Removal of a power line along the site would come under city jurisdiction. MH 2-14

**★SEWERS— Tacoma, Wash.**

Award to Morris Construction Co., 1521 S. Grand, Tacoma, by City Council, City Hall, Tacoma, on two LID sewer projects. Contract for sewers in Bristol St., N. 46th St., Darien Drive, Frace and Vassault was for $11,701. The other was for sewers in Woodworth Ave., Juniper, N. 13th, Fir and Cascade at $17,257. DC 2-13

**▲PAVING, CURBS, STORM DRAIN— Tacoma, Wash.**

Low bid, that of Lige Dickson Co., 3315 S. Pine, Tacoma, $27,010, was submitted to City Council, City Hall, Tacoma, for asphaltic concrete paving, concrete curb and gutters and storm drainage for the following streets: north 8th St. from Mason Ave. to Stevens St.; north 11th St. from Ferdinand to Orchard streets.
AC 2-18. Previous report 2-11

**▲STORM DRAIN— Tacoma, Wash.**

Ten bids received February 16, by City Council, City Hall, Tacoma, for construction of a storm drain trunk sewer; IMP.. No. 1955. LOW BIDS: Ace Construction Co., 7516 Roosevelt Way, Seattle, $62,318; Rogers Construction Co., 3408 S. Union, Tacoma, $62,562; Morris Construction Co., 1521 S. Grand St., Tacoma, $62,995.
AC 2-18. Previous report 2-11

**●■SEWER EXTENSION— Union Gap, Wash.**

Bids will be opened 8 p.m., March 2, in the office of city clerk, City Hall, Union Gap, for construction of a sewer line extension in Union Gap. Plans with Gray & Osborne, consulting engineers, 228 S. 2nd St., Yakima. $5 deposit.

Planholders: DeBlasio Bros., Route 4, Yakima; John B. Knowles, 1040 Monroe, Wenatchee; McConnachie Construction Co., Roza Vista Drive, Yakima; Nate Kimball, 1019 Pleasant Ave., Yakima; E. M. Gostovich,

Sunnyside; Buck Edinger, 501 W. I St., Yakima. IG 2-13

■ **SEWERS— Vader, Wash.**

Planholders announced for construction of interceptor sewers and an oxidation pond or sewage lagoon in Vader. Project also includes construction of a control house with chlorinator and water pump. Bids will be opened 7:30 p.m., March 3, in the office of George T. L. Brunk, town clerk, Vader. Specifications available from town clerk or from Gibbs & Olson, consulting engineers, 1056 Chehalis, Chehalis. $10 deposit. Certified check or bid bond 5%.

Planholders: Dave Tozer, 5321 N.E. 17th, Portland; John Day, Illwaco, Wash.; Riverside Construction Co., Box 3853, Portland; Merlin Lowe, 1608 Burcham, Kelso; Walter Katryniuk, 1391 4th, Chehalis; Walter Graham & Son,, 981 Center, Chehalis; Cascade Hauling, 918 K St., Chehalis; John Luyben & Son, 14005 N.E. Halsey, Portland; S. D. Spencer & Son, 4614 N.E. 72nd Ave., Portland; Ace Construction Co., 7516 Roosevelt Way, Seattle; Harold Olds, 3111 N. 24th, Tacoma.

Quantities: 2,350' of 10", 545' of 8" sewer pipe; 392' sewer pipe, 12" and 18"; 13 manholes; 4,000 c.y. stripping and waste; 5,000 c.y. excavation and embankment.

AM 2-17. Previous report 2-13

★**INSTRUMENT TRANSFORMERS (BPA)— Vancouver, Wash.**

Awards to Emile Haefely, Portland, (a Swiss firm), $4,920 (Item 1), and to Standard Transformer Co., Warren, Ohio, $849 (Item 2) and $506 (Item 3), by Bonneville Power Administration, 1001 N.E. Lloyd Blvd., Portland, for eight outdoor current transformers; Inv. No. 8911. Six bids were received December 30. The transformers are for delivery to Eavan Spur, Vancouver, and to Covington, Wash.

WB 2-13. Previous report 12-17

●**LIGHTNING ARRESTERS— Vancouver, Wash.**

Bids will be opened 2 p.m., P.S.T., March 3, by Bonneville Power Administration, 1001 N.E. Lloyd Blvd., Portland, for furnishing 16 lightning arresters, fob Pasco, and Eavan Spur, Vancouver; Inv. No. 8931. Specifications with Portland office. RM 2-14

●**SITE GRADING, RAILROAD SPUR— Wallula, Wash.**

Bids will be opened 3 p.m., February 24, by Port Commission, Port of Walla Walla, Chamber of Commerce Building, Walla Walla, Wash., for site grading and construction of a railroad spur at the Wallula Site, near the junction of the Walla Walla River and Columbia River. Plans with the Port Office, Walla Walla, and with N. W. Haner & Associates, engineers, 220 S.W. Alder St., Portland, Ore. $10 deposit. Bid bond, certified check or cashier's check 5%.

Site grading will include common and rock excavation of about 165,000 cu. yds. Railroad spur involves construction of about 3,000' of track. Projects may be bid separately or in combination.

The work is in preparation for construction of a 1,880,000-bushel grain elevator to be operated by a corporation being formed by five Walla Walla men: Wade Bergerin, Howard Price, Gene Valaer, Harry Morse, and Jim Robinson. The Port of Walla Walla has a lease purchase arrangement for the tract from the Corps of Engineers. Bid call on the elevator is expected in late January.

VC 2-13. Previous report 3-18

**CURBS AND PAVING— Wenatchee, Wash.**

Ctiy Council, City Hall, Wenatchee, has created an LID for installation of curbs and paving on Yale Ave. from Springwater to Westwood and on St. Joseph Place and Susan Place, Wenatchee. KC 2-13

★**PUMP— Wenatchee, Wash.**

Award to Reid Pump and Supply Co., 246 N. Wenatchee Ave., Wenatchee, $10,482, by City Council, City Hall, Wenatchee, for furnishing the city water department with one submersible type turbine pump, Byron Jackson 16 KXL or equal output at pumping head 1950 GPM, pumping head 330', motor capacity 200 HP, rotative speed 1750 RPM, electrical characteristics 2300 volt, three-phase, 60 cycle. Specifications with city purchasing agent, City Hall.

KC 2-13. Previous report 2-3

▲**CHEMICALS (For Grout Cutoff)— Wenatchee, Wash.**

Bids were opened February 13 by Chelan County Public Utility District, 326 N. Wenatchee Ave., Wenatchee, for furnishing chemicals for the east bank grout cutoff of Rocky Reach Hydroelectric Power Project. BIDS: American Cyanamid Corp., New York, $184,606 (Item 1 involving 210,825 lb. AM-9 chemical grout, and Item 2 involving DMAPM); Great Western Chemical Co., Seattle, L. H. Butcher, Seattle, Pennsalt Chemicals Corp., Tacoma, $3,350 (Item 3 involving 16,750 lb. ammonium per sulfate); Van Waters Rogers, Seattle, $3,651.

DM 2-14. Previous report 1-21

●**ROADS, STOCKPILING— Yakima, Wash.**

Bids will be opened 11 a.m., March 4, by Board of County Commissioners, Courthouse, Yakima, for construction of 3.77 mi. of road and stockpiling of materials in Tieton, Wash.; County Road Proj. No. 804. Plans and specifications, may be obtained from the county engineers office, Courthouse, Yakima. $4 deposit. Certified check, cashier's check. Bid bond 5%.

Quantities: 10,440 c.y. unclassified excavation; 198.9 (100') Stas. finishing roadway; 28,010 tons ballast in place; 4,400 tons top course in place; 8,090 tons base course in place; 1,527' concrete pipe in place; and stockpiling of 25,500 tons of material. IG 2-18

## IDAHO

**BOAT RAMPS— Boise, Idaho**

Ada County Commissioners, Court House, Boise, have granted approval of requests for boat ramp improvements and installations at the Lucky Peak reservoir, for Lucky Peak Boating Club and the Boise Boat Club, Boise. Plans will include installation of a ramp in the Barkley bay area, and widening of ramps in the Spring Shores area, Boise. Finances for the project will come from the waterways fund of the county budget. AC 2-13

●**GRADING, SURFACING (BPR)— Boise, Idaho**

Quantities listed for grading and surfacing four mi. in Idaho County; FHP 18-B2, C1. Bids will be opened 2 p.m., February 26, by Bureau of Public Roads, 914 W. Jefferson St., Boise. Plans with above office.

Quantities: Clearing, grubbing; 214,400 c.y. excavation; 17,000 tons special sub-base; 17,000 tons crushed aggregate; 120 tons MC-2 asphalt; 110 tons MC-5 asphalt; 9.7 MBM treated timber; 1,300' culvert pipe; 50' structural-plate pipe-arch; 250 steel guide posts.

This project is being advertised concurrently with the State of Idaho advertisement for Federal-Aid Secondary Highway Proj. S-4704(1). Further details in PCD 2-11 under State Highway Project, Boise. Bids are to be submitted with the condition that only the total of the bidder's proposals for both projects shall be considered in determining the lowest bidder. No award of one contract will be made without the award of the other contract. Address for information regarding the Secondary Project is Idaho Department of Highway, 603 Main St., Boise.

GRADING, SURFACING, Elk City Highway—Construction will begin at Mill Creek, approximately 17 mi. southeast of Harpster's Junction, and will follow the South Fork of the Clearwater River eastward toward Elk City. The highway will provide sole access to Elk City.

WB 2-14. Previous report 2-12

▲**SEWAGE FACILITIES— Boise, Idaho**

Five bids, ranging from a low of $15,775 by Eagle Construction Co., Box 1496, Boise, to a high of $23,000 were received February 12 by Bench Sewer District, Ada County, 536 First Security Bldg., Boise, for construction of pressure interceptor canal and river undercrossings in the District. Consulting engineers: Cornell, Howland, Hayes & Merryfield, 628 Idaho Bldg., Boise.

OTHER BIDS: Quinn-Robbins Co., Inc., 703 American Blvd., $17,773; Foss & Holmes Co., $18,346; Intermountain Company, Box 1869, $20,250; Watkins Construction Co., Box 1786, $23,000. All of Boise.

Work consists of construction of dual pressure interceptor sewer undercrossings of the Settlers Canal, the Thurman Mill Ditch, and the Boise River. Included will be approximately 672' of 27" rubber gasketed concrete pipe and 669' of 10" asbestos-cement pipe. Also included will be concrete encasement of some portions, crossing markers and other appurtenances.

RM 2-17. Previous report 2-6

**SEWER, WATER IMPROVEMENTS— Idaho Falls, Idaho**

Preliminary plans and designs are underway by the city engineering department, according to Donald F. Lloyd, city engineer, City Hall, Idaho Falls, for a large expansion program for sewer construction, to include sewage treatment plant, trunk line extensions, and storm sewers, and for water line expansion in the Idaho Falls area. AC 2-13

▲**RADIOACTIVE STORAGE— Idaho Falls, Idaho**

Five bids ranging from a low of $396,825 by Arrington Construction Co., Box 881, Idaho Falls, to a high of $479,991, were submitted to Atomic Energy Commission, Idaho Operations Office, Box 1221, Idaho Falls, for construction of a radioactive parts security storage area in the ANP area at the National Reactor Testing Station in Idaho; Inv. No. AT(10-1)-1000.

OTHER BIDS: Teller Construction Co., Box 435, Idaho Falls, $397,472; Wright-Cheney-Green, Idaho Falls, $409,070; Diversified Builders, Inc., 6855 Rosecrans Blvd., Paramount, Calif., $418,500; Davis Construction Co., Box 874, Idaho Falls, $479,991.

Project involves a—construction of 36 150' and 70'x100' prefabricated metal buildings including services and utilities, b—provision of a 150'x160' pased parking area, c—provision of four lowbed tractor-mounted weather-tight concrete storage casks and one large weather-tight mobile storage cask mounted on a four-rail dolly, d—construction of utilities and services including security and radiation fencing, roadways, electrical power and approximately 500' of four-rail track. PC 2-13. Previous report 1-1

▲**RADIOACTIVE STORAGE— Idaho Falls, Idaho**

A late bid, and apparent low, that of Watkins Construction Co., Box 1786, Boise, $389,900, was received by Atomic Energy Commission, Idaho Operations Office, Box 2108, Idaho Falls, for construction of a radioactive parts security storage area at the Aircraft Nuclear Propulsion Project at the National Reactor Testing Station in Idaho; Inv. No. AT(10-1)-1000. Watkin's bid arrived subsequent to the formal opening of bids in which Arrington Construction Co., Box 881, Idaho Falls, $396,825, was reported as apparent low. AC 2-14. Previous report 2-13

★**PUMP— Lapwai, Idaho**

Award to Dickerson Machinery Co., W. 230 Boone Ave., Spokane, $1,726, by Village of Lapwai, Village Hall, Lapwai, for furnishing one low speed pump, 60 to 90 gal. per min., 4 pump at 200' setting with 80 lb. pressure. Bid opening February 2.

AM 2-13. Previous report 1-19

★**WATER WELL (BuRec)— Michaud Flats Project, Idaho**

Award to Cope Drilling and Pump Co., Idaho Falls, $15,770, by Bureau of Reclamation, Box 663, American Falls, for drilling water supply well No. 10 and rehabilitating water supply well No. 5 in Area 1 of Michaud Flats Projects, about seven mi. northeast of American Falls, Power County, Idaho. Spec. No. 100C-352. Bids were opened January 6. RM 2-17. Previous report 12-

**PAVING, SEWER— Sandpoint, Idaho**

Petitions for 38 blocks of paving have

been tentatively accepted by City Council, City Hall, Sandpoint. Approval will create an LID No. 23, under which an extensive paving and sewer trunk line program is expected to be underway and completed by next summer in the Sandpoint area. AC 2-13

## MONTANA

●**ROAD MATERIAL**— **Billings, Mont.**

Bids will be opened 5 p.m., March 3, in the office of city clerk, City Hall, Billings, for furnishing 37,000 tons of crushed road material, stone chips, and sand. Certified check or bid bond 5%. EE 2-17

**POWER FACILITIES (Airport)**— **Billings, Mont.**

Bids will be called soon by Federal Aviation Agency, procurement branch, 5651 W. Manchester Ave., Los Angeles, Calif. (Box 90007) for relocating engine-generator standby power facility at Logan Field (Municipal Airport), Billings, Mont.; Proposals No. 4-59-1204. Plans with above Los Angeles office.

Project involves relocating engine-generator standby power facility; constructing 13'x17' concrete block building; relocating existing 37.5 kva E/G and existing transformers; relocating existing 500-gal. underground fuel tank; dismantling existing type S E/G building; removing existing concrete floor and transformer pad; constructing 4'x8' double handhole with two manhole covers; installing 4" steel underground conduit; installing power and control cables, necessary electrical equipment and complete wiring. DM 2-18

★**GATE VALVES (Furnish)**— **Browning, Mont.**

Award to Production Tool Corp., Chicago, $24,889, fob Browning, by Bureau of Reclamation, Bldg. 53, Denver Federal Center, Denver, Colo., for furnishing and delivering fob cars at Browning two 4'x5' high-pressure gate valves with hydraulic hoists for outlet works at Sherburne Lakes Dam, Milk River Project, Mont.; Inv. No. DS-5131. Delivery to be within 180 days after date of contract award. Bids were opened January 20. KT 2-13. Previous report 12-12

●**SEWAGE FACILITIES**— **Glasgow AFB, Mont.**

Bids will be opened 2:45 p.m., P.S.T., March 12, by Corps of Engineers, Bldg. 602, City County Airport, Walla Walla, for construction of sewage treatment and disposal facilities at Glasgow Air Force Base near Glasgow, Mont.; ENG-45-164-59-26. Plans with Walla Walla office. Bid bond 20%. Completion time 180 calendar days.

Project involves excavation, trenching and backfilling for utilities systems; excavation, embankment and grading for sewage lagoons; sanitary and gravity sewers; sewage lagoon; concrete work; seeding.

Quantities: 200,000 c.y. lagoon excavation; 2,550' of 15" sanitary sewer line; lump sum bid for manhole and for dryland grass seeding; 580' of 14" lagoon inlet line; 47 supporting piers for lagoon inlet line; four overflow and drain lines.

DM 2-13. Previous report 2-4

★**SIDEWALK, CURB**— **Great Falls, Mont.**

Award to Falls Construction Co., 25th St. and River Road, Great Falls, $28,500, by City Council, Civic Center, Great Falls, for construction of sidewalks and curbing on the south side of First Avenue North Bridge. Bids were opened February 2.

AM 2-14. Previous report 2-6

●**WATER SYSTEM IMPROVEMENT (Water Mains)**— **Great Falls, Mont.**

Bids will be opened 8 p.m., March 9, by City Council, City Hall, Great Falls, for installation of water mains isolating the booster district in the southeastern section of the city. Plans obtainable from Black & Veatch, consulting engineers, 1500 Meadow Lake Parkway, Kansas City, Mo., and city engineer, City Hall, Great Falls. $15 deposit.

Quantities: Cast iron mechanical joint pipe—700' of 20", 5,940' of 16", 1,670' of 12", 3,200' of 8", 390' of 6"; valve connections to existing water mains—one of 20", nine of 16", two 12", three of 8"; 4,900 sq. yd. pavement removal and replacement; 150 house connections, removal and replacement on new line. AM 2-13. Previous report 1-14

■**STORM SEWER (East Side)**— **Great Falls, Mont.**

Planholders announced for construction of the East Side storm sewer in Great Falls. Bids will be received until 8 p.m., February 24, by Fred L. Hill, city clerk, Civic Center, Great Falls. Specifications with city engineer. $10 deposit. Certified check 10%.

Planholders: Utility Builders, Inc., Box 1154; Robertson-Cave, Inc., Box 1488; Robinson & Shepherd, Box 1611; Gray Co., Inc., Box 1741; Appino Construction Co., 2101 2nd Ave. S.; Lewis Construction Co., 925 10th Ave. N.; Elk River Concrete Products Co., 3rd & 5th Ave. S.W.; Montana Concrete Pipe Co., West of Great Falls; Falls Construction Co., 25th St. and River Rd.; Joe Fagenstrom, 1701 Smelter Ave., Black Eagle. Of Great Falls unless indicated.

Quantities: 10,557 c.y. unclassified excavation and backfill; 575' of 15", 845' of 36", 4,306' of 42" concrete pipe (C75); 250' curb removal and replacement; 1,250 sq. ft. sidewalk removal and replacement; 100 c.y. trench gravel. RM 2-17. Previous report 2-11

★**TRAILER PARK—Malmstrom AFB, Mont.**

Award to Gray Co., Box 1741, Great Falls, $20,500, by base procurement office, Malmstrom Air Force Base, for concrete work, preparation of roadways, construction of sanitary sewer system, gas distribution lines, water supply and distribution line, steam lines, and exterior electrical distribution system for a trailer park near the base; IFB-24-604-59-81. Bids were opened February 2. DM 2-14. Previous report 2-12

★**TRACTOR**— **West Glacier, Mont.**

Award to International Harvester Co., N. Ave. and Mannheim Road, Melrose Park, Ill., $21,008, by officials at Park Headquarters, Glacier National Park, West Glacier, for furnishing a 100 hp crawler type tractor with dozer blade to be used for road work and snow removal. Bids were opened January 20. AM 2-14

## ALASKA

**SEWERS, STREETS**— **Anchorage, Alaska**

A bond election for a sewer system in the Fairview Public Utility District has been set for March 9, John King, district manager, has announced. Approval will be sought on issuance of $734,000 in bonds for a Fairview sanitary sewer system and $250,000 for storm sewer facilities and street improvements. Consulting engineer is Gustav V. Johnson, 900 E. 5th, Anchorage. AL 2-18

●**STRUCTURAL STEEL**— **Clear, Alaska**

Bids will be opened 10 a.m., P.S.T., February 27 by Corps of Engineers, Alaska District, in the office 1519 S. Alaskan Way, Seattle, Wash., for supplying an estimated 6,410,000 lb. structural steel to be used in construction work at Clear Air Force Station, Alaska; Inv. 59-63. Plans with above Seattle office.

Sched. A—Fabrication and delivery of an estimated 3,900,000 lb. structural steel. Sched. B—Fabrication and delivery of an estimated 1,480,000 lb. and 1,030,000 lbs. Delivery of all steel fob carrier, dockside, Seattle, Wash. DM 2-14

■**SEWER, WATER EXTENSIONS**— **Ketchikan, Alaska**

Planholders announced for sewer and water extensions in Ketchikan; Proj. Aaa 50-A-307. Bids will be opened 11 a.m., P.S.T., March 3, by Alaska Public Works, 123 W. 3rd Ave., Juneau, (Box 1181). Plans with above office. $25 deposit. Certified check or bid bond 5%. Separate or combination bids on A—sewer system and B—water system.

Planholders: William C. Burke, Box 505, Ketchikan; Keil & Peterman, Box 770, Juneau; Ramstad Construction Co., Box 1454, Anchorage; C & R Builders, 1619 8th Ave. N., Seattle; S. S. Mullen, Inc., Box 3886, Terminal Annex, Seattle; Wesco Constructors, 4347 Brooklyn Ave., Seattle; Scheumann & Johnson, 1014 Lloyd Bldg., Seattle; A. Lyon Green Construction Co., 321 Locust St., Des Moines, Iowa; Butler Construction & Engineering Co., 3419 13th Ave. S.W., Seattle; Morrison-Knudsen Co., Box 320, Anchorage; H. D. Fowler Co., Box 3084, Seattle; Alaska Concrete Products Co., Inc., 4043 Tongass Ave., Ketchikan; Louis Elterich Co., Box 868, Port Angeles; John C. Miller, Box 1654, Anchorage; Associated Sand & Gravel Co., Box 914, Everett; Bay Enterprises, Inc., Box 946, Bellingham; Southern Pipe & Casting Co., Box C, Azusa, Calif.; Inlet Mechanical, Inc., Box 3095 ECB, Anchorage; Pacific Mechanical Constructors, Inc., 603 Stewart St., Seattle.

A—Sewer System: 5,840 c.y. common excavation; 1,580 c.y. solid rock excavation; 830' of 14" or 15" pipe; 1,248' of 12" pipe; 1,061' of 10" pipe; 11,214' of 8" pipe; 228' of 8" pipe salvaged; 2,629' of house sewer connections; 44 manholes.

B—Water System: 775' of 8" pipe; 66' of 6" pipe; 233 c.y. common excavation; 27 c.y. solid rock excavation; one 8" gate


# Classified Advertising

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for architect or architectural engineer. A leading Northwest organization is looking for a man who wants to specialize in development of new architectural forms and construction techniques. He will have the support of a top-flight research staff and will work under conditions that encourage original thinking. He should have a creative and imaginative approach and the ability to develop completely new building systems. Skill in architectural presentation and knowledge of engineering principles are essential.

**Please send complete resume' and salary requirements to:**

**Box No. D-11, Pacific Builder and Engineer, 2418 3rd Ave., Seattle 1, Washington.**

**MANUFACTURER'S REPRESENTATIVE WANTED**

to call on building trade for Greater Seattle Area to handle complete line of ventilating range hoods at low competitive prices. High income.

**Write: MODERN-AIRE, Box 924**
**Bellflower, California**

valve; three 6" gate valves; one 2" gate valve; two 5" fire hydrants; 130' of ¾" tubing; 34' of 1" tubing; 26' of 1½ tubing; appurtenant fittings.
AM 2-17. Previous report 2-3

**●WATER WELL (BPR)— Paxson Depot, Alaska**

Bids will be opened 11 a.m., March 3, by Bureau of Public Roads, Federal Bldg., Juneau, for construction of water well No. 2 at Paxson Depot. Plans obtainable at 211 Federal Bldg., Juneau. No charge. Bid guarantee 10%.

Project is located at Paxson Maintenance Depot between Miles 185 and 186 on Richardson Highway. Work involves drilling and casing a water well. Completion time 35 calendar days.
DM 2-14

## NORTHERN CALIFORNIA

**▲CLEARING, EXCAVATING, PLANT-MIX SURFACING— El Dorado County, Calif.**

Bids received February 10 by Bureau of Public Roads, New Mint Bldg., 133 Hermann St., San Francisco, for constructing Proj. Calif., F.H. 32-A4, K1, Placerville-Lake Tahoe Highway, Eldorado National Forest, El Dorado County, involving clearing and grubbing, excavation, plantmix surfacing, et al. Project near Fresh Pond on U.S. 50, 18 mi. east of Placerville, and extends east 1.846 mi. LOW BIDS: Piombo Construction Co., Box 607, San Carlos, $799,-961; Gibbons & Reed Co., Box 2429, Salt Lake City, Utah, $818,171; F. W. Case Corp., Box 1237, Newhall, $865,485.
RM 2-21. Previous report 1-31

**●BUTTERFLY VALVE— El Dorado County, Calif.**

Bids will be opened 3 p.m., P.S.T., March 11, by Sacramento Municipal Utility District, in Purchasing Dept. office, 1708 59th St., Sacramento, for furnishing and delivering one 126" butterfly valve and appurtenant equipment for Jaybird Penstock, Upper American River Project, El Dorado County; Inv. No. 2115. Specifications with above address.
RC 2-21

**●BREAKWATER— Half Moon Bay, Calif.**

Bid opening extended to 11 a.m., P.S.T., March 6, by Corps of Engineers, room 300, 180 New Montgomery St., San Francisco, for construction of breakwater, access road, and appurtenant work, Half Moon Bay, San Mateo County; CIVENG-04-203-59-53. Specifications with above address. Bid opening originally scheduled for February 26.
RM 2-21. Previous report 2-7

**●AMMUNITION DEMOLITION, BURNING GROUND FACILITIES— Herlong, Calif.**

Bid opening extended to 2 p.m., February 25, by Corps of Engineers, 305 Wright Bldg., 1209 Eighth St., Sacramento, for construction of ammunition demolition and burning ground facilities, involving site preparation, demolition ground; gas, electrical, telephone distribution systems; signal system; excavation; roads; buildings; Sierra Ordnance Depot, Herlong; ENG-04-167-59-40. Bid opening originally scheduled for February 19.
RM 2-21. Previous report 2-7

**★DRILLING TEST HOLES— Marysville, Calif.**

Award to Precision Drilling Co., Box 693, Santa Rosa, $22,925, by State Department of Water Resources, 401 Public Works Bldg., Sacramento, for drilling test holes for channel exploration of proposed Marysville Dam site on the Yuba River, Yuba County; Spec. No. 59-5. PB 2-21. Previous report 2-14

**●FUEL STORAGE TANKS, POWER BUILDING— Mill Valley AFS, Calif.**

Bids will be opened 2 p.m., P.S.T., March 10, by Corps of Engineers, room 300, 180 New Montgomery St., San Francisco, for construction of an addition to existing power building, revising electrical distribution system including new transformer stations, revisions to existing power building and existing structures to accommodate new electrical distribution system, new fuel-oil storage facilities, installation of Government furnished generators and associated equipment, and including removals, exterior utilities and restoration of surfaces, at Mill Valley Air Force Station, Mount Tamalpais, Marin County; ENG-04-203-59-25. Specs with above address. Bid bond 20%. Completion time 180 days.
RM 2-21

**★SUBSTATION EXPANSION— Modesto, Calif.**

Award to Edward A. Tomlinson, 403 Pine, Modesto, by Modesto Irrigation District, 1231 11th St., Modesto, for expanding the District's main substation on Ensien Ave. in Modesto.
RC 2-21

**●EXCAVATION— Orinda, Calif.**

Bids will be opened 2 p.m., February 27, by East Bay Municipal Utility District, room 104, 2130 Adeline St., Oakland, for excavating an exploratory shaft, 90 ft. deep, and two drifts each 50 ft. long at site of the District's proposed Briones Dam near Orinda; Spec. No. 778. Specs with District's Engineering Dept., above address. RC 2-21

**★STONE PROTECTION— Sacramento, Calif.**

Award to Basalt Rock Company, Inc., 6th and River streets, Napa, $350,625, by Corps of Engineers, 305 Wright Bldg., Sacramento, for stone protection at 35 locations along right and left banks of the Stockton Deep Water Channel, from west of Stockton to Winter Island in Sacramento, San Joaquin and Contra Costa counties; CIVENG-04-167-59-31. RC 2-21. Previous report 1-17

**★WATER DISTRIBUTION SYSTEM— Sacramento, Calif.**

Award to Anderson Plumbing and Heating, 341 Munroe, Sacramento, $34,150, by City Council, City Hall, Sacramento, for construction of a water distribution system, Franklin Blvd., 34th and 35th avenues—City Farms Unit No. 4, Sacramento; Res. 3298. Bids were opened February 5.
PB 2-21. Previous report 1-24

**▲STATE HIGHWAY PROJECTS— Sacramento, Calif.**

Bids received February 18 by California Division of Highways, 510 Public Works Bldg., Sacramento, on the following highway construction projects.

V-MON-653—Grade, plantmix surface on untreated base, 2.2 mi. on San Miguel Canyon Rd. between Sign Rt. U.S. 101 and Strawberry Rd., Monterey County.

LOW BIDS: Phil Calabrese, Box 1362, Monterey, $196,617; Granite Construction Co., Box 900, Watsonville, $197,600; Butler & Fox, Box 91, Salinas, $198,240.

III-YOL-6-C—Construct steel sign structures, furnish and install sign illumination systems at W. Capitol Ave. off-ramp, east of the Yolo causeway, and at Third St. off-ramp to W. Capitol Ave., Yolo County.

LOW BIDS: Engineering Design Corp., 1555 Grand View Drive, Berkeley, $13,015; W. E. Cotter, Sacramento, $13,627; Ets-Hokin & Galvan, 551 Mission St., San Francisco, $13,900.

**▲PAVING, CURBS, SEWERS— Sacramento, Calif.**

Bids received February 18 by Sacramento County Board of Supervisors, 827 7th St., Sacramento, for improving Arden Bluff Unit No. 2 Subdivision, Sacramento County, involving asphaltic concrete paving, concrete curbs and gutters, storm drains, sewers and water distribution system. Engineer: Joseph E. Spink, 907 5th St., Sacramento.

LOW BIDS: A. Teichert & Son, Inc., 1321 Stockton Blvd., Sacramento, $74,968; Lentz Co., Sacramento, $76,625; McGillivray Construction Co., Sacramento, $81,161.
PB 2-21

**●STATE HIGHWAY PROJECT— Sacramento, Calif.**

Bids will be opened 2 p.m., March 18, by California Division of Highways, 510 Public Works Bldg., Sacramento, on the following highway construction project. Plans with state highway engineer, above address.

IV-ALA-227-OAK—Grade 1.6 mi. four-lane divided highway with ramps and frontage roads, plantmix surface on cement treated base and untreated base, construct four retaining walls, between Lincoln Ave. and 0.6 mi. south of Carson St., Alameda County.
RM 2-21

**●CONDENSER DISCHARGE LIGHT SYSTEM— San Francisco, Calif.**

Bids will be opened 3 p.m., P.S.T., March 2, by Federal Aviation Agency, 5651 W. Manchester Ave., Box 90007, Los Angeles, for construction of condenser discharge (or sequenced flashers) light system for multiwire control at International Airport, San Francisco; Prop. No. 4-59-1032. Specs with above address. Bid bond 10%. Completion time 30 days. Reserved for small business.
RM 2-21

**★PIER ADDITION— San Francisco, Calif.**

Award to Harrod and Williams, Inc., 296 S. Murphy, Sunnyvale, $509,736, by San Francisco Public Utilities Commission, City Hall, San Francisco, for construction of addition to Pier B at San Francisco International Airport (Airport Dept. Contract No. 217).
RM 2-21. Previous report 2-14

**●PARK IMPROVEMENTS— San Mateo, Calif.**

Bids will be opened 10 a.m., March 2, by city manager, City Hall, San Mateo, for improvements in Shoreview Park on Ocean View Ave. near Cottage Grove Ave. in San Mateo, involving all work for construction of two tennis courts, catch basin, manhole, 8" reinforced concrete pipe and connections. Specifications with city engineer, room 30, City Hall. Bid bond 10%.
BY 2-21

**●STREET IMPROVEMENTS— Stockton, Calif.**

Bids will be opened March 2 by San Joaquin County Board of Supervisors, Courthouse, Stockton, for improvement of streets in the suburban area northeast of Stockton. Specifications available from above address.
RC 2-21

**●UNDERPASS— Stockton, Calif.**
(Estimated cost $800,000)

Bids will be opened March 2 by City Council, City Hall, Stockton, for construction of the Harding Way subway in Stockton, involving the underpass, frontage road relocations of a storm water sewer and minor sanitary sewer lines. Specs available from above address. Completion time 310 working days.
RC 2-21

**★PAVEMENT REPLACEMENT— Travis AFB, Calif.**

Award to D. D. Altermatt and C. F. Fedrick (joint venture), Box 93, Kentfield, $488,107, by Corps of Engineers, 1209 Eighth St., Sacramento, for airfield pavement replacement, Travis Air Force Base, Solano County; ENG-04-167-59-37.
RM 2-21. Previous report 2-

**★CANAL TURNOUT— Winters, Calif.**

Award to Don da Rosa, Inc., Box 18, Dutch Flat, $26,339, by Bureau of Reclamation, Winters, for construction of Vaughn Canal Turnout, Sta. 183+60, Putah South Canal, Solano Project, located about three mi. south of Winters, Solano County; Spec. No. 200C-403.
RM 2-21. Previous report 2-

**Advance news on contemplated construction projects that are not yet on the drawing boards; profitable leads on building and engineering jobs; the latest information on bid openings; contract awards for buildings, highway and street work, sewer and water works, reclamation jobs, throughout the Far West and Alaska, will be found in these columns.**

# Advertisements for Bids

**Advertisements reaching us not later than Wednesday noon will appear the same week.**

THE RATE for Advertisements for Bids is 35 cents per line for the first insertion; 25 cents per line for each insertion thereafter.

**STATE HIGHWAY PROJECTS**
**BIDS CLOSE 9 A.M., MARCH 3**
**Salem, Oregon**
**NOTICE TO CONTRACTORS**

Sealed bids on the following projects will be received and opened by the State Highway Commission in Room 418, State Highway Building in Salem, Oregon, at 9:00 a.m., on Tuesday, March 3, 1959. No award of contracts will be made on March 3 but all bids will be referred to the Highway Commission for award at its next meeting in Salem on March 5, 1959.

**BIDS TO BE OPENED AT 9:00 A.M. ON TUESDAY, MARCH 3, 1959**

**BENTON COUNTY:** Alsea River Bridge. FAP No. S-411(1). 182-foot reinf. conc. deck girder bridge to carry Salmonberry Road traffic over the Alsea River, approx. 6.5 mi. southwesterly of Alsea. Requires approx. 180 cu. yds. struct. excav.; 216 lin. ft. steel piling; 375 cu. yds. Class "A" concrete; 42,600 lbs. metal reinf.; and 70 lin. ft. metal drain pipe.

**COLUMBIA COUNTY:** Goble Section of the Columbia River Highway at Goble. FAP No. F-27(8). 1.35 mi. grading and paving; also construction of conc. bridge on timber piling. Requires approx. 115,000 cu. yds. excav.; 6,700 lin. ft. guardrail; 18,900 tons crushed base materials; 40 tons RC-3 asphalt; 30 tons 120-150 asphalt; 10 tons RS-1 asphalt; 3,600 tons asphaltic conc. pavement; 3,575 lin. ft. treated piling; 230 cu. yds. conc.; 68,300 lbs. metal reinf.; and 4 M-FBM treated timber.

**CURRY AND COOS COUNTIES:** Bandon-Port Orford Rock Production Project on the Oregon Coast Highway. State project. Requires approx. 12,000 cu. yds. crushed material in stockpiles.

**GRANT COUNTY:** Prairie City (Bridge St. and Upriver Rd.) Grading and Paving Project. 0.20 mi. grading and paving. Requires approx. 400 cu. yds. excav.; 870 cu. yds. gravel topping; placing 370 cu. yds. crushed gravel base materials; and 470 tons asphaltic conc. pavement.

**GRANT COUNTY:** Kimberly-Round Basin Creek Rock Production Project on the Kimberly-Long Creek Highway, about 26 mi. northerly of Dayville. State project. Requires approx. 6,550 cu. yds. crushed material in stockpiles.

**HARNEY AND MALHEUR COUNTIES:** Buchanan-Juntura Rock Production Project on the Central Oregon Highway. State project. Requires approx. 10,650 cu. yds. crushed material in stockpiles.

**JACKSON COUNTY:** Antioch Road-Trail Rock Production Project on the Sams Valley and Crater Lake Highways, about 14 mi. north of Medford. State project. Requires approx. 10,250 cu. yds. crushed material in stockpiles.

**JEFFERSON COUNTY:** Madras (4th and Pine Sts.) Oiling Project. City project. 0.28 mi. of oiling. Requires approx. 620 cu. yds. crushed material in base and oiling; and 40 tons 120-150 asphalt.

**JEFFERSON COUNTY:** South Unit, Lyle Gap-Madras Section of The Dalles-California Highway, north from Madras. FAP No. F-81(3). 2.91 mi. grading and oiling; also construction of conc. bridge on timber piling and conc. scale pit and approaches. Requires approx. 157,000 cu. yds. excav.; 110 cu. yds. conc. curbs and surfacing; 1,300 lin. ft. guardrail; 100 sight posts; 550 rods Type 1 fence; 64,600 tons base materials; 4,940 cu. yds. oil aggregates; 130 tons RC-3 asphalt; 320 tons 120-150 asphalt; 90 tons RS-1 asphalt; 1,330 lin. ft. treated piling; 125 cu. yds. conc.; 31,700 lbs. metal reinf.; and one conc. scale pit and approaches.

**JOSEPHINE COUNTY:** North Grants Pass Interchange Section of Pacific Highway. FAP No. I-5-1(2)58. Two 4-lane reinf. conc. prestressed beam overcrossing structures to carry the highway over Scoville Road and 7th St. at North Grants Pass Interchange.

**Scoville Road Overcrossing** approx. 188 feet long, to be founded with end bents on steel piles and interior bents on spread footings. Requires approx. 425 cu. yds. struct. excav.; 1,360 lin. ft. steel piling; 780 cu. yds. Class "A" Conc.; 227,500 lbs. metal reinf.; 38 prestressed concr. beams; 360 lin. ft. metal parapet rail; 135 lin. ft. metal drain pipe; and 1,280 sq. yd. conc. slab riprap.

**7th St. Overcrossing** approx. 194 feet long, to be founded with end bents on steel piles and interior bents on spread footings. Requires approx. 540 cu. yds. struct. excav.; 1,525 lin. ft. steel piling; 652 cu. yds. Class "A" Conc.; 170,400 lbs. metal reinf; 30 prestressed conc. beams; 145 lin. ft. metal drain pipe; and 890 sq. yds. conc. slab riprap.

**KLAMATH COUNTY:** Lenz Road-Williamson River Rock Production Project on The Dalles-California Highway, 21 mi. north of Klamath Falls. State project. Requires approx. 10,000 cu. yds. crushed material in stockpiles.

**KLAMATH COUNTY:** Hayden Mtn.-Keno Rock Production Project on the Green Springs Highway, from 4 to 25 mi. west of Klamath Falls. State project. Requires approx. 10,000 cu. yds. crushed material in stockpiles.

**LAKE COUNTY:** Quartz Mtn. - Lakeview Rock Production Project on the Klamath Falls-Lakeview Highway. State project. Requires approx. 10,000 cu. yds. crushed material in stockpiles.

**LANE COUNTY:** Richardson-Siuslaw River Section of the Richardson-Eugene Highway, about 30 mi. west of Eugene. FAP No. S-234(13). 3.24 mi. stone base and oiling. Requires approx. 61,700 tons crushed base materials; 2,700 cu yds. crushed oil aggregates; 76 tons RC-3 asphalt; 170 tons 120-150 asphalt; 50 tons RS-2 asphalt; 8,400 lin. ft. guardrail; and 100 sight posts.

This project may be bid in combination with a U. S. Bureau of Public Roads Project in Lane County, identified as Projects BLM 24-B and 26-B, bids for which are expected to be received by the U. S. Bureau of Public Roads in Portland at 9:00 a.m., March 3, 1959.

**LINCOLN COUNTY:** Toledo Rock Production Project on 4 highways in the vicinity of Newport, Toledo and Eddyville. State project. Requires approx. 15,200 cu. yds. crushed material in stockpiles.

**MALHEUR COUNTY:** Vale (Morton St.) Grading and Paving Project. City project. 0.31 mi. grading and paving. Requires approx. 380 cu. yds. excav.; 2,480 cu. yds. crushed material in base and binder course; 6 tons MC-2 asphalt; and 920 tons asphaltic conc. pavement.

**MORROW AND UMATILLA COUNTIES:** Heppner-Nye Jct. Rock Production Project on the Heppner Highway, easterly from Heppner. State project. Requires approx. 13,000 cu. yds. crushed material in stockpiles.

**UMATILLA AND UNION COUNTIES:** Pendleton-Hilgard Rock Production Project on the Old Oregon Trail Highway, southwesterly from Pendleton. State project. Requires approx. 20,000 cu. yds. crushed material in stockpiles.

**UNION COUNTY:** Elgin (Division St.) Grading and Paving Project. City project. 0.27 mi. grading and paving. Requires approx. 1,000 cu. yds. excav.; 2,100 cu. yds. crushed base materials; 6 tons MC-2 asphalt; and 700 tons asphaltic conc. pavement.

**UNION COUNTY:** Combination Grande Ronde River Bridges and U. P. R.R. Overcrossings, Perry-Oro Dell Section, Old Oregon Trail Highway. FAP No. I-80N-6(11) 257, approx. ½ mi. west of La Grande.

Grande Ronde River Bridge No. 8430, **East Bound.** 531-foot, 2-lane reinf. conc. box girder and deck girder bridge to carry future Old Oregon Trail Highway Traffic over the U. P. R.R. tracks and the Grande Ronde River, approx. ½ mi. west of La Grande. Requires approx. 1,000 cu. yds. struct. excav.; 600 lin. ft. steel piling; 1,735 cu. yds. Class "A" Conc.; 475,000 lb. metal reinf.; and 80 lin. ft. metal drain pipe.

Grande Ronde River Bridge No. 8430, **West Bound.** 596-foot, 3-lane reinf. conc. box girder bridge to carry future Old Oregon Trail Highway over the Grande Ronde River aind U. P. R.R. tracks, approx. ½ mi. west of La Grande. Requires approx. 1,100 cu. yds. struct. excav.; 1,020 lin. ft. steel piling; 2,274 cu. yds. Class "A" Concrete; 632,400 lb. metal reinf.; and 175 lin. ft. metal drain pipe.

Grande Ronde River Bridge No. 8431. 675-foot, 2-lane reinf. conc. box girder bridge to carry existing Old Oregon Trail Highway traffic over the U. P. R.R. tracks and Grande Ronde River, at west city limits of La Grande. Requires approx. 850 cu. yds. struct. excav.; 1,605 lin. ft. steel piling; 1,510 cu. yds. Class "A" Concrete; 175 cu. yds. seal conc.; and 385,000 lb. metal reinf.

**UNION COUNTY:** Three Glover - Perry Structures, on Old Oregon Trail Highway, approx. 2.5 to 6 mi. westerly of La Grande. FAP No. I-80N-6(16)250.

**Upper Perry Undercrossing.** 164-foot, 2-lane reinf. conc. deck girder struct. to carry interchange traffic over Old Oregon Trail Highway, approx. 2.5 mi. westerly of La Grande. Requires approx. 160 cu. yds. struct. excav.; 140 lin. ft. steel piling; 335 cu. yds. Class "A" Concrete; 85,400 lbs. metal reinf.; 85 lin. ft. metal drain pipe; and 190 sq. yds. conc. slab riprap.

**Hilgard Interchange Undercrossing.** 326-foot, 2-lane reinf. conc. box girder and deck girder struct. to carry Hilgard Interchange traffic over Old Oregon Trail Highway, approx. 6 mi. westerly of La Grande. Requires approx. 970 cu. yds. struct. excav.; 1,215 lin. ft. steel piling; 1,100 cu. yds. Class "A" Concrete; 323,500 lbs. metal reinf.; 50 lin. ft. metal drain pipe; and 310 sq. yds. conc. slab riprap.

**Five Points Creek Bridge.** 110-foot, 4-lane, reinf. conc. slab bridge to carry Old Oregon Trail Highway traffic over Five Points Creek, approx. 5.4 mi. westerly of La Grande. Requires approx. 700 cu. yds. struct. excav.; 700 cu. yds. Class "A" Concrete; 176,500 lbs. metal reinf.; and 30 lin. ft. metal drain pipe.

**YAMHILL COUNTY:** North Yamhill River Bridge Section, Pacific Highway West. FAP No. F-122(12). 381-foot, reinf. conc. box girder and deck girder bridge to carry northbound lanes of highway over N. Yamhill River, approx. 1 mi. east of McMinnville, with appurtenant grading and paving. Requires approx. 2,800 sq. yds. pavement removal; 240 cu. yds. drainage excav.; 86,000 cu. yds. embankment in place; 130 lin. ft. 12" conc. pipe; 150 lin. ft. 18" conc. pipe; 130 lin. ft. 24" conc. pipe; 550 lin. ft. 6" perf. metal drain pipe; 54 cu. yds. backfill in drains; 12 cu. yds. conc. curbs; 1,600 lin. ft. metal guardrail; 20,500 tons coarse crushed material in base; 2,000 tons ¾"-0 material in base; 500 M-gals. sprinkling; 90 cu. yds. ¾"-0 material in base; 340 cu. yds. furnish and placing aggregates; 14 tons RC-3 asphalt; 26 tons 120-150 asphalt; 10 tons RS-1 asphalt; 2,400 tons Class "B" asphaltic conc.; 600 lin. ft. asphaltic conc. traffic markers; 640 cu. yds. struc. excav.; 2,160 lin. ft. treated timber piling; 4,250 lin. ft. untreated timber piling; 675 lin. ft. steel piling; 1,140 cu. yds. Class "A" Conc.; 285,000 lbs. metal reinf.; and 761 lin. ft. metal parapet rail, together with water stop, rockers, and manhole frames and covers.

THE MINIMUM HOURLY WAGE RATES TO BE PAID TO LABOR EMPLOYED ON THE ABOVE ADVERTISED FEDERAL AID

INTERSTATE PROJECTS HAVE BEEN PREDETERMINED BY THE SECRETARY OF LABOR AND ARE AS SET FORTH IN THE SPECIAL PROVISIONS APPLICABLE TO THOSE RESPECTIVE PROJECTS. THE MINIMUM HOURLY WAGE PAID TO LABOR EMPLOYED ON FEDERAL AID PRIMARY AND FEDERAL AID URBAN PROJECTS SHALL BE AS FOLLOWS: SKILLED LABOR, $2.85 PER HOUR; INTERMEDIATE LABOR, $2.60 PER HOUR; UNSKILLED LABOR, $2.50 PER HOUR.

Prequalification of bidders will be required in accordance with the provisions of ORS 279.010 to 279.024, inclusive. Full information for bidders may be obtained at the office of the Oregon State Highway Commission, State Highway Building, Salem, Oregon. Plans and specifications may be inspected at the same place and may be obtained by eligible bidders upon payment of $2.00 for each set.

Plans and specifications may also be inspected at the office of the Associated General Contractors in Portland, Seattle, Spokane, and Boise; and at the Builders Exchange Cooperative, Portland.

The right is reserved to reject any and all proposals or to accept the proposal deemed best for the State of Oregon.

OREGON STATE HIGHWAY COMMISSION
Floyd Query, Secy.

6413—2-18

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**SCHOOL ADDITIONS, ALTERATIONS**
**BIDS CLOSE 8 P.M., FEBRUARY 27**
**Moxee, Washington**
**NOTICE TO CONTRACTORS**

Sealed bids for the construction of the additions and alterations to High School Building, Moxee Central School, Route No. 1, Yakima, Washington, Moxee School District No. 90, Yakima, Washington, will be received by the clerk of the Moxee School Board at the Central Elementary School, Friday, February 27, 1959, up to 8:00 P.M., standard time, and will be then and there read in public.

Separate bids are requested for General Work, Mechanical Work, Electrical Work, Special Cabinets, and Venetian Blinds.

Plans and specifications may be obtained from the Architect, T. F. Hargis, Jr., 514 Miller Building, Yakima, Washington, upon deposit of $50.00.

The right to reject any or all bids and to waive formalities is reserved by the District.

Board of Directors
Moxee School District No. 90
Route 1
Yakima, Washington
Albert Bateman, Clerk

6404—2-11, 12, 13

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**SEWER, WATER EXTENSIONS**
**BIDS CLOSE 11 A.M., P.S.T., MARCH 3**
**Ketchikan, Alaska**
**NOTICE TO CONTRACTORS**

INVITATION FOR BIDS (Construction Contract — Reference, Project Aaa. 50-A-307, Sewer and Water Extensions, Ketchikan, Alaska. Date, January 30, 1959. Name and location of project, Sewer and Water Extensions, Project Aaa. 50-A-307, Ketchikan, Alaska. Department or agency, Alaska Public Works, Office of Territories, Department of the Interior. By (Issuing office) Thomas G. Mooney, Director, Alaska Public Works, Office of Territories, Department of the Interior, Post Office Box 1181, Juneau, Alaska. Sealed bids in single copy for furnishing all labor, equipment, and materials and performing all work for the project described herein will be received until 11:00 A.M., Pacific Standard Time, March 3, 1959, in the mailroom of the Office of the Director, 123 West Third Street, P.O. Box 1181, Juneau, Alaska, and then publicly opened in Room 319, Federal Bldg., Juneau, Alaska. Information regarding bidding material, bid guarantee, and bonds follows: Plans and specifications and other proposed contract documents are open for public inspection at the Director's office, Juneau, Alaska; at Room 6070 Interior Bldg., Washington 25, D.C., the Area Engineer's office, Alaska Public Works, Room 309, Federal Bldg., Ketchikan, Alaska; and Associated General Contractors of America offices as follows: Seattle Chapter, Construction Center, 215 West Harrison St., Seattle, Wash.; Mountain Chapter, 220 West Harrison St., Seattle, Wash., Tacoma Chapter, 1605 Center St., Tacoma 3, Wash.; Portland Chapter, 129 S.W. Third Avenue, Portland, Oregon; and the Alaska Chapter, Anchorage, Alaska; at the Plan Bureau, 2413 Western Ave., Seattle, Wash.; and Builders Exchange Cooperative, 317 Builders Exchange Bldg., Portland, Oregon. A set of such documents may be procured from the Office of the Director at Juneau, Alaska, upon deposit of $25.00, all of which will be refunded upon the return of the plans and specifications in good condition within twenty (20) days from date of bid opening. Each bid must be accompanied by a satisfactory bid security (certified check or bid bond) in an amount not less than 5 per cent of the total bid in dollars and cents. No bid will be withdrawn until thirty days after the scheduled closing date for the receipt of bids. The successful bidder will be required to furnish a performance bond and payment bond, each in the amount of 100 percent of the contract price. The Government reserves the right to award a contract for the project on the basis of the acceptance of any of the alternates, whichever course is in the best interest of the Government. Attention is directed to Bureau of Public Roads Invitation No. F-095-1(3) for bids for Tongass Avenue Grading and Paving, Ketchikan, to be opened by the Bureau of Public Roads at the same time and place as the bids for this project, Aaa. 50-A-307, will be opened by Alaska Public Works. Separate contracts are contemplated, and as portions of the work on both projects will be under way at the same time, contractors will be required to adjust their work schedules to prevent interference or delay. Contractors are invited to bid on one or both projects and may include in the space provided in the bid schedule a specified percentage or lump sum reduction of the final contract cost if awarded both contracts. Consideration will be given to such reduction in the awards of contracts. DESCRIPTION: Project No. Aaa. 50-A-307. Sewer and Water System Extensions, Ketchikan, Alaska. a. Sewer system extensions will consist or approximately 5,840 cu. yds. common excavation, 1,580 cu. yds. solid rock excavation, 830 lin. ft. of 14 or 15-inch pipe, 1,248 lin. ft. of 12-inch pipe, 1,061 lin. ft. of 10-inch pipe, 11,214 lin. ft. of 8-inch pipe, 228 lin. ft. of 8-inch pipe salvaged, 2,269 lin. ft. of house sewer connections and 44 manholes. b. Water system extensions will consist of approximately 775 lin. ft. of 8-inch pipe, 66 lin. ft. of 6-inch pipe, 233 cu. yds. common excavation, 27 cu. yds. solid rock excavation, one 8-inch gate valve, three 6-inch gate valves, one 2-inch gate valve, two 5-inch fire hydrants, 130 lin. ft. of ¾-inch tubing, 34 lin. ft. of 1-inch tubing, 26 lin. ft. of 1½-inch tubing, and all appurtenant fittings.

6399—2-4, 11, 18

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**FIRE STATION ADDITION**
**BIDS CLOSE 6:00 P.M., MARCH 6, 1959**
**Bellevue, Washington**
**NOTICE TO CONTRACTORS**

Sealed bids will be received until 6:00 P.M., March 6, by King County Fire District No. 14, at the office of Lindahl & Bacon, Architects, 20 - 102nd N.E., Bellevue, Washington, for construction of an addition to Fire Station No. 1, 14 - 102nd N.E., Bellevue, Washington. A set of plans and specifications may be obtained from the architects upon deposit of $10.00. Certified check, bank cashier's check or bid bond for 5% required with each bid.

T. R. Kelley, Commissioner
107 - 107th N.E., Bellevue

6412—2-17, 25; 3-3

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**APARTMENT BUILDINGS**
**BIDS CLOSE 2 P.M., MARCH 6**
**Klamath Falls, Oregon**
**NOTICE TO CONTRACTORS**

Sealed bids will be received on or before 2 o'clock p.m., Friday, March 6, 1959, at the office of Morrison and Howard, architects, 203 Williams Building, Klamath Falls, Oregon.

This bid will be for the erection of apartment buildings (93 units) at Shasta Way near Washburn Way, Klamath Falls, Oregon.

A general bid will include all items of work. As a condition precedent to receipt of this proposal, the bidder must have qualified 10 days prior to the opening of the bids as prescribed by Page 225, Laws of Oregon, 1951.

Plans and specifications may be obtained at the offices of Morrison and Howard. A deposit of fifty dollars ($50) will be required for plans and specifications, the deposit to be refunded to the bidder on return of plans and specifications in good condition. Plans and specifications on file at builders' exchanges in Portland and Eugene, Oregon, and San Francisco and Sacramento, California.

The successful bidder will be required to furnish a surety bond in full amount of the contract price and he shall be required to carry public liability insurance as specified. A bidders' bond or certified check in the amount equal to five per cent (5%) of the lump sum bid must accompany the bid as a guarantee for the execution of the contract and bonds in case the contract is awarded to the bidder.

The owner, Rickfalls, Inc., reserves the right to accept or reject any or all bids and to waive any informalities.

Murdo Morrison,
Morrison & Howard.

6401—2-10, 17, 25

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**CLEARING**
**BIDS CLOSE 11 A.M., MARCH 3**
**Juneau, Alaska**
**NOTICE TO CONTRACTORS**

Date: February 6, 1959, Juneau, Alaska. Department of Commerce, Bureau of Public Roads, Region 10. Sealed bids in single copy for furnishing all labor, equipment and materials and performing all work for Project S-0510(6), Willow-Talkeetna Road (clearing), State of Alaska, described herein, will be received until 11:00 a.m., March 3, 1959, in Room 319, Federal Building, Juneau, Alaska. This project consists of clearing 42.693 miles of the Willow-Talkeetna Road in the vicinity of Anchorage, Alaska. Work shall be completed within 700 days after date of receipt of notice to proceed. Specifications may be obtained free of charge by all who have a bonafide need for them for bidding purposes at Room 211, Federal Building, Juneau, Alaska. It is requested that they be returned to the Division Engineer, Bureau of Public Roads, Anchorage, Alaska. A bid guaranty is required with each bid in the sum of not less than 10% of the total amount for the work when the amount bid is $100,000 or less, and in the sum of not less than 5% of the total amount bid for the work when the amount bid is over $100,000. If the bidder fails to accompany his bid with the required bid guaranty, **his bid will not be read or otherwise considered.** Telegraphic notifications of execution of a bid bond does not meet the above requirement of a bid security accompanying a bid. E. H. Swick, Regional Engineer.

6403—2-14, 21

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**COLLEGE BUILDING**
**BIDS CLOSE 10 A.M., MARCH 25**
**Anchorage, Alaska**
**NOTICE TO CONTRACTORS**

Sealed bids in duplicate will be received by the Alaska Methodist University at 102 Anchorage Hotel Building, Anchorage, Alaska, on March 25, 1959, not later than 10:00 A.M. (Anchorage Time) for the general work (including mechanical and electrical work) for construction of the First Academic Building at Anchorage, Alaska, and will then be opened and publicly read aloud in the KEN STUDIO, LATHROP BUILDING, Anchorage, Alaska.

Plans, specifications and forms of contract documents may be examined at the office of Manley & Mayer, Architects, 210 Loussac-Sogn Building, Anchorage, Alaska; at the office of the Associated General Contractors, Central Building, Anchorage, Alaska; at the office of the Associated General Contractors, 215 West Harrison, Seattle, Washington; at the office of the Plan Bureau, 2413 Western, Seattle, Washington; at the office of the Associated General Contractors, Multnomah Hotel, Portland, Oregon; at the office of the Associated General Contractors, 850 Battery Street, San Francisco, California; at the office of the Associated General Contractors,

North 1207 Washington, Spokane, Washington; at the office of the Associated General Contractors, 2551 Beverly Blvd., Los Angeles, California; at the office of Howard E. Schroedel, Room 219, 500 Wall Street, Seattle, Washington; and a set of plans and specifications and forms may be obtained at the office of Manley & Mayer, Architects, and at the office of Howard E. Schroedel, Room 219, 500 Wall Street, Seattle, Washington, upon deposit of a check for the amount of $50.00 (payable to Manley & Mayer, Architects) for each set. This deposit will be returned to all persons who return the contract documents within a period of twenty (20) days after date of bid opening.

The character and amount of security to be furnished by each bidder with his bid is stated in the proposed contract documents.

The right is reserved to reject any and all bids, to waive any informality in bids received.

Envelopes containing bids must be sealed, marked, and addressed as follows: Bid for the, First Academic Building, Anchorage, Alaska.

Dr. Donald F. Ebright, President
Alaska Methodist University
102 Anchorage Hotel Building
Anchorage, Alaska

Bids to be received not later than March 25, 1959, 10:00 A.M., Anchorage Time.
6413—2-17, 25; 3-3

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**PAVING, ERECTING WALL**
**BIDS CLOSE 11 A.M., P.S.T., MARCH 3**
**Kodiak, Alaska**
**NOTICE TO CONTRACTORS**

Date: February 3, 1959, Juneau, Alaska. Department of Commerce, Bureau of Public Roads, Region 10. Sealed bids in single copy for furnishing all labor, equipment and materials and performing all work for Project AD-N-D-AD 2(3), Contract No. 2, Kodiak-Kodiak Naval Air Station Access Road, State of Alaska, described herein, will be received until 11:00 a.m., P.S.T., March 3, 1959, in Room 319, Federal Building, Juneau, Alaska. This project was advertised originally on December 30, 1958, and subsequently withdrawn. The project consists of paving the 1.2 miles of road between Kodiak and the Naval Air Station on Kodiak Island, Alaska, and installation of 2,893 square feet of metal bin type retaining wall extending an existing section of retaining wall. Principal items of work are as follows: excavation for structures—750 cubic yards; foundation fill—300 cubic yards; crushed aggregate—base, grading D-1—7,650 tons; hot bituminous concrete pavement—2,200 tons; asphalt cement, 85-100 penetration—120 tons; galvanized metal bin type wall—2,893 square feet. Work shall be completed within 180 days after date of receipt of notice to proceed. Plans and specifications may be obtained free of charge by all who have a bonafide need for them for bidding purposes at Room 211, Federal Building, Juneau, Alaska. It is requested that plans be returned to the Division Engineer, Bureau of Public Roads, Anchorage, Alaska. A bid guaranty is required with each bid in the sum of not less than 10% of the total amount bid for the work when the amount bid is $100,000 or less, and in the sum of not less than 5% of the total amount bid for the work when the required bid guaranty is over $100,000. If the bidder fails to accompany his bid with the required bid guaranty, **his bid will not be read or other wise considered.** Telegraphic notification of execution of a bid bond does not meet the above requirement of a bid security accompanying a bid. E. H. Swick, Regional Engineer.
6402—2-14, 21

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**STATE HIGHWAY PROJECT**
**BIDS CLOSE 10 A.M., MARCH 3**
**Olympia, Washington**
**NOTICE TO CONTRACTORS**

Sealed bids will be received by the Washington State Highway Commission at Olympia, Washington, on Tuesday, March 3, 1959, until 10:00 A.M. and will then and there be opened and publicly read for the construction of the improvements listed below.

Bid proposals delivered in person will be received only at the Reception Desk located on the first floor of the Transportation Building.

All bid proposals shall be accompanied by a bid proposal deposit in cash, certified check, cashier's check or surety bond in an amount equal to five per cent (5%) of the amount of such bid proposal. Should the successful bidder fail to enter into such contract and furnish satisfactory performance bond within the time stated in the specifications, the bid proposal deposit shall be forfeited to the State of Washington.

Prequalification of bidders is required. Maps, plans and specifications may be obtained from this office upon written request therefor and payment to the Director of Highways by cash, certified check, cashier's check or money order in the sum of two dollars ($2.00) for each copy of such maps, plans and specifications as a rental for the use of them. Plans will be forwarded by First Class Mail.

Informational copies of maps, plans and specifications are on file in the office of the County Engineer of the County in which the work is situated, the Chapter offices of the Associated General Contractors of America in Seattle, Spokane, Tacoma and Portland and the offices of the District Engineers of the Department of Highways where they may be inspected.

Federal Funds have been allocated for item No. 1.

The improvement for which bids will be received follows:

1. Constructing Two Precast Prestressed Concrete Bridges, a Reinforced Concrete Flat Slab Bridge and a Reinforced Concrete Box Girder Bridge on 0.037 mile of Primary State Highway No. 1 in King County, PIERCE COUNTY LINE TO JCT. PSH No. 5—BRIDGES, FAP Nos. I-5-3(46) 140 and I-5-3(47)141, involving about 3,750 cubic yards of Common Excavation, 900 cubic yards of Selected Roadway Borrow, 300 cubic yards of Crushed Surfacing, 290 tons of Asphaltic Concrete, 2,091 linear feet of Standard Bridge Railing, 1,730 cubic


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yards of Concrete, 368,000 pounds of Steel Reinforcing Bars, a lump sum bid for Superstructure (about 1,363 cubic yards of Concrete and 381,000 pounds of Steel Reinforcing Bars), 4,272 linear feet of Prestressed Concrete Girders, 381 linear feet of Downspouts and other items. Minimum Wage Rates for this project have been predetermined by law and are set forth in the bid proposal.

ERNEST J. KETCHAM, Chairman
W. A. BUGGE, Director of Highways

6406—2-14, 21

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**FENCING**

**BIDS CLOSE 2 P.M., MARCH 10**

**Portland, Oregon**

**NOTICE TO CONTRACTORS**

DEPARTMENT OF COMMERCE, BUREAU OF PUBLIC ROADS, February 20, 1959. SEALED BIDS will be received at the office of the Bureau of Public Roads, Room 824, Morgan Building, 720 S.W. Washington Street, Portland 5, Oregon, until 2 p.m. on March 10, 1959, for furnishing the material and performing the work for constructing 4.322 miles fencing, Oregon Timber Access Road Project BLM 42-A2, B1, **COW CREEK ROAD**, Bureau of Land Management-Roseburg District, Douglas County, Oregon, involving 22,800 lin. ft. Barbed Wire Fence and 3 Gates. Plans and specifications and proposals may be obtained at the address shown above or by phoning CApitol 6-3361, Extension 460. B. M. FRENCH, Regional Engineer.

6414—2-21

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**STATE HIGHWAY PROJECT**

**BIDS CLOSE 10 A.M., MARCH 24**

**Olympia, Washington**

**NOTICE TO CONTRACTORS**

Sealed bids will be received by the Washington State Highway Commission at Olympia, Washington, on Tuesday, March 24, 1959, until 10:00 A.M. and will then and there be opened and publicly read for the construction of the improvement listed below.

Bid proposals delivered in person will be received only at the Reception Desk located on the first floor of the Transportation Building.

All bid proposals shall be accompanied by a bid proposal deposit in cash, certified check, cashier's check or surety bond in an amount equal to five per cent (5%) of the amount of such bid proposal. Should the successful bidder fail to enter into such contract and furnish satisfactory performance bond within the time stated in the specifications, the bid proposal deposit shall be forfeited to the State of Washington.

Prequalification of bidders is required. Maps, plans and specifications may be obtained from this office upon written request therefore and payment to the Director of Highways by cash, certified check, cashier's check or money order in the sum of fifty-two dollars ($52.00) for each copy of such maps, plans and specifications. Two dollars ($2.00) of the above amount is a rental payment for the use of the maps, plans and specifications and is not returnable. The remaining fifty dollars ($50.00) is a deposit on the maps, plans and specifications and will be returned to the planholder providing the maps, plans and specifications are returned to this office not later than ten (10) days from the date of award of the contract. IF PAYMENT IS MADE BY CERTIFIED CHECK, CASHIER'S CHECK OR MONEY ORDER, PLEASE MAKE PAYMENT IN TWO CHECKS, ONE FOR TWO DOLLARS ($2.00) AND ONE FOR FIFTY DOLLARS ($50.00). Plans will be forwarded by First Class Mail.

Informational copies of maps, plans and specifications for the Second Lake Washington Bridge, Unit 1—Floating Structure are on file in the office of the Chief Consulting Engineer for the Washington Toll Bridge Authority, 3201 Fremont Avenue, Seattle, Washington, the Chapter Offices of the Associated General Contractors of America in Seattle, Spokane and Tacoma, Washington, and Portland, Oregon, the Department of Highways and the office of the Director of Highways where they may be inspected.

The improvement for which bids will be received follows:

1. Constructing a Reinforced Concrete Floating Bridge 1.424 miles in length in King County, SECOND LAKE WASHINGTON BRIDGE, UNIT 1—FLOATING STRUCTURE, a State Project, involving about 55,232 cubic yards of Concrete, 19,775 linear feet of Reinforced Concrete Railing, 7,458 linear feet of Precast Traffic Curb, 14,400 tons of Gravel, Sand and Rock Fill, 11,806,000 pounds of Steel Reinforcing Bars, 4,397,740 linear feet of Prestressing Reinforcement, 1,387,400 pounds of Structural Steel, 11,196 square feet of Steel Bridge Decking, 424 linear feet of Aluminum Bridge Railing, 174,400 pounds of Roller Tracks and Gears, 16,570 square feet of Steel Grating, 264,300 pounds of Cast Steel, 30,131 linear feet of Steel Anchor Strand, 288,100 pounds of High Strength Bolts and Cast Steel Washers, 3,600 pounds of Bronze Sliding Plates, 2,525 linear feet of Steel Pipe, 395 linear feet of Cement Asbestos Pipe, 221,800 pounds of Machinery, 38,800 pounds of Lift Columns and Counterweight Guides, 140 MBM of Treated Timber and Lumber, a lump sum bid for Mechanical Equipment, a lump sum bid for Electrical Equipment, a lump sum bid for Operator and Storage Houses and other items.

ERNEST J. KETCHAM, Chairman
W. A. BUGGE, Director of Highways

6405—2-14, 21, 28; 3-7, 14

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**WATER WELL**

**BIDS CLOSE 11 A.M., MARCH 3**

**Juneau, Alaska**

**NOTICE TO CONTRACTORS**

Department of Commerce, Bureau of Public Roads, Region 10. February 10, 1959, Juneau, Alaska. Sealed bids in single copy for furnishing all labor, equipment and materials and performing all work for Project F-02(59), Contract No. 2, Water Well, Paxson Depot, State of Alaska, described herein, will be received until 11:00 a.m., March 3, 1959, in Room 319, Federal Building, Juneau, Alaska. This project is located at the Paxson Maintenance Depot between Miles 185 and 186 on the Richardson Highway, State of Alaska. The project consists of drilling and casing a water well and all work shall be completed within 35 calendar days after date of receipt of notice to proceed. Specifications may be obtained free of charge by all who have a bonafide need for them for bidding purposes at Room 211, Federal Building, Juneau, Alaska. It is requested that they be returned to the Division Engineer, Bureau of Public Roads, Anchorage, Alaska. A bid guaranty is required with each bid in the sum of not less than 10% of the total amount bid for the work when the amount bid is $100,000 or less, and in the sum of not less than 5% of the total amount bid for the work when the amount bid is over $100,000. If the bidder fails to accompany his bid with the required bid guaranty, his bid will not be read or otherwise considered. Telegraphic notification of excavation of a bid bond does not meet the above requirement of a bid security accompanying a bid. E. H. Swick, Regional Engineer.

6408—2-21

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**GRADING, SURFACING, STOCKPILING**

**BIDS CLOSE 9 A.M., MARCH 3**

**Portland, Oregon**

**NOTICE TO CONTRACTORS**

DEPARTMENT OF COMMERCE, BUREAU OF PUBLIC ROADS, February 17, 1959. SEALED BIDS will be received at the office of the Bureau of Public Roads, Room 824, Morgan Building, 720 S.W. Washington Street, Portland 5, Oregon, until 9 a.m. on March 3, 1959, for furnishing the material and performing the work for constructing 1.9 miles grading, 8.4 miles surfacing and stockpiling crushed rock, Oregon Timber Access Road Project BLM 24-B and 26-B, SIUSLAW RIVER ROAD and WHITTAKER CREEK ROAD, Bureau of Land Management-Eugene District, Lane County, Oregon, involving 18 acres Clearing and Grubbing, 44,000 cu. yds. Excavation; 59,000 cu. yds. Crushed Rock; 64 lin. ft. 96" Structural-plate Pipe; 40 lin. ft. Metal Pipe-arch; 1,300 lin. ft. Culvert pipe, and other small items of work.

The Oregon State Highway Commission will, on the same day, receive bids for a Federal Aid project providing that crushed rock for use on Richardson-Siuslaw River Section of Richardson-Eugene Highway, Oregon Project FAS-234(13), may also be produced from the Whittaker Creek quarry. It may be advantageous to bidders to consider the State-Federal Aid project and the BLM projects jointly, because of the limited working space available at the quarry site. Plans, specifications and proposals may be obtained at the address shown above or by phoning CApitol 6-3361, Extension 460. B. M. FRENCH, Regional Engineer.

6407—2-21

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**Legal advertisements appearing in our columns come to the attention of construction firms, and equipment and supply houses throughout the Far West and Alaska.**

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**MUNICIPAL BUILDING**

**BIDS CLOSE 10 A.M., P.S.T., MARCH 4**

**Petersburg, Alaska**

**NOTICE TO CONTRACTORS**

INVITATION FOR BIDS (Construction Contract)—Project Aaa. 50-A-23, Municipal Building, Petersburg, Alaska, January 21, 1959. Petersburg Municipal Building, Project Aaa. 50-A-23, Petersburg, Alaska. Alaska Public Works, Office of Territories, Department of the Interior. By (Issuing office): Thomas G. Mooney, Director, Alaska Public Works, Office of Territories, Department of the Interior, Post Office Box 1181, Juneau, Alaska. Sealed bids in single copy for furnishing all labor, equipment, and materials and performing all work for project described herein will be received until 10:00 A.M., Pacific Standard Time, March 4, 1959, in the mailroom of the Office of the Director, Alaska Public Works, Office of Territories, Department of the Interior, 112 West Third Street, P.O. Box 1181, Juneau, Alaska, and then publicly opened and read aloud. Information regarding bidding material, bid guarantee, and bonds follows: Plans and specifications and other proposed contract documents are open for public inspection at the Director's office, Juneau, Alaska; at Room 6070 Interior Bldg., Washington 25, D.C., the Area Engineer's office, Alaska Public Works, Room 309, Federal Bldg., Ketchikan, Alaska; and Associated General Contractors of America offices as follows: Seattle Chapter, Construction Center, 215 West Harrison St., Seattle, Wash.; Mountain Chapter, 220 West Harrison St., Seattle, Wash.; Tacoma Chapter, 1511 Center St., Tacoma 3, Wash.; Portland Chapter, 129 S.W. Third Avenue, Portland, Oregon; and the Alaska Chapter, Anchorage, Alaska; at the Plan Bureau, 2413 Western Ave., Seattle, Wash.; and Builders Exchange Cooperative, 317 Builders Exchange Bldg., Portland, Oregon. A set of such documents may be procured from the Office of the Director at Juneau, Alaska, upon deposit of $25.00, all of which will be refunded upon the return of the plans and specifications in good condition within twenty (20) days from date of bid opening. Each bid must be accompanied by a satisfactory bid security (certified check or bid bond) in an amount not less than 5 per cent of the total bid in dollars and cents. No bid will be withdrawn until thirty days after the scheduled closing date for the receipt of bids. The successful bidder will be required to furnish a performance bond and payment bond, each in the amount of 100 percent of the contract price. The Government reserves the right to award a contract for the project on the basis of the acceptance of any or all of the alternates, which ever course is in the best interest of the Government. DESCRIPTION: Municipal Building, Project Aaa. 50-A-23, Petersburg, Alaska. The construction of a two-story reinforced concrete and steel frame municipal building with attached one-story equipment storage area of similar construction. Information regarding liquidated damages (if any), payments, etc., attached or made a part of the specifications. Bids shall be submitted on the forms furnished or copies thereof.

6395—1-31; 2-7, 14

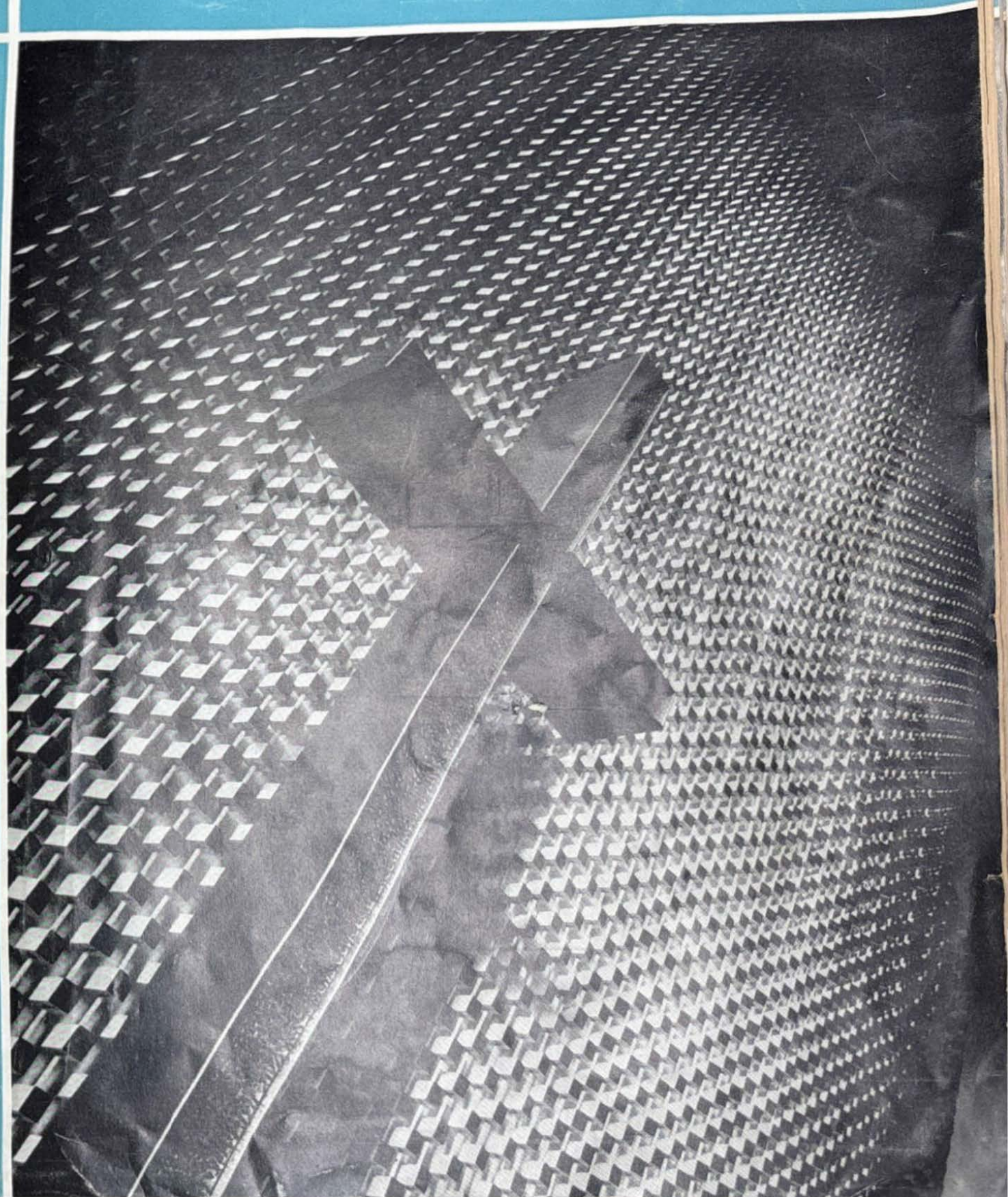
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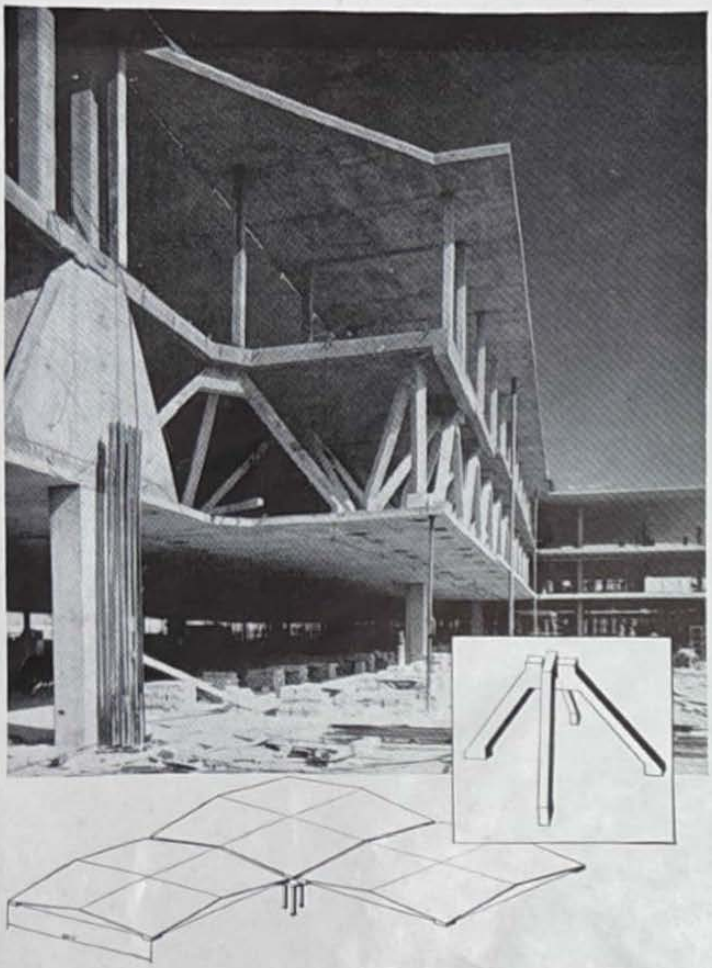


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# SPACE PLATFORM

## for American Industry



HYPERBOLIC PARABOLOID roof sections are composed of warped thin-shell slabs, cast in place. V-TETRAPODS (above) are four-footed diagonal supports for space frame, precast at the site. Concrete met specified strengths up to 5000 psi.

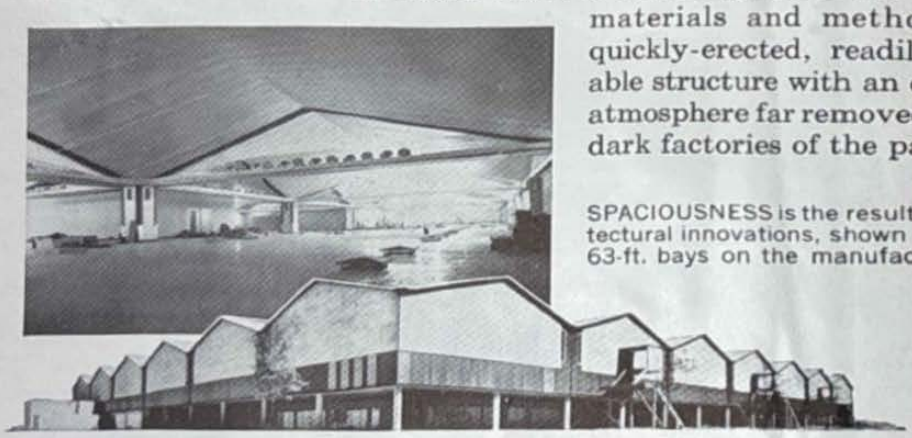
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● Quicker than you can say "multiple hyperbolic paraboloids on a V-tetrapod plenum," Texas Instruments Incorporated has a new, seven-acre plant in Dallas—an outstanding example of tomorrow's factory in operation today. It represents the first use in American industry of the "space frame" and the "umbrella roof"—two new architectural forms made practicable by the versatility of concrete.

The space frame—located between the administration-engineering floor below and the manufacturing floor above—acts like a giant, three-dimensional truss. Nine feet high and braced by slender, precast tetrapods, this rigid frame permits large 63-ft. bay areas on both floors, and contains all the pipelines which supply some three dozen utilities to any part of either floor through approximately 3,000 access holes.

The thin-shell concrete roof is formed of cast-in-place hyperbolic paraboloid sections—permitting exceptionally large, well-lighted areas with a minimum of columns, and producing a versatile structure which can readily be expanded in any direction by adding similar units.

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VOLUME 65, NUMBER 3 MARCH 1959

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COVER: Holman Methodist Church, Los Angeles: Kenneth N. Lind, Architect; Jack Laxer photo.

# February total is up $32 million

Building permit volume in the PA&B territory for Feburary totals $200,689,854, topping the same period last year by $32¾ million. California is mainly responsible for the high figure with a dollar volume surpassing February 1958 by $30 million. Oregon is up $2¾ million and Idaho, $¾ million. Montana is down a slight $½ million and Washington, $¼ million.

The February total is $23 million below January, not an unusual occurrence for this time of year. Only Oregon shows an increase over the previous month ($2 million higher).

For the first two months of 1959 dollar volume reported by 116 key agencies totals $424,371,867, a whopping $72¾ million higher than the same period in 1958. California again leads the way with a $50 million increase; followed by Washington with $17 million; Oregon, $4¾ million; and Idaho, $1¾ million. Montana is trailing by $½ million.

Following is a comparison by states of cumulative 1959 and 1958 totals.

| | Jan.-Feb. 1959 | Jan.-Feb. 1958 |
|---|---|---|
| California | $336,388,504 | $286,323,464 |
| Oregon | 20,259,819 | 15,541,691 |
| Washington | 62,447,133 | 45,472,121 |
| Montana | 1,528,613 | 2,091,979 |
| Idaho | 3,747,798 | 2,016,858 |

## ANALYSIS OF TYPICAL AREAS—FEBRUARY

(Number of permits is followed by total dollar volume)

| | Dwelling | | Commercial & Industrial | | Public | |
|---|---|---|---|---|---|---|
| Portland | 55 | $1,274,350 | 7 | $ 333,000 | 2 | $ 315,000 |
| King County | 493 | 5,671,805 | 27 | 650,625 | 3 | 1,155,000 |
| Seattle | 455 | 3,828,881 | 177 | 3,320,298 | 5 | 2,472,000 |
| Tacoma | 103 | 618,455 | 41 | 171,750 | 3 | 296,000 |
| Orange County | 126 | 1,496,398 | 20 | 150,530 | 1 | 55,489 |
| Los Angeles County | 1,235 | 9,948,925 | 254 | 3,070,352 | 6 | 1,587,500 |
| Sacramento County | 581 | 5,766,338 | 79 | 1,968,589 | 7 | 344,720 |

## Building Permits for 116 Western Agencies for February

| CALIFORNIA | Feb. 1959 | Jan. 1959 | Feb. 1958 |
|---|---|---|---|
| Alameda County | $ 906,125 | $ 728,200 | $ 556,650 |
| Anaheim | 2,764,800 | 2,012,450 | 2,788,886 |
| Bakersfield | 1,262,250 | 808,275 | 842,713 |
| Burbank | 779,818 | 969,059 | 670,479 |
| Contra Costa County | 1,974,075 | 1,993,628 | 4,674,958 |
| Fresno | 955,105 | 3,605,010 | 1,446,680 |
| Fullerton | 1,897,570 | 1,414,696 | 1,045,945 |
| Glendale | 1,741,457 | 2,801,721 | 1,318,305 |
| Inglewood | 1,110,254 | 938,802 | 854,745 |
| Long Beach | 3,583,710 | 5,609,365 | 5,878,285 |
| Los Angeles | 44,413,039 | 48,780,532 | 35,266,382 |
| Los Angeles County | 15,158,951 | 16,906,475 | 13,344,794 |
| Oakland | 4,142,494 | 2,220,445 | 1,509,451 |
| Ontario | 129,694 | 229,589 | 465,823 |
| Orange County | 1,893,813 | 10,341,389 | 2,484,841 |
| Palo Alto | 689,365 | 852,372 | 543,919 |
| Pasadena | 1,323,251 | 1,168,290 | 1,024,951 |
| Pomona | 562,919 | 818,657 | 386,604 |
| Richmond | 1,277,938 | 477,735 | 305,572 |
| Riverside | 1,089,975 | 2,328,660 | 1,267,757 |
| Sacramento | 4,064,495 | 2,255,758 | 1,383,584 |
| Sacramento County | 8,141,380 | 7,692,712 | 5,449,402 |
| San Bernardino | 2,032,577 | 955,627 | 1,337,814 |
| San Bernardino County | 6,434,551 | 5,961,771 | 3,258,089 |
| San Diego | 12,543,744 | 18,236,768 | 24,288,172 |
| San Diego County | 11,825,600 | 8,161,600 | 4,262,000 |
| San Francisco | 12,528,939 | 12,275,159 | 3,318,386 |
| San Jose | 7,080,574 | 5,676,106 | 3,247,545 |
| San Mateo | 523,692 | 577,447 | 474,547 |
| San Mateo County | 1,232,970 | 977,230 | 642,776 |
| Santa Ana | 772,571 | 1,536,591 | 1,592,456 |
| Santa Monica | 1,478,332 | 2,078,655 | 908,795 |
| Stockton | 507,381 | 1,083,092 | 444,848 |
| Sunnyvale | 2,342,550 | 1,594,309 | 1,540,510 |
| Torrance | 1,609,231 | 591,941 | 1,578,736 |
| West Covina | 519,559 | 370,639 | 957,390 |
| TOTAL | $161,303,749 | $175,084,755 | $131,362,790 |

| OREGON | Feb. 1959 | Jan. 1959 | Feb. 1958 |
|---|---|---|---|
| Albany | $ 231,550 | $ 130,900 | $ 79,500 |
| Astoria | 43,290 | 13,680 | 10,950 |
| Baker | 82,600 | 476,660 | 69,540 |
| Bend | 86,200 | 64,300 | 74,650 |
| Coos Bay | 75,025 | 139,125 | 46,775 |
| Corvallis | 410,150 | 236,595 | 177,800 |
| Eugene | 616,132 | 425,498 | 913,352 |
| Grants Pass | 167,450 | 30,300 | 59,095 |
| Gresham | 29,250 | 11,600 | 50,500 |
| Hillsboro | 86,727 | 19,955 | 26,601 |
| Klamath Falls | 66,590 | 244,000 | 27,550 |
| LaGrande | 2,000 | 9,500 | 21,382 |
| Lane County | 976,123 | 608,166 | 527,517 |
| Medford | 359,050 | 390,825 | 262,585 |
| Multnomah County | 1,954,740 | 2,442,729 | 2,012,425 |
| North Bend | 773,090 | 16,150 | 28,370 |
| Oregon City | 97,436 | 72,900 | 21,790 |
| Pendleton | 276,550 | 59,440 | 110,900 |
| Portland | 3,902,015 | 3,158,195 | 3,610,650 |
| Roseburg | 88,570 | 28,240 | 14,520 |
| Salem | 758,603 | 279,254 | 192,080 |
| Springfield | 73,089 | 84,877 | 53,155 |
| The Dalles | 60,600 | 100,100 | 26,300 |
| TOTAL | $ 11,216,830 | $ 9,042,989 | $ 8,417,987 |

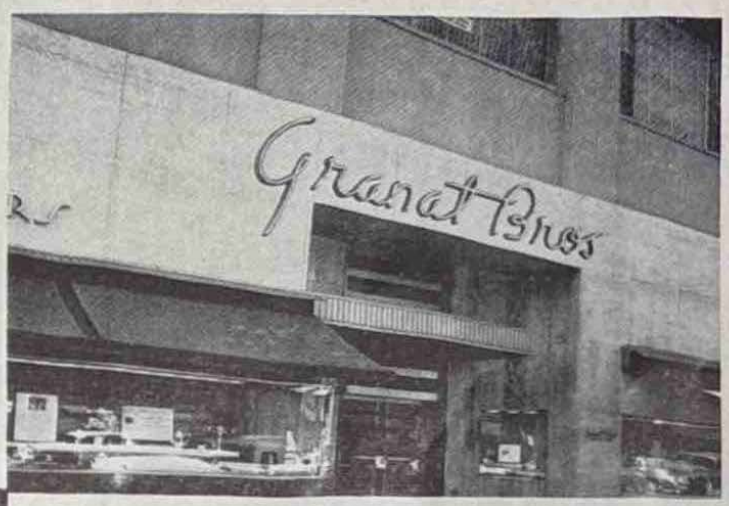
| WASHINGTON | Feb. 1959 | Jan. 1959 | Feb. 19 |
|---|---|---|---|
| Aberdeen | $ 73,348 | $ 52,253 | $ |
| Anacortes | 179,945 | 63,500 | |
| Auburn | 332,770 | 109,050 | |
| Bellingham | 190,310 | 107,930 | |
| Bremerton | 230,260 | 101,345 | |
| Centralia | 76,611 | 257,789 | |
| Chehalis | 34,365 | 45,429 | |
| Clarkston | 32,647 | 52,095 | |
| Ellensburg | 10,814 | 3,150 | |
| Ephrata | 11,100 | 6,150 | |
| Everett | 230,023 | 146,410 | |
| Kelso | 53,800 | 122,300 | |
| Kennewick | 55,380 | 72,600 | |
| King County | 7,537,170 | 10,285,165 | |
| Kirkland | 80,700 | 166,500 | |
| Longview | 293,644 | 445,429 | |
| Moses Lake | 6,835 | 167,544 | |
| Olympia | 159,418 | 127,583 | |
| Pasco | 336,550 | 88,930 | |
| Pierce County | 1,868,405 | 1,330,785 | |
| Port Angeles | 15,700 | 7,600 | |
| Puyallup | 131,535 | 128,170 | |
| Ritzville | 30,047 | 300 | |
| Seattle | 9,678,154 | 20,163,999 | |
| Shelton | 23,750 | 21,100 | |
| Spokane | 1,041,299 | 718,679 | |
| Spokane County | 825,384 | 526,240 | |
| Sumner | 38,000 | 50,250 | |
| Tacoma | 1,330,790 | 842,739 | |
| Vancouver | 297,806 | 240,516 | |
| Walla Walla | 69,216 | 23,700 | |
| Wenatchee | 63,638 | 141,325 | |
| Yakima | 334,787 | 156,375 | |
| TOTAL | $ 25,674,203 | $ 36,772,930 | $ 25,880,3 |

| MONTANA | Feb. 1959 | Jan. 1959 | Feb. 19 |
|---|---|---|---|
| Billings | $ 192,100 | $ 135,600 | |
| Bozeman | 59,000 | 31,700 | |
| Butte | Nil | 32,500 | $ |
| Glasgow | 17,502 | Nil | |
| Glendive | Nil | Nil | |
| Great Falls | 225,254 | 303,632 | |
| Helena | 133,000 | 94,600 | |
| Kalispell | 7,900 | 20,000 | |
| Lewiston | Nil | 85,800 | |
| Livingston | 4,600 | 72,200 | |
| Miles City | 5,450 | 46,275 | |
| Missoula | 10,300 | 51,200 | |
| TOTAL | $ 655,106 | $ 873,507 | $ 1,094,8 |

| IDAHO | Feb. 1959 | Jan. 1959 | Feb. 19 |
|---|---|---|---|
| Boise | $ 276,157 | $ 249,322 | $ |
| Caldwell | 145,095 | 27,155 | |
| Coeur d'Alene | 266,150 | 39,700 | |
| Idaho Falls | 195,574 | 830,505 | |
| Jerome | 7,410 | 8,500 | |
| Lewiston | 178,740 | 180,580 | |
| Nampa | 126,905 | 228,775 | |
| Payette | 55,645 | 63,400 | |
| Pocatello | 411,690 | 71,275 | |
| Sandpoint | Nil | 128,000 | |
| St. Maries | 22,000 | Nil | |
| Twin Falls | 163,600 | 80,620 | |
| TOTAL | $ 1,839,966 | $ 1,907,832 | $ 1,068,3 |
| GRAND TOTAL | $200,689,854 | $223,682,013 | $167,766,3 |



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## ROUND BANK BUILDING

located in garden park will become branch office of American Trust Co., sharing 1 1/3-acre site in downtown San Francisco with 20-story Crown Zellerbach Building. Structure will be 70 ft. in diameter with walls of 40 huge plate glass sheets separated by slender steel supporting columns, faced on outside with anodized black and brown aluminum. Accordion pleated precast concrete roof will be covered with sheet copper. Architect: Skidmore, Owings & Merrill.



## RELIGIOUS PLANT

under construction for Sisters of Charity of House of Providence on 240-acre site between Issaquah and Pine Lake, Wash., will provide eight-unit development, centering around chapel with copper roof and windows of chipped glass, made in France and set in concrete. Project, costing in excess of $4 million, will include establishment of Providence Heights College to train members of religious order and administrative headquarters for entire West Coast. Architect: John W. Maloney.



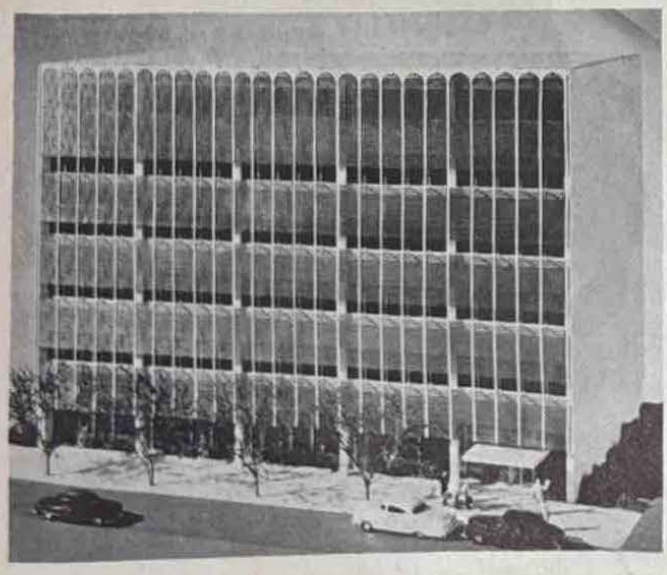
## COMMUNITY HOSPITAL

to serve San Pedro, Calif., is unique in that it has been designed by group of seven architects, representing both small and medium sized firms, organized under name of "Project Architects." Five-story, $2.6 million building will replace existing structure, provide for about 145 beds. Majority of rooms will face south and offer view of Pacific Ocean. Architects: Arthur B. Gallion, Douglas Honnold, John Rex, A. Quincy Jones, Frederick Emmons, Maynard Lyndon and Raphael S. Soriano.



## FLOWER SHOW EXHIBIT FACILITY

at Santa Barbara Fairgrounds will be first thin shell structure to be erected by State of California Division of Architecture at cost of $252,300. Dome shell in form of eight-pointed star will be 80 ft. in diameter and have thickness of 2½ in., increasing to 7 in. at base. Eight hyperbolic segments, each with 40-ft. square span, will compose roof surrounding dome. Senior architect: Robert L. Primm; senior structural engineer: Ernest Aeppli.



## OFFICE BUILDING

faced in gold anodized aluminum grillwork will be built for Independence Life Insurance Company of America in Pasadena, Calif. Estimated to cost more than $1¼ million, five-story structure will rise an extra floor to hide equipment penthouses. Grill will intercept direct sunlight although occupants will have unobstructed view through grill and open strips in pattern. Architects-engineers: Welton Becket & Associates.

# KAISER STRUCTURAL GYPSUM ROOF DECK

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Architects: Lind, Pleger, Bluerock and Hougan.
Applicating Contractor: Alta-Fraser-Edwards Co.

KAISER GYPSUM



**KAISER GYPSUM COMPANY, INC.** Kaiser Building-1924 Broadway, Oakland, Calif.

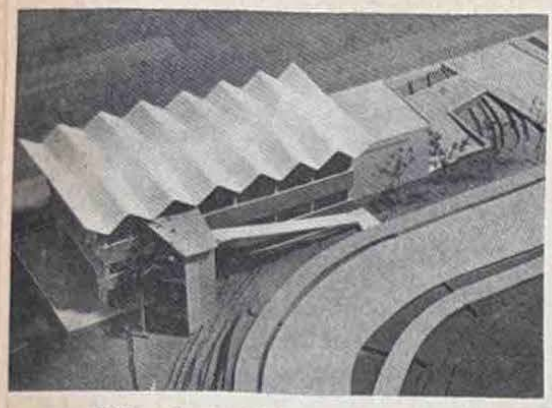
# Proposal for PA&B's new home

A two-story scheme with covered parking has been proposed for the headquarters of Pacific Builder and Engineer, Inc., publisher of Pacific Architect and Builder, on a steeply sloping site one mile from downtown Seattle. A. O. Bumgardner, PA&B's consulting editor, is architect for the project, to be built by Printers Building and Equipment Co. Worthington & Skilling are structural engineers; Stern & Towne, mechanical engineers.

Although the possibility of locating both printing and publishing departments on one floor was thoroughly explored, the two-story addition was chosen in order to 1) achieve considerable economies of vertical construction, equalizing cut and fill on the site; and 2) permit the building to stand free within the property boundaries enabling the development of an architectural expression which would be identified with the character of the company's operations.

The major limiting factor of design has been imposed by the lower printing floor which demands the most space and the most inflexible arrangement. This has determined the structural layout at the parking level and the gross area of the publishing level, giving room for expansion beyond present requirements. The vehicle ramp is located at the lowest street elevation adjacent to the site, the only workable access to parking under the building.

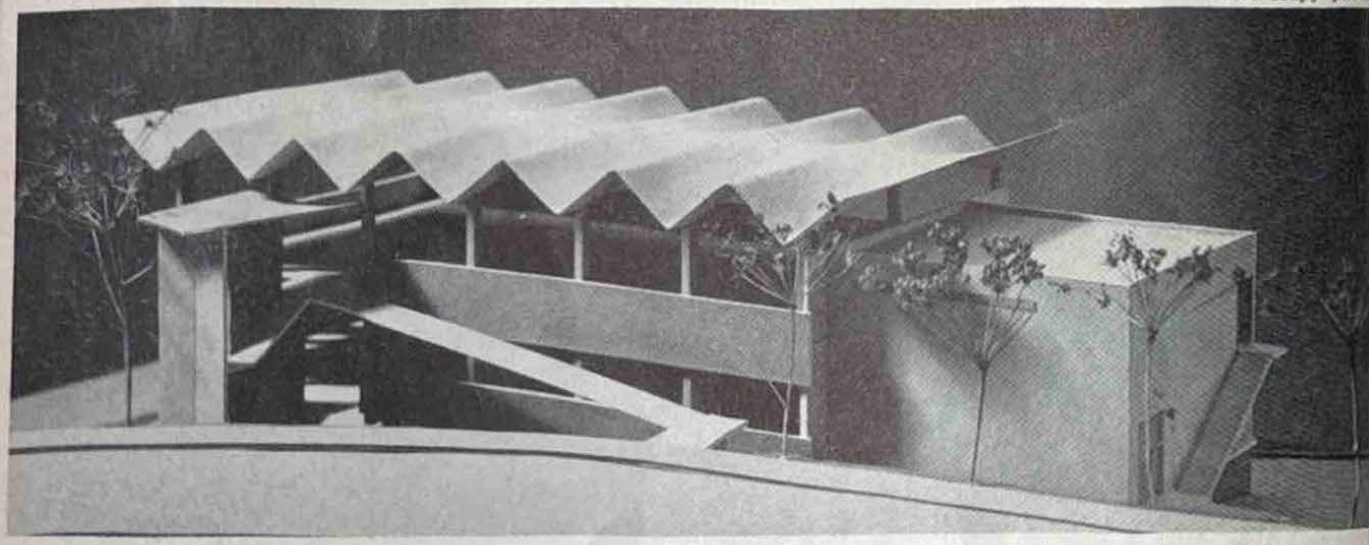
Another important design consideration has been the architect's desire to place the structure so as to command a good position for the major approach from the north-south arterial above the property, i.e., to keep the height such as to be readily seen, with a pedestrian ramp to the main entrance. In this regard, the 2½-in. thin shell concrete hyperbolic paraboloid roof serves as a focal highlight and allows clear span areas economically (45x83 ft. on each floor). Utilities and stairways are set apart so as not to interfere with flexibility



**SITE** embraces 12,050 sq. ft. on side hill, curving around corner at Yale Avenue North and East Newton Street and dropping rapidly from front sidewalk. It commands picturesque view of Lake Union with its fishing vessels and houseboats, Queen Anne Hill across water and downtown Seattle to left.

**RAMP** and expressed stair tower provide easy access for visitors, make important feature of site slope. Roof structure permits large overhangs for sun protection and unrestricted cross ventilation. At publishing level, glass is held back on west elevation (bottom photo) to form balcony, giving further sun control for offices. Precast spandrel sections with textured concrete lend substance to structure, minimize maintenance.

Art Hupy photo





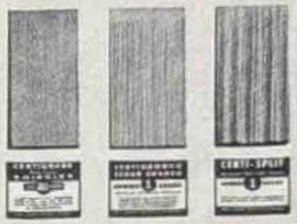
# WESTERN RED CEDAR

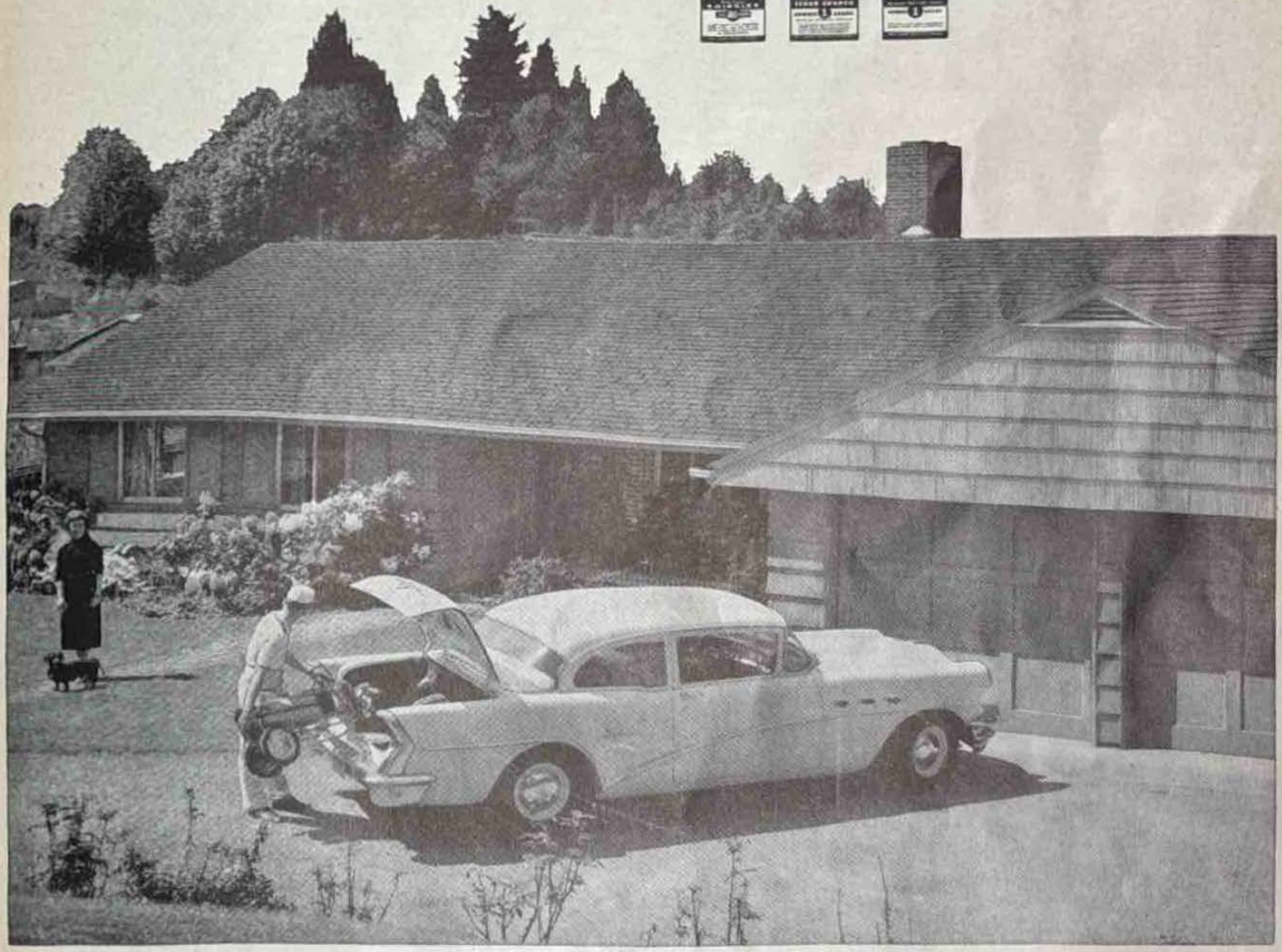
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Art Hupy

**APARTMENT BUILDING** for Thomas K. Welch and G. T. Dussin, Portland: Donald Blair, John Reese and Saul Zaik, architects.



G/H Photographers

**LIBRARY FOR UNIVERSITY OF PORTLAND:** Wolff & Zimmer, architects; George M. Schwarz, design consultant (cited primarily for its interiors).

# Oregon selects nine buildings in AIA design competition

From a field of 47 entries, the Oregon Chapter, American Institute of Architects, cited the two buildings shown at the left for Honor Awards and the seven shown below for Awards of Merit. Presentations were made to the architects and their clients at the first annual awards banquet at Portland's Columbia-Edgewater Country Club March 6. The all-architect jury—Dean Walter Gordon of the School of Architecture and Allied Arts, University of Oregon, and Robert Wilmsen, both of Eugene, and Fred Bassetti of Seattle—held a panel discussion on the winning projects.

Three other citations, which will be presented annually, were two Craftsman Awards to James P. Bartell of Eugene for "his imaginative research, design and development in the field of plastics and for his intelligent integration of these materials into architectural design" and to Harry Weitzer of Portland for "his distinguished design and execution in the art of cabinet making and for his sympathetic cooperation in maintaining the highest standards of the architectural profession; and a Citizen Award to Thornton Taft Munger of Portland for "his most distinguished contribution to the betterment of our natural environment and for his many years of effective leadership in conserving the natural beauty of our area."

Tom Burns Jr.



**GEORGE SAHR'S RESTAURANT,** Portland: William L. Fletcher, architect.

Tom Burns Jr.



**DOWNTOWN YWCA BUILDING,** Portland: Stanton, Boles, Maguire & Church, architects.

Tom Burns Jr.



**FOSTER & MARSHALL BUILDING,** Portland: Wick & Hilgers, architects.



**NOEL DAVIS OFFICE BUILDING** for Hartford Insurance Co., Portland: William L. Fletcher, architect.

Photo-Art Studio



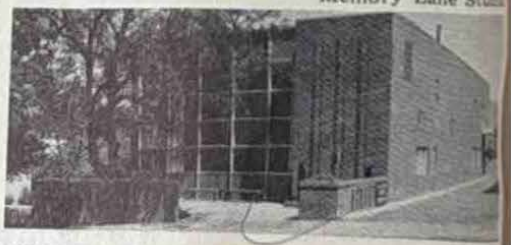
**WEST SHOSHONE GENERAL HOSPITAL,** Kellogg, Idaho: Skidmore, Owings & Merrill, architects.

Tom Burns Jr.



**HENRY L. CORBETT JR. RESIDENCE,** Metolius River, Ore.: Lewis Crutcher, architect.

Memory Lane Studio



**ASHLAND (ORE.) BRANCH, U. S. NATIONAL BANK:** Jacobberger, Stanton, Franks & Norman, architects.




**ACTUALLY THE GENTLEMAN AT LEFT,** who is S. H. MacKinnon, Vice-President and Production Chief at CEMEX, ran out of cement sacks at 3256 lbs., but the laboratory testing people took it over and proved that 32-inch slabs of 4-inch CEMEX will actually support over 6000 lbs. without panel deflection.

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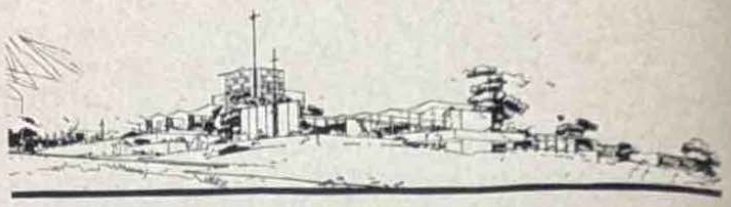
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CITY_____ ZONE____ STATE_____

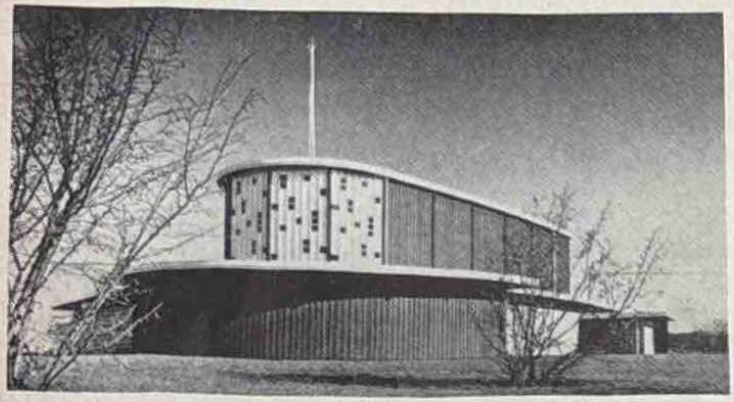
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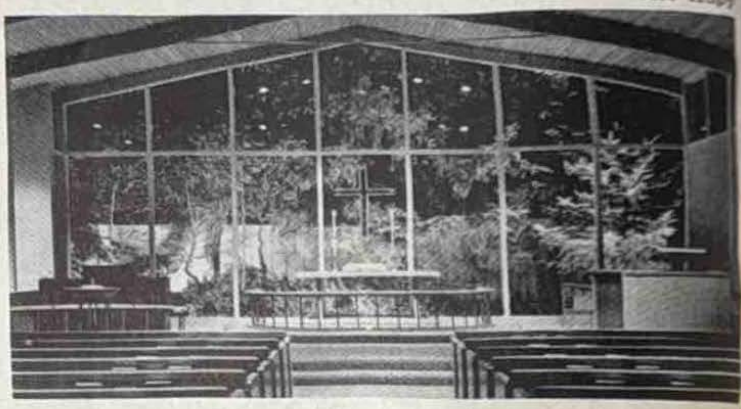


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5

Art Hupy



6

Julius Shulman

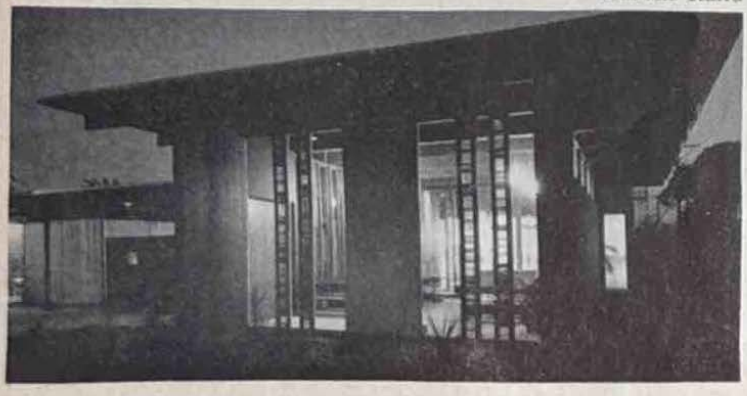


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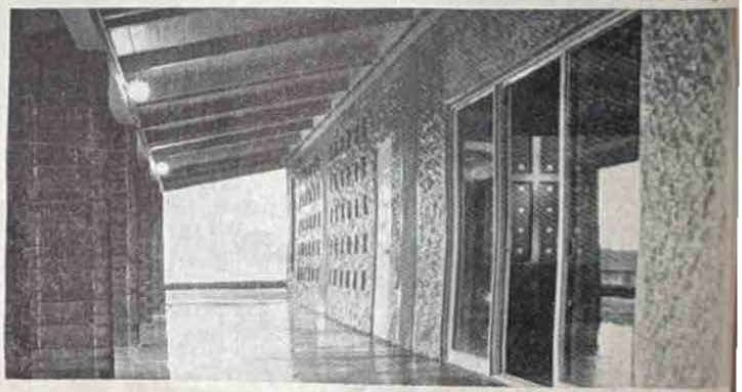
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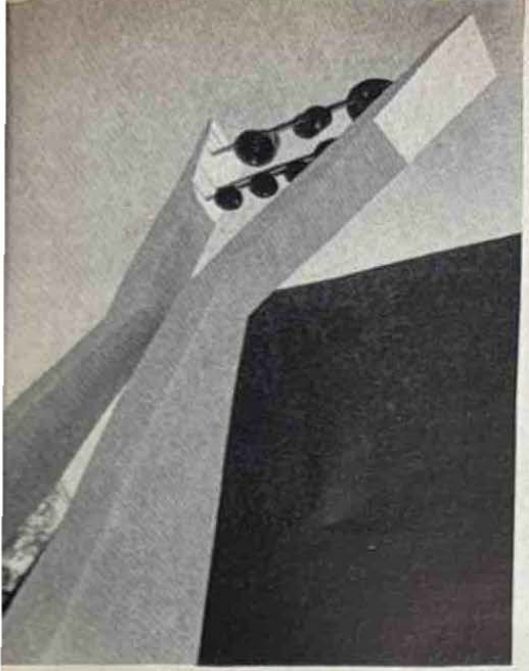
Marvin Rand



9

D. W. Simpso





Jack Laxer

3

## Architectural awards

One-half of the 18 design awards, all of equal merit this year, went to West Coast projects—seven in California and one each in Oregon and Washington. The 1959 competition had the largest number of entries in the history of the conference. Commented jury chairman Dr. Arland A. Dirlam, Boston architect: "While the exhibit does not include all the fine churches designed or built in the past year, it is a true cross section of what is happening in the field of religious architecture."

**CHURCHES SEATING MORE THAN 250**

1. Greek Orthodox Church, Oakland: John Lyon Reed & Partners, architects.
2. Congregational Church, Fullerton, Calif.: A. Quincy Jones and Frederick E. Emmons, architects.
3. Holman Methodist Church, Los Angeles: Kenneth N. Lind, architect (see cover and p. 15).

**CHURCHES SEATING LESS THAN 250**

4. Chapel of the Transfiguration, Eugene: Stafford & Morin, architects.
5. First Methodist Church, Bothell, Wash.: Durham, Anderson & Freed, architects.

**CHAPELS**

6. Children's Chapel of the Neighborhood Church, Pasadena: Smith & Williams, architects.
7. Bel Air Presbyterian Church, Los Angeles: Hal C. Whittemore, architect; Judson W. Pittman, associate; C. V. Beckman Jr., design associate.
8. St. Nicholas Chapel, Episcopal Seaman's Center Building, San Pedro, Calif.: Carlton Winslow and Warren Waltz, architects.

**RELIGIOUS EDUCATIONAL BUILDINGS**

9. Foothill Farms Baptist Church, Sacramento: Satterlee & Tomich, architects.

# Church conference draws 1,500 to L.A.

## • 'Better architecture when there are better Christians'

by ROBERT E. KOEHLER, Editor

The best wine was served first at the ninth annual Church Architectural Conference last month when a clergyman addressed the opening session with the challenge of the three-day meeting, "Building for the Christian Community." The speaker was the Rev. Edward S. Frey, chairman of the Department of Church Building and Architecture, National Council of Churches, co-sponsor with the Church Architectural Guild of America of the February 17-19 meeting which drew 1,500 ministers, laymen and architects to the Statler-Hilton Hotel.

Mr. Frey, who also is director of church architecture for the United Lutheran Church in America, warned his listeners that "the purpose of these days together is not to give off-the-cuff architectural curbstone service but to give guidance in the basics of building program planning and to point out where and how you can find help to do it." As a means to this end, there were several other major addresses (highlights of which will appear in PA&B for April), a series of workshops, exhibits of religious buildings and of materials and crafts and tours of current work in the Greater Los Angeles area.

For a good many West Coast participants, including this writer, the conference was a new experience and it appeared on the surface, at least, that the religious leaders are more bewildered about the real function of the church than are the architects about its design. Seasoned convention-goers, however, were of the consensus that the program is getting better each year in its exploration of vital issues. But without a doubt it was Mr. Frey who provided the spark that permeated the entire 1959 meeting.

### 'What do we believe'?

"We need to know what we believe in and get it into our program so that our buildings will house meaningful activities and announce them clearly," he emphasized again and again. "The first question in a building program that we have to ask and answer is, 'What do we believe about God and why has He called us together in this place to do His work?' This is where we begin; not with architecture or finance but with what we believe about God and our reasonable response to Him. Buildings for the use of the church are not ends in themselves; they are tools in the hands of the congregation for the work of the Lord. Their plan and design must be reasoned in terms of the task that they are to accomplish.

"Only the congregation that knows what it believes will be able to furnish the architect with the kind of data that will enable him to design creatively for the Christian community. The congregation must think and it must pray. Vague ideas about the church and its Lord will not produce an honest seeker, a thoughtful witness or a good building. The program of the church whose people will not think under God takes on bit by bit the mores of the secular group that surround it bidding for attention: badges and buttons, bingo and bake sales—and a theology without particularity, witless and anemic, with no power to save.

"At all costs we must avoid thoughtlessness in our building planning. Nowhere is thoughtlessness more apparent than in architecture. Thousands of our church buildings in

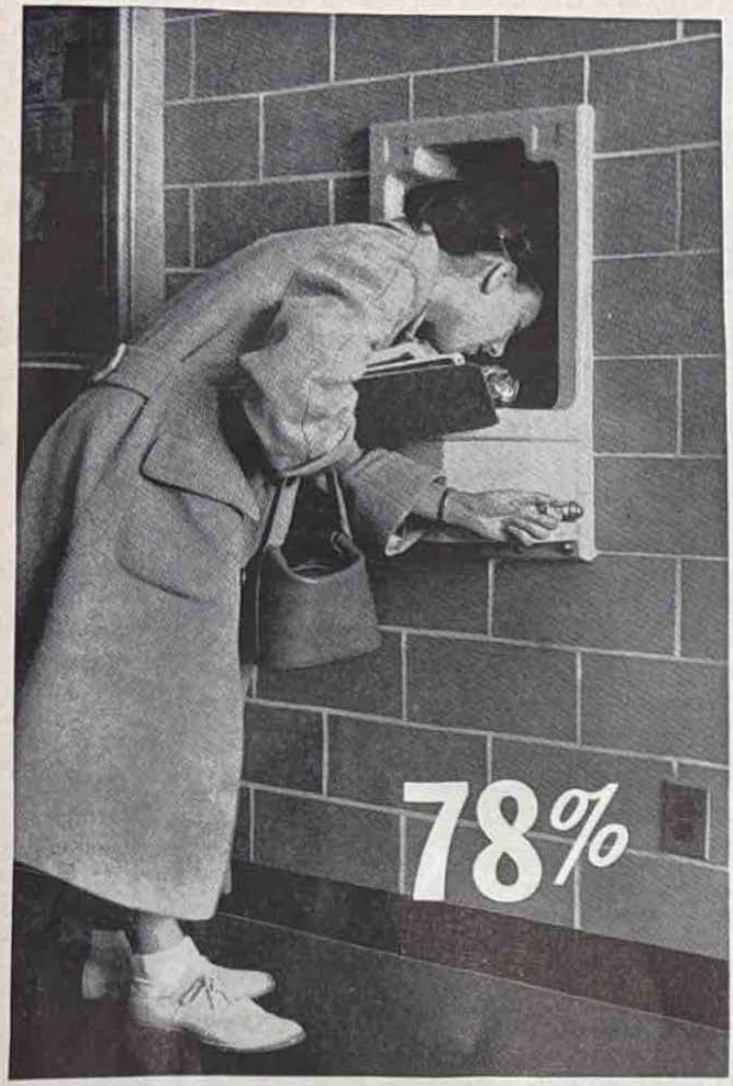
### DURHAM NAMED DIRECTOR

Only western architect holding a top post in the Church Architectural Guild is Robert L. Durham of Seattle, whose firm, Durham, Anderson & Freed, has won several awards in the annual design competition. He was elected a director at the Los Angeles meeting where he played an active part in workshop sessions and as guild librarian gave a slide presentation of current work being done throughout the country.

Elected to the regional committee were Robert S. Inslee of Los Angeles and H. C. Whitehouse of Spokane, representing the California-Nevada-Hawaii and Northwest districts respectively.

DURHAM






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America today are not up to housing a vigorous Christian community. It is less and less possible for anachronistic architecture to penetrate the inner life of contemporary man.

"Anything can happen and does in the buildings that are built where belief is faltering or little or no time is taken to state it loudly in the program analysis of the congregation. We have seen church interiors that make it perfectly clear in their confusion that the man who made the floor plan and the 'building committee' that accepted it had no idea of precisely what is to transpire in a church service. I have seen altar paintings that are at variance with the Gospel. I have seen chancels where the national flag and the so-called Christian flag so dominated the altar that the sanctuary resembled nothing so much as a patriotic shrine. I have seen church interiors so arranged that one would think the most important thing that was to go on there was the choir concert. Our field experience has shown that poor worship practices invariably accompany poor architecture. More often than not, the first step in restoring decency and order in corporate worship is to correct an interior fault in structure, floor plan or decor which originated in the first place because of thoughtlessness."

**'Understands better what goes on in kitchen'**

Mr. Frey went on to say that he has visited many buildings in which the kitchen is the best planned room and the most adequate and best equipped for its function of any in the whole building complex. "What can one believe about this other than that the congregation understands better what goes on in the kitchen than what is meant to happen in the sanctuary or in the classroom?

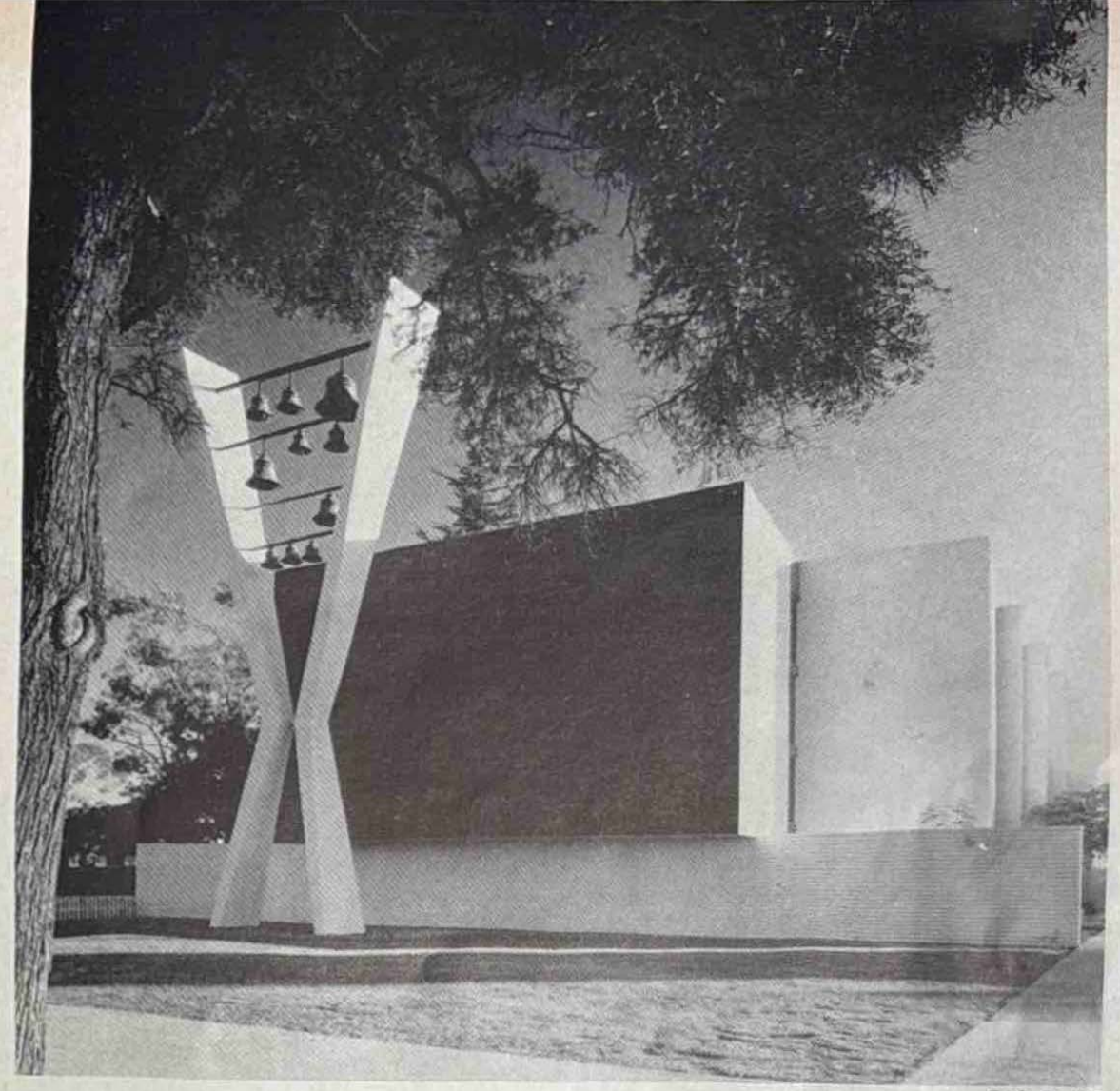
"The second condition that must be met if we are to build adequately for the Christian community is to properly divide the tasks of the building committee and the architect. Architecture is the business of the architect; the description of the church's life and purpose, what it believes and what it proposes to do about it is the business of the congregation. Much must be done by the congregation's committee before drawings are made or any construction is begun. Building committees often start at the wrong end of their tasks; they begin busily with the problems of architecture: What will the building look like? Where will it be placed on the site? How much will it cost? It is a waste of time to try to answer questions such as these at the beginning of the building program and, indeed, to try to answer them at any time without the assistance of the architect and until they have written a description of all the activities that they intend to promote in their community.

**'What is needed must be communicated to architect'**

"One of the happiest trends in recent years is the slow but steady increase in the understanding of these matters. The people of the church are having a larger and larger share in contributing to the character of their buildings. I don't mean by this that they are designing their buildings; but they are increasingly able to express to the designing architect what it is they want their buildings to do and say in the community which they are to serve. This is happening because more and more persons involved in building programs are giving attention to first things first. They realize that before a meaningful structure can be designed, everything that is believed and what is needed to address the community must be communicated to the architect."

Mr. Frey told his audience that the congregation is ready for architectural service when it is satisfied that it has described exactly what it wants to do in its new or improved building and has written this out in clear

**Continued on page 2**



Jack Laxer

# Age-old message rung in language of today

Holman Methodist Church
Los Angeles, California

•

KENNETH N. LIND
Architect

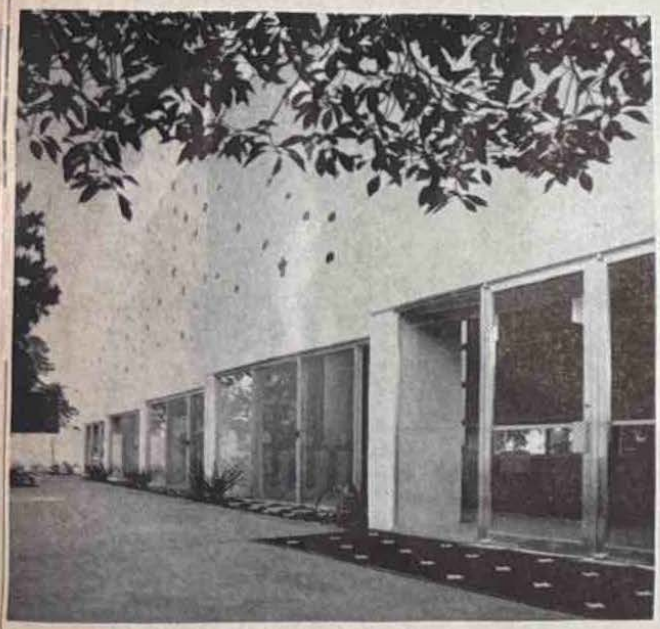
W. D. TREADWAY
Structural Engineer

BUTLER & BUTLER
General Contractors

IN SELECTING the "Church of the Bells" to be shown during the recent Church Architectural conference, the tour committee made special note of the 1) bell tower, 2) tilt-up wall panels with plastic inserts and 3) altar screen. The architect has incorporated them as major design elements in answer to the congregation's request for "a sanctuary that looks like a church but not like all the other churches built in the past; for a church that expresses the spirit of worship in the language of today."

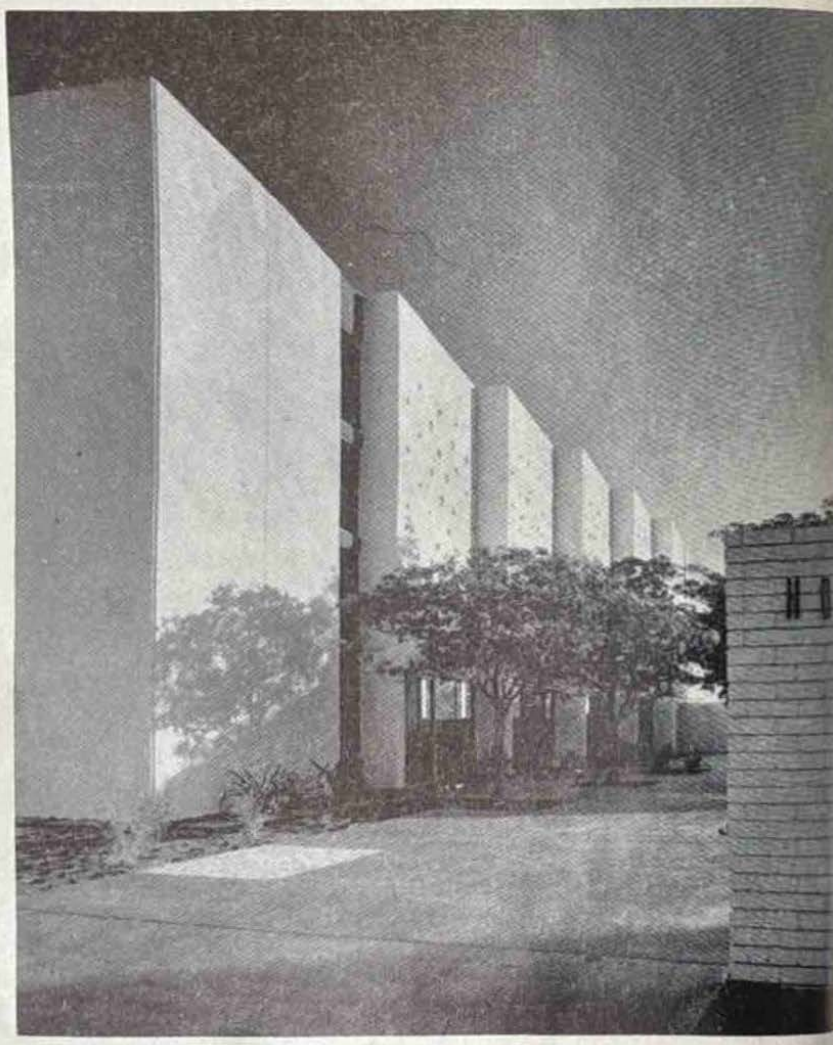
The white concrete tower dominates the foreground with arms uplifted more than 50 ft. to support 10 giant bells weighing at least 5,000 lb. Chimes are controlled electronically and may be played from the pipe organ. The facade of the building—a rough aggregate of charcoal plaster and crushed black granite—is used to dramatize the religious symbol. Inside, the inserts imbedded in the walls become a transparent color palette remindful of traditional stained glass windows. And finally, the focal point in the chancel: a curtain of alderwood cubes, each side a different color to represent the liturgical calendar, mounted on steel rods which may be rotated by preset clock or by hand.

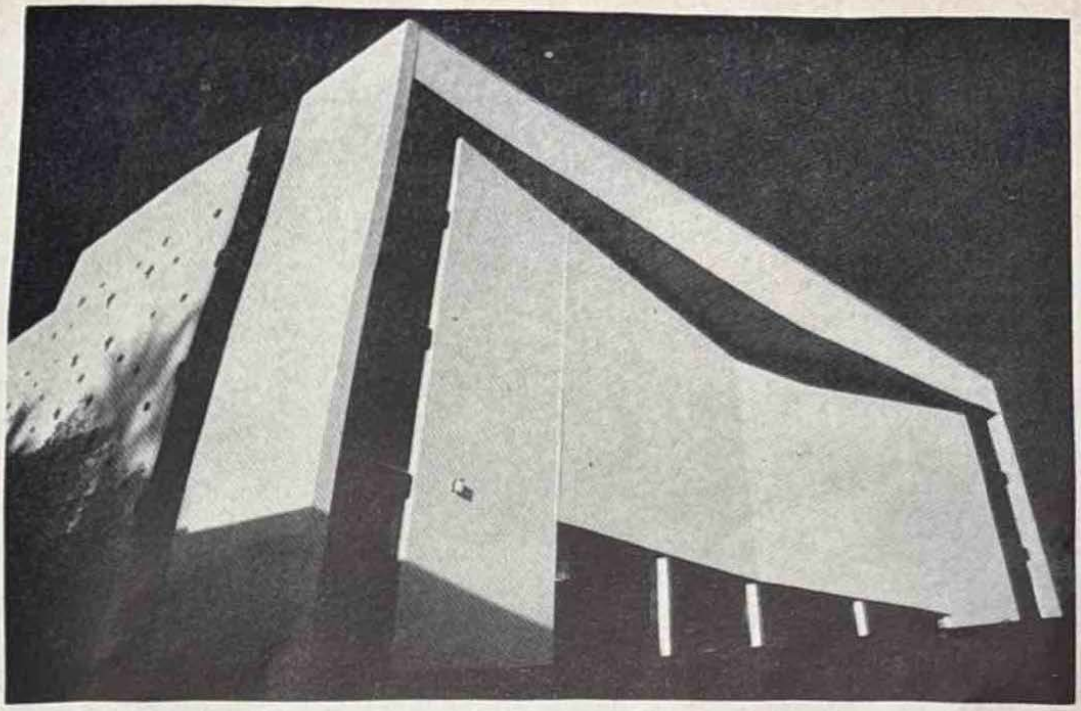
Located on a busy street, the 500x 175-ft. site is horizontal for about 400 ft., dropping abruptly to a lower level. The sanctuary faces the street an extends 200 ft. to the south. Takin advantage of the depth of the site, th chapel and social hall will become continuation of the church proper, oc cupying the remaining 200 ft. on th upper level. The future two-sto church school will use the lower se tion, with parking on the first lev and entry on the second floor at co venient street height. The origin church building will provide the ne essary additional room until the e tire program becomes a reality. that time it will be removed and t area converted into extra parkin landscaping and outdoor facilities f the parishioners.



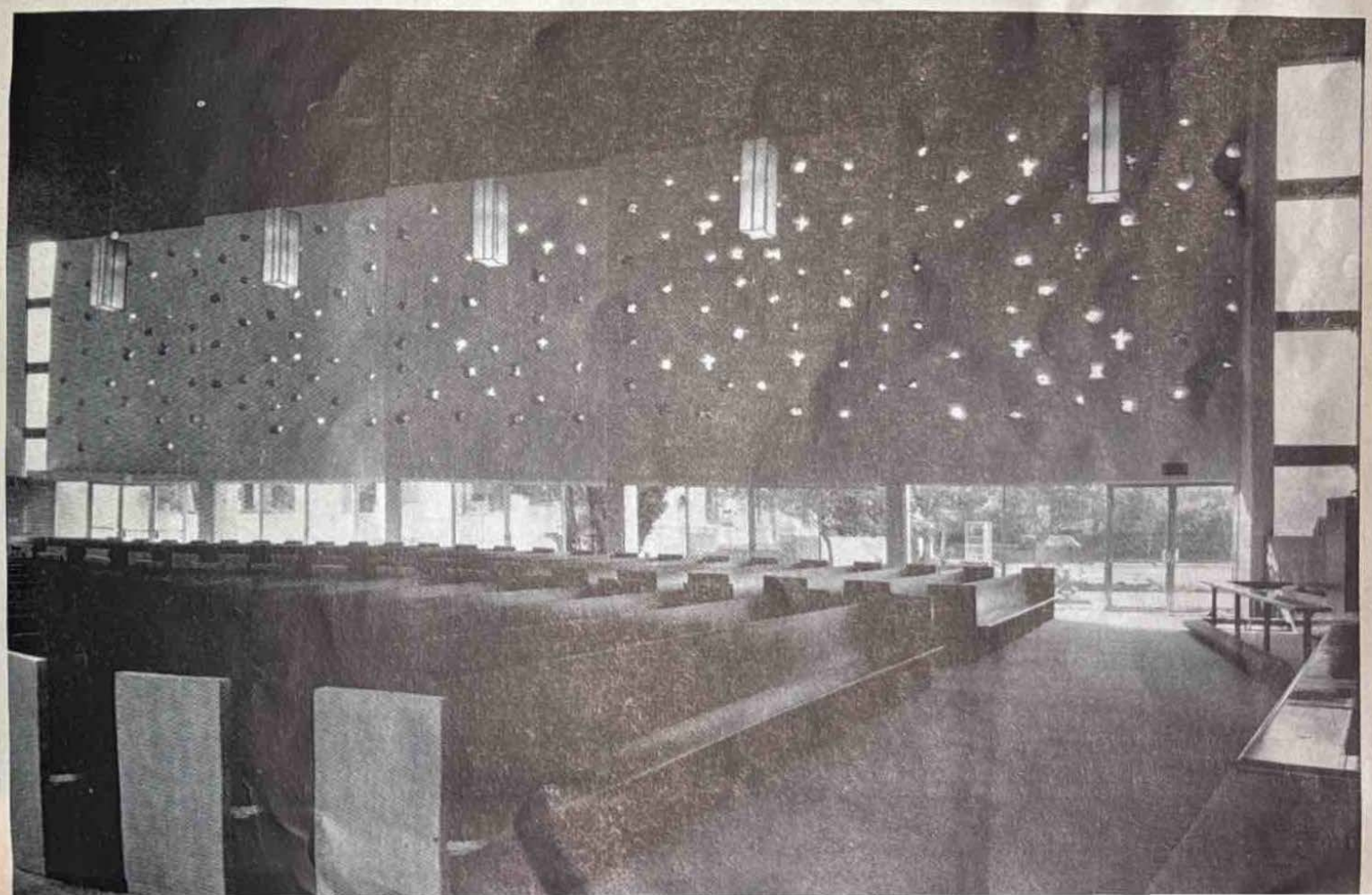
**MAIN ENTRANCE** is reached at rear of church on west side through approach shown in photo at right.

Jack Laxer pho

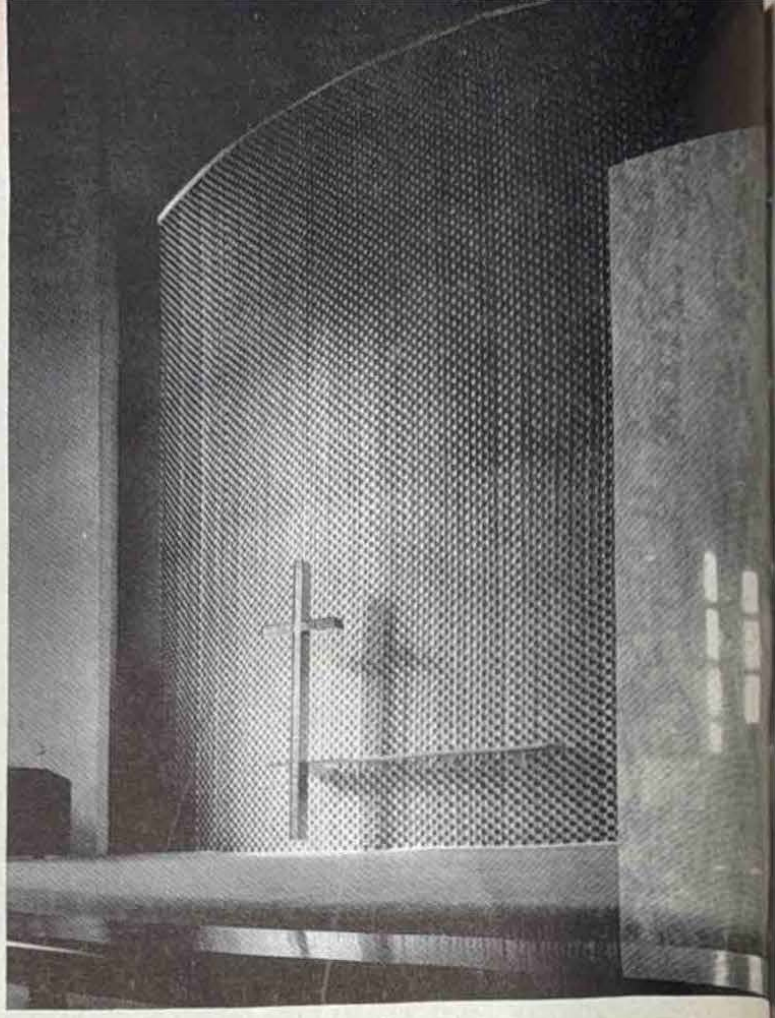




**EXTERIOR REAR WALL OF SANCTUARY** will become future north wall of chapel. Nave seats 598 parishioners, with 70-member choir on either side of chancel. Wool carpeting is used in both areas.

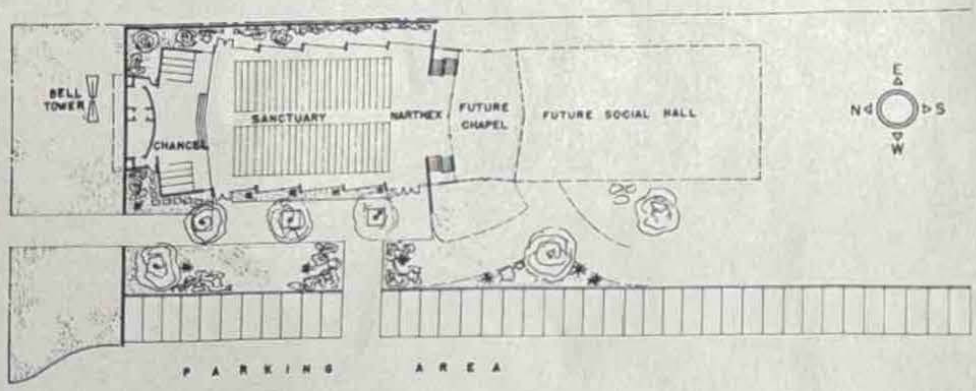


## HOLMAN METHODIST CHURCH



**ROTATING ALTAR SCREEN** of 11,000 alderwood cubes, each 1¾ in. square and painted a different color on every side, serves as backdrop for cross. Front inlay is brass with welding finish to give pebbly texture and is bronze in color, polished and antiqued for highlights; sides are sprayed bronze. Pulpit face at right is travertine.






### OUTLINE SPECIFICATIONS

**Structure:** foundation and frame: reinforced concrete; roof: steel and wood rafters; walls: tilt-up concrete slab with plastic inserts and steel studs; brick.

**Floors:** concrete.

**Exterior Finish:** exposed concrete painted and sandblasted; aggregate of charcoal plaster and crushed black granite; painted brick.

**Roof Surfacing:** 20-year, built-up.

**Windows:** store front aluminum—Rebco, Inc.; cathedral glass—Los Angeles Art Glass Co.

**Doors:** exterior: aluminum sliding glass—Ador Corp.; interior: ash.

**Floor Surfacing:** exposed concrete, asphalt tile and wool carpeting.

**Insulation:** rock wool and fiberglass batts; sprayed asbestos—Asbestospray Corp.

**Partitions:** wood stud; galvanized steel in toilets—Pricemetal Corp.

**Interior Finish:** acoustical plaster and walnut paneling.

**Ceilings:** acoustical plaster.

**Lighting Fixtures:** specially designed incandescent—Strickley & Co.

**Plumbing and Sanitary:** American Standard.

**Heating:** forced air gas unit—Reznor Mfg. Co.

**Special Equipment:** church bells: cast in Holland of copper and tin alloy—specifications prepared by Justin Kramer & Associates; bell ringers: cote type—I. T. Verdin Co.; altar screen: alderwood blocks mounted on steel rods, mechanized for rotation with variable speed motor—Strickley & Co.

**Total Area:** 9,300 sq. ft.

**Total Cost:** $157,000.

**Date of Completion:** September 1958.

# Friendly residential scale in a transitory zone

Dr. Kenneth M. Robertson
Dental Clinic and Duplex
Seattle, Washington

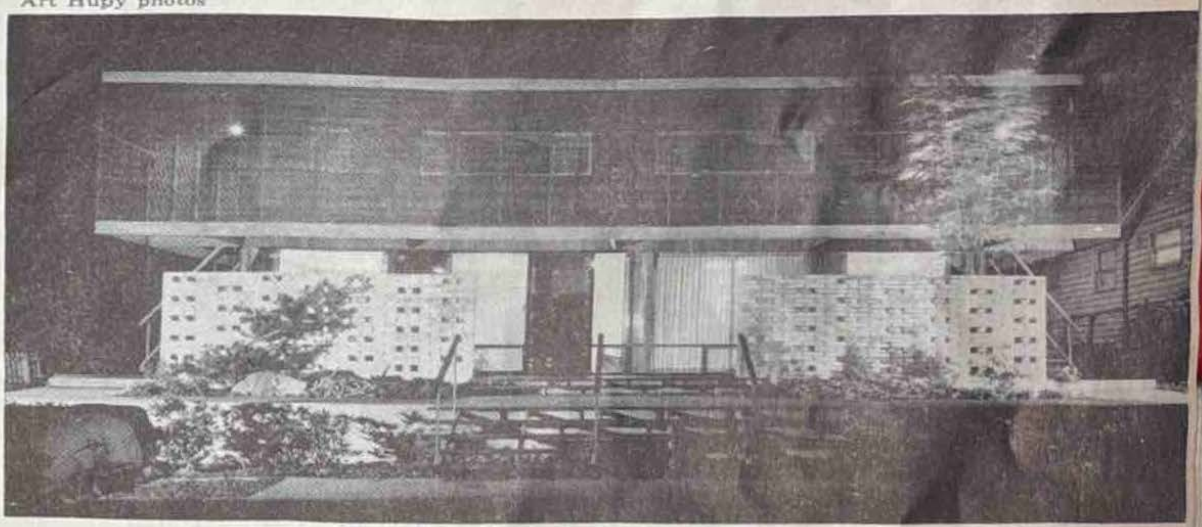
BYSTROM & GRECO
Architects

TOM PAULSEN
General Contractor

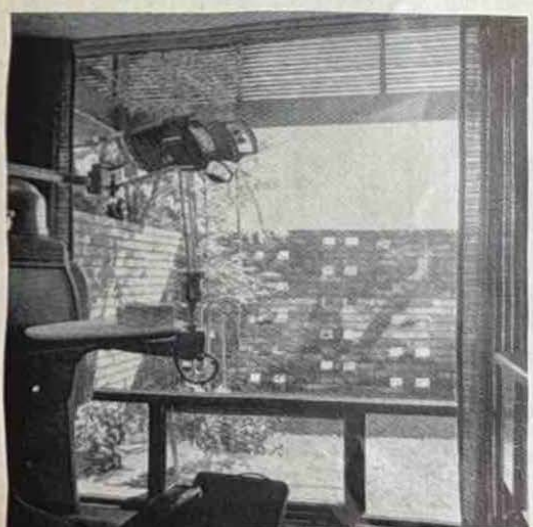
THE TWO-LEVEL SCHEME for this $38,540 building with 1,160 sq. ft. on each floor was dictated by the size of the lot: 60x102 ft. plus 22 ft. of city property between the south line and the sidewalk. It provides for a complete dental suite—two operating rooms with laboratory and private office, hygienist room, clerical office and reception-wating area—and two apartments above.

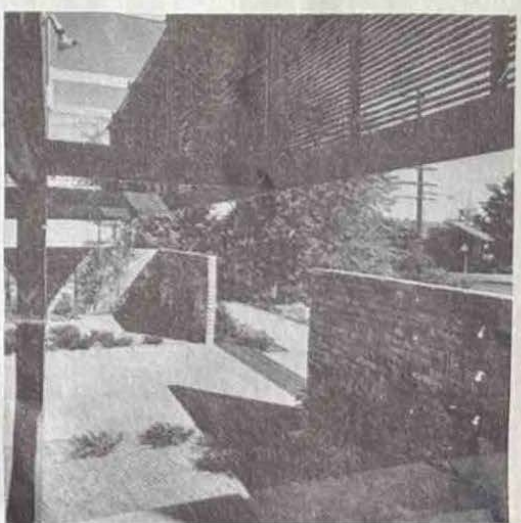
The architects placed the structure at the rear of the site, which is surrounded by both residential and commercial buildings, to allow for six-car parking and to create a foreground. Terracing was utilized to minimize grading (about a 7-ft. rise from front to rear and a 4-ft. embankment down to the sidewalk), to separate the building and parking and to establish an entry circulation pattern. Rear rooms look out on a planted area and there are exterior decks for both living units, with access through sliding doors.

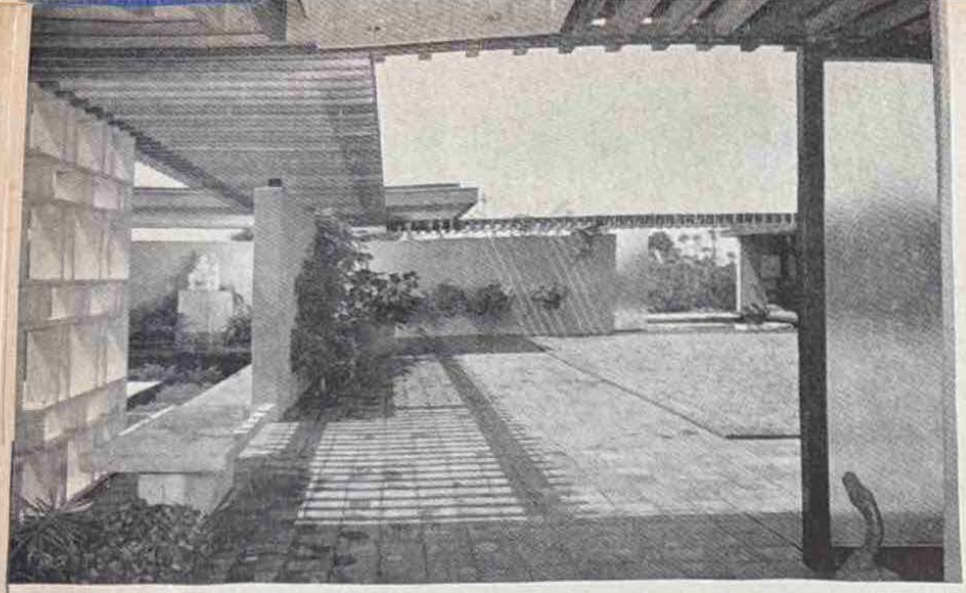
Art Hupy photos



**SIX-INCH BRICK GRILL** is used to form entry court and as privacy screens for principal clinic rooms. Western red cedar screens at street side and east-west elevations serve both as buffers and sunshades, minimize upper level as mass. Exterior finish is 1x4 t&g cedar siding; interior, gypsum wallboard.







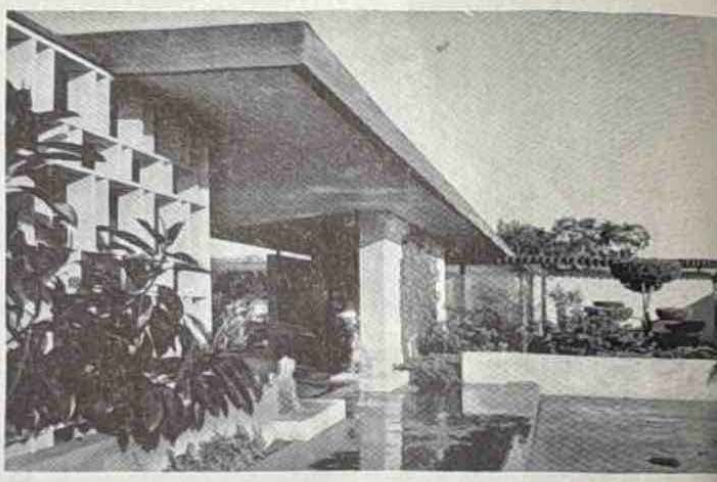
**"TEXTURED SURFACES,** integrated landscaping and the il lusion of levitation achieved by the use of floating horizontal planes can add warmth, grace and variety to the basic geometry of architecture."

# Space fused into single environmental complex

Thornton Ladd Residence
Pasadena, California

THORNTON LADD
Architect

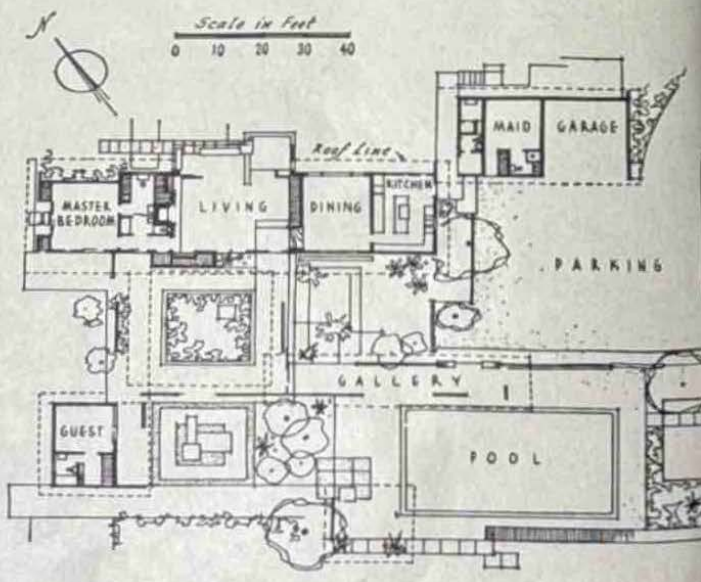
S. O. BENNETT
PAUL SPINDT
Contractors



SPREADING FORMALLY over its 100x160-ft. site, the architect's own house is a statement of his philosophy of design, as he himself explains (including picture captions): "The essential idea is to show how to unify architecture, landscaping, interior landscaping, color harmony and space modeling techniques; how to incorporate antiques in a modern setting and collect fine art pieces, making them a natural part of the house; how to minimize garden maintenance by careful initial planning (I have a gardener twice a week as against almost full-time gardeners for a property this size.); how to use the water garden as a design expression in landscaping for areas of peace and quiet.

"Among the ideas and hints that form the focus toward the house as a total unit are these: white floating steps as a solution to the difficult problem of hillside garden stairs; 'velvet finish' on concrete for terraces; the sliding screen to control sun through glass and provide shade for plants on terraces; sedums and cacti to create a brocade in landscaping; the simple tambour roll screen set in low cases to simply solve the kitchen storage problem.

"The house is an experiment—from the philosophical approach—in the unity of diverse interests and separate elements of background and the various cultures which are integrated. The Oriental influence is here, no doubt, but to dwell on this point as the theme for the residence is to overlook that it is the suggestion of simplicity, beauty and tranquility."



## OUTLINE SPECIFICATIONS

**Structure:** foundation: reinforced concrete; frame: wood and steel; floors: wood.

**Exterior Finish:** stucco.

**Roof Surfacing:** built-up with gravel finish—Johns-Manville Corp.

**Doors:** sliding glass in steel frames—Arcadia Metal Products; flush solid core.

**Floors Surfacing:** parquet.

**Insulation:** rock wool—Johns-Manville Corp.

**Interior Finish:** painted plaster, limba and lacquered wood paneling.

**Ceilings:** plaster.

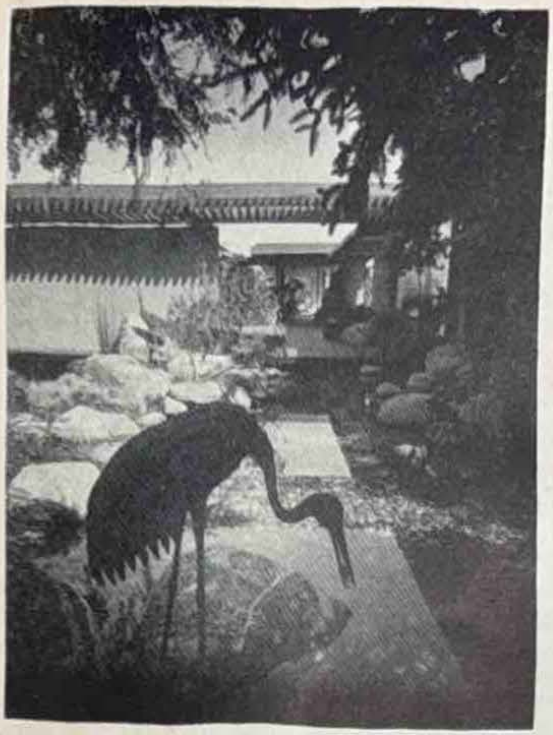
**Lighting Fixtures:** recessed incandescent—(Marco) Marvin Manufacturing Co.

**Heating:** gas fired warm air—Lennox Industries; water heater—Day & Night Division; controls—Minneapolis-Honeywell Regulator Co.

**Plumbing and Sanitary:** American Standard.

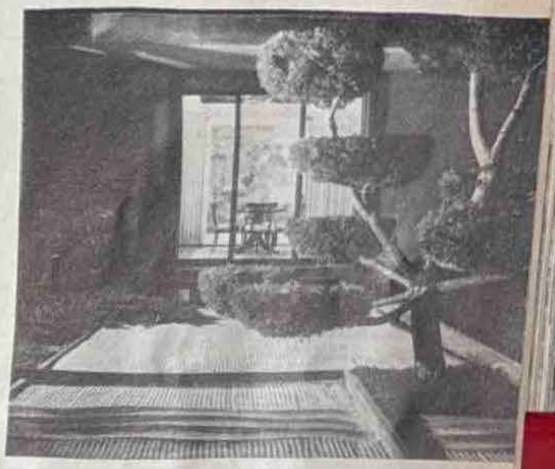
**Kitchen Equipment:** cooking units—Thermador Electric Mfg. Co.; fan—Trade Wind Motor Fans, Inc.; appliances—General Electric Co.

**Total Area:** 2,700 sq. ft. (enclosed).



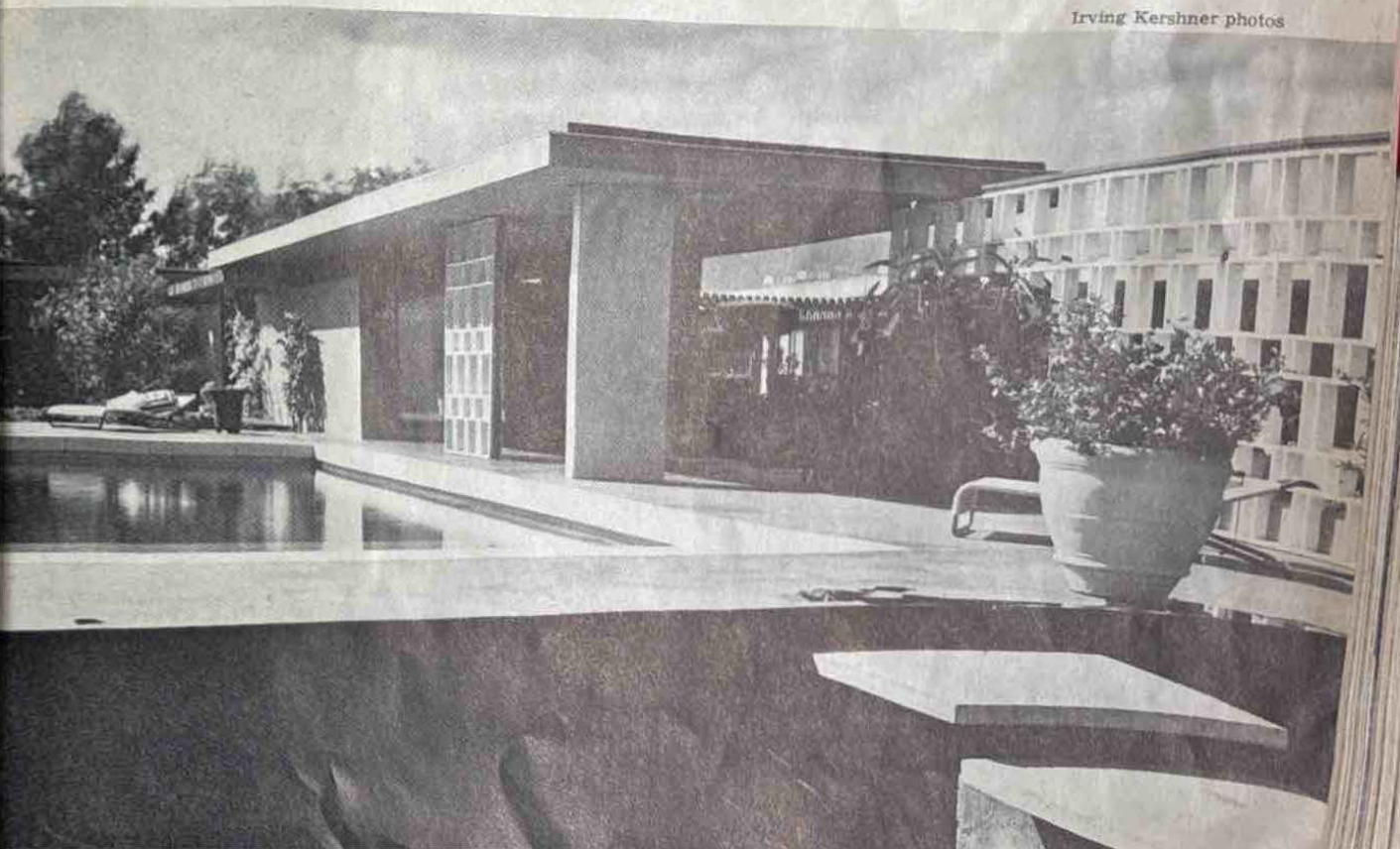
"**SINCE** the beginning of time, still water has helped man find tranquility and peace. In the corner of his own garden it continues to perform its ancient therapy."

"**A GARDEN** may take many forms. This one of white sand can be shaped into an infinite variety of kaleidoscopic patterns with the clipped deodar standing always as a dramatic point of reference."



"**RESIDENTIAL DESIGN** is the crucible in which the truly creative innovations of contemporary architecture are originally evolved. In this sense the house is the architect's laboratory and as such represents one of the most dynamic and productive expressions of his talents."

Irving Kershner photos



# Some thoughts about design

**An address presented before an AIA seminar on public design at the University of Washington that has a compelling message**

by GIDEON KRAMER, Industrial Designer

BEFORE I start I would like to give tribute to two recent authors from whom I have gained strength for my convictions: David Riesman—"The Lonely Crowd" and "Individualism Reconsidered"; William H. Whyte Jr.—"The Organization Man."

A realization that public design is an expression of ourselves and communicates who we are indicates that our designs can be only as good as our understanding of ourselves—as individuals, as a region, as a cultural entity. What we think we are starts with what we think nature is, for we are a part of nature, not apart from it.

Nature, creation, is a process and we too can best be understood in terms of process as an evolving objective subjective continuum. For anything to have meaning for us it must enter into our process, be it the air we breathe, the food we eat, or the architecture we create. This process knows no end, no beginning; it derives its impetus from imperfection and man is imperfect because he is a creation, an extension of this process.

Therefore, if we are to achieve a higher degree of fulfillment, we must be process oriented, not beginning and end. We must recognize the virtues of imperfection and cease worshipping the mythical perfection, the unattainable, undesirable one answer.

We must realize that perfection is death. We must rid ourselves of this straight jacket, this obsession, and regain the freedom that is naturally ours. The basis of our democratic ideology is the recognition that there is no one answer; differences are not just tolerated but respected as an essential ingredient of democracy.

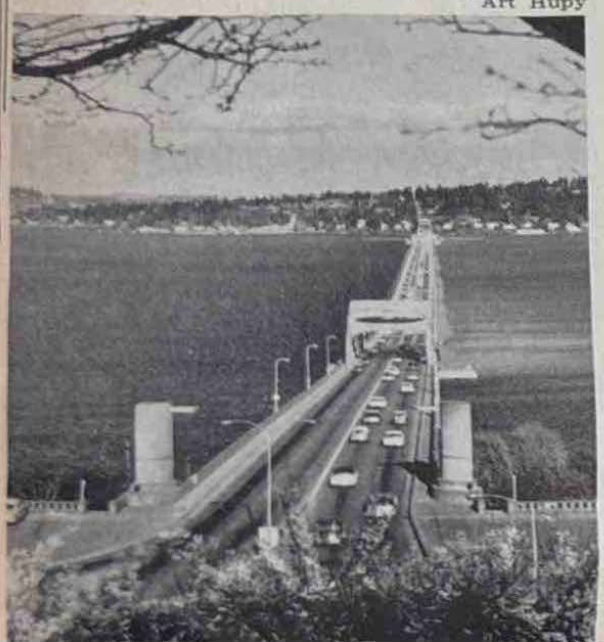
To enrich his relationship to nature, to reality, to his environment, is the object of man's efforts. The beauty we seek must be one of process. Alfred North Whitehead defines this beauty as "the internal conformation of the various items of experience with each other," and not only is this an internal process but an uniquely individual one.

What we design must set our objective as the furthering of this process. The material manifestations, be they freeways, bridges or buildings, are only a device, a means, a catalyst in its realization; they are not the end.

Each geographic region, each regional society, each period, presents material for exploiting quite different optima. Our technology makes it easy to ignore regional differences but this does not make it valid. We are not and never can be a Los Angeles or a Chicago. We, as they, are unique, and true happiness and fulfillment can only come when we recognize this and strive to be ourselves.

Although we are the present looking to the future, we come from and draw direction from what has been. For us Puget Sounders this past and its hopes were most eloquently expressed by Chief Seattle when, in answer to Governor Stevenson's offer for his people's land, he said: "We will ponder your offer and when we have decided, we will tell you. But should we accept, I here and now make this condition: we shall not be denied the privilege, without molestation, of visiting at will the graves of our ancestors and friends.

**LAKE WASHINGTON FLOATING BRIDGE** connecting Seattle and Mercer Island—engineers: State of Washington Highway Department; architectural consultant: Lloyd Lovegren.
Art Hupy





Art Hupy

**PEDESTRIAN OVERPASS** for University of Washington in Seattle—consulting engineers: Worthington & Skilling.

"Every part of this country is sacred to my people—every hillside, every valley, every plain and every grave has been hallowed by some fond memory or some sad experience . . .

"The very dust under our feet responds more lovingly to our footsteps than to yours because in it are the ashes of our ancestors. At night when the streets of your cities and villages shall be silent and you think them deserted, they will throng with our returning hosts that once filled and still love this beautiful land."

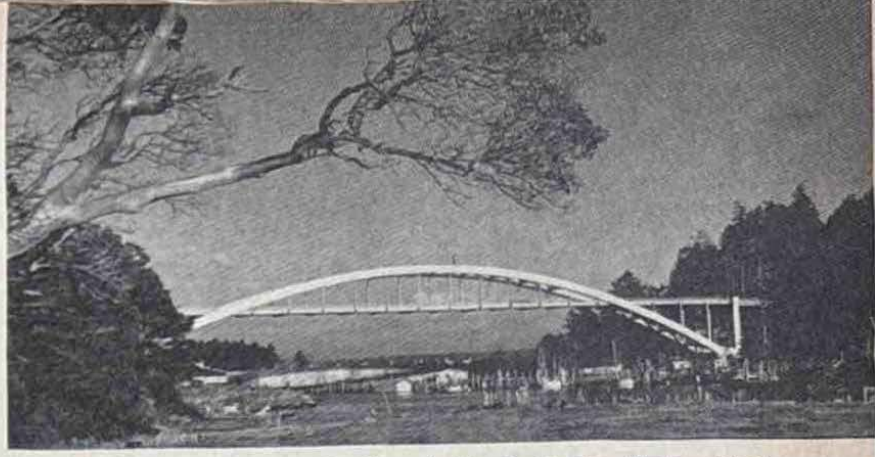
We are in need of such sensitivity today. Their past is our past. What has been part of this region is part of us. To deny this is to be less than we could be.

The Frankenstein of our waterfront—the Alaskan Way Viaduct—superimposes a brutality on an area that more than perhaps any other should be an expression of our longing. It may be argued that it is functional, hence right, but as Jacob Bronowski states: "The notion that function fixes the value of design is a wild simplification of utilitarianism, a sort of primitive fundamentalism. In reality, values are much more delicately determined than this. Values are indeed social; they grow from use but the fitness which they express is to the whole context of society. A knife and fork are not merely things with which you eat; they are the things with which you eat in a society where eating is done with a knife and fork—and that is a very complex form of society."

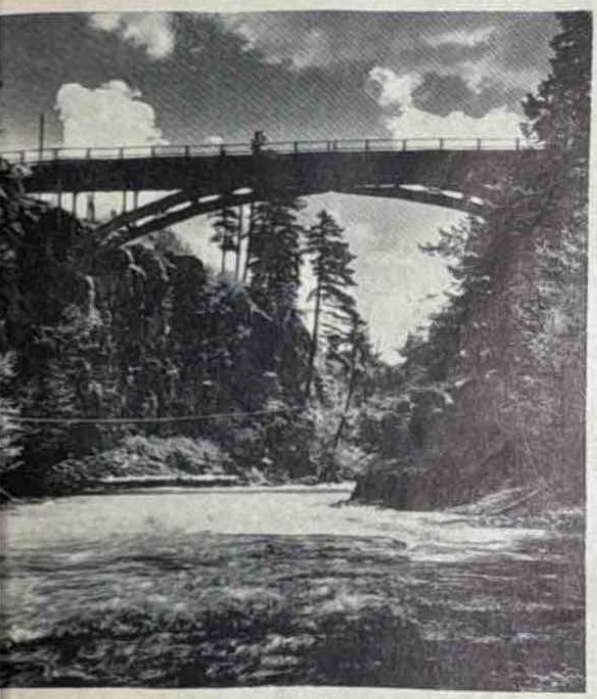
Our notion of function must not be out of context, apart from the total life process which it serves. The concept of "form follows function" is a stepping stone, a good base to build

Continued on page

*To encourage aesthetics in bridge design, the American Institute of Steel Construction since 1929 has been selecting the "most beautiful" projects opened to traffic each year. Among the honorable mentions in the most recent competition were two in Washington and two in California. The jury consisted of three architects, a consulting engineer and the director of the Museum of the Arts of Direction, Cooper Union.*



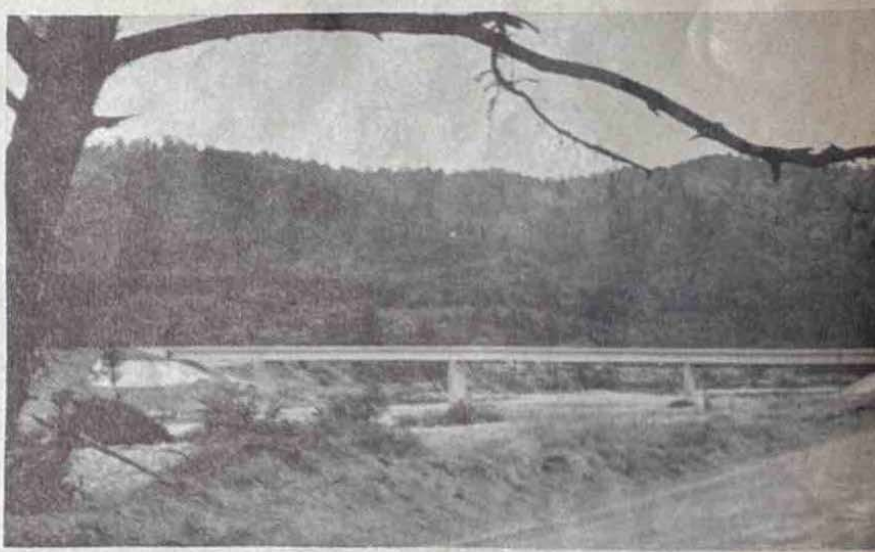
**LA CONNER BRIDGE,** Swinomish Channel, Skagit County, Wash.—owner: Skagit County; designer: Harry R. Powell & Associates; fabricator: United Concrete Pipe Products Co.



**WHITE SALMON RIVER BRIDGE,** Klickitat County, Wash.—owner: Klickitat County; designer: Harry R. Powell & Associates; fabricator: West Coast Steel Works.



**PUTAH CREEK BRIDGE,** over Monticello Reservoir, Napa County, Calif.—owner: Napa County; designer: Bridge Department, Division of Highways, State of California; fabricator: Bethlehem Pacific Coast Steel Corp.



**TRINITY RIVER BRIDGE,** Hoopa, Calif.—owner: State of California; designer: Bridge Department, California Division of Highways; fabricator: American Bridge Division, United States Steel Corp.

on—but not to rent on. It must give way to evolution, nurtured on deeper thoughts and understanding. We must cater to the total man: his need to get from here to there, yes, but always mindful that the how, the process, is more important.

As it is, millions are spent in cutting a swatch, in creating the path for a simple mechanical purpose; and it is amazing with what ease the funds are attained but with what difficulty pitifully little is eked out for the soul, for the enrichment of life.

Although the progress being made to bring back the tree to our city is commendable, it points up the nature of the environment we have created when we have to search elsewhere for trees that can survive in it. My concern is not that there be efforts to correct these deficiencies, for these are afoot, but that these efforts be based on a broader and deeper interpretation of our needs.

We must raise our sights. Our present aims are too often adaptations of the already accepted, "their realization mostly a matter of mechanics which a good recession would speed up immeasurably." We are in need of visionary "utopian aims whose fulfillment would be a revolutionary affair, would make substantial demands on the community and promise a substantial gain in human happiness."

Who will bring these forth? Who can interpret our longings? Where is the insight and sensitivity, the strength that such a challenge requires? Neither authorities, committees, corporations or combines can provide this leadership.

In the face of an increasing acceptance of a rationale that would openly justify the decline of the individual, we must reassert his dignity, must reestablish a climate in which he can flourish, for only from the individual can come the creative effort we seek.

Group creativity, though tending to raise the mediocre, by its need for collective decision requires a subordination of the ideas to the acceptance of the group. Great thoughts and ideas have always been personal, whether in science, religion or the arts, always brought forth by the individual. Group creativity is too often an escape from responsibility, an attempt at making progress safe.

But creativity is not, cannot by its very nature be safe, for it is an adventure; it essentially involves an element of chance, an experimental element as in nature; it is an adventure into the unknown.

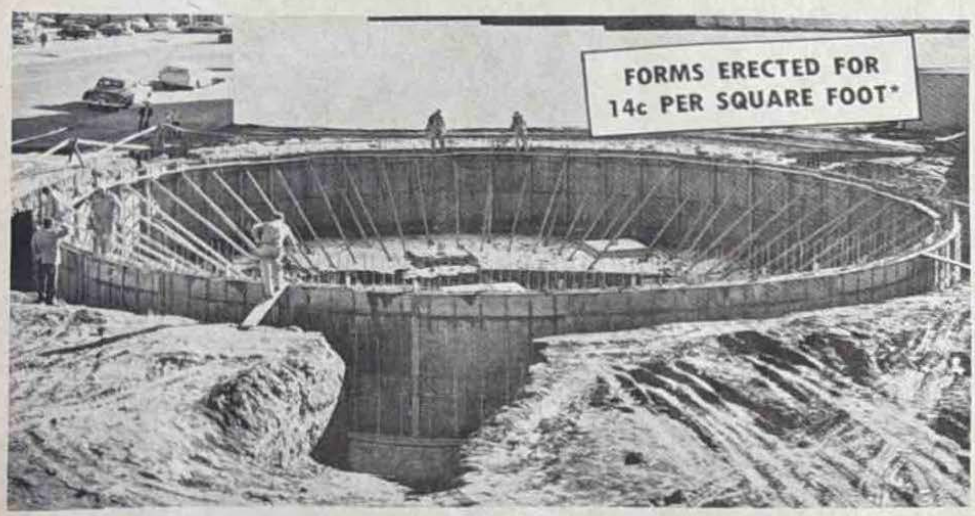
We must reassert our faith in the individual, even at the risk of some failures. I would rather run the risk of a poor answer impressed with the character of individual conviction than a mediocre safe answer from a collective. I am not saying that the collective has no validity; what I am saying is that its purpose is as a support to the individual, subservient to him.

In other words, a collective, a system, a formula, a wind tunnel, are created by man to further his interest, to be used by him; to enhance his freedom, not to restrict it. We must support the basis of creation in the individual — that is, the confidence in himself as an expression of every man.

A good designer does not need a market survey to tell him what is right. He may use one as he would any tool but he will not be used by it. The final choice, as the final responsibility, is his. Freedom and responsibility may not be separated.

In conclusion, what Thoreau has said about individuals can apply as well to the region: "Why should we be in such desperate haste to succeed, in such desperate enterprise; if a man does not keep pace with his companions, perhaps it is because he hears a different drummer. Let each man walk to the music that he hears, however measured or far away."


# Restaurant-in-the-round:
## a study in economical forming




Drive-in restaurant, Englewood, Colorado
*Architects:* Berne, Muchow, Baume & Polivnick; and Polevitzky, Johnson & Associates
*General Contractor:* Finegold & Chavers
*Forming Contractor:* Russell Graham

The specifications for this unusual drive-in restaurant called for a circular basement foundation 70'0" in diameter, 9'4" high; an access tunnel 58'0" long, 9'0" high; and 275' of retaining wall 9'-10' high.

For the circular portion alone, over 2000 square feet of forming was erected for only 14c per square foot. Complete stripping cost was 4¾c per square foot: JUST 18¾c PER SQUARE FOOT FOR INSIDE AND OUTSIDE FORMING!

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# Westerners like these new ideas in USS steel



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**New Protection for Top Secrets.** Classified information is guarded and secure after-hours, in tamper-proof steel file cabinets by McDowell & Craig of Norwalk, California. A new Swing-A-Way security locking bar, formed of USS Cold Rolled Sheets, helps keep our national defense secrets safe.



**New Versatility for Fixtures.** Steel's ideal—for display of any product from hardware to lingerie. These cabinets by M & D Store Fixture Co., City of Industry, California, are formed of USS Cold Rolled Sheets for maximum durability at less-cost-per-foot.




**New Setting for Salesmanship.** Steel is the style-setter in this handsome building, built by Pascoe Steel Corp., for Tradeway Chevrolet, Manteca, California. Pre-engineered structural systems of USS steel, give architects freedom of design for strong, modern, long-lasting buildings.

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Memo to Architects



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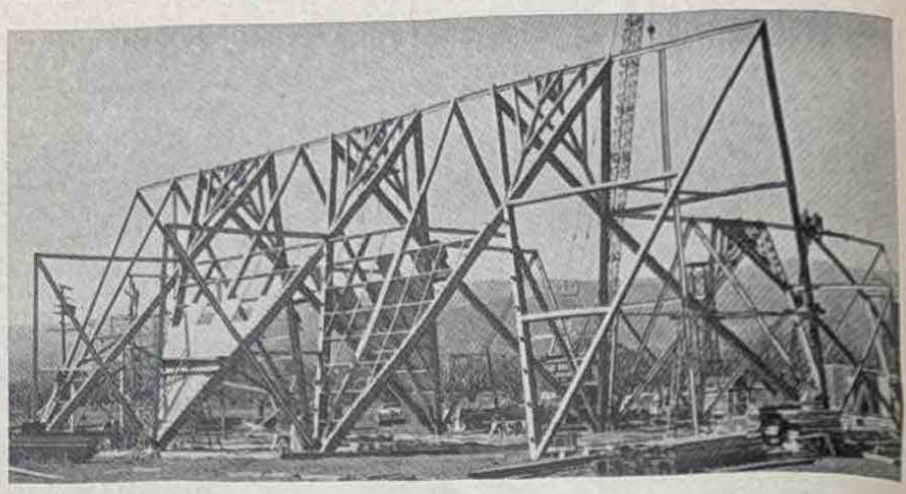

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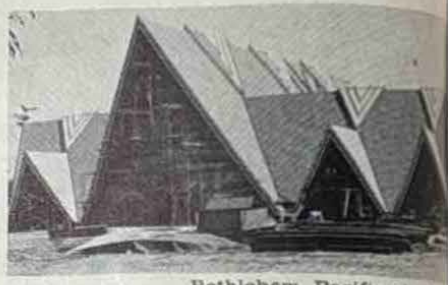
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Bethlehem Pacific photos

**STRUCTURAL STEEL SKELETON** is laid out in series of three different sizes of triangles. Entire frame was shipped in sections, erected and bolted in field in five days. Asbestos shingles in azure blue and gray repeat triangular pattern of walls; skylights are white; stained glass panels—amber, azure blue, green and red—are sand etched to portray biblical symbolism.

# Structural exercise in descriptive geometry

To express the geometric form symbolic of the Holy Trinity, architect Wilfred E. Blessing chose a steel triangular frame for the First Congregational Church in Sunnyvale, Calif. In association with structural engineer H. Neil Warren, he worked out a relationship with the triangles so that they only touch the ground at their points; and where the structural members intersect in opposing triangles, greater strength has been achieved with a minimum of material.

The rather complicated 56-ton framework, fabricated by Pittsburgh-Des Moines Steel Co., was designed so that most of the intricate weld connections were done in the shop and so that it could be shipped in small sections and bolted together at the jobsite with a minimum amount of field welding.

Basic framing details have been laid out in a series of three different sizes of equilateral triangles—52 ft. for the sanctuary; 33⅓ ft. for the chapel, choir and larger windows; 22 ft. for the other windows. Skylights also are equilateral in form, intersecting the frames composing the windows.

The large sanctuary frames, spaced at 33⅓-ft. centers, tie at their base with the diagonals of the frames forming the window bays and chapel and choir wings. Where these diagonals intersect in the plane of the sanctuary triangle, they form rigid shear panels. Since the steel takes all the load, voids in the structure are covered with lighter materials, redwood siding and huge panels of stained glass.

"Getting everything to a common working point was one of the problems," the engineer explains. "Because of the wide flange shapes of the structural members, it was impossible to determine a common center. But we solved this by keeping the outside plane of the steel members within the working triangles of the structure."

In certain cases, particularly where several members met at a common point and in different places, cardboard models were made to determine the working points, dimensions of the footings and shop fabrication details. Working closely with the architect and engineer, the fabricator set about to detail the splices and make up the design so that it could be field spliced with a minimum of effort. Shop fabrication greatly facilitated some segments of the work involving three steel sections all converging at the same point.

Only seven days were required to erect the structure in the field. Even during the course of erecting the steel, contractor Oscar W. Meyer began installing the roof sheathing.

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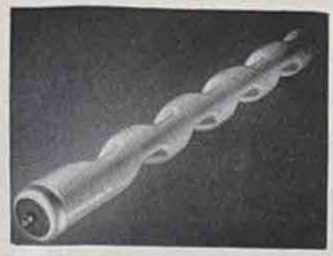
Several choice distributorships are currently available in the Southwest and West. Interested parties are invited to investigate

A product of Puerto Rico Marble Industries

THE **HAVES** CORPORATION 1105 Jericho Turnpike, New Hyde Park, N. Y.

### fluorescent lamp

General Electric has developed what it calls "the world's most powerful fluorescent lamp," whose additional



light produced by one 8-ft. tube is worth $2.60 a year to the user, yet the price remains unchanged. An improved version of the Power-Groove lamp, the new model produces 15% more light but consumes only 7% more power. Design involves grooves along opposite sides of the tube rather than along one side only. Another important advantage: weight of the lamp is reduced by one-quarter, making it easier to handle. It will be available generally by early spring, first in 8-ft., followed by 4- and 6-ft. lengths.—General Electric Co.

(Item No. 1)

### roof insulation

Roofmate, an insulation designed especially for use under built-up roofs, consists of expanded polystyrene boards wrapped in laminated kraft paper. Measuring 2x4 ft., the boards come in thicknesses of 1, 1¼, 1⅝ and 2 in., depending upon the insulating value needed. While priced in accordance with prevailing industry schedules, Roofmate has several advantages. It has one of the lowest heat transmission rates of any commercially available insulation. Because it is waterproof, its insulating efficiency does not deteriorate with age and in most cases additional vapor barrier is not needed. Each 1-in. board weighs roughly 3 lb., yet the insulation has a compressive strength of 3,000 psf.—The Dow Chemical Co.

(Item No. 2)

### outdoor sign letters

Plastic outdoor letters with a high luster surface have seven times the impact strength of plate glass and




will not fade, chip or crack in use. Standard block letters range from 1½ to 36 in. high; large size script letters also are available. They come in white, black and metallic shades and in a variety of colors. Special screw anchors adjust to any irregularity in the building wall.—Plasticles Corp.

(Item No. 3)

### slide rule

Anyone who must perform simple calculations should be able to make good use of this pocket size, circular slide rule. To multiply, divide and find proportions is easy and fast; results are accurate.—General Industrial Co. (Item No. 4)

### leakproof faucet

What is described as "the first truly leakproof faucet," Kel-Win's Leaknot has in some cases reduced water consumption by as much as 36%. It opens easily in the conventional manner; it is closed part way by hand, then the pressure of the water itself on the cam takes over to insure complete, positive closing. Automatic cut-off point is adjustable according to the water pressure. — Kel-Win Manufacturing Co., Inc. (Item No. 5)

### heat gain calculator

A useful tool for architects and engineers who determine air conditioning loads is a heat gain calculator on the slide rule principle. It provides the instantaneous heat gain in Btu's per hour per square foot of window area due to directly transmitted solar and sky radiation plus the energy admitted to the room after absorption in the glass of both sun and sky radiation. One may become proficient in its use after about a half-hour's practice following instructions printed on the calculator.—Libbey-Owens-Ford Glass Co. (Item No. 6)

### roof ventilator

Colt's slant roof and flat roof ventilator, incorporating a large friction-free throat, maneuverable flaps and airfoil sides, permits maximum extraction of air by convection currents by wind induced flow, or a combination of the two forces. The manually controlled flap arrangement affords greater weather flexibility and increases exhaust capacity by 25%. It is a butterfly damper type which in closed position is weathertight and stops cold air infiltration. In the intermediate position it sheds rain, diverts down drafts and lessens the ventilation rate for conserving heat. When fully opened it becomes a slim vertical vane with airfoil curves giving smooth acceleration to the induced air flow.—Colt Ventilation of America, Inc. (Item No.

### acoustical wall panels

Newest addition to the Curon wall covering line are four 9x50-ft. sheets screen panels with insulating a



acoustical properties. When used with the plain tiles introduced by Curtiss-Wright last year, they provide decorative sound control for homes and for commercial installations. The pattern shown here is Rue Blanche, combining shades of gold, turquoise and white on a distinctive parchment background. Besides the panels Curon is available in 24 accent and pastel colors, in 10x10-, 10x20- and 20x20-in. tiles.—Curtiss-Wright Corp.

(Item No.

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MARCH 1959

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• **Drayer-Hanson,** because of the growth of air conditioning in the Pacific Northwest, has changed its distribution structure, with a split up of territory. Newly named to serve the Greater Spokane area is General Equipment Co.; long-time distributor for the firm is Pacific Monitor of Seattle, whose territory previously included all of Washington and Oregon.

• **Huck Manufacturing Co.** has a new western division sales manager, Richard A. Villacres, former West Coast branch manager in charge of the firm's Los Angeles facility in suburban Inglewood.

• **Typhoon Air Conditioning Co.,** division of Hupp Corp., has appointed Sues, Young & Brown of Los Angeles as its distributor in southern California and Nevada.

• **Triangle Steel and Supply Co.** has opened a will call sales store at its Los Angeles plant, 3691 Bandini Blvd.

• **Yakima (Wash.) Steel Fabricators,** has become Steel Building and Fencing Co., with the acquisition of two new lines: Soule' steel buildings and Anchor chain link fencing.

• **Chambers Built-Ins, Inc.,** has appointed six new distributors in the West: D & D Distributing Co., Fresno; Bonnell Refrigeration Co., South Palo Alto, Calif.; Kenco Distributing Co., San Francisco; Custom Kitchens, Oakland; Builders Distributing Co., Yakima, Wash.; and Kitchen Fashions, Billings, Mont.

• **Permanente Cement Co.** has appointed Linc C. Varco to the newly created position of distribution superintendent of its Pacific Northwest division; Ronald Z. Harris and Peter A. Hawkins as line salesmen in northern California; and Richard J. Doerman as technical service representative in southern California.

• **Taft Structurals, Inc.,** is the new name of the firm formerly known as Taft Structural Products, Inc., and now located at 409 Yale N., Seattle.

• **Ekco Products Co.** has elected Robert C. Sabini and Donald S. Burns, California executives of subsidiary firms, as vice presidents of the parent corporation. Sabini heads Worley & Co. of Pico Riveria; Burns heads McClintock Manufacturing Co. and Lighting Dynamics.

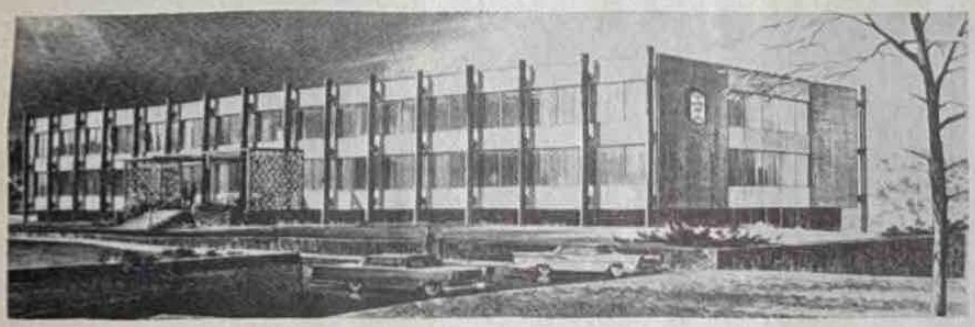
• **Kaiser Steel Corp.** has put the largest blast furnace on the West Coast into operation at its Fontana, Calif., plant, a key facility in the company's $214 million expansion program now nearing completion.

• **California Wood Products, Inc.,** has moved into a new plant in the Rohnert Industrial Park area near Santa Rosa where it has 50,000 sq. ft. of production space for its core, folding and sliding doors.

• **Unit Masonry Association** of Seattle has elected James R. Stone of Graystone, Inc., as president; James R. Nelson, vice president; and Clyde Hamlette, secretary-treasurer.

• **California Redwood Association** honored its retiring director of quality standards since 1955, George W. Nelson of Eureka, at a testimonial banquet in January.

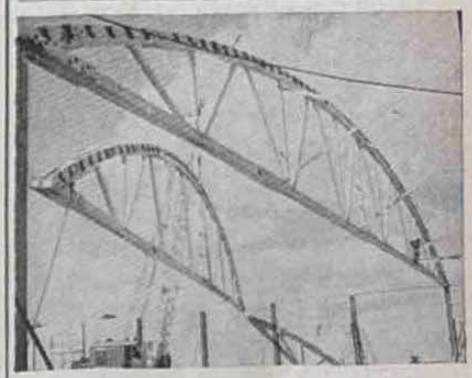
• **Olympic Stained Products Co.** of Seattle has promoted its sales promotion manager, George C. Oistad, to general sales manager.



**OFFICE BUILDING**

for Bethlehem Pacific Coast Steel Corp., to be located on split-level site adjacent to its newly rebuilt Seattle plant, will have, naturally enough, structural steel frame with supporting columns on outside to provide maximum flexibility in partitioning. Entire area, including 120-car parking lot, will be landscaped. Architects: Bindon & Wright.


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### new offices, partnerships

Dale Vernon Bragg has opened an office for the practice of architecture in the Virginia Building, Riverside, Calif. A graduate of the University of Southern California, he has been associated with architectural firms in the Los Angeles and Riverside area.

Robert M. Blunk has opened his own architectural office in Burlingame, Calif. Associated for seven years with Janssen, Daseking & Keller, Menlo Park architects, he is a graduate of Stanford University, earning his architectural degree from Cornell University.

Benjamin Woo and Seth Jackson have engaged in an architectural partnership under the name of Woo & Jackson at 4227 E. Madison, Seattle.

Charles W. Dennis, who has practiced in Pleasant Hill, Calif., for three years, and William E. Cowell, recently of Reno, have formed a partnership for the general practice of architecture under the name of Cowell & Dennis. Offices are in the Pleasant Hill Professional Building, designed by Dennis and completed last summer. Cowell had been associated with the firm of Ferris & Erskine and was serving as president of the Reno Chapter, AIA, before moving to California.

### firm additions, changes

Jack Bevash former director of master planning for Pereira & Luckman, has joined the Los Angeles architectural firm of William L. Pereira & Associates as partner.

The architectural firm of Norman J. Hamill & Associates, which has moved its Butte, Mont., office to 3[illegible] W. Quartz St., has named Lawrence E. Matson an associate. A graduate of Montana State College, he is in charge of the Idaho Falls, Idaho, office.

Peter Munselle, principal architectural designer of several major projects while with Welton Becket & Associates, has joined Charles Luckman Associates, Los Angeles architectural engineering firm.

Jack Russell Rummel, who has been associated with Daniel, Mann Johnson & Mendenhall, Los Angeles architects-engineers, for the past 3[illegible] years, has been appointed project director of the industrial and military division.

Louis O. Britt, vice president of Dudley Deane & Associates, San Francisco consulting engineers, has been promoted to general manager and Donald R. Lundy has joined the firm as chief mechanical engineer.

### new addresses

Donald Dindgren, architect, to 2[illegible] Central Building, Vancouver, Wash.

Norman G. Aehle, architect, to 1826 Broadway, Seattle.

Keefe & Herbert, architects, to [illegible] E. 18th Ave., Eugene.

Wilkins & Ellison, architects, to 507 Terminal Sales Building, Seattle.

Neil Farnham, architect, to [illegible] S.W. Columbia St., Portland.

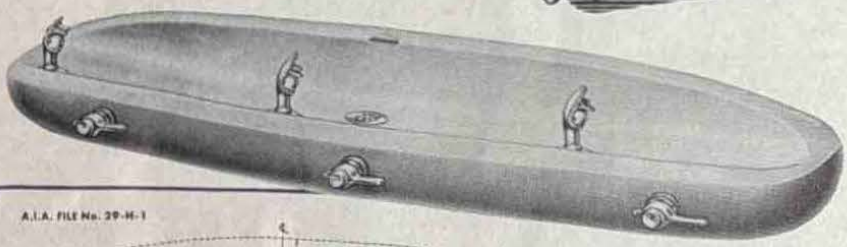
Ernest Forsell, architect, to 157[illegible] 10th Ave. W., Alderwood Manor, Wash.

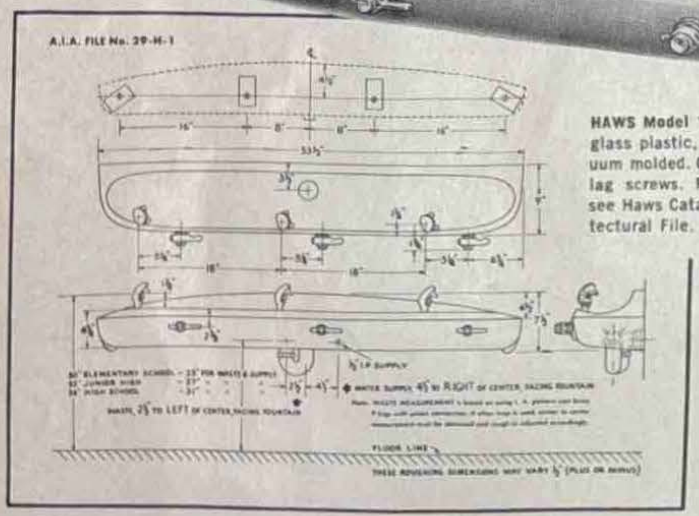
### deaths

Charles V. Rueger, 63, founder of Charles Rueger & Associates, Tacoma


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in choice of **COLORS** HAWS





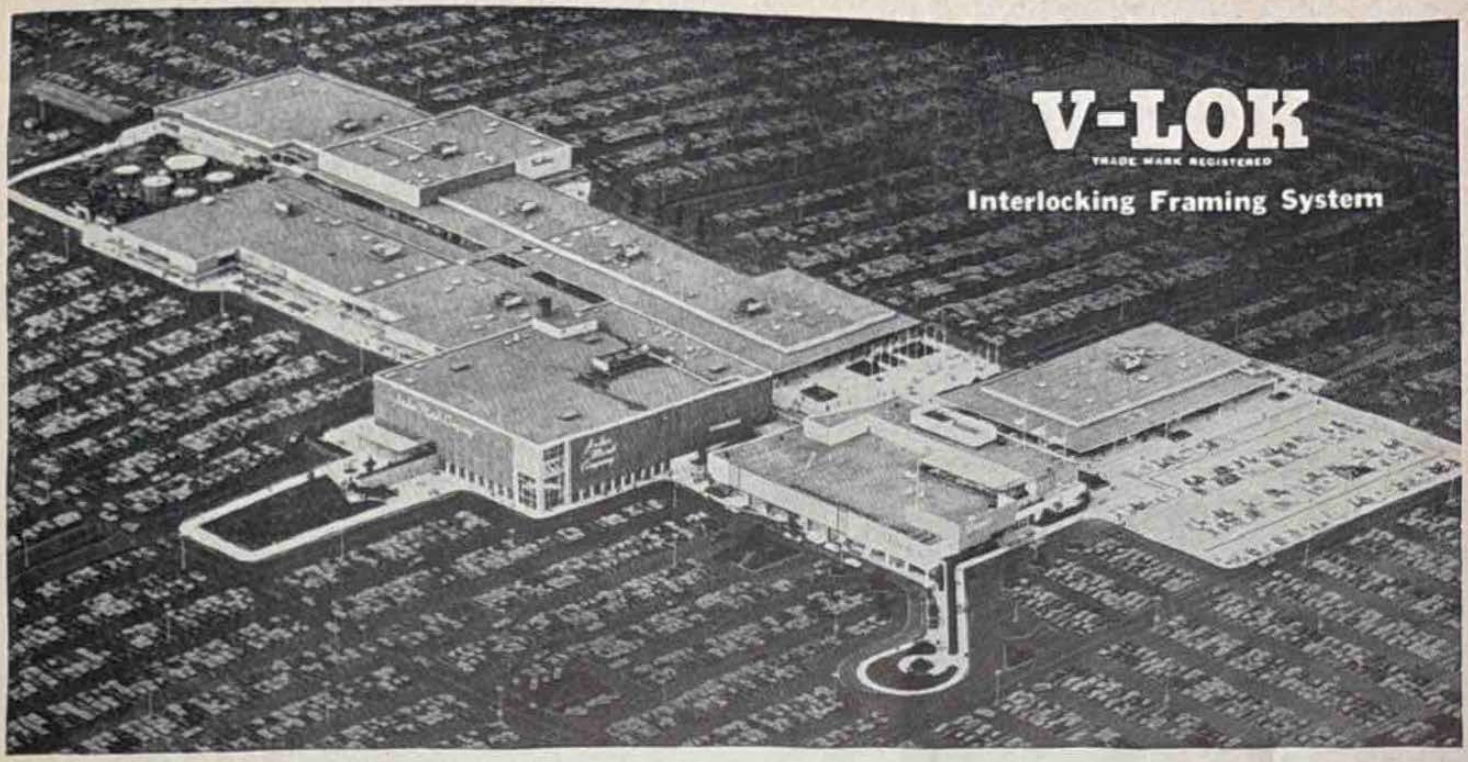

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Allied Stores Corporation's Northshore Shopping Center at Peabody, Mass., with 1,070,000 square feet of area, is presently the largest in the world. Steel work includes approximately 850 tons of Macomber V-LOK interlocking framing and about 150 tons of Macomber structural steel — plus approximately 900,000 suare feet of Macomber roof deck.

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architectural firm, died January 3. Survivors include Charles Rueger J. who was associated with his fathe in the practice.

Arthur James Mahoney, Seattl structural engineer, died Februar 5 at the age of 62.

### resignations

William G. Quinn has resigned ef fective March 25 as public relations counsel and editor of The Bulletin for the Southern California Chapter AIA. A staff member for more than six years, he plans to go into free lance public relations and magazine work.

### appointments

Robert E. Alexander, Los Angeles architect, will serve on the five-man jury for the 1959 R. S. Reynolds Memorial Award.

### speakers

Seattle architect John S. Detlie addressed the annual meeting of the American Association of School Administrators in Atlantic City, N. J. last month, covering the philosophy range and uses of the arts in the de sign of school buildings.

### Elections

California Council, AIA, has named Lee B. Kline (Pasadena) as its new president. Rounding out the slate are Wayne S. Hertzka (Northern California), vice president; Thornton M. Abell (Southern California), secretary; Allen Y. Lew (San Joaquin) treasurer; and William L. Higgins (Coast Valleys), member-at-large of the administrative committee.

California State Board of Architectural Examiners has elected Wendall Spackman of San Francisco a president and Paul O. Davis of Corona del Mar as secretary.

### CORRECTIONS

The Honolulu engineering-architectural firm of Park & Yee, Ltd., was incorrectly identified in PA&B for January.

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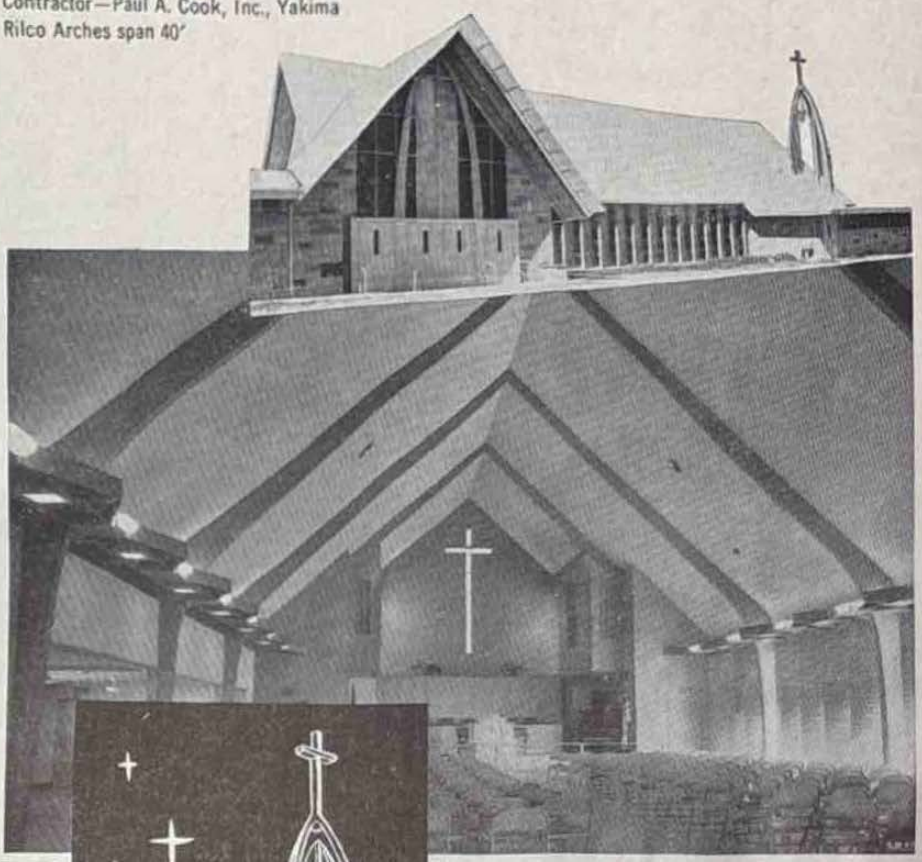
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Rilco Arches span 40'



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architectural firm, died January 31. Survivors include Charles Rueger Jr. who was associated with his father in the practice.

Arthur James Mahoney, Seattle structural engineer, died February 5 at the age of 62.

### resignations

William G. Quinn has resigned effective March 25 as public relations counsel and editor of The Bulletin for the Southern California Chapter, AIA. A staff member for more than six years, he plans to go into free lance public relations and magazine work.

### appointments

Robert E. Alexander, Los Angeles architect, will serve on the five-man jury for the 1959 R. S. Reynolds Memorial Award.

### speakers

Seattle architect John S. Detlie addressed the annual meeting of the American Association of School Administrators in Atlantic City, N. J., last month, covering the philosophy, range and uses of the arts in the design of school buildings.

### Elections

California Council, AIA, has named Lee B. Kline (Pasadena) as its new president. Rounding out the slate are Wayne S. Hertzka (Northern California), vice president; Thornton M. Abell (Southern California), secretary; Allen Y. Lew (San Joaquin), treasurer; and William L. Higgins (Coast Valleys), member-at-large of the administrative committee.

California State Board of Architectural Examiners has elected Wendall Spackman of San Francisco as president and Paul O. Davis of Corona del Mar as secretary.

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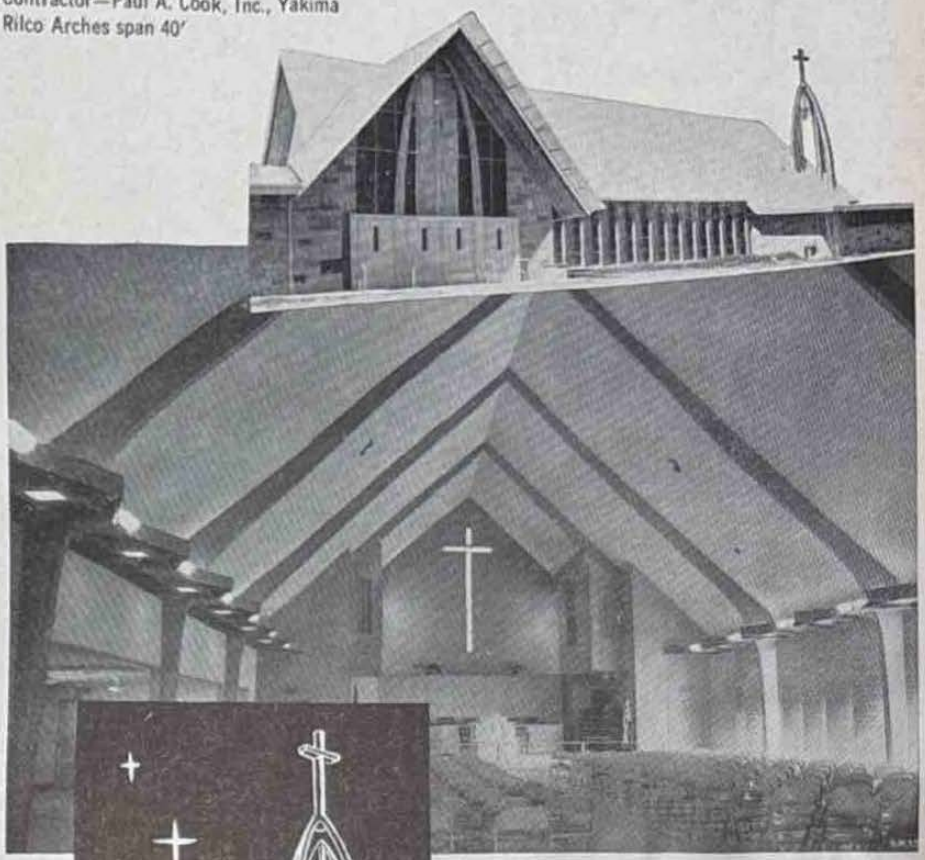
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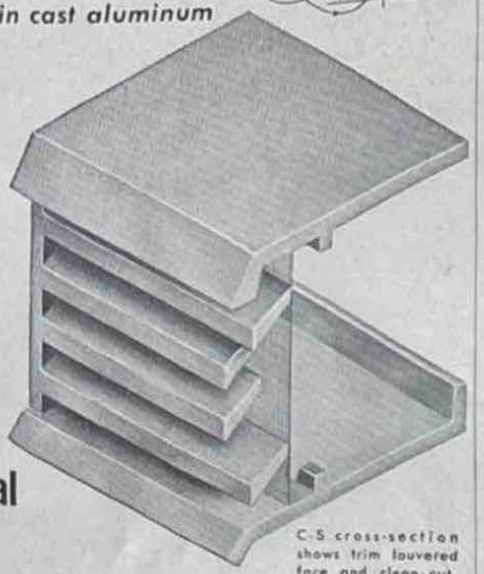
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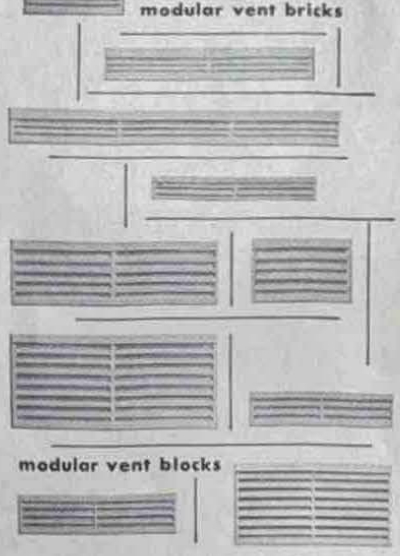
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tee's, then it will be recognized that any discussion of in a congregational meeting can be little more tha an opportunity for the voluble to air their prejudices. we are committed to the communication of the Gosp to the communities in which we witness, we have n choice but to see to it that our buildings are designed speak to average men and women who know little mor (many less) about the Christian event than they kno about nuclear physics. Together we must seek and fin those psychological factors by which we may speak terms that are vibrant with the brisk shapes and ne symbols of this hour.

"Our buildings will not speak to the community unle we know whereof we speak. Let's face it. There will b better architecture for the church, an architecture abl adequately to carry the burden of the church's task a a tool and a symbol, when there are better Christian

**'Our buildings stammer'**

"We will not have succeeded in building for the Chri tian community if, when the building is erected, our u of it is uncertain or inarticulate. The liturgical acts the sanctuary, the church school and fellowship activitie all must be performed in accordance with a positive co viction in and expression of the Christian event. The co gregation's behavior must not mask what we believe an what we say happens in church. We blunder too ofte in this respect. The result: our buildings stammer.

"I am reasonably certain that for seasoned Christians may not be at all necessary to make so much of churc architecture, may not even be necessary to have a specia building facility. If the church had no responsibility either the immature Christian or the non-Christian, prob ably any kind of building would satisfy our private need for our closed community. But the church building not a private expression only, something whispered with the family circle; it is a public matter. The building an what we do in it and with it confronts the whole com munity. Member and non-member alike must be le by what he sees in church where building and peopl are one to glorify God and to feel there that he is at th gate of heaven.

"In addressing the cultural community architecturally the temptation to win quick but shallow response wit jazzy decorative details and odd shapes must be resisted Architectural expression is so much a community matte that for the church it must enclose its eloquent space with a dignity consonant with what the church is an what it has to say."

**Conover Award**

Dr. William Leach of Cleveland was given the Conove Award presented annually to a non-architect who con tributes most the past year to church architecture. A former Presbyterian minister, the 1959 recipient has fo the past 15 years edited Church Management magazin and authorized several books on church building an related topics.

The presentation was made at the annual banque presided over by the guild's new president, H. Walte Damon of Youngstown, Ohio. Other national officers ar Anthony Ferrara, Washington, D. C., first vice president Milton L. Grigg, Charlottesville, Va., second vice pre ident; Walter J. Wefel Jr., Shaker Heights, Ohio, secre tary; and Albert C. Woodruff, Greensboro, N. C., recordin secretary.

Among the citations for native ecclesiastical crafts, a Honor Award went to Helen M. Hyland of Los Angeles fo three pieces of glass, one a crucifix in inch-thick chippe multicolored glass dalles set in cement. This marked th first time that such an exhibition was held in connectio with the annual joint conference.

# Construction News Bulletin

*(A weekly summary of Pacific Construction Daily)*

Vol. 65—No. 6 (PA&B) News Section of Pacific Architect and Builder March 21, 1959

Dorothy McCormick.....News Editor Rita Boshell.....Editorial Assistant
Anne Matthey, Viola Kurzeja.....News Staff
Win Romtvedt.....Portland Correspondent

Newsroom • 2418 Third Avenue, Seattle 1, Washington • Phone MAin 2-0285

## BUILDING NEWS

**Oregon, Washington, Idaho, Montana, Alaska**

- ● Bids Called
- ★ Contract Awards
- ▲ Low Bids—Bids Received
- ■ Planholders—Prospective Bidders

## OREGON

**▲ARMORY— Albany, Ore.**

Five bids received March 12, by Oregon National Guard, N. Fairgrounds Road, Salem, for remodeling the interior of the National Guard Armory at Albany. LOW BIDS: Raymond W. Lillie, 130 Green Acres Lane, Albany, $19,127; Johnston & Meloy, 260 Luther St., Salem, $21,170; R. L. Forster, 2180 Wallace Road N.W., Salem, $22,395. VK 3-18. Previous report 2-28

**SCHOOL ADDITION (Reedville)— Aloha, Ore.**

Bid call will be issued in late March by School District No. 29, Washington County, Joseph Wenzel, principal, 2695 S.W. 209th Ave., Aloha, for construction of wood frame addition to the Reedville Grade School at above address. Plans are underway by H. A. Mohr & Associates, engineers, room 6, Peterson Bldg., Hillsboro. A bond issue for $78,000 was approved in February to finance the work.

Addition will include two-level addition with four classrooms and stage addition to existing gym with dressing rooms and showers (concrete construction) underneath. WB 3-17

**STUDENT CENTER COMPLETION— Ashland, Ore.**

(Estimated cost $70,000)

Preliminary plans by Robert J. Keeney, architect, 210 Fluhrer Bldg., Medford, have been tentatively approved by Oregon State Board of Higher Education, Dr. John Richards, chancellor, Johnson Hall, Eugene, for completion of Britt Student Center at Southern Oregon College, Ashland. Funds have been requested from the Oregon Legislature now in session.

Recreation space on the top floor and four new rooms in the basement are planned. WB 3-13

**DORMITORY REMODELING—Ashland, Ore.**

(Estimated cost $50,000)

Preliminary plans by James L. Payne, architect, 725 S. Commercial St., Salem, have been tentatively approved by Oregon State Board of Higher Education, Dr. John Richards, chancellor, Johnson Hall, Eugene, for alterations to Susanne Homes Hall, dormitory for women, at Southern Oregon College of Education, Ashland. Funds have been requested from the Oregon Legislature now in session. WB 3-13

**●REMODEL RESIDENCE— Baker, Ore.**

Bids will be opened 2 p.m., P.S.T., April 9, by U.S. Forest Service, Administrative Services Section, 729 N.E. Oregon St., Portland, (Box 4137), for remodeling of residence at the Unity Ranger Station, approximately 50 mi. southwest of Baker on the Wallowa-Whitman National Forest; Bid No. R6-59-215. Plans with Portland office, or with Forest Supervisor, Post Office Bldg., Baker.

Work includes remodeling of kitchen, pouring new basement floor slab and replacing furnace. Show-me trip will be held at 10 a.m., March 27. WB 3-18

**★SCHOOL ADDITION— Cornelius, Ore.**

Award to Larry O. Collins, 7017 Highway 99-N, Vancouver, $9,694, by School District No. 2, Washington County, Emelia L. Jaenicke, clerk, Principal's Office, Cornelius, for construction of an 80'x40' covered play area, an addition to the Cornelius Grade School. Six bids received March 9. Plans by Hayslip, Tuft, Hewlett & Jamison, architects, 2040 S.W. 3rd Ave., Portland. Six bids received March 9. OTHER LOW BIDS: Nelson & Raule, 980 S.W. Delmont St., Portland, $10,490; A. C. Bardi, General Contractor, 8105 S.E. Duke St., Portland, $10,854. WB 3-12. Previous report 3-5

**MECHANICAL ENGINEERING BUILDING— Corvallis, Ore.**

(Estimated cost $1,242,000)

Preliminary plans by Wilmsen & Endicott, architects, 863 13th E., Eugene, have been tentatively approved by Oregon State Board of Higher Education, Dr. John Richards, chancellor, Johnson Hall, Eugene, for a mechanical engineering building at Oregon State College, Corvallis. Funds have been requested from the Oregon Legislature now in session. WB 3-13. Previous report 5-7

**JUNIOR HIGH SCHOOL— Corvallis, Ore.**

A bond issue in amount of $1,585,000 was approved in an election March 3, for construction of a second junior high school and an eight-room addition to a grade school in Corvallis. VC 3-13

**AUTO BUILDING— Gladstone, Ore.**

Plans are nearly complete by Williams & Martin, architects, 1919 S.W. 12th Ave., Portland, for a 70'x80' automobile shop with 60'x60' showroom and office section for George W. Dunmire, Inc., at existing location at 1155 McLoughlin Blvd., Gladstone.

Facilities will include general offices, three closing offices, parts department, lounge, lunchroom and toilet facilities. Concrete block construction; glued-laminated beams and posts in showroom; built-up roof; dry wall interior and asphalt tile flooring in showroom and office section. WB 3-17

**▲MOTEL— Grants Pass, Ore.**

Bids were rejected on construction of a 20-unit addition to the Riverside Motel on U.S. 99 at Rogue River Bridge, south of Grants Pass. Architect is Siebert & Sites, U.S. National Bank Bldg., Medford. DC 3-18

**GRADE SCHOOL (District No. 4)— Gresham, Ore.**

Bond election for $648,500 will be held April 3 by Gresham Grade School District No. 4, Multnomah County, Albert Palmblad, chairman of board, East Gresham School, Spruce and Metzger Rd., Gresham, to finance construction of a 20-classroom school on site bounded by Stanley and Fairview avenues and Stark and Burnside streets. WB 3-17

**FEED MILL— Hermiston, Ore.**

(Estimated cost $800,000 to $1,000,000)

Construction of a feed mill on a site near Hermiston is contemplated by Pendleton Grain Growers. Present plans call for a poured concrete, multi-storied mill, 181' high. DC 3-12

**▲FLIGHT SIMULATOR— Kingsley Field, Klamath Falls, Ore.**

Six bids received by base procurement officer, Bldg. 232, Kingsley Field, Klamath Falls, for modification of flight simulator. LOW BIDS: A. E. Fitzgerald, 329 Rogers St., Klamath Falls, $19,745; Eldon Alt, Midland Road, Klamath Falls, $21,210; Pinniger & Watkins Construction Co., 1430 Klamath Falls, $21,225. ZZ 3-13. Previous report 2-13

**PARKING FACILITIES— Klamath Falls, Ore.**

(Estimated cost $240,000)

Contract will be negotiated by James F. Stilwell & Co., 517 Main St., Klamath Falls, managers for Theater Management, Inc., of San Francisco, for conversion of the existing 80'x180', brick, Pelican Theater to a five-level, off-street covered parking structure. Stripping is estimated to cost $240,000. ZZ 3-12

**COURTHOUSE REMODELING— Klamath Falls, Ore.**

Morrison and Howard, architects, 203-05 Williams Building, Klamath Falls, have been named by the Klamath County Court to draw plans for remodeling the Klamath County Courthouse, Klamath Falls. Work will include remodeling of third floor to provide offices for a second circuit judge, moving the present library to another location, changing partitions to provide conference room, judge's chambers and courtroom. Plans are to be completed in 45 days. ZZ 3-12

**TERMINAL (Kingsley Field)— Klamath Falls, Ore.**

Federal Aviation Agency has authorized $50,000 for Kingsley Field, Klamath Falls, under Federal Airport Program for construction of a terminal building at the field. ZZ 3-13

**SCHOOL— LaGrande, Ore.**

An election on $412,000 bonds to finance construction of a new Greenwood grade school, razing of the present building, repair and reconstruction of the existing gymnasium and remodeling of the Riveria School, will be held April 2 for School District No. 1, La Grande. DC 3-18

**SWIMMING POOL— Medford, Ore.**

(Estimated cost $200,000 to $250,000)

City park and recreation commission is considering construction of an indoor-outdoor swimming pool on W. Jackson St., Medford. The pool would be under cover during winter, and would have one side or more open during the summer. DC 3-18

**PLANT (Pump, Pipe and Power)— Milwaukie, Ore.**

Scott & Payne, architects, 511 Builders Exchange Bldg., Portland, have been retained by Pump, Pipe & Power Co., and Cornell Manufacturing Co., 265 N. Hancock St., Portland, to design a new plant on three-acre site in Kellogg Industrial Park at Milwaukie. The plant will include 23,000 sq. ft. shop and warehouse of reinforced concrete construction and 3,500 sq. ft. office building; asphalt paved parking; fencing. WB 3-17

**●HIGH SCHOOL ADDITION— Moro, Ore.**

Bids will be opened 8 p.m., April 7, by Sherman County High School District, Marjorie K. Marvin, clerk, at the high school, Moro, for construction of reinforced concrete addition to the school. Plans with Annand, Boone & Lei, architects, 1530 S.W. Taylor St., Portland. $25 deposit. Certified check, cashier's check or bid bond 5%.

Addition of three general classrooms, biology room, teachers' room, conference room, and plant laboratory and dark room (the latter two under deductive alternate). Concrete slab floor; reinforced concrete walls; wood joist roof with sheathing, insulation and built-up roof; steel sash; plaster walls; acoustical tile ceilings; plastic facing in toilets; asphalt tile flooring; split system of heating with radiation and forced air; incandescent lighting; steel lockers. WB 3-13

**★CHURCH (Methodist)— Oswego, Ore.**

Award to Allen C. Lawson, 2520 S.W. Hamilton Court, Portland, $71,240 (reduction from basic bid) by Oswego Methodist Church, 156 Grenwood Road, Oswego, for construction of a 40'x90', one-story, and daylight basement, concrete and frame church building on South Shore Blvd., Oswego. Plans by Frank C. Allen, architect, 219 S.W. Stark St., Portland. The location of the church on the site has been changed to reduce rock excavation. WB 3-12. Previous report 2-7

**★ARMORY— Oswego, Ore.**

Award to E. Carl Schiewe, 1024 N.E. Davis, Portland, Ore., $175,801, by State Military Department, Col. Paul L. Kliever, contracting officer, 2150 Fairgrounds Road, Salem, for construction of a one-unit armory, South Shore Drive and Hazel St., Oswego. Plans by Max P. Williams and Robert B. Martin, architects, 1919 S.W. 12th, Portland. VK 3-18. Previous report 1-27

**★FIRE STATION— Pendleton, Ore.**

Award to McCormack Construction Co., S.E. 3rd and Goodwin, Pendleton, $86,827, by City Council, City Hall, Pendleton, for construction of a fire station at S.W. 10th and Court streets, Pendleton. Completion time 120 calendar days. Plans by Weslay Korman, Raley Bldg., Pendleton.

OTHER LOW BIDS: The Timber Co., Hermiston, $93,376; Jensen, Rasmussen & Co., Sunnyside, Wash., $93,850. VK 3-14. Previous report 3-10

**★AIR CONDITIONERS— Portland, Ore.**

Award to J. H. Wilson, 441 S.E. 35th Ave., Portland, $2,274, by Port of Portland, 5848 N. Lagoon Ave., Portland, for two 5-hp 440-volt, 3-phase air conditioners, fob Portland. WB 3-12. Previous report 2-19

**★EXHIBIT ROOM— Portland, Ore.**

Award to only bidder, Coast Constructors, Inc., 2109 S.W. 3rd Ave., Portland, $70,814, by Oregon Centennial Commission, Anthony Brandenthaler, chairman, Jackson Tower, Portland, for fabrication and erection of the Natural Resources Exhibit, Wilcox Hall, Oregon Centennial Bldg., Portland, Ore. Plans by Stewart & Richardson, architects, 219 S.W. Stark St., Portland. Bids opened March 6. WB 3-12. Previous report 3-4

**★CLUB ALTERATIONS— Portland, Ore.**

Award to Charles Camplan, 2035 S.W. 58th Ave., Portland, $25,057, by Portland Golf Club, 5900 S.W. Scholls Ferry Rd., Portland, for alterations to the dining room and lobby of the club. Plans by James C. Gardiner, architect, 3158 S.W. 87th Ave., Portland. Six bids received March 11. OTHER LOW BIDS: Gene Settergren, 1625 S.E. Woodward St., Portland, $25,388; Lorentz Bruun, 3636 S.E. 20th Ave., Portland, $25,500. WB 3-14. Previous report 3-5

**●CLASSROOM EQUIPMENT— Portland, Ore.**

Bids close 2:30 p.m., March 26, and will be opened 3:30 p.m. by Portland School District No. 1, 620 N.E. Halsey St., Portland, for classroom equipment for new situations, new construction and storeroom stock. WB 3-13

**●BUILDING MATERIALS—Portland, Ore.**

Bids close 2:30 p.m., March 26, and will be opened 3:30 p.m., by Portland School District No. 1, L. J. Baker, business manager, 620 N.E. Halsey St., Portland, for cork board, masonite, lumber, plywood, laminated plastic and adhesive for storeroom stock. WB 3-13

**▲APARTMENT ADDITION—Portland, Ore.**

Bids received and held under advisement by Norman A. Stoll, owner, 1825 N.E. 39th Ave., Portland, for construction of an addition to an apartment building at above address. Plans by Paul H. Wallwork, architect, 202 Hughes Bldg., Portland. WB 3-14. Previous report 3-6

**▲PRIMARY SCHOOL (Kensington)— Portland, Ore.**

Twelve bids received March 12 by Portland School District No. 1, 620 N.E. Halsey St., Portland, for construction of the eight-classroom, steel frame Kensington Primary School, S.E. 74th Ave. and Pacific St. Plans by W. H. Gilmore, architect, and Donald Parks, associate architect, Governor Bldg., Portland. LOW BIDS: Blanchard Construction Co., 2546 S.W. Vista Ave., $233,800; Norman Builders, 2805 S.W. 3rd Ave., $235,230; Weston Construction Co., 7415 N.E. Glisan St., $237,000. All of Portland. WB 3-14. Previous report 3-5

**▲PRIMARY SCHOOL (Humboldt)— Portland, Ore.**

Thirteen bids received March 12 by Portland School District No. 1, L. J. Baker, business manager, 620 N.E. Halsey St., Portland, for construction of the nine-classroom Humboldt Elementary School at N. Gantenbein and N. Humboldt streets. Plans by Williams & Martin, architects, 1919 S.W. 12th Ave., Portland. LOW BIDS: D. Diamond Corp., 2839 S.W. 2nd Ave., $282,300; Howard Brewton, 3636 S.E. 20th Ave., $291,881; Fred W. Carter Co., 6034 N.E. 60th Ave., $292,500. Of Portland. WB 3-14. Previous report 3-5

**SCHOOL ADDITION (Sunset Valley)— Portland, Ore.**

Bond election for $75,000 will be held March 23 by School District No. 6, Washington County, Phil Newitt, principal, 575 N.W. Murray Road, Portland, for addition of a gymnasium-auditorium, and conversion of old gym into cafeteria, to the Sunset Valley School at above address. WB 3-14

**CHURCH (Grace Lutheran)—Portland, Ore.**

Preliminary plans have been completed by Scott & Payne, architects, 511 Builders Exchange Bldg., Portland, for a new church at N.E. 73rd and Fremont St., Portland, to replace existing Grace Lutheran Church at N.E. 21st Ave. and Broadway. Existing building will be sold. Wood frame church will have nave seating 200, and Sunday school facilities. WB 3-17

**★SCHOOL EQUIPMENT— Portland, Ore.**

Awards to J. K. Gill Co., 408 S.W. 5th Ave., Portland, $9,241, for project storage lockers and cabinets for Benson High School, and to Columbia Wire & Iron Works, 814 S.E. Market St., Portland, $2,775, for steel fire escapes at Woodstock School, by Portland School District No. 1, 620 N.E. Halsey St., Portland. Bids opened February 26. WB 3-17. Previous report 2-12

**●WAREHOUSE, CRANE— Portland, Ore.**

Bids will be opened 2 p.m., March 31, by L. W. Rayner, city purchasing agent, 208 City Hall, Portland, for construction of steel arch type metal 160'x50' rigid frame, steel arch type metal building with 6,000 lb. traveling bridge type crane at 1900 N. Interstate St. for Bureau of Water. Specifications with above office. Certified check or bid bond 10%.

Building will have gable roof with non-corrosive aluminum panels; galvanized sheet steel walls; two double overhead metal doors, 12'x13'; plastic skylights. It will be placed on existing blacktop. Crane will have 14' minimum height. Lighting to be installed by city. WB 3-17

**CHURCH (Buddhist)— Portland, Ore.**

A bid call is expected soon for construction of a new church for the Nichiren Buddhist congregation, 2025 S.E. Yamhill St., Portland, to replace a former church which was razed to make way for the Exposition-Recreation Center. Plans by Don Byers, architect, 1620 S.E. Ankeny St., Portland, will be available for a selected list of bidders. Bids will be received by the church.

The one-story, 84'x43' building will have shake exterior, glue-laminated tangent arches and tile roof; cathedral glass windows with aluminum sash; interior will be painted sheet rock; two gas-fired furnaces. There will be a fellowship hall in the basement, with the main auditorium on the upper level. VP 3-11

**STUDENT CENTER— Portland, Ore.**
(Estimated cost $385,000)

Working drawings by Burns, Bear, McNeil & Schneider, architects, 2940 S.E. Belmont St., Portland, have been approved by Oregon State Board of Higher Education, Earl M. Pallett, secretary, Eugene, for a two-story, 100'x116', reinforced concrete Student Activities Bldg., for the University of Oregon Medical and Dental schools at Marquam Hill in southwest Portland. Bid call is expected in April. (For description see PCD 11-4.) WB 3-11

**★BRANCH BANK— Portland, Ore.**

Construction has started by Dan Davis & Co., owner-builder, 1975 S.W. 5th Ave., Portland, on a 4,200 sq. ft. Industrial Center Branch Bank at 3165 N.W. Yeon Ave. for lease to U.S. National Bank of Portland. E. C. Sammons, president, 321 S.W. 6th Ave., Portland. Plans by Harry L. Percy, Jr., architect, and Sidney P. Lathrop, engineer, 1975 S.W. 5th Ave., Portland.

Building will feature exposed laminated beams, Nomad stone and Norman brick veneer exterior, and plate glass. WB 3-11

**MOTEL (Harsh)— Portland, Ore.**
(Estimated cost $2,500,000)

A proposal to purchase four acres of land in the South Auditorium Urban Renewal Project for the construction of a luxury type, 250-unit motel has been made to the Portland Development Commission, John I. Kenward, executive director, 2130 S.W. 5th Ave., Portland. The offer was made by Harsh Investment Co., Harold Schnitzer, president, 1428 S.W. 12th Ave., Portland. The motel would include space for conventions, an outdoor swimming pool and parking facilities. Plans would be drawn by Dougan & Heims, architects, Royal Bldg., Portland.

Final appraisals are being made of property in the 83½-acre area, bounded by Market St., Fourth Ave., Harbor Drive and Arthur St. Demolition of buildings will start this summer. WB 3-11

**●FOOD CONCESSION (Zoo)— Portland, Ore.**

Bids will be opened 2 p.m., April 1, by City Purchasing Agent, 208 City Hall, Portland, for construction of concession facilities in the Primate Bldg. at the Portland Zoological Gardens in Hoyt Park. Specifications with purchasing agent. Certified check or bid bond 10%.

Work includes installation of counter, booth areas, sinks, and other facilities for preparation and sale of food. WB 3-11

**●■PLANT ADDITION (Massey-Ferguson)— Portland, Ore.**

Bids will be opened 4 p.m., March 24, in office of Jensen & Gilham, architects, 19

N.W. Kearney St., Portland, for construction of 6,500 sq. ft. office and warehouse addition to Massey-Ferguson, Ltd., N.E. Killingsworth St. at 83rd Ave. Select list of bidders. Planholders: E. E. Settergren, 3723 S.E. 21st Ave.; Teeples & Thatcher, 8850 S.E. Otty Rd.; Supreme Builders, 4232 N. Williams Ave.; Norman Builders, 2805 S.W. 3rd Ave.; Beebe Construction Co., 2134 N. Flint Ave. All of Portland.

Warehouse section (about two-thirds of area) will have tilt-up concrete walls; wood roof. Office section will be of frame construction with brick veneer; curtain wall front; flat, built-up roof; asphalt tile flooring; plaster and wood paneling wall finishes; acoustical ceilings; gas-fired furnace; air conditioning; fluorescent lighting. Contract also includes blacktopped parking and storage area; cyclone fencing; 5,000 sq. ft. covered storage area. WB 3-18

**●LOOKOUT HOUSES (Prefab)— Portland, Ore.**

Bids will be opened 11 a.m., P.S.T., April 6, by U.S. Forest Service, H. E. Olson, administrative services section, room 207, 729 N.E. Oregon St., Portland, (Box 4137), for furnishing 11 prefabricated lookout houses, 15'4"x15'4", complete with limited amount of furniture, fob bidder's plant; Bid No. R6-59-214. Specifications with above office. WB 3-18

**▲SCHOOL (Cloverdale)— Salem, Ore.**

Five bids ranging from a low of $29,740 by Herbert Dahlke, Salem, to a high of $34,206 were submitted to Marion County School District No. 114C for construction of a two-classroom addition to Cloverdale elementary school located about three mi. southeast of Salem. Plans by William I. Williams, architect, 1390 Capitol N.E., Salem. DC 3-12

**SCHOOL ADDITION— Salem, Ore.**

Plans will be completed in April by John Grimmer Groom, architect, 2794 12th S.E., Salem, for construction of addition to Cummings Elementary School, 555 Cummings Lane N., Salem, for School District CJ 24, 1309 Ferry St., Salem.

Continuous footings and foundation; approximately 7,800 sq. ft. of which 35% will be unfinished; block walls; concrete slab floors; steel deckline; concrete tilt-up partitions; aluminum windows; rigid deck insulation; recessed strip lighting; waterproof paint on exterior; masonry interior finish; drop panels in T-steel type decking; wooden doors; wooden cabinets; plastic panels. VK 3-14

**WAREHOUSE— Salem, Ore.**

(Estimated cost $10,000)

Plans have been announced for a new warehouse at 2670 Commercial St. N.E., Salem, to house equipment for Mills Construction Co. DC 3-18

**CHURCH (Methodist)— Salem, Ore.**

Fund campaign will be launched soon by Morningside Methodist Church for the proposed Morningside Sanctuary to be built along 12th St. in front of the present educational unit. DC 3-18

**● CLINIC— Salem, Ore.**

Bids will be received until March 26 by Dr. Robert E. Lindsey, 523 Liberty S.E., Salem, for construction of a medical-dental clinic on Liberty Road and Gregory Lane in South Salem. Architect is J. Warren Carkin, Masonic Bldg., Salem. DC 3-18

**HOSPITAL— Sandy, Ore.**

Preliminary plans have been completed by Scott & Payne, architects, 511 Builders Exchange Bldg., Portland, for completion and enlargement of the Sandy View Nursing Home, which was started eight years ago as the Sandy Hospital. Community health facilities will be included.

The shell of the building has four walls, roof and partitions and brick veneer on two facades. This will be remodeled to match new construction of steel and concrete with aluminum window walls and brick veneer. In all there will be 65 beds, a surgery and obstetrics department in this first unit. WB 3-17

**■ GRADE SCHOOL ADDITION— Stanfield, Ore.**

Planholders announced for construction of concrete and steel, four-classroom addition to the Stanfield Grade School. Bids will be opened 8 p.m., March 27, by School District No. 61, Umatilla County, Mrs. Neva Clark, clerk, Superintendent's Office, High School, Stanfield. Plans with Annand, Boone & Lei, architects, 1530 S.W. Taylor St., Portland. $25 deposit.

Planholders: McCormack Construction Co., S.E. 3rd and Goodwin, Pendleton; The Timber Co., 2105 N.E. 1st St., Hermiston; Sam Godwin, 635 Park Ave., Hermiston Gilbert Roberts, Route 4, Box 419, Hood River; Clark & Wells, Box 74, Hermiston; Bechtel Bros., Box 792, La Grande. WB 3-18. Previous report 3-10

**CHURCH— Sutherlin, Ore.**

Materials from a razed building in Roseburg are being hauled to Sutherlin for use in construction of a new building for Church of Jesus Christ of Latterday Saints in Sutherlin. DC 3-12

**★FUME HOOD UNITS— Troutdale, Ore.**

Award to Fisher Scientific Co., Chicago, $3,390, by Corps of Engineers, Portland District, 628 Pittock Block, Portland, for two cupboard base air-flow fume hood units, fob Troutdale; CIVENG-35-026-59-130. Four bids received February 13. WB 3-14. Previous report 2-10

## WASHINGTON

**NURSING HOME— Aberdeen, Wash.**

(Estimated cost $352,000)

Tentative plans have been approved by the U. S. Department of Health, Education and Welfare for a $352,000 nursing-home addition at St. Joseph Hospital, 1006 N. H St., Aberdeen. Federal funds in the amount of $140,000 will be needed to help finance the project. AC 3-12


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**●FERRY TERMINAL— Anacortes, Wash.**

Bids will be received until 12 noon, April 2, by Port of Anacortes, Commercial Dock, Anacortes, for construction of a ferry terminal at Ship's Harbor, three miles west of the existing state ferry system terminal. Plans and specifications with Cecil C. Arnold, consulting engineer, 511 Arctic Bldg., Seattle, and with the above Anacortes office. $25 deposit. Certified check, cashier's check, or bid bond 5%.

Quantities: 6,000 c.y. of unclassified excavation; 2,100' of steel sheet piles; 33,000' of creosote treated timber piling; 4,100' of untreated piling; 700' of steel foundation piles; 120 MBM of creosote treated timber and lumber; 12 MBM of salts treated timber and lumber; 24 MBM of untreated timber and lumber; 33,000 lbs. of steel reinforcing bars; 253 c.y. of Class A concrete; 10 c.y. of light weight concrete; 16 c.y. of heavy weight concrete; 164,000 lbs. of structural carbon steel; 1,815 sq. ft. of steel roadway decking; 140 sq. ft. of steel curbway grating; 100' of precast concrete reflecting curb; 1,200 tons of heavy loose riprap; machinery, electrical equipment; 620 c.y. of special dredging; 131 tons of bituminous plant mix; bridge drains, floating dolphins, water service line and other items. AM 3-14

**HOUSING REMOVAL— Anacortes, Wash.**

City Council, City Hall, Anacortes, has approved removal of 69 housing units, located in the north half of the Anacortes housing project. The units were used to house Bechtel construction crews during work on the Texaco and Shell refineries, but have since been abandoned. ET 3-18

**SCHOOL (Whitney)— Anacortes, Wash.**

A $300,000 school bond issue to finance the rebuilding of the Whitney Grade School and acquisition of land failed to pass. The election was held by Anacortes School District No. 103, Anacortes.

DC 3-18. Previous report 2-27

**▲FIRE STATION ADDITION— Bellevue, Wash.**

Five bids received March 6 for construction of an 18'x45', one-story addition to existing Fire Station No. 1, 14 102nd N.E., Bellevue. Plans by Lindahl & Bacon, architects, 20 102nd N.E., Bellevue. Addition will be used for truck storage and repair shop. LOW BIDS: Merle P. Songstad Co., J. S. Ditty Bldg., Bellevue, $7,718; Roxbury Construction Co., 616 Mercer, Seattle, $7,910. HI BID: Noel Construction Co., 11014 Main St., Bellevue, $10,771.

AM 3-12. Previous report 2-28

**●JUNIOR HIGH SCHOOL (Tyee)— Bellevue, Wash.**

(Estimated cost $1,128,000)

Bids will be opened 2 p.m., April 7, in the office of Naramore, Bain, Brady & Johanson, architects and engineers, 940 7th Ave., Seattle, by Bellevue School District No. 405, for construction of a new 32-classroom, 83,000 sq. ft., Tyee Junior High school to be located at 128th S.E. and Newport Way, Bellevue. Separate bids on general, mechanical and electrical.

Plans and specifications available on and after March 16 with above architects. $50 per set. Bid bond 5%.

One-story; steel columns; glued laminated beams; t&g decking; pumice block exterior walls; flat built-up roof, rigid insulation in roof; concrete slab-on-grade; metal sash; pumice block partitions; asphalt tile flooring, ceramic tile flooring in restrooms; oil-fired hot water boiler, forced hot air heating system. Contract includes furnishing and installing a septic tank.

AM 3-14. Previous report 12-12

**●CHURCH (First Church of Christ Scientist— Bellevue, Wash.**

Bids will be received until 2 p.m., April 3, from a select list of contractors, for construction of a new First Church of Christ Scientist in Bellevue. Plans by Eley & Grevstad, architects, 432 Eastlake, Seattle.

AM 3-14

**MOTEL— Bellingham, Wash.**

(Estimated cost $200,000)

Construction will start in April on a 24-unit masonry motel, a swimming pool and parking area adjacent to Leopold Western Hotel in Bellingham. Owner is Western Hotels, Inc. Plans by Galen F. Bentley, architect, 1130 State St., Bellingham.

DC 3-13

**●ROOFS— Blaine AFB, Wash.**

Bids will be opened 2 p.m., April 7, by U.S. Air Force, base procurement office, Paine Air Force Base, for replacement of roofs of Buildings 120, 658 and 975 at Blaine Air Force Station; Inv. No. 45-602-59-96. Work will include removing existing roofing and insulation; re-use of existing flashing; applying of insulation and new roofing.

Planholders: Metropolitan Construction Co., 1008 Broadway, Everett; Jack Fast, 22 Etruria St., Seattle; Roy E. Rudd, Box 835, Everett; Walsh Services, Inc., 8 Nickerson St., Seattle; Ollem Construction Co., 603 S.W. 153rd, Seattle; Edmonds Construction Co., 106 Main St., Edmonds; Sanford Wright, 2929 Wetmore Ave., Everett; Red-E Construction Co., 6056 37th Ave. N.E., Seattle; Frank Damson, Rt. 2, Everett; Shaffer Construction Co., Box 804, Everett; Lindbrook Construction Co., 11733 35th N.E., Seattle; Western States Construction, Box 398, Lynnwood; Willar Construction, 9709 Greenwood, Seattle; Ricketts Metals—Div. of Everett Home Appliance Co., 6720 Fleming Road, Everett.

HH 3-17

**APARTMENT (HasBrouck)— Bothell, Wash.**

(Estimated cost $115,000)

Working drawings are nearly completed by McCool, Morgan & Associates, architects, 110 Eastlake, Seattle, for construction of a two-story, partial basement, L-shaped, 4,590 sq. ft., 17-unit apartment building for Robert HasBrouck, Bothell, owner. Structure will be located at 1st and Pine St. in Bothell. Bids from a select list of contractors will be called the latter part of March.

West wing will be 110'x40', south wing, 110'x22'; concrete footings and foundation; frame walls; frame floors on 2'x10' joist, plywood sub-floor; timber beams; built-up roof, fiberglass roofing; frame partitions; plaster board interior; plaster suspended ceilings; frame, enclosed stairways; aluminum-sash windows; 2" batt insulation in walls, 3" in roof; brick veneer on ends of L-shaped wings, remainder exterior, marble chip aggregate; carpeting throughout, vinyl-tile in kitchen, ceramic tile in bathroom; wood doors, and cabinets; 8" sliding glass doors to view from balconies; electric baseboard heating. Seventeen car parking area to be provided.

MH 3-18

**▲BUILDING DEMOLITION— Bremerton, Wash.**

Seven bids received by 13th Naval District, district public works office, Bldg. 250, U.S. Naval Station, Seattle, for demolition of Bldgs. 499 and 528 at U.S. Naval Hospital, Naval Base, Bremerton; Spec. No. 18453/59. LOW BIDS: A. G. Hebb, 5304 Kitsap Way, Bremerton, $675; D. R. Hunsaker, 613 Bayview, Bremerton, $2,890. HI BID: Wayne Construction Co., 4242 22nd W., Seattle, $35,989.

AM 3-13. Previous report 2-21

**●FLUORESCENT LIGHTS— Bremerton, Wash.**

Bids will be opened 11:30 a.m., P.S.T., March 26, by Department of Navy, Bureau of Yards and Docks, Capt. P. M. Boothe, construction officer, Bldg. No. 480, Puget Sound Naval Shipyard, Bremerton, for removal of existing incandescent lighting fixtures and related wiring, and installation of approximately 205 new fluorescent fixtures complete with hangers and accessories in stacks and bins at Bldg No. 467, at the shipyard; Spec. No. 18352/59. Plans with Capt. Boothe's office.

DM 3-14

**●PAINTING (13th Naval District)— Bremerton, Wash.**

(Estimated cost $25,000 to $100,000)

Bids will be opened 2 p.m., P.S.T., March 27, by 13th Naval District, Bldg. 250, Room 107B, U.S. Naval Station, Seattle, for interior painting of buildings 519 and 520, Puget Sound Naval Shipyard, Bremerton; Spec. No. 23146/59. Plans with above Seattle office.

Work includes preparation of surfaces and painting of the interiors of the buildings, including beams, columns, wallboards, cement, plaster, metal surfaces, equipment, fixtures, and all other interior surfaces requiring painting.

VK 3-14

**●MANUFACTURING PLANT— Bremerton, Wash.**

Bids will be opened 2 p.m., March 26, from a selected list of contractors, in the office of Tennys F. Bellamy, architect, 315 Marion, Seattle, for construction of a 72'x140', one-story, new manufacturing plant for Arcair Co., at 1st and Nile Ave., Bremerton. Plans with above architect. $25 deposit.

Planholders: Linden Construction Co., Box 109, Bremerton; W. G. Clark Construction Co., 408 Aurora, Seattle; Hugh S. Ferguson, 1927 1st St S., Seattle; Commercial Builders, 114 Shore Drive, Bremerton; Cascade-Olympia Construction Co., Box 131, Shelton; Korsmo Bros., 5944 Lake Shore Grove S.E., Tacoma.

Plans call for a pumice block wall; slab-on-grade; T-steel roof decking; pumice block partitions; aluminum sash windows.

AM 3-17

**★MILKING PARLOR— Buckley, Wash.**

Award to Mel Pedersen, 117 S. 21st, Tacoma, $33,329, by Department of Institutions, Olympia, for construction of a milking parlor at Rainier School in Buckley. Plans by Swedberg & Anderson, architects, 911½ Pacific Ave., Tacoma.

DE 3-14. Previous report 3-4

**●HIGH SCHOOL— Cashmere, Wash.**

(Estimated cost $630,000)

Bids will be received until 2 p.m., March 31, by School District No. 122, Chelan County, Cashmere, for construction of a two-building, one-story, 44,000 sq. ft., high school at Pioneer Ave. and Tigner Road, Cashmere. Plans available with Alvin S. Erickson, architect, Central Bldg., Wenatchee. $40 deposit. Separate bids on general, mechanical and electrical. Structural engineer is Donald Radcliffe, Central Bldg., Seattle; mechanical engineer, Stanley Webster, Lowman Bldg., Seattle; electrical engineer, Hevard Schroedel, Lowman Bldg., Seattle.

Classroom building will be 104'x200'; gymnasium-shops and other buildings will be 80'x160', and 100'x100'. Poured concrete, tilt up concrete, solid masonry, block frame, metal, cement asbestos, brick drywall walls; wood, aluminum trim on exterior walls; wood, steel panels on interior walls; concrete slab floors; timber, steel girders; flat roof, 1-12 slope; masonry, frame brick, block drywall partitions; concrete stairways; aluminum windows; alt. for steel; wood floors in gymnasium, asphalt tile on others; acoustical ceilings; wood, steel doors; wood, steel cabinets; blackboards; fire doors; sprinkling systems; batt, rigid insulation in ceilings, walls, foundation walls; electric heat; unit ventilators, volume heaters; future consideration for air conditioning. A parking area will also be provided.

AC 3-12. Previous report 11-17

**▲REROOFING (Green Hill School)— Chehalis, Wash.**

Three bids received March 11 by Department of General Administration, General Administration Bldg., Olympia, for re-roofing the Green Hill school building in Chehalis. BIDS: Sound Sheet Metal & Roofing Inc., 1641 15th W., Seattle, $1,440; Mt. Rainier Co., Inc., 912 St. Helens, Chehalis, $2,38[illegible]; Bayside Roofing Co., Capitol Hill, Shelton, $4,618.

DE 3-13. Previous report 3-[illegible]

**★SCHOOL (Betz Addition)—Cheney, Wash.**

Award to William F. Spilker & Sons, W. 1029 Bridge St., Spokane, $70,777, by Cheney School District No. 360, Cheney, for construction of one-story, partial basement, 7,735 sq. ft. addition to Betz Elementary School in Cheney. Plans by Victor Louis Wulff, architect, 1526 W. Riverside, Spokane.

DC 3-12. Previous report 2-[illegible]

**★SCHOOL (Sunset Elementary)— Cheney, Wash.**

Award to William F. Spilker & Sons, W. 1029 Bridge, Spokane, $82,202, by Cheney School District No. 360, Cheney, for construction of 8,210 sq. ft., one-story addition to Sunset Elementary School at Airway

Heights, Wash. Plans by Victor Louis Wulff, architect, 1526 W. Riverside Ave., Spokane. DC 3-12. Previous report 2-26

★**STUDENT HOUSING— Ellensburg, Wash.**

Awards announced by Central Washington College of Education, Ellensburg, for construction of married student apartments on 8th Ave., and men's dormitory on Walnut St. in Ellensburg. Plans by Cowan & Paddock, architects, 1117 Larson Bldg., Yakima. AWARDS—General: Vandivort Construction Co., Box 1647, Wenatchee, $864,509; Mechanical—Central Plumbing and Heating, 510 S. 1st St., Yakima, $242,940; Electrical—Power City Electric, Inc., N. 920 Howard, Spokane, $90,800. IG 3-14. Previous report 2-13

★**OFFICE BUILDING— Everett, Wash.**

Award to George E. Teufel Co., White-Henry - Stuart Bldg., Seattle, (amount not announced) by First Federal Savings and Loan Association for construction of an office building on southwest corner of Colby and Everett avenues in Everett. DC 3-12

★**STORE REMODELING— Everett, Wash.**

Construction has started by Pearson Construction Co., 2034 Franklin, Bellingham, on remodeling the Bon Marche store, 2804 Wetmore Ave., Everett. DC 3-17

●**HOUSING (Capehart)— Fairchild AFB, Wash.**

Bid opening date has been established as 2 p.m., P.S.T., March 24, for construction of Capehart family housing consisting of total of 64 housing units, to be constructed on two sites in vicinity of Fairchild Air Force Base; ENG-45-108-59-54. Bids will be opened by Corps of Engineers, 1519 S. Alaskan Way, Seattle. Plans with Seattle office. Bid bond 20%. Completion time 360 calendar days.

Work involves: 16 single units at Cheney (F-37); 48 single units in Fairchild area (F-07, F-45, F-87). All units will be wood frame and siding with strip shingle roofing. Contract also includes domestic water systems, fire hydrants, sanitary sewers, storm sewers, electrical distribution system, grading and drainage, sidewalks and paving, topsoiling and seeding, landscaping.

DM 3-14. Previous report 3-3

▲**PAINTING (Family Quarters)— Fort Lewis, Wash.**

Bids received March 13 by U.S. Army, purchasing and contracting office, Fort Lewis, for interior repainting of permanent type family quarters at Fort Lewis; Inv. No. AVI-45-016-59-70.

LOW BIDS: Northwest Painters, Inc., 3024 S. Alaska, Tacoma, $12,241; Lang Painting Co., 1618 S. 9th, Tacoma, $13,001; Elmer Hess Painting Co., Fife Heights, Tacoma, $14,542. AM 3-14. Previous report 3-3

●**REMOVING BUILDINGS— Fort Lewis, Wash.**

Bids will be opened 2 p.m., P.S.T., April 9, by Corps of Engineers, 1519 S. Alaskan Way, Seattle, for removal of 233 structures and outside utilities in Capehart housing projects 3, 4 and 5 at Fort Lewis; ENG-45-108-59-67. Plans with Seattle office. Bid bond 20%. Completion time 90 calendar days.

Work includes removal of five, six-unit apartment buildings, 15 four-unit apartment buildings, 13 two-unit apartment buildings, 99 single family dwellings, 54 two-story barracks buildings, and 56 other buildings, including concrete foundations, chimneys, fences, concrete slabs, asphaltic concrete roads and walks, overhead electrical lines, cutting and capping sewer and water lines, and construction of 700' of 2,400 v electrical distribution line.

DM 3-14. Previous report 3-10

●**HIGH SCHOOL— Granger, Wash.**
**(Estimated cost $712,000)**

Bids will be opened 9 p.m., April 6, by Granger School District No. 204 in library of Roosevelt Elementary School, Granger, for construction of a concrete and brick, 51,500 sq. ft., high school in Granger. Plans with John S. Villesvik, A.I.A., Architect, and Maurice R. Smith, associate, 109 N. 3rd, Yakima. $25 deposit. Separate bids on general, mechanical and electrical.

Concrete floor slabs on grade; brick exterior walls; concrete block interior partitions; job-cast concrete roof frames and metal roof deck; steel joists over gymnasium; vinyl and asphalt tile flooring; ceramic tile in toilets and showers; aluminum sash; acoustical ceiling; fir and brick millwork with birch and metal doors and metal door frames; sun control louvres; heavy crude oil burner with steam boiler, radiators, unit ventilators, volume heaters and individual thermostat room control; mechanical ventilation in showers, lockers, toilets, janitor rooms and kitchen; fluorescent lighting; light and power distribution; clock and program system; fire alarm; wiring for public address.

Sixteen teacher stations; cafetorium; gymnasium; home making, shops, science rooms, offices, health unit, kitchen, teachers' room, storage facilities; toilet rooms.

IG 3-14. Previous report 1-23

▲**FIRE ESCAPE (Alterations)— Greenacres, Wash.**

Five bids received March 10, ranging from a low of $1,678 to a high of $2,920, by Central Valley School District No. 356, Gilbert C. Mills, superintendent, in district office, N. 607 Pines Road, Spokane, on fire escape alterations at Greenacres Junior High School. LOW BID: Custom-Craft Builders, Spokane, $1,678.

VK 3-14. Previous report 2-19

▲**COMMERCIAL BUILDING— Kent, Wash.**

Bids received March 11 by Kent Motors Sales & Service Co., 118 S. Central, Kent, for construction of 15'x40', 600 sq. ft., all glass-enclosed showroom addition to the Kent Motors Sales & Service building in Kent. Plans by Johnston & Campanella & Associates, architects, 213 Wells St., Renton.

ONLY BIDS: Perry Construction Co., 2220 Peasley Canyon Road, Federal Way, $21,454; Armstrong Construction Co., 10 C St. N.E., Auburn, $22,649; Bush Construction Co., 15382 96th S., Renton, $22,995.

AM 3-13. Previous report 3-6

●**TELEPHONE BUILDING— Lynden, Wash.**

Bids will be opened 2 p.m., March 25, by Farmers Mutual Telephone Co., 108 6th, Lynden, for construction of an addition to the present telephone building. Plans by Richard Stradling, architect, Herald Bldg., Bellingham.

Planholders: Nelson Construction, Rt. 1, Ferndale; John Louws Construction, N. Park, Lynden; Emil Olson, 2305 S. St., Bellingham; Emil Selene & Sons, 210½ Chestnut, Bellingham; Benner Brothers, 700 Wilson, Bellingham; Erickson Construction, 1611 N.W. Rd., Bellingham; Walker & Florence, 319 E. Champion, Bellingham; Van Werven & Van Andel, 517 Front, Lynden; Ursin Construction, 932 State, Bellingham.

WB 3-17. Previous report 1-7

▲**ELEMENTARY SCHOOL (Tulalip Reservation)— Marysville, Wash.**

Bids were opened March 11 by School District No. 25, Administration Bldg., Marysville, for construction of one-story, 22,343 sq. ft. elementary school in Tulalip Reservation. Architect is Harry E. Botesch, and F. Edward Brown, associate, 3030 Colby, Everett. LOW—GEN.: Shaffer Construction Co., Box 804, Everett, $227,063; Eiford & Sather, Route 6, Box 151, Anacortes, $236,000; Noel Construction Co., 11014 Main, Bellevue, $238,530. MECH.: Haskell Corp., 3014 Wetmore, Everett, $36,843; Glantz Supply, 2732 Hoyt, Everett, $36,990; Callahan Plumbing and Heating, 3211 Broadway, Everett, $38,650. ELEC.: Belden Electric, 2815 Rockefeller, Everet, $67,017; Ewing Electric, Inc., 535 Main, Edmonds, $67,220.

HH 3-13. Previous report 3-4

▲**BUILDING MODIFICATION— McChord AFB, Wash.**

Bids received March 16 by base procurement office, McChord Air Force Base for modification of BOQ buildings S-170 and S-172 at the base; Inv. No. 59-76.

LOW BIDS: McKasson Brothers Construction Co., Tacoma, $81,808; Levage Construction Co., 219 S. 122nd, Parkland, $82,999; Jardeen Bros. Construction Co., 1240 S. Sprague, Tacoma, $82,302.

AM 3-17. Previous report 3-11

▲**SCHOOL ADDITION— McCleary, Wash.**

Bids received March 13 by McCleary School District No. 106, McCleary, for construction of a six-classroom addition to the present elementary school in McCleary. Plans by William Arild Johnson & Associates, architects, 3506 Broadway Ave., Everett.

LOW BIDS—General: Ervin Eggiman, Star Route, Castle Rock, $52,786; McKasson Bros., Tacoma, $53,873; C. E. Skinner, Box 706, Orting. Mechanical: Lents, Inc., 279 4th St., Bremerton, $16,468; Pease & Sons, Box 2037, Tacoma, $16,650; Harold Jewell Plumbing & Heating, 6605 6th Ave., Tacoma, $16,919. Electrical: Rankin Electric, $4,334; Lassen Electric Co., 111 N. Columbia, Olympia, $5,895; Olympic Electric, 504 N. 5th, Olympia, $5,995.

HH 3-17. Previous report 3-7

★**RESIDENCE— Monroe, Wash.**

Award to Fred Gohl & Sons, Route 1, Monroe, $22,580, by State Department of Institutions, Olympia, for construction of a superintendent's residence at the state reformatory in Monroe.

DE 3-14. Previous report 3-7

**EDUCATIONAL WING (Church of God)— Montesano, Wash.**

Fund drive is underway by Church of God (Rev. A. A. Blankenship, pastor), Montesano, to raise $30,000 to help construct a 12-classroom, educational wing and children's chapel. The educational building would be constructed south of the present church on Church St., and the chapel would be erected adjacent to the educational wing. Plans call for a long range program which would include construction of a larger sanctuary.

DC 3-12

●**SCHOOL EQUIPMENT— Moses Lake, Wash.**

Bids will be opened 2 p.m., April 14, by School District No. 161, Grant County, Moses Lake, Administration offices, 1016 Ivy, Moses Lake, for furnishing and installing complete equipment in the new high school for classrooms, shops, kitchen, gymnasium, etc. Plans with Hovind, Harthorne & Smith, architects, 1500 Westlake N., Seattle, and


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with above superintendent of schools, Administration Building, Moses Lake. Certified check, or bid bond 5%. AM 3-18

**SCHOOL ADDITION (Jefferson)—** **Mount Vernon, Wash.**

A bond issue in the amount of $120,000 for a six-classroom addition to Jefferson Elementary School was rejected by voters. ET 3-18. Previous report 2-17

**▲RELOCATE BUILDING—** **Pacific Beach, Wash.**

Bids received March 10 by 13th Naval District, Bldg. 250, U. S. Naval Station, Seattle, for relocation of a 28'x22' frame building (ROICC Office) at the U. S. Naval facility, Pacific Beach, Wash.; Spec. No. 18457/59.

ONLY BIDS: John P. Peterson, 204 4th St., Hoquiam, $2,801; Gunnar Hedstrom, 307 31st St., Hoquiam, $2,390; Wayne Construction Co., 4222 22nd W., Seattle, $5,489. Government estimate $2,324. AM 3-12. Previous report 3-3

**● DAIRY PLANT BUILDINGS (WSC)—** **Pullman, Wash.**

(Estimated cost $300,000)

Bids will be opened 2 p.m., April 3, by Washington State College, 303 Administration Bldg., Pullman, for construction of seven frame and metal buildings which will comprise a new diary plant on a college farm four miles south of Pullman. Preliminary work of site preparation has been completed. Plans by George Rasque & Son, architects, Washington Trust Bldg., Spokane. Bid bond 9%. MH 3-12. Previous report 1-30

**● GYMNASIUM, ALTERATIONS—** **Pullman, Wash.**

Bids will be opened 2 p.m., April 10, by Washington State College, 303 Administration Bldg., Pullman, for alterations on Bohler Gymnasium on the college campus. Plans call for additional men's lockers and showers; a 1,500 sq. ft. mezzanine at east end of swimming pool. Plans may be obtained from Philip Keene, college architect, 305 Services Bldg., Washington State College, Pullman. MH 3-18

**CHEMISTRY BUILDING ADDITION—** **Pullman, Wash.**

(Estimated cost $1,896,700)

Bids will be called early in June by Washington State College, Pullman, for construction of a seven-story, 74x137', 76,000 sq. ft., addition to Fulmer Hall (chemistry building) on the college campus. Working drawings are underway by Harmon, Pray & Detrich, architects and engineers, 2000 5th Ave. Bldg., Seattle. Dames & Moore, engineers, 421 3rd W., Seattle, have been retained by the Board of Regents, to make soil engineering studies preliminary to construction.

Concrete footings and foundation; concrete walls; slab-on-grade; built-up roof; asphalt roofing; masonry, frame partitions; concrete stairways; aluminum windows; fiber board insulation in roof; masonry, stucco exterior; plaster, exposed concrete interior; plaster board partitions; asphalt tile flooring; exposed concrete ceilings; hardwood doors; wood cabinets; laboratory equipment, estimated cost $430,000; hot-water heating system, connected to existing central heating system on the campus; forced-air supply exhaust fans ventilating system. AM 3-18. Previous report 3-13

**★REMODEL BUILDING (Renton Highlands)—** **Renton, Wash.**

Award to Burfitt Construction Co., 1445 W. 56th St., Seattle, $16,900, by owners, for remodeling several buildings and razing of other buildings in existing Renton Highlands Center, Renton. Plans by Alfred F. Simonson, architects, 11728 Aurora Ave., Seattle. Bid opening February 10. AM 3-12. Previous report 2-4

**● DECONTAMINATION BUILDING (AEC)—** **Richland, Wash.**

Bids will be opened April 15 by Atomic Energy Commission, Hanford Operations Office, Box 550, Richland, for construction of an equipment decontamination building and related work in the 200 West area at Hanford Works. Plans with Richland office. Completion time 120 calendar days.

Building will be prefabricated, steel frame, 50'x66', with gable roof, sheet steel wall panels and roof decking, insulation, concrete floor and foundation. Related work includes miscellaneous water, air and steam lines; 430' of railroad track; 500 sq. yd. asphaltic concrete paving. DM 3-12

**SANCTUARY, EDUCATIONAL UNIT (Mt. View Presbyterian)—** **Seattle, Wash.**

(Estimated cost $100,000)

Working drawings are underway by Krona, Wilson & Ziegler, architects, 2715 Center St., Tacoma, for construction of a 300-capacity sanctuary, and two-story educational unit wing for the Mount View Presbyterian Church at 12th Ave. S.W., and 108th St., King County, Seattle. Bids may be called the latter part of April.

Frame construction throughout; concrete slab-on-grade. Sanctuary will have glued-laminated Tudor arches; Mt. Shuksan stone rear wall of chancel; 2" texture 1-11 and Mt. Shuksan stone exterior; hand-split cedar shake roofing. Educational wing will have flat built-up roof; aluminum curtain-wall with Welchboard spandrel walls; asphalt tile flooring; hot water heating system. Plans call for classrooms and toilet rooms in educational unit. AM 3-12

**■ KILN (U. of W.)—** **Seattle, Wash.**

Additional planholders announced for construction of a 20'x40' building, 18' high to house kiln equipment to be installed by others; a covered loading and shed area adjacent to kiln; trackage of 35-lb. rail to kiln and shed on the University of Washington campus. Bids will be opened 2 p.m., March 17, by University of Washington Board of Regents, in 209 Administration Bldg., campus, Seattle. Plans with university architects' office, Bldg. and Grounds office bldg., Seattle. $15 deposit. Cash, certified check, bid bond 5%.

Planholders: Neil Crawford, 4020 94th N.E., Bellevue; R. J. McCarthy Co., 17860 Ballinger Way, Seattle; Navarre Plumbing & Heating Co., 3839 Stone Way, Seattle. AM 3-12. Previous report 3-6

**BASEMENT GARAGE ADDITION—** **Seattle, Wash.**

Working drawings are nearing completion by Otis E. Hancock & Associates, architects, Alaska Bldg., Seattle, for a basement garage addition to the Cassell Crag Apartments, 1218 Terry Ave., Seattle. Bids may be called the latter part of March from a selected list of contractors.

Work involves excavation and shoring; underpinning outside masonry walls; installation of steel beams to carry interior bearing partitions; construction of concrete columns; extensive reconstruction of plumbing, heating and electrical facilities. AM 3-13

**▲ARMORY (Rooms)—** **Seattle, Wash.**

No bids received March 11 by Department of General Administration, General Administration Bldg., Olympia, for completion of rooms 219 and 220, in the new Seattle Armory, 305 Harrison St., Seattle. DE 3-13. Previous report 2-27

**● STUDENT UNION ADDITION (U. of W.)—** **Seattle, Wash.**

Bid opening has been extended to 2 p.m., April 7, for construction of additions to Student Union Bldg. on the campus of University of Washington. Bids will be opened by Board of Regents, 209 Administration Bldg., Seattle. Previous bid opening date was March 31. Plans with Tucker & Shields, architects, 914 Lakeview Blvd., Seattle. AM 3-13. Previous report 2-27

**PARKING GARAGE (Demolition)—** **Seattle, Wash.**

Demolition of existing buildings will start sometime in March by Utah Construction Co., 100 Bush St., San Francisco, Calif., to prepare site bounded by Stewart St. and Pine St. on 3rd Ave. for construction of a 1,300-car capacity, nine-level, parking garage building, for Sierra Corp., 100 Bush St., San Francisco. A permit to use sidewalk and part of the street along 3rd Ave. for the demolition of the buildings has been approved by Board of Public Works, County City Bldg., Seattle. Plans for the parking garage building are by George A. Applegarth, architect, 1045 Sansome St., San Francisco. AC 3-16

**●■ MARINA—** **Seattle, Wash.**

(Estimated cost $120,000)

Bids will be opened 4 p.m., April 3, in the office of Peterson & Adams, architects, Smith Tower, Seattle, by Sagstad Shipyards, Inc., foot of 20th N.W., Seattle, for construction of a 28,000 sq. ft. marina which will include 47 covered, shed-type moorage buildings. Plans and specifications with above architects. $20 deposit. Bid bond 5%.

Work includes: concrete apron on piling; 100-ton capacity vertical lift drydock; some fill, grading, paving and dredging.

Planholders: Larson Construction Co., Colman Bldg.; General Construction Co., 3840 Iowa; Manson Construction & Engineering Co., 5209 E. Marginal Way; Gilbert Pile Driving Co., 4028 Mercer Way; McCray Construction Co., 2370 Fairview N., all of Seattle. AM 3-14. Previous report 3-4

**● HEATING, PAINTING, CARPENTRY—** **Seattle, Wash.**

Bids will be opened 3 p.m., P.S.T., March 31, by General Services Administration, 12th Federal Office Bldg., 909 1st Ave., Seattle, for heating, painting and carpentry at U.S. Public Health Service Hospital, 14th Ave. S. and Judkins St., Seattle; Proj. No. 52A-112. Bid bond 2%. Completion time 120 calendar days.

Work includes paving; painting; wainscot, door, window and installations; clean pipe; floor; converting three boilers to gas and oil operation; installing of draft controls; gas piping; boiler retubing. VK 3-16

**● UNITY CHURCH—** **Seattle, Wash.**

(Estimated cost $380,000)

Bids will be opened 2:30 p.m., March 31, from a select list of contractors, in the offices of Young, Richardson & Carleton, architects, Central Bldg., Seattle, for construction of a two-story, 750-seating capacity new church building for Unity Church of Truth at 200 8th Ave. N. in Seattle. Plans by the above architects.

Planholders: John H. Sellen Construction Co., 228 9th N.; Jentoft & Forbes, 927 W. 46th; Cawdrey & Vemo, 3601 Fremont; W. G. Clark Construction Co., 408 Aurora; Henri Valle, Box 9083 Queen Anne Station; Hamilworth Construction Co., 3028 Western Ave.; James I. Barnes, 723 Central Bldg.; Johnson M-K, 1021 5th Ave., all of Seattle.

Concrete block walls, with steel framing throughout; brick veneer walls in chapel; brick veneer, cement plaster exterior with metal expansion joints; metal louver; plaster, oak paneling interior; electric heating with unit ventilators. AM 3-17

**● ELEVATOR—** **Seattle, Wash.**

Bids will be opened 3 p.m., P.S.T., March 31, by General Services Administration, Federal Office Bldg., Room 126, 909 1st Ave., Seattle, for elevator repairs at U.S. Public Health Services Hospital, 14th Ave. S. and Judkins St., Seattle. Completion time 60 calendar days. Plans with above Seattle office. Bid bond 2%. VK 3-16

**● CHURCH (Bethel Lutheran)—** **Seattle, Wash.**

Bids will be opened 4 p.m., April 2, from a select list of contractors, in the office of Durham, Anderson & Freed, architects, 1100 Denny Way, Seattle, for construction of a 9,600 sq. ft., one-story and basement church at 8th Ave. N.E. and E. 175th, Seattle. Pastor is Dr. Carl O. Pederson. Plans with above architects. AM 3-17. Previous report 3-4

**BANK (Pacific National)—** **Seattle, Wash.**

Working drawings are nearing completion by Austin Associates, engineers, for construction of a two-story, 5,000 sq. ft., 33'x85' new branch bank building, to be located at 7745 16th Ave. S., across from Plant 2 Boeing Airplane Co., in Seattle, for Pacific National Bank of Seattle, 900 2nd Ave., Seattle. Construction is expected to start

sometime in April by the Austin Co., 2930 4th S., Seattle.

Plans call for concrete block construction with steel joists; slab-on-grade; reinforced concrete vault. Interior will consist of large areas of plate glass; two-story window wall; laminated wood mullions set in laminated headers; aluminum sash; ceramic - mosaic tile. AM 3-18

**FIRE STATION— Seattle, Wash.**
(Estimated cost $45,000)

Working drawings are nearly completed by Maurice Sullam, architect, 1826 Broadway, Seattle, for construction of a one-story, 60'x75', 4,500 sq. ft., new fire station, for the Angle Lake Fire Department, District 24, at 30th Ave. S. and S. 200th Street, Seattle.

Concrete footings and foundation; concrete block, frame walls; concrete slab-on-grade floors; laminated beams, steel columns; panel-bilt roof decking; frame partitions; aluminum windows; insulation in ceiling; some concrete block, stucco and marble chip aggregate exterior; plaster board and block interior; four 12'x14' overhead doors; wood cabinets; hot water radiant heating. The station will accommodate four trucks, offices, meeting room and dormitory. AM 3-18

**▲KILN (U. of W.)— Seattle, Wash.**

Bids received March 17 by Board of Regents, 209 Administration Bldg., University of Washington, Seattle, for construction of a 20'x40' building, 18' high to house kiln equipment to be installed by others; a covered loading and shed area adjacent to kiln; trackage of 35-lb. rail to kiln and shed on the University of Washington campus.

BIDS: Wallace B. Questad, Inc., White-Henry-Stuart Bldg., Seattle, $48,000; Strand, Inc., 1801 N. 34th, Seattle, $49,760; R. J. McCarthy Co., 17860 Ballinger Way, Seattle, $58,853; E. F. Shuck, 535 Pontius, Seattle, $63,447.

AM 3-18. Previous report 3-12

**■HOUSING (Capehart)— Seattle, Wash.**

Additional planholders announced for construction of 604 single family units to be built under the Capehart Housing Act in the following areas: 500 family housing units at U.S. Naval Air Station at Oak Harbor, Whidbey Island, Wash.; 30 units at U.S. Naval Facility at Pacific Beach, Wash.; 24 units at Empire, Ore., for the personnel of the U.S. Naval Facility at Coos Head, Ore. Bids will be opened 2 p.m., P.S.T., March 31, by 13th Naval District, Bldg. 250, U.S. Naval Station, Seattle; Spec. No. 18434/58.

Additional planholders: Sheridan, Inc., 236 North Lake, Pasadena, Calif.; B. H. Tanner, Inc., Box 1350, Monterey, Calif.; Springfellow & Associates, Olympic Hotel, Seattle; Thompson & Georgeson, Box 2108, Portland, Ore.; Dahlgren Construction Co., 1700 21st S., Seattle; Matt Malaspina & Co., Inc., 1901 23rd S., Seattle; Andy Johnson & Co., Box 938, Aberdeen.

DM 3-18. Previous report 3-10

**▲APARTMENT ADDITIONS (13th Naval District)— Seattle, Wash.**

Bids received March 17 by 13th Naval District, Building 250, U.S. Naval Station, Seattle, Wash., for construction of additions to two apartment buildings at U.S. Naval Supply Depot, Seattle, Wash.; Spec. No. 18452/58.

LOW BIDS: Pacific Home Remodeling Co., 807 Rainier Ave., Seattle, $10,912; R. J. McCarthy, 7860 Ballinger Way, Seattle, $14,800; Edmonds Construction Co., Inc., 106 Main, Edmonds, $17,671. Eight bids received.

AM 3-18. Previous report 3-14

**★JUNIOR HIGH SCHOOL— Snohomish, Wash.**

Award to Glacier Construction Co., 5536 Coniston Road, Seattle, $505,769, by Snohomish School District No. 201, 5th and D streets, Snohomish, for construction of a 22-classroom, one-story, 57,000 sq. ft. junior high school on a 21-acre site on Glen St. in Snohomish. Plans by Klontz & Wrede, architects, 784 Dexter Horton Bldg., Seattle.

VK 3-18. Previous report 3-7

**CITY CENTER— Soap Lake, Wash.**
(Estimated cost $1,100,000)

Bids will be called soon by City Council, City Hall, Soap Lake for erection of the first three aluminum domes planned to house city offices and recreation facilities. The first dome will be 145' in diameter and 46' high and will be fabricated near Spokane at Kaiser Aluminum Co's Trentwood rolling mill.

The proposed three domes planned as a completed project, will house a 145' skating rink, swimming pools and city offices and police department.

DC 3-12. Previous report 1-30

**▲REROOFING (Gun Shed)—Spokane, Wash.**

Bids received March 12 by 13th Naval District, Bldg. 250, U.S. Naval Station, Seattle, for re-roofing gun shed at the U.S. Naval and Marine Corps Reserve Training Center in Spokane; Spec. No. 18455/59.

ONLY BIDS: Monk-Evers Co., 17 W. Riverside, Spokane, $2,995; Brunette Roofing Co., 1821 W. Norah St., Spokane, $3,855; Spokane Roofing Co., Inc., F. 120 Sprague, Spokane, $4,774.

AM 3-13. Previous report 3-3

**▲CHURCH (Our Lady of Fatima)— Spokane, Wash.**

Bids ranging from a low of $180,452 by Warner & Brown, N. 2904 Madelia, Spokane, to a high of $204,743 were opened March 6 by Most Rev. Bernard J. Tope, at Chancery Bldg., S. 317 Howard St., Spokane, for construction of a 54'x98' church building for the Lady of Fatima parish on 3rd Ave. and Perry St., Spokane. Plans by Funk, Murray & Johnson, architects, W. 524 4th Ave., Spokane. DC 3-12. Previous report 2-25

**LAUNCH-SERVICE BUILDINGS (Fairchild AFB)— Spokane, Wash.**

Bids will be called later for opening late in April by Corps of Engineers, 1519 S. Alaskan Way, Seattle, for construction of three launch and service buildings and six sets of heating, ventilating and air conditioning equipment for the SM-65 Missile Launch Complexes near Fairchild Air Force Base, Spokane; ENG-45-108-59-66. Bid bond 20%.

The three launch and service buildings and appurtenances will be built on three missile launch complexes at sites A, B and C, located within a 25-mile radius around Fairchild AFB. At each site one building will be constructed, including flame discharge tunnel and adjacent underground process tanks.

The ventilating and air conditioning equipment for the six additional sites is to be delivered to Fairchild Air Force Base.

Completion time for site A is June 30, 1960; for site B, July 15, 1960; for site C, July 31, 1960. Delivery dates on equipment are February 1, 1960, for first three sets, and February 15, 1960, for remaining. DM 3-14

**★BUILDINGS, PARKING APRON (Geiger Field)— Spokane, Wash.**

Award to Ruud Construction Co., Realty Bldg., Spokane, $557,338 (Sched. A) and Gibbons & Reed, Box 264, Airway Heights, Wash., $670,435 (Sched. B) by National Guard Bureau, Bldg. 4, Tacoma Naval Annex, 5114 Steilacoom Blvd. S.W., Tacoma, for Sched. A—construction of approximately 53,200 sq. ft. of buildings (four buildings), relocation of two buildings and related utilities, and Sched. B—construction of parking apron, all at Geiger Field in Spokane; Inv. No. NG-45-113-59-4.

DC 3-12. Previous report 2-6

**★WAREHOUSE (Tractor Co.)— Spokane, Wash.**

Award to Johnson-Busboom-Rauh, 601 Cedar St., Spokane, by Caterpillar Tractor Co., Peoria, Ill., for construction of a 240'x 320', 80,000 sq. ft., concrete block warehouse in Spokane. Plans by F. R. Orr Construction Co., Denver, Colo.

DC 3-17. Previous report 3-7

**★SPRINKLER— Spokane, Wash.**

Award to Grinnel Co. of the Pacific, E. 909 Sprague, Spokane, $12,410, by Spokane County Commissioners for installation of an automatic sprinkler system at Somerville Home. DM 3-18

**HIGH SCHOOL— Springdale, Wash.**

Bids will be called in April by Mary Walker School District No. 207, Springdale, for construction of a brick and concrete block high school building and gymnasium. Plans by Kenneth W. Brooks, architect, W. 707 5th St., Spokane, call for steel columns, plastic asbestos shingles, bilateral lighting and a free standing heating plant to serve several schools in Springdale.

MH 3-14. Previous report 2-5

**EDUCATIONAL UNIT (Bethel Lutheran)— Tacoma, Wash**
(Estimated cost $40,000)

Working drawings are underway by Krona, Wilson & Ziegler, architects, 2715 Center St., Tacoma, for construction of 5,000 sq. ft., 17-classroom, two-story, educational unit for the Bethel Lutheran Church, 5242 S. I St., Tacoma. Bids may be called the latter part of April.

Plans include office, pastor's study, storage rooms, toilet rooms and janitor's closets. Frame construction, gypsum board interior finish; aluminum curtain-wall with Welchboard spandrel walls; flat built-up roof; asphalt tile flooring; forced hot-air heating system. AM 3-12

**●CLINIC, OFFICE BUILDING— Tacoma, Wash.**

Bids will be opened 4 p.m., March 27, by Wright Park Properties in the office of Marshall W. Perrow, architect, 634 S. Trafton, Tacoma, for construction of a two-story, 4,500 sq. ft., no basement, clinic and office building at S. 3rd St. and I St., Tacoma. Plans with architect.

Flat built-up roof; masonry exterior; dry-wall partitions; vinyl asbestos flooring; fluorescent lighting; gas fired hot water heating system. Parking lot for 24 cars will be included in the contract.

DM 3-17. Previous report 12-16

**●HARDWARE— Tacoma, Wash.**

Bids will be opened 11 a.m., March 30, by Tacoma School District No. 10, office of director of purchases, 3321 S. Union Ave., Tacoma, for furnishing miscellaneous hardware and janitorial supplies. Specifications with above office. DC 3-18

**STEEL STORAGE BUILDING— Walla Walla, Wash.**

Bids were rejected by city council, City Hall, Walla Walla, on construction of a steel storage building for the water department near the Mill Creek settling basin. The city council did not indicate whether new bids would be called or whether the building would be delayed. VC 3-12

**★HANGAR (City County Airport)— Walla Walla, Wash.**

Award to Garceau Steel Structure Corp., Box 173, Parkwater Station, Spokane, $18,047, by Col. William H. Mills, Airport Manager, Bldg. 602, City-County Airport, Walla Walla, for construction of a multiple T-hangar, 32'x310', to house 10 small private planes at the Walla Walla City-County Airport.

VK 3-14. Previous report 2-28

**■SCHOOL ADDITION (Pioneer)— Walla Walla, Wash.**

Planholders announced for an 11,100 sq. ft., eight-classroom addition, plus toilet facilities, to Pioneer Junior High School, 630 Bridge St., Walla Walla. Bids will be opened 7:30 p.m., March 31, by Walla Walla School District No. 110, Park St., Walla Walla, in Walla Walla High School. Plans by Thomas O. Williams & Associates, architects, 20 S.E. 3rd, College Place, Walla Walla.

Planholders—General: E. T. Holsten, 309 E. Main, Walla Walla; E. Chuck Mardis, 1208 S. 3rd Ave., Walla Walla; Con Frank Co., 535 N. 6th, Walla Walla; A. Ritchie Co, 2102 Melrose, Walla Walla; O. D. Keen Construction Service, 515 N. Bellevue, Walla Walla; L. D. Proctor, 711 May, Walla Walla; Henry Gross, 948 Boyer Ave., Walla Walla; Johnson, Busboom & Rauh, 601 N. Cedar, Spokane; Mechanical—W. E. Ogden, Plumbing, 321 Whitman, College Place; Electrical—

Noland Gage Electric Co., 227 E. Rose, Walla Walla; Al Toretta Electric, 420 S.E. 4th, College Place.
VK 3-17. Previous report 3-11

★**SCHOOL ADDITION (Garrison)— Walla Walla, Wash.**

Award to O. D. Keen Construction Service, 515 N. Bellevue, $85,692, by Walla Walla School District No. 110, Walla Walla, for construction of a six-classroom, 7,693 sq. ft. addition to Garrison Junior High School, 906 Chase St., Walla Walla.
DM 3-18. Previous report 2-27

● **HIGH SCHOOL— Warden, Wash.**

Bids will be opened 8 p.m., April 14, by Warden School District No. 146-161, Grant County, in the superintendent's office in the existing Warden High School, for construction of a high school building at Warden. Plans with Mallis & DeHart, architects, 631 Lyon Bldg., Seattle. Certified check, bid bond 5%.
VK 3-18

● **ROOFING, PARTITIONS— Wenatchee, Wash.**

Bids will be opened 3 p.m., P.S.T., March 31, by General Services Administration, Federal Office Bldg., 909 1st Ave., Seattle, for roofing and construction of partitions at U.S. Post Office and Post Office annex, Mission and Yakima streets, Wenatchee; Proj. No. SEA-1071. Bid bond 2%. Completion time 120 calendar days.

Work includes new composition roof, new roof insulation, removing roof skylights, new interior partitions and lighting, masonry pointing, and miscellaneous roof repairs.
VK 3-14

**RESORT HOTEL— White Pass, Wash.**
(Estimated cost $500,000)

Plans for a resort development in the White Pass ski area were announced by the Greater Cascade Development Corp. The company has applied to the United States Forest Service for a permit to erect a resort hotel with heated swimming pool for year-around use. The hotel would be located across the highway from ski facilities of the White Pass Co.
VC 3-14

**WAREHOUSE— Yakima, Wash.**
(Estimated cost $100,000)

A warehouse of approximately 40,600 sq. ft. will be constructed by Libby-McNeil and Libby, 1st Ave. and Quince St., Yakima, at 901 N. 1st Ave., Yakima. Building will be of concrete block, will have concrete floors, roof will be built up with glue-laminated beams and trusses, surface will be mop gravel.
IG 3-12

★**CHURCH (Church of Christ)— Yakima, Wash.**
(Estimated cost $42,000)

Construction by force account has started on a structure for Church of Christ, 607 W. Lennox Ave., Yakima. Certain portions of work such as glued laminated structural system, mechanical and electrical work and certain building materials will be subcontracted by church officials.
IG 3-14. Previous report 1-22

■ **SCHOOL ADDITION (Summitview Elementary)— Yakima, Wash.**

Planholders announced for construction of a 9,600 sq. ft. addition to Summitview Elementary School, Yakima. Bids will be opened 8 p.m., March 25, by West Valley School District No. 208, Yakima County, at West Valley High School. Plans with John S. Villesvik, A.I.A., architect, and Maurice R. Smith, associate, 109 N. 3rd St., Yakima. $25 deposit.

Planholders—General: H. G. Templeton, Box 163, Yakima; W. J. Park & Son, 4403 Summitview, Yakima; Harold Corpman Construction Co., 1106 S. 14th Ave., Yakima; Westover & Hope, 614 5th Ave., S.E., Spokane; Hills' Construction Co., 102 S. 1st Ave., Yakima; W. M. Yeaman, 60 S. 1st St., Yakima; Donald G. Howatt, 609 N. 18th Ave., Yakima. Mechanical—Lentz Interstate Plumbing and Heating, 12 S. 3rd Ave., Yakima; Central Plumbing and Heating, 510 S. 1st St., Yakima; Dopps & Banks, 603 W. Lennox Ave., Yakima. Electrical—Electric Smith, Inc., E. 123 Sprague, Spokane; Smith-Wilson, 3611 Main St., Union Gap; Creamer Electric, 1902 Nob Hill Blvd., Yakima.
IG 3-14. Previous report 3-10

**ELEMENTARY SCHOOL ADDITION— Yakima, Wash.**
(Estimated cost $163,000)

Bonds in the amount of $2,610,000 to finance a school building program in the Yakima area were approved by voters in School District No. 7, 104 N. 4th Ave., Yakima. Included in this program is the construction of a nine-classroom addition to the Lincoln elementary school in Yakima. Preliminary drawings were started by Thomas F. Hargis, Jr., and Clarke Goldsworthy Associate, architects, Miller Bldg., Yakima.
IG 3-17

**ELEMENTARY SCHOOL ADDITION— Yakima, Wash.**

Bonds in the amount of $2,610,000 to finance a school building program in the Yakima area were approved by voters in School District No. 7, 104 N. 4th Ave., Yakima. Included in this program will be the construction of a six-classroom addition to the W. W. Robertson Elementary School, Lincoln Ave., Yakima. Working drawings will be started soon by Gochnour & Marble, A.I.A., architects, Miller Bldg., Yakima.
IG 3-17. Previous report 1-10

**JUNIOR COLLEGE (Science Laboratories, Classrooms)— Yakima, Wash.**
(Estimated cost $994,000)

Bonds in the amount of $2,610,000 to finance a school building program in the Yakima area were approved by voters in School District No. 7, 104 N. 4th Ave., Yakima. Included in this program will be construction of two buildings that will have a total of 30 classrooms. One building will be east of the Larson Art Gallery on Lennox Ave., the other structure will be west of the existing library. Plans by Gowan & Paddock, A.I.A., architects, Larson Bldg., Yakima.
IG 3-17. Previous report 1-9

**ELEMENTARY SCHOOL— Yakima, Wash.**
(Estimated cost $237,749)

Bonds in the amount of $2,610,000 to finance a school building program in the Yakima area were approved by voters in School District No. 7, 104 N. 4th Ave., Yakima. Included in this program will be the construction of a new elementary school at 44th Ave., Yakima. Plans by Doudna, Williams & Phipps, architects, Miller Bldg., Yakima. Plans call for six classrooms, multipurpose room, kitchen, library, lavatories, health area, and administration office.
IG 3-17. Previous report 1-9

**JUNIOR HIGH SCHOOL— Yakima, Wash.**

Bonds in the amount of $2,610,000 to finance a school building program in the Yakima area were approved by voters in School District No. 7, 104 N. 4th Ave., Yakima. Included in this program will be the construction of a new 31-classroom junior high school at Chekola Ave., Yakima. Preliminary drawings will be started soon by Gochnour & Marble, architects, Miller Bldg., Yakima.
IG 3-17. Previous report 2-10

**CLASSROOM ADDITIONS— Yakima, Wash.**

Bonds in the amount of $2,610,000 to finance a school building program in the Yakima area were approved by voters in School District No. 7, 104 N. 4th Ave., Yakima. Included in this program is the construction of a four-classroom addition to Nob Hill Elementary School, and a four-classroom addition to McClure Elementary School in Yakima. Preliminary plans are underway by Cowan & Paddock, architects, Larson Bldg., Yakima.
IG 3-17

**DENTAL OFFICE BUILDING— Yakima, Wash.**

Plans will be complete in April by Doudna, Williams & Phipps, Miller Bldg., Yakima, for construction of a one-story, 3,000 sq. ft., dental office building at 314 S. 12th Ave., Yakima, for Yakima Dental Center, Yakima. Mechanical engineer—Lyle E. Marque & Associates, Realty Bldg., Spokane.

Reinforced concrete; masonry frame walls; frame floors; timber beams; flat roof; frame partitions; wood and aluminum windows; blanket insulation in walls and ceilings; stucco exterior finish, wooden exterior and interior trim; plaster gypsum lath partitions; vinyl tile flooring; plaster ceilings; wood and steel doors; wood cabinets; fluorescent and incandescent lighting; forced air, gas fired heating system.
IG 3-17

**ELEMENTARY SCHOOL— Yakima, Wash.**

Bonds in the amount of $2,610,000 to finance a school building program in the Yakima area were approved by voters in School District No. 7, 104 N. 4th Ave., Yakima. Included in this program will be the construction of a new elementary school at 16th and Summitview avenues, Yakima, to replace existing building. Preliminary drawings will be started soon by Champ Sanford, architect, 602 S. 5th Ave., Yakima.
IG 3-17. Previous report 3-10

**MANUFACTURING PLANT— Yakima, Wash.**
(Estimated cost $100,000)

Construction just started on a 7,200 sq. ft. manufacturing plant at 17th and Eaglewood avenues, Yakima, by Hills' Construction Co., 102 S. 5th Ave., Yakima. Concrete tilt-up slab exterior walls; wood trussed decking for roof and concrete floors; wooden beam; wall panels; roof and floor panels.
IG 3-17

▲**SWIMMING POOL— Yakima, Wash.**

Bids were opened March 16 by Metropolitan Park District, City Hall, Yakima, for construction of a 45'x90' swimming pool at Miller Park on N. 4th St., Yakima. Plans by Gray & Osborne, consulting engineers, 228 S. 2nd, Yakima. BIDS: Hans Skov, Liberty Bldg., Yakima, $54,289; Gilbert Moen, Yakima, $55,842; Hills Construction Co., Yakima, $56,123; Joe E. Venne, Sunnyside, $56,429. Award recommended to Skov.
IG 3-18. Previous report 3-17

**RESIDENCE— Yakima, Wash.**

Plans will be completed in June by Doudna, Williams & Phipps, Miller Bldg., Yakima, for construction of a tri-level, 2,000 sq. ft. residence at Gilbert Drive, Yakima, for Dr. and Mrs. Robert S. Fisher.

Partial basement; concrete footings and foundation; metal and stone walls; frame slab floors; timber beams; flat glulam roof; frame partitions; wooden stairways; wood and aluminum windows; walls and roof insulation; redwood siding and stone exterior finish; plaster and paneling interior finish; plaster gypsum lath partitions; ceramic tile tile and corlon carpet floor finish; wooden doors; wooden cabinets; warm air oil or gas heating system.
IG 3-17

**WALL REINFORCING— Yakima, Wash.**

Gochnour & Marble, Miller Bldg., Yakima, have been retained as architects by West Valley School District No. 208, West Valley High School, Yakima, on plans for reinforcing or reconstructing the existing wall at Wide Hollow Grade School in Yakima County.
IG 3-17

## IDAHO

● **SCHOOLS, FARM SHOP— Aberdeen, Idaho**

Bids will be opened 7:30 p.m., March 2 by Class A School District No. 58, Aberdeen, for 1—remodeling and constructing an addition to the elementary school in Aberdeen, 2—constructing farm shop at Aberdeen, 3—constructing an addition to the elementary school building at Springfield. Plans by Hummel, Hummel & Jones, architects, 125 Idaho Bldg., Boise.

Planholders—D. E. Jensen, 3225 Crescent Rim Drive, Boise; Watkins Construction, Box 1786, Boise; Brennan Construction, Box 507, Pocatello; Reynolds & Walker, Box 363, Twin Falls; W. R. Cahoon Construction, Box 449, Pocatello; Arrington Construction, Box 881, Idaho Falls; Welsh Brothers, 1[illegible] Broadway Ave., Boise.
GH 3-17

▲**BUILDING (LDS)— Boise, Idaho**

Bids received by Church of Jesus Chri[illegible]

Latter Day Saints, 125 N. Main St., Salt Lake City, Utah, for construction of an Institute of Religion building in Boise. BIDS: D. E. Jensen Construction Co., 3225 Crescent Rim Drive, Boise, $44,715; G & M Construction Co., 611 E. Parker Blvd., Boise, $45,965; J. E. Nonenmacher, 5518 Cruzen, Boise, $46,146. Bid opening March 3.
GH 3-12. Previous report 2-21

**● AIR CONDITIONING— Boise, Idaho**

Bid opening has been extended to 3 p.m., P.S.T., March 25, for installation of air conditioning and other improvements in the U. S. Post Office and Courthouse, Bannock and 8th streets, Boise; Proj. No. SEA-1250. Bids to be opened by General Services Administration, 909 1st Ave., Seattle, Wash.
DM 3-17

**STUDENT UNION BUILDING— Coeur d'Alene, Idaho**

Application for a $110,000 loan has been made with FHFA, Seattle, Wash., on construction of a new student union building at North Idaho Junior College, 1000 W. Garden Ave., Coeur d'Alene. GH 3-13

**ARMORY— Driggs, Idaho**
(Estimated cost $100,000)

Preliminary plans have been approved by Teton County Commissioners, Courthouse, Driggs, on a National Guard Armory at Driggs. Bids will be called later in the year by Idaho National Guard, 801 Reserve, Boise. Architect is C. A. Sundberg & Associates, 111 E. 16th, Idaho Falls. GH 3-13

**ELEMENTARY SCHOOL— Firth, Idaho**

Plans for construction of an elementary school in Firth were discussed by the Class A School District No. 59, Firth, with a representative of Norman J. Hamill & Associates, architects, 203 Earl Bldg., Idaho Falls, Idaho. The plans, which were drawn last year, had to be revised, due to costs and changes in state regulations. At a meeting of the board action is anticipated on the final choice of the site and the calling of another bond issue in the district. A bond election held in September last year was defeated. VC 3-13. Previous report 10-2

**● FAIRGROUND BUILDING— Idaho Falls, Idaho**

Bids will be opened 2 p.m., April 7, by Bonneville County Commissioners, Courthouse, Idaho Falls, for construction of an auctioneer's stand, sales ring and seating at the county fairgrounds. Plans with Norman J. Hamill & Associates, architects, Earl Bldg., Idaho Falls. No plumbing, heating or electrical work will be required.
DC 3-18

**▲ SCHOOL— Irwin, Idaho**

Award is still pending on remodeling the elementary school in Irwin. Low bid of $21,400 was submitted by Loveland Construction Co., 3105 E. 24th, Idaho Falls, to Swan Valley Class C School District No. 92 on March 9. Architect is C. A. Sundberg & Associates, 111 E. 16th, Idaho Falls.
DC 3-17. Previous report 2-28

**★ HIGH SCHOOL— Kamiah, Idaho**

Award to Don St. Marie, 131 W. 19th, Lewiston, $249,850, by Kamiah School District No. 304, Kamiah, for construction of a 27,000 sq. ft., six-classroom, frame and block, one-and-two-story, high school in Kamiah. Bids opened March 10. Architect is Charles W. Johnson, A.I.A., and Robert J. Smith, architects, 13 N. 8th, Payette.

2ND LOW: Gus Larkin, 1119 8th St., Lewiston, $251,724. 3RD: Welch Bros., 920 Broadway, Boise, $253,935. HI: $289,775.
DC 3-13. Previous report 2-28

**SCHOOL BUILDING (Junior, Senior)— Kendrick, Idaho**

Election will be held April 3 by Kendrick Joint Class B School District No. 283 on a bond issue in the amount of $335,000, to finance construction of a combined junior and senior high school building at Kendrick. Plans by Dropping, Kelley & Finch, architects, 2504 Kootenai, Boise. It is the fifth time that a vote on similar issue has been called for the Kendrick school district in recent times, and none has received the required two-thirds vote.
MH 3-17. Previous report 3-5

**● AIR CONDITIONING— Lewiston, Idaho**

Bids will be opened 3 p.m., P.S.T., March 31, by General Services Administration, Business Service Center, Federal Office Bldg., Room 126, 909 1st Ave., Seattle, for installation of cooling and ventilating system at U. S. Post Office, Lewiston, Idaho. Proj. No. SEA-1343. Completion time 120 calendar days. Plans with above Seattle office. Bid bond 2%.
VK 3-17

**▲ SCHOOL ADDITION— Lewiston, Idaho**

Bids were opened March 14 in office of Hugh Richardson, architect, Weisgerber Bldg., Lewiston, for alterations and additions to St. Stanislaus School at 5th Ave. and 7th St., Lewiston. GEN—Eight bids—LOW: McKim-Kiser Co., Osburn, $193,890; Gus Larkin, 1119 8th, Lewiston, $179,250; Don St. Marie, 111 19th, Lewiston, $180,870. HI: $208,129. MECH.—ONLY BIDS: Lewiston Plumbing and Heating, 0208 5th, Lewiston, $46,246; Miller Bros., 1116 17th, Lewiston, $54,440. ELEC.—ONLY BIDS: John's Electric, 215 Main, Lewiston, $12,994; Stout Electric, 845 Main, Lewiston, $13,330.
DC 3-18. Previous report 3-4

**● RAPCON CENTER BUILDING— Mountain Home AFB, Idaho**

Bid opening has been extended to 2 p.m., March 24, for construction of a Rapcon center building at Mountain Home Air Force Base; ENG-45-164-52-23. Bids will be opened by Corps of Engineers, Bldg. 620, City Council Airport, Walla Walla. Previous bid opening date March 10. Plans with Walla Walla office. Bid bond 20%. Completion date December 1.
AM 3-12. Previous report 1-31

**BOWLING ALLEY— Nampa, Idaho**

Construction will start soon on a 24-lane bowling alley at 2nd St. S. and 3rd Ave., Nampa, for Nampa Bowling Center. GH 3-12

**STORE— Nampa, Idaho**

Plans have been announced for remodeling a building on 1st S. near 12th Ave., Nampa, for use by Alexander Men's and Ladies' Store. The firm's offices are located at 1124 1st St. S.
DC 3-18

**▲ SCHOOL BUILDING ADDITIONS— Rupert, Idaho**

Five bids received March 9 by Minidoka County Joint Class A School District No. 331, 633 Fremont Ave., Rupert, for additions to the Acequia School Bldg. at Acequia. Plans by Hunter, Brower & Associates, architects, Dietrich Bldg., Pocatello, Idaho. LOW BIDS: J. A. Clawson Construction Co., 129 Carney St. N., Twin Falls, $156,200; Earl B. Peck, 1410 Poplar Ave., Twin Falls, $158,750; Boon R. Pyle, Heyburn, Idaho, $163,736.
VK 3-13. Previous report 3-6

**SCHOOL— Soda Springs, Idaho**

Voters approved a $600,000 bond issue that will finance construction of a high school in Soda Springs for Caribou County Class A School District 150.
DC 3-18

**■ ELEMENTARY SCHOOL ADDITION— Twin Falls, Idaho**

Planholders announced for construction of four to eight elementary classrooms at Twin Falls. Bids will be opened 8 p.m., March 23, by Board of Trustees, Class A School District No. 411, Twin Falls County, Twin Falls. Plans with Cecil E. Jones, architect, 131 2nd St., W., Twin Falls.

Planholders: Earl B. Peck, 1410 Poplar Ave., Twin Falls; J. A. Clawson Construction, Box 171, Twin Falls; Darrell Keck, 628 E. Ave. A., Jerome; Jensen & Ullman, 120 Larkspur Drive, Twin Falls; Brennan Construction, Box 507, Pocatello; Reynolds & Walker, Box 363, Twin Falls.
GH 3-18. Previous report 3-7

## MONTANA

**P.E. BUILDING, GYMNASIUM— Billings, Mont.**
(Estimated cost $1,400,000)

Montana Board of Education has given approval for Eastern Montana College of Education at Billings, to negotiate financing for a proposed physical education building and gymnasium. Preliminary plans have been drawn by Cushing, Terrel & Associates, 1333 Airport Road, Billings.
EE 3-18. Previous report 9-26

**SCHOOL ADMINISTRATION BUILDING— Billings, Mont.**
(Estimated cost $100,000)

Bids are expected to be opened in April by Yellowstone County School District No. 2, Billings, for construction of a school administration building at Billings. Plans are being drawn by Loners, Stroebe & Johnson, 201 N. 2th St., Billings.
EE 3-18

**● WORKSHOP— Butte, Mont.**

Bids will be opened 7:30 p.m., M.S.T., April 6, by Housing Authority of Butte, Administration Bldg., Silver Bow Homes, for remodeling the workshop in the above building. Plans with Housing Authority, $10 deposit. Certified check or bid bond 5%.
DC 3-18

**■ HEATING PLANT, STORAGE TANK— Glasgow AFB, Mont.**

Planholders announced for an addition to the existing central heating plant and a fuel oil storage tank, Glasgow Air Force Base, Mont.; ENG-45-164-59-28. Bids will be opened 2:30 p.m., March 24, by Corps of Engineers, Bldg. 602, City County Airport, Walla Walla.

Planholders: Abco-Pacific, Inc., 1200 S. State, Salt Lake City, Utah; American Pipe and Construction Co., Box 1898, Portland, Ore.; Chicago Bridge and Iron Co., 1318 4th Ave., Seattle, Wash.; Christensen Plumbing and Heating, Box 2056, Billings; Detweiler Brothers, Inc., 726 Shoshone St. W., Box 870, Twin Falls, Idaho; Federal Construction Co., 3420 E. Sprague Ave., Spokane, Wash.; Fullerton's Plumbing and Heating Co., 401 W. Main, Hamilton; S. M. Gilbert and Co., 7100 E. Marginal Way, Seattle, Wash.; Graver Tank and Manufacturing Co., Inc., Att. R. E. Kimball, 669 White-Henry-Stuart Bldg., Seattle; Industrial Service and Engineering Co., 5750 Pecos St., Denver, Colo.; Intermountain Co., 1322 Grove St., Box 1869, Boise, Idaho; Kalispell Plumbing and Heating, Inc., 333 First Ave. E., Kalispell; Peter Kiewit Sons' Co., Box 1854, Billings, and Box 488, Glasgow; P. S. Lord Mechanical Contractors, 4507 S.E. Milwaukie Ave., Portland, Ore.; Madden Construction and Supply Co., Attn. James Madden, Box 1522, Billings.

Merrill N. Musgrave and Co., 2019 3rd Ave., Seattle; Teton Plumbing and Heating, Box 647, Choteau; A and A Contractors, Inc., Highway 2 East, Box 1811, Minot, N. Dak.; Arden Engineering Co., Inc., 60 Taylor Drive, Rumford, R.I.; The Bay Company, Box 585, Glasgow; Fred R. Comb Co., Inc., 2901 Aldrich Ave. S., Minneapolis, Minn.; Hansen, Niederhauser, Inc., 16 Kensington Ave., Salt Lake City, Utah; C. A. Hooper Co., 2030 Pennsylvania Ave., Madison, Wis.; R. L. Martin and Son, Box 486, Portland, Ore.; McTighe, Inc., 113 E. Second Ave., Mitchell, S. Dak.; C. C. Moore & Co., 417 Smith Tower, Seattle; Morgen and Oswood Construction Co., Box 226, Glasgow; Riley Construction Co., 2744 Lyndale Ave. S., Minneapolis, Minn.; Sceva Construction Co., Inc., N. 2928 Madelia St., Spokane, Wash.; Urban Plumbing and Heating Co., 2904 S.W. First Ave., Portland, Ore.; Wade Construction Co., 2202 E. Fourth, Casper, Wyo.
RM 3-13. Previous report 3-11

**▲ READINESS CREW BUILDING— Glasgow, Mont.**

Seven bids were opened by Corps of Engineers, Walla Walla, Wash., for construction of Readiness Crew Building at Glasgow Air Force Base; ENG-45-164-59-22. LOW: Fred R. Comb Co., 2901 Alderich Ave. S., Minneapolis, Minn., $492,166; Sletten Construction Co., Box 1188, Great Falls, $493,762; Lowe Constructon Co., Box 1956, Billings, $495,459. HI: $625,584. Engineers' estimate $486,412.
DC 3-13. Previous report 2-27

**BUILDINGS, FENCING, ROADS— Glasgow AFB, Mont.**

Bids will be called soon by Corps of Engi-

neers, Bldg. 602, City County Airport, Walla Walla, for construction of alert hangar protection facilities at Glasgow Air Force Base; ENG-45-164-59-32. Specifications with Walla Walla office. Bid bond 20%.

Work includes construction on one masonry block gate house and one wood frame sentry house; removing and salvaging 565' of security fencing; 1,625' chain link fencing; 835 sq. yd. asphaltic concrete access road; extending electrical distribution system to gate house; installing alert hangar protective lighting system. RM 3-13

**● ORDNANCE STORAGE FACILITIES— Glasgow AFB, Mont.**

Bids will be opened about April 15, by Corps of Engineers, Bldg. 602, City County Airport, Walla Walla, for construction of ordnance storage facilities, and supplementary modifications, Glasgow Air Force Base, near Glasgow; ENG-45-164-59-33. Specifications available with above Walla Walla office. $100 deposit. Bid bond 20%. Completion time 450 calendar days.

Work includes (a) Two single-story buildings, 1,550 sq. ft. and 3,000 sq. ft., reinforced concrete frame, masonry, concrete floor slab, structural steel, steel joist and metal roof decking, built-up roofing, oil fired forced hot water and electrical heating, partial air conditioning, one 10-ton bridge crane and electrically operated hoist, two 150 kw diesel electric generators, many special features. (b) Access roads, parking areas, etc., including 30,000 c.y. excavation, 9,000 c.y. embankment; 11,000 c.y. base course, 6,000 c.y. leveling course, 82 ton prime coat, 560 ton asphaltic concrete pavement, 36 ton asphaltic cement, culverts and drainage structures. (c) Three reinforced concrete multi-cubicle storage magazines (two, 4,600 sq. ft. each, one, 2,100 sq. ft.) with blast doors, precast concrete roof panels, built-up roof, concrete floor slab. (d) Utilities including 1,900' of 4" water line, 650' of 6" sanitary sewer, 8,800' security chain link fencing, electrical distribution, substation, security floodlighting. (e) Minor modifications to various existing facilities. AM 3-13. Previous report 3-7

**★ SHOP ADDITION— Glasgow AFB, Mont.**

Award to Sletten Construction Co., Box 1188, Great Falls, Mont., $85,225, by Corps of Engineers, Bldg. 602, City County Airport, Walla Walla, Wash., for construction of shop addition to existing organization maintenance hangar, Glasgow Air Force Base, near Glasgow, Mont.; ENG-45-164-59-18.
VK 3-14. Previous report 3-6

**● LOCK BOXES— Glendive, Mont.**

Bids will be opened 3 p.m., P.S.T., March 31, by General Services Administration, Federal Office Bldg., Room 126, 909 1st Ave., Seattle, for additional lock boxes at U. S. Post Office, Glendive, Mont., Proj. No. SEA-1277. Completion time 30 calendar days. Plans with above Seattle office. VK 3-17

**OFFICE BUILDING— Great Falls, Mont.**
(Estimated cost $500,000)

Plans are underway by Page & Werner, architects, 15½ 4th N., Great Falls, for a five-story, 13,000 sq. ft., 130'x45' (curtain wall, brick and reinforced concrete) office building to be built at 3rd Ave. N. and 5th St. for The Montana Corp., whose present offices are at 111 5th N., Great Falls. Construction will start this summer. DC 3-18

**★ DORMITORY ADDITION (Northern Montana College)— Havre, Mont.**

Awards announced by State Board of Education, State Capitol Bldg., Helena, Mont., for construction of an addition to the men's dormitory at Northern Montana College in Havre. Plans by Oswald Berg Jr. & Associates, architects, 1119 N. 7th Ave., Bozeman, Mont. AWARD—GENERAL—Ekestrand Brothers Const. Co., Masonic Temple Bldg., Havre, $107,693 (basic) plus $7,993 (alt. 2); Mechanical—Als' Plumbing and Heating, Great Falls, $37,177 (basic) plus $17,259 (alt. 1); Electrical—Havre Electric Co., 368, Havre, $7,098 (basic) plus $100 (alt. 1).

OTHER LOW BIDS—GENERAL—Palmer Const. Co., 1324 Central, Great Falls, $109,767 (basic) plus $7,982 (alt. 2); Gens Const. Co., Box 465, Great Falls, $111,933; $7,433; Mechanical—Budd Plumbing and Heating, Inc., 317 Mendenhall, Bozeman, $41,785 (basic) plus $19,000 (alt. 1); Kalispell Plumbing and Heating, 333 1st E., Kalispell, $41,973; $15,255; Electrical—Electric Supply Co., 255 W. 1, Havre, $10,462 (basic) plus $200 (alt. 1); Bonnes Electric Co., 6 S. Park Ave., Helena, $13,360; $200. VK 3-12. Previous report 3-6

**SCHOOL— Helmville, Mont.**
(Estimated cost $40,000)

Plans will be completed later in March by Fox, Ballas & Barrow, A.I.A., architects, Savings Center Bldg., Missoula, for a one-story, two-classroom, frame elementary school for Powell County School District No. 15, Helmville.
DM 3-13. Previous report 3-4

**■ HIGH SCHOOL— Joliet, Mont.**

Planholders announced for construction of a one-story, 14,500 sq. ft., nine-room high school building in Joliet. Bids will be opened 7:30 p.m., March 26, by Carbon County School District No. 7, Joliet. Plans with Drake & Gustafson, architects, Empire Bldg., Billings.

Planholders—General: Cerovski Construction Co., Lewiston; Bailey Construction Co., 2964 Harrow Dr., Billings; Pogue Construction Co., 117 S. Billings Blvd., Billings; Boespflug Construction Co., 502 N. 25th St., Billings; Lowe Construction Co., 2325 9th Ave. N., Billings; Clark Construction Co., 931 Princeton Ave., Billings; Frates Construction Co., 424 Rimrock Rd., Billings. Mechanical: Midland Plumbing & Heating, 2121 4th Ave. N., Billings; Magic City Plumbing and Heating, 705 Ave. F; Frisby Plumbing & Heating, 212 Grand Ave., Billings; Christensen Plumbing & Heating, 3615 Montana Ave., Billings; Wagner's Plumbing & Heating, 1001 Central Ave., Billings; Empire Heating & Cooling, BP Industrial Site, Billings; Central Sheet Metal Works, 407 N. 24th St., Billings; Ryniker Steel Products Co., NP Industrial Site, Billings. Electrical: E. H. Torgrimson, Absarokee; Sterling Electric, 1231 Central Ave., Billings; Empire Electric, 2412 4th Ave. N., Billings; Dahlstrom Electric, 125 Grand Ave., Billings; Yellowstone Electric, 520 N. 32nd St., Billings; Curley-Naylor Electric, 123 N. 16th St., Billings; Reddi Electric, 1045; Central Ave., Billings.
EE 3-17. Previous report 3-10

**★ BOILER ALARM SYSTEM— Malmstrom AFB, Mont.**

Award to Rowe Electric Co., 410 1st Ave. S., Great Falls, $29,833, by U. S. Air Force, base procurement office, Malmstrom Air Force Base, for installation of a boiler alarm indicating system at the base.
VK 3-14. Previous report 2-19

**● RESIDENCES, UTILITIES (Ranger Stations)— Missoula, Mont.**

Bids will be opened 2 p.m., M.S.T., April 2, by U.S. Forest Service, Federal Bldg., Missoula, for constructing four residences, garage, warehouse, barracks, pumphouse, water system at four ranger stations in Montana; Bldg. No. 5039-59. Plans available at 1036 Federal Office Bldg., Missoula. Bid guarantee 5%.

Darby Ranger Station, Bitterroot National Forest, Ravalli County: Three-bedroom residence with attached garage and a two-car garage. Completion time 102 calendar days.

Bonita Ranger Station, Lolo National Forest, Missoula County: Three-bedroom residence with attached garage and water system. Completion time 120 calendar days.

West Yellowstone Administrative Site, Gallatin National Forest, Gallatin County; Office-warehouse, warehouse storage units, one 12-man barracks, pumphouse with pump and water system. Completion time 180 calendar days.

Ennis Administrative Site, Beaverhead National Forest, Madison County: Two three-bedroom residences with attached garages and one garage-shop. Completion time 180 calendar days. DM 3-14

**SCHOOL— Missoula, Mont.**

An election will be held April 4 by School District No. 1, Missoula, on a $1,750,000 bond issue to finance proposed school construction. DC 3-18. Previous report 3-4

**● RESIDENCES, UTILITIES (Ranger Station)— Missoula, Mont.**

Bid opening date has been extended to 2 p.m., M.S.T., April 9, for constructing four residences, garage, warehouse, barracks, pumphouse, water system at four ranger stations in Montana; Bldg. No. 5039-59. Bids will be opened by U. S. Forest Service, Federal Bldg., Missoula. Previous bid opening date was 2 p.m., April 2.
VK 3-18. Previous report 3-14

**■ EXHIBIT BUILDING— Ronan, Mont.**

Planholders announced for construction of a 96'x40' (112'x40' alt.) new livestock exhibit building. Bids will be opened 8 p.m., March 25, by Lake County Fair Board, Lake County Extension office, Ronan. Plans with Witwer & Price, architects, 107 E. Main St., Missoula.

PLANHOLDERS: Carl R. Olofson, 1600 S. Ave. W., Missoula; Hightower & Lubrecht Construction Co., Box 1499, Missoula; Art Wohl, Box 1088, Missoula; L. J. Fishbaugh, Bigfork; Montana Builders, Box 491, Kalispell; Merritt Cass & Sons, Polson; Bolton & Tanner Construction Co., Box 1038, Missoula; Petersen Construction Co., Box 922, Missoula.
VK 3-17. Previous report 3-1

**HIGH SCHOOL— Sidney, Mont.**

A bond issue in the amount of $840,000 will be placed on the ballot April 4 to finance construction of a new high school at Sidney. Nordquist & Sundell, 1248 N. 27th St., Billings, have been retained as architects. EE 3-17

**● POST OFFICE— White Sulphur Springs, Mont.**

Bids will be received through April 2 by U.S. Post Office Department, Regional Real Estate Officer, Box 1454, Spokane, for construction of a 2,600 sq. ft. post office building for lease to the government. Plans and specifications at above office. Post office will have 270 sq. ft. platform and 11,000 sq. ft. of parking and maneuvering area. WB 3-3

## ALASKA

**● QUONSET BUILDING, VENTILATION SYSTEM— Anchorage, Alaska**

Bids will be opened 2 p.m., A.S.T., March 20, in office of George Shannon, city manager, City Hll, Anchorage, for construction of a telephone quonset building and installation of a ventilation system in Anchorage. Specifications from purchasing agent's office, City Warehouse, Post Road, Anchorage. AL 3-3

**● JUNIOR HIGH SCHOOL— Anchorage, Alaska**

Bids will be opened 8 p.m., April 14, by Anchorage Independent School District, in office of the Superintendent, Administration Bldg., 1602 Hillcrest Drive, Spenard, for construction of a junior high school in Anchorage. Plans by Edwin Crittenden & Associates, architects 845 9th, Anchorage. $50 deposit. Bid bond 5%. AL 3-3

**■ JUNIOR HIGH SCHOOL— Anchorage, Alaska**
(Estimated cost $1,880,000)

Planholders announced on construction of the 94,000 sq. ft., one-story, 556'x388' (with two open courts) A. J. Wendler Junior High School at Northern Lights Blvd. and C Lake Road, Anchorage. Bids will be opened 8 p.m., April 14, by Anchorage Independent School District, Administration Bldg., 16 Hillcrest Drive, Spenard Branch, Anchorage. Plans with Edwin Crittenden, Architect and Associates, 833 9th Ave., Anchorage. $50 deposit. Bid bond 5%. Mechanical engineer is Stern & Towne, and electrical engineer is Thomas E. Sparling, 615 Lakeview Blvd., Seattle.

Concrete footings, foundation; block and

metal walls; concrete slab floor; steel truss roof; steel windows; rigid insulation in roof, blanket in walls and rigid at perimeter; exposed masonry and drywall partitions; vinyl asbestos floor finish; acoustical ceiling; steel doors; wood cabinets; blackboards; fire doors; fluorescent lighting; coal fired, steam boiler; perimeter ducts for ventilating and air conditioning.

Planholders: Inlet Construction Co., Box 3059, Anchorage; J. B. Warrack Co., Box 2080, Anchorage; Continental Constructors, 1001 E. 10th, Anchorage; Patti-MacDonald Co., Box 7-1634, Anchorage; Lease Co., Box 385, Anchorage; Burgess Construction Co., Box 1410, Fairbanks; Eiford Co., 1750 State St., Bellingham; C & R Builders, Inc., Box 4-757, Spenard.

DM 3-18. Previous report 3-12

●**COMPOSITE BUILDING (No. 1)—** **Clear, Alaska**

Bids will be opened 2 p.m., P.S.T., March 26, by Corps of Engineers, Alaska District, in the office at 1519 S. Alaskan Way, Seattle, for construction of composite building No. 1, consisting of a one-story, main building containing NCO Club and facilities, two three-story airmen dormitories and outside utilities at Clear, Alaska; ENG-95-507-59-60. Plans with Corps of Engineers, Box 7002, Anchorage, and with Seattle district office.

Project involves construction of a 243'7"x 121'8", permanent masonry structure consisting of: A—single-story main building containing NCO club; airmen and officer dining areas; kitchen and bakery area; administration; technical library, communication room and subsistence storage. B—two, 351'1"x35'4"' three-story airmen dormitories containing space for 600 men. C—outside utilities for grading and Mo-gas storage and dispensing facilities. Limited contractor camp facilities will be made available to successful contractor. Completion date July 15, 1960.

Planholders: Neise Mortensen & Co., Inc., 1021 Westlake Ave. N., Seattle, Wash.; Perini Corp., 901 Tower Bldg., Seattle; Morrison-Knudsen Co., Inc., 603 Hoge Bldg., Seattle; Holaday & Edworthy, Inc., 6240 S. Tacoma Way, Tacoma, Wash.; J. H. Pomeroy & Co., Inc., 120 Montgomery, San Francisco, Calif.; Charles A. Langlais & Son, Inc., 474 Bryant St., San Francisco; Grove, Shepherd, Wilson & Kruge, Inc., 400 Madison Ave., New York, N.Y.; Niedermeyer - Martin Co., Portland Trust Bldg., Portland, Ore.; Nordin Construction Co., Box 1771, Fairbanks; Ray L. Martin & Son, Box 486, Portland; John Steenmeyer & Sons, Box 208, Bellingham; Baker & Ford, Box 626, Bellingham.

A. H. Barbour & Son, Inc., Box 1977, Portland; Chris Berg, Inc., 2730 Westlake Ave. N, Seattle; Manson-Osberg Co., 1132 N. 128th, Seattle; Fischbach & Moore, 3201 Fremont, Seattle; Peter Kiewit Sons' Co., 1300 Aloha, Seattle; J. C. Boespflug Construction So., 1912 4th Ave. S., Seattle; Patti-MacDonald Construction Co., 1100 5th Ave., Seattle; A & A Construction Co., 3720 W. Broadway, Muskogee, Okla.; Hansen & Rowland, Inc., 625 Dexter Horton Bldg., Seattle; S. S. Mullen, Inc., Box 3886, Terminal Annex, Seattle; Raber & Kief, Inc., 5939 4th Ave., Seattle; Brown & Root, Inc., Box 3, Houston, Tex.

DM 3-14. Previous report 2-19

●**TECHNICAL BUILDINGS—** **Clear AFS, Alaska**

Bids will be opened 2 p.m., P.S.T., April 28, by Corps of Engineers, Alaskan District, in the office at 1519 S. Alaskan Way, Seattle, Wash., for construction of three buildings and passageways with required excavation and backfill at Clear Air Force Station, Alaska; Inv. 59-51. Plans with Anchorage office, Box 7002 and with Seattle office.

DM 3-17

●**APARTMENT—** **Galen, Alaska**

Place of bid opening has been changed on construction of a four-unit, court-type frame apartment building, complete with all utilities in Galena; Inv. No. 5-59-67. Bids will be opened 2 p.m., A.S.T., March 25, in Room 308 (East Penthouse), Post Office Bldg., Anchorage, by Federal Aviation Agency. Bidders who carry their bids to the opening should bring them to above address in Port Office, rather than the procurement branch office at 219 E. 5th Ave., Anchorage. DM 3-14. Previous report 2-28

●■**POST OFFICE (Alterations and Additions)—** **Ketchikan, Alaska**

Bids will be opened 3 p.m., P.S.T., March 31, by General Services Administration, room 126, Federal Office Bldg., Seattle, Wash., for construction of a two-story addition, exterior and interior alterations, repairs and improvements to main buildings and grounds, U. S. post office, court house and jail, Stedman and Mission streets, Ketchikan, Alaska; Proj. No. SEA-1267. Specifications with above office or building custodian in Ketchikan. Bid bond 2%. Completion time 240 calendar days.

Alt. A: Add to base bid all interior painting of stories above second floor line, all remodeling and related work on second floor of existing building. Alt. B: Add to base bid all cleaning and waterproofing of exterior exposed concrete walls and exterior painting of these walls of existing building. Alt. C: Add to base bid all work relating to installation of new roofing on existing building.

Planholders: Alcan Pacific Co., 1445 E. 8th Ave., Anchorage; Inlet Construction Co., Box 3095, Anchorage; Mallow Construction Co., Box 337, Spenard; Oaks Construction Co., Box 1452, Anchorage; Sandland Construction Co., Box 4-193, Spenard; Warren Painting Co., Inc., Box 1124, Anchorage; Don Abel, Box 691, Juneau; Berg Construction Co., Inc., Box 1804, Juneau; Triplette & Trucano, Box 2562, Juneau; William M. Thomasson, Box 1919, Juneau; Builders Incorporated, 1600 Tongass Ave., Ketchikan; McGillvray Bros., Box 2128, Ketchikan; C & R Builders, 1619 8th Ave. N., Seattle, Wash.; Clyde Frank, Box 321, Sitka; Hans Enzbrunner, Contractor, Box 138, Wrangell; S. S. Mullin Inc., Box 3886, Terminal Annex, Seattle; Nelse Mortensen & Co., Inc., 1021 Westlake N., Seattle; Western Construction Co., Box 2274, Anchorage; Farwest Construction Co., 608 W. 44th St., Seattle; Sound Construction Co., 1300 Aloha St., Seattle; Jim Camerson, Box 1304, Seward.

RM 3-12

▲**APARTMENTS—** **Kotzebue, Alaska**

Eight bids received March 12 by Federal Aviation Agency, procurement branch, 219 E. 5th Ave., Anchorage (Box 440) for construction of two apartment buildings in Kotzebue. LOW BIDS: Pitcher Construction Co., Inc., Box 613, Fairbanks, $167,505; Consolidated Construction Co., Box 1584, Fairbanks, $180,450; Corvi Construction Co., Spenard, $185,976.

AL 3-14. Previous report 3-7

●**AIRFORCE BUILDINGS (Quarters, Operations)—** **Northeast Cape, Alaska**

Bids will be opened 2 p.m., A.S.T., April 1, by Corps of Engineers, Alaska District, Anchorage, for construction of quarters building with outside utilities and addition to operations building at Northeast Cape Air Force Station, located on St. Lawrence Island in the Bering Sea, 625 mi. northwest of Anchorage; ENG-95-507-59-12. Specifications available from Anchorage office. Bid bond 20%. Completion date: September 30, 1959.

RM 3-13

**SCHOOL—** **Perryville, Alaska**

The Bureau of Indian Affairs, 519 Eagle, Anchorage, has requested withdrawal of a 92-acre parcel of land at Perryville, Alaska. According to the Area Director of the Bureau, the parcel is needed as an addition to an existing school reserve. The application indicated that a new school and quarters building are planned to be placed upon the additional tract.

AL 3-12

★**BUILDING, TANK, UTILITIES—** **Sparrevohn AFS, Alaska**

Award to Raber & Kief, Inc., 5939 4th S., Seattle, $1,591,395, by Corps of Engineers, Box 7002, Anchorage, for construction of a composite building, water storage tank, outside utilities, roads and grading, removal of existing buildings, earthwork at Sparrevohn Air Force Station, Alaska; ENG-95-507-59-44. Bid opening February 26. Completion time December 13. AM 3-12. Previous report 3-3

●**PAINTING PIER—** **Whittier, Alaska**

Bids will be opened 2 p.m., A.S.T., March 25, by U. S. Army, purchasing and contracting office, Bldg. 977, Room 19, Fort Richardson, for cleaning and painting exterior surfaces of DeLong pier hull, Port of Whittier, Alaska; IFB-ASK-95-508-59.

AL 3-13

# ENGINEERING NEWS

## Oregon, Washington, Idaho, Montana, Northern California, Alaska

● Bids Called
★ Contract Awards
▲ Low Bids—Bids Received
■ Planholders—Prospective Bidders

## OREGON

★**TRANSMISSION LINE—Schedule 1 (BPA)—** **Benton, Lincoln Counties, Ore.**

Award to R. C. Hughes, 2105 Airport Way, Spokane, $121,930, by Bonneville Power Administration, 1001 N.E. Lloyd Blvd., Portland, for construction Schedule 1, Wood Pole Section, 19.4 mi. of the Albany-Toledo section of the Santim-Toledo 230 kv line No. 1, 39.2 mi. Benton and Lincoln counties; Inv. No. 8932. Bids on Schedule 2, Steel Tower, will be opened March 24.

WB 3-14. Previous report 3-11

**SEWER—** **Canyonville, Ore.**

A $250,000 bond issue to finance a city sewer system was approved by voters in Canyonville. The proposed project involves replacement of the downtown sewer line and expansion of the city system. Plans by city engineer, City Hall.

DC 3-18

●**CURBS, CATCH BASINS—Coos Bay, Ore.**

Bids will be opened 5 p.m., March 23, in office of city recorder, City Hall, Coos Bay, for installation of curbs, catch basins and miscellaneous work on three city streets, 15th St., Kingwood Ave. and Myrtle Ave. Plans with recorder.

DC 3-12

★**CLEARING—** **Cougar Reservoir, Ore.**

Award to C. Vern White, Box 153, Lowell, $28,800, by Corps of Engineers, Portland District, 628 Pittock Block, Portland, for clearing the upper eastside road right-of-way at Cougar Reservoir on the South Fork McKenzie River, approximately 11 mi. south of the town of Blue River, Lane County, Ore.; CIVENG-35-026-59-127.

WB 3-12. Previous report 2-28

▲**GATE VALVES (BuRec)—** **Emigrant Dam, Ore.**

Eight bids were received March 12 by Bureau of Reclamation, Denver Federal Center, Denver, Colo., for Sched. 1, 2 and 3 for high pressure gate valves for outlet works at Paonia Dam, canal outlet works at Foss Dam and outlet works at Emigrant Dam enlargement, Paonia, Washita Basin and Rogue River Basin projects; DS-5146. LOW: Philips & Davies, Inc., Kenton, Ohio, $102,650; Pacific Coast Engineering Co., Alameda, Calif., $112,200; Charles C. Steward Machine Co., Birmingham, Ala., $120,890.

DM 3-18

**SEWAGE PLANT, SEWERS—** **Gold Beach, Ore.**

An election will be held soon on a $210,000 bond issue to finance construction of a sewage plant addition and sewer extensions in Gold Beach. Plans are being prepared by R. H. Erichsen, consulting engineer, 409 4th Court, Coos Bay.

Plans call for improvements and additions

to existing sewage plants, construction of two pumping stations. Estimated cost $62,000 for additions and revisions to sewage plant; $17,000 each for the two pumping stations.

Installation of interceptor and pressure sewer lines to connect the pump stations with the treatment plant. Sewer lines would be established in northern portion of the city only. Estimated cost $43,000. DC 3-18

**▲JETTIES— Gold Beach, Ore.**

Bids were opened March 17 by Corps of Engineers, 628 Pittock Block, Portland, for construction of two rubble-mound jetties at the entrance to Rogue River, Gold Beach, Curry County, Ore.; CIVENG-35-026-59-109. LOW BIDS: J. N. Conley, 4332 N.E. Royal Court, Portland, and G. O. Dennis, 7355 Johnson Blvd., joint venture, $2,890,100; Peter Kiewit Sons' Co., 405 E. Main, Medford, $3,188,800; MacDonald & Kruse and Al Wood Corp., Box 620, N. Hollywood, Calif., $3,241,400. HI: $4,777,200. Government estimate, $3,113,800. There were 14 bidders.

WB 3-18. Previous report 2-28

**★SEWERS— Gresham, Ore.**

Award to Trio Construction Co., Inc., 3170 W. 11th St., Eugene, $79,091, by Ruth Hillis, city recorder, City Hall, Gresham, for construction of sanitary sewers for the Gresham west end sewer project. Plans by Elden W. Carter, consulting engineers, 1207 Portland Trust Bldg., Portland. WB 3-17

**WATER LINE— Heppner, Ore.**
(Estimated cost $125,000)

Bids will be called early in April by city council, City Hall, Heppner, for replacement of six mi. of water feeder line between Heppner and the city's upper well at the forks of Willow Creek. Plans by Clark & Groff, consulting engineers, 3240 Triangle Drive, Salem. VK 3-14. Previous report 2-21

**★CLEARING— Jackson County, Ore.**

Award to Leonard R. Ward, Medford, $26,650, by Bureau of Reclamation for clearing and removing buildings, fences and other improvements from the enlarged Emigrant reservoir area, about eight mi. southeast of Ashland, Jackson County, Talent Division, Rogue River Basin Project; Spec. No. 100C-357. Bids were opened at Camp White on January 13.

DM 3-17. Previous report 12-16

**● GRADING— Lakeview, Ore.**

Bids will be opened 10 a.m., April 1, by Zane Gray, Lake County clerk, Courthouse, Lakeview, for construction of a roadbed approximately eight mi. in length on Plush Road located in Townships 36 S. and 37 S., Range 23, east of the Willamette meridian, Lake County. Specifications with above office. ZZ 3-18

**★GRADING, SURFACING, STOCKPILING (BPR)— Lane County, Ore.**

Award to E. C. Hall Co., 11655 S.W. Barbur Blvd., Portland, $295,614 (Sched. B) by Bureau of Public Roads, 824 Morgan Bldg., Portland, for 1.9 mi. of grading, 8.4 mi. of surfacing, and stockpiling crushed rock, Oregon TARP BLM 24-B and 26-B, Siuslaw Road and Whittaker Creek Road, Bureau of Land Management - Eugene District, Lane County, Ore. DC 3-12. Previous report 3-5

**● POWER TRANSMISSION, CLEARING— Lane County, Ore.**

Bids will be opened 2 p.m., P.S.T., April 14, by Bonneville Power Administration, 1001 N.E. Lloyd Blvd., Portland, for clearing a portion of and construction of Finn Rock-Leaburg section of the Cougar-Station S 115 kv line No. 1 and for construction of temporary taps to Eugene Water and Electric Board 66 kv lines, Lane County; Inv. No. 8943. Plans with Portland office. $25 deposit. Bid guarantee 25%. Completion time 165 calendar days.

Approximate length of project 17.8 mi. Quantities—GROUP A, Clearing: 100' of 12" to 24" culvert; 60 c.y. crushed aggregate; three pipe frame or metal panel gates; three 16' wire gates; lump sum for clearing right of way. GROUP B—Fin Rock-Cougar Line: install wood poles; spar crossarms; steel crossarms. GROUP C: Install temporary taps. DM 3-17

**▲RESERVIOR— Medford, Ore.**

Ten bids received March 13, ranging from a low of $34,772 to a high of $49,912, by city council City Hall, Medford, for construction of a 500,000-gal. reservoir on Braneburg Hill. Plans by Cornell, Howland, Hayes & Merryfield, consulting engineers, 1600 Western Ave., Corvallis. LOW BIDS: Graff & James, Box 82, Medford, $34,772; Petrehn & Purdy, Box 961, Central Point, $35,654; Ausland Construction Co., Manchel Blvd., Grants Pass, $37,300.

VK 3-17. Previous report 2-28

**SEWER SYSTEM— Mount Angel, Ore.**
(Estimated cost $115-$120,000)

John W. Cunningham & Associates, consulting engineers, 714 Portland Trust Bldg., Portland, have been retained by the City Council, William Bean, mayor, Mount Angel, to make a survey and cost estimates for a sewer system in the south end of Mount Angel. WB 3-14

**● CHANNEL LIGHT (13th Coast Guard)— North Bend, Ore.**

Bid opening has been extended to 2 p.m., March 23rd, for construction of Jarvis Upper Range 2, front light 31, Coos Bay Channel, North Bend, Ore.; Bid No. FS-1918. Bids will be opened by 13th Coast Guard District, Room 922, 618 2nd Ave., Seattle, Wash. Previous bid opening date was March 17. Plans with above Seattle office. Bid bond 5%.

AM 3-18. Previous report 3-4

**● PAVING, CURBS, GUTTERS— Ontario, Ore.**

Bids will be opened 7:30 p.m., April 6, by Eldon S. Mills, city recorder, City Hall, Ontario, for 1—asphaltic concrete paving on a leveling and binder course, 2—construction of concrete combination curbs and gutters, concrete gutters and plain concrete curbs. Plans with city engineer, City Hall. $20 deposit for each set.

Quantities: 16,265 tons asphaltic concrete paving; 6,025 c.y. crushed rock in leveling and binder course; 180 ton MC-2 cutback asphalt in binder course; 600,000 gal. sprinkling. DC 3-12

**● BRIDGES (BPR)— Portland, Ore.**

Bids will be opened 2 p.m., March 27, by Bureau of Public Roads, 824 Morgan Bldg., 720 S.W. Washington St., Portland, for constructing two reinforced concrete bridges 85' and 142' in length, the Frissell Bridge on South Fork Road, and the Dutch Oven Bridge on August Creek Road, Willamette National Forest, Lane County, FDRP Willamette 163-D and 1855-A. Plans with Portland office.

Quantities: 475 c.y. structure excavation; 343 c.y. concrete; 76,000 lb. reinforcement steel; 476' steel bridge railing; other small items of work. DM 3-12

**TAXIWAYS, SHOULDERS (Airport)— Portland, Ore.**

The Port of Portland, Dennis Lindsay, chairman, 5848 N. Lagoon Ave., Portland, has voted to spend $275,000 for taxiways at the Portland International Airport to permit airliners to turn at 45 mph. Federal aid in the amount of $125,000 is expected. Federal aid also will be asked for stabilizing of the surfaces of shoulders on all taxiways north of the main instrument runways.

WB 3-12

**▲FENCING (BPR)— Portland, Ore.**

Five bids received March 10 by Bureau of Public Roads, 824 Morgan Bldg., Portland, for furnishing and installing 4.322 mi. of fencing on Cow Creek Road, Oregon, TARP BLM 42-A2, B1, Bureau of Land Management-Roseburg District, Douglas County. LOW BIDS: Robinson & Robinson, Moses Lake, Wash., $6,408; Hamer Corp., Roseburg, $6,912; Hattan & Bingham, North Bend, $8,667. Government estimate, $10,320.

WB 3-12. Previous report 2-18

**★PARKING LOT (Centennial)— Portland, Ore.**

Award to E. P. Baltz & Son, 9817 E. Burnside St., Portland, $18,800, by Oregon Centennial Commission, Anthony Brandenthaler, chairman, Jackson Tower, Portland, for parking lot improvements on approximately 100 acres in the Vanport area of the Oregon Centennial Exposition site in North Portland. Plans by Stewart & Richardson, architects, and Moffatt, Nichol & Taylor, engineers, 219 S.W. Stark St., Portland.

WB 3-12. Previous report 2-[illegible]

**★IRRIGATION SYSTEM, LANDSCAPING— Portland, Ore.**

Award to E. P. Baltz & Son, 9817 E. Burnside St., Portland, $42,998, by Port of Portland, John J. Winn, Jr., general manager, 5848 N. Lagoon Ave., Portland, for landscape construction, second stage, at Portland International Airport, Portland. Plans by David E. Thompson, landscape architect, 319 Davis Bldg., Portland.

WB 3-12. Previous report 2-[illegible]

**★PUMPS— Portland, Ore.**

Award to Weinman Pump Manufacturing Co., represented by Brod & McClung, [illegible] S.E. McBrod Ave., Milwaukie, $2,439, by City Purchasing Agent, 208 City Hall, Portland, for three electric motor-driven centrifugal water pumps for Bureau of Parks.

WB 3-13. Previous report 2-[illegible]

**▲POWER CIRCUIT BREAKERS (BPA)— Portland, Ore.**

Three bids received March 9 by Bonneville Power Administration, 1001 N.E. Lloyd Blvd., Portland, for power circuit breakers; Inv. No. 8933. BIDS: Brown Boveri Corp., New York, N.Y., $93,279; Westinghouse Electric Corp., Portland, $114,680; Schwager-Wood Corp., Portland, $155,250.

WB 3-14. Previous report 2-[illegible]

**▲PLAYGROUND IMPROVEMENTS (Woodmere School)— Portland, Ore.**

Five bids received March 12 by Portland School District No. 1, 620 N.E. Halsey St., Portland, for playground improvements at Woodmere School. LOW BIDS: Cascade Construction Co., Foot of S.W. Abernathy St., $11,867; K. F. Jacobsen & Co., Inc., [illegible] N. Russell St., $12,084; Portland Road & Driveway Co., 7295 S.E. King Rd., $12,[illegible] Of Portland. WB 3-14. Previous report 2-[illegible]

**★HYDRAULIC TURBINES— Portland, Ore.**

Award to Pelton Division of Baldwin-Lima-Hamilton Corp., 2929 19th St., San Francisco, $381,482 (reduction from total bid of $388,482), by Corps of Engineers, 618 Pittock Block, Portland, for furnishing two 21,700 hp hydraulic turbines fob Oakridge, Ore., for use at Hills Creek Reservoir, Willamette River Basin, Ore.; CIVENG-35-026-59-107. WB 3-17. Previous report 2-[illegible]

**★DAM REPAIRS (The Dalles)— Portland, Ore.**

Award to George E. Berry, 2640 S.W. Cedar Hills Blvd., Beaverton, $135,754, by Corps of Engineers, 628 Pittock Block, Portland, for alteration and repairs to intake gates and appurtenances, ice and trash sluiceway gate, 100-ton intake deck gantry crane, installation of gauge well equipment and cover, installation of lifting beams indicating system, installation of crane safety alarms and repairs of damaged or deteriorated [illegible] at The Dalles Dam on the Columbia River approximately three mi. upstream from the city of The Dalles, Wasco County, Ore. CIVENG-35-026-59-129.

**● SUBSTATIONS, EQUIPMENT— Portland, Ore.**

Bids will be opened 10 a.m., April 1, Commission of Public Docks, Thomas J. Guerin, general manager, 3070 N.W. Front Ave., Portland, for furnishing one electric 1,500 kva master unit substation, one [illegible] load center substation, 500 kva, and [illegible] items of miscellaneous electrical apparatus, switches, wire, etc. Specifications with engineering department. WB 3-[illegible]

**■ BRIDGES (BPR)— Portland, Ore.**

Planholders announced for construction two reinforced concrete bridges 85' and 142' in length, the Frissell Bridge on South Fork Road, and the Dutch Oven Bridge on August Creek Road, Willamette National Forest, Lane County, FDRP Willamette 163-D and 1855-A. Bids will be opened 2 p.m., March

27, by Bureau of Public Roads, 824 Morgan Bldg., 720 S.W. Washington St., Portland.

Planholders: Duane Amens, 171 S.E. 2nd, Beaverton; George Renner, 631 S.E. Taylor St., Portland; O. R. Kennen, Jr., 6609 S.E. Jack Road, Milwaukie; M. J. Brassfield, 975 Imperial Drive, Salem; Merlin R. Stam, 1974 Pierce St., Eugene; Gro-Bar Engineering Co., Box 813, Yakima, Wash.; Tom Lillebo Construction Co., Box 365, Reedsport; A. & G. Construction, Box 383, Springfield; Sig Andersson, 8th and Teakwood, Coos Bay.

WB 3-18. Previous report 3-12

**▲VORTAC FACILITY (Generators, Fuel System, Road)— Rome, Ore.**

Six bids received March 6 by Federal Aviation Agency, 5651 W. Manchester Ave., Los Angeles, Calif. (Box 90007), for conversion of an existing Vor to a Vortac facility at Rome, Ore. LOW BIDS: Hibbert Construction Co., 6200 Luna Lane, Carmichael, Calif., $24,463; Barfis Co., 3931 Redgeley Drive, Los Angeles, Calif., $24,985; Schouten Construction Co., 1643 Ogden St., Denver, Colo., $25,395. VK 3-17

**★STATE HIGHWAY PROJECT— Salem, Ore.**

Award announced by Oregon State Highway Commission, Salem, on the following project on which bids were opened March 3.

BRIDGES, North Yamhill River Section—Construction 381' reinforced concrete box girder and deck girder bridge to carry northbound lanes of highway over N. Yamhill River about one mi. east of McMinnville on Pacific Highway West, including appurtenant grading and paving, in Yamhill County; FAP No. F-122(12).

AWARD: Birkemeier Construction Co., 14511 S.E. River Road, Milwaukie, $270,762.

DM 3-12. Previous report 3-10

**★STATE HIGHWAY PROJECTS— Salem, Ore.**

Two awards announced by Oregon State Highway Commission, Salem, on the following highway construction projects, for which bids were opened March 3.

GRADING, PAVING, Vale—Grading, paving 0.31 mi. on Morton St., Malheur County; a State Project.

AWARD: Russell Olson Construction Co., Inc., Box 272, Pendleton, $21,855.

GRADING, PAVING, Elgin—Grading, paving 0.27 mi. on Division St., Union County; a City Project.

AWARD: E. H. Itschner, Box 316, Mollala, $19,760. RM 3-14. Previous report 3-10

**●POWER, WATER, SEWER FACILITIES— The Dalles Dam, Ore.**

Bids will be opened 2 p.m., P.S.T., April 2, by Corps of Engineers, 628 Pittock Block, Portland, for construction of underground power and communication system; water and sewer facilities; grading, surfacing and railroad track reconstruction; dismantling Big Eddy office building at The Dalles Dam, on left bank of Columbia River about three mi. upstream from city of The Dalles, Wasco County, Ore.; CIVENG-35-026-59-154. Plans with Portland office. Bid bond 20% or $1,000,000, whichever is lesser. Completion time June 23, 1959.

Quantities: 1,000 c.y. compacted fill; demolition of office building; 550 c.y. base course; 200 c.y. leveling course; guard rail; 490' of 10" cast iron pipe; 765' of 10" outside diameter, seven-gauge steel pipe; 250' of 2" steel pipe; 135' of 8⅝" outside diameter, three-gauge steel pipe; three 2" gate valves and box; one 8" same; sewer system; underground electrical system; 450 c.y. ballast; track reconstruction. DM 3-14

## WASHINGTON

**●PIPE— Aberdeen, Wash.**

Bids to be opened 10 a.m., April 1 by William J. Murphy Jr., manager, Port of Grays Harbor, Box 110, Aberdeen, for furnishing not more than six lengths of pipe whose total length shall equal 84' and 20 pieces of tapered dredge pipe nipples, fob Port Dock, Aberdeen. Specifications with Port manager. DC 3-17

**■WATER MAIN— Alderwood Manor, Wash.**

Planholders announced on installation of 2,350' of 18" class 150 cement lined cast iron water pipe and appurtenances, from Well No. 7 to Well No. 8 along Spruce Way, Alderwood Manor. Bids to be opened 7 p.m., March 23 by Alderwood Water District, in district office, Alderwood Manor. Plans with Lester Erickson, district engineer, above address.

Planholders: A. Jakaboni, 5232 49th S.W., Seattle; Argentieri & Colarossi, 1815 Jackson, Seattle; Frank Coluccio Construction Co., Inc., 7778 Seward Park, Seattle; Herbert Construction Corp., 107 S. 3rd W., Longview; Sposari & Macri, 933 22nd, Seattle; H. W. Houston, 9485 S.W. 70th, Portland, Ore.

DM 3-18. Previous report 3-13

**■DEEP WELL PUMP— Alderwood Manor, Wash.**

Planholders announced on furnishing and installing a deep well turbine type pump with shielded drip-proof driving motor and control pan. Bids will be opened 7 p.m., March 23 by Alderwood Water District in district office, Alderwood Manor. Plans with Lester Erickson, district engineer, above address.

Planholders: Layne Bowler Co., 819 16th, Edmonds; Pump and Equipment Co., 2616 1st, Seattle; Atlas Equipment Co., Inc., 620 Maynard, Seattle.

DM 3-18. Previous report 3-13

**■SEWERAGE PROJECT— Battle Ground, Wash.**

Planholders announced for construction of sewage collection system (Sched. I), sewage lift station (Sched. II), and sewage treatment lagooon (Sched. III). Bids will be opened 8 p.m., March 31, by S. L. Falin, town clerk, City Building, Battle Ground Plans with above office, or with N. M. Haner & Associates, consulting engineers, 220 S.W. Alder St., Portland, Ore.

Planholders: Glen Ousley Construction Co., 140 Tomahawk Lane, Eugene, Ore.; James G. Robertson, Rte. 1, Box 385-A, Clackamas, Ore.; H. W. Houston, 9485 S.W. 70th Ave., Portland, Ore.; Lord Bros., 9233 N. Calvert, Portland, Ore.; Harold E. Olds, 3111 N. 24th St., Tacoma; Riverside Construction Co., Box 3853, Portland, Ore.; Goodat Crane, 1735 S.E. Union Ave., Portland, Ore.; Paul W. Ferneding, 2115 27th St., Vancouver; John Luyben & Son, Inc., 14005 N.E. Halsey St., Portland, Ore.; Packard Pipe and Pump Co., 554 14th Ave., Longview; Salem Sand & Gravel, Box 628, Salem, Ore.; Lavelle Construction Co., 10430 S.E. Bush St., Portland; Frank Lyons & Co., 5200 N.E. Alberta St., Portland; R. C. Marvel Construction Co., Box 73, Goldendale; L. B. Read General Contractor, 2607 S.W. Sunset Blvd., Portland.

VP 3-17. Previous report 3-11

**●SUBSTATION— Benton County, Wash.**

Bids will be opened 2 p.m., P.S.T., March 31, by Bonneville Power Administration, 1001 N.E. Lloyd Blvd., Portland, Ore., for construction of a 230 kv terminal addition for PP&L at the Midway Substation about 30 mi. northeast of Sunnyside in Benton County, Wash.; Inv. No. 8040. Plans with Portland office. Bid guarantee 25%. Completion time 75 calendar days.

Quantities: 150 c.y. structure excavation; 67 c.y. reinforced concrete footings; lump sum for steel conduit, bus and connectors, and grounding system; 27,180 lb. steel erection; installation of station equipment; 420 sq. ft. concrete sidewalks; 480' safety fence.

DM 3-12

**★LOGGING ROAD IMPROVEMENTS— Bellingham, Wash.**

Award to Joe A. Jussel, 2084 Dellesta Dr., Bellingham, $13,948, by City Council, City Hall, Bellingham, for improvement of the Anacortes Veneer logging road leading to the Nooksack River Dam site. OTHER LOW BIDS: Valley Contractors, Everson, $17,588; W. J. Halleran & Son, 13000 Empire Way S., Seattle, $18,574. ET 3-18. Previous report 3-3

**BRIDGE (Lummi Island)— Bellingham, Wash.**

(Estimated cost $1,800,000)

Homer Hadley, consulting engineer, Securities Bldg., Seattle, has been retained to prepare plans for a proposed bridge from Lummi Island to the mainland, for Whatcom County Commissioners, Courthouse, Bellingham. County officials are discussing the likelihood of a loan from the Federal Home and Housing Finance Agency for funds to finance proposed bridge plans. ET 3-14

**●MODIFYING ELECTRICAL SYSTEM (13th Naval District)— Bremerton, Port Townsend, Wash.**

Bids will be opened 2 p.m., P.S.T., March 30, by 13th Naval District, room 107B, Bldg. 250, U.S. Naval Station, Seattle, for modification of electrical system, U.S. Naval Harbor Defense Unit, Bremerton, Port Townsend; Spec. No. 18448/58. Specs with Seattle office. Bid bond 20%.

Work includes stringing additional wire, constructing new section of pole line, reconnecting transformers and removing certain existing unused wiring. RM 3-13

**★GENERATOR UNIT— Brewster, Wash.**

Award to Fairbanks, Morse & Co., 105 S.E. Taylor, Portland, $8,197, by Oganogan-Douglas County Hospital officials, Brewster, for supplying emergency power generator unit for the hospital.

AM 3-17. Previous report 3-12

**●ROOFING— Chief Joseph Dam, Wash.**

Bids will be opened 2:15 p.m., P.S.T., April 7, by Corps of Engineers, 1519 S. Alaskan Way, Seattle, for repairs to powerhouse roof, Chief Joseph Dam, Columbia River; CIVENG-45-108-59-28. Plans with Seattle office. Bid bond 20%.

Work includes removal of existing gravel, cleaning roof surface throughout a 12" wide strip at base of concrete parapets; application of 90 lb. mineral surfaced roofing over cleaned surface, extending up side of parapet; fabrication and installing of 20 gauge aluminum cap flshing on all parapets of powerhouse roof.

DM 3-17. Previous report 2-28

**▲SIDEWALK, CURBS— Clarkston, Wash.**

Two bids received March 9, by City Council, City Hall, Clarkston, for construction of curbs, sidewalks on the east side of 13th from Elm to Bridge streets, and all other curbing and sidewalk work in Clarkston during the calendar year of 1959 (including both L.I.D. and expenditures from the revolving sidewalk fund). BIDS: Evan Garner, 1265 Elm, Clarkston, $2.85 per ft.; Cockrane & Dickamore, Box 34, Lewiston, Idaho, $3.10 per ft. VK 3-14. Previous report 3-3

**LIGHTING SYSTEM— Cosmpolis, Wash.**

(Estimated cost $7,460)

The modernizing of the Cosmopolis street lighting system by replacing existing facilities on 2nd St. with 12 each 21,000 lumen, 400-watt mercury-vapor fixtures and replacing 43 open type facilities with 189-watt, multiple, individually controlled, light-directing fixtures will be accomplished by Grays Harbor PUD's own crews.

VK 3-12. Previous report 2-27

**■RESERVOIR, UTILITIES— Entiat, Wash.**

Planholders announced for construction of a 250,000-gal. concrete water reservoir, wellhouse, and supplying and installing pumping equipment. This is the first phase of work in relocating the town of Entiat, made necessary by forthcoming inundation of the existing townsite by the reservoir of Rocky Reach dam. Bids will be opened 8:30 p.m., March 26, by City Council, City Hall, Entiat. Plans and specifications available with R. W. Beck & Associates, consulting engineers, Tower Bldg., Seattle, and with Helmer-Hughes & Associates, consulting engineers, 32 Fuller-Quigg Bldg., Wenatchee. $10 deposit.

Planholders: Sparling Meter Co., 904A Elliott Ave. W., Seattle; Worthington Corp., 2616 Western Ave., Seattle; Pacific Mechanical Constructors, Lloyd Bldg., Seattle; O. I. Hall Construction Co., 605 13th Ave., Seattle. AM 3-18. Previous report 3-12

**★SURFACING (BuRec)— Ephrata, Wash.**

Award to Otis Williams & Co., 319 W. Lewis St., Kennewick, $19,696, by Bureau of

Reclamation, Division Ave. and C St. N.W., Ephrata (Box 368), for 15 mi. of surfacing O and M Road, Blocks 85 and 86, west and north of Othello, Grant County, Wash., Spec. No. 117C-546. VK 3-14. Previous report 2-18

■ **SEWAGE LAGOON— Everett, Wash.**

Additional planholders announced on construction of a 163-acre sewage treatment lagoon, including laboratory and control building and related facilities near Everett. Bids will be received until 10 p.m., March 25, by John L. Sugars, city clerk, City Hall, Everett. Plans with city engineer, City Hall, Everett, or with Gray & Osborne, consulting engineers, 228 S. 2nd St., Yakima, $25 deposit.

Planholders: Hunt Brothers, Route 1, Ontario, Wash.; Scheumann & Johnson, 1014 Lloyd Bldg., Seattle; Sparling Meter Co., 904 Elliott Ave., Seattle; Peter Kiewit & Sons Co., Box 1777, Vancouver, Wash.; General Construction Co., 3840 Iowa, Seattle; Soule' Steel Co., 4100 W. Marginal Way, Seattle; American Pipe and Construction Co., Box 1898 Piedmont Station, Portland, Ore.; Hoaglund & Findlay Engineering Co., 774 Dexter Horton Bldg., Seattle; Thomas Scaoze Co., 3211 Airport Way, Seattle; Koppers Co., Inc., 922 Poplar Place, Seattle; Baugh Construction Co., 922 Poplar Place, Seattle; P. J. Anderson & Sons, 13501 Aurora Ave., Seattle; Butter Construction Co., 3419 13th Ave. S.W., Seattle; L. B. Foster Co., 3540 Wilshire Blvd., Los Angeles, Calif.; Shirley G. Stone, 2001 S.W. Market Road, Oswego, Ore. IG 3-14. Previous report 3-5

● **SCREENING PLANT ADDITION— Everett, Wash.**

Bids will be opened 10 a.m., April 8, in the office of city clerk, City Hall, Everett, for an addition to the Panther Creek screening house, Sultan River Project No. 4, Unit No. 2-A. Plans with John W. Cunningham & Associates, 714 Portland Trust Bldg., Portland, and with city clerk, Everett. $25 deposit. Certified check, cashier's 5%.

The enlarged plant will provide screening facilities for a flow of 150 MGD or more. It includes demolition and reconstruction work, which must be carried on without material interruption of the flow of water. Project involves excavation, 700 c.y. reinforced concrete construction; furnishing and installing nine large sluice and flap gates with piping and appurtenances. HH 3-14

**OFFSITE UTILITIES (Capehart Housing Proj. 3)— Fort Lewis, Wash.**

Bids will be called soon for opening in mid-April by Corps of Engineers, 1519 S. Alaskan Way, Seattle, for construction of offsite utilities for Capehart Housing Project 3 at Fort Lewis; ENG-45-108-59-68. Plans with Seattle office. Bid bond 20% or $1,000 whichever is lesser amount. Completion time 270 calendar days.

Work involves construction of approximately 7,400' of streets and roads involving about 16,000 c.y. excavation, 1,860 c.y. base course, 700 c.y. leveling course, 1,300 ton asphaltic concrete; approximately 880 sq. yd. concrete walks; three acres of lawn seeding; approximately 4,700' of 8" and 10" sanitary sewer lines; about 5,300' of 8" to 42' storm drain lines; about 3,170' of 6" and 8" water lines; one 200,000-gal. elevated water storage tank complete with pumphouse, including two 100-gal. centrifugal pumps and related piping and valves; electrical distribution lines involving about 4,650' of bare No. 2 and No. 2 ACSR primary, about 1,800' of No. 6 bare copper primary, about 5,600' of No. 4 ACSR street lighting, about 2,700' of No. 6 copper street lighting and 9,000' of No. 6 weatherproof copper secondary.

Additive items for street and site improvements include about 25,400 c.y. excavation; 2,750 c.y. base course; 1,150 c.y. leveling course and about 1,540 ton asphaltic concrete. DM 3-12

**OFFSITE UTILITIES (Capehart Housing Proj. 4 and 5)— Fort Lewis, Wash.**

Bids will be opened in mid-April by Corps of Engineers, 1519 S. Alaskan Way, Seattle, for construction of offsite utilities for Capehart Housing Project 4 and 5 at Fort Lewis; ENG-45-108-59-69. Plans with Seattle office. Bid bond 20% or $1,000,000 whichever is lesser amount. Completion time 270 days on project 4, and 240 days on project 5.

Work includes 29,300 c.y. excavation; 4,300 c.y. base course; 1,560 c.y. leveling course; 2,400 tons asphaltic concrete; 4,580 sq. yd. concrete walks; 14,200 curb and gutter; eight acres of seeding; 6,604' of 8" to 21" sanitary sewer lines; 8,990' of 8" to 48" storm drain lines; 4,520' of 6" to 8" water lines; 13.8 kv pole-mounted electrical distribution system including primary and street lighting conductors, street lights and transformers; underground and aerial telephone distribution system. DM 3-12

● **BRIDGE MODIFICATION— Green River, Wash.**

Bids will be opened 2 p.m., P.S.T., March 25, by Corps of Engineers, 1519 S. Alaskan Way, Seattle, on construction of Piers Nos. 1 and 3 and abutment No. 1 at Howard A. Hanson Dam, Green River, Wash.; CIVENG-45-108-59-20. Plans with Seattle office. Bid bond 20%. Completion time 120 calendar days.

Work involves construction of a reinforced concrete abutment including dampproofing; construction of a concrete pier; encasement of a steel pier in concrete and grouting between the top of the pier and an existing concrete cap. Modification of the trestle work will be performed by others. Approximate quantities are 530 c.y. concrete; 18,600 lb. reinforced steel.

DM 3-14. Previous report 3-3

● **SEWER LINE— Kennewick, Wash.**

Bids will be opened 2 p.m., March 26, by City Council, City Hall, Kennewick, for installation of a sewer line on W. 4th Ave. to Tweedt St., for Kennewick School District No. 17, 500 S. Dayton St., Kennewick. VC 3-17

★ **PUMPS, MOTORS— Longview, Wash.**

Award to Packard Pipe & Pump Co., 554 14th, Longview, Wash., by McLean, Lingberg and Houston, attorneys, 1344 15th Ave., Longview, for furnishing and installing a 30,000 gpm vertical mixed flow pump, for the Consolidated Diking Improvement District No. 1 of Cowlitz County. Plans by A. P. Lyman, consulting engineer, 5350 Pacific Way, Longview. VK 3-12. Previous report 2-11

● **GATE HOISTS— Ice Harbor Dam, Wash.**

Bids will be opened 2 p.m., April 14, by Corps of Engineers, Bldg. 602, City County Airport, Walla Walla, for furnishing nine intake gate hoist cylinder assemblies and appurtenances and hydraulic operating equipment for Ice Harbor Dam; CIVENG-45-164-59-46. Plans with Walla Walla office. Bid bond 20%. Delivery to be not later than July 1960. AM 3-13. Previous report 3-6

● **PUMPS, EQUIPMENT (North Shore)— Ice Harbor Dam, Wash.**

Bids will be opened 2 p.m., April 23, by Corps of Engineers, Bldg. 602, City County Airport, Walla Walla, for fishway pumps and auxiliary equipment for Ice Harbor Lock and Dam (North Shore); CIVENG-45-164-59-45. Plans with above office. Bid bond 20%.

Plans call for manufacture and delivery of three each 250 cfs vertical, horizontal discharge, elbow type pumps, complete with butterfly valve, discharge pipe, motor and speed reduction unit and appurtenant parts; hydraulic power unit; steel or cast structural members necessary for support and operation of pumps and related equipment, services of erection supervision.

AM 3-13. Previous report 3-3

● **LOCK AND DAM (North Shore)— Ice Harbor Dam, Wash.**

Bids will be opened 2:00 p.m., April 30, by Corps of Engineers, Bldg. 602, City County Airport, Walla Walla, for north shore construction of Ice Harbor Lock and Dam, Franklin and Walla Walla counties, Wash.; CIVENG-45-164-59-40. Plans may be inspected at U. S. Army district offices in Portland, Seattle, San Francisco and Los Angeles. $200 deposit. Bid bond 20%.

A—Complete Second Step Cofferdam and Unwatering—Place 1,100 ton G.F. steel sheet piling; 31,000 c.y. gravel cell fill; 1,000 yd. ripray cap; cofferdam embankment involving 71,500 c.y. rock fill, 251,500 c.y. impervious fill, 15,700 c.y. sand filter, 19,900 c.y. gravel filter and 35,200 c.y. riprap. Remove cofferdam.

B—Temporary Fish Passing Facility including Cableway — Fishladder, 60" water supply pipe; head and tail towers; 1,000' cableway (eight-ton capacity).

C—Excavation for structures and construction of embankment for abutment, cutoff blankets, esplanade and access roads involving 320,000 c.y. rock fill; 350,000 c.y. random fill; 69,000 c.y. gravel fill; 43,000 c.y. sand and gravel filter; 22,000 c.y. foundation blanket; 17,000 c.y. riprap; 3,000 c.y. gravel stabilization; 5,100 c.y. base course.

D—Structures—Two and one-half bays of spillway dam including installation of four G.F. spillway tainter gates. Non-overflow dam. Fishladder. Fishway pumphouse including installation of G.F. pumps. Navigation lock, 86'x675', and guide walls. Quantities: 655,000 c.y. mass concrete; 550,000 bbl. portland cement; 120,000 bbl. pozzolan; 5,500,000 lb. reinforcing steel; 32,000 c.y. structural concrete; 32,000' timber piling; 14,250' polyvinylchloride and copper waterstops; 1,300,000 lb. structural and low alloy steel; 225,000 lb. Fe pipe; 57,230 lb. corrosion resisting steel; 124,000' insulated conductors; 40,000' electric conduit; 29,000 lb. sheet metal cable trays. D-S vertical lift lock gate involving 1,486,000 lb. structural and low-alloy steel, 46,000 lb. corrosion resistant steel and 61,000 lb. cables and connectors. U. S. submergible tainter lock gate involving 150,000 lb. structural and low-alloy steel.

E—Channel excavation involving 74,300 c.y. common excavation; 20,600 c.y. rock excavation.

Completion of temporary fish passing facilities set for February 1, 1960; substantial completion of lock and raising pool November 1, 1961.

AM 3-13. Previous report 3-9

● **ROADWAY— Lummi Indian Reservation, Wash.**

Bid opening date extended to 1:30 p.m. March 27, by Bureau of Indian Affairs, Interior Bldg., room 878, 1001 N.E. Lloyd Blvd., Portland, (Box 4097), for grading and surfacing 15.3 mi. of roadway, Lummi Indian Reservation, located six mi. northwest of Bellingham. Plans with Portland office.

WB 3-12. Previous report 3-9

● **SANITARY SEWER— Midway, Wash.**

Bids will be received until 8 p.m., March 25, in the office of Silvia Pines Sewer District, 25040 Pacific Highway S., Midway, Wash., on construction of sanitary sewer in Midway. Plans with Howard T. Harstad & Associates, consulting engineers, 2812 Rucker Ave., Lenora St., Seattle, and with the above Sewer district office. $15 deposit. Certified check 5%.

Work involves furnishing and installing complete in place, 8,000' of 8" gravity sanitary sewer; 400' of 4" and 6" dual asphalt asbestos-cement pipe; necessary manholes and appurtenances. AC 3-

▲ **SANITARY SEWER—Mount Vernon, Wash.**

Five bids ranging from a low of $37,[illegible] (basic), $40,203 (alt. clay pipe), by Robert Wade, 1340 E. Rio Vista, Burlington, to a high of $43,184, (no bid on alternate), were submitted to City Council, City Hall, Mount Vernon, for construction of a sanitary sewer on 14th, 15th, 16th, and 17th streets, north of Fir St. to the old railroad right-of-way in Mount Vernon. Bid opening March [illegible]

OTHER BIDS: Eerkes Contracting Co., Mount Vernon, $38,995, no bid on Alt.; Harold Kaeser, 3629 34th St., Seattle, $40,[illegible] no bid on Alt.; Stanley Walters Construction Co., Route 1, Box 25, Mount Vernon, $41,[illegible] $46,007; Snelson Plumbing & Heating Co., [illegible] W. State, Sedro Woolley, $43,184, no bid on Alt. AM 3-13. Previous report [illegible]

▲ **ROADWAY— Mukilteo State Park, Wash.**

Bids received March 10 by the State Parks and Recreation Commission, Port Dock Bldg., Olympia, for placing of embankment and roadway development in Mukilteo State Park in Snohomish County. BIDS: Jo[illegible]

Konkle, Sumner, $22,657; R. R. Wood, Mukilteo, $24,723; I. M. Saimons, Meadow Rd., Alderwood Manor, $28,856.
DE 3-12. Previous report 2-26

**●BITUMINOUS SURFACING, PAVING (13th Naval District)— Oak Harbor, Wash.**

Bid opening has been extended to 2 p.m., P.S.T., March 26, for repairs to roads, Whidbey Island Naval Air Station, Oak Harbor (Seaplane Base and Ault Field); Spec. No. 18458/59. Bids will be opened by 13th Naval District, Room 107B, Bldg. 250, U. S. Naval Station, Seattle. Previous bid opening date was March 19. VK 3-18. Previous report 3-14

**●STATE HIGHWAY PROJECTS— Olympia, Wash.**

Bids will be opened 10 a.m., March 31 by Washington State Highway Commission, Transportation Bldg., Olympia, on 11 highway construction projects. Plans with above office. $2 charge. Certified check, cashier's check or surety bond 5%.

BRIDGES, PAVING, ILLUMINATION, Factoria to Northeast of 8th St. in Bellevue—Clearing, draining, grading, surfacing, asphaltic concrete and cement concrete paving, constructing two reinforced concrete flat slab bridges, installing illumination on 2.644 mi. of Primary State Highway No. 1, King County; FAP No. I-405-3(4)166.

Quantities: 75 acres clearing; 701,700 c.y. common excavation; 61,110 c.y. sand borrow; 35,010 c.y. unsuitable foundation excavation; 25,600 ton selected roadway borrow; 8,500 ton crushed surfacing; 404 c.y. prime coat aggregate; 60 c.y. hand placed riprap; 45 ton asphalt cement; 5,470 ton asphaltic concrete; 4,190' asphaltic concrete ditch; 5,200 sq. yd. cement concrete pavement; 3,825' concrete pipe; 1,812' metal pipe; 190' galvanized conduit pipe; 876 c.y. concrete; 190,990 lb. steel reinforcing bars; lump sum for two superstructures (about 762 c.y. concrete and 188,000 lb. steel reinforcing bars); 577' standard bridge railing; 546' beam guard rail; 316 guide posts; two lump sum bids for illumination systems and other items.

BRIDGE, PAVING, Salmon Creek to Jct. Existing PSH No. 1—Clearing, draining, grading, surfacing, asphaltic concrete paving, fencing, constructing reinforced concrete slab bridge on 1.129 mi. of Primary State Highway No. 1, Clark County; FAP No. I-5-1(13)7.

Quantities: 21 acres clearing; 505,145 c.y. common excavation; 17,050 ton crushed surfacing, ballast; 230 c.y. prime coat aggregate; 18,480 ton loose riprap; 19 ton asphalt cement; 1,710 ton asphaltic concrete; 1,441' concrete pipe; 808' metal pipe; 3,985' galvanized iron pipe; 10' steel pipe; 899' beam guard rail; 17,670' wire fence; 177 c.y. concrete; 12,630 lb. steel reinforcing bars; lump sum bid for superstructure (about 448 c.y. concrete and 116,000 lb. steel reinforcing bars); 370' standard bridge railing; 4,000' concrete piling and other items.

BITUMINOUS SURFACING, SIGNING, Blue Lake Vicinity—Draining, grading, surfacing, bituminous surface treatment, signing on 1.686 mi. Primary State Highway No. 7, Grant County; FAP No. F-031-1(9).

Quantities: 861,810 c.y. unclassified excavation; 31,140 ton crushed surfacing, cover stone, ballast; 75 ton asphalt cement; 8 c.y. concrete; 305 lb. steel reinforcing bars; 748' metal pipe; 2,361' beam guard rail; lump sum bid for signing.

PAVING, Jct. SSH No. 1-A to Hartford—Clearing, draining, grading, surfacing, asphaltic concrete paving on 3.373 mi. Secondary State Highway No. 15-A, Snohomish County; FAS No. S-1405(1).

Quantities: 51 acres clearing; 285,030 c.y. common excavation; 10,310 c.y. unsuitable foundation excavation; 3,850 c.y. selected roadway borrow; 1,410 c.y. crushed surfacing, prime coat aggregate; 14 ton asphalt cement; 1,360 ton asphaltic concrete; 4,265' asphaltic concrete spillway, ditch; 349 c.y. concrete; 70,930 lb. steel reinforcing bars; 1,887' concrete pipe; 606' metal pipe; other items.

ROAD MIX, FENCING, Brewster and Fort Okanogan Connections—Draining, grading, surfacing, constructing bituminous surface treatment and bituminous roadmix and fencing on 0.873 mi. Primary State Highway No. 10, Okanogan County; FAP No. F-029-2(15).

Quantities: 35,220 c.y. common excavation; 9,150 ton selected roadway borrow; 6,700 ton crushed surfacing, crushed cover stone; 85 ton asphalt cement; 7 c.y. concrete; 274' concrete pipe; 1,900' wire fence; other items.

DRAINING, GRADING, Port Orchard-Waterman Road—Draining, grading on 0.492 mi. of a Kitsap County road; FAS No. S-0329(2).

Quantities: 19,300 c.y. common excavation, borrow; 1,521' concrete pipe; other items.

BRIDGE, BITUMINOUS FACING, SIGNING, Pine Canyon Creek Bridge and Approaches—Draining, grading, surfacing, bituminous surface treatment, signing, constructing reinforced concrete flat slab bridge on 0.343 mi. of Secondary State Highway No. 10-D, Douglas County; a State Project.

Quantities: 19,550 c.y. common excavation, borrow; 2,000 c.y. selected roadway borrow; 1,080 c.y. crushed surfacing, mineral aggregate; 15 ton asphalt cement; 398' concrete pipe 140' metal pipe; 52 c.y. concrete; 8,800 lb. steel reinforcing bars; lump sum bid for superstructure (about 250 c.y. concrete and 60,000 lb. steel reinforcing bars); 254' standard bridge railing; 300' beam guard rail; 16 guide posts; lump sum bid for signing; other items.

PAVING, Auburn City Streets—Draining, grading, surfacing asphaltic concrete and cement concrete paving on 0.762 mi. Primary State Highway No. 5, King County; a State Project.

Quantities: 3,660 c.y. common excavation; 1,930 c.y. selected roadway borrow; 1,120 c.y. crushed surfacing, prime coat aggregate; 14 ton asphalt cement; 2,930 ton asphaltic concrete; 2,256 sq. yd. cement concrete pavement; 508 sq. yd. cement concrete driveway; 963 sq. yd. cement concrete sidewalk; 3,611' cement concrete curb, gutter; 360' extruded traffic curb; 448' concrete pipe; other items.

PAVING, Tenino Vicinity—Paving with asphaltic concrete on 9.5 mi. of Secondary State Highways Nos. 1-N, I-E, 5-H, Pierce and Thurston counties; a State Project.

Quantities: 24 tons asphalt cement; 7,530 tons asphaltic concrete; 75 tons mineral filler.

PAVING, ILLUMINATION, Jct. SSH No. 1-V Intersection—Draining, grading, surfacing, bituminous surface treatment, asphaltic concrete and cement concrete paving, installing illumination on 0.349 mi. Primary State Highway No. 1, King County; a State Project.

Quantities: 6,210 c.y. unclassified excavation; 1,970 c.y. selected roadway borrow; 855 c.y. crushed surfacing, crushed cover stone, prime coat aggregate; 13 tons asphalt cement; 830 tons asphaltic concrete; 3,000 sq. yd. cement concrete pavement; 2,620' extruded traffic curb; 153' concrete pipe; lump sum bid for illumination system; other items.

PLANTMIX, SIGNING, Hostmark St. and Neville Road Intersection in Poulsbo — Draining, grading, surfacing, bituminous surface treatment; bituminous plantmix paving, signing on 0.231 mi. of Secondary State Highway No. 21-A, Kitsap County, a State Project.

Quantities: 1,470 c.y. common excavation; 650 c.y. selected roadway borrow; 275 c.y. crushed surfacing, crushed cover stone, prime coat aggregate; 14 tons asphalt cement; 470 tons bituminous plantmix; 235' asphaltic concrete curb, spillway; 144' concrete pipe; 175' metal pipe; lump sum bid for signing; other items. DM 3-13

**■STATE HIGHWAY PROJECT (Lake Washington Bridge)— Olympia, Wash.**

Planholders announced on construction of a 1.424 mi. long, reinforced concrete, second floating bridge on Lake Washington, King County. Bids will be opened 10 a.m., March 24, by Washington State Highway Commission, Transportation Bldg., Olympia. Plans with Olympia office. $52 deposit. Certified check, cashier's check or surety bond 5%.

SECOND LAKE WASHINGTON BRIDGE, Unit 1, Floating Structure—Constructing a 1.242 mi. long reinforced concrete floating bridge, King County; a State Project.

Planholders: Guy F. Atkinson Co., 10 W. Orange Ave., South San Francisco, Calif.; Yuba Consolidated Industries, Inc., San Francisco; Hanson & Rowland, Inc., Puget Sound Bank Bldg., Tacoma; Austin Construction Co., Box 4056, Magnolia Station, Seattle; Fishbach & Moore, Inc., 3201 Fremont, Seattle; J. A. Jones Construction Co., 432 Medical Arts Bldg., Seattle.

C. J. Montag & Sons, 7805 N.E. Halsey, Portland; Henry J. Kaiser Co., 1924 Broadway, Oakland, Calif.; Peter Kiewit Sons' Co., Box 1777, Vancouver; Morrison-Knudsen Co., Inc., 603 Hoge Bldg., Seattle; Puget Sound Bridge and Dredging Co., 2929 16th S.W., Seattle; John W. Stange Corp., 2339 Lincoln, Tacoma; Donald M. Drake Co., 1600 N.W. Savier, Portland; Fruin-Colnon Contracting Co., 1706 Olive, St. Louis, Mo.; Garrett & Shafer, 322 1st S., Seattle.

Ben C. Gerwick, Inc. 417 Market St., San Francisco; Gunderson Bros. Engineering Corp., 4700 N.W. Front, Portland; Carl M. Halvorson, Inc., Box 1449, Portland; Van S. McKenny Co., Inc., 104 Wall St., Seattle; Scheumann & Johnson, 1014 Lloyd Bldg., Seattle; Berger Engineering Co., 3436 16th S.W., Seattle; MacRae Bros., 5900 2nd Ave. S., Seattle; M. M. Mossman, 801 Hoge Bldg., Seattle; Charles R. Watts Co., 4121 6th N.W., Seattle; J. H. Pomeroy & Co., Inc., 120 Montgomery, San Francisco; Donald W. Close Co., 2921 13th S.W., Seattle; Perini Corp, 901 Tower Bldg., Seattle.

Manson Construction and Engineering Co., 5209 E. Marginal Way, Seattle; Merritt-Chapman & Scott Corp., 260 Madison Ave., New York, N.Y.; William A. Smith Contracting Co., Inc., 1401 Fairfax, Kansas City, Kan.; Stolte, Inc., 8451 San Leandro, Oakland, Calif.; A. H. Barbour & Son, Inc., Box 1977, Portland; Grove, Shepherd, Wilson & Kruge, Inc., 400 Madison Ave., New York; Joseph T. Ryerson & Son, Inc., Box 3525, Seattle; Rumsey & Co., 3821 Airport Way, Seattle; M. P. Butler, 3419 13th S.W., Seattle; Wayne Construction, Inc., Box 1587, Wallingford Station, Seattle; Bates & Rogers Construction Corp., 600 W. Jackson Blvd., Chicago, Ill.; Brown & Root, Inc., Box 3, Houston, Tex.

Anderson Burke Corp., 10662 N.E. 8th, Bellevue; Don L. Cooney, Inc., and Northwest Hauling Co., 300 Spokane, Seattle; C. H. Savage Co., 4126 S.E. Milwaukie, Portland; Holman Erection Co., Box 1035, Pasco; Hoffman Construction Co., 715 S.W. Columbia, Portland. DM 3-17. Previous report 2-12

**★STATE HIGHWAY PROJECT— Olympia, Wash.**

Award announced by Washington State Highway Commission, Olympia, on a project on which bids were opened March 3.

BRIDGES, Pierce County line to Junction PSH No. 5—Constructing two precast, prestressed concrete bridges, one reinforced concrete flat slab bridge, and one reinforced concrete box girder bridge on 0.037 mi. PSH No. 1, King County; FAP Nos. I-5-3-(46)140 and I-5-3(47)141.

AWARD: S. S. Mullen, Inc., Box 3886 Terminal Annex, Seattle, $336,150.
DE 3-14. Previous report 3-4

**■STATE HIGHWAY PROJECT (Canal Bridge Approach)— Olympia, Wash.**

Planholders announced on construction of south approach to ship canal bridge, now under construction in Seattle. Bids to be opened 10 a.m., March 24 by Washington State Highway Commission, Transportation Bldg., Olympia.

SOUTH APPROACH, Seattle Freeway-Lake Washington Ship Canal Bridge—Constructing reinforced concrete box girder approach on 0.219 mi. of Primary State Highway No. 1, King County; FAP No. I-5-3(40)-168.

Planholders: MacRae Bros. 5900 2nd Ave. S., Seattle; Charles R. Watts Co., 4121 6th Ave. N.W., Seattle; Excavators, Inc., 5756 29th N.E., Seattle; General Construction Co., Box 3845, Seattle; Paul Jarvis, Inc., Box 4001, Magnolia Station, Seattle; Northwest Construction Co., 3950 6th N.W., Seattle; Rumsey & Co., 3821 Airport Way, Seattle; Thomas Scalzo Co., 3211 Airport Way, Seattle; Scheumann & Johnson, 1014 Lloyd Bldg., Seattle.

J. C. Boespflug Construction Co., 1912 4th S., Seattle; Troy T. Burnham Construction Co., 18666 Beverly Road, Seattle; Morrison-

Knudsen Co., Inc., 603 Hoge Bldg., Seattle; Dahlgren Construction Co., 1700 12th St., Seattle; Donald M. Drake Co., 1600 N.W. Savier, Portland, Ore.; Fishbach & Moore, Inc., 3201 Fremont, Seattle; Larsen Construction Co., 468 Colman Bldg., Seattle; Sound Construction and Engineering Co., Box 1359 Broadway Station, Seattle; The Hart Construction Co., 3536 E. 11th, Tacoma; Pacific Construction Co., 121 River, Seattle; Gen C. Gerwick Inc., 120 Montgomery, San Francisco, Calif.

DM 3-17. Previous report 2-27

**▲STATE HIGHWAY PROJECTS— Olympia, Wash.**

Bids were opened March 17 by Washington State Highway Commission, Transportation Bldg., Olympia, on four construction projects.

PAVING, La Camas Lake Vicinity — Draining, grading, surfacing, asphaltic concrete paving 0.587 mi. of Secondary State Highway No. 8-A, Clark County; FAS No. S-0263(1).

LOW BIDS: S. D. Spencer & Son, 4614 N.E. 62nd, Vancouver, $73,732; Charles T. Parker Construction Co., Box 6588, Portland, Ore., $79,037; Erland & Blickle Co., Box 1945, Portland, $79,088.

ILLUMINATION SYSTEM, Ritzville to Tokio—Installing illumination on Primary State Highways Nos. 11 and 18, Adams County; FAP No. I-90-5(14)216.

LOW BIDS: Carl T. Madsen, Inc., 808 N. 12th, Tacoma, $35,272; Don H. Swartz, Inc., Moses Lake, $36,022; Kehne-Crabtree Electric Co., Inc., E. 3801 Riverside, Spokane, $37,885.

BRIDGE, Mellen Street — Constructing steel truss bridge with reinforced concrete approaches on 0.058 mi. Lewis County Road, FAS No. S-1196(1).

LOW BIDS: Pakar Construction Co., Box 447, Chehalis, $150,932; Lockyear & White, Inc., Box 687, Longview, $156,402; John E. Alexander, Inc., Box 3583, Seattle, $158,639.

ROADMIX, Jct. SSH 11-G to Connell—Draining, grading, surfacing, constructing bituminous surface treatment and bituminous roadmix on 5.356 mi. Secondary State Highway No. 11-A, Franklin County; a State Project.

LOW BIDS: D. A. Sullivan, Box 36, Parkwater Station, Spokane, $92,387; Frank G. Baulne, Inc., Yardley, $104,750; C. J. Painter, Pasco, $105,660. DE 3-18. Previous report 3-10

**★SANITARY SEWER— Pasco, Wash.**

Award to John Keitch, Box 504, Pasco, $2,740, by City Council, City Hall, Pasco, for construction of a sanitary sewer line to serve the club house site at the Pasco Municipal Golf Course. Plans by city engineer, City Hall, Pasco.

VK 3-14. Previous report 2-11

**★BRIDGE MATERIAL— Pomeroy, Wash.**

Award to Spokane Culvert and Fabricating Co., E. 6212 Main, Spokane, $2,771, by city council, City Hall, Pomeroy, for furnishing material for a new steel bridge. City crews will install the bridge at 8th and Pacific Pataha streets to replace a wooden structure. DC 3-14

**★PIPE, FITTINGS— Port Angeles, Wash.**

Awards announced by City Council, City Hall, Port Angeles, for furnishing cast iron or asbestos-cement pipe and fittings. AWARDS: Asbestos cement pipe—Johns-Manville Sales Corp., 4304 Stoneway, Seattle, $29,399; Hydrants—Pacific States Cast Iron Pipe Co., W. Washington St., Portland, Ore., $732; Fittings—Atlas Foundry & Machine Co., Tacoma, Wash., $826; Dresser couplings — Western Utilities Supply Co., 5409 Ohio St., Seattle, $170.

VK 3-14. Previous report 2-26

**● STATE HIGHWAY PROJECT (Railing)— Port Angeles, Wash.**

Bids will be opened 10 a.m., April 2, by J. C. Claypool, district engineer for Washington State Highway Commission, at office in Tumwater, for construction work. Plans with district engineer. $2 charge. Certified check, cashier's check or surety bond 5%.

RAILING, CHAIN LINK FABRIC, Port Angeles—Constructing a railing extension consisting of chain link fabric on pipe frames on Secondary State Highway No. 9-A, Clallam County, at Tumwater Creek Bridge No. 9-A/0.5 and Valley Creek Bridge No. 9-A/0.2; a State Project. DM 3-13

**★PIPE— Port Townsend, Wash.**

Award to Johns-Manville Sales Corp., 4304 Stone Way, Seattle, $13,660, by city council, City Hall, Port Townsend, for furnishing 9,000′ of 6″ and 200′ of 4″ nominal inside diameter class 150 asbestos-cement pressure pipe complete with couplings.

VK 3-14. Previous report 2-27

**★ROAD IMPROVEMENTS— Port Townsend, Wash.**

Award to Robert L. Marsh, 5002 38th S.W., Seattle, Wash., $37,071, by Jefferson County Commissioners, Courthouse, Port Townsend, for draining, grading, surfacing and placing selected roadway borrow on 2.008 mi., of County Road No. 12. Plans by county engineer, Courthouse, Port Townsend.

VK 3-14. Previous report 3-4

**■ UTILITIES TUNNEL— Pullman, Wash.**

Additional planholders announced on construction of 1,200′ extension to the Washington State College system of underground utilities tunnel to carry heat and power for Spillman Hall to the site of the new Plant Science building now under construction in Pullman. Bids will be opened 2 p.m., March 30, by Washington State College, 303 Administration Bldg., Pullman.

Planholders: Concrete Construction Co., 2615 Center St., Tacoma, Wash.; C. M. Wilderman Co., 520 S. Main, Moscow, Ida.; C. & S. Builders, 508 Dexter, Pullman, Wash.; C. P. Construction Co., 1141 Market St., Seattle, Wash.; Henry George & Sons, Hutton Bldg., Spokane, Wash.; Mountain Pacific Chapter, A. C. G., 220 W. Harrison, Seattle, Wash.; Gibbons & Reed Co., 1450 Chapin Ave., Burlingame, Calif.; Concrete Forming Co., 2624 Sunset Drive, Lewiston, Ida.; Hoagland-Findlay Engineering Co., Box 868, Port Angeles, Wash.; Pacific Water Works Supply Co.; 2900 1st Ave., Seattle, Wash.; Warren, Little & Lund, W. 120 2nd Ave., Spokane, Wash.; Purvis Construction Co., 5019 E. Sprague Ave., Yardley, Wash.; P. B. Co., Inc., E. 8903 Main Ave., Spokane, Wash.; James Smyth Plumbing and Heating Co., N. 216 Division, Spokane, Wash.

MH 3-14. Previous report 3-4

**▲PUMPING UNITS— Radar Pumping Plant, Wash.**

Bids rejected by Bureau of Reclamation, Bldg. 53, Denver Federal Center, Denver, Colo., for furnishing five motor-driven, horizontal centrifugal-type pumping units for Radar Pumping Plant; DS-5109. Low bidder at December bid opening was American Ligurian Co., Inc., New York, $102,000.

DM 3-17. Previous report 12-17

**● WATER IMPROVEMENT— Renton, Wash.**

Bids will be opened 8 p.m., March 24, by Water District No. 58, R. F. Bristow, secretary, 18643 108th S.E., Renton, for a water system improvement on S.E. 180th St., Renton, LID No. 15. Plans with Hill & Ingman, consulting engineers, 3104 Western Ave., Seattle. $2.00 per set special specifications and contract drawings. Standard specifications $3.50. Certified check, bid bond 5%.

Quantities: 700′ of 4″ asbestos-cement water mains; two gate valves; miscellaneous fittings and connections to existing distribution system. , AM 3-13

**▲WATER DISTRIBUTION SYSTEM— Renton, Wash.**

Sixteen bids received March 14 by King County Water District No. 102, 9620 138th S.E., Renton, for furnishing and installing 20,000′ of 6″ steel pipe for a water distribution system at S.E. 72nd St., S.E. 96th St., and the Renton-Newcastle Road, Lake Boren near Renton. Plans by Richard E. Wolff, consulting engineer, Smith Tower, Seattle.

LOW BIDS: Frank Coluccio, 7778 Seward Park Ave., Seattle, $53,682; O. R. Alia, 3319 Dose Terrace, Seattle, $55,061; Ace Construction Co., 7516 Roosevelt Way, Seattle, $55,540.

AM 3-17. Previous report 3-11

**★STREET, UTILITY IMPROVEMENTS (AEC)— Richland, Wash.**

Award to Acme Paving Co., Kennewick, $99,496, by Atomic Energy Commission, Box 550, Richland, for street and utility improvement work in Richland.

VK 3-14. Previous report 3-5

**RECREATIONAL FACILITIES (Wash. and Ore.)— Seattle, Wash.**

Bids will be called soon for opening mid-April by Corps of Engineers, Bldg. 602, City County Airport, Walla Walla, for recreational facilities at McNary Reservoir area, Columbia River, Wash., and Ore.; CIVENG-6-164,59-47. Plans with Walla Walla office. Bid bond 20%. Completion time June 30.

Work involves 1—construction of concrete block comfort station, 700 sq. ft. in area, with necessary water and sanitary facilities, 2—construction of pumphouse, drilling and developing 50′ water well, furnishing and installing pumping and electrical equipment, 3—construction of six pit latrines, three landing docks, floating foot bridge, and approximately 4,700′ of parking rail, 4—construction of access roads, boat launching ramps, gravel surfaced parking areas totaling 30,200 c.y. cmomon excavation, 26,300 c.y. embankment, 800 c.y. launching ramp fill, 8,770 c.y. gravel surfacing and 1,670 c.y. gravel stabilization. DM 3-17

**▲SWITCHBOARDS, RACKS—Seattle, Wash.**

Six bids ranging from a low of $6,897 by Westinghouse Electric Corp., 3451 E. Marginal Way, Seattle, to a high of $15,800 were submitted to Paul R. Hendricks, city purchasing agent, 511 County City Bldg., Seattle, for furnishing control switchboards and relay racks. Bid opening March 18.

RM 3-12. Previous report 2-27

**▲DIGGERS, EQUIPMENT— Seattle, Wash.**

Ten bids received March 10 by Paul R. Hendricks, city purchasing agent, 511 County City Bldg., Seattle, for furnishing six paving breakers, five clay diggers, and five backfill tampers. LOW BIDS: Seattle Pneumatic, 535 Elliott W., Seattle, $2,197 (incomplete bid); Star Machinery Co., 20 Lander, Seattle, $2,497 (incomplete); Ajax Equipment Rentals, 2800 Thorndyke, Seattle, $4,152 (incomplete); A. H. Cox Co., 120 1st S., Seattle, $5,290; Mid-State Truck & Machinery Co., Box 78, Wenatchee, $5,2[illegible]; Hatten Machinery Co., 3433 4th S., Seattle, $5,530. AM 3-12. Previous report 3-4

**▲GRADER— Seattle, Wash.**

Four bids ranging from an apparent low of $16,900 by Toole Corp., 6615 Corson Ave., Seattle, to a high of $20,818, were submitted to Paul R. Hendricks, city purchasing agent, 511 County City Bldg., Seattle, for furnishing one patrol grader. Bid opening March 18.

OTHER BIDS: Caldwell Machinery Co., 4614 8th N.W., Seattle, $17,077; Howard-Cooper Corp., 5055 4th S., Seattle, $17,10[illegible]; Northern Commercial Co., 4233 W. Marginal Way, Seattle, $20,818.

AM 3-12. Previous report 3-5

**● TRUCKS (1-ton)— Seattle, Wash.**

Bids will be received until 10 a.m., March 24, by Paul R. Hendricks, city purchasing agent, 511 County City Bldg., Seattle, for furnishing three one-ton trucks, cab and chassis. Specifications with above office.

AM 3-[illegible]

**● TRUCK (tilt-cab)— Seattle, Wash.**

Bids will be received until 10 a.m., March 24, by Paul R. Hendricks, city purchasing agent, 511 County City Bldg., Seattle, for furnishing two truck chassis with tilt-cab. Specifications with above office. AM 3-[illegible]

**● WINCHES— Seattle, Wash.**

Bids will be opened 10 a.m., March 3[illegible] by Paul R. Hendricks, city purchasing agent, 511 County City Bldg., Seattle, for furnishing two winches. Specifications with above office. AM 3-[illegible]

**★PROTECTORS, TRANSFORMERS— Seattle, Wash.**

Awards announced by Paul R. Hendricks, city purchasing agent, 511 County City Bldg.

Seattle, for furnishing three network protectors and three network transformers.

AWARDS — Protectors: Westinghouse Corp., 3451 E. Marginal Way, Seattle, $15,600. Transformers: General Electric Co., Apparatus Division, Seattle, $44,514.

AM 3-12. Previous report 2-27

★**TRANSFORMER— Seattle, Wash.**

Award to General Electric Co., Dexter Horton Bldg., Seattle, $40,944, by Paul R. Hendricks, city purchasing agent, 511 County City Bldg., Seattle, for furnishing one 5,000 kva three-phase transformer for the Monroe Substation. Bid opening February 17.

AM 3-12. Previous report 2-19

●**WIRE SCREENS— Seattle, Wash.**

Bids will be opened 10 a.m., March 25, by Paul R. Hendricks, city purchasing agent, 511 County City Bldg., Seattle, for fabricated wire screens for generators No. 5 and No. 6 at Cedar Falls Powerhouse. Specifications with above office. AM 3-14

**WATERLINE— Seattle, Wash.**

The Seattle Board of Public Works has authorized J. Ray Heath, city water superintendent, to negotiate with South Center Corp. for lowering a 700' section of the city's 60" concrete Bow Lake supply pipeline.

According to unconfirmed reports, Morrison-Knudsen, Inc., Seattle, have submitted a unit price of $30 per ft. to Allied Stores Corp., owners, and John Graham & Co., architects and engineers, 1425 5th, Seattle.

AM 3-14

★**COPPER BUS BAR— Seattle, Wash.**

Award to Westinghouse Supply Co., 1051 1st S., Seattle, $1,099, by Paul R. Hendricks, city purchasing agent, 511 County City Bldg., Seattle, for furnishing 500' of copper bus bar. Bid opening March 9.

AM 3-14. Previous report 3-3

★**CONDUCTOR WIRE— Seattle, Wash.**

Award to Platt Electric Supply Co., Dexter Horton Bldg., Seattle, $1,625, by Paul R. Hendricks, city purchasing agent, 511 County City Bldg., Seattle, for furnishing 18,000' of conductor wire. Bid opening March 3.

AM 3-14. Previous report 2-27

●**FIREBALL LAMPS— Seattle, Wash.**

Bids will be opened 10 a.m., March 24, by Paul R. Hendricks, city purchasing agent, 511 County City Bldg., Seattle, for furnishing 28 fireball lamps. Specifications with above office. AM 3-14

●**LAWN MOWERS— Seattle, Wash.**

Bids will be opened 10 a.m., March 24, by Paul R. Hendricks, city purchasing agent, 511 County City Bldg., Seattle, for furnishing various lawnmowers. Specifications with above office. AM 3-14

●**CEDAR POLES— Seattle, Wash.**

Bids will be opened 10 a.m., March 27, by Paul R. Hendricks, city purchasing agent, 511 County City Bldg., Seattle, for furnishing of western red cedar poles. Specifications with above office. AM 3-14

▲**STORAGE TANK— Seattle, Wash.**

One bid was received March 16, and returned unopened, by Board of County Commissioners, 402 County City Bldg., Seattle, for installation of a 12,000-gal. steel asphalt storage tank complete with electrical heating facilities, manifold and pump at King County Road District No. 2, Calhoun Pit, five miles easterly of Kent. Specifications will be amended and a new bid call will be issued at a later date.

AM 3-17. Previous report 3-6

■**WATERMAINS— Seattle, Wash.**

The following two firms have taken out plans for construction of watermains on Seaview Ave., et al, in Seattle; Ord. No. 87975, LID 6196: Sposari & Macri, 982 22nd, Seattle, and Tri-State Construction, 4025 45th S.W., Seattle. Bids will be opened 2 p.m., March 25, by Board of Public Works, E. G. Henry, secretary, 512 County City Bldg., Seattle. Plans available in room 404 County City Bldg., Seattle. $10 deposit.

AM 3-18. Previous report 3-13

●**CRUSHED ROCK— Seattle, Wash.**

Bids will be opened 9:30 a.m., March 30 by King County Commissioners, 402 County City Bldg., Seattle for furnishing crushed rock and gravel. Specifications with purchasing department, 606 County City Bldg., Seattle. DM 3-17

▲**COPPER WIRE— Seattle, Wash.**

Five bids received March 17 by Paul R. Hendricks, city purchasing agent, 511 County City Bldg., Seattle, for furnishing 230,000 lbs. of copper wire. Apparent low bid was submitted by Central Cable Corp., 3259 17th W., Seattle, $89,837. The following four firms submitted identical bid of $97,456: Line Materials McGraw Edison Co., 1220 W. Nickerson St., Seattle; Graybar Electric, Inc., Occidental and King, Seattle; North Coast Electric Co., 171 Jackson St., Seattle; Westinghouse Electric Supply, 1051 1st Ave. S., Seattle. AM 3-18. Previous report 3-7

▲**CONDUCTOR WIRE— Seattle, Wash.**

Fourteen bids received March 17 by Paul R. Hendricks, city purchasing agent, 511 County City Bldg., Seattle, for furnishing 150,000' aluminum conductor wire.

APPARENT LOW BIDS: Jack Pruzan Co., 109 Jackson St., Seattle, $12,892; Central Cable Co., 3259 17th W., Seattle, $13,335; Platt Electric Supply, Dexter Horton Bldg., Seattle, $13,425. AM 3-18

●**EXPANSION STRIP MATERIAL— Seattle, Wash.**

Bid will be received until 10 a.m., March 25 by Paul R. Hendricks, city purchasing agent, 511 County City Bldg., Seattle for furnishing 2,000 pieces of expansion strip material. Specifications with above office. DM 3-18

●**ELECTRICAL WIRE— Seattle, Wash.**

Bids will be received until 10 a.m., March 25 by Paul R. Hendricks, city purchasing agent, 511 County City Bldg., Seattle, for furnishing 3,000' of electrical wire. Specifications with above office. DM 3-18

**WATER MAINS— Silver Lake, Wash.**

(Estimated cost $14,140)

A public hearing will be held 8 p.m., March 30, by Silver Lake Water District, at the Leo Nelson home on the west side of Silver Lake, to organize LID 14 to cover installation of 6" cement-asbestos or cast iron water main on Bothell Highway 1,360' north from Jordan Road, and from Bothell Highway 1,270' along center of Preston C. Tieman tract. HH 3-17

●**RESERVOIR— Spokane, Wash.**

(Estimated cost $200,000)

Bids will be opened 9:30 a.m., March 26, by Spokane County Commissioners, City Hall, Spokane, for construction of the first phase of a 5,000,000-gal. reservoir project located southeast of Spokane near Brown's Mountain. Plans may be obtained from Glen A. Yake, utilities department supervising engineer, 304 City Hall, and city water engineering office, Grace Ave. and Hamilton St., Spokane.

Project consists of steel tank construction, shell, flooring, roofing and structure work. The four latter phases on which bids will be called at a future date are estimated to cost $80,000. AC 3-12

■**RESERVOIR— Spokane, Wash.**

(Estimated cost $200,000)

Planholders announced on construction of the first phase of a 5,000,000-gal. reservoir located southeast of Spokane near Brown's Mountain. Bids will be opened 9:30 a.m., March 26 by Spokane County Commissioners, City Hall, Spokane. Plans obtainable from Glen A. Yake, utilities department supervising engineer, 304 City Hall, and city water engineering office at Grace Ave. and Hamilton St., Spokane.

Project consists of steel tank construction, shell, flooring, roofing and structure work. The four latter phases on which bids will be called at a future date are estimated to cost $80,000.

Planholders: American Pipe and Construction Co., 518 N.E. Columbia Blvd., Portland, Ore.; August Welk, E. 723 Empire, Spokane; Preload Co., Dallas; Chicago Bridge and Iron, Chicago, Ill.; Hammond Iron Works, Salt Lake City, Utah; Haskins Co., Inc., E. 3613 Main, Spokane; General Machinery Co., E. 3500 Riverside, Spokane; Gate City Steel, Inc., 3400 Warm Springs Ave., Boise, Idaho; Union Iron Works, E. 217 Montgomery, Spokane. DM 3-18. Previous report 3-12

**AIRPORT— Sunnyside, Wash.**

A special election scheduled for this spring, on bonds to finance purchase and development of airport land in Sunnyside, has been postponed by the city council, City Hall, Sunnyside. The decision was made due to the uncertainty of federal subsidies to airport. The city will apply for a loan after a new federal budget has been approved. DM 3-14. Previous report 1-30

★**PAVING, CURBS, STORM DRAIN— Tacoma, Wash.**

Award to Cascade Asphalt Paving Co., 6238 S. Tacoma Way, Tacoma, $42,597, by City Council, City Hall, Tacoma, for asphaltic concrete paving, concrete curb and gutter and storm drainage for the following streets: N. 8th St. from Mason Ave. to Stevens St.; N. 11th St. from Stevens to Mullen streets; north 11th St. from Ferdinand to Orchard streets.

VK 3-13. Previous report 2-11

★**STREET LIGHTING— Tacoma, Wash.**

Award to Electric Construction Co., 1650 Center St., Tacoma, $9,494, by City Council, City Hall, Tacoma, for furnishing and installing ornamental street lighting standards with underground wiring on N. Union Ave. from N. 10th to N. 18th.

VK 3-14. Previous report 2-19

★**BRIDGE PAINTING— Tacoma, Wash.**

Award to H. P. Fisher & Sons, 5252 Fontanelle Place, Seattle, $15,440, by City Council, City Hall, Tacoma, for cleaning and painting metal surfaces on the East 21st Street Bridge over the Puyallup River, Tacoma Bridge No. F-12.

VK 3-14. Previous report 2-5

▲**WATER MAINS— Tacoma, Wash.**

Bids received March 16 by City Council, 305 City Hall, Tacoma, for furnishing and installing 4", 6", 8" and 12" cast iron water mains and fire hydrants in the vicinity of PSH No. 1 between S. 72nd and S. 40th, Tacoma.

ONLY BIDS: Rogers Construction Co., 3408 S. Union, Tacoma, $33,976; Milone & Tucci, 2815 S. Lawrence, Tacoma, $35,766; Morris Construction Co., 1521 S. Grand, Tacoma, $38,377.

AM 3-17. Previous report 3-12

★**GRADING, DRAINAGE, SEWERS— Tacoma, Wash.**

Award to Morris Construction Co., 1521 S. Grand, Tacoma, $85,035, by City Council, 305 City Hall, Tacoma, for grading, storm drainage and constructing sanitary sewer in Tacoma, LID 1969, Sanitary Sewer in Pearl St., Woodlawn St., S. 13th and S. 17th; LID 1973, Storm drainage in Pearl St., Woodlawn St.; LID 2277, Grading, ballasting on Pearl St., Woodlawn. Bid opening February 24.

AM 3-17. Previous report 2-25

▲**GRADING, SURFACING— Tacoma, Wash.**

Six bids received March 16 by City Council, 305 City Hall, Tacoma, for grading, ballasting and surfacing on E. F and E. G streets in LID No. 2291.

LOW BIDS: Harrison Brothers, 225 Wakefield Drive, Tacoma, $4,092; Morris Construction Co., 1521 S. Grand, Tacoma, $4,582; Rogers Construction Co., 3408 S. Union, Tacoma, $4,672.

AM 3-17. Previous report 3-12

▲**WALKS, CURBS— Tacoma, Wash.**

Bids received March 16 by City Council, 305 City Hall, Tacoma, for construction of new walks, and replacing defective walks,

curbs, etc., in various locations in WO No. 73158.

ONLY BIDS: Bonafide Builders, Inc., 111012 Pacific Ave., Tacoma, $43,609; George Madsen Construction Co., 3101 S. Lawrence, Tacoma, $45,655; Concrete Construction Co., 2015 Center St., Tacoma, $47,851.

AM 3-17. Previous report 3-12

★**WATER MAINS—** **Tacoma, Wash.**

Award to Morris Construction Co., 1521 S. Grant Ave., Tacoma, $103,120, by City Council, City Hall, Tacoma, for furnishing and installing 4", 8" and 12" cast iron water mains in LID No. 5300.

VK 3-18. Previous report 2-25

★**WATER MAINS—** **Tacoma, Wash.**

Award to Rogers Construction Co., 3408 S. Union Ave., Tacoma, $2,542, by City Council, City Hall, Tacoma, for construction of 6" cast iron water mains in LID No. 5306.

VK 3-18. Previous report 2-27

■**SHUNT CAPACITOR—** **Thurston County, Wash.**

Planholders announced for construction of 230 kv shunt capacitor group No. 1 addition at Olympia substation, 2 mi. southwest of Tumwater, Thurston County; Inv. No. 8939. Bids will be opened 3 p.m., P.S.T., March 24, by Bonneville Power Administration, procurement section, 1001 N.E. Lloyd Blvd., Portland, Ore. Specifications with above office. Completion time 60 calendar days.

Planholders: Western Electrical Construction Co., 4624 S.E. 67th Ave., Portland; Witzig Construction Co., Box 292, Corvallis, Ore.; John M. King Co., 1601 Taylor Way, Tacoma; H. B. Nesheim, 6714 36th S.W., Seattle; Tyee Construction Co., 1901 23rd Ave. S., Seattle; Lebanon Electric, 66 E. Sherman, Lebanon, Ore.; O. Brandon, 6401 Lincoln, Vancouver; Joe E. Venne, 507 12th St., Sunnyside; Harold C. Moffatt, Inc., Box 745, Troutdale, Ore.

WB 3-17. Previous report 3-7

★**PIPELINES (Gas, Oil)—Vancouver, Wash.**

Construction started about March 1 by Loy Clark Pipeline Co., 9295 S.W. Greenburg Road, Tigard, Ore., and Salem Sand & Gravel Co., 1401 N. Front, Salem, Ore., (joint venture), on two 12" welded steel pipelines, one for gasoline and one for oil, to serve the Pacific Supply Cooperative oil refinery under construction by Fluor Corp., engineers and contractors, Los Angeles. The initial phase of the refinery is being built on 110-acre tract in West Vancouver on Fruit Valley Road near Vancouver city limits. Bids on the pipelines were received by the Port of Vancouver, but plans were changed and the work contracted by Pacific Supply Cooperative, Charles Baker, general manager, Box 1004, Walla Walla.

WB 3-13. Previous report 1-8

▲**ELECTRICAL WORK—** **Vancouver, Wash.**

Seven bids were received March 10 by Board of Commissioners of the Port of Vancouver, A. R. Wechner, Clerk of the Board, Box 570, Vancouver, for all electrical work for a 480/277 V load center and wiring to gantry crane located near Terminal No. 2, Vancouver. LOW BIDS: Porter Electric, 1911 Main St., Vancouver, $7,625; L. W. Hembree Co., 4701 S.E. Belmont St., Portland, $7,860; Hersch Electric, 7800 N.E. 159th St., Rt. 5, Vancouver, $8,578.

VP 3-12. Previous report 3-5

▲**ALUMINUM SHEETS (BPA)—** **Vancouver, Wash.**

Ten bids received March 10 by Bonneville Power Administration, 1001 N.E. Lloyd Blvd., Box 3537, Portland, Ore., for furnishing and delivering aluminum sheets, fob Eavan Spur, Vancouver; Inv. No. 8941. LOW BIDS: Pacific Metal Co., 303 N.W. Park Ave., $5,368; Eagle Metals, Inc., of Oregon, 2336 N. Randolph St., and Reynolds Aluminum Supply Co., 2025 N.W. Overton St., each bid $5,448. All of Portland.

WB 3-14. Previous report 3-4

●**SUBSTATION MATERIALS—** **Vancouver, Wash.**

Bids will be opened 10 a.m., April 23, by Clark County P.U.D. No. 1, E. M. Rautio, purchasing agent, 1200 Fort Vancouver Drive, Vancouver, for furnishing one 7,500 kva metal clad unit substation, to be installed by the owner as an addition to the substation at 20th and "F" streets.

WB 3-18. Previous report 3-12

★**BRIDGE PILING—** **Walla Walla, Wash.**

Award to Pope & Talbot, Inc., St. Helens, Ore., $1.15 (30 pieces of Douglas fir creosoted), $1.33 (40 pieces of same), by Walla Walla County Commissioners, Courthouse, Walla Walla, for bridge piling.

VK 3-14. Previous report 3-6

**HYDROELECTRIC POWER PROJECT—** **Wanapum Dam, Wash.**

(Estimated cost $200,000,000)

Bid call has been extended, and it is expected that proposals will not be opened until mid-May by Public Utility District of Grant County, 30 C St., S.W. Ephrata, on construction of Wanapum Dam on a site on the Columbia River 18 mi. upstream from Priest Rapids Dam (now under construction by the district). Consulting engineer for the project is Harza Engineering Co., 400 W. Madison St., Chicago, Ill.

DM 3-17. Previous report 3-11

★**CRANE—** **Wenatchee, Wash.**

Award to Crane Hoist Engineering Corp., Los Angeles, $9,466, by Chelan County Public Utility District No. 1, 326 N. Wenatchee Ave., Wenatchee, for furnishing one traveling electric shop crane for Rocky Reach Project.

DM 3-14. Previous report 2-26

**SUBSTATION—** **Wenatchee, Wash.**

Chelan County Public Utility District No. 1, 326 N. Wenatchee Ave., Wenatchee, will call for bids soon on furnishing and installing a 7500/9375 kva, 34.5/41.6 kv metal-clad, outdoor type substation in vicinity of Wenatchee substation to help carry increased loads in the downtown area. DM 3-14

●**SURFACING, STOCKPILING—** **Yakima, Wash.**

Bids will be opened 11 a.m., March 27, by Yakima County Commissioners, Courthouse, Yakima, for surfacing and stockpiling on 4.965 mi. of road, northwesterly of Selah, Yakima County. Plans with county road engineer, Courthouse. $4 charge per set. Certified or cashier's check 5%.

Quantities: 65,000 c.y. unclassified excavation; 262.2 (100') stations of finishing roadway; 40,000 ton ballast; 6,500 ton top course; 11,000 ton base course; 1,750' concrete pipe; 22,000 ton stockpiling material.

IG 3-13

★**SEWER SYSTEM—** **Yakima, Wash.**

Award to DeBlasio Bros., Route 4, Yakima, $16,047 (Sched. 1), $13,260 (Sched. 2), by Lawrence Mathews, Commissioner of Public Works, City Hall, Yakima, for construction of a sanitary sewer system for Mary Linn and Fruitvale Blvd. (Sched. 1) and 16th Ave. (Sched. 2) in Yakima. Plans by Sam Hobbs, engineer, City Hall, Yakima.

IG 3-18. Previous report 3-6

## IDAHO

●**EROSION PROTECTION—** **Albeni Falls, Idaho**

Bids will be opened 2 p.m., P.S.T., April 8, by Corps of Engineers, 1519 S. Alaskan Way, Seattle, Wash., for erosion protective works at Albeni Falls reservoir on Tracts E511E and 01507E, Pend Oreille River, Idaho; CIV-ENG-45-108-59-29. Plans with Seattle office. Bid bond 20% if bid exceeds $2,000. Completion time 30 calendar days.

Work involves foundation preparation, including removal of approximately 400' of low pile and timber bulkhead; removal and replacement of existing minor wood structures; placement of about 1,300 c.y. sand and gravel fill and approximately 600 c.y. of rock riprap.

Tract O-1507E is about two mi. south of Sandpoint, Idaho, and Tract E-511E is about 15 mi. southeast of Sandpoint.

DM 3-17. Previous report 3-12

●**AIRCRAFT RUNWAY BARRIERS—** **Boise, Idaho**

Bids will be opened 2 p.m., April 2, by Corps of Engineers, Bldg. 602, City County Airport, Walla Walla, Wash., for construction of aircraft runway barriers at Gowen Field, Boise, Idaho; ENG 45-164-59-31. Plans with Walla Walla office. Bid bond 20%. Completion time 90 calendar days.

1—Install two 150' government furnished runway barriers, 2—furnish and install approximately 16,000' direct burial electrical cable, 3—miscellaneous construction including concrete foundations, electrical handholes, cable markers, installation of electrical equipment, underground compressed air lines.

AM 3-13. Previous report 3-3

**PAVING—** **Boise, Idaho**

Bids will be called in June by city council, City Hall, Boise, Idaho, for paving of the following streets: seven blocks on 31st St. from State to Anderson; three blocks on Good St. from 33rd to 36th; and one block on Warren St. from Vermont to Michigan. Plans by J. L. Morris, city engineer, City Hall, Boise.

GH 3-16

**DITCH COVER—** **Boise, Idaho**

Financing is being arranged by McKinley Neighborhood Ditch Committee, Paul E. Pusey, chairman, Boise, for covering 3,400' of the Cook Ditch at Boise. Section runs adjacent to the McKinley Elementary school and through residential properties in the Randolph Robertson subdivision.

GH 3-17

●**STATE HIGHWAY PROJECT—** **Boise, Idaho**

Bids will be opened 2 p.m., April 7, by Idaho Department of Highways, 603 Main St., Boise, on the following project. Plans with above office and the district engineer in Rigby. $5 charge. Cashier's check or certified check 5%.

BRIDGE, North Fork Teton River—Constructing 60' concrete bridge on Salem Road, Madison County; FAP No. S-6770(3).

Quantities: 165 c.y. unclassified excavation; 35 c.y. excavation for structure; 25 c.y. mechanical tamping; 85 c.y. concrete; 15,9[illegible] lb. metal reinforcement; 980 lb. structural steel 150' steel beam handrail; 760' furnish treated timber piles; 725' driving same; 3 driving test pile; 55 c.y. loose riprap. Completion time July 1.

DM 3-[illegible]

●**STATE HIGHWAY PROJECTS—** **Boise, Idaho**

Bids will be opened 2 p.m., March 31, by Idaho Department of Highways, 603 Main St., Boise, on the following construction projects. Plans with above office and with district engineers. $5 charge. Guarantee 5%.

ROADMIX, Roberts Slough—Installation of 48" pipe culvert, constructing roadway and roadmix bituminous surface on 6.[illegible] mi. of State Highway 48, Jefferson County; FAP No. S-6742(3).

Quantities: 510 c.y. unclassified excavation; 45 c.y. structure excavation; 1,[illegible] c.y. selected borrow; 12,300 Y.U. haul; [illegible] M gal. watering; 130 c.y. mechanical tamping; 1,500 c.y. stripping material deposits; 370 ton crushed gravel base course; 165 ton crushed gravel surfacing in windrows; [illegible] gal. MC-1 asphaltic road material, prime; 4 ton blotter material; 5 ton MC-3 asphaltic road material for roadmix; 200 gal. MC-[illegible] same for seal; 10 ton cover coat material; 75' of 48" culvert; 140 c.y. special backfill. Completion time 20 working days.

ROADMIX, Sunnyside Road—Reconditioning roadbed, constructing base and roadway bituminous surface on 4.632 mi., U.S. [illegible] East, Bonneville County; FAP No. S-6710[illegible]

Quantities: 2,700 ton select borrow; 1,[illegible] M gal. watering; 4,000 c.y. stripping material deposits; 24,900 ton crushed gravel base course; 9,000 on crushed gravel in windrows; 18,950 gal. MC-1 asphaltic road material for prime; 380 ton blotter material; 340 ton SC-3 asphaltic road material for roadmix; 625 ton bituminous surfacing; 17,150 gal. MC-5 asphaltic road material for seal; [illegible] ton cover coat material. Completion time September 10.

STOCKPILE, Highways US 191 and State 33—Crushed gravel surfacing and cover coat material in stockpiles at various locations

Bonneville, Fremont and Teton counties; Stockpile Proj. 270, 273, 274.

Quantities: 35,000 ton crushed gravel surfacing; 5,000 ton cover coat material; 3,000 c.y. stripping materials deposits. Completion time July 15. DM 3-17

▲**SEWERS—** **Caldwell, Idaho**

Nine bids were opened March 9 by city council, City Hall, Caldwell, for furnishing and installing sewers in LID No. 46. LOW BIDS: C. L. Strang, 1172 S. Powerline, Nampa, $7,366; J. O. Young & Son, Box 52, Nampa, $7,458; Murray Burns Plumbing and Heating, Box 356, Boise, $8,463. HI: $14,490. DM 3-14. Previous report 2-28

●**WATER WELL (AEC)—Idaho Falls, Idaho**
(Estimated cost range $27,000)

Bids will be opened 3 p.m., M.S.T., March 27, by Atomic Energy Commission, Idaho Operations Office, Box 2108, Idaho Falls, for drilling, casing and testing production well No. 2 at EBR 2 area at the National Reactor Testing Station in Idaho; Inv. No. AT(10-1)—1011. Specifications available from above office. Bid guarantee 10%. Completion time 240 calendar days.

Drill, case and test one production water well having a bore diameter of 24" and an 18" I.D. casing. Estimated depth of the well is 770'. Casing materials will be furnished and installed by contractor. A pump test will be required, using pumping equipment furnished by contractor.

RM 3-13. Previous report 2-25

■**HOT CELL (AEC)— Idaho Falls, Idaho**

Additional planholders announced for construction of a hot cell and shop and maintenance building at the National Reactor Testing Station in Idaho; Inv. No. AT (10-1)1001. Bids will be opened 3 p.m., M.S.T., March 18, by Atomic Energy Commission, Idaho Operation Office, Box 2108, Idaho Falls, Idaho. Plans with above office. Completion time 350 calendar days.

Planholders: Farnsworth & Chambers Co., Inc., Box 74, Houston, Texas, and Box 802, Idaho Falls, Idaho; Babcock & Wilcox Co., 1201 Kemper St., Dallas, Texas; Vector Engineering Contractors, Inc., 3210 Elm St., Dallas, Texas; W. R. Cahoon Construction Co., Box 449, Pocatello, Idaho; Cerro Construction Corp., 2208 White-Henry-Stuart Bldg., Seattle, Wash.; J. A. Tiberti Construction, Box 29, Las Vegas, Nevada; Holmes & Narver, Inc., 828 S. Figueroa St., Los Angeles, Calif.; E. Selene & Sons, 210½ W. Chestnut St., Bellingham, Wash.; James Stewart Co., 411 N. Central Ave., Phoenix, Arizona. VK 3-12. Previous report 2-27

**EXHAUST DUCT SYSTEM—**
**Idaho Falls, Idaho**
(Estimated cost $400,000)

Bids will be called late in March by Atomic Energy Commission, Idaho Falls, Idaho, for construction of an exhaust duct and stack system for the Flight Engine Test Facility at the National Reactor Testing Station, Idaho; Inv. No. AT(10-1)-916.

Work calls for the construction of an exhaust duct system to receive exhaust gases from the test facility. Specifications provide for a 150' high steel stack having a base diameter of 18'. The basic FET facility is now being constructed under a $6,000,000 joint venture contract of Wright-Cheney-Birch, northwest construction firms.

VK 3-14

**ALARM SYSTEMS (AEC)Idaho Falls, Idaho**
(Estimated cost $40,000)

Bids will be called soon by Atomic Energy Commission, Box 2108, Idaho Falls, for construction of alarm systems and special power services at Flight Engine Test Facility and Shield Test (Pool) Facility and the addition of special power services to serve the Flight Engine Test installation, at National Reactor Testing Station in Idaho; AT (10-1-1009.

DM 3-17

**INSTRUMENTATION (AEC)—**
**Idaho Falls, Idaho**
(Cost range $375,000)

Bids will be called in April by Atomic Energy Commission, Box 2108, Idaho Falls, for installation of instrumentation systems for Flight Engine Test Facility in the ANP area to the National Reactor Testing Station in Idaho; AT (10-1)-1007. Installation time 240 days.

Installation of the following instrumentation systems: data and control; closed circuit television; weather; radio communications; area radiating monitoring; date reduction; rupture detector; stack gas.

DM 3-17

●**IRRIGATION CANAL—King Hill, Idaho**

Bid opening has been extended to 2 p.m., M.S.T., April 14, for construction of a 3,450' long irrigation canal, to replace an existing wood stave siphon through Deer Gulch, 15 mi. southeast of Glenns Ferry. Bids will be opened by King Hill Irrigation District, King Hill. Specifications with above King Hill office or with Cornell, Howland, Hayes & Merryfield, consulting engineers, 628 Idaho Bldg., Boise. $30 deposit. Bid bond, certified or cashier's check 5%.

Quantities: 212,600 c.y. excavation; 97,000 c.y. embankment; 300' reinforced concrete culvert; 7,000 c.y. clay and gravel canal lining. DM 3-13. Previous report 3-6

●**SEAL COAT (Airport)— Lewiston, Idaho**

Bids will be opened 7:30 p.m., March 30, by A. M. Quane, city controller, City Hall, Lewiston, for seal coating approximately 82,500 sq. yd. runway and taxiway at the Lewiston-Nez Perce County Airport at Lewiston. Specifications with city engineer, City Hall. Bid guarantee 5%. Completion time June 30.

Quantities: 23,000 gal. RC-2 bituminous seal coat; 925 ton of ¼" minus cover coat material. DC 3-12

●**WELL DRILLING—Michaud Flats, Idaho**

Bids will be opened 10 a.m., M.S.T., April 7, by Bureau of Reclamation, Boyd H. Walter, resident engineer, Box 663, American Falls, for drilling water supply well No. 5A, area 1, about seven mi. northeast of American Falls, Power County; Spec. No. 100C-360. Plans with above engineer or with Box 937, Boise. Bid bond 10%. Completion time 90 calendar days. DM 3-18

▲**CONCRETE CURBING— Nampa, Idaho**

Bids received March 9 by City Council, City Hall, Nampa, for construction of concrete curbing, concrete sidewalk, concrete approach slabs and combination concrete curb and gutter. Plans by Johnson & Underkofler, consulting engineers, 1022 12th Ave. S., Nampa. BIDS: J. E. Nonenmacher, 5518 Cruzen, Boise, Idaho, $13,220; Foss & Holmes, Box 332, Boise, Idaho, $13,027; J. O. Young, Eagle Heights, Nampa, $10,572.

VK 3-13. Previous report 3-5

## MONTANA

**SANITARY SEWER— Billings, Mont.**

A hearing will be held 11 a.m., March 24, by Yellowstone county commissioners at the courthouse, Billings, Mont., on creation of rural SID No. 413, for installing 8" lateral sanitary sewer main for distance of 275 ft. in Block 12 of Rosedale subdivision, Billings, Mont. EE 3-14

●**WATER TANK— Chester, Mont.**

Bid opening has been extended to 8 p.m., April 1, on construction of a 100,000-gal. capacity elevated steel water storage tank, on a 100' steel tower with connections to the existing distribution system and appurtenant work in Chester. Bids will be opened by Town Council, Town Hall, Chester. Plans with Wenzel & Co., consulting engineers, 4035 10th Ave. S., Great Falls. $10 charge. Certified check, cashier's check or bid bond 10%. Bids were to have been opened March 18. DM 3-12. Previous report 3-10

●**GATES, GUIDES— Fort Peck Dam, Mont.**

Bids will be called soon for opening April 14 by Corps of Engineers, Riverdale, N. Dak., for draft tube gates and guides for the second power plant at Fort Peck Dam and Reservoir, Fort Peck, Mont.; CIVENG-32-015-59-47. Plans with Riverdale office. Delivery time March 1, 1960.

Fabrication and delivery fob railroad cars at Wiota, Mont., two draft tube gates and four sets of draft tube gate guides complete with seal beams, top seal beams and dogging devices as required for installation for two units in second power plant at Fort Peck. RM 3-14

★**RIPRAP— Fort Peck Dam, Mont.**

Award to James F. Richard Construction Co., Minneapolis, Minn., $240,700, by Corps of Engineers, Garrison District, Riverdale, N. Dak., for repair of riprap on the upstream face of Fort Peck Dam, Mont.

EE 3-17. Previous report 2-21

**POWERHOUSE REPAIRS—Fort Peck, Mont.**

Bids will be called soon for late April bid opening by Corps of Engineers, Garrison District, Riverdale, N. Dak., for replacing existing tile roof with new copper roofing, replacement of built-up roofing, crack and silicone treatment of exterior wall, patching floor in surge tank structure and revision of roof drainage systems at Power Plant No. 1, Fort Peck, Mont., about 20 mi. southeast of Glasgow; CIVENG-32-015-59-49. Plans with Riverdale office. Bid bond 20%. Completion time October 15. DM 3-17

●**FENCING— Glasgow, Mont.**

Bid opening extended to 2:30 p.m., P.S.T., March 25, by Corps of Engineers, Bldg. 602, City County Airport, Walla Walla, Wash., for construction of jet blast deflector fences at Glasgow Air Force Base near Glasgow, Mont.; ENG-45-164-59-24. Plans with Walla Walla office. Bid bond 20%. Completion time 27 calendar days. Previous bid opening was March 11.

VK 3-12. Previous report 2-28

▲**WATER TANK— Glasgow AFB, Mont.**

Bids received March 12, by Corps of Engineers, Bldg. 602, City County Airport, Walla Walla, Wash., for construction of a 400,000-gal. elevated steel water storage tank at Glasgow AFB; ENG-45-164-59-25.

LOW BIDS: Pittsburgh-Des Moines Steel Co., 500 Wall St., Seattle, $107,899; Chicago Bridge & Iron Co., 1318 4th Ave., Seattle, $119,136; The Lord-Carroll Co., Inc., 4507 S.E. Milwaukie Ave., Portland, $146,917. Four bids received. Government estimate $120,825.

AM 3-13. Previous report 3-4

●**HTW LINES, SEWER AND WATER FACILITIES— Glasgow AFB, Mont.**

Bids will be opened 2 p.m., March 31, by Corps of Engineers, Bldg. 602, City County Airport, Walla Walla, Wash., for construction of HTW distribution lines and sewer and water utilities at Glasgow Air Force Base near Glasgow, Mont.; ENG 45-164-59-30. Plans with Walla Walla office. Bid bond 20%. Completion time 420 calendar days.

Quantities: 7,100' of 8" and 10" sanitary sewer line, appurtenant manholes and miscellaneous items; one sewage lift station; 8,200' of 6" to 14" water line, appurtenance valves, fire hydrants and fittings; 12,000' HTW underground conduit, 1" to 6" sizes and appurtenant expansion loops, manholes, valve boxes; nine HTW connections to existing buildings.

AM 3-13. Previous report 3-4

●■**COMMUNICATION, ELECTRICAL SYSTEM— Glasgow AFB, Mont.**

Bids will be opened 2:30 p.m., P.S.T., March 25 by Corps of Engineers, Bldg. 602, City County Airport, Walla Walla, Wash., for construction of communication duct and electrical distribution system at Glasgow Air Force Base, near Glasgow; ENG-45-164-59-29. Plans with Walla Walla office. Bid bond 20%. Completion time 180 calendar days.

Quantities—Communication duct system: 650' of 2-way duct; 2,200' of 4-way duct; 1,850' of 6-way duct; 1,600' of 9-way duct; all duct shall be concrete encased; 14 manholes, one of which is an extension to existing manhole; duct to be non-metallic. Electrical Distribution System: 10,000' of 4 conductor, 3-phase; 7,200/12,470 volt primary with underground connection to the existing base switch station.

Planholders: The Bay Co., The Tide Co., 1512 Center St., Tacoma, Wash.; Service Electric Co., 12304 32nd Ave. N.E., Seattle,

Wash.; Cache Valley Electric Co., 359 S. Main St., Logan, Utah; Commonwealth Electric Co., 1901 Y St., Lincoln, Neb.; Electric Associates, Inc., 2911 S. Chandler St., Tacoma, Wash.; G. S. Electric Co., 3010 67th S.E, Mercer Island, Wash.; Gray Co., Box 1741, Great Falls, Mont.; Hood-Cherf-Sandkay, Box 289, Glasgow, Mont.; Peter Kiewit Sons' Co.., Box 1854, Billings, Mont.; Peter Kiewit Sons' Co., Box 388, Glasgow, Mont.; Main Electric, Inc., Box 946, Minot, North Dakota; R. L. Martin & Son, Box 486, Portland, Ore.; L. H. Morris Electric Co., 944 W. 5th Ave., Eugene, Ore.; Muncie Construction Corp., Box 1032, Muncie, Inc.; H. B. Nesheim, 6714 36th Ave. S.W., Seattle, Wash.; Niagara Transformer Corp., Box 23, Buffalo, N.Y., E. F. Pugsley, 805 E. Northlake, Seattle, Wash.; Rainbow Electric Co., 2220 Riverdrive, Great Falls, Mont.; John M. Schroeder, Inc., Box 366, Grand Forks, North Dakota; T. P. Construction, Inc., Wadena, Minnesota.

VK 3-13. Previous report 2-20

**●ORDNANCE STORAGE FACILITIES— Glasgow AFB, Mont.**

Bids will be opened 2:30 a.m., April 15 by Corps of Engineers, Bldg., 602, City County Airport, Walla Walla for construction of ordnance storage facilities, and supplementary modifications, Glasgow Air Force Base, near Glasgow; ENG-45-164-59-33. Specifications available with above Walla Walla office. $100 deposit. Bid bond 20% Completion time 450 calendar days.

Work includes (a) Two single-story buildings, 1,550 sq. ft. and 3,000 sq. ft., reinforced concrete frame, masonry, concrete floor slab, structural steel, steel joist and metal roof decking, built-up roofing, oil fired forced hot water and electrical heating, partial air conditioning, one 10-ton bridge crane and electrically operated hoist, two 150 kw diesel electric generators, many special features. (b) Access roads, parking areas, etc., including 30,000 c.y. excavation; 9,000 c.y. embankment; 11,000 c.y. base course, 6,000 c.y. leveling course, 82 ton prime coat, 560 ton asphaltic concrete pavement, 36 ton asphaltic cement, culverts and drainage structures. (c) Three reinforced concrete multi-cubicle storage magazines (two, 4,600 sq. ft. each, one, 2,100 sq. ft.) with blast doors, precast concrete roof panels, built-up roof, concrete floor slab. (d) Utilities including 1,900' of 4" water line, 650' of 6" sanitary sewer, 8,800' security chain link fencing, electrical distribution, substation, security, floodlighting. (e) Minor modifications to various existing facilities.

DM 3-18. Previous report 3-13

**▲WATER PLANT— Glendive, Mont.**
(Estimated cost $600,000)

The six bids received March 11, for construction of new city water plant in Glendive, were rejected as too high, by City Council, City Hall, Glendive. Plans by Morrison-Maierle, consulting engineers, 910 Helena Ave., Helena. Another call for bids will be issued.

VK 3-17. Previous report 3-7

**▲WATER SYSTEM IMPROVEMENT (Water Mains)— Great Falls, Mont.**

Five bids received March 9, by City Council, City Hall, Great Falls, for installation of water mains isolating the booster district in the southeastern section of the city. LOW BIDS: Utility Builders, Box 1154, Great Falls, $185,879; Lewis Construction & Gray Co., Box 1741, Great Falls, $196,656; Robertson & Cave, Box 1488, Great Falls, $216,384.

VK 3-13. Previous report 2-13

**●WATER, SEWER LINES— Great Falls, Mont.**

Bids will be opened 8 p.m., March 30, by City Council, Civic Center, Great Falls, for relocation of water mains and the replacement of the sanitary sewer for Block 12, County Club addition, Great Falls. $10 deposit. Certified check or bid bond 10%.

Quantities: 801 c.y. of unclassified excavation for water main; 550 c.y. of unclassified excavation for sewer; 1,638' of 6" cement-asbestos pipe; five 6"x6" tees; two 6" gate valves with box; three hydrants; two 6" plugs; 200 c.y. trench gravel; five service lines; 480' of 8" cement-asbestos sewer pipe; 100' of 6" riser sewer pipe; 18 of 8"x6" junctions; 27 MBF shoring; 200 c.y. trench gravel.

VK 3-17

**▲ALLEY PAVING— Sidney, Mont.**

Bids were rejected by City Council, City Hall, for paving city alleys in the area of special LID No. 44 in Sidney. Bid opening March 2. A new bid call will be issued soon.

VK 3-17

## ALASKA

**SEWERS, STREETS— Anchorage, Alaska**

U.S. District Judge J. L. McCarrey granted an injunction to halt the bond election for a sewer system in the Fairview Public Utility District scheduled for March 9, and instructed the Fairview Utility District to set the date for election within 30 days with notice to be given. Approval will be sought on issuance of $734,000 in bonds for a Fairview sanitary sewer system and $250,000 for storm sewer facilities and street improvements. Consulting engineer is Gustav V. Johnson, 900 E. 5th, Anchorage.

AL 3-14. Previous report 2-18

**●RAILROAD RELOCATION—Clear, Alaska**

Description is given below on relocation of the Alaska Railroad at Clear, Alaska, on which bids will be opened 2 p.m., April 2, by Corps of Engineers, Box 7002, Anchorage; ENG-95-507-59-62. Plans with Anchorage office and with office at 1519 S. Alaskan Way, Seattle. Completion time October 31.

Quantities: 206 acre clearing; 105,600 c.y. excavation, stripping; 322,660 c.y. embankment; 32,630 place ties; 40,250 trk ft. lay 115 lb. new rail; 13,300 trk ft. lay 15 lb. second hand rail; install four No. 11-115 lb. new turnout; install three No. 11-115 lb. second hand turnout; install four No. 9-115 lb. new turnout; install one No. 9-115 lb. second hand turnout; 32,540 c.y. ballast; 56,040 trk ft. raise line and dress track; one job on communication lines; 4,950 MFBM motor car set-offs and planked crossings; 1,000 MFBM roadway signs; 220' of 18", 32' of 30" corrugated metal pipe culverts; 14 each 18" end section and 30" end section of culvert; one freight bumping post; one job removing existing facilities.

DM 3-12. Previous report 3-11

**★ANTENNA FOUNDATIONS—Clear, Alaska**

Award to Baker & Ford, Manson Bldg., 911 17th St., Bellingham, Wash., $836,475, by the Corps of Engineers Alaskan District, 1519 Alaskan Way, Seattle, for construction of surveillance radar antenna foundation at Clear, Alaska; ENG-95-507-59-49.

VK 3-18. Previous report 3-7

**●EXCAVATION, COFFERDAM, ROAD— Cooper Lake, Alaska**

Bids will be opened 3 p.m., March 24, by Chugach Electric Association, 8th and Gambell St., Anchorage, for excavation for the powerhouse, excavation for the tailrace, construction of cofferdam, and construction of approximately 2,300' of road for the Cooper Lake Hydroelectric Project (Alaska 8H Chugach). Plans with N. W. Haner & Associates, members of North Pacific Consultants, 220 S.W. Alder St., Portland, Ore. $25 deposit.

The project involves excavation to the general levels of the powerhouse and the area immediately adjacent for work area; 12,000 yds. of rock excavation for the level above foundation level; 2,400 c.y. of structure excavation. Excavation for the tailrace will be a lump sum item, involving about 500 yds. Cofferdam will be constructed around the foundation area for the excavation below water. Road construction will involve 2.7 acres of clearing and calls for 17,000 c.y. of unclassified excavation and 40 c.y. of excavation for structures (culverts, etc.); 220' of corrugated metal pipe, 18" to 30".

The construction of the powerhouse, the installation of penstock, and the construction of Cooper Lake Dam are expected to come up for bids in approximately 5 weeks. Bid call for 50 mi. of 115,000 volt transmission line, H-frame construction, is expected to be advertised in April.

VP 3-17

**■PENSTOCK— Cooper Lake, Alaska**

Planholders announced for furnishing steel penstock and appurtenant equipment for the Cooper Lake Hydroelectric Project (Alaska 8H Chugach). Bids will be opened 3 p.m., March 24, by Chugach Electric Association, 8th and Gambell St., Anchorage. Plans with North Pacific Consultants, engineers, 220 S.W. Alder St., Portland, Ore.

Planholders: Garrett & Shafer, 322 1st Ave. S., Seattle; Gunderson Bros. Engineering, 4700 N.W. Front Ave., Portland; Southwest Welding & Mfg. Div., 3201 W. Mission Road, Alhambra, Calif.; Bethlehem Pacific Coast Steel Corp., Box 3827, Seattle; Dresser Mfg. Division, Dam and Penstock Products, 1485 Bayshore Blvd., San Francisco; Dresser Mfg. Division, Bradford, Pa.; Kaiser Steel Corporation, Fabricating Division, Napa, Calif.; Hammond Iron Works, Box 218, Provo, Utah; United Concrete Pipe Corp., Box 425, Baldwin Park, Calif.; Yuba Southwest Fabricators, 912 S. 10th St., Richmond, Calif., and Yuba Mfg. Division, 701 E. H St., Benicia, Calif.; American Pipe and Construction Co., 518 N.E. Columbia Blvd., Portland; The Lang Company, Box 479, Salt Lake City, Utah; Hydraulic Supply Mfg. Co., 700 8th Ave. S., Seattle; Paramount Supply Co., 1307 S.E. Stark St., Portland; United Concrete Pipe Corp., Box 467, Auburn, Wash.; H. D. Fowler Co., Inc., Box 3084, Seattle; Consolidated Western Steel, 1729 Exchange Bldg., Seattle; Commercial Steel Fabricators, 2929 16th Ave. S.W., Seattle; Beall Pipe and Tank Corp., 12005 N. Burgard St., Portland.

VP 3-17. Previous report 3-3

**●DRAINAGE, LIGHTING, BARRICADES— Eielson AFB, Alaska**

Bids will be opened 2 p.m., A.S.T., April 9 by Corps of Engineers, Anchorage, for ordnance storage area drainage, rehabilitation and additional barricades at Eielson Air Force Base, Alaska; ENG-95-507-59-54. Plans with Anchorage office. Bid bond 20% of $1,000,000 whichever is less if bid price is in excess of $2,000. Separate or combination bids on Sched. A and B.

Sched. A, Drainage—800 c.y. of 3" max. pit run gravel fill for ditch grades; 15 ditch check dams; raise seven catch basins; one drainage structure including 12"x36" corrugated metal pipe; 200 c.y. unclassified excavation for clearing ditch.

Sched. B, barricades—SITE JIG: 7,900 c.y. unclassified fill from borrow; 1,300 c.y. select material from borrow; 3,300 sq. yd. seeding; 36' stairway; 140 c.y. excavation for ditches. SITE TARE: 8,800 c.y. unclassified fill from borrow; 950 c.y. select material from borrow; 2,400 sq. yd. seeding; 8 stairway. SITE PETER: 2,500 c.y. unclassified fill; 730 c.y. select material; 1,800 sq. yd. seeding; 15' of stairway; 6 walkway; remove 410' security fence; construct 460' security fence; security lighting system. SITE MIKE: 7,900 c.y. unclassified fill; 1,200 c.y. select material; 3,000 sq. yd. seeding.

DM 3-17

**●BARRICADES— Fort Richardson, Alaska**

Quantities are listed below on construction of additional barricades at Fort Richardson; ENG-95-507-59-53. Bids will be opened 2 p.m., A.S.T., April 14, by Corps of Engineers, Box 7002, Anchorage.

SITE BAY: 15,200 c.y. unclassified fill; 1,600 c.y. select material (from borrow); 4,8 c.y. seeding; 81' stairway (4' wide, 7 rise, 10⅞" tread); 32' of 15" culvert. SITE SUMMIT: 2,850 c.y. unclassified fill; 1,2 c.y. select material (from borrow); 3,000 yd. seeding; 68' walkway; 108' removal existing security fence; 100' construction security fence; 1 job security lighting system. SITE POINT: 16,000 c.y. unclassified fill (from borrow); 2,000 c.y. select material (from borrow); 4,900 sq. yd. seeding; 20 c excavation for ditch.

VK 3-18. Previous report 3-

**DREDGING— Juneau, Alas**

Dredging of Gastineau Channel for Juneau area boat traffic is slated for completion this year (300 days after award of contract is maximum date), by the Corps of Engineers, Box 7002, Anchorage. Bids

being opened 2 p.m., A.S.T., March 31, by the Corps in Anchorage. Project number is CIVENG-95-507-59-4. The channel will be dredged through a high tide flat between the mainland and Douglas Island, to a depth of two feet below mean lower-low tide.

The channel will link Fritz Cove with Juneau harbor and waterways. A suction dredge probably will be used in cutting the 75' channel. An estimated 1,048,000 yards of sand, silt and gravel will be stockpiled on the flats where it will be accessible for use if needed in extending the Juneau airport and for building a proposed road extension connecting the mainland and Douglas Island. DM 3-18. Previous report 3-6

★**GRADING, DRAINING, PAVING (BPR)— Ketchikan, Alaska**

Award to Gaasland Co., Inc., 115 Ellis, Bellingham, $425,545, by Bureau of Public Roads, 319 Federal Bldg., Juneau, Alaska, for grading, draining, paving 1.0844 mi. on Tongass Ave. in Ketchikan, beginning at city limits and ending near intersection of 3rd Ave.; Proj. F-095-1(3). VK 3-12. Previous report 3-5

★**PAVING (BPR)— Kodiak, Alaska**

Award to Ramstad Construction Co., Box 1454, Anchorage, $166,862, by Bureau of Public Roads, 319 Federal Bldg., Juneau, for paving 1.2 mi. of road between Kodiak and the Naval Air Station on Kodiak Island, and installing 2,893 sq. ft. of metal bin type retaining wall. JU 3-17. Preivous report 3-5

★**WATER WELL (BPR)— Paxson Depot, Alaska**

Award to Bayless & Roberts, Copper Center, Alaska, $2,820, by Bureau of Public Roads, 319 Federal Bldg., Juneau, for construction of water well No. 2 at Paxson Depot. VK 3-13. Previous report 3-5

●**POWERHOUSE— St. Paul Island, Alaska**

Bids will be opened 10 a.m., P.S.T., March 31, by Fish and Wildlife Service, Bureau of Commercial Fisheries, The Interior Bldg., 1001 N.E. Lloyd Blvd., Portland, Ore. (Box 3737) for construction of a reinforced concrete powerhouse with overhead crane and related work, but without engine or generation equipment on St. Paul Island, Pribilof Islands, Alaska. Specifications with Portland office. DM 3-12

## NORTHERN CALIFORNIA

●**LEVEE REPAIRS— Colusa, Yolo Counties, Calif.**

Bids will be opened 2 p.m., April 2, by Corps of Engineers, 305 Wright Bldg., 1209 Eighth St., Sacramento, for emergency levee repairs, involving 14,000 c.y. excavation, 104,000 c.y. embankment, back levee, Reclamation District 108, located along Colusa Basin Drainage Canal between Knights Landing and College City, Colusa and Yolo counties, CIVENG-04-167-59-66. Specs with above office. Bid bond 20%. Completion time 60 calendar days. RM 3-21

●**JUNCTION DAM— El Dorado County, Calif.**

Bids will be opened 10 a.m., P.S.T., April 9, in Engineering Department office, Sacramento Municipal Utility District, 1708 59th St., Sacramento, for construction of concrete arch Junction Dam; reinforced concrete structure at intake to Jaybird Tunnel; reinforced concrete lining in upstream portion of Jaybird Tunnel; transmission lines; clearing Junction Reservoir; Upper American River Project, El Dorado County; Inv. No. 2207. Specifications with above office. Bid bond, certified or cashier's check 10%. Completion time September 15, 1960.

JUNCTION DAM—550' long at crest, height 170' above lowest foundation. Variable radius concrete arch, arches of variable thickness. Center portion of dam crest will form uncontrolled overfall spillway, four spillway openings, each 50' wide. Outlet works through dam, equipped with regulating and guard valves to provide required control of water releases. JAYBIRD TUNNEL INTAKE — Reinforced concrete structure, 180' in length, at upstream portal of Jaybird Tunnel, equipped with fixed-wheel gate, bulkhead gate and trashrack structure. Hoist house will accommodate gate hoists, trashrack jib crane, et al. Includes bridge for access from Junction Dam road. TRANSMISSION LINE—69 kv wood pole, involving completion of six additional spans of Jaybird-Union Valley line adjacent to Union Valley terminal. Includes construction of three-phase, 2.4-kv. distribution line to Jaybird Tunnel intake from construction substation in vicinity of Union Valley dam site. CLEARING RESERVOIR—80 acres, up to El. 4465, areas along Silver Creek, south fork of Silver Creek and Little Silver Creek.

Quantities: 10,000 c.y. common excavation; 17,000 c.y. rock excavation; 32,540 c.y. concrete; 400,000 lb. reinforcement steel; 39,000 bbl. cement. PB 3-21

★**BREAKWATER— Half Moon Bay, Calif.**

Award to Healy-Tibbits Construction Co. and Granite Construction Co. (joint venture), 411 Brannan St., San Francisco, $4,522,100, by Corps of Engineers, room 300, 180 New Montgomery St., San Francisco, for construction of breakwater, access road, and appurtenant work, Half Moon Bay, San Mateo County; CIVENG-04-203-59-53. Eight bids received March 6. OTHER LOW BIDS: Macco Corporation, 14409 S. Paramount Blvd., Paramount, $4,728,810; Piombo Construction Co. and M & K Corporation and Connolly-Pacific Co. (joint venture), Box 607, San Carlos, $4,767,960. RM 3-21. Previous report 2-21

★**STORAGE BASE MULTICUBICLE MAGAZINE— Mather AFB, Calif.**

Award to Jay Bailey Contractors, Inc., Box 148, Woodland, $44,294, by Corps of Engineers, 1209 Eighth St., Sacramento, for construction of reinforced concrete multicubicle magazine; portland cement concrete paved areas; asphaltic concrete paved access road; electrical service lines; temporary fencing; Mather Air Force Base, Sacramento County; ENG-04-167-59-23. RM 3-21. Previous report 1-17

▲**PAVING, SIDEWALKS— Oakland, Calif.**

Six bids received March 12 by City Council, City Hall, Oakland, for improving Foothill Blvd. between 13th and 14th avenues in Oakland, involving grading, concrete curbs, gutters, and sidewalks, asphaltic concrete surfacing. LOW BIDS: Gallagher and Burk, 344 High St., Oakland, $21,681; O. C. Jones & Sons, 1520 4th St., Berkeley, $22,865; Ransome Co., 4030 Hollis St., Emeryville, $23,201. RM 3-21. Previous report 2-28

★**DRILLING TEST HOLES— Oroville, Calif.**

Award to Nichols & Thompson Core Drilling Co., Inc., 505 Americana Blvd., Boise, Idaho, $35,345, by State Department of Water Resources, Public Works Bldg., Sacramento, for drilling exploration test holes at proposed Oroville Dam site on Feather River near Oroville, Butte County; Spec. No. 59-6. PB 3-21. Previous report 3-7

●**GRADING, PLANTMIX SURFACING— Redding, Calif.**

Bids will be opened 11 a.m., March 23, in office of county clerk, Shasta County Courthouse, Redding, for grading, plantmix surfacing on untreated base, constructing one reinforced concrete, single box culvert, 0.669 mi. from .25 mi. northwest of Latona School Crossing to River Ranch Road, 6 mi. south of Redding, County Highway 105-E (2); Contract No. 745. Specs with Director of Public Works, 1855 Placer St., Redding. $25 deposit. Cashier's or certified check or bid bond 10%. Completion time 60 working days. RM 3-21

★**FIXED-WHEEL GATE— Redding, Calif.**

Award to Johnson Machine Works, Inc., 318 N. 11th, Chariton, Iowa, $94,947, by Bureau of Reclamation, Denver Federal Center,




Denver, Colo., for furnishing and delivering (fob Redding) one 10'x20' fixed-wheel gate for outlet works at Trinity Dam, Trinity River Division, Central Valley Project; Inv. No. DS-5132. RM 3-21. Previous report 1-31

**●PARKING APRON (Airport)— Redwood City, Calif.**

Bids will be opened 10 a.m., April 7, in office of San Mateo county clerk, Hall of Justice and Records, 401 Marshall, Redwood City, for construction of an aircraft parking apron, involving grading and plantmix surfacing 85,000 sq. ft., in front of present Administration Building, Half Moon Bay Airport, San Mateo County. Specifications with purchasing agent, Courthouse, Redwood City. $25 deposit. Bid bond 10%. Completion time 50 calendar days.

Quantities: 4,630 c.y. excavation; 3,370 ton subbase material; 4,440 ton crushed aggregate base material; 19 ton bituminous prime coat; 1,050 ton asphaltic concrete; 12 ton RC-2 seal coat. RM 3-21

**●DRAINAGE CANAL— Sacramento, Calif.**

Bids will be opened 10 a.m., April 1, by Sacramento County Board of Supervisors, 827 7th St., Sacramento, for construction of drainage canal, involving 22,000 c.y. excavation and 28,000 sq. ft. gunnite, South Sacramento Drainage Unit No. 1, part A, Sacramento County. Specs with county engineer, Arthur Kiefer, room 404, above address. $10 deposit. PB 3-21

**★PAVING, SIDEWALKS, SEWERS, WATER DISTRIBUTION SYSTEM— Sacramento, Calif.**

Award to A. Teichert and Sons, Inc., 1931 Stockton Blvd., Sacramento, $56,865, by Sacramento County Board of Supervisors, 827 7th St., Sacramento, for improvement of Bell Wood Heights Assessment District, involving plantmix surfacing, curbs and gutters, sidewalks, sewers, and water distribution system. Engineers: Packard, Muir and Train, Inc., 3200 J St., Sacramento. PB 3-21. Previous report 3-7

**★GROUND DEVELOPMENT— Sacramento, Calif.**

Award to L. K. Nelson, 11717 Corrigan Ave., Downey, $21,629, by State Department of Public Works, Public Works Bldg., Sacramento, for developing the grounds at the California Division of Highway's new materials and research building, 59th St. and Folsom Blvd., Sacramento. PB 3-21

**★STATE HIGHWAY PROJECT— Sacramento, Calif.**

Award to A. Teichert and Son, Inc., 1931 Stockton Blvd., Sacramento, $18,907, by California Division of Highways, 510 Public Works Bldg., Sacramento, for grading, plantmix surfacing 0.3 mi. speed change lanes, Hammer Lane, 3 mi. north of Stockton, San Joaquin County; X-SJ-4-C. Bids opened February 11. PB 3-21. Previous report 2-14

**★PAVING, CURBS, SEWERS— Sacramento, Calif.**

Award to A. Teichert and Son, Inc., 1931 Stockton Blvd., Sacramento, $74,968, by Sacramento County Board of Supervisors, 827 7th St., Sacramento, for improving Arden Bluff Unit No. 2 Subdivision, Sacramento County, involving asphaltic concrete paving, concrete curbs and gutters, storm drains, sewers and water distribution system. Engineers: Joseph E. Spink, 907 5th St., Sacramento. PB 3-21. Previous report 2-21

**★STATE HIGHWAY PROJECTS— Sacramento, Calif.**

Awards announced by California Division of Highways, 510 Public Works Bldg., Sacramento, on the following highway construction projects for which bids were opened March 4.

III-ED-11-A—Construct auxiliary lane, grade, plantmix surface on untreated base, at Bass Lake Rd., 5 mi. west of Shingle Springs, El Dorado County. AWARD: Reichhold and Jurkovich, 13555 San Pablo Ave., San Pablo, $22,544.

IV-NAP-6-NAP—Construct traffic island, install traffic signal system and highway lighting, Silverado Trail at 3rd St., East Ave. and Coombsville Rd. in Napa, Napa County. AWARD: Del Monte Electric Co., 21602 Western Blvd., Hayward, $12,515. PB 3-21. Previous report 3-7

**●ASPHALTIC CONCRETE PAVING— Sacramento, Calif.**

Bids will be received until 5 p.m., and opened at 8 p.m., April 2, by City Council Sacramento, for construction of 24th St. bypass road, involving asphaltic concrete paving, curbs, gutters and sewers, in Sacramento. Specs with city engineer, E. A. Fairbairn, above address. Quantities: 2,871 c.y. excavation; 1,525 ton asphaltic concrete; 2,680 ton crusher run base; 14 ton prime coat; 62' curb, type A-1; 1,832' curb and gutter, type A-2; 100' curb, type B-3; 1,412 sq. ft. concrete, 3½"; 511' of 6", 1,023' of 8" vitrified clay pipe, extra strength. PB 3-21

**★REMOVING TRACKS— San Francisco, Calif.**

Award to Chas. L. Harney, Inc., 575 Berry St., San Francisco, $226,275 (Prop. A), by San Francisco Department of Public Works, City Hall, San Francisco, for removal of "B" line trolley tracks from Geary Blvd. to the Great Highway in San Francisco, including excavation and asphaltic concrete paving. RM 3-21. Previous report 2-7

**★TRANSMISSION LINE— San Francisco, Calif.**

Award to John M. King Co., 1610 Taylor Way, Tacoma, Wash., $1,552,193, by San Francisco Public Utilities Commission, City Hall, San Francisco, for construction of 41 mi. of steel tower transmission lines between Moccasin and station "J", Canyon Cherry Power Development (Hetch Hetchy Water Supply Contract No. 325). RM 3-21. Previous report 2-14

**★STREET IMPROVEMENTS— Stockton, Calif.**

Award to Stanfield & Moody, Box 252, Tracy, $158,843, by San Joaquin County Board of Supervisors, Courthouse, Stockton, for roadmix surfacing on streets bounded by D St., Waterloo Rd., Highway 99, and the Southern Pacific tracks, in the suburban area northeast of Stockton. Bids were opened March 2. OTHER LOW BIDS: A. Teichert and Son, Inc., Box 1118, Stockton, $158,937; E. A. Forde Co., Box 306, San Anselmo, $160,079. RC 3-21. Previous report 2-28

**★STORM DRAIN— Sunnyvale, Calif.**

Award to C. J. Wood, Inc., Box 233, Redwood City, $18,865, by City Council, City Hall, Sunnyvale, for construction of storm drain extension, involving 1,836' of 39" reinforced concrete pipe, in Mary Ave., Sunnyvale; Proj. No. UD-59-11. Bids opened March 5. RM 3-21

**★WATER MAINS— Walnut Creek, Calif.**

Award to A. J. Peters & Son, 534 Stockton Ave., San Jose, $96,317, by East Bay Municipal Utility District, 2130 Adeline St., Oakland, for construction of 3,300' of 20" and 8,400' of 17.8" cement mortar lined and coated steel water mains and appurtenances in San Ramon Valley, south of Walnut Creek; Spec. No. 762. RM 3-21. Previous report 2-14

**★STORM DRAINS— Yuba City, Calif.**

Award to Baldwin Contracting Co., Inc., 9th and Yuba, Marysville, $99,980, by City Council, City Hall, Yuba City, for constructing a concrete pipe storm drain along Lynn Way from Rio Camino east to Southern Pacific railroad, along Clark Ave. and Bunce Rd. from B St. to Gilsizer Slough and along Franklin Rd. in Yuba City. RM 3-21. Previous report 3-14

# Advertisements for Bids

**Advertisements reaching us not later than Wednesday noon will appear the same week.**

THE RATE for Advertisements for Bids is 35 cents per line for the first insertion; 25 cents per line for each insertion thereafter.

**SCHOOL EQUIPMENT**
**BIDS CLOSE 2 P.M., APRIL 14**
**Moses Lake, Washington**
**ADVERTISEMENT FOR BIDS**

Notice is hereby given that Moses Lake School District No. 161, Grant County, Moses Lake, Washington, will receive bids up to 2 p.m. o'clock P.S.T. on **April 14, 1959,** at the Administrative Offices of the Moses Lake School District, 1016 Ivy, at which time all bids will be opened and publicly read aloud for the furnishing and installing of equipment for the new Moses Lake High School.

All bids must be made on the forms furnished, and must be signed by the bidder with his name and post office address.

Each bid shall be in accordance with plans and equipment lists now on file with the Superintendent of Schools, Administration Building, Moses Lake, Washington, and Hovind, Harthorne & Smith, Architects, 1500 Westlake North, Seattle, Washington. Copies of Bid documents may be obtained from Architect's office.

No bids may be withdrawn after the scheduled time for receipts for bids, for at least thirty days.

Each bid must be accompanied by a certified or cashier's check on a Washington Bank, or bid bond, with Washington State-Licensed Surety Company as surety, in an amount not less than 5% of the total bid, made payable to the School District. This surety shall be forfeited by the bidder in event of failure to sign the agreement or furnish the necesary 100% Contract Bond.

As it is the purpose of the School District to accomplish this Contract in the shortest time consistent with good construction, the possession of adequate equipment and efficient organization on the part of the Contractor is mandatory.

The Board of Directors of Moses Lake School District No. 161 reserves the right to reject any or all bids and to waive all informalities in the bidding, or to accept the bid or bids deemed best for the School District.

Dated this **13th day of March, 1959.**

Mrs. Orlena Henderson
Clerk, Moses Lake Schools
District No. 161, Grant County
Moses Lake, Washington

6434—3-21, 28; 4-4

**POWERHOUSE**
**BIDS CLOSE 10 A.M., P.S.T., MARCH 31**
**St. Paul Island, Alaska**
**NOTICE TO CONTRACTORS**

U. S. Department of the Interior, Fish and Wildlife Service, Bureau of Commercial Fisheries, The Interior Bldg., 1001 N.E. Lloyd Blvd., P.O. Box 3737, Portland 8, Oregon. Telephone BElmont 4-3361, Ext. 246. Sealed

bids will be received in this office until 10:00 A.M., P.S.T., March 31, 1959, and then publicly opened for furnishing all equipment, materials, supplies, and labor required for the construction of a reinforced concrete powerhouse with overhead crane and related work, but without engine and generation equipment on St. Paul Island, Pribilof Islands, Alaska. Plans and specifications may be obtained at the above address. Samuel J. Hutchinson, Regional Director.
6429—3-13, 19

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**TOLL COLLECTION SYSTEM**

**BIDS CLOSE 9 A.M., APRIL 14**

**Portland-Vancouver Bridges**

**NOTICE TO CONTRACTORS**

Sealed bids on the following project will be received and opened by the Oregon State Highway Commission in Room 418, State Highway Building in Salem, Oregon, at 9:00 a.m., on Tuesday, April 14, 1959.

**MULTNOMAH COUNTY:** Interstate Bridge Toll Collection System. Cooperative project: State of Oregon, State of Washington, and Washington Toll Bridge Authority. Furnish and install automatic toll collection equipment at south end of both Interstate Bridges near Portland, Multnomah County, Oregon, and five-year maintenance contract. Alternate "A" bid is for rental of equipment sale of tokens and maintenance. Alternate "B" is for sale of equipment and tokens and maintenance. Requires approx. 14 automatic collectors, 8 charge plate transmitters, 8 receipt printers, 8 classification 10-button boxes, 14 axle counting treadle installations, 8 print and punch units (charge plate to IBM cards), 16 remote printing registers, 8 patrons' fare indicators, 8 overhead classification indicators, 80 cash boxes and reject boxes for coin machines, 14 traffic signals, 14 static eliminators, 1 intercom system, 1 charge plate punch, 500,000 tokens, 6 single toll booths, and 1 double booth. Full details and design plans shall accompany bids.

Prequalification of bidders will be required in accordance with the provisions of Oregon Revised Statutes 279.010 to 279.024, inclusive and Chapter 47.28.070 of the Revised Washington Statutes.

Full information for bidders may be obtained at the office of the Oregon State Highway Commission, State Highway Building, Salem, Oregon. Plans and specifications may be inspected at the same place and may be obtained by eligible bidders upon payment of $2.00 per set.

The right is reserved to reject any and all proposals or to accept the proposal deemed best for the States of Oregon and Washington.

OREGON STATE HIGHWAY COMMISSION
Floyd Query, Sec'y
6435—3-19

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**HIGH SCHOOL**

**BIDS CLOSE 8 P.M., APRIL 6**

**Granger, Washington**

**NOTICE TO CONTRACTORS**

1. **NOTICE TO CONTRACTORS**
Sealed bids will be received by the Board of Directors, Granger School District No. 204 in the library of the Roosevelt Elementary School, Granger, Washington until 8:00 p.m., Monday April 6, 1959, for (a) General Contract, (b) Mechanical Contract, and (c) Electrical Contract, separately for the construction of a new Granger High School Building, and the said bids will then and there be publicly opened and read aloud. Bidders and other properly interested are invited to be present at the bid opening. Bids received after the time fixed for opening cannot be considered.
2. BID DOCUMENTS
Specifications, including bid and contract documents, and drawings, may be examined at the office of the Architect, John S. Villesvik, 109 North Third Street, Yakima, Washington, at the Plan Centers in Yakima, Tri-Cities, Spokane, Seattle, Portland, Tacoma, Wenatchee and Moses Lake, and may be obtained at the Architect's office upon deposit of a check payable to the Architect in the amount of $25.00 for each set.
3. REFUND OF DEPOSITS
The full amount of deposit for one set of documents will be refunded to general, mechanical, or electrical contractors upon return of the documents in good condition to the architect's office within ten days of the time set for opening bids. Other deposits will be refunded with deductions for the actual cost of reproducing the documents, under the same conditions, unless the documents are returned within 48 hours after taking them out. If returned within four days, one-half of this cost will be refunded. Time consumed by mails is in addition to the above.
4. RIGHT TO REJECT BIDS
The Owner reserves the right to reject any and all bids and to waive informalities.
BY ORDER OF: The Board of Directors, Granger School District #204.
6433—3-17, 24, 31

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**SCHOOL ADDITION**

**BIDS CLOSE 8 P.M., MARCH 25**

**Yakima, Washington**

**NOTICE TO CONTRACTORS**

1. **NOTICE TO CONTRACTORS**
Sealed bids will be received by THE BOARD OF DIRECTORS, WEST VALLEY SCHOOL DISTRICT No. 208, Yakima County, Yakima, Washington, at The West Valley High School until **8:00 P.M., WEDNESDAY, MARCH 25, 1959,** for (a) General Contract, (b) Mechanical Contract, and (c) Electrical Contract, separately, for the construction of an addition to Summitview Elementary School, and the said bids will then and there be publicly opened and read aloud. Bidders and others properly interested are invited to be present at the bid opening. Bids received after the time fixed for opening cannot be considered.
2. **BID DOCUMENTS**
Specifications, including bid and contract documents, and drawings, may be examined at the office of the Architect, John S. Villesvik, 109 North Third Street, Yakima, Washington, at the plan centers in Yakima, Tri Cities, Spokane, Seattle, Portland, and Tacoma, and may be obtained at the Architect's office upon deposit of a check payable to the Architect in the amount of $25.00 for each set.
3. **REFUND OF DEPOSITS**
The full amount of deposit for one set of documents will be refunded to General, Mechanical, or Electrical Contractors upon return of the documents in good condition to the Architect's office within ten days of the time set for opening bids. Other deposits will be refunded with deductions for the actual cost of reproducing the documents, under the same conditions, unless the documents are returned within 48 hours after taking them out. If returned within four days, one-half of this cost will be refunded. Time consumed by the mails is in addition to the above.
4. **RIGHT TO REJECT BIDS**
The Owner reserves the right to reject any and all bids and to waive informalities.
5. BY ORDER OF: THE BOARD OF DIRECTORS, WEST VALLEY SCHOOL DISTRICT No. 208.
6427—3-10, 17, 24

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**SCHOOL**

**BIDS CLOSE 10 A.M., P.S.T., APRIL 8**

**Bethel, Alaska**

**NOTICE TO CONTRACTORS**

INVITATION FOR BIDS (CONSTRUCTION CONTRACT) Project Aaa. 50-A-242 and 50-C-401-A8, School—Bethel, Alaska, March 2, 1959. Bethel School, Project Aaa. 50-A-242 & 50-C-401-A8, Bethel, Alaska. Department or Agency, Alaska Public Works, Office of Territories, Department of the Interior, by (Issuing office) Thomas G. Mooney, Director, Alaska Public Works, Office of Territories, Department of the Interior, Post Office Box 1181, Juneau, Alaska. Sealed bids in single copy for furnishing all labor, equipment, and materials and performing all work for the project described herein will be received until 10:00 A.M. Pacific Standard Time April 8, 1959 in the mailroom of the office of the Director, Alaska Public Works, Office of Territories, Department of the Interior, 123 West Third Street, Post Office Box 1181, Juneau, Alaska and then publicly opened and read aloud. Information regarding bidding material, bid guarantee, and bonds follows: Plans and specifications and other proposed contract documents are open for public inspection at the Director's office, Juneau, Alaska; at Room 6070 Interior Bldg., Washington 25, D.C.; at the Area Engineer's office, Alaska Public Works, Reliable Service Bldg., Anchorage, Alaska; and Associated General Contractors of America offices as follows: Seattle Chapter, Construction Center, 215 West Harrison St., Seattle, Wash.; Mountain Chapter, 220 West Harrison St., Seattle, Wash.; Tacoma Chapter, 1605 Center Street, Tacoma, Wash.; Portland Chapter, 129 S. W. Third Avenue, Portland, Oregon; the Alaska Chapter, 306 Central Bldg., Anchorage, Alaska, and the Plan Bureau, 2413 Western Ave., Seattle, Wash.; and the Builders Exchange Cooperative, 317 Builders Exchange Bldg., Portland, Oregon. A set of such documents may be procured from the Office of the Director at Juneau, Alaska upon deposit of $25.00, all of which will be refunded upon the return of the plans and specifications in good condition within twenty (20) days from date of bid opening. Each bid must be accompanied by a satisfactory bid security (certified check or bid bond) in an amount not less than 5 per cent of the total bid in dollars and cents. No bid will be withdrawn until thirty days after the scheduled closing date for the receipt of bids. The successful bidder will be required to furnish a performance bond and payment bond, each in the amount of 100 per cent of the contract price. The Government and State reserves the right to award a contract for the project on the basis of the acceptance of any or all of the alternates, whichever course is in the best interest of the Government and State. Description:—Project Aaa. 50-A-242 & 50-C-401-A8, School, Bethel, Alaska. The construction of a one-story structural steel and wood frame school building with approximately 18,000 square feet of floor area. Alternates will be provided for extra classrooms, water supply and sewage disposal system. Information regarding liquidated damage (if any), payments, etc., is attached or made a part of the specifications. Bids shall be submitted on the forms furnished or copies thereof.
6425—3-7, 14, 21

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**HEALTH CENTER**

**BIDS CLOSE 10 A.M., P.S.T., APRIL 8**

**Bethel, Alaska**

**NOTICE TO CONTRACTORS**

INVITATION FOR BIDS (CONSTRUCTION CONTRACT) Project Aaa. 50-A-268, Health Center, Bethel, Alaska. March 2, 1959. Bethel Health Center, Project Aaa. 50-A-268, Bethel, Alaska. Department or Agency, Alaska Public Works, Office of Territories, Department of the Interior, By (Issuing office) Thomas G. Mooney, Director, Alaska Public Works, Office of Territories, Department of the Interior, Post Office Box 1181, Juneau, Alaska. Sealed bids in single copy for furnishing all labor, equipment, and materials and performing all work for the project described herein will be received until 10:00 A.M. Pacific Standard Time April 8, 1959 in the mailroom of the office of the Director, Alaska Public Works, Office of Territories, Department of the Interior, 123 West Third Street, Post Office Box 1181, Juneau, Alaska and then publicly opened and read aloud. Information regarding bidding material, bid guarantee, and bonds follows: Plans and specifications and other proposed contract documents are open for public inspection at the Director's office, Juneau, Alaska; at Room 6070 Interior Bldg., Washington 25, D.C.; at the Area Engineer's office, Alaska Public Works, Reliable Service Bldg., Anchorage, Alaska; and Associated General Contractors of America offices as follows: Seattle Chapter, Construction Center, 215 West Harrison St., Seattle, Wash.; Mountain Chapter, 220 West Harrison St., Seattle, Wash.; Tacoma Chapter, 1605 Center Street, Tacoma, Wash.; Portland Chapter, 129 S.W. Third Avenue, Portland, Oregon; the Alaska Chapter, 306 Central Bldg., Anchorage, Alaska, and the Plan Bureau, 2413 Western Ave., Seattle, Wash.; and the Builders Exchange Cooperative, 317 Builders Exchange Bldg., Portland, Oregon. A set of such documents may be procured from the

Office of the Director at Juneau, Alaska upon deposit of $25.00, all of which will be refunded upon the return of the plans and specifications in good condition within twenty (20) days from date of bid opening. Each bid must be accompanied by a satisfactory bid security (certified check or bid bond) in an amount not less than 5 per cent of the total bid in dollars and cents. No bid will be withdrawn until thirty days after the scheduled closing date for the receipt of bids. The successful bidder will be required to furnish a performance bond and payment bond, each in the amount of 100 per cent of the contract price. The Government reserves the right to award a contract for the project on the basis of the acceptance of any or all of the alternates, whichever course is in the best interest of the Government. Description of Work: Project Aaa. 50-A-268, Health Center, Bethel, Alaska. The providing, placing and erection of two demountable buildings for a Health Center at Bethel, Alaska, approximately 525 square feet of floor area each; also incidental site development and connections to utilities. Information regarding liquidated damages (if any), payments, etc., is attached or made a part of the specifications. Bids shall be submitted on the forms furnished or copies thereof.

6424—3-7, 14, 21

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**EARTHWORK, LINING, STRUCTURES**
**BIDS CLOSE 10 A.M., P.S.T., APRIL 14**
**Ephrata, Washington**
**NOTICE TO CONTRACTORS**

DEPARTMENT OF THE INTERIOR, Bureau of Reclamation. Sealed bids (Specifications No. DC-5167) will be received at Ephrata, Washington, until 10 a.m., Pacific Standard Time, April 14, 1959, for furnishing labor and materials for earthwork, concrete lining and structures, Block 201, laterals, wasteway and drains and White Bluffs Pumping Plant No. 2 and WB1OA3 Pumping Plant, Wahluke Branch Canal Laterals, Columbia Basin Project, Washington. Location south of Othello, Washington. Principal items are 245,800 cu. yds. excavation; 24,600 cu. yds. backfill about structures; 1,130 cu. yds. concrete in structures; and other work. Completion time 300 days. For particulars, address Bureau of Reclamation, P.O. Box 1, Eltopia, Washington; P.O. Box 368, Ephrata, Washington, or Building 53, Denver Federal Center, Denver 25, Colorado. W. A. Dexheimer, Commissioner.

6426—3-21

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**STATE HIGHWAY PROJECTS**
**BIDS CLOSE 10 A.M., MARCH 31**
**Olympia, Washington**
**NOTICE TO CONTRACTORS**

Sealed bids will be received by the Washington State Highway Commission at Olympia, Washington, on Tuesday, March 31, 1959, until 10:00 A.M. and will then and there be opened and publicly read for the construction of the improvements listed below.

Bid proposals delivered in person will be received only at the Reception Desk located on the first floor of the Transportation Building.

All bid proposals shall be accompanied by a bid proposal deposit in cash, certified check, cashier's check or surety bond in an amount equal to five per cent (5%) of the amount of such bid proposal. Should the successful bidder fail to enter into such contract and furnish satisfactory performance bond within the time stated in the specifications, the bid proposal deposit shall be forfeited to the State of Washington.

Prequalification of bidders is required. Maps, plans and specifications may be obtained from this office upon written request therefor and payment to the Director of Highways by cash, certified check, cashier's check or money order in the sum of two dollars ($2.00) for each copy of such maps, plans and specifications as a rental for the use of them. Plans will be forwarded by First Class Mail.

Informational copies of maps, plans and specifications are on file in the office of the County Engineer of the County in which the work is situated, the Chapter offices of the Associated General Contractors of America in Seattle, Spokane, Tacoma and Portland and the offices of the District Engineers of the Department of Highways where they may be inspected.

Federal Funds have been allocated for items Nos. 1 to 6 inclusive.

The improvements for which bids will be received follow:

1. Clearing, Draining, Grading, Surfacing, Paving with Asphaltic Concrete and Cement Concrete, Constructing Two Reinforced Concrete Flat Slab Bridges and Installing Illumination on 2.644 miles of Primary State Highway No. 1 in King County, FACTORIA TO NORTHEAST 8TH STREET IN BELLEVUE, FAP No. I-405-3(4)166, involving about 75 acres of Clearing, 701,700 cubic yards of Common Excavation, 61,110 cubic yards of Sand Borrow, 35,010 cubic yards of Unsuitable Foundation Excavation, 25,600 tons of Selected Roadway Borrow, 8,500 tons of Crushed Surfacing, 404 cubic yards of Prime Coat Aggregate, 60 cubic yards of Hand Placed Riprap, 45 tons of Asphalt Cement, 5,470 tons of Asphaltic Concrete, 4,190 linear feet of Asphaltic Concrete Ditch, 5,200 square yards of Cement Concrete Pavement, 3,825 linear feet of Concrete Pipe, 1,812 linear feet of Metal Pipe, 190 linear feet of Galvanized Conduit Pipe, 876 cubic yards of Concrete, 190,990 pounds of Steel Reinforcing Bars, a lump sum bid for Two Superstructures (about 762 cubic yards of Concrete and 188,000 pounds of Steel Reinforcing Bars), 577 linear feet of Standard Bridge Railing, 546 linear feet of Beam Guard Rail, 316 Guide Posts, 2 lump sum bids for Illumination Systems and other items. Minimum Wage Rates for this project have been predetermined by law and are set forth in the bid proposal.
2. Clearing, Draining, Grading, Surfacing, Paving with Asphaltic Concrete, Fencing and Constructing a Reinforced Concrete Slab Bridge on 1.129 miles of Primary State Highway No. 1 in Clark County, SALMON CREEK TO JCT. EXISTING PSH No. 1, FAP No. I-5-1(13)7, involving about 21 acres of Clearing, 505,145 cubic yards of Common Excavation, 17,050 tons of Crushed Surfacing and Ballast, 230 cubic yards of Prime Coat Aggregate, 18,480 tons of Loose Riprap, 19 tons of Asphalt Cement, 1,710 tons of Asphaltic Concrete, 13,441 linear feet of Concrete Pipe, 808 linear feet of Metal Pipe, 3,985 linear feet of Galvanized Iron Pipe, 10 linear feet of Steel Pipe, 899 linear feet of Beam Guard Rail, 17,670 linear feet of Wire Fence, 177 cubic yards of Concrete, 12,630 pounds of Steel Reinforcing Bars, a lump sum bid for Superstructure (about 448 cubic yards of Concrete and 116,000 pounds of Steel Reinforcing Bars), 370 linear feet of Standard Bridge Railing, 4,000 linear feet of Concrete Piling and other items. Minimum Wage Rates for this project have been predetermined by law and are set forth in the bid proposal.
3. Draining, Grading, Surfacing, Constructing Bituminous Surface Treatment and Signing on 1.686 miles of Primary State Highway No. 7 in Grant County, BLUE LAKE VICINITY, FAP No. F-031-1(9), involving about 861,810 cubic yards of Unclassified Excavation, 31,140 tons of Crushed Surfacing, Crushed Cover Stone and Ballast, 75 tons of Asphalt Cement, 8 cubic yards of Concrete, 305 pounds of Steel Reinforcing Bars, 748 linear feet of Beam Guard Rail, a lump sum bid for Signing and other items.
4. Clearing, Draining, Grading, Surfacing and Paving with Asphaltic Concrete on 3.373 miles of Secondary State Highway No. 15-A in Snohomish County, JCT. SSH No. 1-A TO HARTFORD, FAS No. S-1405(1), involving about 51 acres of Clearing, 285,030 cubic yards of Common Excavation, 10,310 cubic yards of Unsuitable Foundation Excavation, 3,850 cubic yards of Selected Roadway Borrow, 1,410 cubic yards of Crushed Surfacing and Prime Coat Aggregate, 14 tons of Asphalt Cement, 1,360 tons of Asphaltic Concrete, 4,265 linear feet of Asphaltic Concrete Spillway and Ditch, 349 cubic yards of Concrete, 70,930 pounds of Steel Reinforcing Bars, 1,887 linear feet of Concrete Pipe, 606 linear feet of Metal Pipe and other items.
5. Draining, Grading, Surfacing, Constructing Bituminous Surface Treatment and 0.873 mile of Primary State Highway No. 10 in Okanogan County, BREWSTER AND FORT OKANOGAN CONNECTIONS, FAS No. F-029-2(15), involving about 35,200 cubic yards of Common Excavation, 9,130 tons of Selected Roadway Borrow, 6,700 tons of Crushed Surfacing and Crushed Cover Stone, 85 tons of Asphalt Cement, 7 cubic yards of Concrete, 274 linear feet of Concrete Pipe, 1,900 linear feet of Wire Fence and other items.
6. Draining and Grading on 0.492 mile of Kitsap County Road, PORT ORCHARD-WATERMAN ROAD, FAS No. S-6229(1), involving about 19,300 cubic yards of Common Excavation and Borrow, 1,200 linear feet of Concrete Pipe and other items.
7. Draining, Grading, Surfacing, Constructing Bituminous Surface Treatment, Signing and Constructing a Reinforced Concrete Flat Slab Bridge on 0.343 mile of Secondary State Highway No. 16-D in Douglas County, PINE CANYON CREEK BRIDGE AND APPROACHES, a State Project, involving about 19,550 cubic yards of Common Excavation and Borrow, 2,100 cubic yards of Selected Roadway Borrow, 1,080 cubic yards of Crushed Surfacing and Mineral Aggregate, 15 tons of Asphalt Cement, 398 linear feet of Concrete Pipe, 140 linear feet of Metal Pipe, 52 cubic yards of Concrete, 8,800 pounds of Steel Reinforcing Bars, a lump sum bid for Superstructure (about 250 cubic yards of Concrete and 60,000 pounds of Steel Reinforcing Bars), 254 linear feet of Standard Bridge Railing, 300 linear feet of Beam Guard Rail, 16 Guide Posts, a lump sum bid for Signing and other items.
8. Draining, Grading, Surfacing and Paving with Asphaltic Concrete and Cement Concrete on 0.762 mile of Primary State Highway No. 5 in King County, AUBURN CITY STREETS, a State Project, involving about 3,660 cubic yards of Common Excavation, 1,930 cubic yards of Selected Roadway Borrow, 1,120 cubic yards of Crushed Surfacing and Prime Coat Aggregate, 14 tons of Asphalt Cement, 2,820 tons of Asphaltic Concrete, 2,256 square yards of Cement Concrete Pavement, 90 square yards of Cement Concrete Driveway, 963 square yards of Cement Concrete Sidewalk, 3,611 linear feet of Cement Concrete Curb and gutter, 360 linear feet of Extruded Traffic Curb, 448 linear feet of Concrete Pipe and other items.
9. Paving with Concrete on 9.5 miles of Secondary State Highways Nos. 1-N, 3-F and 5-H in Pierce and Thurston Counties, TENINO VICINITY, ET AL, a State Project, involving about 24 tons of Asphalt Cement, 7,530 tons of Asphaltic Concrete and 75 tons of Mineral Filler.
10. Draining, Grading, Surfacing, Constructing Bituminous Surface Treatment, Paving with Asphaltic Concrete and Cement Concrete and Installing Illumination on 0.349 mile of Primary State Highway No. 1 in King County, JCT. SSH No. 1-F INTERSECTION, a State Project, involving about 6,210 cubic yards of Unclassified Excavation, 1,970 cubic yards of Selected Roadway Borrow, 855 cubic yards of Crushed Surfacing, Crushed Cover Stone and Prime Coat Aggregate, 12 tons of Asphalt Cement, 830 tons of Asphaltic Concrete, 3,000 square yards of Cement Concrete Pavement, 2,620 linear feet of Extruded Traffic Curb, 153 linear feet of Concrete Pipe, a lump sum bid for Illumination System and other items.
11. Draining, Grading, Surfacing, Constructing Bituminous Surface Treatment, Paving with Bituminous Plant Mix and Signing on 0.231 mile of Secondary State Highway No. 21-A in Kitsap County, HOSTMARK STREET AND NEVILLE ROAD INTERSECTION IN POULSBO, a State Project, involving about 1,470 cubic yards of Common Excavation, 650 cubic yards of Selected Roadway Borrow, 275 cubic yards of Crushed Surfacing, Crushed Cover Stone and Prime Coat Aggregate, 14 tons of Asphalt Cement, 470 tons of Bituminous Plant Mix, 235 linear feet of Asphaltic Concrete Curb and Spillway, 144 linear feet of Concrete Pipe, 175 linear feet of Metal Pipe, a lump sum bid for Signing and other items.

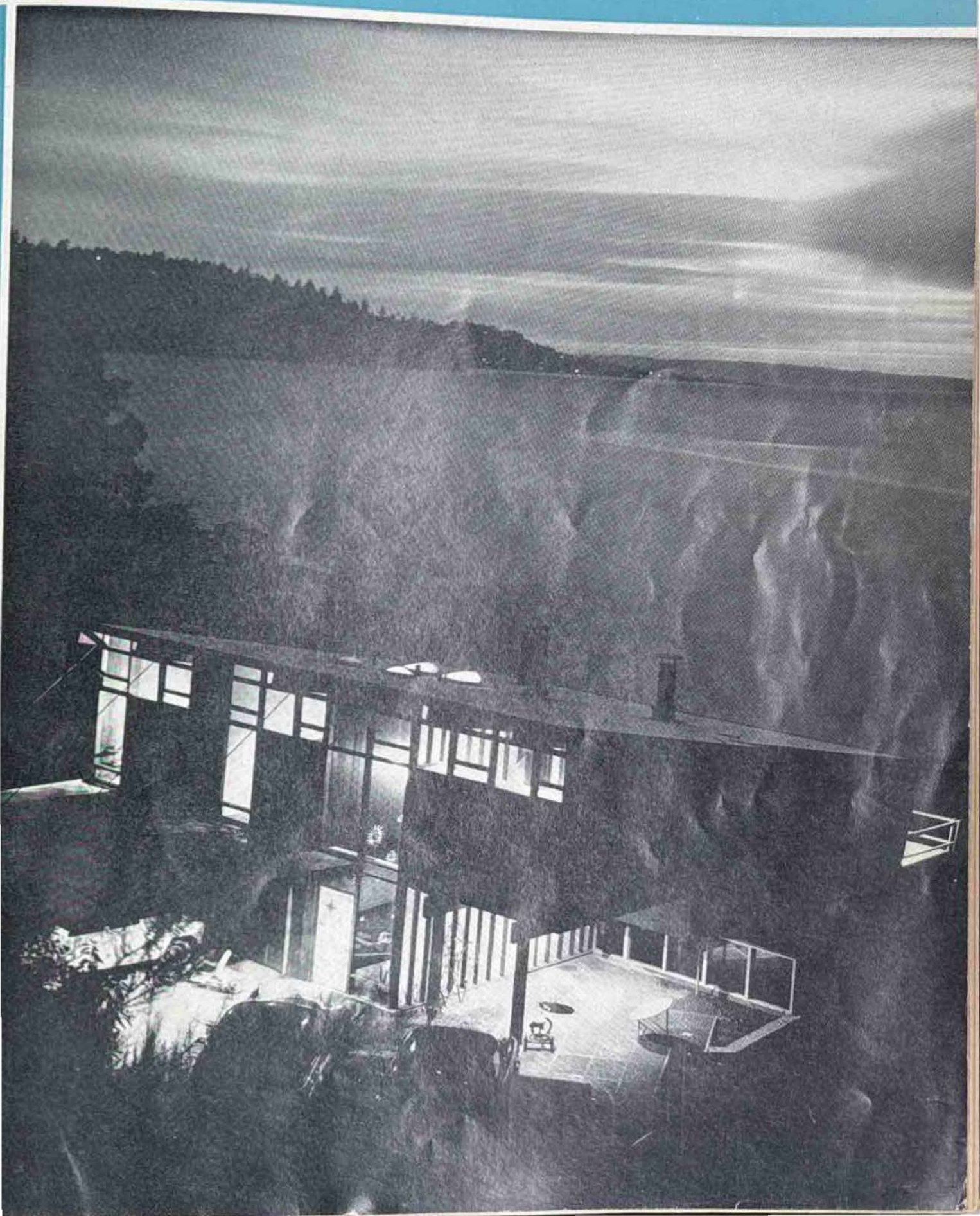
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W. A. BUGGE, Director of Highways

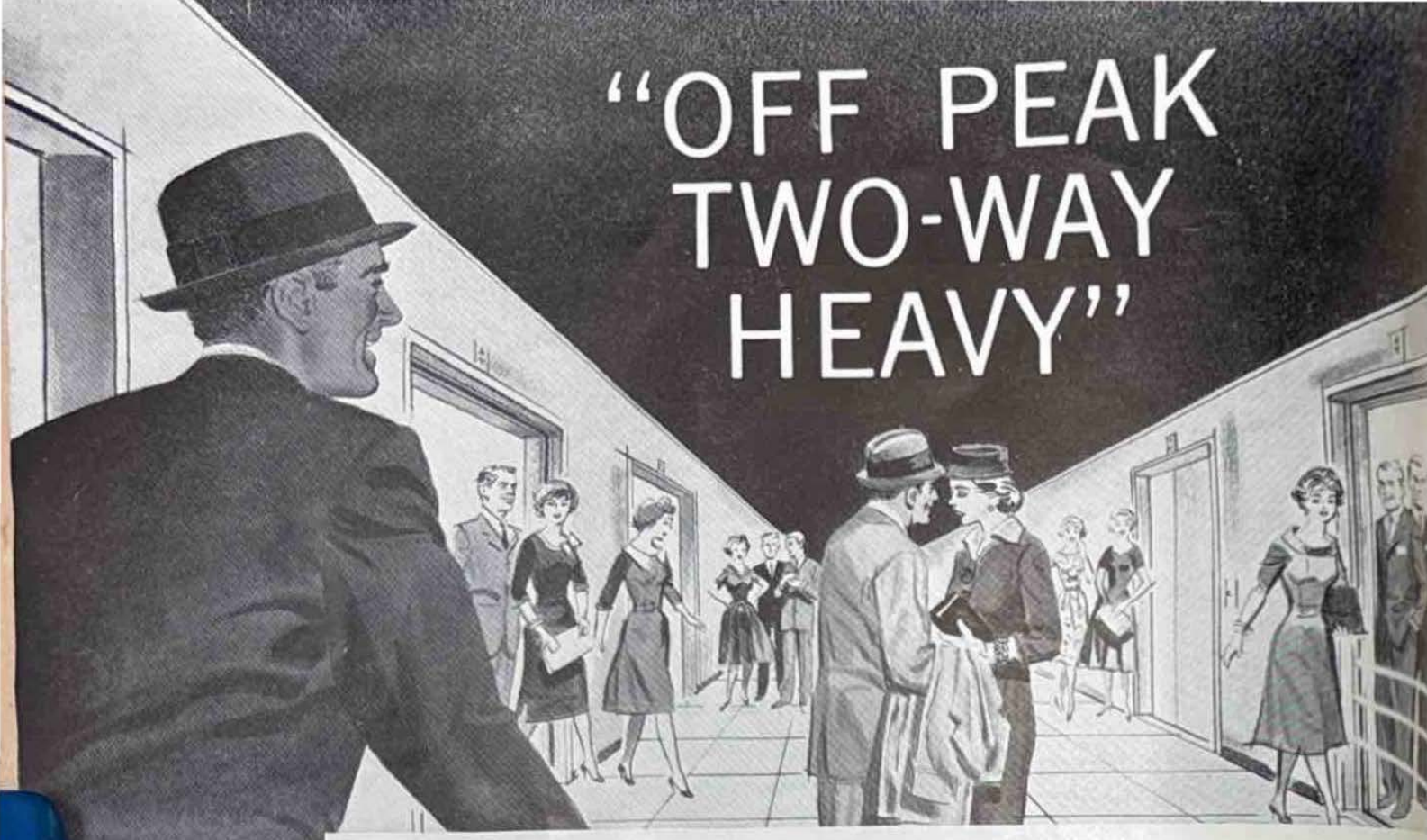
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Magazine of West Coast Architecture
APRIL 1959
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handsome facade;
d-winning house
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# pacific architect and builder






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Magazine of West Coast Architecture

# pacific architect and builder

VOLUME 65, NUMBER 4 APRIL 1959

*Covering California, Oregon, Washington, Idaho, Montana, Alaska and Hawaii—a $4 billion building market*

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**COVER:** Gordon Cheney Residence, Seattle: Harold Nesland, Architect; Art Hupy photo.

# *not specified*

## Package plan for Seattle's municipal building: a horse-and-buggy approach

SEATTLE'S controversial proposal to design, construct and finance a municipal office building employing the lease-purchase method has come under fire from the architectural profession but since its members are presumed to have a vested interest, the city fathers have paid them little heed. But architects are taxpayers too and on both counts they have every right to be concerned about the outmoded and unrealistic procedure by which the lessee retains control of the design.

One could argue and undoubtedly find documentation that a bond issue would be the sounder approach but the councilmen seem hesitant to place one before the public. However, if the city is set on pursuing the lease-purchase method, at least it should profit from the experience of the federal government which, generally speaking, has revised the system because of its unfeasibility.

The major deficiency in Seattle's proposal is obvious to the design profession: it eliminates the user-planner relationship. Any structure must be planned to suit the particular needs of the client; and in this case the needs are highly specialized because of the complexities of municipal government today. To be sure, the building committee has outlined some general requirements—type of construction, floor area, etc.—but these in no way constitute a basic program. It becomes apparent that the award will be made primarily on financing considerations rather than on architectural criteria. And in light of the fact that the city will finally own the building, it is doubly important that the space be well designed.

For its larger structures, the federal government now retains architects and engineers directly to plan for the specific needs of the agency involved. Competitive bids for construction and financing then become a separate part of the project, adhering to the two fundamental principles of the building industry: adequate planning and competitive bidding. For the city not to follow suit would be a *faux pas* of the first order.

Regarding retention of an architect for the municipal building, a competition conducted under the rules of the American Institute of Architects would be most appropriate. There is a greater lack of competent design in the field of public buildings than in any other and this can be said for the entire coast from Seattle to San Diego. Here is an unusual opportunity to produce a major contribution to Northwest architecture—not a monumental structure but one that gives the heart of a city an esthetic lift while it ably serves its occupants and the public at large.

## California manufacturer's stimulating seminar: a non-commercial approach

A SEMINAR climaxed the national sales meeting of Arcadia Metal Products in Los Angeles two months ago but the discussion was not related to its commercial products at all. In fact, the moderator, Robert E. Alexander, facetiously remarked that a new invention which has been installed in at least one building—a powerful stream of air introduced through a grill in the ceiling—has eliminated the need for doors entirely!

Purpose of the seminar was, according to advance billing, "to stimulate the thinking of the distributors from all parts of the country, to create an awareness of the scope of the problems confronting us today in the highly accelerated time we live in." The theme was challenging—"The Scientific Sixties: Effects of Changing Economic, Social and Scientific Values upon Architecture;" the discussion was stimulating, with the four panelists approaching these values from divergent angles—economics (Dr. Robert R. Dockson); sociology (Dr. Wendell Bell); physics (Dr. Ernst H. Plesset); architecture (A. Quincy Jones).

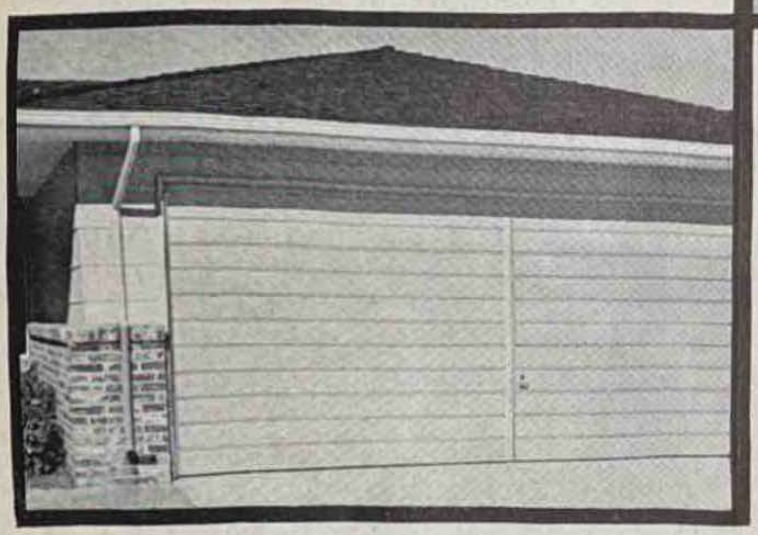
No earth-shaking announcements were made, no immediate problems solved, but surely a good many thoughts were planted in the minds of the distributors. More significantly, the meeting pointed up the increasingly genuine bond of cooperation between manufacturers and the design profession, explained by Arcadia president Henry E. North when he said: "In serving the architectural audience in our market, we are interested in the creative concepts of living patterns and in new ideas for product uses rather than in the quantity of doors specified and sold."

This is the kind of thinking exemplified on other occasions—by Owens-Corning Fiberglas Corp. when it sponsored a radio-telephone discussion between architects in Toledo and Bogota, Colombia; by Aluminum Company of America when it published "Schoolhouse," just to name two.

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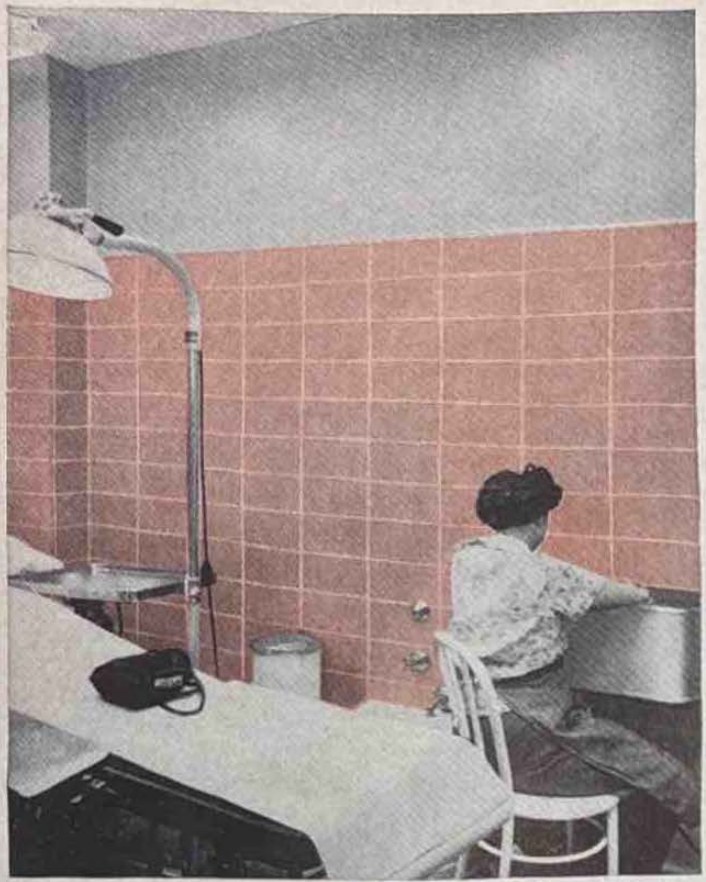




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## first aid for ford

What Ford does, Ford does right! Their cheery First Aid Room shown here is only one of many facilities thoughtfully provided in their giant new Milpitas plant. There are first aid rooms, kitchens, cafeterias, shower and locker rooms—all with generous expanses of gleaming, smooth Kraftile glazed structural tile.

In these rooms which do not yield direct profit or production, building and maintenance costs came under extra close scrutiny. Glazed Structural Tile Units are speedily installed as combined wall and finish by only one trade (masonry). A damp cloth cleans it. Glowing, harmonious colors cannot fade. Smooth, marble-hard finish fends off chemicals, acids, grease and steam. Offers no shelter to dirt, vermin, bacteria or rodents. 12 colors plus clear glaze in standardized sizes and shapes. Write for specifications, Graphic Standards and color samples.

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# Religious exhibit hall set for Oregon Centennial

A "Hall of Religious History" will carry out the decahedron motif of the Oregon Centennial Exposition and Trade Fair to be held June 10-September 17 at the Pacific International Grounds in North Portland. Red glued laminated arches will give the building its distinctive, 10-sided shape. Stewart & Richardson, centennial architects, have located the hall in the Garden of Tomorrow in the spot originally reserved for a chapel. (The chapel was ruled out because the Oregon constitution prohibits use of state funds for religious activity.)

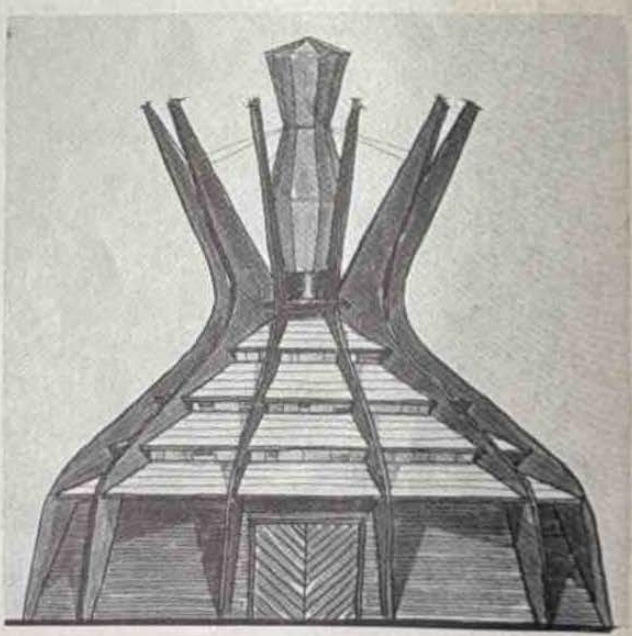
Nine murals dealing with the spiritual development of religion in Oregon will be painted on the interior walls by Carl Morris, semi-abstract Portland artist. Showcases and tables will hold displays.

The fir structure, 55 ft. high and 55 ft. in diameter, will be largely prefabricated and transplanted following the exposition. The walls, 16 ft. high, will be of 4-in. laminated t&g solid fir. The roof will have plywood decking and masonite set in shingle fashion.

Each of the 10 roof sections will have three insets of stained glass, to be lighted both from the interior and exterior. Entry (not as shown in drawing) will be through a low tunnel-like vestibule of glued laminated beams and 2-in. t&g decking. Directly ahead will be a stained glass wall, with entry doors on either side. Stained glass, designed by the architects and Anderson Stained Glass Studio, will be the overlay type with neutral background. Soft colors will be overlaid on the roof sections, bright colors on the entry glass.

The finial will be of structural steel covered with red sheet plastic; skylights will shine skyward and floorward through a 4-ft. opening at the apex.

(PA&B will salute the Oregon Centennial in its May issue with an article by a noted architectural historian, Marion Dean Ross of the University of Oregon, and impressions of the state as seen by a photographer, Tom Burns Jr. of Eugene.)



# AIA picks Gropius for top award, names five coast fellows

## • Discrimination looms as major issue at upcoming 'streamlined' convention

The 1959 Gold Medal of the American Institute of Architects will be awarded to Walter Gropius, pioneer of contemporary architecture and a Harvard University professor emeritus, during the "streamlined" annual convention in New Orleans June 22-26.



GROPIUS

The Institute also has elected 39 members to the rank of fellow, including five from the West Coast. They are, along with chapter affiliation and field of distinction: William S. Allen Jr., Northern California, design and service to the Institute; Robert L. Durham, Washington State, design and service to the Institute; Paul Hayden Kirk, Washington State, design; Harold C. Whitehouse, Spokane, design; and Henry F. Withey, Southern California, literature. W. L. Risley of Los Angeles was a member of the six-man jury.

### Gropius comes to U. S. in '37

Born in Berlin in 1883, Gropius first visited the U. S. as a young architect in 1928 and moved permanently to this country in 1937, having first gone to England in 1934 to flee the Nazi regime in his native land. At the end of World War I he became the first director of the Bahaus, whose aim was, in his own words, to "solve the creative problems of industrialization."

At Harvard Gropius soon became known as an outstanding educator and continued to practice his profession as a member of The Architects Collaborative, organized in 1945. He recently listed the Harkness Commons Building at the Harvard Graduate Center and the McCormick Estate Office Building in Chicago as among his most significant structures.

### Convention site controversy

Presentation of the Gold Medal and other awards, along with the installation of officers and investiture of fellowships, will be treated as part of the professional program, resulting from dissension within a number of AIA chapters—spearheaded by Washington State—over the convention site. In a letter sent to each chapter, AIA president John Noble Richards explained that "neither law nor custom prevents the corporate members of AIA from participating in the professional activities of an Institute convention."

He went on to explain: "Thus, facing the situation squarely, two separate questions are raised. One is professional; the other is of a social nature. The AIA is not an instrument to be used either to create or deny social change, except in the sense that the work of the profession is of benefit to society.

"Existing social controversies are beyond the jurisdiction and competence of the Institute as an organization. The individual views of its members on social and political matters are the personal concern and business of the individuals who hold them. Ours is a professional society and it is our task to divorce professional matters—which are the sole legal purpose of the national convention—from social matters which have no place in professional decisions."

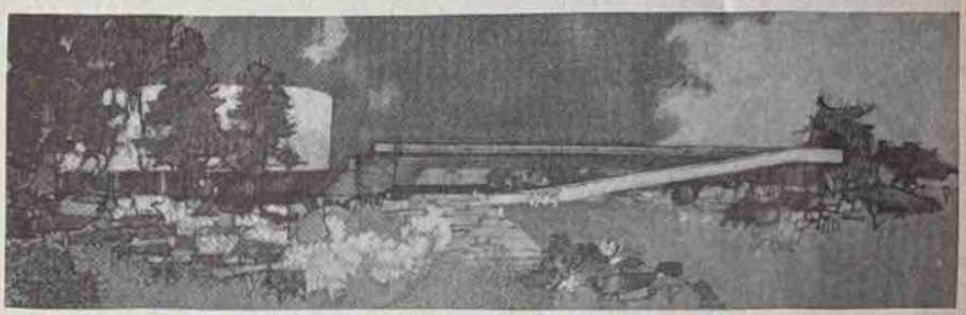
"In view of this fact, the 1959 convention will consist of professional meetings to which all corporate members of AIA will have free access and equal opportunity of participation. Such ceremonies as the presentation of awards and investiture of new members of the College of Fellows will be treated as a part of the professional program and, because of this, given the stature to which they have long been entitled.

"Other than professional matters will be left to the desires of individual members. In point of fact, it is our opinion that a streamlining of our annual meeting may be overdue. Excessive organization of social affairs not only detracts from the business of a convention but also serves to deny individuals an opportunity to explore convention cities with freedom."

As far as a number of chapters were concerned, however, the racial question was far from a dead issue and it appeared certain that a resolution would be introduced in New Orleans governing future convention sites.

Meanwhile, the Octagon continued to develop this year's program geared to the theme "Design." Among the westerners scheduled to participate in panel discussions are William L. Pereira of Los Angeles, Robert Anshen of San Francisco and Charles E. Pratt of Vancouver, B. C.

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GETTYSBURG SHRINE is planned, in part, to be memorial to Lincoln's historic address.

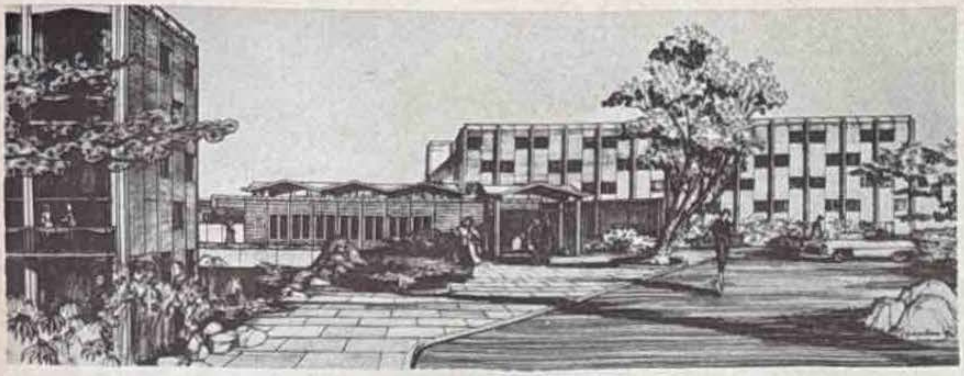
## Los Angeles architects design Lincoln shrine

The $1 million Visitors Center and Cyclorama Building at Gettysburg, Pa., has been designed by Los Angeles architects Richard J. Neutra and Robert E. Alexander as a project of the National Park Service's Mission 66 program.

Plans call for a two-story structure which will include a cylindrical shaped area 120 ft. across for display of the 74-year-old painting of Pickett's charge; a museum of Civil War relics and auditorium for the showing of interpretative films; a library for students of history and offices for park personnel. An eleborate rostrum will dominate an outdoor assembly area.

The sandblasted concrete cyclorama drum, resting on massive piers of native stone, will nestle in Zeigler's wood. The stone-clad auditorium, projecting from underneath the drum as a segment of a larger cylinder, will be reflected in a pool of still water. Paralleling Cemetery Ridge, the site of Pickett's charge, the 200-ft. long office wing will be protected by louvers which automatically follow the sun. An outdoor ramp on the west side will lead to an observation deck on the roof, providing a panoramic view of the historic site.

# Tradition bows down on University of Washington campus



**WOMEN'S RESIDENCE HALLS ADDITION** will be two separate buildings: a six-story unit for 300 students, a three-story unit for dining, recreational and administrative facilities. Architects: Young, Richardson & Carleton.



**BUSINESS ADMINISTRATION BUILDING** will have large open court in center of square structure. Architects: Decker & Christenson.



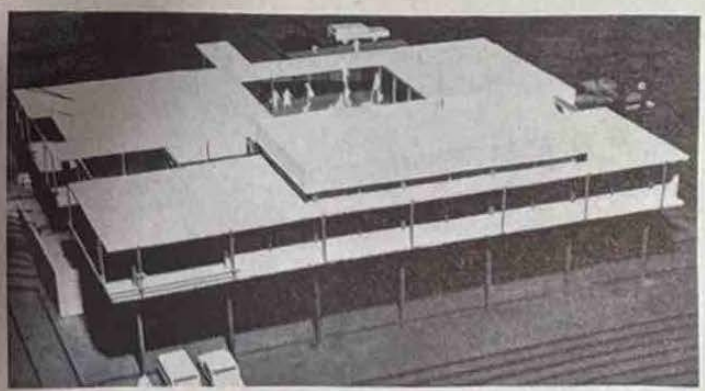
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As for March itself, here again each state is ahead of the corresponding month in 1958, for a total rise of $33 million. Likewise, the March over February increase, while seasonal in nature, is a substantial $82 million, with California contributing $66 million of that figure.

Los Angeles tops the agencies for March with $60.2 million, followed by Los Angeles County, San Jose, San Diego County and Sacramento County.

### ANALYSIS OF TYPICAL AREAS—MARCH

(Number of permits is followed by total dollar volume)

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| Seattle | 616 | 3,219,936 | 231 | 1,760,832 | 2 | 275,000 |
| Tacoma | 344 | 2,181,455 | 6 | 169,000 | 4 | 721,000 |
| Portland | 11 | 18,000 | 20 | 1,369,865 | 86 | 1,802,920 |
| Orange County | 417 | 5,901,306 | 7 | 18,155 | 2 | 94,000 |
| Los Angeles County | 2,090 | 20,772,614 | 108 | 4,041,670 | 42 | 1,266,000 |
| Sacramento County | 907 | 9,779,932 | 41 | 1,039,676 | 18 | 1,504,814 |

## Building Permits for 116 Western Agencies for March

| CALIFORNIA | Mar. 1959 | Feb. 1959 | Mar. 1958 |
|---|---|---|---|
| Alameda County | $ 1,389,675 | $ 906,126 | $ 1,075,200 |
| Anaheim | 4,131,649 | 2,764,800 | 3,998,897 |
| Bakersfield | 1,059,510 | 1,262,250 | 601,935 |
| Burbank | 599,510 | 779,818 | 643,930 |
| Contra Costa County | 3,607,161 | 1,974,075 | 2,791,774 |
| Fresno | 1,323,855 | 955,105 | 2,295,481 |
| Fullerton | 1,582,091 | 1,897,570 | 1,064,615 |
| Glendale | 2,680,844 | 1,741,457 | 1,319,298 |
| Inglewood | 1,457,703 | 1,119,254 | 926,399 |
| Long Beach | 4,251,230 | 3,583,710 | 7,106,745 |
| Los Angeles | 60,209,657 | 44,413,039 | 64,050,228 |
| Los Angeles County | 27,953,935 | 15,158,951 | 18,398,442 |
| Oakland | 5,525,541 | 4,142,494 | 30,790,556 |
| Ontario | 486,114 | 129,694 | 872,149 |
| Orange County | 6,536,202 | 1,893,813 | 4,443,392 |
| Palo Alto | 1,007,514 | 689,365 | 7,001,045 |
| Pasadena | 1,666,581 | 1,323,251 | 2,405,278 |
| Pomona | 2,229,172 | 562,919 | 1,592,201 |
| Richmond | 1,263,799 | 1,277,938 | 484,572 |
| Riverside | 2,400,185 | 1,089,975 | 1,087,832 |
| Sacramento | 3,901,138 | 4,064,495 | 1,711,695 |
| Sacramento County | 12,558,595 | 8,141,380 | 6,791,624 |
| San Bernardino | 2,269,884 | 2,032,577 | 1,486,814 |
| San Bernardino County | 8,337,114 | 6,434,551 | 5,065,483 |
| San Diego | 12,498,778 | 12,543,744 | 9,384,989 |
| San Diego County | 12,866,300 | 11,825,600 | 5,722,600 |
| San Francisco | 6,599,437 | 12,528,939 | 13,888,137 |
| San Jose | 17,027,450 | 7,080,574 | 4,023,278 |
| San Mateo | 1,130,380 | 523,692 | 687,823 |
| San Mateo County | 2,316,288 | 1,232,970 | 1,934,945 |
| Santa Ana | 2,019,830 | 772,571 | 688,998 |
| Santa Monica | 2,325,241 | 1,478,332 | 1,786,411 |
| Stockton | 2,009,043 | 507,381 | 603,954 |
| Sunnyvale | 4,230,725 | 2,342,550 | 1,238,510 |
| Torrance | 2,738,421 | 1,609,231 | 2,390,431 |
| West Covina | 3,077,189 | 519,559 | 869,760 |
| TOTAL | $227,267,741 | $161,303,749 | $211,225,421 |

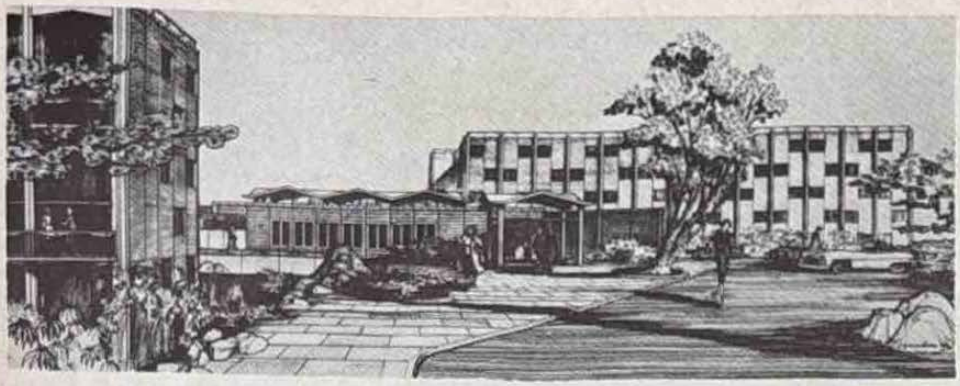
| OREGON | Mar. 1959 | Feb. 1959 | Mar. 1958 |
|---|---|---|---|
| Albany | $ 247,095 | $ 231,550 | $ 75,300 |
| Astoria | 30,220 | 43,290 | 3,575 |
| Baker | 157,150 | 82,600 | 59,300 |
| Bend | 154,290 | 86,200 | 277,509 |
| Coos Bay | 251,252 | 75,025 | 158,110 |
| Corvallis | 342,300 | 410,150 | 352,770 |
| Eugene | 597,192 | 616,132 | 465,145 |
| Grants Pass | 224,100 | 167,450 | 122,225 |
| Gresham | 88,500 | 29,250 | 82,200 |
| Hillsboro | 143,750 | 86,727 | 115,085 |
| Klamath Falls | 1,128 | 66,590 | 121,367 |
| LaGrande | 29,642 | 2,000 | 43,900 |
| Lane County | 882,338 | 976,123 | 1,152,674 |
| Medford | 828,387 | 359,050 | 406,958 |
| Multnomah County | 3,578,223 | 1,954,740 | 1,658,067 |
| North Bend | 124,190 | 773,090 | 30,175 |
| Oregon City | 28,500 | 97,436 | 35,875 |
| Pendleton | 364,207 | 276,550 | 105,425 |
| Portland | 4,626,460 | 3,902,015 | 5,212,865 |
| Roseburg | 180,460 | 88,570 | 44,489 |
| Salem | 250,058 | 758,603 | 411,456 |
| Springfield | 148,742 | 73,089 | 50,035 |
| The Dalles | 104,060 | 60,600 | 99,226 |
| TOTAL | $ 13,382,224 | $ 11,216,830 | $ 11,083,731 |

| WASHINGTON | Mar. 1959 | Feb. 1959 | Mar. 1958 |
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| Aberdeen | $ 88,913 | $ 73,348 | $ 157,196 |
| Anacortes | 86,760 | 179,945 | 89,400 |
| Auburn | 234,400 | 332,770 | 59,720 |
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| Chehalis | 84,481 | 34,365 | 19,960 |
| Clarkston | 22,900 | 32,647 | 48,060 |
| Ellensburg | 55,581 | 10,814 | 100,085 |
| Ephrata | 12,725 | 11,100 | 28,875 |
| Everett | 596,340 | 230,023 | 900,175 |
| Kelso | 52,300 | 53,800 | 46,100 |
| Kennewick | 138,150 | 55,380 | 29,620 |
| King County | 11,750,430 | 7,537,170 | 6,347,830 |
| Kirkland | 101,100 | 80,700 | 122,250 |
| Longview | 593,730 | 293,644 | 238,286 |
| Moses Lake | 428,222 | 6,835 | 58,739 |
| Olympia | 295,453 | 159,418 | 315,966 |
| Pasco | 270,598 | 336,550 | 659,360 |
| Pierce County | 1,943,868 | 1,868,405 | 1,089,453 |
| Port Angeles | 93,300 | 15,700 | 35,075 |
| Puyallup | 80,250 | 131,535 | 48,050 |
| Ritzville | 17,350 | 30,047 | Nil |
| Seattle | 6,479,851 | 9,678,154 | 6,920,114 |
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| Spokane | 3,915,080 | 1,041,299 | 1,264,529 |
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| IDAHO | Mar. 1959 | Feb. 1959 | Mar. 1958 |
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| Boise | $ 914,293 | $ 276,157 | $ 297,129 |
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| Jerome | 50,200 | 7,410 | 15,985 |
| Lewiston | 168,407 | 178,740 | 360,658 |
| Nampa | 323,485 | 126,905 | 190,340 |
| Payette | 30,425 | 55,645 | 17,400 |
| Pocatello | 518,500 | 411,690 | 177,203 |
| Sandpoint | 39,142 | Nil | 152,200 |
| St. Maries | 8,000 | 22,000 | 3,800 |
| Twin Falls | 193,250 | 163,600 | 210,185 |
| TOTAL | $ 3,211,713 | $ 1,839,966 | $ 2,601,005 |
| GRAND TOTAL | $282,605,258 | $200,689,854 | $249,616,307 |

# Tradition bows down on University of Washington campus



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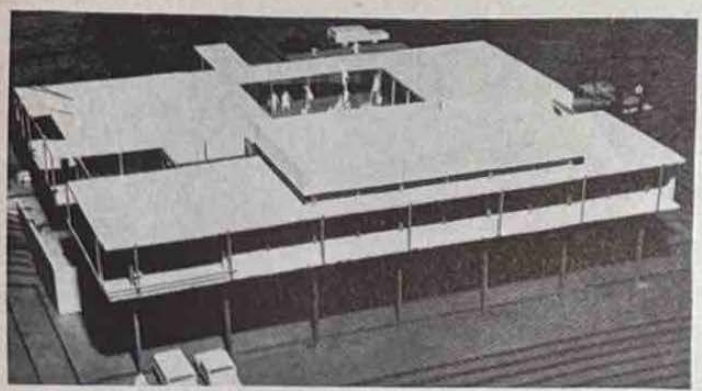
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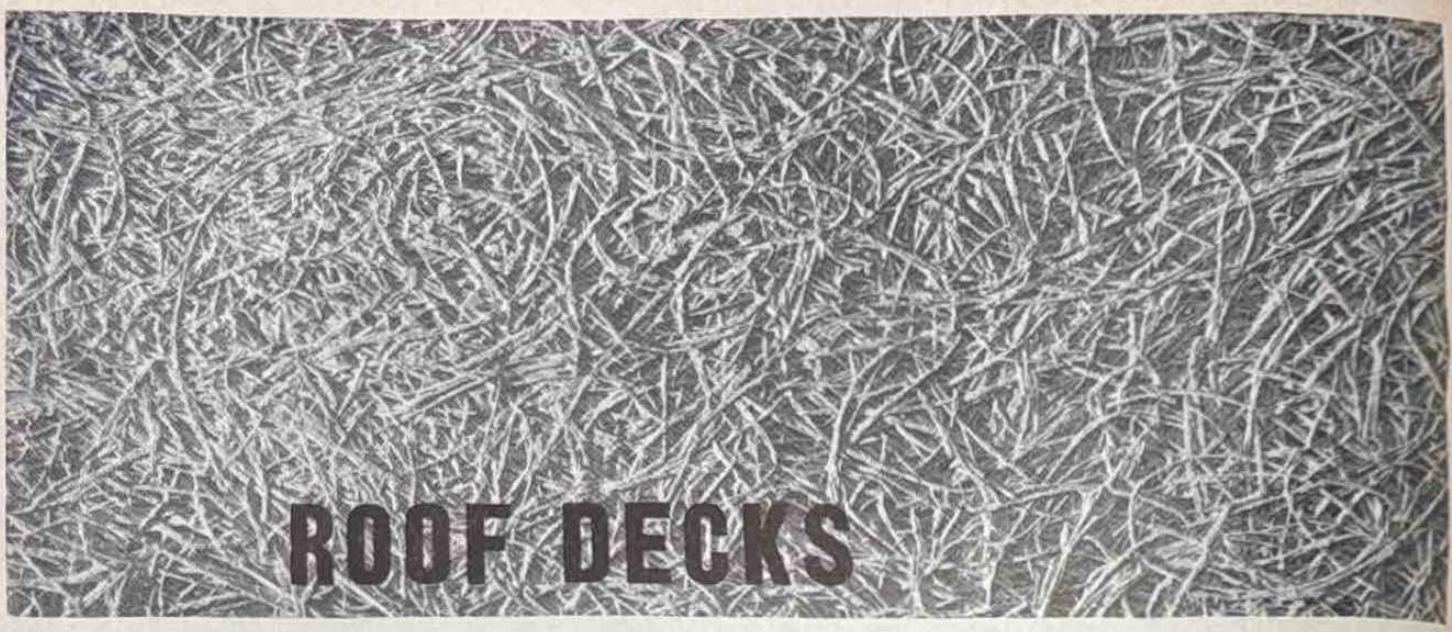
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| Nampa | 323,485 | 126,905 | 190,340 |
| Payette | 30,425 | 55,645 | 17,400 |
| Pocatello | 518,500 | 411,690 | 177,203 |
| Sandpoint | 39,142 | Nil | 152,200 |
| St. Maries | 8,000 | 22,000 | 3,800 |
| Twin Falls | 193,250 | 163,600 | 210,185 |
| TOTAL | $ 3,211,713 | $ 1,839,966 | $ 2,601,005 |
| GRAND TOTAL | $282,605,258 | $200,689,854 | $249,616,307 |




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*all wrapped up in one incombustible, structural slab?*
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Kenneth Raetz, Executive Vice President
CEMEX of Arizona, Inc., 8949 Sunset Blvd., Los Angeles 46, California

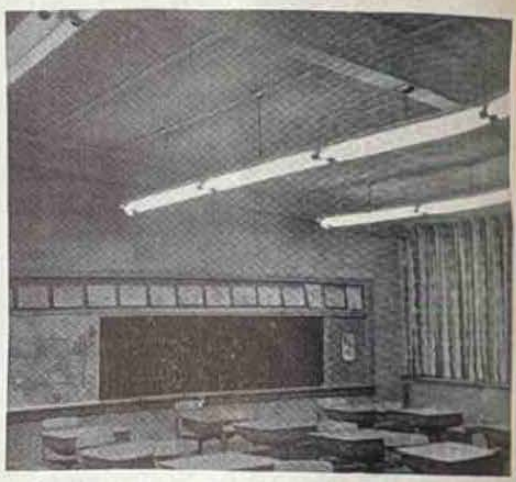
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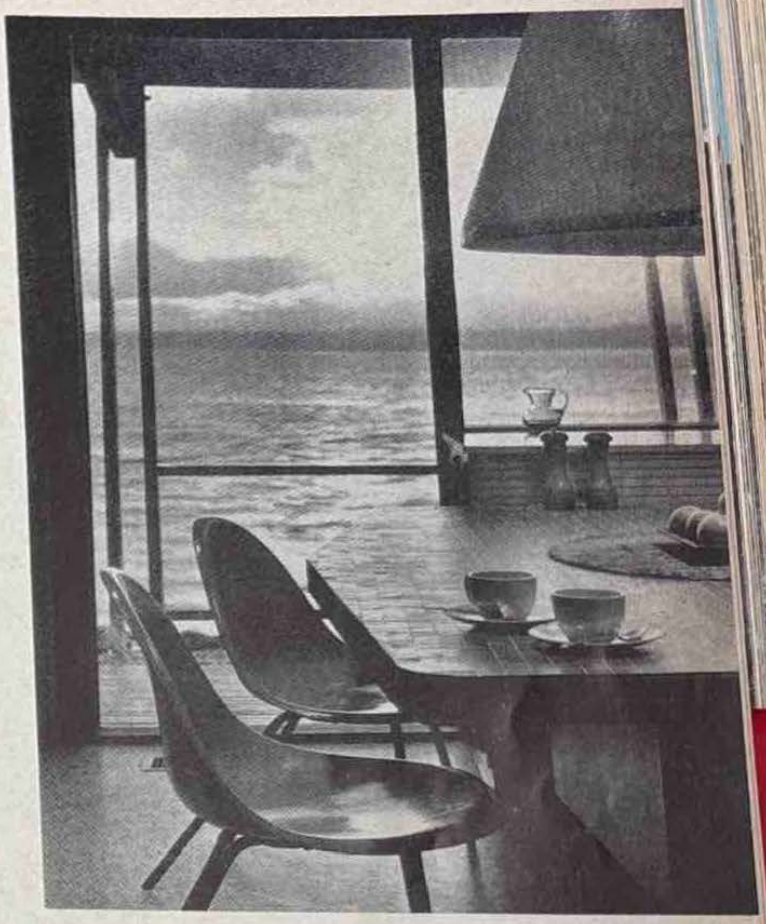
# Raised house becomes part of the Sound

Gordon Cheney Residence
Seattle, Washington

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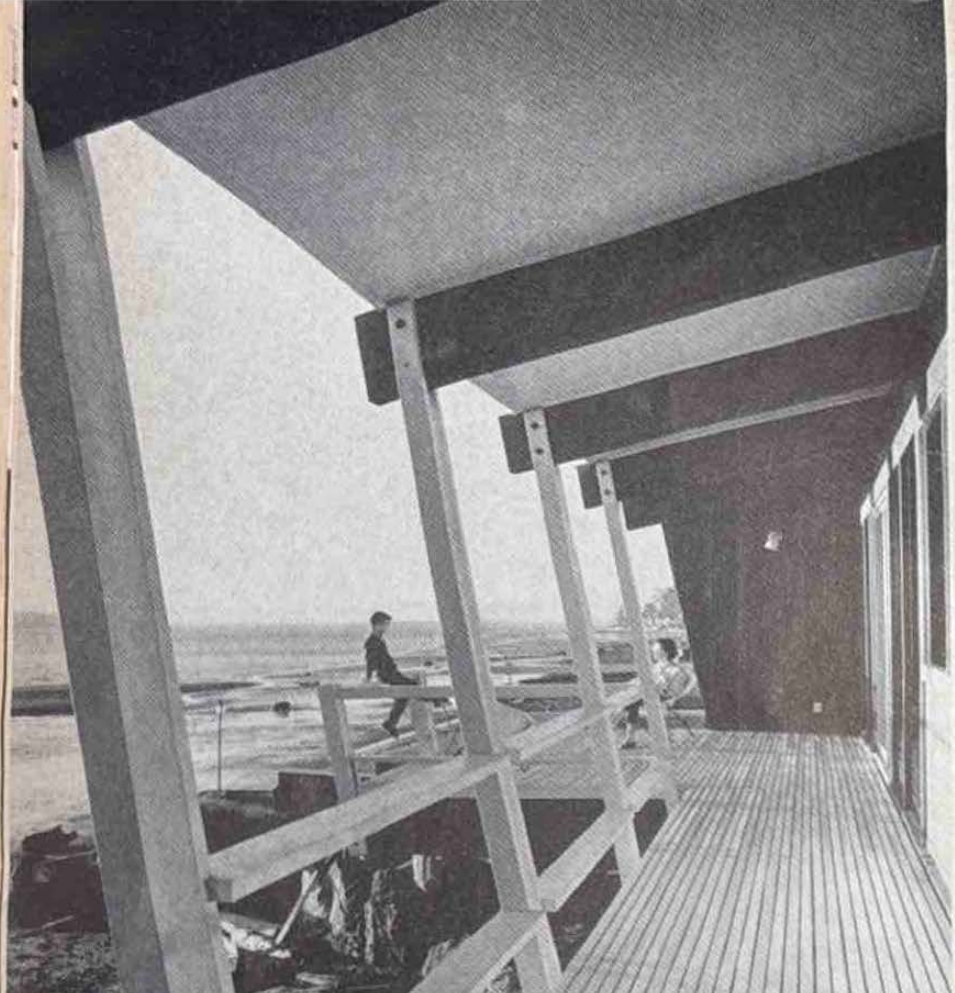
HAROLD J. NESLAND
Architect

FRANK J. HAUPT
Contractor



**pacific architect and builder**
APRIL 1959





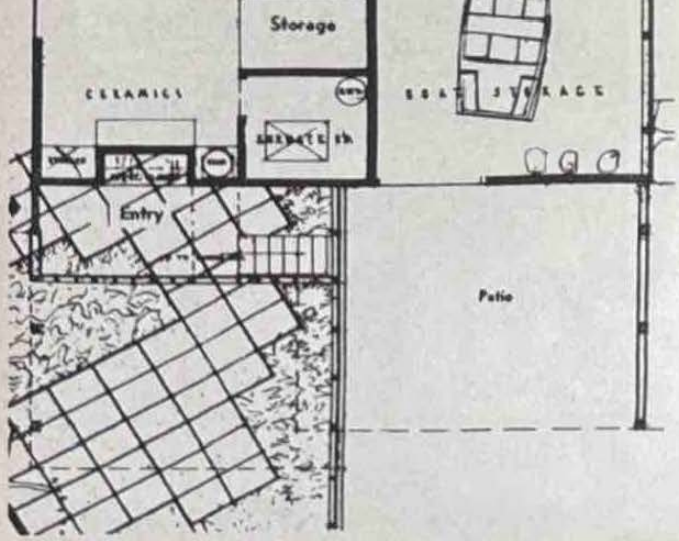
Art Hupy photos

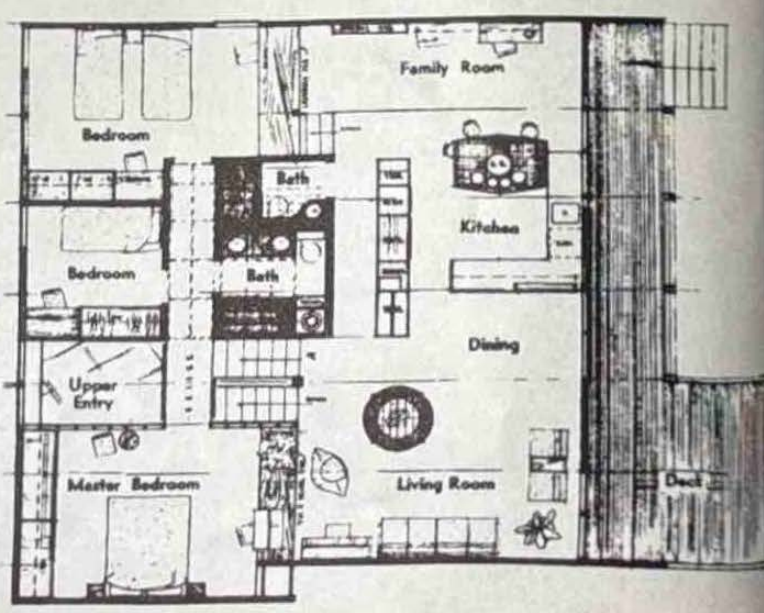
## GORDON CHENEY RESIDENCE

THIS HOUSE, chosen as the "Home of the Year" in the 1958 competition co-sponsored by the Washington State Chapter, AIA, and the Seattle Times, not only sits on the edge of Puget Sound but in a very real sense becomes a part of it. The owners and their three children, all with creative interests, presented a number of special requirements but few, if any, design restrictions. The result is an invigorating solution which ideally suits the informality of the occupants and the spectacular setting.

To make the most of the 75x60-ft. lot the architect raised the house above the ground level to provide a sheltered space for parking, a drive-through access to the beach for boat trailers and outdoor living areas protected from prevailing winds; in addition, he devised a sea wall of Riverton rock, creating a small bay to extend the beach and water—at high tide—into an integral relationship with the house and site.

The pebbled mosaic paving of the terrace continues into the entry, a half level from the living area. While the open plan visually enlarges the structure, each activity center is clearly defined. The living-dining area, island kitchen and family room extend across the view side and share a deck. The three bedrooms are a short flight up, reached by an unusual open stairway (photo preceding page) made of wooden slabs wrapped in textured carpeting and bolted to a steel support. The master bedroom is a balcony-like arrangement, screened from the living-dining area by a wall storage unit which is low enough so as not to obstruct the view. Interior colors, dominantly blue-greens and coral, reflect the Puget Sound sunsets.



## OUTLINE SPECIFICATIONS

**Structure**: foundation: concrete; frame: Douglas fir post and beam; roof: 2x6 joists with $\frac{3}{8}$-in. plywood sheathing; walls: $\frac{3}{8}$-in. plywood sheathing; floors: 2x8 joists with $\frac{3}{4}$-in. shiplap sheathing.

**Exterior Finish**: western red cedar, stained—(Benite) Daly's, Inc.

**Roof Surfacing**: three-ply hot asphalt with white marble chips.

**Windows**: job-built wood stops; aluminum vents—Durell Products, Inc.

**Doors**: exterior: solid slab fir, painted; sliding aluminum—Ador Sales, Inc.; interior: hollow core fir slab, painted.

**Floor Surfacing**: oxychloride terrazzo—(Plastic-Stone) Mortrude Floor Co.; wool carpeting.

**Insulation**: fiberglass batts—Owens-Corning Fiberglas Co.; aluminum foil vapor seal.

**Partitions**: 2x4 fir studs; $\frac{1}{2}$-in. plasterboard—United States Gypsum Co.; white birch cabinetwork.

**Interior Finish**: plasterboard, painted; western red cedar, stained—(Benite) Daly's Inc.

**Ceilings**: acoustical plaster—Zonolite Co.

**Lighting Fixtures**: aluminum cylinder—General Lighting Corp.

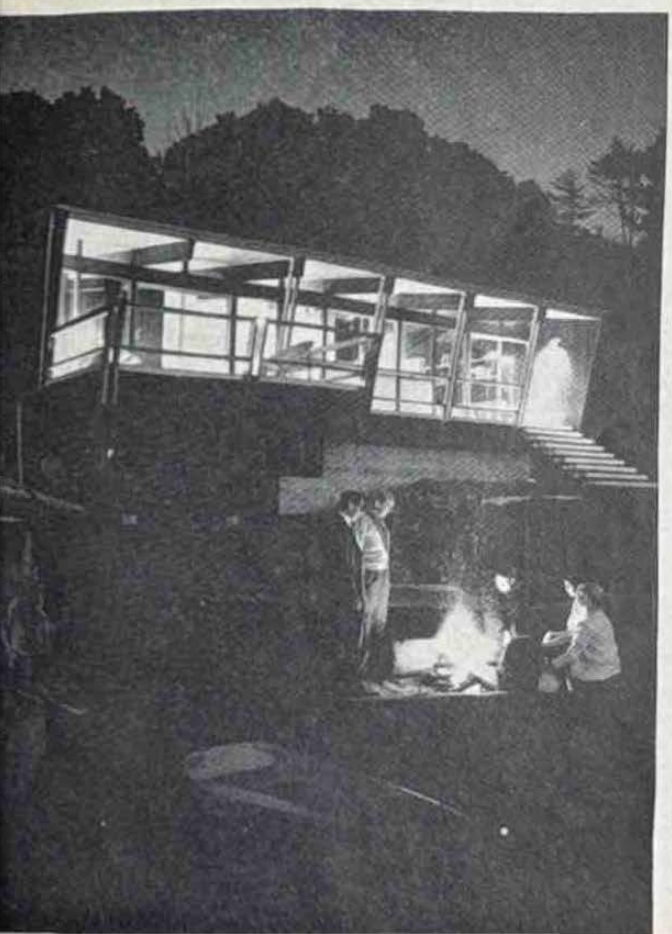
**Heating**: forced warm air, oil fired burner.

**Plumbing and Sanitary**: lavatories and water closets—American Standard; job-built sunken tile bath.

**Total Area**: 1,455 sq. ft., main floor; 950 sq. ft., lower floors (total equivalent of 1,915 sq. ft.).

**Cost per Square Foot**: $14.

**Date of Completion**: July 1958.



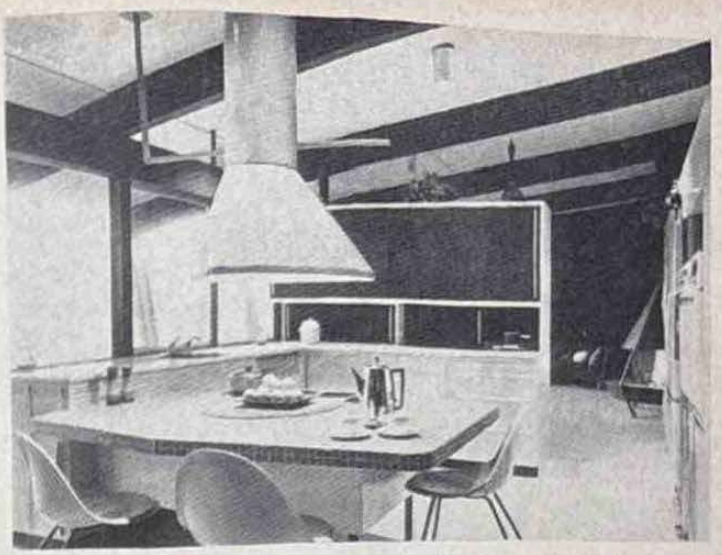
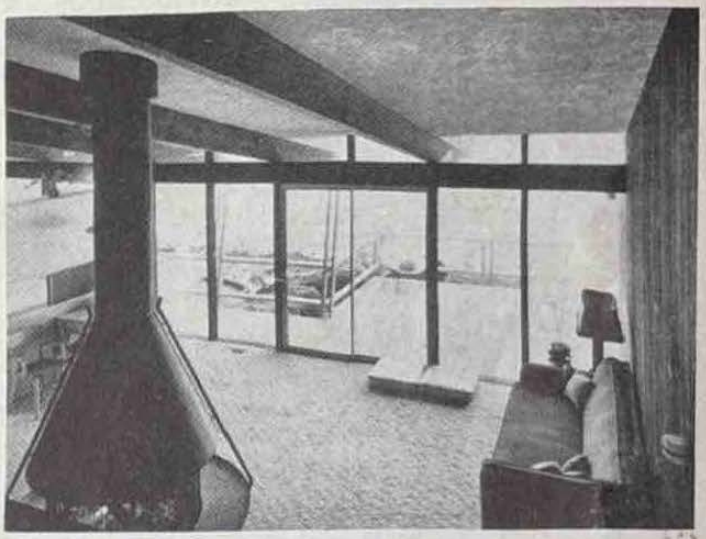
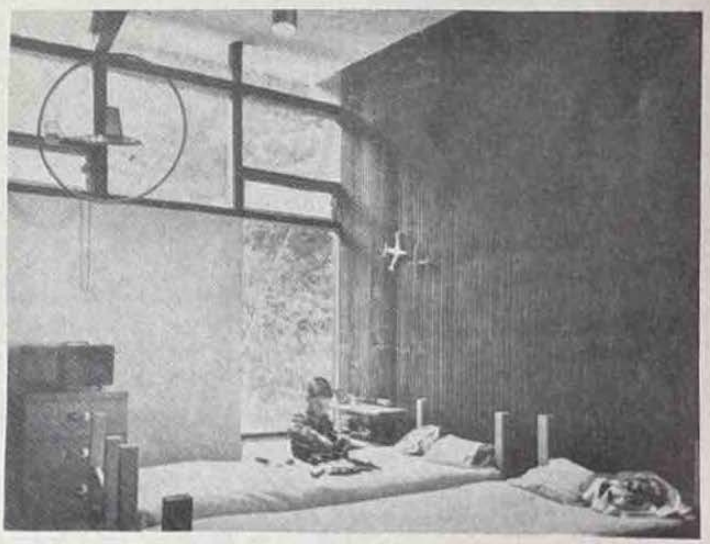


**TABLE-HEIGHT COOKING BAR** features barbecue (covered when not in use) set in turquoise mosaic counter with hanging hood for ventilation and lighting. White birch cabinets have black masonite sliding panels.



**CIRCULAR FIREPLACE** of black metal is in striking contrast with white carpeting, stained red cedar siding and birch hi-fi and TV storage units.



**BOYS' BEDROOM** is finished in cedar and like master bedroom, is balcony type, overlooking family room, with storage divider wall.

Administration Building
Santa Barbara Division
Curtiss-Wright Corp.
Goleta, California

•

ARENDT, MOSHER, GRANT
Architects

ROPP & ROPP
Structural Engineers

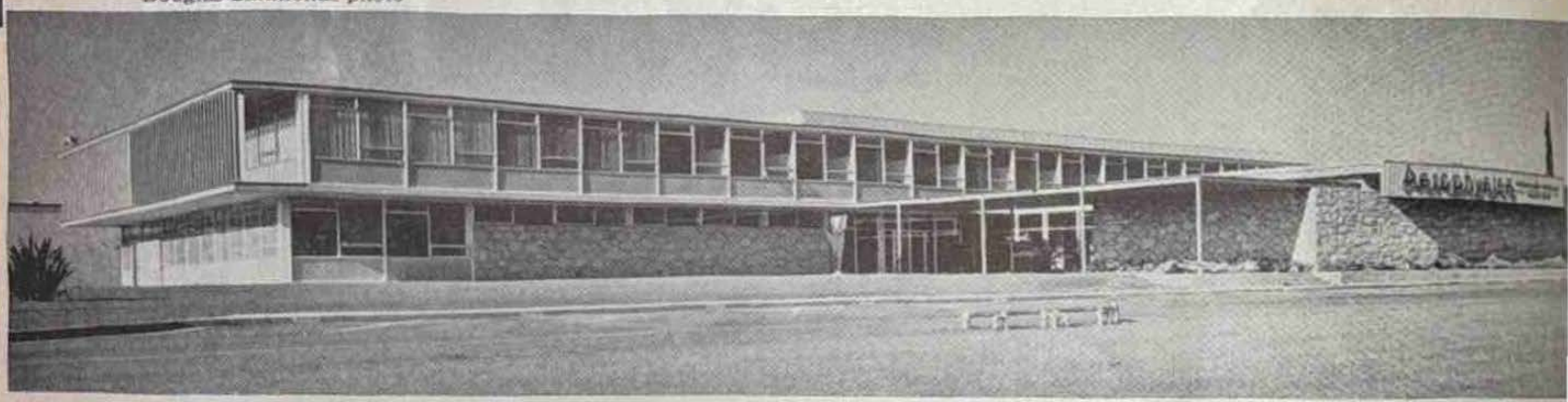
THOMAS F. DURFEE & ASSOCIATES
Mechanical Engineers

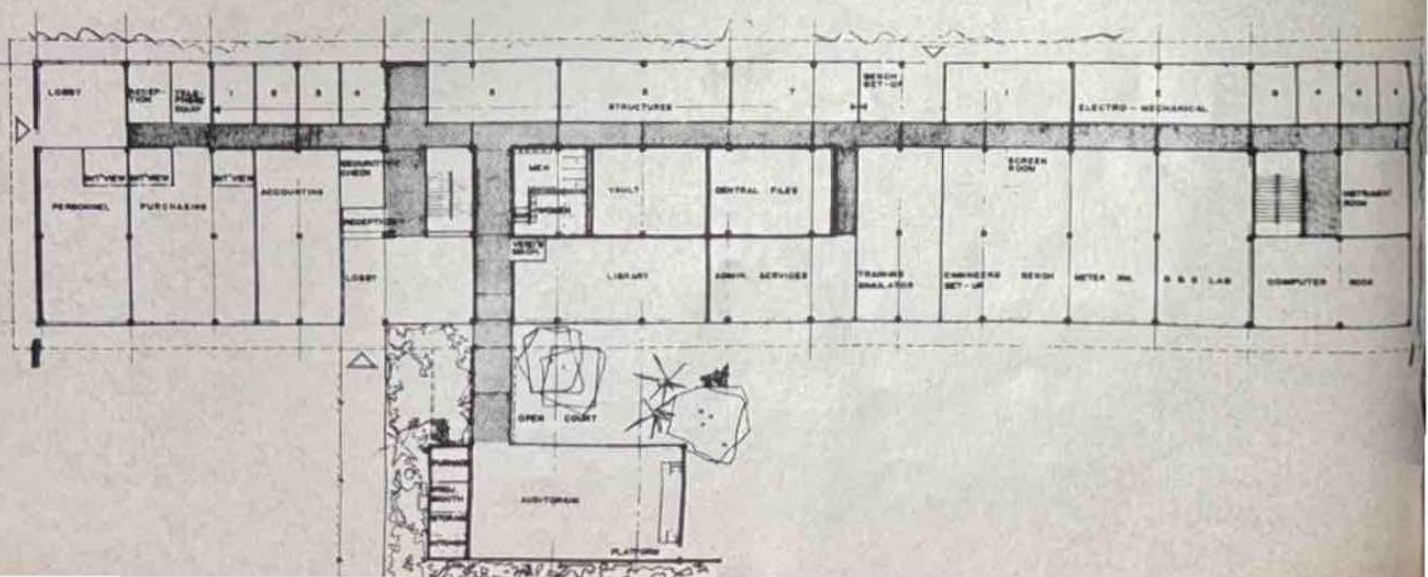
RICHARD TAYLOR
Landscape Architect

WILLIAM SIMPSON CONSTRUCTION CO.
General Contractor

# First phase of a campus-like plan for research

Douglas Simmonds photo









THE CLIENT (formerly Aerophysics Development Corp.), engaged in basic and applied research in the fields of guided missiles and electronics, decided to leave its metropolitan Los Angeles facility for an environment more conducive to clear thinking and pleasant living. It purchased an 104-acre site adjacent to the Santa Barbara Airport, overlooking the Pacific Ocean to the south, rugged mountains to the north and agricultural land to the west. The architects were requested to develop a master plan—well landscaped and campus-like in feeling—which would accommodate growth of the company in six phases, beginning with 100,000 sq. ft. and culminating with 600,000 sq. ft. They further were asked to design a building complex which would provide utmost utility and flexibility for immediate rearrangement to accommodate new project setups.

Phase 1 consisted of an administration building (shown here) with engineering offices and an auditorium for staff conferences and official briefings; and a laboratory building for conducting experiments and producing mockups. The former, located at the front of the property and set back 100 ft. from the street, is a two-story lift slab structure with steel columns on 22x24-ft. centers. Plywood partitions on a 5-ft. module with glass from door-head height to ceiling allow the continuous flow of space and increase light efficiency in adjacent offices.

The laboratory building is one story, built of coffered concrete lift slab, 17 in. thick, supported on centrifugally cast concrete columns. Tilt-up walls have no windows to simplify security as well as structural problems. Phase 1 was completed in mid-1957, totaling 101,500 sq. ft.; Phase 2—identical to the earlier project but with one building devoted entirely to engineering—was completed a year later, totaling 99,700 sq. ft.



**ACCESS** to main public stair is controlled by security gate adjacent to reception desk. Lobby also serves as non-classified routine business and interview area which accounts for spaciousness and comfortable chairs and tables. Executive conference room and lounge is adjacent to president's office (see open door in bottom photo). Light cluster on ceiling illuminates portable table for review of drawings.



## OUTLINE SPECIFICATIONS

**Structure:** foundation: cast-in-place concrete friction piles; frame: 10-in. pipe columns supporting concrete flat slab second floor and roof; roof: dead-level concrete slab; walls: reinforced concrete; floors: concrete slab on grade, lower; concrete flat slab, upper.

**Exterior Finish:** 10x10 window wall units with porcelain enamel in-fill panels, aluminum project-in sash—Pacific Window Wall Co.

**Roof Surfacing:** asbestos built-up with asphalt—(Aquadam) Johns-Manville Corp.; cinders—(Ge-o-rock) National Roofing Aggregates Co.

**Windows:** aluminum tubular hopper vents—Soule' Steel Co.

**Doors:** exterior: aluminum—Acme Metal Molding Co.; interior: birch general veneer.

**Floor Surfacing:** Mexican terrazzo in lobby; asphalt tile in corridors and office areas—Mastic Tile Corporation of America; ceramic tile in toilets—Gladding, McBean & Co.

**Partitions:** job-built wood frame with ¼-in. Douglas fir plywood.

**Interior Finish:** painted fir plywood; walnut plywood in executive suites; ceramic tile wainscoting in toilet rooms—Gladding, McBean & Co.

**Ceilings:** cane fiber acoustical tile—Celotex Corp.

**Lighting Fixtures:** fluorescent—Sunbeam Lighting Co.; incandescent—(Marco) Marving Manufacturing Co., Prescolite Manufacturing Corp.

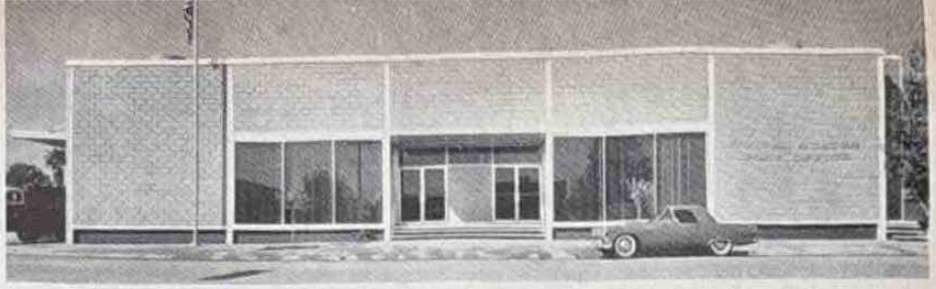
**Heating:** forced warm air furnaces—Hayes Manufacturing & Supply Co.

**Plumbing and Sanitary:** Crane Co., American-Standard.

**Total Area:** 46,120 sq. ft.

**Cost Per Square Foot:** $14.90.

**Date of Completion:** June 1957.

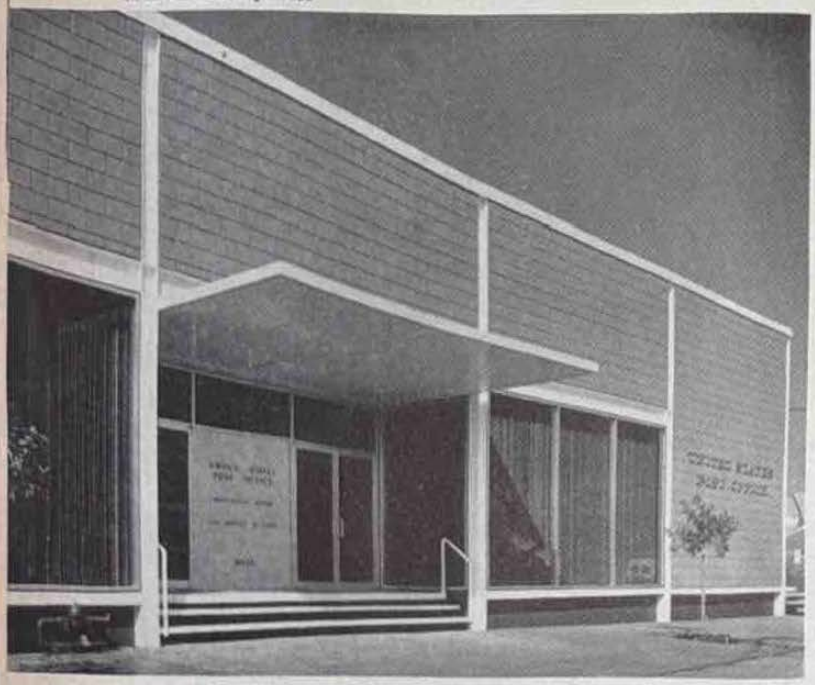





**COLORFUL EXTERIOR** has blue concrete block panels, white exposed steel frame, citron and pumpkin accents, chips of which have been requested by Los Angeles postmaster for future specification. But interior color is firmly set down by Washington: medium green dado to 5-ft. height, light green above.

# A refreshing approach to post office desig

Marvin Rand photos



**SPECIAL FEATURES**—at least for a post office—include gray heat-absorbing plate glass, vertical aluminum blinds, evaporative coolers, acoustical ceiling.

U. S. Post Office
Westchester Branch
Los Angeles, California

•

CRAIG ELLWOOD
Designer

J. E. LOMAX
Associate

ROBERT MARKS
Structural Engineer

CHOTINER & GUMBIN
General Contractors

PRODUCING good architecture within the restrictions, standards and budgets imposed by the Post Office Department is no easy task but here's how it was achieved in this 100x100-ft. building, as explained by the designer: "Present practice for the construction of new branch offices in the Los Angeles area is to publicly request bids based on a particular specification and on five standard facade designs (No. 9 in this case, shown in an official sketch at right), depending upon the size of the structure required. Bids are submitted with preliminary drawings on the basis of a yearly lease fee for a 10- or 20-year period.

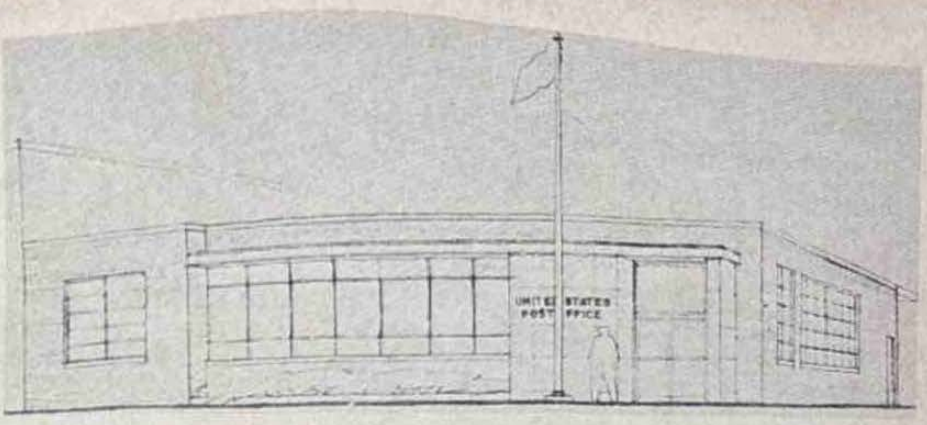
"Up until now, it seems that few successful bidders offered anything beyond the standard design and minimum specifications. Since the Post Office Department provides a basis for design, few bidders are willing to spend money for architectural fees, and plans are usually developed—or controlled—by the bidders. Thus almost all branch stations in California, and probably everywhere else, are patterned after the archaic standard designs. Furthermore, two or three general contractors in this area who specialize in branch post offices have the advantage of 100 or more such projects behind them and consequently are usually low bidders. These men, of course, seldom deviate from the standard designs and minimum specifications.

"We agreed to do this job, our first in speculation with preliminary drawings, because of the desire of our clients (Fred Marlow and Fritz Burns) to construct a good building and their willingness to pay for design should they be successful bidders. We too were eager to prove that good design can be applied to branch post offices without economic penalties.

"Our construction cost estimate to the clients was $100,000; the architectural fee, 6%; and the construction contract signed for $99,983. Thus the final cost was within the figure used by the developer in determining bid terms and it seems obvious that this structure—design fee considered—cost no more than 'stock' branch buildings.

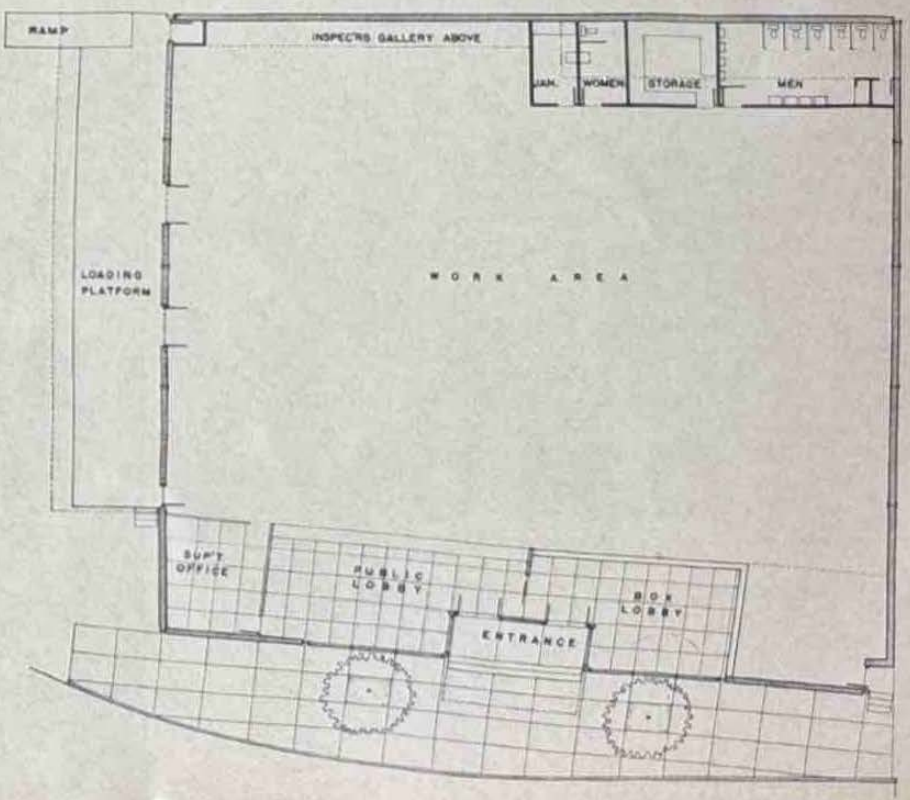
"In branch office design and construction it has long been the standard practice to 'chop' openings in walls and to neglect the design in favor of arbitrary requirements set down by convention and tradition. Since form is seldom considered, these arbitrary factors are generally accepted without question. In view of our concern for form, however, the regional real estate officer (E. L. Mayfield) and his assistant (Charles Suyeishi) were willing to make minor concessions and to accept alternate proposals with reference to entrance location, lobby division, screen and counter line location, fenestration, etc."

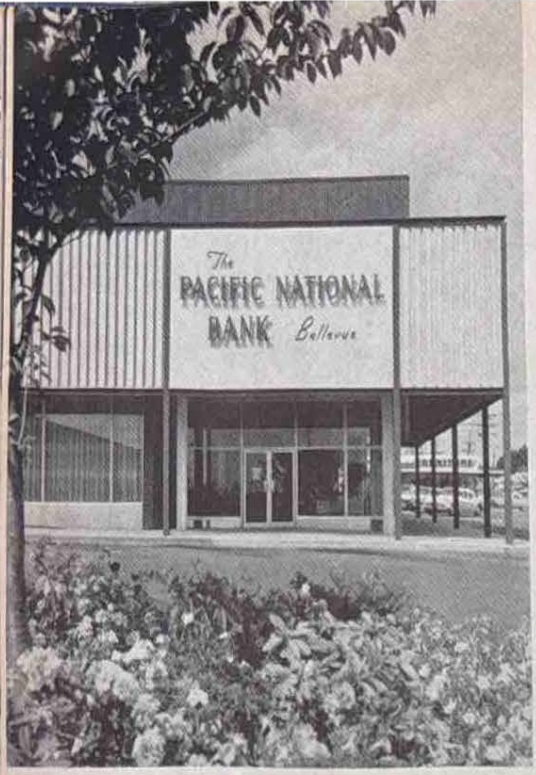
That the compromise paid off handsomely is obvious in the happy result.






**ELEVATED FLOOR SLAB** allows for truck dock, projects beyond concrete foundation wall to visually lift building above ground level.






Pacific National Bank
Bellevue, Washington

•

JOHN GRAHAM & CO.
Architects-Engineers

JOHN RIDLEY
Design Architect

ALAN GERARD
Interior Design

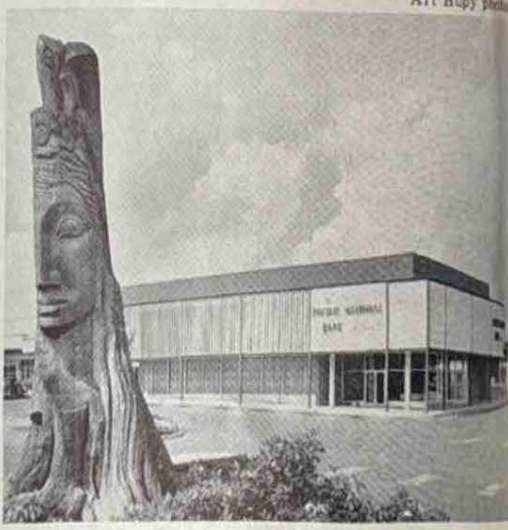
HENRIK VALLE & CO.
General Contractors

# Informality for a suburban shopping square

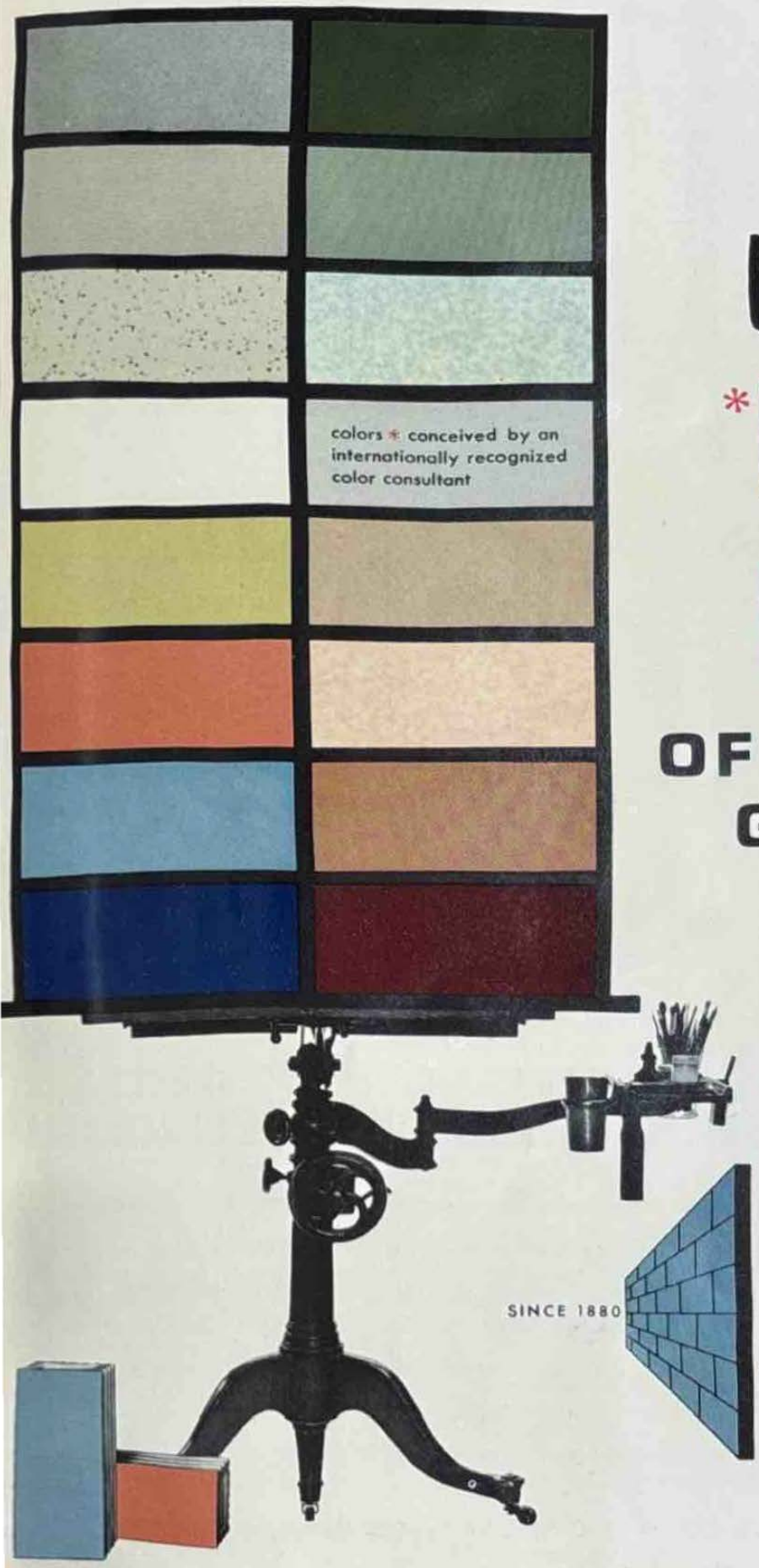
THIS BANK takes its architectural cue from the suburban square of which it is a part, sharing its friendly facade with informally dressed shoppers and baby strollers. To insure ample provision for anticipated future expansion, the solution provides for a second floor rental space over the main banking area, with the accounting department and employees' lounge in the basement. The exterior is highlighted by a louvered screen set out 8 ft. from the second floor wall on the street sides, affording complete sun control and a covered walkway. The cream colored, enameled aluminum louvers are adjustable, controlled from inside the bank, and backed by a curtain wall of blue-gray porcelain enamel spandrels. The balance of the exterior on the street sides is ribbed, rust colored ceramic veneer; the rear wall is brick.

Warm toned woods, resilient vinyl floors, translucent drapes and a plastic luminous ceiling produce a soft, light character inside. The simply designed counters are raised off the floor and marked by the absence of cages. Their sectional plan and portable tellers' wagons allow flexibility for peak and slack periods.

Art Hupy photo








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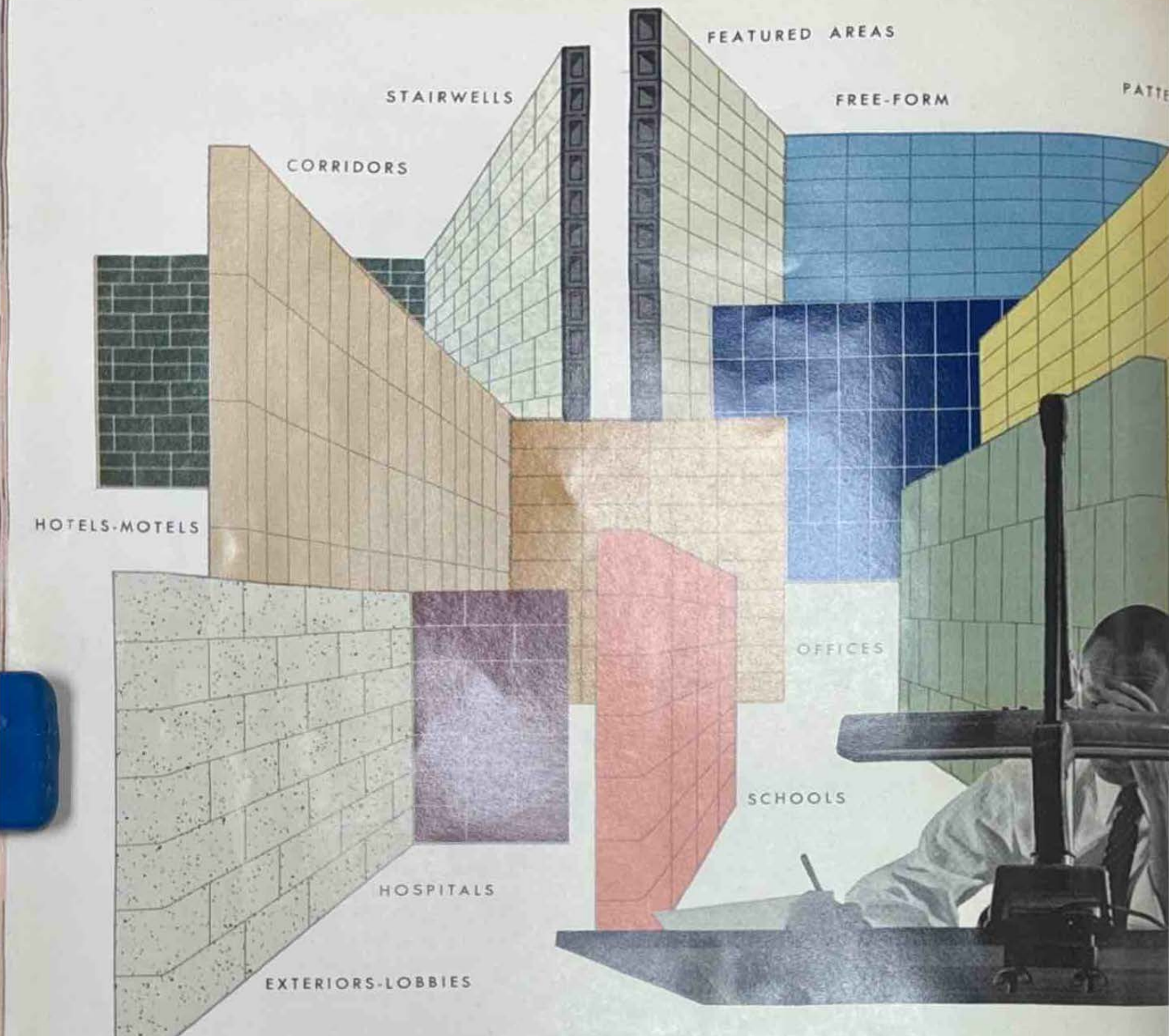
SINCE 1880

# ROBCO

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| | |
|---|---|
| * PEARL GRAY ..... (e) | FOREST GREEN ..... (22ni) |
| SHADOW GRAY ..... (2dc) | SURF GREEN ..... (24ge) |
| GRAY SPECK | SEAFOAM |
| WHITE ..... (a) | DESERT CREAM ..... (3ea) |
| SUNGLOW YELLOW (1½ea) | CAMEO |
| CORAL ..... (6fc) | SPANISH BROWN ..... (4ne) |
| HORIZON BLUE ..... (15gc) | FALL RED ..... (6½pi) |
| PARISIAN BLUE ..... (13½pg) | |

Letters in parenthesis indicate Color Standards Division, Container Corporation, color designations.




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# Curtain wall--as good as you make it

by RALPH L. McKENZIE

AMERICAN ARCHITECTURE about 10 years ago experienced the application of metal and glass curtain walls which were, in effect, the refinement of ideas advanced in the past. This advancement was in itself a breathtaking venture, to say the least. It was both bold in design and application and courageous in the use of materials and methods which had not enjoyed the benefits of normal improvements by advancing through the portals of time.

Since the initiation of this concept made a few years ago, many projects have been completed—some highly successful, some unsuccessful, some bordering on either, depending upon what you wish to consider and on how you wish to look at it. This, of course, relates to the metal wall work. On the whole, however, substantial strides have been made, not only in the field of architectural design but in the field of research and development as well.

The few years involved have enabled architects, designers and fabricators to experience normal childhood problems that are associated with anything as new and as involved as metal curtain wall construction. Problems of expansion and contraction, dissimilar materials, water, air and dust penetration are merely a few items which have displayed in no uncertain way that a good working knowledge of metal fabricating is not any assurance that a satisfactory job will result, as free from adverse performance as possible. It also has become quite clear that traditional practices and precedents must be set aside to some degree, for such practice can have a decided interference with obtaining the specified wall system.

Although a process of evolution is bringing maturity to the metal curtain wall field, there are still areas requiring attention. One of these is specifications. Without attempting to delve into them as such, allow me to mention that presently there are shortcomings and to offer one practicable method of overcoming them.

The field of metal curtain wall work has received and still is receiving more abuse than it deserves. Metal curtain work is not entirely an item competing with the cost of traditional materials; it is a question of desirability on the part of architect or owner. There are definite items of advantage incurred by the application of metal curtain wall. However, as in most anything materialistic, advantages can be destroyed by disappointing experiences through malfunctioning metal wall systems.

What constitutes a good metal wall system? This is a broad question deserving a broad answer but here are two points to consider: 1) It must reflect the design established by the architect. 2) It must be entirely functional, with weather integrity a basic necessity.

How do you obtain a good metal wall system? Basically this probably can be answered by stating that your specifications must be specific and must be arrived at in full recognition of the problems which are known to exist. Regardless of your philosophy concerning the advisability of streamlining specifications, there are at least five headings which should always be included: Scope of the Work, Contractor's Responsibility, Performance Requirements, Materials and Guarantee. Elementary you say! We agree but you would be surprised at the lengths to which we sometimes go to have these basic points clarified and understood.

**Scope of the Work**, should, of course, explicitly state both the work included and the work not included. Among the items usually included are the anchor assemblies, grid framing or sheathing, windows, spandrel panels, insulation, sealants, flashing, louvers and sun shading. Interior trim in conjunction with the wall is often a debatable item, requiring careful examination as to the trades involved. Work normally done by carpenters, masons or the sheet metal trades should, as a rule, be excluded. In general, where responsibility is transferred from one subcontractor to another, all items should be given special attention so that the transfer of responsibility can be orderly and done in such a manner as to permit minimum confusion and maximum efficiency.

**Contractor's Responsibility** is a tentative term and perhaps a poor choice for a heading but it has to do with the necessity of having a proper structure to which to attach the metal wall. The matter of allowable tolerance in the structural frame of the building is of utmost importance and has probably been the subject of as much heated controversy as any other curtain wall problem. The wall contractor should be charged with examining his conditions carefully before starting erection and reporting unsatisfactory conditions then, instead of discovering them when the work is well underway.

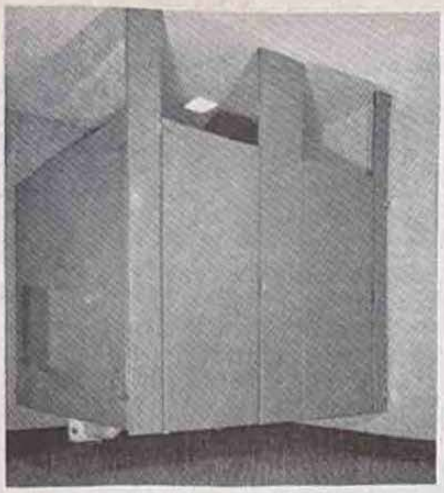
**Performance Requirements** of the wall should be clearly stated as an essential guide to the fabricator in his choice of details. Local building code requirements in respect to wind load, allowable deflections and fire resistance should be stated. In specifying tests as proof of performance, keep in mind that the cost of such tests is borne by the fabricator and are included by him in his bid. If such tests are not really necessary, they should not be called for. In addition to wind load tests, it is also possible to test for air and water infiltration, heat flow and condensation. Regardless of the methods used to verify compliance with performance standards, once such standards are established, they should be strictly adhered to until the building is completed.

The **Materials** section of the specifications will probably be the longest. In this section you must be specific and with the guidance of reliable fabricators and suppliers, you can be. It is not sufficient, for instance, to call for a "weatherproof and durable finish" on aluminum, or simply a "neoprene" gasket. These terms are subject to a wide range of interpretation, depending on the honesty of the bidder and simply opens the gate for cheap competition.

Finishes and materials can make a big difference in the cost of a metal curtain wall job and if you want a good job you must take the pains to spell out exactly what you want.

With adequate performance standards set forth in the preceding section, it is unnecessary to specify all gages and fabrication techniques in this section. In fact, gages are usually better shown on the drawings and to some extent should be left to the decision of the fabricator. Fabrication techniques will vary with the facilities and practices of the individual fabricators and the precise methods

Mr. McKenzie is president of the Metal Curtain Wall Division, National Association of Architectural Metal Manufacturers.



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should be left to their discretion, as long as they accept the responsibility of meeting the specified standards of performance and appearance. Incidentally, if exposed screws are unacceptable, this fact should certainly be stipulated in the specifications.

The final section of the specifications, the **Guarantee,** is probably the most controversial at present but it is nonetheless important. The minimum requirement is one year from the date of the owner's acceptance, conforming with the guarantee required of the general contractor under the terms of the AIA standard contract form. At least one of the larger fabricators, however, in the printed guide specifications issued for the suggested use of architects, states that "the manufacturer and erector of the curtain wall shall guarantee the — wall — to be weathertight and free of leaks for a period of two years. The weatherstripping shall be guaranteed for a period of five years."

In considering this question, it should be remembered that the best guarantee an owner can have is the integrity of the fabricator who does the work. If the fabricator is one of those who developed the wall details with the architect, there will be a minimum chance of failure. It is usually the company which submits a bid and details the wall without knowing all of the background conditions which is likely to get into trouble. There are more than 70 companies listed in Sweets Catalog as curtain wall manufacturers.

It stands to reason that the financial and technical capability of these firms will vary. Assuming that they all want to do a good job, it is still a fact that the lack of knowledge and experience can result in mistakes by some of them and the lack of capital can prevent adequate repair or replacement of defective material.

Of these some 70 companies, though, there are many who do have both the necessary competence and the financial stature to stand solidly back of their work. These firms have a substantial investment themselves in the success of the curtain wall industry and they are more vulnerable than anyone else to the stigma of poor performance. This self-interest, plus the ability to support it with dollars, is the best possible guarantee you can have.

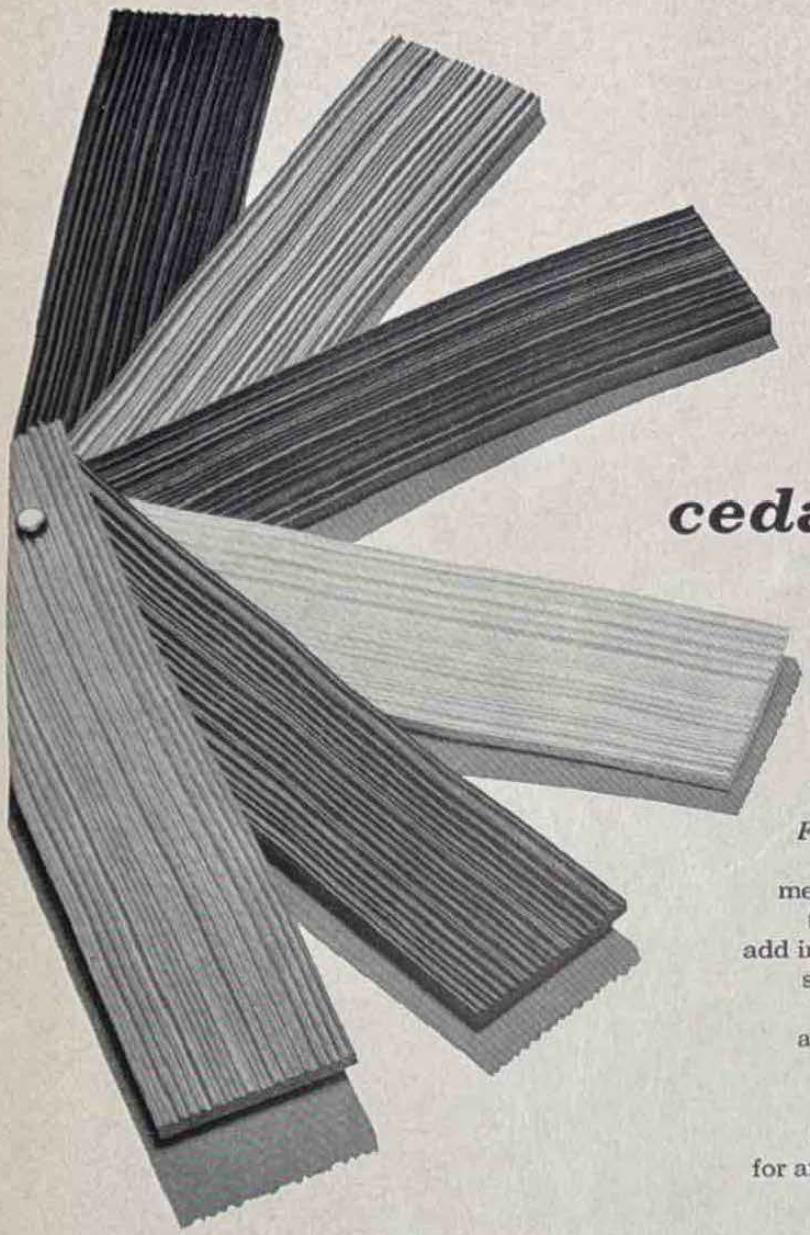
Another important point is that the guarantee you require must be consistent with the latitude you allow the manufacturer. Some architects take the attitude, "I insist that you build the wall exactly as I tell you but you must guarantee that it will work perfectly." Now obviously, this is not only unfair but absurd. If you expect a bona fide guarantee, you must permit the fabricator some leeway to use his own judgment within the limits of required performance and acceptable appearance.

The final point concerns the bidding procedure. With a clear-cut and definite specification the architect can be reasonably certain that the owner will receive what he is paying for, but he can protect his interests still more effectively by asking for base bid proposals. This means that instead of the all-too-common vague specifications, full of loopholes and permitting virtually a "bidders' choice" approach, all materials, performance and workmanship are explicitly defined and base bids are requested on the basis of a single manufacturer's product. Changes and substitutions may still be proposed by the contractor in making his bid, but the proposed alternate must also be specifically defined and the price for it is quoted as an addition or reduction to the base bid.

In recent months, many groups interested in the construction business have become increasingly concerned with the weaknesses and hazards of bid peddling, and several of these organizations, such as the Producers' Council, the AIA and the Construction Specifications Institute, are spearheading an intensive study of the problem and promoting a campaign for improvement. The most important and effective means yet advocated by these groups for protecting the architect and his client in this base bid system.

The specification is, in some respects, like any law; it is only as good as its enforcement. Just as with laws, rigid and honest enforcement is usually rewarded with greater respect. In the case of the architect's specifications, this respect will result in top quality workmanship, both in the factory and at the site.

Well-written specifications, based on stipulated performance rather than on generalities, can be more easily enforced, because they affect all fabricators alike. It rests with the architect to see that the standards asked for are observed. It is he who establishes the quality level for his project and if he is lax in enforcing his specifications or in supervising the job, the building that results may be disappointing. A clear and complete set of specifications, on the other hand, developed with the cooperation of competent fabricators, followed by fair bidding and implemented by careful supervision, will result in a building that faithfully reproduces the design concept and enhances the reputation of the architect.



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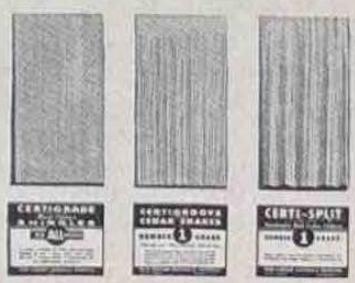
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### troffer light

A combination lighting fixture and air diffuser, reported to be the first of its kind, has been developed to help solve several heating, airconditioning and ceiling design problems common to commercial and institutional buildings. The Multi-Vent troffer consists of a glass bottom, flush mounted fluorescent lighting fixture with tiny side slots which transmit a vertical air flow from a low velocity diffuser panel attached above. The diffuser in turn is connected by a flexible tube to a central duct in the drop ceiling. The actual lighting component is the only part visible from below.—The Pyle-National Co.

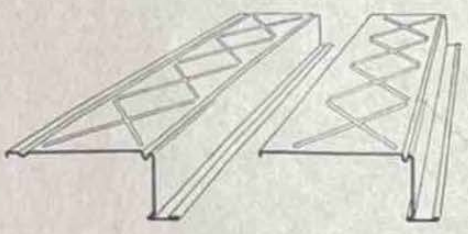
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### electric furnace

Lennox has added an electric furnace —19 in. high with cabinet dimensions matching all other Landmark units—to its line of central residential heating and cooling equipment. Btu. outputs range from 68,300 to 123,000; thermostats are the two-stage type, pulling in only part of the heating capacity on the first and all on the second. Heating, cooling coil and blower-filter elements are enclosed in separate cabinets permitting the correct selection of air delivery, heating and cooling capacities. From one series of components, dozens of arrangements can be made. Cabinet doors have a louvered treatment, finished in two-tone dawn gray, with the lighter tone on the front.—Lennox Industries, Inc. (Item No. 2)

### long span deck

A low cost, long span roof deck, capable of spanning up to 32 ft. and longer, is finding favor in combined office-factory and school construction. Called the Fentura system, it can be left exposed for industrial applica-



tions, loading docks, canopies and other similar operations; in schools and offices it can be finished at any time with troffers for recessed lighting or standard acoustical tiles. The deck is available in 4½-, 6- and 7½-in. depths and 14-, 16- and 18-gauge to permit the spans of 32 ft. and more for certain roof loads. Three types are offered, differing in the distribution of metal and the method of top-flange stiffening to achieve maximum strength with a minimum number of sections.—Fenestra, Inc. (Item No. 3)

### thicker gypsum wallboard

Thicker than any wallboard previously manufactured, ¾-in. Sheetrock is being introduced for the quality housing market and for commercial building where gypsum's fire-fighting qualities are especially important. It combines maximum rigidity, strength and durability in a single layer of drywall construction. Presently the wallboard will be produced only at Galena Park, Texas, with distribution limited to builders located within 100 miles of Houston. — United States Gypsum Co. (Item No. 4)

### template compass

A ball bearing action template compass permits draftsmen to make perfect circles from ¼ to 2 in. in diameter by inserting pencil or pen in the desired hole and spinning around center. An additional row of template



holes from 1/16 to 15/64 in. allows a choice of 69 diameters. The draftsman's model for use with the drafting pencil or O-pen is graduated in 1/32 of an inch; the student model for general use in 1/16.—F & H Mfg. Co.

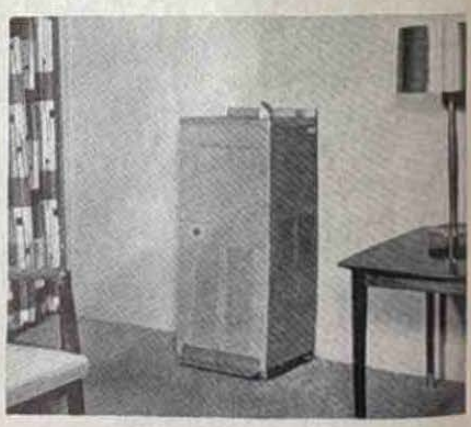
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### school ventilators

The Academy line of gas fired unit ventilators provides a low cost system of classroom heating, ventilation and air filtering. Each room has its own independent system, eliminating the need for a central furnace or boiler room. The line features an electrically controlled slide-out damper section that automatically mixes outside fresh air and recirculated room air for proper ventilation. Damper is controlled by a heating and cooling thermostat mounted in the damper section. Blower allows eight or more air changes an hour in the average sized classroom.—Williams Furnace Co. (Item No. 6)

### water cooler

In answer to architects and builders who have long asked for a water cooler that would conserve space and conceal plumbing, Westinghouse has introduced a model that fits flush against the wall. Design allows for a standard trap with slip type fittings to be installed inside the cooler cabinet, with no need for time-consuming soldering or threading of drain or trap fittings. The Wall-Line cooler extends but 12½ in. when installed flush against the wall and the floor area required is 26% less than the



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minimum for a standard installation. One model has a 7-gph. capacity and will serve 84 office or 49 industrial employees on the average; another has an 11-gph. capacity and will serve 132 office or 77 industrial employees. —Westinghouse Electric Corp.
**(Item No. 7)**

### colored skylights

Consolite's all-plastic skylight now is available in four colors—green, pink, yellow and blue—in addition to white. Its twin domed construction keeps heat in and cold out, the dead air space of its "thermos bottle" design reducing heating and air conditioning losses. Light in weight and easy to install, its strength is about four times that of conventional plastic skylights. It has a flexural strength of 20,000 lb.; tensile strength of 10,000 psi. It will support a uniform load of at least 200 psf.—Consolidated General Products, Inc. **(Item No. 8)**

### stucco-like coating

A stucco-like exterior coating which resists even the most extreme weather conditions is aiding in the rehabilitation of building units at military installations in the West. A rubberized plastic aggregated material, it possesses high tensile elasticity that compensates for expansion and contraction and prevents cracking from temperature variation. Application is by high pressure spray equipment.—Zolatone Process, Inc. **(Item No. 9)**

### blueprint protector

A laminating process which makes blueprints immune to fading, smearing, clouding or tearing while retaining excellent readability employs two layers of Scotchpak polyester film to produce a heat sealed coating. Changes may be made on the blueprints by merely writing them on with a grease pencil and covering the writing with transparent cellophane tape.—National Laminating Co.
**(Item No. 11)**

### large size pipe joints

Factory-made compression joints for vitrified clay pipe are now available for the first time in the Pacific Coast market for use in all large diameter (15 through 42 in.) sanitary sewer line installations. The compression feature of the Speed-Seal joint is accomplished by embedding a flat surface rubber gasket in a polyester casting on the interior surface of the bell. A uniform sealing surface is made by casting polyester on the spigot end of the pipe. Both components are factory applied. The new joint is especially suited for installations requiring a high degree of flexibility, high standards of exfiltration and infiltration and assured resistance to root penetration.—Gladding, McBean & Co. **(Item No. 10)**

### illuminated ceiling

To extend design possibilities of a suspended illuminated ceiling, Thermotank has introduced a model consisting of large, one-piece eggcrate plastic louvers. Basic unit is 48x24 in. with main supporting tracks running in the latter direction. Only four parts are required to assemble the ceiling: track section, hanger unit, track coupling and louver.—Thermotank, Inc. **(Item No. 12)**

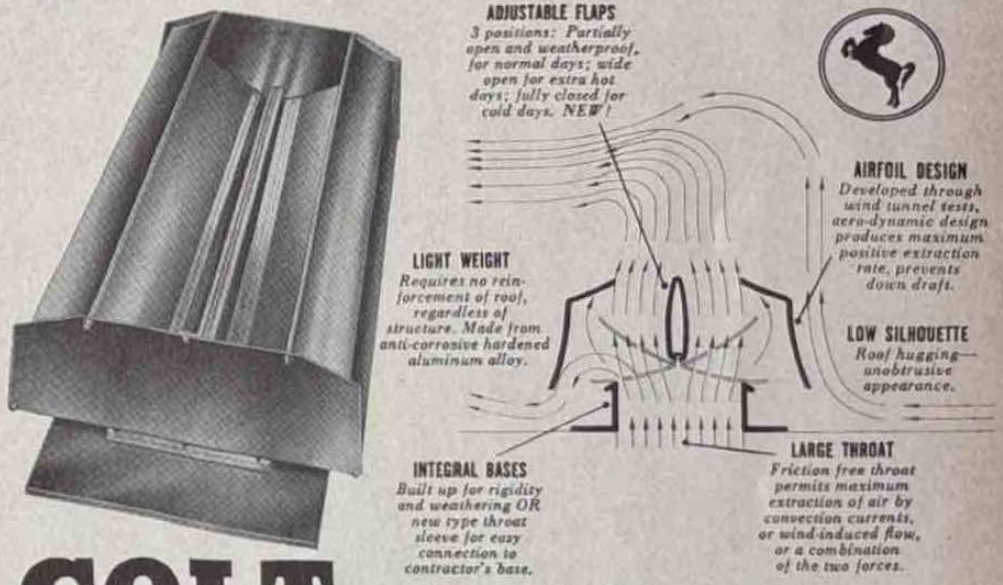
### redwood folding doors

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**Architectural Metals by Anaconda** (AIA 15): covers extensively the use of copper and its alloys, with selection of color plates showing 28 examples of outstanding design in metals, some with fabricators' shop drawings; 64 pp.—The American Brass Co., Waterbury 20, Conn.

**The Alcoa Report to the Building Industry** (subtitled "Facts About Aluminum in Electrical Systems"): includes data from survey of 400 electrical contractors, covering such topics as conduit, wire and cable, bus conductors, busways, lighting fixtures and accessories; 32 pp.—Aluminum Company of America, 1501 Alcoa Bldg., Pittsburgh 19, Pa.

**Frank Lloyd Wright on Restaurant Architecture:** offers in pocket-size edition reprint of an interview which appeared last fall; 18 pp.—Food Service Magazine, 2132 Fordem Ave., Madison 1, Wis.

**French Mosaic Stained Glass (AIA 35-A-4):** illustrates a new glass from France, 1-in. thick and set in reinforced cement, not in lead like conventional stained glass; shows two designs in full color; 4 pp.—Studios of George L. Payne, 15 Prince St., Patterson 1, N. J.

**Professional Color Portfolio:** arranges wall colors in seven categories according to groups of hues, accents, exterior colors and colors that go well with appliances and home furnishing items. —Martin-Senour Co., 2500 Senour Ave., Chicago, Ill.

**Colorundum** (AIA 3-B-1): contains specifications on how to obtain colored concrete floors at little more than the cost of paint; has samples of 20 of the most popular colors selected by architects; 4 pp.—A. C. Horn Companies, Division of Sun Chemical Corp., 550 Third St., San Francisco 7, Calif.

**Design and Specification of Watertight Masonry:** covers selection and proportioning of ingredients, types of mortar, compatibility of brick and mortar, importance of shrinkage control, effect of mortar bleeding and mechanical disturbances; 6 pp.—The Master Builders Co., 7016 Euclid Ave., Cleveland 3, Ohio.

**Architecture and Allegheny Stainless:** suggests dozens of stainless steel ideas in the architectural field; shows curtain wall design and applications on specific buildings; explains detailed architectural drawings on unusual problems; 50 pp.—Allegheny Ludlum Steel Corp., Oliver Bldg., Pittsburgh 22, Pa.

**Micro-Lok Pipe Insulation** (AIA 37-D): emphasizes spring-hinge opening and closing, ease of installation, cutting and fitting, weight and insulating value; has design tables; 8 pp.—L.O.F Glass Fibers Co., 1810 Madison Ave., Toledo 1, Ohio.

**Specifications for the Pressure Treatment of Western Woods:** compiled from the Manual of Recommended Practice of the American Wood Preservers' Association; contains latest revisions covering wood preservatives, fire-retardants and methods; 56 pp.—Western Wood Preserving Operators Association.

**Barcol Wardrobedoor Architects Manual:** covers design and building requirements; lists current installations in 28 states, including California, Oregon and Montana; 50 pp.—Barber-Colman Co., Rockford, Ill.

**Sierra Wiring Devices/Wall Plates** (AIA 31-C-7): has selector guide with dimensional drawings of over 200 unusual wall plate openings; thumb-indexed into 11 sections; 144 pp.—Sierra Electric Corp., 15100 S. Figueroa St., Gardena, Calif.

**13 Outstanding American Designs:** contains photos and descriptive text of cash prize winners in annual competition sponsored by manufacturer of Mars pencils; pocket-size edition; 14 pp.—J. S. Staedtler, Inc., Hackensack, N.J.

**Conseal Concrete Joint Curing Tape:** describes Presstite's latest entry in the field of sealants designed to cure sawed or formed concrete joints; 4 pp.—Presstite Division, American-Marietta Co., 39th and Chouteau Ave., St. Louis, Mo.

**Color Selector** (AIA 35-C-12): illustrates Nevamar line of high pressure laminates; 4 pp.—The National Plastic Products Co., Odenton, Md.

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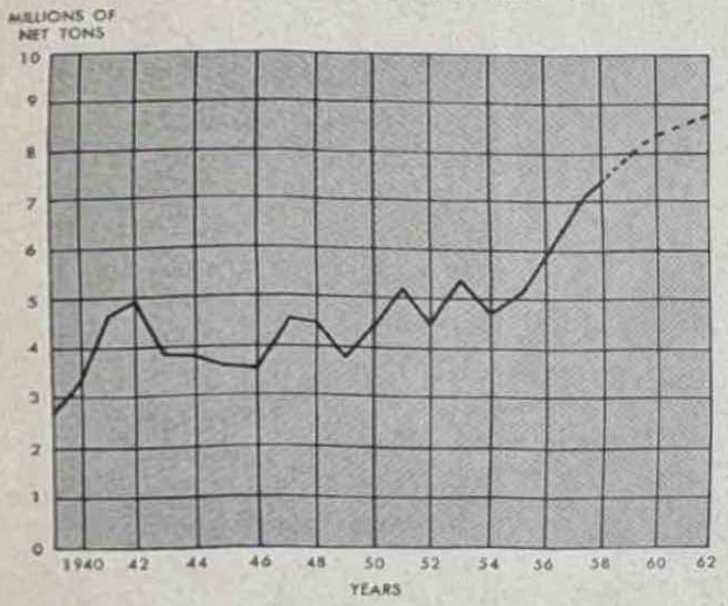
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ers about bathroom arrangements with full-color photos; 20 pp.—Kohler Co., Kohler, Wis.

**Van-Packer Metal Gas vent** (AIA 30-D-4): covers construction features, typical installations and specifications; 16 pp.—Van-Packer Co., Division of The Flintkote Co., 1232 McKinley Ave., Chicago Heights, Ill.

**Acoustical Ceilings** (AIA 39-B): lists sound-absorption coefficients, specifications and installation data; 36 pp.—Armstrong Cork Co., Lancaster, Pa.

**How to Use Weyerhaeuser Hardboards:** includes detailed drawings and descriptions on structural practices and principles for the builder and cabinetmaker; 8 pp.—Weyerhaeuser Timber Co., Tacoma 1, Wash.

**Stock Components for the Fabrication and Assembly of Non-Ferrous Hand Railings (AIA 14-D-4):** contains many detail drawings and complete specifications covering aluminum, bronze, stainless steel and plastic components; 24 pp.—Julius Blum & Co., Carlstadt, N.J.

**Low Cost Dynamic Control of Space** presents entire line of new floor-to-ceiling structural merchandising systems; 28 pp.—Reflector Hardware Corp., 1400 N. 25th Ave., Melrose Park, Ill.

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**AllianceWall Veneer Panels** (17-A) covers specifications and product details on porcelain enamel on steel veneer panels; 4 pp.—Alliance Ware Division, AllianceWare, Inc., Alliance, Ohio.

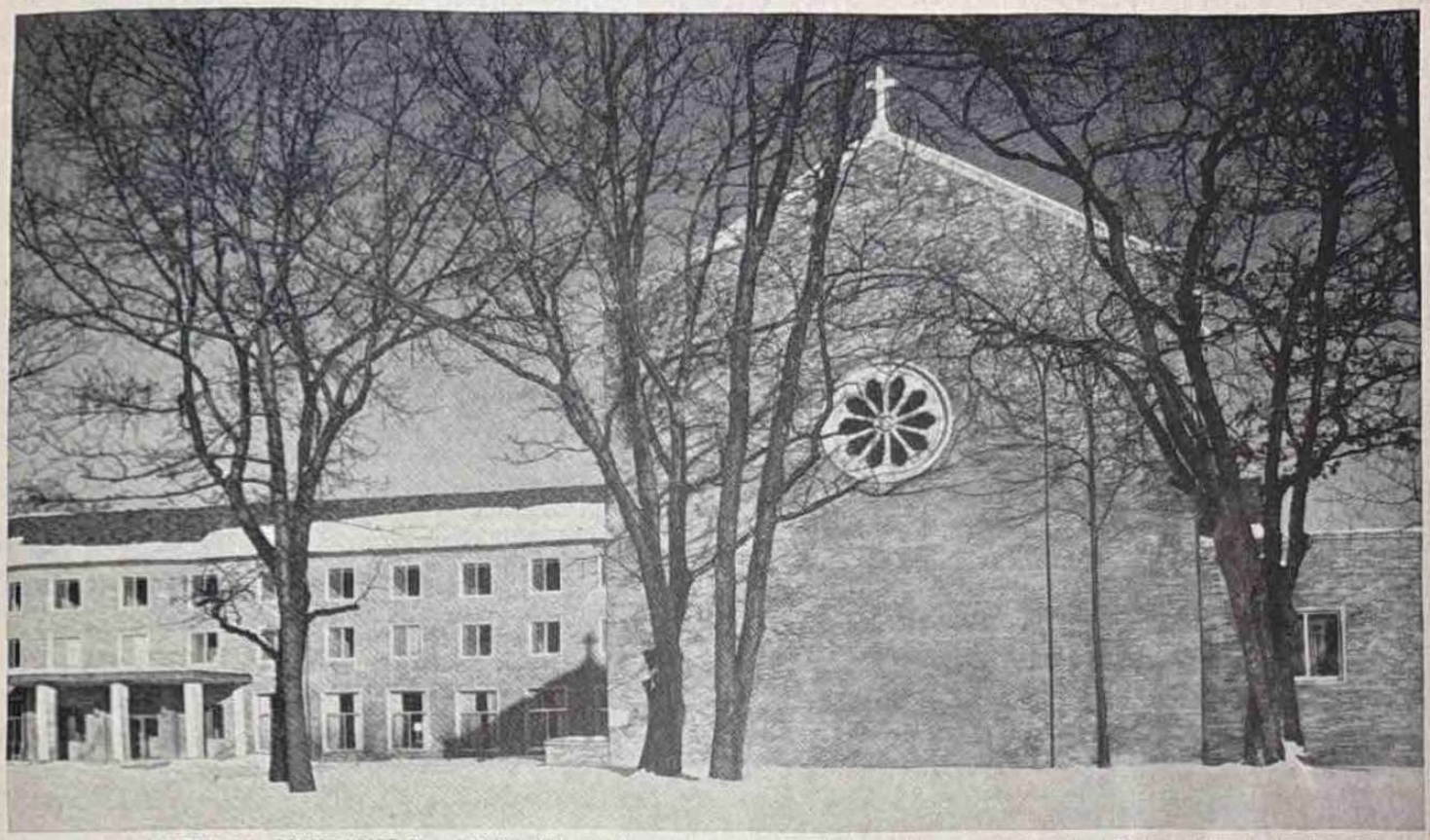
**How Paragon Time Controls Can Benefit Your Church:** suggests a number of possibilities for electrical automation; 4 pp.—Paragon Electric Co., Two Rivers, Wis.

**New Louver-Fold Doors:** presents full range of woods, sizes, colors, stock and custom models; 10 pp.—Consolidated General Products, Inc., P. O. Box 7425, Houston, 8, Texas.

**A Guide for Builders—Masonite Panel Products for Interior Applications; Masonite Panel Products for Exterior Applications** (AIA 23-L and 19-D-5) include descriptions of various products, table of properties, list of ava-

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**Briggs Jupiter Fountains** for the Academy are vitreous china wall-hung models, in 3 Beautyware colors.



**Briggs Tot Water Closets**, vitreous china syphon-action models, 10" high, used in the Academy kindergarten.

Balanced design, functional superiority, the modern beauty of color! The architectural firm of Smith, Hinchman and Grylls Associates found that Briggs Beautyware met each demand in their design for the Academy and Convent of the Sacred Heart. For the girls' academy the architects specified Briggs Beautyware fixtures, many of them in color. For your own commercial and institutional work, you'll find that Briggs Beautyware commercial fixtures offer decided advantages. Specify from a complete easy-to-work-with line of well-balanced designs, created by Harley Earl, Incorporated, for Briggs, in fine high-density vitreous china. Rigid quality controls insure that Briggs fixtures meet every specification, as well as every test of the designer's eye.

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able sizes, directions for working with Presdwood and application details; 20 and 12 pp.—Masonite Corp., 111 W. Washington St., Chicago 2, Ill.

**Fyr-Fyter Catalog:** covers nine major lines of interior fire extinguishing systems, portable extinguishers, cabinets and other "inside" fire control products; 28 pp.—The Fyr-Fyter Co., 221 Crane St., Dayton 1, Ohio.

**Noise Control Treatment for Bowling Alleys:** contains architectural specifications, application data, blueprints and installation photos, all part of a kit.—Owens-Corning Fiberglas Corp., Toledo 1, Ohio.

**Temporary Construction Facilities with Fir Plywood:** offers plans for a dozen of the temporary facilities most frequently needed by builders and large contractors; 12 pp.—Douglas Fir Plywood Association, 1119 A. St., Tacoma, Wash.

**Wolmanized Pressured-Treated Lumber (AIA 19-A-3):** covers uses in tropical areas, including Hawaii, with photos of projects; 12 pp.—Wolman Preservative Division, Koppers Co., Inc., 750 Koppers Bldg., Pittsburgh 19, Pa.

**4-D Wrought Iron for Building Drainage Systems:** provides a comprehensive discussion on piping for soil, waste, vent and downspout applications; 64 pp.—A. M. Byers Co., Pittsburgh 30, Pa.

**Cafco Blaze-Shield Fireproofing** (AIA 21-C-1): has fire-retardant ratings for floors, ceilings, beams and columns; 4 pp.—Columbia Acoustics and Fireproofing Co., Stanhope, N.J.

**How to Select a Boiler:** provides yardstick when selecting boilers for all types of buildings; has over 30 illustrations and graphs; 20 pp.—Cleaver-Brooks Co., 326 E. Keefe Ave., Milwaukee 12, Wis.

**Wooster Catalog** (AIA 14-D-1): covers new line of aluminum base, abrasive filled safety treads; 20 pp.—Wooster Products, Inc., Spruce St., Wooster, Ohio.

**Challenger Locks** (AIA 27-B): incorporates specifications, recommended uses, cutaway drawings and full-color illustrations; 12 pp.—Challenger Lock Co., 4865 Exposition Blvd., Los Angeles, Calif.

**Certi-Split Manual of Handsplit Red Cedar Shakes (AIA 19-D-1):** shows application techniques and displays uses for handsplit shakes in residential, church, school and commercial architecture; 32 pp. — Red Cedar Shingle Bureau, 5510 Bldg., Seattle 1, Wash.

**Crouse-Hinds Floodlight Catalog:** has 14 divider sheets featuring individual table of contents for each section, including how to select floodlights and installation suggestions; 184 pp.—Crouse-Hinds Co., Syracuse 1, N.Y.

**Reynolds Economy Wall System 101** (AIA 17-A): describes standard system for one- and two-story buildings; 8 pp.—Reynolds Metals Co., Richmond 18, Va.

**Modular Lighting** (AIA 31-F-2): describes line of recessed and surface fixtures, each fully illustrated with mounting methods; 12 pp.—Thomas Industries Inc., Moe Light Division, 410 S. Third St., Louisville 2, Ky.

**Save on the Homes You Build:** pocket-sized booklet on how to cut home building costs through use of copper for plumbing, heating and air conditioning systems; has several plumbing layouts; 24 pp.—Chase Brass & Copper Co., Waterbury 20, Conn.

**School Planning Guide Book:** features Vicrtex VEF textured vinyl wall covering installations of particular interest; 8 pp.—L. E. Carpenter & Co., Inc., Empire State Building, New York 1, N.Y.

**Mearlcrete Foam Concrete Poured Roof Decks and Insulation** (AIA 4-E-13, 37-B-2): illustrates advantages of new lightweight insulating concrete and typical installations; 8 pp.—Mearl Chemical Corp., 220 Westfield Ave. W., Roselle Park, N.J.

**Lennox GH Series Gas Furnaces:** covers new line of gas fired forced air furnaces for installation in residential utility areas; 4 pp.—Lennox Industries, Inc., Marshalltown, Iowa.

**Lyoncraft Redi-Rim Sinks** (AIA 29-H): describes complete line of sinks designed for garbage disposers; 8 pp. —Lyon Stainless Products, Division of Lyon, Inc., 13881 W. Chicago Blvd., Detroit 28, Mich.

**American Standard and Color Steelbestos:** shows four different corrugations with specifications, flashing details and erection methods; 4 pp.—Bowman Steel Corp., Box 2129, Pittsburgh 30, Pa.

## MOVIES

**Specifications for Today's Schools.** The Flexicore Co., Inc., 1932 E. Monument Ave., Dayton 2, Ohio. Slide, sound, color.

Describes a method of construction being used to provide for fast erection of fireproof schools that is adaptable to any type of building design, one- or two-story.

**Masonry Walls for the Great Mass Market.** Redbrick Industries, Inc., Holland, Mich. 16mm sound, color, 10 min.

Shows how three men can erect four walls of a three-bedroom home in less than 90 min. with factory fabricated 4x8-ft. components.

**Blueprint for Profit.** United States Gypsum Co., 300 W. Adams St., Chicago 6, Ill. Color, 35 min.

Produced under the direction of the National Association of Home Builders, the film and accompanying manual are the result of a year-long study of business management methods employed in the home building field.

**Riverfront Story, The.** R. C. Mahon Co., Detroit 34, Mich. 16mm sound, color, 15 min.

Unfolds through the eyes of a Great Lakes ship captain the story of the company as an organization, its engineering, plant operation and field erection skills.

**How to Insulate for Electric Heating.** Owens-Corning Fiberglas Corp., Toledo 1, Ohio. Slide, sound, color, 23 min.

Illustrates recommended thicknesses and proper methods of installing insulation in ceilings, walls and floors, discusses condensation problems, venting requirements and insulation of existing homes. Subject matter has been condensed into a 32-page brochure which also is available.

**Plywood from the Early Days to the Space Age.** Simpson Logging Co., Shelton, Wash. Slide, color.

Tells just about everything there is to know about plywood.

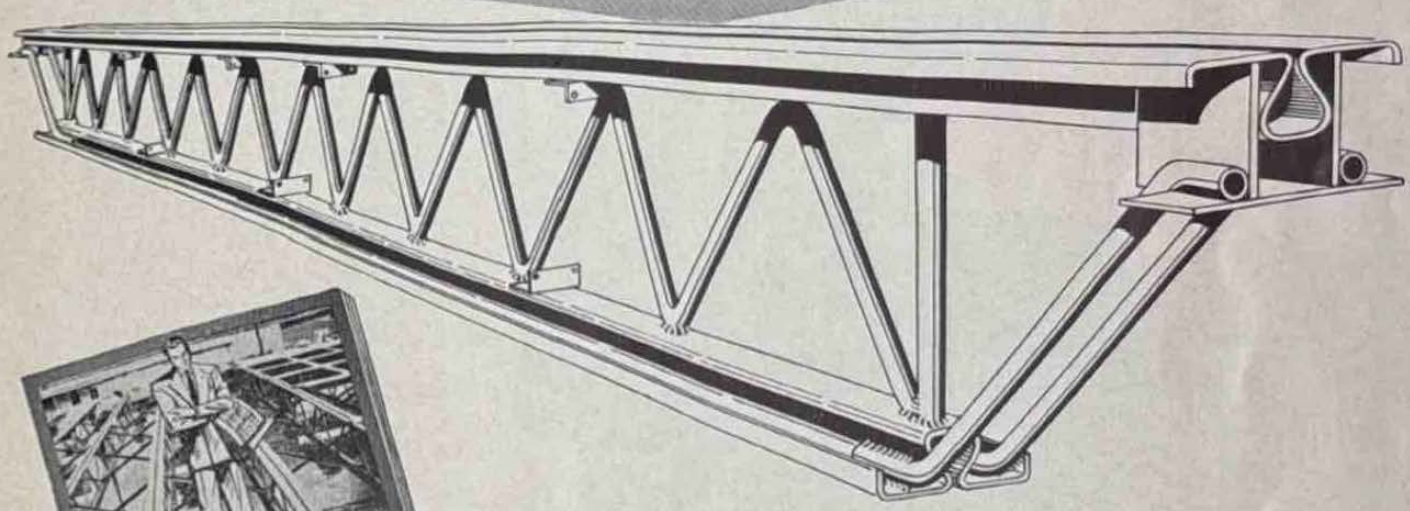
**Fire Barriers by Overly.** Overly Manufacturing Co., Greensburg, Pa. 16mm sound, color, 6 min.

Shows actual fire test being conducted at Underwriters' Laboratories in Chicago on a new fire barrier made up of metal and glass doors and frames.

**Asbestos-Cement Pipe.** Keasbey & Mattison Co., Ambler, Pa. 16mm sound, color, 15 min.

Highlights the manufacture, installation and advantages of the product as background for those working with water pipe.

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### appointments, elections

Donald L. Perry, with the Air Force ballistic missile and space program since early 1955, has joined the Los Angeles architectural - engineering firm of Charles Luckman Associates as director of aero-space development.

William H. Harrison, Los Angeles architect, was reelected to the governing board of the School Facilities Council of Architecture, Education and Industry at its annual meeting in Atlantic City recently.

### new partners

James D. Fessenden, an associate in the Office of Ernest J. Kump since 1947, has become the fourth partner in the Palo Alto, Calif., architectural firm. In charge of developing the first Foothill College campus, he also has served as project architect for San Jose High School, Woodside High School and Herbert Hoover Ju High School.

### new offices

Robert T. Olson has opened an fice for the general practice of ar tecture in the Union Avenue Build Olympia, Wash.

Max L. Call has established an chitectural office at 551 Second Idaho Falls, Idaho.

### reorganizations

Stone, Marraccini & Patterson become a successor to the San Fr cisco architectural firm of Stone, M loy, Marraccini & Patterson.

### new addresses

Hachiro Yuasa to 1684 Univer Ave., Berkeley, Calif.

### deaths

Elliott Brown, general partne the San Francisco office of Skidm Owings & Merrill, died March 2 the age of 42.

Knute Haugsjaa, 43, partner in Great Falls, Mont., architectural of McIver, Hess & Haugsjaa, March 20 after a long illness. He a past president of the Montana C ter, AIA.

### honors

Albert C. Martin, architect and gineer, was honored by the Los geles Chamber of Commerce month as its 1958 "Man of Achi ment." At the age of 79 he is active in the firm of Albert C. Ma & Associates, which he founde 1907.

Washington State Chapter, AIA month cited for excellence the of two artists and five craftsmen nominated by architects respon for projects in which they have t part. Certificates for Superior De and Execution went to Sandy Bal Seattle, for the exposed pipe d designed and built for the First theran Church of Kennewick an Russell Day, Everett, for the sta glass panels designed and executed the First Congregational Church Everett. Certificates for Supe Craftsmanship were awarded to ter A. Cooper, Bothell, for finish pentry; Walter L. Hoke, Seattle, f millwork; Carl D. Marks, Sea kitchen equipment fabrication and stallation; Roy R. Roberts, San Fr cisco and Seattle, installation of work at the University of Washin Hospital; and George E. Walter, K land, electrical installation in buil construction.


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## Demountable buildings?

*C. Theodore Larson, professor of architecture at the University of Michigan, Ann Arbor, suggests that buildings should be changeable*

Any buildings constructed now may be obsolete in 10 years. With change more rapid today than ever before and with increasing changes in store for the future, city planners must readjust their outlook.

Maybe cities should be built for short-term use. After all, people's housing needs change from generation to generation. We need to reckon with the time dimension in building today. We cannot completely predict future needs so we should make it possible for our descendants to cope with their problems by planning so that changes can be made.

Having his name on a cornerstone to be viewed by future generations is a matter of pride with an architect but by crystallizing structures, we inhibit changes that are desirable. New generations have different concepts and ideas.

If parts are to be reused, they must be durable. If demountable building supports are made of good quality material, they may be used over again and are therefore more economical. On the other hand, some parts of a building, such as the ceiling, may not need such durability and could be made of inexpensive, disposable materials.

Demountable and disposable structures would be very useful in adapting to future city changes. As changes are needed, buildings can be expanded, contracted or moved to accommodate changing populations. In recent years, several demountable schools* have been erected in Wayne, Mich.

*Ed note: An example of a demountable structure is the Washington State Regional School Laboratory at Pullman (PA&B for Sept. '58) which has a "floating" foundation and can be moved to a new location at any time.

Photographer Art Hupy, whose work appears frequently in PA&B, will begin publication this June of a magazine for residents of Oregon, Washington and British Columbia. Called advent (lower case "a"), its slogan will be "Northwest, the New Approach," with editorial offices at 213 Belmont Ave. N. Seattle.




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• **Gladding, McBean & Co.** has announced the retirement of Raymond H. Brown, general sales manager of masonry products in its Los Angeles headquarters, who joined the firm in 1937 as estimator, draftsman and salesman in the San Francisco office.

• **Pemko Manufacturing Co.** is located in new quarters at 5755 Landregan St., Emeryville, Calif.

• **Charles Bruning Co., Inc.,** has moved to a new branch office at 2136 S.W. Fifth Ave., Portland, from which it is continuing to serve the state of Oregon and southern Idaho.

• **Radford Supply Co.** has opened a factory sales office in San Francisco at 1355 Market St., serving northern California and northern Nevada.

• **Olympic Portland Cement Co.** has named Larry M. Bingham as sales representative in the Seattle area.

• **Fabricon Products Co.** has appointed Chuck Whitman as field representative to handle sales of its Lamin-Art plastics in northern California, Washington and Oregon, working out of Palo Alto, Calif.

• **Justin Kramer & Associates,** distributors of Payne stained glass, Reuter organs and Virden bells and carillons, have moved to 5036 Hollywood Blvd., Los Angeles.

• **Kawneer Co.,** which has supplied its western market from a smaller plant in Berkeley since 1913, now is producing its metal building products in a 225,000-sq. ft. facility in Richmond, Calif.

• **Bethlehem Pacific Coast Steel Corp.** has announced the retirement of C. H. Beattie, general manager of the Seattle steel plant for nearly a quarter-century and the elevation to that post of W. J. Bolton, assistant general manager for the past year.

• **Simpson Timber Co.** has expanded into additional wood products with the formation of a new unit, Simpson Engineered Wood Products Co., headed by William A. McKenzie of Seattle as general manager; and has appointed Don A. Proudfoot as director of marketing, coordinating a new central organization for the parent company.

• **Parker-Kalon Division,** General American Transportation Corp., has opened its West Coast fastener supply headquarters at 2632 S. Grand Ave., Los Angeles.

• **Abco Pacific, Inc.,** of Seattle, distributor of Cyclotherm steam and hot water generators, has named Tom Bird as sales engineer.

• **Simpson Redwood Co.** has expanded remanufacturing capacity by 35% of its plants at Arcata and Korbel, Calif.

• **Murray Manufacturing Corp.** has appointed Frank B. Murray to the newly created position of western regional manager and Blakeman Bros. of Los Angeles as manufacturer's representative in southern California for its line of electrical equipment.

• **Sliding Glass Door & Window Institute** has elected Murrel Spence of Nudor Mfg. Corp., North Hollywood, Calif., as its president in 1959.

• **Hardboard Association** has three West Coast men among its new officers: R. D. Pauley, Weyerhaeuser Timber Co., Tacoma, president; F. M. Hughes, Forest Fiber Products Co., Forest Grove, Ore., vice president and W. C. Walling, Georgia-Pacific Corp., Portland, secretary.

• **Graystone, Inc.,** of Seattle has organized a subsidiary firm to encompass its prestressed concrete operation in Redmond which got underway early last year. Frederic M. Kottenring, Graystone president, also heads the new company; Norman L. Donatt is executive vice president and continues as plant manager.

• **American Sisalkraft Corp.** has announced the retirement of its southern California manager, Frank S. Miller, who has been with the firm for 31 years.

• **In-Sink-Erator Mfg. Co.** has appointed Willard H. Asdahl of Los Angeles as general manager of the western division.

• **International Drywall Contractors Association** has named M. R. Colley of San Diego to head its slate of officers for 1959, succeeding founding president Wayne Vaughan of

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Angeles. New vice president for the West is Fred O'Haver of Campbell, Calif.

• **Structural Clay Products Institute** has elected three Californians—John C. Boggs of Stockton, Oscar F. Person of Point Richmond and John W. Rice Jr. of San Diego—and one Washingtonian—Carlton E. Goudge—to its board of directors.

• **National Insulation Manufacturers Association,** which was formed last month with headquarters at 441 Lexington Ave., New York, has one West Coast charter member: Fiberboard Paper Products Corp. of San Francisco.

• **Koppers Co.** has promoted Sidney H. Fedan to manager of its western district with headquarters in Los Angeles.

• **Insulation Board Institute** has elected M. C. Fairfield of Minnesota & Ontario Paper Co., Minneapolis, as president and Wilson Harvey of Pioneer Division, Flintkote Co., Los Angeles, as vice president.

**W. P. Fuller & Co. has** appointed E. J. (Ed) Harrell as glass sales manager of its San Francisco district; and Herb Hoernicke and Lloyd Kilby to similar posts in Oakland and Fresno, respectively.

• **Spanall of Hawaii, Inc.,** has been organized in Honolulu to market the recently developed method of horizontal shoring for reinforced concrete slab construction.

• **Kaiser Gypsum Co.** has appointed Bonner Sorensen as field service manager, working out of Oakland.

• **Larsen Products Distributing Corp.** has established a new position with the appointment of James A. Maciel of Sunnyvale, Calif., as district sales manager to promote the company's bonding agents in 11 western states.

• **Glacier Sand and Gravel Co.** has purchased Pacific Building Materials Co. and Readymix Concrete Co., both of Portland, at a price exceeding $1.5 million.

• **California Redwood Association** of San Francisco has a new manager of its technical and research division, William A. Dost.

• **Warm Air Heating Institute of Northern California** has reelected its 1958 slate of officers, headed by Emery Lillard of Walnut Creek.

• **Accesso Ceiling Products, Inc.,** of Seattle has been incorporated to consolidate merchandising of the firm's acoustical suspension system with other new developments in the acoustical and commercial lighting field. Stanley E. Sorenson heads the new company, with offices in the Marina Mart, 1500 Westlake N.

• **Consolidated Western Steel Division.** United States Steel Corp., has completed a three-level building in Maywood, Calif., to house its entire engineering staff, formerly located in several scattered sites. Stiles and Robert Clements were the architects-engineers; Jackson Bros., general contractors.

• **Filon Plastics Corp.** will erect a $1 million plant in Hawthorne, Calif., about four miles from the company's present manufacturing plant.

• **The Flintkote Co.** has announced plans to acquire the business of Blue Diamond Corp. of Los Angeles, gypsum producer.

• **Weber Showcase & Fixture Co.,** has appointed Jack Burden as national sales manager of the shelving and allied products division.

• **Airtemp Division,** Chrysler Corp., has named G. B. Sharkey as West Coast regional manager, headquartering in Los Angeles.

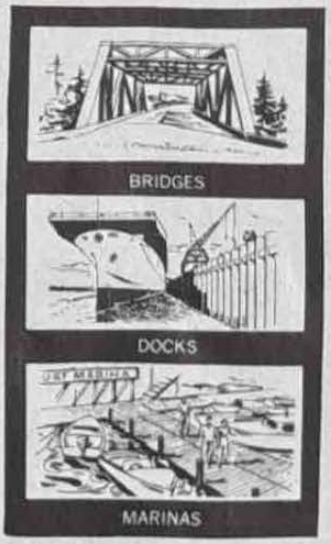
• **Soule' Steel Co.** of San Francisco





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has named Stanley E. Soule' to the newly created post of vice president in charge of marketing.

• **Crawford Door Co.** has appointed Donald C. Swanson as distributor for eastern Washington and northern Idaho, working under the firm name of Crawford Door Sales of Spokane.

• **Wiley-Bayley, Inc.,** has named Howard Toly of Spokane to represent Dow Chemical Co. building materials throughout the Inland Empire region of Washington, Idaho and Montana.

• **Ramco Manufacturing and Engineering Co.** of Portland has named Norman Freeman as assistant to the general manager of the baseboard electrical heating equipment firm.

• **Republic Supply Company of California** has purchased Perry Kilsby, Inc., tubing distributor, which will retain its name and continue to operate from its present headquarters in Los Angeles.

• **McKinney Manufacturing Co.** has appointed S. A. (Jack) Whiteside as sales representative for its builders hardware in the Los Angeles area.

• **Columbia Electric and Manufacturing Co.** of Spokane is among the firms which will co-sponsor a Building Research Institute conference on building illumination May 20-21 in Cleveland.

• **Calaveras Cement Co.** of San Francisco has announced the death of Edgar Morgan Barker, vice president in charge of production, in Honolulu March 19.

• **Western Retail Lumber Dealers' Association** has a new Northwest regional manager, Ross Kincaid, succeeding William C. Bell who has retired after 25 years of service.

• **Trimview Metal Products** of Covina, Calif., will add 34,000 sq. ft. of factory floor space this year and install new finishing facilities which will enable the operation to quadruple its output.

• **Redondo Tile Co.** has opened its fifth regional sales office at 1752 S. Zeyn, Anaheim, Calif.

• **Simpson Redwood Co.** of Arcata, Calif., has named Leroy C. McCormick as redwood sales manager and Haley Bertain as fir lumber manager, heading up a new production and sales organization.

• **Plywood Service, Inc.,** of Dillard, Ore., has appointed Jack Pfeiffer as sales engineer for the Southwest, with headquarters in Los Angeles.

• **Acme Glass Co.** of Seattle named George McQuaker as vice president in charge of sales.

• **Ric-wil, Inc.,** plans to construct a plant in Newark, Calif., for the manufacture of its underground steam distribution systems.

• **Quality Block Producers** has re-elected M. E. Fitzpatrick of Rocklite Products, Los Angeles, as president. The association was formed a year ago by 14 southern California concrete block manufacturers to engage in sales promotion and product research.

• **American Institute of Timber Construction** has elected Ward Mayer of Timber Structures, Inc., Portland, as president, and Val Gardner of Roseboro Lumber Co., Springfield, Ore., as director, filling the unexpired term of Mayer.


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# Construction News Bulletin

*(A weekly summary of Pacific Construction Daily)*

Vol. 65—No. 8 (PA&B) News Section of Pacific Architect and Builder April 18, 1959

Dorothy McCormick.....News Editor Rita Boshell.....Editorial Assistant
Anne Matthey, Viola Kurzeja.....News Staff
Win Romtvedt.....Portland Correspondent
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## BUILDING NEWS

Oregon, Washington, Idaho, Montana, Alaska

- ● Bids Called
- ★ Contract Awards
- ▲ Low Bids—Bids Received
- ■ Planholders—Prospective Bidders

## OREGON

**■HIGH SCHOOL ADDITION— Banks, Ore.**

Planholders announced for construction of 22,000 sq. ft. wood frame addition to the high school at Banks. Bids will be opened 8 p.m., April 22, by Banks Union High School District No. 1, Washington County, Ethel Spiering, clerk, Banks. Plans with Jensen & Gilham, architects, 1962 N.W. Kearney St., Portland.

Planholders: Lester H. Burkett, 1615 Hall Lane, Corvallis; St. Pierre & Vermilyea, 9750 S.E. 145th Ave., Portland; Lloyd G. Sperling, 1415 Sixth St., Tillamook; Larry O. Collins, 7017 Highway 99 N., Vancouver, Wash.; Nelson & Raule, 980 S.W. Delmont St., Portland; Beebe Construction Co., 2134 N. Flint Ave., Portland; Charles S. Camplan Co., 2035 S.W. 58th Ave., Portland; Riverman & Sons, 1230 N.E. 63rd Ave., Portland; Fred W. Carter Co., Inc., 6034 N.E. 60th Ave., Portland; Supreme Builders, 4232 N. Williams Ave., Portland; Blanchard Construction Co., 2546 S.W. Vista Ave., Portland; Walker & Green, Rte. 3, Box 207, Oregon City; E. E. Settergren, 3723 S.E. 21st Ave., Portland; Barnard & Kinney, 4200 S.W. 103rd Ct., Beaverton; Mason & Robinson, 2004 N.E. 137th Ave., Portland; Harbert Construction Corp., Box 491, Longview, Wash.; Wilson & Dean, 1016 N.E. 61st Ave., Portland; Gene E. Settergren, 1625 S.E. Woodward St., Portland; Sterner Construction Co., 13845 S.E. Rhine St., Portland.

VP 4-10. Previous report 3-28

**★SCHOOL ADDITION (Hazeldale)— Beaverton, Ore.**

Award to Associated Building Contractors, Inc., 517 S.E. Lombard St., Beaverton, $36,036, by School District No. 60, Washington County, Ruth Haek, clerk, Hazeldale School, 20800 S.W. Farmington Rd., Beaverton, for construction of concrete block additions to the school. Plans by Whitney, Hinson & Jacobsen, architects, 512 Failing Bldg., Portland. Twelve bids received April 7.

2ND LOW: Larry O. Collins, 7017 Highway 99, Vancouver, $36,616; Balkwell & Furber, 1217 S.W. 19th Ave., Portland, $37,192. WB 4-10. Previous report 3-27

**●SCHOOL (Sunset High)—Beaverton, Ore.**

Bid opening has been postponed to 8 p.m., April 21, for finishing classrooms and auditorium wings at Sunset High School, S. W. Cornell Rd. near Barnes Rd. in Beaverton school district of Washington County. Bids will be opened for School District No. 10-J, Multnomah and Washington counties, D. Herbert Armstrong, clerk, Superintendent's Office, Beaverton Union High School, Beaverton. Plans with Hayslip, Tuft, Hewlett & Jamison, architects, 2040 S.W. 3rd Ave., Portland. Previous bid opening date was April 14.

VP 4-14. Previous report 4-7

**▲BUILDINGS (Storage, Residence, House)— Burns, Ore.**

Eleven bids received April 10 to U.S. Forest Service, 729 N.E. Oregon St., Portland, (Box 4137), for construction of an 80'x33'6" equipment storage building, 80'x33' combination shop and equipment storage building, 56'x30' three-bedroom residence, and a 12'x11'6" gas and oil house at Hines administrative site, 2 mi. southwest of Burns, Harney County, Ochoco National Forest; Bid No. R6-59-206. LOW BIDS: Milton L. Powell, Creswell, c/o Brookings Ranger Station, Brookings, $41,825; De Gree Construction Co., 1828 Awbrey Rd., Bend, $49,900; Meyer Construction Co., 208 Masonic Bldg., Silverton, $50,226.

VP 4-14. Previous report 4-1

**★MOTEL— Coos Bay, Ore.**

Award to T. S. & Tom E. Drake, Box 104, Coquille, Ore., $19,189, by Nimrod Motel, Coos Bay, for construction of a six-unit, one-story, 2,600 sq. ft. addition to the Nimrod Motel in Coos Bay. Plans by Robert F. Fisher, architect, 422 Hall Bldg., Coos Bay.

VK 4-14. Previous report 3-6

**●SHOWER REPAIR— Coos Head, Ore.**

Bids will be opened 2 p.m., P.S.T., April 23, by 13th Naval District, Bldg. 250, U.S. Naval Station, Seattle, Wash., for shower repairs at U.S. Naval Facility at Coos Head, Ore.; Spec. No. 23142/59. Plans with Seattle office.

Remove existing tile and replace with lead shower pan, new setting bed and new tile; install metal panels and metal louvers.

DM 4-11

**SCHOOL REMODELING— Dallas, Ore.**

Directors of Dallas School District No. 2 have set May 5 as the date for a five-mill levy vote, as the first step in starting a proposed $125,000 remodeling project for Dallas junior high school. MH 4-9

**●■MAUSOLEUM— Hillsboro, Ore.**

Bids will be opened 2:30 p.m., April 23, in office of Robert Germaine Thompson, architect, 7404 S.W. Macadam Ave., Portland, for initial unit of a mausoleum of poured concrete construction at the Valley Memorial Mausoleum and Gardens near Rock Creek between Hillsboro and Beaverton on Tualatin Valley Highway. E. A. Griffith, 415 N. 6th St., Hillsboro, is president. Select list of bidders.

Planholders: Barnard & Kinney, 4200 S.W. 103rd Court, Beaverton; Juhr & Sons, 1339 S.E. Gideon Ave., Portland; Charles R. Schmiedeskamp, 1008 S.W. 6th Ave., Portland; George A. Moore & Associates, 923 S.W. 17th Ave., Portland; Frank Ralph & Son, 2204 N.E. Alberta St., Portland; Adolph Mohr & Co., Peterson Bldg., Hillsboro.

Initial unit will be 136' long and about 40' wide, and contain pie-shaped wings, one Catholic and one for other faiths; includes offices and toilet facilities in central portion; space for 400 crypts. Concrete roof with built-up roofing; masonry grill work facing; marble crypts; plaster and marble wall finish; stained glass windows and skylights; vinylt tile and carpeting on floors; radiant electric heating; ventilation in each crypt; some blacktopping. Plans for a second unit are scheduled to start in May.

WB 4-15. Previous report 1-13

**TERMINAL (Airport)—Klamath Falls, Ore.**

(Estimated cost $90,000)

Morrison & Howard, architects, 203-05 Williams Bldg., Klamath Falls, have been retained by City Council, City Hall, Klamath Falls, to prepare plans for a two-story, 7,000 sq. ft., terminal building at Klamath Falls Municipal Airport. Plans are to be completed before May 15. ZZ 4-3

**COLD STORAGE WAREHOUSE— Medford, Ore.**

The Otness Construction Co., 7436 N.E. Killingsworth St., Portland, will build a 100'x120' refrigerated cold storage warehouse for Modoc Orchards, Medford. The refrigeration system, which is entirely automatic, will be furnished and installed by Western Engineers, Inc., 2015 S.E. 9th Ave., on a separate contract.

The building is designed to store more than 90,000 boxes of pears; it will employ reinforced tilt-up concrete construction with steel bolstering trusses; fiberglass insulation throughout; double cold storage doors to admit trucks to cold storage area; permanent-type white coating on the roof to deflect heat from sun. VP 4-10

**■RETIREMENT HOME (Rogue Valley)— Medford, Ore.**

(Estimated cost $5,000,000)

Planholders announced for construction of 270-unit, 10-story, retirement home on a 15-acre site on Barneburg Hill, Medford. Bids will be opened 2 p.m., May 6, from a selected list of contractors, in the offices of Methodist Home, Inc., Walter Higgins, executive director, 1st W. Main and Laurel, Medford. Plans with John W. Maloney & Associates, architects, Central Bldg., Seattle. $100 deposit per set. Separate contracts, general, mechanical, and electrical. Bid bond 5%.

Planholders—GENERAL: A. V. Petersen Co., Box 2368, Portland; E. H. Moore & Sons, Inc., 693 Mission St., San Francisco; W. H. Shields Construction Co., 252 Taylor St., Eugene; Henry M. Mason Co., 2206 N.W. Thurman St., Portland; Ross B. Hammond Co., Box 2111, Portland; Frank C. Ralph & Sons, 2204 N.E. Alberta St., Portland; J. C. Boespflug Construction Co., 1912 4th S., Seattle; Johnson-Morrison-Knudsen Co., 1021 5th Ave., Seattle; Anderson-Westfall Co., Inc., 3427 N.E. Halsey St., Portland; Donald M. Drake Co., 1600 N.W. Savier St., Portland; Graff & James, 817 N. Riverside, Medford; Williams & Burrows, Inc., 500 Harbor Blvd., Belmont, Calif.; Hoffman Construction Co., 715 S.W. Columbia St., Portland; Paul B. Emerick Co., 4540 S.E. 174th Ave., Portland; Dinwiddie Construction Co., Crocker Bldg., San Francisco; James I. Barnes Co., Central Bldg., Seattle.

MECHANICAL: Urban Plumbing & Heating, 2904 S.W. 1st Ave., Portland; McLaughlin Plumbing & Heating Co., 944 S. Central Ave., Medford; A. G. Rushlight Co., 3900 N.W. St. Helens Road, Portland; Longview Plumbing & Heating Co., Box 328, Longview, Wash.; Emerson Plumbing & Heating Co., 1425 Polk, Eugene; Lents, Inc., 279 4th, Bremerton.

ELECTRICAL: L. H. Morris Electric Co., 944 W. 5th Ave., Eugene; Trowbridge & Flynn, 214 W. Main St., Medford; Steeck Electric Co., 628 S. Riverside Ave., Medford; Jaggar-Sroufe Co., 939 S.W. 10th Ave., Portland; McCoy Electric Co., 2002 S.E. Clinton St., Portland; Electric Corp., 1270 Wilbur St., Salem; Watco Electric Co., 4715 S.W. Macadam Ave., Portland; The Tide Co., 1512 Center St., Tacoma; Christenson Electric Co., 11 N.E. Sumner, Portland.

AM 4-15. Previous report 4-8

**SCHOOL ADDITION— Merrill, Ore.**

Howard R Perrin, 1121 Main St., Klamath Falls, has been retained as architect by Klamath County School District, Veterans memorial Bldg., Klamath Falls, to draw plans for a two-classroom addition to the present Merrill Elementary School, Merrill.

Two-classrooms, 30'x32' with 10'x64' corridor; concrete slab with vinyl floor covering; brick veneer on wood frame; built-up roof. ZZ 4-19

**● RETIREMENT HOME— Milwaukie, Ore. (Sub-Bids)**

Sub-contract bids will be received by Alcan-Curry, general contractor, at the job site, 13519 S.E. River Road, just north of Willamette View Manor, Milwaukie, for construction of Rose Villa, a retirement home sponsored by Oregon Senior Citizens, Rev. Edward Terry, executive director, 12601 S.E. River Rd., Milwaukie. Plans by Harry C. Newton, architect, and Louis Brunier, designer, 12720 S.W. Edgewood St., Portland.

The 16-building development will include a two-story central building with chapel, service facilities and 20 apartments. The smaller buildings will contain 83 apartments. Central building of reinforced concrete construction with stone veneer, aluminum sash, and flat, built-up roof, hot water heating and heat pumps. Other buildings will be of frame construction with stone veneer, aluminum sash, and flat, built-up roofs, concrete slab floors, electric baseboard heating. Floor coverings include carpeting, asphalt tile and ceramic tile; plaster or gypsum board walls and ceilings; some acoustical tile ceilings in central building; off-site steel sewage plant. WB 4-10. Previous report 9-24

**LODGE BUILDING— Milwaukie, Ore.**

Frank Kendall & J. Keith West, architects, 1132 S.W. 13th Ave., Portland, have been retained and preliminary drawings are underway for a new lodge for the Benevolent & Protective Order of Elks, Lodge 2032, Milwaukie, Ore. Size of the first unit will depend upon available funds, but the completed project will cost approximately $400,000. It will be a two-level building on a 4½-acre site on U.S. Highway 99, ½ mi. south of the Milwaukie city limits; site has already been cleared. First unit must be completed by September 1, as the lodge's lease expires on its present quarters in the administration building of the former Kellogg Park housing project. VP 4-8

**RESTAURANT— Milwaukie, Ore.**

Tom Lovelace, 1033 S.E. Ash St., Portland, has been retained to build a $250,000 restaurant, between Main St. and McLoughlin Blvd., Milwaukie, for William R. Davis, Portland, and John W. Davis, Milwaukie. Plans by Hayslip, Tuft, Hewlett & Jamison, 2040 S.W. 3rd Ave., Portland. Construction is underway. Facilities will be leased to Alhire, Inc., a new firm; principals are S. Eugene Allen, Larry Hilaire and Elston L. Ireland, Portland restaurant men. The restaurant is scheduled to open July 1.

The structure will seat 170 persons; large dining room with serving line facilities; banquet room; sunken lounge with bar; kitchen; storage and mechanical room; excavated basement area, to be left unfinished. It will have lightweight block walls with cedar siding and brick; plywood floor; some vinyl floor covering; the roof will have rigid insulation on 2" and 3" decking with laminated beam support; stopped-in windows; Japanese decor in lounge, with recessed hibachi-type fireplace. Exterior will have brick planters; 27'-high, double-scissors type sign, formed from glued, laminated parts, will surmount structure at one corner; other signs of interior-lighted plastic. Off-street parking blacktopped, for 30 to 40 cars. VP 4-14

**★SCHOOL ADDITION— Moro, Ore.**

Award to Associated Building Contractors, 517 S.E. Lombard St., Beaverton, $66,676, by Sherman County High School District, High School, Moro, Ore., for a reinforced concrete addition to the school. Plans by Annand, Boone & Lei, architects, 1530 S.W. 3rd Ave., Portland, Ore. Five bids received April 7.

2ND LOW: Gilbert Roberts, Route 4, Box 419, Hood River, $68,955. 3RD LOW: Mid-State Construction Co., 810 Union St., The Dalles, $70,966. WB 4-10. Previous report 3-27

**RETIREMENT HOME— Newberg, Ore. (Estimated cost $1,500,000)**

Working drawings are underway by Donald Lindgren, architect, 219 Central Bldg., Vancouver, Wash., for the Friendsview Manor, a five-story retirement home on 14-acre site on Fulton St., just north of the George Fox College campus. It is expected that bids will be called in September by Friendsview Manor, Inc., Frank Cole, chairman, 1513 N.E. 58th Ave., Portland. Rev. Charles A. Beals, pastor of Newberg Friends Church, will be executive director of the home.

Five-story portion will be of reinforced concrete construction, with exterior finish probably of brick and porcelain enamel; one-story wing will be lightweight steel construction. The home will include 126 living units, five lounges, library, auditorium, chapel, dining room, recreation room, craft and hobby rooms, infirmary, beauty shop and other facilities; exterior balconies on each floor; elevator. Space is provided on the site for ten cottages, to be erected at the cottage residents' expense.

WB 4-3. Previous report 2-10

**■ JAIL COMPLETION (Masonry, Electrical)— Oregon City, Ore.**

Planholders announced for the masonry contract and completion of the electrical contract for Clackamas County Jail. Bids will be opened 2 p.m., April 22, by County Court, Clackamas County, Ore., C. E. Latourette, judge, Clackamas County Courthouse, Oregon City. Plans with Stuart B. Mockford, architect, 723 Washington St., Oregon City. $25 deposit.

Planholders: (Masonry) Harold Torland, 11310 S.W. 65th Ave., Portland; Bill Kurtz, c/o Smithwick Concrete Products, 1750 N.E. Lombard Place, Portland. (Electrical) The Wiring Shop, Box 124, Oswego; Miner Electric, 3152 E. Burnside, Portland.

VP 4-14. Previous report 4-9

**BANK (First Federal)— Pendleton, Ore.**

Construction will start later in the spring by United States National Bank of Portland on a branch bank at S.W. 1st St. and Court Ave. in Pendleton. Plans call for a one-story, 6,000 sq. ft. building with mezzanine. DC 4-3

**■ HIGH SCHOOL ADDITION— Philomath, Ore.**

Planholders announced for construction of a 5,520 sq. ft. wood frame addition to the high school at Philomath. Bids will be opened 8 p.m., April 21, by School District No. 17-C, Benton County, Henry O. Pete, clerk, High School Bldg., Philomath. Plans with Hayslip, Tuft, Hewlett & Jamison, architects, 2040 S.W. 3rd Ave., Portland. $25 deposit.

Planholders: Robert C. Wilson, Box 47, Corvallis; Lester H. Burkitt, 1615 Hall Lane, Corvallis; Wood, Johnson & Rose, Box 127, Corvallis; Ray Lillie, Box 222, Albany; Thomas E. Gates, 3640 S. Santiam Highway, Lebanon. VP 4-14. Previous report 4-4

**LIBRARY (Grant High)— Portland, Ore. (Estimated cost $156,000)**

Bid call probably will be issued in late April by Portland School District No. 1, L. J. Baker, business manager, 620 N.E. Halsey St., Portland, for construction of a one-story, 81'x120' library addition to Grant High School, 2245 N.E. 36th Ave., Portland. Plans nearly complete by Whitney, Hinson & Jacobsen, architects, 512 Failing Bldg., Portland.

Addition will be located between the auditorium and a new science wing at the north end of the school; it will include student reading room seating 200, textbook storage, librarian's office, work room, vice principal's office, drama room and classroom. Suspended concrete floor over crawl space; exterior walls of reinforced block with brick veneer, and aluminum, glass and porcelain enamel curtain walls; steel joist roof with metal deck and gravel roofing; steel stud and plaster partitions; some exposed block and painted interior walls; some plaster on block; acoustical plaster ceilings (alternate for two-hour acoustical tile); rubber tile flooring in library; vinyl asbestos flooring elsewhere; built-in wood book shelving; fluorescent lighting; warm air heating (steam from existing plant) mixed with outside air from new fan room.

WB 4-2. Previous report 12-2

**HIGH SCHOOL ADDITION—Portland, Ore.**

Board members of Portland School District No. 1, 620 N.E. Halsey St., Portland, on March 30 approved the recommendation of J. W. Edwards, superintendent, that construction of a 17-classroom addition to Woodrow Wilson High School, 1151 S.W. Vermont St., be postponed one year, to be placed on the 1960-61 budget, due to more pressing commitments. Plans by Donald W. Edmundson and Neil R. Kochendoerfer, architects, and R. Evan Kennedy, structural engineer. Construction of the wing would be similar to that of the existing structure, with outside window walls; brick end throughout, with tile finish; flat room, with penthouse to house mechanical equipment.

VP 4-2. Previous report 1-[illegible]

**★PLANT ADDITION (Massey-Ferguson)— Portland, Ore.**

Award to Supreme Builders, 4232 N. Williams Ave., Portland, $71,869, by Massey-Ferguson, Ltd., N.E. Killingsworth St. & 83rd Ave., Portland, for construction of a 6,500 sq. ft. office and warehouse addition. Bids opened March 24. Plans by Jensen & Gilham, architects, 1962 N.W. Kearney St., Portland. VP 4-10. Previous report 1-[illegible]

**■ SCHOOL ADDITION (Prescott at Parkrose)— Portland, Ore.**

Planholders announced for construction of one-story, eight classroom addition and play shed, both separate from existing Prescott Elementary School, 10410 N.E. Prescott St., Portland. Bids will be opened 8 p.m. April 23, by Parkrose School District No. 4, Multnomah County, Mrs. Helen Zeller, clerk, superintendent's office, 10613 N.E. Prescott St., Portland. Plans with Annand, Boone & Lei, architect, 1530 S.W. Taylor St., Portland. $50 deposit.

Planholders: O. R. Wayman, 3125 N.E. Front Ave.; Walker & Green, Route 3, Box 207, Oregon City; Fred Carter Construction Co., 6034 N.E. 64th Ave.; Juhr & Sons, 1[illegible] S.E. Gideon St.; Paul Emerick, 4546 S.E. 174th Ave.; Gene Settergren, 1625 S.E. Woodward St.; Mason & Robinson, 2004 N.E. 13[illegible] Ave.; St. Pierre & Vermilyea, 9750 S.E. 14[illegible] Ave.; Weston Construction Co., 7415 N.E. Glisan St.; Sterner Construction Co., 13[illegible] S.E. Rhine St.; Howard Brewton, 1340 S.E. Gideon St. Of Portland except as noted.

WB 4-10. Previous report [illegible]

**SCHOOL CONSTRUCTION (Parkrose)— Portland, Ore.**

Bond election for $1,350,000 approved for Parkrose School District No. 3, Multnomah County, Mrs. Helen V. Zeller, clerk, Superintendent's Office, 10613 N.E. Prescott St., Portland, for school construction as follows: $650,000 for wing including 14 classrooms, shop and music facilities at senior high school; $550,000 for 18-classroom elementary

school, tentatively planned for N.E. 102nd Ave. and Hancock St.; $150,000 for school sites and site improvement. Annand, Boone & Lei, 1530 S.W. Taylor St., Portland, are architects for the district.
WB 4-10. Previous report 3-25

**★RE-ROOFING (Public Housing)— Portland, Ore.**

Award to Pioneer Roofing Co., 16916 S.E. Main St., Portland, $50,622, by Portland Housing Authority, 8920 N. Woolsey Ave., Portland, for re-roofing of 97 buildings in the Columbia Villa Project and 54 buildings in the Dekum Court Project. Three bids received April 7. OTHER BIDS: Duraloid Roofing Co., 7107 S.W. 34th Ave., Portland, $51,411; A.B.C. Roofing Co., 8705 S.E. Foster Rd., Portland, $51,929.
WB 4-10. Previous report 3-19

**★LOOKOUT TOWERS (Prefab)— Portland, Ore.**

Award to Pope & Talbot, Wood Preserving Dept., Box 186, St. Helens, $18,345, by U.S. Forest Service, Administrative Services Section, 729 N.E. Oregon St., Portland (Box 4137), for eight prefabricated timber lookout towers, for acceptance at bidder's plant.
WB 4-11. Previous report 4-9

**SCHOOL (Raleigh Park)— Portland, Ore.**

Bond election for $285,000 will be held April 27 by Raleigh School District No. 95, Washington County, Shirlie M. Richards, clerk, Raleigh School, 5225 S.W. Scholls Ferry Rd., Portland, for construction of a 12-classroom school on the Raleigh Park school site. Plans by Williams & Martin, architects, 1919 S.W. 12th Ave., Portland.

The school is to include 12 classrooms, an office and heating plant, and will later be expanded to 24 classrooms. Completion is scheduled for September, 1960. WB 4-11

**SCHOOL (Barnes Dist.)— Portland, Ore.**

Bond election for $340,000 will be held May 4 by Barnes School District No. 57, Washington and Multnomah counties, George C. Timmons, Jr., superintendent, Cedar Hills School, 11640 S.W. Park Way, Portland, to finance construction of an upper grade school on site between Walker Rd. and Cedar Hills Blvd. Plans by James C. Gardiner, architect, 3158 S.W. 87th Ave., Portland.

The 20-acre site will be developed jointly with the Tualatin Hills Park and Recreation District. The botnd figure includes furnishings and equipment for the school. WB 4-11

**●STEEL PARTITIONS— Portland, Ore.**

Bids will be opened 10 a.m., April 24, by Commission of Public Docks of the City of Portland, Thomas P. Guerin, general manager, 3070 N.W. Front Ave., Portland, for furnishing and erecting approximately 132 lineal ft. of movable steel office partition walls. Plans with Engineering Dept., at offices of the Commission. VP 4-14

**★FOOD CONCESSION (Zoo)— Portland, Ore.**

Award to Bardi, General Contractor, 8105 S.E. Duke St., Portland, $8,288, by City Purchasing Agent, 208 City Hall, Portland, for construction of concession facilities in the Primate Bldg. at the Portland Zoological Gardens in Hoyt Park.
VP 4-14. Previous report 4-3

**SHOE STORE (Nordstrom's)—Portland, Ore.**

Preliminary plans are underway by John Graham & Co., architects, 1426 Fifth Ave., Seattle, for a shoe store to be located in the Lloyd Shopping Center in Portland. The store will occupy a 100'x100' corner building.

Plans call for glass and marble lower exterior, with cast-stone panels; upper portion of the building to be porcelain-enamel panels with slivers of mirrors inserted triangularly; pre-cast terrazzo exterior columns; ceilings to be of various heights with light coves separating the different levels; one or two interior walls to appear to hang from the ceiling; incandescent lighting; extension of the shopping center's central hot water heating system; air conditioning; automatic conveyor system. AM 4-11

**★AIR CONDITIONING, ELECTRICAL WORK— Portland, Ore.**
(Multnomah Hotel)

Awards to Western Engineers, 2105 S.E. 9th Ave., Portland, $40,000, for air conditioning of banquet rooms, and to Pitman Electric Co., 412 N.W. 5th Ave., Portland, $35,000, by Western Hotels, Inc., Seattle, for improvements at the Multnomah Hotel, 319 S.W. Pine, Portland. Work on a television antenna system will start in about 30 days. Plans for a new lobby are to be announced in about 60 days.
WB 4-11. Previous report 3-13-58 (Hotel Modernization)

**CHURCH (Garden Home Methodist)— Portland, Ore.**

Preliminary plans are underway by Stuart B. Mockford, architect, 723 Washington St., Oregon City, for a new Garden Home Community Methodist Church on S.W. Garden Home Rd. at 81st Ave. The Rev. John Wood is pastor of the church, now located at S.W. Garden Home Rd. and 71st Ave.

Construction is expected to start this summer or early fall. The hillside site consists of seven acres. WB 4-11

**●STUDENT CENTER— Portland, Ore.**
(Estimated cost $385,000)

Bids will be opened 2 p.m., P.S.T., May 12, by Oregon State Board of Higher Education, Earl M. Pallett, secretary, (Eugene), at room 117, Faculty Council Room, Administration Bldg., University of Oregon Medical School, 3181 S.W. Sam Jackson Park Rd., Portland, for construction of a two-story, 25,000 sq. ft., reinforced concrete Student Activities Bldg., to serve the medical and dental schools at above address. Plans with Burns, Bear, McNeil & Schneider, architects, 2940 S.E. Belmont St., Portland. Separate general ($50 deposit), mechanical ($35 deposit) and electrical ($35 deposit) bids. Certified check or bid bond 10%.

The building will be located in a ravine just south of the main medical school campus; main floor includes standard basketball court, meeting room, lounge and kitchenette; ground floor has lounge, game room, exercise room, locker, toilet and shower facilities and a handball and squash court. Reinforced concrete walls and structural floors, with laminated wood arches; wood roof deck; brick veneer exterior; maple playing floors; asphalt tile and ceramic tile floors elsewhere; concrete or brick interior walls; acoustical tile ceilings; incandescent and fluorescent lighting; split system of heating from central plant.
WB 4-15. Previous report 3-18

**★STORE EXPANSION— Portland, Ore.**

Award to Frank Ralph & Son, 2204 N.E. Alberta St., Portland, $85,000, by Smith's Home Furnishings, 3016 S.E. Division St., Portland, $85,000, by Smith's Home Furnishings, 3016 S.E. Division St., Portland, for construction of a 70'x100' parking structure with mezzanine sales area connected to the existing store at above address. Plans by Raymond Kermit Thompson, and Polly Povey Thompson, architects, 202 Hughes Bldg., Portland. Plans have been revised since bids were opened in December. A house must be moved from the site before construction can start.

Reinforced concrete lower floor; concrete block mezzanine; glued laminated girder and beam roof with wood plank deck (instead of wood trusses); columns have been added; built-up roof; metal doors; elevator; pneumatic tube system; fluorescent lighting; gas heating and summer air conditioning; plaster walls and acoustical tile ceilings in mezzanine; carpeting by owner. WB 4-15. Previous report 12-27

**INDUSTRIAL PARK (Inverness)— Portland, Ore.**

Cornell, Howland, Hayes & Merryfield, consulting engineers, 1600 Western Ave., Corvallis, have been retained by Western Land Development Co. to plan with Inverness Industrial Park. The 294, acre tract is located between N.E. Sandy Blvd., Marine Drive, 115th Ave. and 127th Ave. Buillier & Bullier, U.S. National Bank Bldg., has been named managing agent.

The company will construct buildings for industrial tenants on a leaseback basis, or sell tracts. The 1,800' of river frontage will be reserved for marinas, waterfront restaurants and small boat harbors. Railroad trackage, street, and open areas for employe recreation will be planned.
WB 4-15

**RETIREMENT HOME— Roseburg, Ore.**

Douglas Senior Citizens Corp., a recently incorporated group of Douglas County men and women, has announced plans to purchase the 78-room Rose Hotel in Roseburg, and to convert the structure into a retirement home with apartments to accommodate about 100 persons. Officers of the corporation are E. G. High, president; Mrs. V. J. Micelli, vice president; and Lloyd Arant, secretary-treasurer. All of Roseburg. Renovation will not begin until about half the rooms are leased. RC 4-2

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Reply to Box No. D-11, Pacific Builder and Engineer, 2418 3rd Ave., Seattle 1, Washington, giving resume of qualifications.

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**JUNIOR HIGH SCHOOLS— Salem, Ore.**

Marion County School District No. 24 CJ, 1309 Ferry St., Salem, plans to retain architects in the near future to plan junior high schools for the West Salem and Keizer areas, each to accommodate from 500 to 600 students. A single architect may be hired to prepare almost duplicate plans. The West Salem school is to be completed by September, 1961, and the Keizer school two years later. RC 4-3

**★WAREHOUSE (Lamb) Weston, Ore.**

Award to McCormack Construction Co., 3rd Ave. and Goodwin St., Pendleton, (amount undisclosed), by F. G. Lamb & Co., food processors, Weston, for construction of a tilt-up concrete, warehouse to consist of 460'x125' of refrigerated area, and 107'x125' of unrefrigerated area. Plans by Waldron & Dietz, architects, 215 8th Ave. N., Seattle. Refrigeration equipment to be installed under separate contract. AC 4-10

**▲SCHOOL ADDITION— Wilsonville, Ore.**

Five bids received April 9 by School District No. 3Jt, Clackamas County, Kenneth Renner, clerk, Board Room, West Linn High School, West Linn, for construction of a four-classroom and corridor addition of masonry construction to Wilsonville Grade School, Wilsonville. Plans by Stuart B. Mockford, architect, 723 Washington St., Oregon City. LOW BIDS: Mason & Robinson, 2004 N.E. 137th Ave., Portland, $37,333 (basic bid), $5,989 (additive alternate); Associated Building Contractors, 7117 S.E. Main St., Portland, $40,082 (basic), $6,722 (additive alternate); Johnson & Meloy, 260 Luther St., Salem, $40,102 (basic), $5,718 (additive alternate). VP 4-14. Previous report 3-31

## WASHINGTON

**CHURCH (Baptist)— Aberdeen, Wash.**

Extensions and revisions to existing First Baptist Church, 2nd and G streets, Aberdeen, are being planned by the church building committee. Plans call for eventual installation of new heating plant, renovation of interior of church, and painting. DC 4-2

**▲SCHOOL ADDITIONS (Junior-Senior High)— Belfair, Wash.**

Fourteen general contract bids ranging from a low of $40,745 by Purvis Construction Co., 1525 Bay St., Tacoma, to a high of $48,457 were opened by North Mason Consolidated School District No. 403, Belfair, for construction of a six-classroom addition to Belfair Junior-Senior High School. Plans by William Arild Johnson & Associates, architects, 3506 Broadway, Everett. Low mechanical was Harold Jewell Plumbing and Heating, 6605 6th Ave., Tacoma, $10,509; and electrical, Pacific Electric Co., Bremerton, $4,753. DC 4-11. Previous report 3-27

**● FIRE STATION— Bellingham, Wash.**

Bids will be received until 5 p.m., April 29, in the offices of the city comptroller, City Hall, Bellingham, for construction of a 3,400 sq. ft., one-story, fire station at the southwest corner of Alabama and Iron streets in Bellingham. Bids will be opened at 9:30 a.m., April 30, and publicly read at a special meeting of the Board of Public Works. Plans with Richard Stradling, architect, Harold Bldg., Bellingham, and available with city comptroller office, at above address. $15 deposit. Certified check, cashier's check in the amount of 5% of base bid plus all alternate bids. A 15% corporate surety bond required to guarantee faithful performance of contract.

Work involves: living quarters, housing of two fire trucks. Alternate bids will be taken for construction of a 40' drill tower on the site, and construction of a small pool for pumping practices.

Reinforced concrete; slab-on-grade; brick veneer exterior; aluminum sash; frame, plaster partitions; vinyl asbestos tile flooring; hot water convector serving finvector radiation, with volume heaters, heating system. Drill tower will be 11'x17' (ground dimensions); reinforced concrete structure comprising stairway, ladders and window and door opentings.

AC 4-10. Previous report 3-5

**● OFFICE BUILDING— Bellevue, Wash.**

(Estimated cost $80,000)

Bids will be received until 4 p.m., April 29, in the offices of Ibsen A. Nelsen and Russell B. Sabin, architects, 1314 E. 43rd St., Seattle, for construction of a two-story, 62'62' (lower floor), 62'x70' (upper floor), office building for Carlson Mortgage Co., Bellevue. New structure will be located at 106th Ave. N.E., north of N.E. 8th St. in Bellevue. Plans with above architects. $35 deposit. Certified check, cashier's check, bid bond 5%. AM 4-11. Previous report 3-10

**ELEMENTARY SCHOOL (Sherwood)— Bellevue, Wash.**

(Estimated cost $370,000)

Description follows on a 30,000 sq. ft., 14-classroom, campus plan Sherwood Forest Elementary school, to be constructed at N.E. 24th and 164th Ave. N.E., Bellevue, for Bellevue School District No. 405. Working drawings are nearly completed by Nickum, Lamont & Fey, architects and engineers, 71 Columbia St., Seattle. Mechanical engineer is Stern & Towne, 615 Lakeview Blvd., Seattle.

Concrete footings and foundation; SCR brick exterior; concrete slab-on-grade glued laminated beams; tectum roof decking; frame partitions; aluminum sash windows; rigid insulation in roof; fluorescent, incandescent lighting; plaster board interior partitions; asphalt tile, ceramic tile flooring; wood doors and cabinets; corrugated plastic panel skylight; blackboards. Plans allow for future expansion to 20 classrooms.

AM 4-14. Previous report 1-9

**ELEMENTARY SCHOOL (Surrey Downs)— Bellevue, Wash.**

(Estimated cost $347,000)

Bids will be called early in June by Bellevue School District No. 405, Bellevue, for construction of a 12-classroom (hub-and-finger plan), 27,435 sq. ft., Surrey Downs elementary school to be constructed at S.E. 5th and 112th S.E. in Bellevue. Working drawings are nearly completed by Mithun, Ridenour & Cochran, architects, 34 104th N.E., Bellevue. Plans call for a multi-purpose room, library and administrative offices. Units will be joined by a continuous roof.

Reinforced concrete footings and foundations; frame, block walls; slab-on-grade; glued-laminated beams; t&g roof decking; frame, block partitions; wood, aluminum sash windows; rigid insulation in roof; fluorescent lighting; drywall interior partitions; asphalt tile, ceramic tile flooring; fiber-acoustical ceilings; birch doors; prefabricated cabinets; electrical heating system. Special laminated 27" diameter skylight in center of multipurpose room roof.

AM 4-14. Previous report 1-29

**★BOWLING ALLEY— Bellevue, Wash.**

Award to Baugh Construction Co., 922 Poplar Place, Seattle (no figure given), by Herbert T. Elsner, owner, Bellevue, for construction of a 16-lane bowling alley at 600 116th Ave. N.E., in Bellevue. Plans call for installation of equipment; spectator areas; snack bar, child-care facilities. AC 4-15

**● REROOFING, GUTTER REPAIRS— Bremerton, Wash.**

(Estimated cost $10,000)

Bids will be opened 11:30 a.m., P.S.T., April 21 by Department of the Navy, Bureau of Yards and Docks, Bldg. 480, Puget Sound Naval Shipyard, Bremerton, for reroofing and gutter repair at Buildings 413 and 628, Puget Sound Naval Shipyard, Bremerton; Spec. No. 23196/59. Plans with above Bremerton address.

Work includes installing asbestos fiber plasticized shingles over existing cedar shingles, painting hung gutters, and relining built-in gutters with plastic and fabric.

VK 4-10

**● CLINIC— Bremerton, Wash.**

Bids will be opened 8 p.m., May 1 by Doctors' Clinic, Inc., 545 5th, Bremerton, for construction of a two-story, 6,000 sq. ft. medical clinic building at intersection of Lebo Blvd. and State Highway 12-B, Bremerton. Plans by C. R. Gilman & Associates, 2409 Holman St., Bremerton. $25 deposit.

Wood frame; concrete foundation and slab; wood joists; concrete block exterior wall; aluminum sash; wood frame roof; built-up roofing; plaster on stud partitions; acoustical tile; composition flooring.

VC 4-11. Previous report 4-1

**APPLE JUICE PLANT— Cashmere, Wash.**

Construction of Tree Top apple juice plant at Cashmere has been started for Chaibonneau Packing Corp., Selah. Plans include 30,000 sq. ft. warehouse; 80'x140' processing room; installation of stainless steel machinery. MH 4-9

**ELEMENTARY SCHOOL— Castle Rock, Wash.**

(Estimated cost $300,000)

Bids will be called early in August by Castle Rock School District No. 401, Herbert Hansen, superintendent, Castle Rock, for a new upper division elementary school addition in Castle Rock. Classrooms, gymnasium, library, and offices. Plans with Wolff & Zimmer, architects, 509 Pearson Bldg., Portland.

VK 4-9. Previous report 1-14

**● CHURCH (Catholic)— Chehalis, Wash.**

Bids will be opened 2 p.m., April 21, by Most Reverend Thomas A. Connolly, Catholic Archbishop of Seattle, at the chancery office, 907 Terry Ave., Seattle, for construction of a one-story, 9,100 sq. ft., concrete and brick church at St. Joseph Parish, 6th and Cascade streets, Chehalis. Plans with E. L. Mills & Associates, architect, 308 S. Tacoma Ave., Tacoma. $25 deposit. Certified check, or bid bond 5%. DC 4-11

**RECTORY (Roman Catholic)—Chelan, Wash.**

Preliminary drawings are underway by Thomas F. Hargis, Jr., and Clark Goldsworthy, associate architects, Miller Bldg., Yakima, for construction of a rectory in Chelan for the Roman Catholic Church of Chelan, Diocese of Yakima.

Frame structure with some stone; shake roof; concrete, asphalt tile, carpeted floors; plaster interior walls, paint and wood trim; forced air heating, oil-fired. IG 4-

**● BATHHOUSE, CREW QUARTERS— Clark, Skamania Counties, Wash.**

Bids will be opened 2 p.m., May 6 by U.S. Forest Service, 729 N.E. Oregon St., Portland, Ore. (Box 4137), for construction of one combination bathhouse and 10-man crew quarters at Chelatchie Prairie Ranger Station; and three combination bathhouse and 10-man crew quarters at Pine Creek Work Center, Gifford Pinchot National Forest, Clark and Skamania counties, Wash. Plans with Portland office or with forest supervisor, 801 W. 8th St., Vancouver, Wash.

A tour of the Chelatichie Prairie Ranger Station site will be held at 10:30 a.m., and the Pine Creek Work Center at 1 p.m., April 22. DM 4-

**JUNIOR HIGH SCHOOL (Fourth)— Clyde Hill, Wash.**

Preliminary plans are underway by Naramore, Bain, Brady & Johanson, architects, 904 7th Ave., Seattle, for construction of a one-story, 80,000 sq. ft., 32-teaching station new junior high school, for Bellevue School District No. 405, Bellevue, to be located in the Clyde Hill area, bounded by N.E. 22nd on the north; northeast 10th on the south; 98th Ave. N.E. on the east, and 96th Ave. N.E. on the west.

AM 4-4. Previous report 1-

**RECTORY, CHAPEL (Roman Catholic)— Cowiche, Wash.**

Preliminary drawings have been started for remodeling one wing of the Roman Catholic School in Cowiche and converting it into a rectory and chapel for the Roman Catholic Church of Cowiche, Diocese of Yakima. Architects are Thomas F. Hargis, Jr., and Clark Goldsworthy, associate, Miller Bldg., Yakima. IG 4-

**POST OFFICE— Dayton, Wash.**

A new post office in Dayton is being considered. The lease on the existing structure expires May 31, 1960. MH 4-9

**●POST OFFICE— Eatonville, Wash.**

Bids will be received through May 15 by U. S. Post Office Department, E. Jennings Beard, Regional Real Estate Officer, Box 1857, Seattle, for lease of 1,131 sq. ft. (interior) post office quarters at Eatonville, Wash., on a five-year basis. Information with above officer. No assignable land option is held. WB 4-11

**CHURCH (Friends)— Entiat, Wash.**

Working drawings are underway by Donald Lindgren, architect, 219 Central Bldg., Vancouver, for construction of a two-level, 5,500 sq. ft. Friends Church in Entiat. Construction is expected to be done by church members starting in May or June. Frame construction with glued laminated beams; asphalt tile flooring; aluminum and wood sash. The site is on a hillside. WB 4-9

**HIGH SCHOOL— Enumclaw, Wash.**

A bond election in the amount of $400,000 will be held May 19 by Enumclaw School District No. 216, 2222 Porter St., Enumclaw, to help finance a $700,000 high school building to be erected on a 153-acre farm plot near Enumclaw. A $100,000 levy will be voted on at the same date, to finance extensive fireproofing of the existing high school building. MH 4-9

**EXHIBIT HALL— Ephrata, Wash.**
(Estimated cost $9,000)

Bids may be called or contract may be negotiated by Grant County Commissioners, on construction of a proposed 60'x100' exhibit building for the Grant County fair grounds. DC 4-15

**●SHIPYARD ALTERATIONS— Everett, Wash.**

Bid opening extended to 3 p.m., P.S.T., May 6, for alterations and improvements at Naval Industrial Shipyard, Bldg. No. 1, Everett; Proj. No. SEA-1360. Bids will be opened by General Services Administration, 909 1st Ave., Seattle. Plans with Seattle office. Bid bond 2%. Completion time 110 calendar days. Bid opening previously set for April 15. VK 4-15. Previous report 4-10

**▲REMOVE BUILDINGS— Fort Lewis, Wash.**

Bids received April 9, by Corps of Engineers, 1519 S. Alaskan Way, Seattle, for removal of 233 structures and outside utilities in Capehart housing projects, 3, 4, and 5 at Fort Lewis; ENG-45-108-59-67. Completion time 90 calendar days.

LOW BIDS: LOW BIDS—Item A-1: H. M. McDowell, Milton, Wash., $5,859; Cleveland Wrecking Co., San Francisco, $15,952; Butler-McFarland, Seattle, $18,900; Government estimate $28,416. Item B-1: H. M. McDowell, Milton, $16,900; T. M. Burgin Demolition Co., Birmingham, Ala., $27,900; Quality Builders, 5220 S. Orchard, Tacoma, $33,800. Government estimate $38,145. Item C-1: T. M. Burgin Demolition Co., $16,900; Mead House Wrecking Co., Pasadena, Calif., $19,257; Quality Builders, Tacoma; $21,600. Government estimate $38,013. Twelve bids received. AM 4-10. Previous report 3-27

**LIBRARY— Kent, Wash.**

Working drawings are underway by Johnston, Campanella & Associates, architects, 213 Wells St., Renton, for a 4,200 sq. ft., library in Kent. Plans call for masonry construction; brick veneer exterior; porcelain-enamel panels; vinyl flooring; glued-laminated beams; acoustical tile ceilings; built-up roofing; metal sun shades on windows; fluorescent lighting; hot air heating system. AM 4-14. Previous report 11-1

**RETIREMENT HOME (Swedish)— Lake Sammamish, Wash.**

Preliminary plans are underway by Edward Mahlun, architect, Lloyd Bldg., Seattle, for construction of a 4-story and basement, 125,000 sq. ft. retirement home to be located on a five-acre site in Vasa Park overlooking Lake Sammamish, for Swedish Retirement Home, Vasa Order of America, Inc. Application to the Federal Housing Administration has been made to help finance construction.

Plans call for 170 units, dining facilities, kitchen, recreation room, social hall, hobby shop, an infirmary, and storage facilities. AM 4-4

**TRANSMITTER-RECEIVER BUILDING— Larson AFB, Wash.**

Bids will be called soon for opening late in May by Corps of Engineers, Bldg. 602, City County Airport, Walla Walla, for construction of ground-air transmitter-receiver building at Larson Air Force Base near Moses Lake, Grant County; ENG-45-164-59-34. Plans with Walla Walla office. Completion September 30, 1959.

Construction of one-story building, 3,000 sq. ft., reinforced concrete, masonry, steel joist, cast-in-place-gypsum roof deck, built-up roofing; utilities consisting of 3,900' of 1¼" water line, 9,000' of No. 2 ACSR aerial electrical transmission, 1,100' of No. 4, 15 kv cable in 4", non-metallic, concrete encased duct, septic tank and drain tile field; about 2,150' of 7' chain link fencing; interior electrical and heating, forced warm air, oil fired; 10,250 sq. yd. asphaltic concrete paving and 2,900 c.y. base course. DM 4-15

**●STEEL SHOP— McChord AFB, Wash.**

Bids will be opened 10:30 a.m., April 20, by base procurement office, McChord Air Force Base, for construction of steel shop additions to three buildings on the base; Inv. No. 59-89. Plans with above office. DC 4-11

**SWIMMING POOL— Mercer Island, Wash.**

Bond election will be held May 19 by Mercer Island Park and Recreation District, for funds to finance construction of an indoor heated swimming pool. Site for the pool being considered is Island Crest Park. AM 4-14

**●■ SHOP, OFFICE— Mountlake Terrace, Wash.**

Bids will be received until 4 p.m., April 24, in the offices of Ibsen A. Nelsen and Russell Sabin, architects, 1314 E. 43rd, Seattle, for construction of a one-story, 20'x32' office, and a 32'x34' shop building at 52nd W. in Mountlake Terrace, for Northwest Garbage Co.

Planholders: C.B.S. Construction Co., 11115 7th N.W., Seattle; Hugh S. Ferguson Co., 1927 1st S., Seattle; Thomas Tokareff, 4221 S.W. 196th, Alderwood Manor.

Concrete footings and foundation; concrete block exterior; slab-on-grade; frame, built-up roof; frame partitions; aluminum sash windows; incandescent lighting; cement asbestos-board interior; wood doors; sliding steel door to shop; hot-air oil-fired heating system; septic tank, sewage disposal system. AM 4-10

**DETENTION QUARTERS— Mount Vernon, Wash.**

A survey is being made by Skagit County Commissioners on necessary facilities for housing juvenile offenders. ET 4-8

**GARAGE— Mount Vernon, Wash.**

Bids will be called late in April or early in May by Mount Vernon Union High School District No. 1, 314 N. 9th, Mount Vernon, for construction of a bus garage adjacent to Union High School. ET 4-14

**▲LIGHTING IMPROVEMENTS (13th Naval District)— Oak Harbor, Wash.**

Bids received April 9, by 13th Naval District, District Public Works office, Bldg. 250, U. S. Naval Station, Seattle, for lighting improvements in buildings 28, 386, and 410 at U. S. Naval Air Station, Ault Field and Seaplane Base, Oak Harbor, Whidbey Island; Spec. No. 23138/59.

BIDS: C. B. Campbell Co., Inc., 436 21st S., Seattle, $18,000; Agutter Electric Co., 5500 14th N.W., Seattle, $18,983; Donald W. Close Co., 2921 13th S.W., Seattle, $19,490; Whidbey Electric Co., Oak Harbor, $19,509. AM 4-10. Previous report 3-19

**HIGH SCHOOL (William Winlock Miller)— Olympia, Wash.**
(Estimated cost $2,000,000)

Working drawings are underway by Naramore, Bain, Brady & Johanson, architects, 904 7th Ave., Seattle, for construction of a one-story, nine-building, 52-teaching stations, 140,000 sq. ft., new high school at Carlyon Ave. and North St., in Olympia. Structural engineer: Worthington & Skilling, Lloyd Bldg., Seattle. Mechanical engineer: Bouillon, Griffith & Christofferson. Electrical engineer: B. A. Travis, 1117 2nd Ave., Bldg., Seattle.

Concrete footings and foundation; frame walls; concrete slab-on-grade; glued-laminated beams; frame, plaster partitions; metal windows; rigid insulation in roof; fluorescent lighting; stucco, brick exterior; asphalt tile flooring; acoustical ceilings; wood doors, cabinets; hot water glycol heating system; unit ventilators. AM 4-2. Previous report 11-11

**COMMUNITY BUILDING— Prosser, Wash.**
(Estimated cost $250,000)

Preliminary plans are being completed by Cormac C. Thompson, architect, 1124 5th Ave., Prosser, for a community building to house a civic auditorium and bowling alley at 7th and Prosser Ave., Prosser. Construction will be financed by American Legion, Prosser. Chairman of the building committee is H. N. Nelson, Prosser. MH 4-10

**BOWLING ALLEY— Prosser, Wash.**

Fund raising drive is underway by American Legion to finance construction of a 12-lane bowling alley at 7th and Prosser Ave. in Prosser. Existing building on the site will be razed. Chariman of the building committee is H. N. Nelson, Prosser. DC 4-4

**▲CHANGE HOUSE— Prosser, Wash.**

Bids ranging from a low of $21,291 by J. K. Cross, Kennewick, to a high of $25,049 by Garrison Construction Co., Kennewick, were opened by Benton County Commissioners, Courthouse, Prosser, for construction of a change house at the swimming lagoon in the county's Columbia Park. DC 4-15

**★FIRE STATION BUILDING— Prosser, Wash.**

Award to M. L. Stone, Route 1, Prosser, $8,262, by Benton County Fire Protection District No. 5, in office of Maloy Sesney, attorney, Fisk Bldg., 1112 Meade Ave., Prosser, for construction of three 16'x30' pumice block fire station buildings in Prosser. VK 4-15. Previous report 4-7

**JUNIOR HIGH SCHOOL— Pullman, Wash.**

A special election will be held May 12 by Pullman School District No. 267, Pullman, on the proposal to construct a new junior high school on Pioneer Heights. Thomas Adkison of McClure & Adkison, architects, Sherwood Bldg., Spokane, will outline probable costs at meetings with a citizens' advisory council in Pullman. MH 4-14

**▲DAIRY PLANT BUILDING (W.S.C.)— Pullman, Wash.**

Bids received April 3 were rejected by Washington State College, 303 Administration Bldg., Pullman, for construction of seven frame and metal buildings which will comprise a new dairy plant on college farm four miles south of Pullman. Plans by George Rasque & Son, architects, Washington Trust Bldg., Spokane. Low bidders were: Sceva Construction Co., N. 2928 Madelia, Spokane, $267,336 (General, steel framing); Purvis Construction Co., Box 64, Yardley, $290,634 (General, wood framing); C. M. Wilderman Co., 520 S. Main, Moscow, Idaho, $27,420 (Mechanical); C. M. Wilderman Co., 520 S. Main, Moscow, Idaho, $23,600 (Electrical). MH 4-14. Previous report 4-7

**▲GYMNASIUM, ALTERATIONS— Pullman, Wash.**

Four bids received April 10 by Washington State College, 303 Administration Bldg., Pullman, for alterations to Bohler Gymnasium on the college campus. Plans by

Philip Keene, college architect, 305 Services Bldg., Washington State College, Pullman. LOW BIDS: Commercial Builders, Inc., Box 302, Moscow, Idaho, $54,115; C & S Builders, 508 Dexter, Pullman, $54,318; Johnson-Busboom-Rauh, N. 601 Cedar, Spokane, $63,143. MH 4-14. Previous report 4-2

**SUPER MARKET, DRUG STORE (Cascade Center)— Renton, Wash.**
(Estimated cost $200,000)

Working drawings are underway by Heideman & Van Wieringen, architects, 527 Fairview N., Seattle, on a 23,000 sq. ft., supermarket and drug store, the first phase of a new shopping center which will occupy a 32-acre tract at 116th Ave. S.E. and S.E. 168th St., in suburban Renton. Owner-builder is Cascade Center, Inc., Seattle. Structural engineer: Worthington & Skilling, Lloyd Bldg., Seattle.

Supermarket and drug store will be under one roof. Concrete footings and foundation; block construction; slab-on-grade; glued-laminated beams; joist, built-up roof; frame partitions; aluminum sash sash; resilient tile; plaster, acoustical ceilings; aluminum door; gas-fired heating system.
AM 4-15. Previous report 3-26

**● WAREHOUSE ADDITION— Richland, Wash.**

Bids will be opened 8 p.m., April 27, by School District No. 400, 615 Snow Ave., Richland, for construction of an addition to storage warehouse. Plans with Cowan & Paddock, architects, Larson Bldg., Yakima. $25 deposit.

Concrete masonry exterior walls; concrete floor; glued laminated beams in roof deck; electric unit ventilators heating system.
IG 4-10

**★ REMODELING BUILDING (AEC)— Richland, Wash.**

Award to Raymond J. Britton, Richland, $45,817, by Atomic Energy Commission, Richland, for modification of 77'x54', one-story wood frame instrument laboratory building at Hanford Works; AT 451-1443.
VK 4-15. Previous report 4-8

**MARINA— Rocky Reach Pool, Wash.**

Purchase of 65 acres of federal land on the Columbia shore near Swakane Canyon is under consideration by the Boat Club of Wenatchee, according to Al Farrar, Sunset Highway, East Wenatchee. Long range plans call for floating docks, moorage, launching ramp, clubhouse and other facilities on the proposed 1,000 to 1,200 feet of shoreline of Rocky Reach pool, which will be formed behind Chelan County PUD's dam. DC 4-15

**● LABORATORY ALTERATIONS (U. of W.)— Seattle, Wash.**

Bids will be opened 2 p.m., May 12, by Board of Regents, 209 Administration Bldg., University of Washington campus, for remodeling of the fifth floor of the Applied Physics Laboratory building, including rebuilding of elevator.

Plans available with Rich and Trimble, architects, 4507 University Way, Seattle, on or after April 20th. $15 deposit. Bid bond 5%.

Work consists of conversion of warehouse space into laboratory use. Steel studs; plaster walls; new heating to connect to existing hot-water system; steel, outside stairway; aluminum sash windows on 5th and 3rd floors; toilet facilities.
AM 4-10. Previous report 2-27

**▲ BUILDING ALTERATION (Boeing)— Seattle, Wash.**

Four bids ranging from a low of $421,617, by John H. Sellen Construction Co., 228 9th N., Seattle, to a high of $456,475, were submitted to Boeing Airplane Co., Pilotless Aircraft Division, Box 3925, Seattle, for alterations and remodeling 100,000 sq. ft., one-story, warehouse, Phase 4-A, at the Boeing manufacturing research laboratory, 4734 E. Marginal Way, Seattle. Bid opening April 8.

OTHER BIDS: Brazier Construction Co., 309 Pontius St., Seattle, $425,500; Puget Construction Co., Inc., 1811 Bush Place, Seattle, $444,783; James I. Barnes Construction Co., Central Bldg., Seattle, $456,475.
AM 4-10. Previous report 4-1

**SHOPPING CENTER (Aurora Village)— Seattle, Wash.**
(Estimated cost $17,000,000)

Working drawings are underway by John Graham & Co., architects, 1426 5th Ave., Seattle, for a supermarket and small shops, the first phase of a shopping center to be known as Aurora Village on a 35-acre site at N. 205th and Aurora Ave., for Lucky Stores, Inc., of California. Aurora Village is being developed by the Backus Improvement Ct., 211 Madison St., Seattle.

Plans call for a total of 383,192 sq. ft. to house between 45 and 50 stores, the largest of which will be a 200,000 sq. ft. department store. Preliminary clearing of the site has begun.
AM 4-7

**CHURCH (Lutheran)— Seattle, Wash.**

Working drawings are underway by Johnson-Austin Associates, architects, 8810 Bridgeport Way, Tacoma, for the 10,000 sq. ft. first unit of a (25,000 to 30,000 sq. ft.) building for Lutheran Church of the Good Shepherd, to serve Bow Lake, McMicken Heights and Angle Lake areas. Architects will also supervise bid call and construction. Pastor is Richard I. Crossland, 17716 42nd S., Seattle. Plans call for stone veneer exterior, and it is hoped construction will be underway by June 1.
VK 4-15. Previous report 2-14

**OFFICE, WAREHOUSE (Smith Cove Oil Co.)— Seattle, Wash.**

Working drawings will be started soon by Leed Carmean, architect, 1426 Fifth Ave. Bldg., Seattle, for a 4,400 sq. ft., one-story, office and warehouse building, for Smith Cove Oil Co., at 3051 20th Ave. W., Seattle. Structure will be concrete block exterior with some wood and glass siding; concrete slab-on-grade; built-up roof on joist; forced air unit heating system; aluminum sash windows; loading dock to be provided in rear of building. New building will replace present sructure.
AM 4-15

**■ MUSIC BUILDING (Seattle Pacific)— Seattle, Wash.**

Planholders announced for construction of a 23,000 sq. ft., partial two-story, music building for Seattle Pacific College at 3223 3rd Ave. W., Seattle. Bids will be received until 2 p.m., April 30, by Board of Trustees, Seattle Pacific College, administration office, 3307 3rd W., Seattle. Plans with Mallis & DeHart, architects, 631 Lyon Bldg., Seattle. Certified check, cashier's check, or bid bond 5%. Bids may be submitted separately for general, mechanical or electrical, or on the entire project.

Planholders — GENERAL: Barnes Construction Co., Central Bldg., Seattle; Sanford Wright, 2929½ Wetmore Ave., Everett; Northern State Construction Co., 2833 26th Ave. W., Seattle; Livers Brothers, 3223 E. 123rd, Seattle; Brazier Construction Co., 309 Pontius Ave., Seattle; J. A. Park, Route 1, Box 740 A, Winslow; Mowat Construction Co., 2833 Eastlake, Seattle; Puget Construction Co., 1811 Bush Place, Seattle; Stewart-Martens, 9410 Stone, Seattle; Jentoft & Forbes, 927 W. 46th, Seattle; Wick Construction Co., 720 N. 35th St., Seattle; H. Halvorson, Inc., 20054 Pacific Highway S., Seattle; Century Construction Co., 2301 Western, Seattle.

MECHANICAL: University Plumbing & Heating Co., 3941 University Way, Seattle; Lincoln Mechanical Contractors, 714 Adams, Seattle; L. G. Massart Plumbing & Heating, 4501 9th N.W., Seattle; Ashwell-Twist Co., 967 Thomas, Seattle; Lucken Plumbing & Heating, 922 Leary Way, Seattle; L. E. Ballou & Sons, 5803 14th N.W., Seattle; Percy A. Thorn, 24 Etruria, Seattle; Navarre Plumbing & Heating Co., 3839 Stone Way, Seattle; Ballard Company, 1537 Ballard Way, Seattle; C. F. Massart, 4401 Wallingford, Seattle.

ELECTRICAL: City Electric & Fixture Co., 433 8th N., Seattle; Van S. McKenny, 10< Wall St., Seattle; Selo Electric, 1050 N. 38th, Seattle; Hooper Electric, 215 Marion St., Seattle; Agutter Electric, 5500 14th N.W., Seattle; Ewing Electric, 535 Main St., Edmonds; Lloyd Larsen Electric Co., 2306 4th, Seattle; Gracey Electric, 5204 Pritchard, Seattle; Wedgwood Electric, 8621 35th N.E., Seattle; B & B Electrical Contractors, 6715 Empire Way, Seattle; Tullar Power, 3522 Government Way, Seattle; Carlson-Collingwood, Inc., 8945 Aurora Ave., Seattle; Donald W. Close Co., 2921 13th S.W., Seattle; Keystone Electric, 500 Wall St., Seattle.
AM 4-15. Previous report 4-4

**WAREHOUSE, OFFICES— Seattle, Wash.**

Sub-bids will be called soon by O. E. Turnquist Construction Co., owner-builder, 1305 Republican St., Seattle, for construction of a 6,000 sq. ft., one-story office and warehouse building at 430 Yale Ave. N., for Johnson Service Co., Milwaukee, Wis., manufacturer of automatic controls for heating and ventilating equipment. Plans by W. G. Brust & Associates, architects and engineers, Republic Bldg., Seattle.

Structure will be of reinforced concrete; slab-on-grade; aluminum-glass curtain wall; radiant heating; air conditioning. Parking will be provided on roof.
AM 4-13

**GYMNASIUM (West Seattle)— Seattle, Wash.**
(Estimated cost $695,000)

Working drawings are nearly completed by Theo Damm, architect, 516 James St., Seattle, for a 135'x210', 27,000 sq. ft., gymnasium, and remodeling of the existing gymnasium at West Seattle High School, California Ave. and W. Stevens St., Seattle.
AM 4-15. Previous report 3-24

**● HIGH SCHOOL (Northeast)— Seattle, Wash.**

Bids will be opened 8 p.m., May 11, by Highline School District No. 401, 253 S. 152nd, Seattle, for construction of one-story, six-building, 86,600 sq. ft., Northeast High School on a site near 24th Ave. S. and S. 142nd, Seattle. Plans with Steinhart, Theriault & Anderson, architects, 1264 Eastlake Ave., Seattle. $50 deposit, general, $25 each for mechanical and electrical. Separate bids on general, mechanical, electrical. Certified check, cashier's check, bid bond 5%.

Steel columns, glued laminated beams, t&g decking except in gymnasium, which will have steel beams; flat built-up roof; rigid insulation in roof; masonry walls (brick, concrete or pumice block); aluminum sash; masonry block non-bearing partitions; concrete slab-on-grade floor, Asphlex flooring; electric heating.
AM 4-15. Previous report 3-24

**V.F.W. OFFICE BUILDING— Seattle, Wash.**

Working drawings are nearly complete by Marshall-Barr & Associates, architects and engineers, Lloyd Bldg., Seattle, on 10,000 sq. ft., two-story and basement, office building for the Veterans of Foreign Wars, Seattle, to be located at the intersection of Boren, Broadway and Terrace St., Seattle.

Steel frame; concrete floors and roof; east and west walls, concrete block; north and south walls, aluminum, glass, curtain walls; vinyl asbestos tile; standard 15-year 3-ply roofing; plaster board interior partitions; sound-proofed ceiling; sectional luminus panels to provide lighting; radiation perimeter heating north and south walls and standard hot air heating system provided elsewhere; provisions for future air conditioning. Paved parking area, fencing; landscaping; outside access walkway from building to parking lot.
AM 4-15. Previous report 3-17

**RESIDENCE HALL (U. of W.)— Seattle, Wash.**

Working drawings are nearly complete by Young, Richardson & Carleton, architects, Central Bldg., Seattle, for an approximate 100,000 sq. ft., two-building women's residence hall east of the existing women's dormitory on the campus of the University of Washington, Seattle. First phase will consist of housing for 300 girls. Dining and kitchen facilities to accommodate 600 girls. Structure to be reinforced concrete; brick-veneer exterior; built-up roof; concrete stairways; aluminum windows; rigid insulation in roof; incandescent, fluorescent lighting; plaster partitions; asphalt tile, terrazzo tile, flooring; metal and wood doors and cabinets; heating system will be connected to existing central heating system on the campus; ventilating system in public areas.
AM 4-14. Previous report 12-2

**■FIRE STATION— Seattle, Wash.**

Planholders announced for construction of a one-story, 60'x75', 4,500 sq. ft., fire station for the Angle Lake district at 30th Ave. S. and S. 200th St., Seattle. Bids will be opened 8 p.m., April 27, by King County Fire Protection District No. 24, 19810 Pacific Highway S., Seattle. Plans with Maurice Sullam, architect, 1826 Broadway, Seattle. $15 deposit. Bid bond 5%.

Planholders: Marcus M. Ohlson, 430 S. 192nd, Seattle; Burien Construction Co., 4126 S.W. 106th, Seattle; Perry Construction Co., 2220 Peasley Canyon Road, Federal Way; Busch Construction Co., 15832 96th S., Renton; Bell & Multey, 1721 E. 98th, Seattle; Korsmo Bros., 5944 Lake Grove Ave. S.W., Tacoma; Noble White, Box 3951, Seattle.

AM 4-11. Previous report 4-3

**★MANUFACTURING PLANT (Boeing)— Seattle, Wash.**

Award to H. S. Ferguson Co., 1927 1st S., Seattle, $263,425, by Boeing Airplane Co., Plant 2, Seattle, for construction of a 25,000 sq. ft., building on the east side of Boeing Field. VK 4-11. Previous report 2-21

**★PHYSICS LABORATORY ALTERATIONS (Boeing)— Seattle, Wash.**

Award to John H. Sellen Construction Co., 228 9th N., Seattle, $310,933, by Boeing Airplane Co., Plant 2, Seattle, for alterations of approximately 18,000 sq. ft. of area in the existing Physics Laboratory at Plant 2. Plans by Harmon, Pray & Detrich, architects and engineers, 2000 Fifth Ave. Bldg., Seattle. VK 4-11. Previous report 2-4

**★LABORATORIES (Boeing Field)— Seattle, Wash.**

Award to T. W. Traverso Construction Co., 11180 E. Marginal Way, Seattle, $79,669, by Boeing Airplane Co., A. C. Vigna, in Annex A, Plant 2, Seattle, for remodeling existing space in Bldg. 201, into three testing laboratories. Plans by Harmon, Pray & Detrich, architects & engineers, 2000 Fifth Ave. Bldg., Seattle. VK 4-11. Previous report 12-11

**RETAIL BUILDING— Seattle, Wash.**

Construction is underway by Baugh Construction Co., general contractor, 922 Poplar Place, Seattle, on a 45,000 sq. ft., retail merchandise building at 15220 Aurora Ave., for Namer Investment Corporation, 2521 2nd Ave., Seattle. Plans by Thomas Albert Smith, architect, Lowman Bldg., Seattle. Structure will be of tilt-up concrete; aluminum, brick and glass entrance. Parking for 600 cars will be provided. Similar structure is planned for Tacoma. AM 4-14

**●OFFICE BUILDING (Armstrong Cork)— Seattle, Wash.**

Bids will be opened 4 p.m., April 26, in the offices of Carlson, Eley & Grevstad, architects, 432 Eastlake, Seattle, for construction of a 14'x18' (lobby and stair enclosure) ground floor; 52'x60' (second floor), office building, for Armstrong Cork Co., at 221 Minor Ave. N., Seattle. Plans with above architects. $25 deposit for two set of plans.

Structure is mostly parking area on ground level. Construction will be reinforced concrete with precast panels, with part stone veneer; aluminum coping and sash; plaster interior; suspended acoustical ceiling; recessed fluorescent troffer lighting; gas-fired hot water heating system.

AM 4-14

**★CHURCH (Bethel Lutheran)— Seattle, Wash.**

Award to B. F. Turnbull, Inc., 4351 Leary Way, Seattle, $160,000, by officials of Bethel Lutheran Church of Shoreline, for construction of a 9,600 sq. ft., one-story and basement church at 8th Ave. N.E. and E. 175th, Seattle. Plans by Durham, Anderson & Freed, architects, 1100 Denny Way.

VK 4-14. Previous report 4-7

**▲FIRE STATION— Spokane, Wash.**

Nine bids ranging from a low of $81,923 by Kenneth Custis, W. 1222 21st, Spokane, to a high of $105,417, were opened by City Council, Spokane, for construction of the 4,000 sq. ft. fire station No. 6 at 8th and Sherman, Spokane. DC 4-11

**SWIMMING POOL— Spokane, Wash.**

Proposal has been made by City Council and Park Commissioners, Spokane, for construction of three new swimming pools at Shadle Park, Rogers High School and Sinto Park, and for repair of existing pools. Financing would be by a $797,000 bond issue.

DC 4-7

**■HIGH SCHOOL, GYMNASIUM— Springdale, Wash.**

Planholders announced for construction of the Mary Walker High School in Springdale. Bids will be opened 2 p.m., April 22, by Mary Walker School District No. 207, Springdale, in the office of the architects, Kenneth W. Brooks, W. 707 5th Ave., Spokane. Plans with architect. $25 deposit. Certified check or bid bond 5%. Separate bids on general, mechanical and electrical.

Planholders—GEN.: H. Halvorson, Box 6, Yardley; Gus Bouten Construction Co., N. 627 Napa, Spokane; Curtis' Construction Co., W. 1222 21st, Spokane; Hazen & Clark, W. 108 Boone, Spokane; Hansen & Parr, W. 315 Boone, Spokane; Haynes Construction Co., W. 2028 Sinto, Spokane; Johnson-Busboom-Rauh, N. 601 Cedar, Spokane; Spilker & Sons, W. 1029 Bridge, Spokane; Sceva Construction Co., N. 2928 Madelia, Spokane; Selkirk Co., W. 722 16th, Spokane; P & B Co., E. 8903 Main, Spokane. MECH.: Standard Plumbing & Heating, E. 1801 Sprague, Spokane; Arnold & Jeffers, N. 1309 Ash, Spokane; McClintock & Turf, N. 3812 Division, Spokane. ELEC.: Kehne-Crabtree, E. 3801 Riverside, Spokane; Electric Smith, E. 123 Sprague, Spokane; Spokane Electric, E. 601 Trent, Spokane.

VC 4-14. Previous report 4-2

**▲SQUAD HUTS— Sun Lakes State Park, Wash.**

Six bids received April 9 by State Parks and Recreation Commission, Port Dock Bldg., Olympia, for construction of four 17'x21', concrete block and wood squad huts at Camp Delany Group Camp in Sun Lakes State Park, Grant County. LOW BIDS: Yager Construction Co., 132 A Southeast, Ephrata, $10,731; Max Ford, 112 Warren, Snohomish, $10,786; Davenport & Stolle, 223 J. Northeast, Ephrata, $11,116.

DE 4-14. Previous report 3-28

**●COMMUNITY CENTER— Tacoma, Wash.**
(Estimated cost $8,000)

Description follows for construction of an addition and alterations to South Tacoma Community Center, S. 50th St. and S. Tacoma Way, Tacoma. Bids will be opened 3 p.m., April 21, by Metropolitan Park District, Room 236, County-City Bldg., Tacoma. Plans with Gilbert Wojahn, architect, 220 N. I St., Tacoma. $10 deposit. Certified check, cashier's check or bid bond 5%. Completion time 85 calendar days.

One-story, 10'x43' concrete footings and foundations; frame floors; glued laminated beams; flat roof; wood joists; frame partitions; wood windows; fiberglass insulation in ceiling; incandescent lighting; wood, painted exterior finish; drywall partitions; linoleum floor finish; drywall, acoustical ceilings; wood doors; wood cabinets; steel three compartment sink; range exhaust fan and hood ventilating system.

VK 4-14. Previous report 4-7

**●CLUB HOUSE— Tacoma, Wash.**

Bids will be opened 8 p.m., April 24, by officers of Fircrest Golf Club in the office of the architect, E. L. Mills & Associates, 308 S. Tacoma Ave., Tacoma, for construction of a 14,000 sq. ft., concrete slab-on-grade, split-faced masonry club house on a tract adjacent to the existing building. Plans with architect. $20 deposit. DC 4-11

**●PROFESSIONAL BUILDINGS— Vancouver, Wash.**

Bids will be opened 8 p.m., April 22, by McCoy & Bradbury, architects, 7007 Highway 99, Vancouver, for construction of two unit masonry professional buildings to be connected by a breezeway in McLoughlin Heights, Vancouver. The buildings will be occupied by the architects, two doctors and a pharmacy. Plans with architects.

Planholders: Larry O. Collins, 7017 Highway 99-N, Vancouver; William Anderson, 5900 Buena Vista Drive, Vancouver; George Pifer, Battle Ground; Eric Heikkala, 4512 Kauffman Ave., Vancouver; White Construction Co., 210 E. 18th St., Vancouver; Raley Construction Co., 5709 Evergreen Highway, Vancouver; Clint E. John, 6910 N. Anderson Rd., Vancouver.

Concrete slab floor on gravel fill, except basement in one-quarter of area; unit masonry construction; flat, wood roof; built-up roofing; aluminum exterior doors and sash; fluorescent and some incandescent lighting; reverse cycle system for air conditioning.

WB 4-10

**CEMENT TERMINAL— Vancouver, Wash**
(Estimated cost $1,682,000)

Construction is starting by The Austin Co., Seattle, for the Ideal Cement Co. distributon center on the DuBois Lumber Mill site at the foot of 8th St. on the Columbia River in Vancouver. The company's headquarters are in Denver, Colo., and the Oregon division sales office is in the Lumbermen's Bldg., Portland.

The initial building permit of $1,184,000 covers construction and equipment installation; other work planned includes electrical installations ($184,000), plumbing ($16,000), yardwork, paving and installation of fire mains. The plant will consist of six 129' high and 30' in diameter bulk cement silos; a building for sacking cement; structure straddling railroad spur for loading sacked or bulk cement into railroad cars; two large truck loading platforms underneath the silos for bulk cement.

WB 4-11. Previous report 4-17-58

**●MEDICAL CLINIC— Vancouver, Wash.**

Bids will be opened 4 p.m., April 29, in the office of Weaver & LeLonde, architects, 204 Central Bldg., 12th and Main St., Vancouver, for construction of a medical-dental building at 36th and Main St., for the Dant Investment Corp. No deposit for plans.

The frame building will have brick veneer and rough cedar siding exterior and will house facilities for two doctors and two dentists. It will have partial basement; built-up, graveled roof; aluminum sash; plastered walls and ceilings; some ceilings with acoustical treatment; vinyl tile floor covering; multi-zone electric heating and ventilation unit. An alternate will include an air conditioning cycle and water cooling coil. VP 4-14

**SCHOOL CONSTRUCTION— Vancouver, Wash.**

Bond issue for $2,250,000 and $300,000 special levy will be submitted to voters of Vancouver School District No. 37, Clark County, L. C. Matson, business manager, 2223 Kauffman St., Vancouver, on May 26. The levy will be used to balance the budget. The folllowing construction is included in the bond issue: New junior-senior high school in northwest section, $1,700,000; addition and equipment for Sarah J. Anderson Elementary School, $100,000; Lake Shore Elementary School, $100,000; new grade school in McLoughlin Heights area, $400,000; renovations at other schools, $300,000.

WB 4-15

**EXPOSITION BUILDING (Fairgrounds)— Walla Walla, Wash.**

Bids will be called as soon as an additional $20,000 is contributed, according to Walla Walla County Commissioners, for a new exposition building on the Southeastern Washington Fairgrounds. Present plans call for a 250'x150' building with an inside area without impeding posts of $240'x100'. In addition to the $20,000 to be contributed, the county will use $26,000 obtained in a recent sale of property.

DC 4-9. Previous report 1-6

**AIR TERMINAL BUILDING (Remodeling)— Walla Walla, Wash.**
(Estimated cost $40,000)

Plans are underway by H. Brandt Gessel, architect, 214 E. Birch, Walla Walla, for remodeling the terminal building at Walla Walla City-County Airport.

Preliminary plans call for consolidating United Air Lines and West Coast Airlines ticket offices, relocating restaurant and coffee shop, constructing an addition to pro-

# Bureau of Reclamation Lists 12 Major Projects

## Scheduled for Bid Call Within Next Three Months

Twelve major construction projects will be among bid invitations issued by the Bureau of Reclamation during April, May and June, in the states of Oregon, Washington, Idaho and Montana. Among these will be the outlet works rehabilitation involving installation of new high pressure slide gates, concrete and riprap at the Milk River project in Montana. Besides drains, wasteways, structures, canals, screens, gates and hoists, are power line reconstruction at Roza Dam, the Phoenix Canal diversion dam in Rogue River Basin Project, Ore. and clearing at the Prineville, Ore. reservoir area. For further information, contact L. N. McClellan, chief engineer for the Bureau, at the Denver Federal Center, Denver Colo.

### BID CALLS EXPECTED IN APRIL

**OUTLET WORKS REHABILITATION, Sherburne Lake Dam (4-4)—Milk River Project, Mont.** On Swiftcurrent Creek southwest of Babb, Mont. Rehabilitating the dam outlet works by installing new high pressure slide gates, placing additional concrete in the outlet works intake tower and in wingwalls at downstream portal of the outlet works conduit, and placing riprap at the downstream portal of the outlet works conduit.

Quantities: 4,100 c.y. excavation; 7,250 c.y. embankment; 2,800 c.y. riprap; 7,100 c.y. backfill; 52,000 lb. reinforcing steel and fabric; 660 c.y. concrete; install two 4'x5' pressure gates.

Completion time 400 days.

Bids will be called by chief engineer, Denver, Colo.

**DRAINS, WASTEWAYS, Block 45 (4-8)—Columbia Basin Project, Wash.** Near Othello, Wash. Earthwork and structures for the EL58V wasteways No. 1 and No. 2 and the DE68V2 and DE68V9 drains totaling about 2.3 miles of open drains and about 3,500' of closed drains. Work will also include construction of small outdoor-type pumping plant.

Quantities: 61,500 c.y. excavation for wasteways, open drains; 4,200 c.y. excavation, backfill of drain pipe trenches; 1,700 c.y. structure excavation; 1,300 c.y. backfill about structures; 1,000 c.y. graded gravel filter for pipe drains; 3,000 lb. reinforcing steel; 5,000' of 10", 12", 15", 18" drain pipe, uncemented joints; 600' of 12" corrugated metal pipe; three 4.5 cfs pump units with 6.5 total heads.

Completion time 200 days.

Bids will be called by project manager, Ephrata.

**POWER LINE, Roza Dam (4-24)—Yakima Project, Wash.** Near Yakima, Wash. Reconstructing power line to Roza Dam. Completion time 75 days.

Bids will be called by regional director, Boise, Idaho.

**GATES, HOISTS, Conconully Dam (4-26)—Okanogan Project, Wash.** Fourteen miles northwest of Omak, Wash. Installing two 54" cast iron slide gates and hoists in outlet works. Completion time 180 days.

Bids will be called by regional director, Boise, Idaho.

### BID CALLS EXPECTED IN MAY & JUNE

**DIVERSION DAM (4-33)—Rogue River Basin Project, Ore.** Constructing the Phoenix canal diversion dam, a 150' long concrete structure with uncontrolled crest, earth embankments at each end, a reinforced concrete headworks structure with 12'x10.5' radial gate control, and a reinforced concrete fish screen structure with a 5' diameter by 17' long revolving drum fish screen. Northeast of Talent.

Chief engineer, Denver, Colo. will call for bids.

**STRUCTURES (4-37)—Rogue River Basin Project, Ore.** Constructing nine 33" to 51" precast concrete pipe (pretensioned) siphons totaling about 2,835' long, a reinforced concrete bench flume about 330' long, six concrete checks, and a check and wasteway on the East Lateral near Ashland.

Chief engineer, Denver, Colo., will call for bids.

**CANALS (4-38)—Rogue River Basin Project, Ore.** Constructing about nine miles of 65cfs capacity unlined canal, and about 1.5 miles of 130 cfs capacity unlined canal, and three stream inlet structures. South Fork and Daley Collection canals, east of Medford.

Chief engineer, Denver, Colo. will call for bids.

**DRAINS (4-39)—Columbia Basin Project, Wash.** Earthwork and structures for about 2.3 miles of the DPE40 and DPE40A open ditch drains in Block 19, west of Mesa.

Project manager, Ephrata will call for bids.

**DRAINS, Columbia Basin Project, Wash.** Earthwork and structures for about three miles of the RCD6 and RCD8 open ditch drains in Blocks 42 and 421, southeast of Moses Lake.

Project manager, Ephrata, will call for bids.

**CLEARING (4-41)—Crooked River Project, Ore.** Clearing Prineville reservoir area near Prineville, Ore.

Regional director, Boise, will call for bids.

**ROADWAY (4-42) — Palisades Project, Idaho.** Paving road across Palisades Dam and access road to the powerplant. About 55 miles east of Idaho Falls.

Regional director, Boise, will call for bids.

**SAFETY SCREEN (4-47)—Columbia Basin Project, Wash.** Furnishing and installing safety screens at Long Lake headworks near Stratford and Potholes canal headworks, west of Warden.

Project manager, Ephrata will call for bids.

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vide space for the Federal Aviation Agency, redecorating and expanding the lobby, expanding parking areas.
VC 4-14. Previous report 2-27

**HOUSING— Walla Walla, Wash.**

Purchase of 90 acres in the Country Club Estate tract south of Walla Walla Country Club on Tumarson Road has been announced by L. C. Havstad, contractor, RFD 1, Walla Walla. Havstad plans to develop the area into one to five-acre tracts for residential development. DC 4-11

**★WAREHOUSE, PLANT— Warden, Wash.**
(Estimated cost $80,000)

Award to Gemaco Builders, Inc., E. 3500 Riverside, Spokane, by Associated Seed Growers, Warden, for erection of an all-metal warehouse and seed processing plant at Warden. VC 4-14

**▲SCHOOL ADDITION— Wenatchee, Wash.**

Bids were opened April 13 by Wenatchee School District No. 246, 614 King St., Wenatchee, for construction of an 11,000 sq. ft. education addition to Washington School, Wenatchee. Plans by Newhall, Peach & Fraley, architects, 111 Yakima St., Wenatchee. LOW MIDS — GEN.: Sanford Wright, Box 809, Everett, $105,241; Frank Damson, Box 725, Everett, $105,980; Cusicks, Inc., Box 652, Wenatchee, $109,999. MECH.: Modern Plumbing and Heating, 119 N. Wenatchee Ave., Wenatchee, $25,995; Wells & Wade, 201 S. Wenatchee, Wenatchee, $28,276; Grant County Plumbing and Heating, Box 1567, Moses Lake, $34,637. ELEC.: Maier's Electric, 2008 Hewitt, Everett, $10,765; D. R. Swartz, Moses Lake, $11,156; Northwest Electric, Wenatchee, $11,490.
DM 4-15. Previous report 4-1

**REMODELING— Yakima, Wash.**

Working drawings are underway by Rothe & Rothe, architects, 807 W. Yakima Ave., Yakima, for converting the 5th floor of the Masonic Temple Bldg., N. 4th and E. Yakima Ave., Yakima, from offices into an auditorium. Work includes removing partitions of existing offices, laying new floor, replastering and painting. IG 4-1

**RESIDENCE— Yakima, Wash.**
(Estimated cost $20,000)

Working drawings are underway by Champ Sanford, architect, 602 S. 5th Ave., Yakima, for construction of a residence on Douglas Drive, Yakima, for Mrs. Jake Matter, 504 W. Mead Ave., Yakima. Part brick veneer and part cedar siding exterior walls; plaster, paint finish interior walls; frame floors; asphalt shingle roof; warm air, oil fired heating system. IG 4-1

**BOWLING ALLEY— Yakima, Wash.**

Working drawings will be completed soon by Gouchnour & Marble, architects, Miller Bldg., Yakima, on a concrete block, Butler type building to be built as a continuation of the existing Skookum Lanes Bowling Alley at 2205 Lincoln, Yakima. The addition will house 10 additional lanes. Owner is Picatti Bros., 105 S. 3rd, Yakima. IG 4-1

**★SERVICE STATIONS— Yakima, Wash.**

Award to Stewart-Martens Co., 9414 Sierra Way, Seattle, by Carter Oil Co., Liberty Bldg., Yakima, for construction of four service stations at the following locations in Yakima: 1700 S. 1st St.; 36th Ave., Tieton Drive; 24th Ave. and Nob Hill Blvd.; 18th and Lincoln avenues. Each station will be approximately 46'x28' and will include car washing room, lubrication room, salesroom and two restrooms.
IG 4-11. Previous report 12-1

**FIRE EXIT, STAIRWAY— Yakima, Wash.**
(Estimated cost $10,000)

Working drawings will be completed soon by Champ Sanford, architect, 602 5th Ave., Yakima, on a concrete and masonry addition to house a fire exit and stairway at First Presbyterian Church at 9 S. 8th Ave., Yakima. IG 4-

**HIGH SCHOOL ADDITION— Yakima County, Wash.**
(Estimated cost $105,000)

Plans by Cowan & Paddock, architects, Larson Bldg., Yakima, have been sent to State Board of Education for final approval on construction of a one-story, 8,400 sq. ft. addition to West Valley high school, for West Valley School District No. 208. Structural engineer: Worthington & Skilling, Lloyd Bldg., Seattle. Mechanical and electrical engineer: Bouillon, Griffith & Christofferson, 1411 4th Ave. Bldg., Seattle.
IG 4-14. Previous report 3-1

**RESIDENCE (Amburg)— Yakima, Wash.**
(Estimated cost $19,000)

Construction underway by Bruce Kline, 1121 S. 44th Ave., Yakima, for a residence at 819 S. 85th Ave., Yakima, for Ned Van Amburg, 1014 S. 34th Ave., Yakima. Sheetrock lath and plaster interior walls; plaster ceilings; some mahogany woodwork; frame floors; asbestor shingle roofing; warm forced air, oil fired heating system. IG 4-1

**OFFICE REMODELING— Yakima, Wash.**

Working drawings are underway by Thomas F. Hargis, Jr., and Clark Goldsworthy, associate, architects, Miller Bldg., Yakima, for remodeling the Binyon Optical Office at 14 S. and 2nd St., Yakima. Work will include new ceramic tile face, rearranging partitions and new floor coverings. IG 4-

**RESIDENCE— Yakima, Wash.**
(Estimated cost $19,000)

Construction to start immediately for Tilman G. Nelson, owner, 4809 Sunset Drive

Yakima, for a residence at 4909 Douglas Drive, Yakima. Brick exterior walls, cedar siding; asbestos shake roof; rock lath and plaster interior walls; hardwood floors; electric heating system. IG 4-15

**POSTOFICE— Zillah, Wash.**

A site on Toppenish Street in Zillah has been selected for the new postoffice. Bids will be called soon for construction of the building on a construction-lease basis. DC 4-4

## IDAHO

**●AIR CONDITIONING— Boise, Idaho**

Invitation for installation of air conditioning and other improvements in the U.S. Post Office and Courthouse, Bannock and 8th streets, Boise (Proj. No. SEA-1250), has been cancelled by General Services Administration, 909 1st Ave., Seattle. Bid opening date was March 25.
VK 4-10. Previous report 3-17

**BOWLING CENTER— Boise, Idaho**
(Estimated cost $425,000)

Construction of a 20-lane bowling center on Cole Road north of U.S. Highway 30, Boise, is being planned by the Boise Bowling Center, Emerson Maxson, operator, Boise. The building will be sound-proofed and will have refrigerated air conditioning. VC 4-15

**■GYMNASIUM— Culdesac, Idaho**

Planholders announced for construction of a 12,800 sq. ft. gymnasium at Culdesac. Bids will be opened 4 p.m., P.S.T., April 23, by Culdesac Joint Independent School District No. 342. Plans with Walker, McGough & Trogden, W. 1023 Riverside Ave., Spokane. $25 deposit. Bid bond 5%. Structural engineer: L. C. Campbell, Realty Bldg., Spokane. Mechanical engineer: James S. Latenser, Hutton Bldg., Spokane.

Planholders—GEN.: Commercial Builders, Box 14, Moscow, Idaho; Federal Construction, E. 3400 Sprague, Spokane, Wash.; Hollibaugh Construction Co., Greer, Idaho; Hansen & Parr, W. 315 Boone, Spokane; Hazen & Clark, W. 108 Boone, Spokane; Johnson-Busboom & Rauh, N. 601 Cedar, Spokane; Gus Larkin, 1119 8th St., Lewiston, Idaho; Ted Pope, Rt. 1, Box 4, Clarkston; Purvis Construction Co., E. 5019 Sprague, Spokane; Rudd Construction Co., Realty Bldg., Spokane, Wash.; William F. Spilker & Sons, W. 1029 Bridge, Spokane, Wash. MECH.: Chapman Electric, Cottonwood, Idaho; Lewiston Plumbing, Heating & Sheet Metal, 0208 5th, Lewiston, Idaho; Miller Brothers Plumbing & Heating, 1116 17th St., Lewiston, Idaho; H. D. Powell, 612 S. Main, Moscow, Idaho; Stoddard Electric, Orofino, Idaho; C. M. Wilderman, 520 S. Main, Moscow, Idaho. ELEC.: Del's Electric, Culdesac, Idaho; Spence Electric, 306 S. Washington, Moscow, Idaho; Stoddard Electric, Orofino, Idaho; Stout Electric, 848 Main, Lewiston, Idaho; C. M. Wilderman, 520 S. Main, Moscow, Idaho.
VK 4-14 Previous report 3-31

**▲FAIRGROUND BUILDING— Idaho Falls, Idaho**

Two bids received April 7 by Bonneville County Commissioners, Courthouse, Idaho Falls, for construction of an auctioneer's stand, sales ring and seating at the county fairgrounds. Plans by Norman J. Hamill & Associates, architects, Earl Bldg., Idaho Falls. BIDS: Arrington Construction Co., Inc., West Side, Idaho Falls, $12,724; Johnson Brothers Planing Mill, 211 Cliff St., Idaho Falls, $13,600.
VK 4-14. Previous report 3-18

**★SCHOOL ADDITION (Millwork)— Lapwai, Idaho**

Award to Valley Sash Co., 2924 N & S Highway, Lewiston, by School District No. 341, Nez Perce County, Lapwai, for millwork at Lapwai High School. General contractor is Johnson-Busboom-Rauh, N. 601 Cedar, Spokane. VK 4-11. Previous report 1-20

**★JUNIOR HIGH SCHOOL (Millwork)— Lewiston, Idaho**

Award to Valley Sash Co., 2924 N & S Highway, Lewiston, by Lewiston School District, 9th Ave. and 11th St., Lewiston, for millwork at Orchards Junior High School, 12th and Burrell, Lewiston. General contractor is Kenaston & Huntley, Box 245, Lewiston. VK 4-11. Previous report 1-8

**GRANGE HALL— Lewiston, Idaho**

A proposal for construction of a new grange hall on property across from the present Lewiston Valley Grange Hall, between 8th and 9th streets on Linden Ave., is under consideration by grange members. A member of the building committee is A. L. Jump, 238 Thain Road, Lewiston. DC 4-15

**★SCHOOL (Millwork)— Moscow, Idaho**

Award to Valley Sash Co., 2924 N & S Highway, Lewiston, by Moscow School District No. 281, 205 N. Monroe, Moscow, for millwork at junior high school on D St. in Northwest Moscow, now under construction. General contractor: Commercial Builders, 301 College, Moscow, $352,966.
VK 4-11. Previous report 8-15

**●FRATERNITY HOUSE— Moscow, Idaho**
(Estimated cost $150,000)

Bids will be opened April 30 by Sigma Chi fraternity, 620 Idaho St., Moscow, for construction of a 60-man capacity, three-level, house at Nez Perce Drive in Moscow. MH 4-11

**▲HOSPITAL (University)— Moscow, Idaho**

Bids received April 9 by University of Idaho business manager, Moscow, for construction of a 35-bed addition to the University Student Hospital, are being studied by board of regents. Awards will be announced later. LOW BIDS—GEN: Commercial Builders, Inc., Box 14, Moscow, $161,220; Dunham Bros., Box 42, Moscow, $166,555; H. Halvorson, Inc., Box 6, Yardley, Wash., $171,623. MECH.: H. D. Powell, 612 S. Main, Moscow, $61,819; C. M. Wilderman, 520 S. Main, Moscow, $62,250; James Smyth Plumbing and Heating, N. 216 Division, Spokane, Wash., $85,226. ELEC.: Spence Electric, 306 S. Washington, Moscow, $18,738; Kehne-Crabtree Electric Co., Inc., Spokane, $21,032; Electric Smith, Inc., Spokane, $22,133. Architect: Wayland & Cline, 624 Idaho Bldg., Boise.
DC 4-15. Previous report 3-31

**SHOP, ADMINISTRATION BUILDING— Mountain Home AFB, Idaho**

Bids will be called soon for opening in mid-May by Corps of Engineers, Bldg. 602, City County Airport, Walla Walla, Wash., for removal of existing buildings, construction of auto maintenance shop, auto maintenance administration buildings and related facilities at Mountain Home Air Force Base, Elmore County, Idaho; ENG-45-164-59-37. Plans with Walla Walla office. Bid bond 20%. Completion time 450 calendar days.

1—Remove six existing frame buildings, 2—construct one 22,000 sq. ft. reinforced concrete and block masonry building, 3—construct one 2,250 sq. ft. reinforced concrete and block masonry building, 4—site development, including grading, paving, removal of existing foundations, 5—construct exterior water, sewer, storm drainage, electrical and high-temperature water service to new building. DM 4-14

**STORE— Pocatello, Idaho**

Construction has started by Mitchell Construction Co., 2600 S. 5th, Pocatello, on a 16,000 sq. ft. Okay Food Center on Feggerson St. north of Oak. DC 4-14

**★SCHOOL ADDITION (High School)— Rigby, Idaho**

Award to Goodwin Builders, 1005 Ada Ave., Idaho Falls, $39,960, by Jefferson School District 25-A, Courthouse, Rigby, for construction of a cinderblock, brick veneer, three-classroom addition to West Jefferson High School in Rigby.
VK 4-14. Previous report 1-30

**BOWLING ALLEY— Sandpoint, Idaho**
(Estimated cost $130,000)

Construction has started by Sandpoint Bowling Lanes, Inc., on a 12-lane bowling alley at 4th and Oak streets, Sandpoint. The building alone, a 75'x150' pumice block structure with precast roof, will cost $60,000. DC 4-14

## MONTANA

**★HEATING SYSTEM— Belfry, Mont.**

Award to Henry Albert, 24 Broadwater Ave., Billings, $12,932, by Belfry School District No. 34, Belfry, for additions and alterations to the Belfry public school heating system. Plans by R. L. Prussing, engineer, 1004 Division, Billings.
VK 4-15. Previous report 3-26

**■CHURCH (Methodist)— Billings, Mont.**

Planholders announced for construction of a one-story, 3,500 sq. ft., addition to the church. Bids will be received until April 22 by Grace Methodist Church, 1935 Ave. B, Billings. Plans with Drake & Gustafson, architects, 935 Grand Ave., Billings. $25 deposit. Separate bids on general construction, including plumbing, electrical and heating.

Planholders—General: Slovarp Brothers, 9005 Lake Elmo Road, Billings; Boespflug Construction Co., 502 N. 25th St., Billings; Clark Construction Co., 931 Princeton Ave., Billings; Wells Brothers Construction Co., 704 Dunham Ave., Billings; Hardy Construction Co., 420 N. 25th St., Billings; Pogue Construction Co., 117 S. Billings Blvd., Billings; Pete Dahl, 535 Grand Ave., Billings. Electrical: Yellowstone Electric, 520 N. 32nd St., Billings; Dahlstrom Electric, 125 Grand Ave., Billings; Reddi Electric, 1045½ Central Ave., Billings; Sterling Electric, 1231 Central Ave., Billings; Empire Electric, 2412 4th Ave. N., Billings. Heating: Empire Heating & Cooling Co., NP Industrial Site, Billings; Ryniker Steel Products Co., NP Industrial Site, Billings; Dusapin, Inc., 635 Central Ave., Billings.
EE 4-15. Previous report 4-8

**●ROOF REPAIRS— Billings, Mont.**

Bids will be opened 5 p.m., April 28, by City Council, City Hall, Billings, for repairing roofs of city hall and street and sanitation department garages. Specifications with building inspector, City Hall, Billings. EE 4-15

**●COMPOSITE BUILDING— Glasgow AFB, Mont.**

Bids will be opened 2:30 p.m., P.S.T., April 28, by Corps of Engineers, Bldg. 602, City County Airport, Walla Walla, Wash., for construction of composite buildings at Glasgow Air Force Base, Mont.; ENG-45-164-59-36. Completion time April, 1960.

Project involves 1—Construction of 54,000 sq. ft. industrial building, 22,500 sq. ft. operation building, 73,500 sq. ft. warehouse, all to have concrete slab-on-grade, concrete block, steel frame, steel roof deck, HTW heating system, some air conditioning, 2—appurtenant earthwork, asphalt paving of roads and parking areas, sidewalks and sewer, water and electrical utilities.
DM 4-10. Previous report 3-24

**ELEMENTARY SCHOOLS— Great Falls, Mont.**

A bond election in the amount of $3,307,500 was defeated by voters for construction of five elementary schools at Great Falls, for Cascade County School District No. 1, Great Falls. EE 4-11. Previous report 3-6

**●ARMY BUILDING— Great Falls, Mont.**
(Estimated cost $25,000 to $100,000)

Bids will be opened 2 p.m., P.S.T., April 28, by 13th Naval District, Bldg. 250, U.S. Naval Station, Seattle, Wash., for constructing one-story, 54'x47' addition to U.S. Marine Corps Training Center at Great Falls, Mont.; Spec. No. 18442/59. Plans with Seattle office.

Concrete floor slab; reinforced concrete walls; plaster finish; ceramic and asphalt tile floor finish; metal windows; gypsum wallboard; steel joist. DM 4-11

**● SCHOOL— Helena, Mont.**

Bids will be opened May 6 by School District No. 1, Administration Bldg., 7 Allen St., Helena, for construction of an elementary school on Chouteau and Knight streets, Helena. Plans by Sigvald L. Berg, architect, 711 Monroe St., Helena. $50 deposit.

T-shape; 229'x65'; one-story front portion, two-stories rear portion; 24 classrooms, library, home economics room, manual train rooms, facility rooms, offices, multipurpose room; concrete foundation; concrete slab floors on open web steel joists; glued laminated beams; flat roof; insulation in roof; exposed brick partitions, some drywall, some lath and plaster; plastered ceilings; metal stairways; terrazzo window sills, sash and frame windows; incandescent lighting; brick exterior finish; brick exposed corridor and partitions; ceramic tile, vinyl tile on concrete for floor finish; acoustical plaster ceilings; wood with steel frame interior doors; wood cabinets; one folding door; sprinkling system; blackboards; ventilating system; gas-fired unit ventilators heating system.

LS 4-10. Previous report 12-10

**SHOPS— Malmstrom AFB, Mont.**

Bids will be called soon for opening in mid-May by Corps of Engineers, 1519 S. Alaskan Way, Seattle, Wash., for construction of ground powered equipment maintenance shop (Proj. 218-712) at Malmstrom Air Force Base, Mont.; ENG-45-108-59-79. Plans with Seattle office. Bid bond 20%. Completion time 210 calendar days.

Construction concrete block T-shaped shop about 90'x44' with two 13'x25' wings; grade, pave with asphaltic concrete about 550 sq. yd.; install 85' of 1½" water lines, 180' sanitary sewer, a steam distribution system and exterior electrical service.

DM 4-15

**GYMNASIUM— Miles City, Mont.**
(Estimated cost $200,000)

Plans will be completed soon by Loners, Stroebe & Johnson, architects, 201 N. 24th St., Billings, for a gymnasium for Sacred Heart high school, 1515 Leighton Blvd., Miles City. Building will be one-story, with masonry exterior walls, steel joist roof, steel arches with wood joist in gym section; building will contain gym and auxiliary rooms (locker rooms, showers, toilets).

EE 4-15

**ELEMENTARY SCHOOLS— Missoula, Mont.**

A bond issue in the amount of $1,750,000 was approved by voters on construction of a 16-room school on Russell St., a 12-room school north of the present Lincoln school, an 8-room school near the present Franklin school, a 4-room addition to Lowell school and remodeling of Central school, for Missoula County First Class School District No. 1, 215 S. 6th W., Missoula.

LS 4-11. Previous report 1-22

**▲RESIDENCES, UTILITIES (Ranger Station)— Missoula, Mont.**

Bids were opened by U. S. Forest Service, Federal Bldg., Missoula, for constructing four ranger stations in Montana; Bid No. 5039-59. LOW BIDS: John E. Stevens, 5057 Lake Elmo Drive, Billings, $24,324 (Items A & B); J. G. Prokesh, 110½ Longmont, Boise, Idaho, $59,590 (Items D, E, F, G); John E. Stevens, $61,472 (Items H & I). Proposal opening was April 9.

DM 4-15. Previous report 3-18

**● POST OFFICE— St. Ignatius, Mont.**

Bids will be received through May 9, by U.S. Post Office Department, Dixon J. Garner, Regional Real Estate Officer, Box 1454, Spokane, for construction of an 1,857 sq. ft. post office for lease to the department on Lots 11 and 12, Block 14, original townsite. Information with above officer.

An assignable land option, priced at $3,000, is held on the 100'x150' lot. The facility will include 1,857 sq. ft. interior space; 4,115 sq. ft. driveway, parking and maneuvering space; 8,250 sq. ft. gravelled patron parking; 160 sq. ft. platform space.

WB 4-11

**ELEMENTARY SCHOOL— Pryor, Mont.**

Bids are expected to be called in May by Big Horn County School District No. 2, Pryor, for construction of a new elementary school, including four classrooms, health room, multipurpose room, offices, kitchen and toilets. Plans have been completed by Drake & Gustafson, architects, Empire Bldg., Billings, and are waiting federal approval.

EE 4-15. Previous report 10-30

## ALASKA

**HOTEL— Anchorage, Alaska**
(Estimated cost $2,500,000)

Working drawings are nearly completed by Durham, Anderson & Freed, architects, 1100 Denny Way, Seattle, for a 14-story, 140'x69' (lower floor), hotel on 3rd Ave. between E and F streets in Anchorage. Contract has been negotiated with J. B. Warrack & Co., general contractor, 400 2nd W., Seattle, by Western Hotels, Inc., owners, Olympic Hotel, Seattle. Plans call for construction of a building between the Anchorage and Westward hotels; all structures to be joined. The first unit will have 200 rooms, with 600 rooms planned for the complete project.

Structure to be steel framing; concrete; some curtain walls; plaster; hot-water heating; incandescent lighting; vinyl tile, carpeting, mosaic tile.

AM 4-15. Previous report 11-4

**▲RADAR TRANSMITTER BUILDINGS— Clear, Alaska**

Bids received April 10 by Corps of Engineers, Alaskan District, 1519 S. Alaskan Way, Seattle, for construction of radar transmitter buildings Nos. 101 and 102, with utilities at Clear, Alaska; ENG-95-507-59-50.

LOW BIDS: Baker & Ford, Box 626, Bellingham, $5,036,174; Reed & Martin, Inc., 653 10th, Fairbanks, $6,189,614; Patti-MacDonald Construction Co., and Morrison-Knudsen Co., Inc., 603 Hoge Bldg., Seattle, $6,224,726. Nine bids received. Government estimate $7,646,608.

AM 4-11. Previous report 4-7

**● BUILDING PAINTING— Elmendorf AFB, Alaska**

Bids will be opened 2 p.m., A.S.T., April 30, by Corps of Engineers, Box 7002, Anchorage, for repainting approximately 19,000 sq. yd. of the interior of three BOQs at Murphy's Corner, Elmendorf Air Force Base; ENG-95-507-59-67. Plans with Anchorage office. Bid bond 20%. Completion time 35 days.

Cleaning, preparing surfacings for painting; one coat of latex base paint on majority of surfaces.

DM 4-11

**● AVIATION FACILITIES (Buildings, Utilities, Taxiway)— Fort Richardson, Alaska**

Bids will be opened 2 p.m., A.S.T., May 6, by Corps of Engineers, Box 7002, Anchorage, for excavation, classified fill and backfill, building construction, shop additions to hangar, removal of existing buildings, outside utilities, taxiway construction, seeding. Plans with Anchorage office. Bid bond 20%. Completion time October 30, 1959.

DM 4-15

**● BUILDING ADDITIONS (5th St. High School)— Juneau, Alaska**

Bids will be opened 10 a.m., P.S.T., May 20, by Alaska Public Work, Box 1181, Juneau, for construction of additions and alterations to the 5th St. High School, Juneau; Proj. Aaa. 50-A-238, Unit 3. Specs with Juneau office. $25 deposit. Certified check or bid bond 5%.

RM 4-11

**▲REMODEL BUILDING— Kotzebue, Alaska**

Only bid received March 9, that of Chris Berg, Inc., 2730 Westlake N., Seattle, $28,282, was rejected by U.S. Army Alaska Communication System, 550 Federal Office Bldg., Seattle, for remodeling Bldg. No. 4, Alaska Communication System, Kotzebue, Alaska; Inv. No. 45-041-59-10.

VK 4-10. Previous report 3-10

**■ ARMORY— Nome, Alaska**

Planholders announced for construction of a 14,500 sq. ft., 130'x91', one-story plus partial second floor, no basement, National Guard building in Nome, Alaska, for the Alaskan National Guard. Bids will be opened 10 a.m., P.S.T., April 22, by Alaska Highway and Public Works Dept., Box 1361, Juneau. Plans with above Juneau office. No deposit. Bid guarantee 5%. Architect is Olsen & Sands, 109 W. 3rd, Juneau; structural engineer is Stevenson & Rubens, Olympic National Bldg., Seattle, Wash.; mechanical engineer, J. Donald Kroeker & Associates, 4504 S.W. Corbett Ave., Portland, Ore.; electrical engineer, Grant, Kelley & Associates, 1008 S.W. 6th, Portland.

Planholders: Patti-MacDonald Construction Co., Box 7-1634, Anchorage; Ramstad Construction Co., Box 1454, East 1st Ave. and Juneau St., Anchorage; Fairbanks Builders, Inc., 1446 Turner St., Fairbanks; Burgess Construction Co., Box 1410, Fairbanks; Nelse Mortensen & Company, Inc., 1021 Westlake Ave. N., Seattle, Wash.; B-E-C-K Constructors, 3647 Stone Way, Seattle; Chandler Plumbing & Heating, Inc., Box 534, Fairbanks; Bethlehem Pacific Coast Steel Co., Attn. Fabricated Steel Sales, Box 3827, Seattle; Mechanical Contractors, Box 1143, Tacoma; Inlet Mechanical, Inc., Box 3095, Anchorage; City Electric of Anchorage, Inc., 2915 13th Ave. S.W., Seattle; Marion Butler Co., 5435 N. Lagoon Ave., Swan Island, Portland, Ore.

Urban Plumbing & Heating Co., 2904 S.W. 1st Ave., Portland, Ore.; William D. Burk, Loussac Bldg., room 11, Box 1618, Anchorage; Coast Sash and Door Company, 1902 East F St., Tacoma, Wash.; Elmer Moody Woodwork Co., 3635 16th W., Seattle; American Service, Box 905, Anchorage; Alta Construction Co., Box 1541, Anchorage; Hoffer Glass Co., 1620 S. Cushman, Box 1993, Fairbanks; Sam Bergesen, 6380 111th S.W., Tacoma; C & R Builders, 1619 8th Ave. N., Seattle; Loyer and Sons, Builders, Star Route, Palmer; Ghemm Co. General Contractors, Box 787, Fairbanks; Leonard Shaunce Plumbing and Heating, Box 632, Fairbanks; Industrial & Commercial, 1412 4th Ave., Fairbanks; Pacific Construction, Box 1051, Fairbanks; Coastal Electric, Box 1071, Petersburg; Chisum Langlais, 716 Orca St., Anchorage.

JU 4-11. Previous report 3-31

**■ ARMORY— Nome, Alaska**

Planholders announced for construction of a 14,500 sq. ft., 130'x91', one-story, plus partial second floor, no basement, building in Nome, for Alaskan National Guard. Bids will be opened 10 a.m., P.S.T., April 22, by Alaska Highway and Public Works Dept., Box 1361, Juneau. Plans with above Juneau office. Bid guarantee 5%. Architect is Olson & Sands, 109 W. 3rd, Juneau; structural engineer is Stevenson & Rubens, Olympic National Bldg., Seattle, Wash.; mechanical engineer, J. Donald Kroeker & Associates, 4504 S.W. Corbett Ave., Portland, Ore.; electrical engineer, Grant, Kelley & Associates, 1008 S.W. 6th, Portland.

Planholders—General: Nelse Mortensen, 1021 Westlake, Seattle; Beck Construction Co., 3647 Stone Way, Seattle; Ramstad Construction Co., Box 1454, Anchorage; Fairbanks Builders, 1446 Turner, Fairbanks; Burgess Construction Co., Box 1410, Fairbanks; Patti-MacDonald Construction Co., 1100 5th Ave., Seattle. Mechanical: Inlet Plumbing & Heating, Box 3095, Anchorage; Urban Plumbing & Heating, 2904 S.W. 1st, Portland, Ore.; Chandler Plumbing & Heating, Box 534, Fairbanks. Electrical: City Electric of Anchorage, 2915 13th S.W., Seattle.

VC 4-14. Previous report 3-31

**★AIR FORCE BUILDINGS (Quarters, Operations)— Northeast Cape, Alaska**

Award to American Service, Inc., Box 915, Anchorage, $198,000, by Corps of Engineers, Alaska District, Anchorage, for construction of quarters building with outside utilities and addition to operations building at Northeast Cape Air Force Station, located on St. Lawrence Island in the Bering Sea, 625 mi. northwest of Anchorage; ENG-95-507-59-12.

VC 4-14. Previous report 4-7

**■ SCHOOL— Sterling, Alaska**

Planholders announced for construction of a one-classroom school building with storage room, toilets and appurtenant facilities at Sterling. Bids will be opened 10 a.m.

P.S.T., April 30, by Alaska Highway and Public Works Dept., Box 1361, Juneau. Plans with above Juneau office and with field office at 1228 E. 7th Ave., Anchorage. No charge. Bid guarantee 10%. Main contract includes site improvements. An alternate bid will be taken for one additional classroom.

Planholders: Roark Construction, Box 869, Palmer; City Electric of Anchorage, 2915 13th Ave. S.W., Seattle, Wash.; C & R Builders, 1619 Eight Ave. N., Seattle; Ben E. Hudgins Electric Construction, Box 704, Palmer; Smith and Little Enterprises, Box 268, Kenai; Locher Construction, 131 5th Ave., Anchorage; Patti-McDonald Construction, 1st and Karluk, Anchorage; Bachner Company, 1603 Bannister Rd., Anchorage; McComas Construction, 2311 29th Ave., Spenard; Alta Construction, Box 1541, Anchorage; Inlet Mechanical, Box 3095, Anchorage.

JU 4-11. Previous report 3-31

# ENGINEERING NEWS

## Oregon, Washington, Idaho, Montana, Northern California, Alaska

- ● Bids Called
- ★ Contract Awards
- ▲ Low Bids—Bids Received
- ■ Planholders—Prospective Bidders

## OREGON

**●SEWAGE DISPOSAL PLANT— Beaverton, Ore.**

Bids will be opened 10:30 a.m., May 12, by Multnomah County Commissioners, John W. West, purchasing agent, Room 304, County Court House, Portland, for the construction of Fanno Creek Sewage Disposal Plant on Denny Road, about 1 mi. southeast of Beaverton, in Washington County; Proj. SF-6. Plans by Stevens & Thompson, consulting engineers, 2234 S.W. 5th Ave., Portland (Box 508). Specifications with Roadmaster's Office, 2115 S.E. Morrison St., Portland. $50 deposit. Certified check or bid bond 10%.

The plant will be the first phase of the recently authorized Tri-County Sewage System. The project will include construction of a concrete pumping station, 21' in diameter, 38' deep, with capacity of 5,100 gallons per min. The treatment plant is designed for a population of 15,000; alternates will permit omission of some units. It will be an activated sludge type plant, accommodating a flow of 2½ million gals. per day. All major tanks will be of steel construction; primary clarifiers, 45' in diameter, with side water depth of 8'; three aeration tanks, 20'x120', with 14' side water depth; two final clarifiers, 50' in diameter, with 8' side water depth; two steel digesters, 35' in diameter and 23' deep, insulated with mineral wool and asbestos board; sludge thickener. Alternates permit omission of 1 primary clarifier, 1 aeration tank and 1 final clarifier.

County will issue bid call about July 1 for construction of an interceptor system to terminate at the new disposal plant.

VP 4-14. Previous report 10-2

(Sewage Disposal System—Portland, Ore.)

**●POWER PLANT— Burns AFS, Ore.**

Bids will be opened 2 p.m., P.S.T., May 5 by Corps of Engineers, 1519 S. Alaskan Way, Seattle, Wash., for construction of power plant at Burns Air Force Station, Ore.; ENG-45-108-59-74. Plans with Seattle office. Completion time 180 calendar days.

Planholders: Jack Fast, 22 Etruria St., Seattle; Lindbrook Construction Co., 11738-35th N.E., Seattle; Bickford Construction Co., 823 S.E. 28th Ave., Portland, Ore.; Kenneth L. Clark, Route 2, Box 317, Hermiston, Ore.; De Gree Construction Co., 1828 Aubrey, Bend, Ore.; Federal Construction Co., E. 3420 Sprague Ave., Spokane; Funston Construction Co., 3726 S.E. Hawthorne, Portland, Ore., W. R. Grasle Co., 437 N.W. 16th Ave., Portland, Ore.; John Kovtynovich, 395 Skyline Loop, Eugene, Ore.; Lord-Carroll, 4507 S.E. Milwaukie Ave., Portland, Ore.; Mann Construction Co., North City Limits, Redmond, Ore.; Ray L. Martin & Son, Box 486, Portland, Ore.; McCormack Construction Co., S.E. 3rd and Goodwin streets, Pendleton, Ore.; Frank C. Ralph & Son, 2204 N.E. Alberta St., Portland, Ore.; Refer Construction Co., Box 449, Miles City, Mont.; W. L. Reid Co., Box 20, West Slope, Portland, Ore.; Teller Construction Co., Box 7805, Portland, Ore.; The Timber Co., 2150 N. 1st, Hermiston, Ore.; Western-Knapp Engineering Co., 650 5th St., San Francisco, Calif.; Nelson Brothers Construction Co., Bend, Ore.

Construct power building, 1,945 sq. ft. with concrete foundation and floor slab, concrete block walls, steel frame roof, insulated built-up roof; install Government furnished diesel generators; construct sewer line, connections to existing water service, electrical transformer substations, under ground electrical duct work, asphaltic concrete paving and concrete walks. DM 4-11. Previous report 3-28

**★PUMP, ELECTRICAL EQUIPMENT— Government Camp, Ore.**

Award to R. M. Wade & Co., 1919 N.W. Thurman St., Portland, $8,916, by U.S. Forest Service, G. L. Mercer, purchasing agent, 729 N.E. Oregon St., room 201, Portland, for furnishing and installing a complete horizontal high pressure multi-stage centrifugal pump and electrical equipment in pumphouse located about four mi. north of Government Camp, for the Timberline Lodge water system; Inv. No. R6-59-219. Seven bids received April 9. OTHER LOW BIDS: Riverside Construction Co., 2433 N.W. Lovejoy St., Portland, $9,142; Sunset Valley Plumbing & Heating Co., 13370 N.W. Cornell Rd., Portland, $9,472.

WB 4-11. Previous report 4-8

**■GRADING, SURFACING— Grant County, Ore.**

Planholders announced for grading and surfacing 4.480 mi. on John Day-Burns Highway, Malheur National Forest, Grant County, Ore., FHP 35-E3. Bids will be opened 2 p.m., April 21, by Bureau of Public Roads, 824 Morgan Bldg., Portland. Plans with Portland office.

Planholders: Commercial Iron Works, Inc., 2021 S.E. Grand Ave., Portland; Natt McDougall Co., 824 Pittock Block, Portland; Q. L. Rufener, 4729 S.E. Ash St., Portland; J. Bacaloff Co., 6009 N.E. 60th Ave., Portland; Charles T. Parker Construction Co., Box 7588, Portland; C. R. O'Neil, Route 2, Box 95, Creswell; Vernie Jarl, Box 507, Gresham; Peter Kiewit Sons' Co., Box 1777, Vancouver, Wash.; Rex C. Ayers Construction Co., 7305 N.E. 29th Ave., Portland; McNutt & Sons, Inc., 827 N. Mill St., Springfield; Russell Olson Construction Co., Box 272, Pendleton; K. C. Dack Construction Co., Box 642, Pendleton; E. A. Kruse, Box 396, Yoncalla; L. S. Matusek, 3760 S.W. Jerald Court, Portland; Fred H. Slate Co. Oregon Ltd., 7805 S.W. 40th Ave., Portland; Newport Construction Co., 7031 N.E. Halsey St., Portland; Durbin Bros. Construction Co., Route 5, Box 490, Eugene, and Box 24, La Grande; Murphy Bros., Box 2193, Spokane; C. E. Leseberg, 201 Reece Ave., Nyssa; Steelman-Duff, Inc., 7525 N.E. 6th Ave., Portland; Miller & Hutchings, Contractors, 100 Grant Smith Rd., Roseburg; Norquist Bros., 1327 "L" St., Sweet Home; F. L. Somers, Box 668, Medford; MacGregor Triangle Co., Box 4128, Boise, Idaho; A. L. Harding, Inc., Box 708, Stayton; Hamer Corp., Box 428, Roseburg; J. C. Compton, Box 86, McMinnville; Loyd E. Pickett and Arthur D. Farber, Box 147, Sweet Home; S. W. Groesbeck, Box 646, Eugene; Buchanan Excavating Co., 445 W. 6th, Junction City; Earl L. McNutt Co., 351½ E. Broadway, Eugene; C. H. Strong, Box 366, Eugene; John M. Keltch, Box 504, Pasco, Wash.

WB 4-15. Previous report 4-7

**▲PUMP HOUSE— Kingsley Field, Ore.**

Four bids ranging from a low of $11,435 to a high of $12,872 were opened April 8 by base procurement officer, Kingsley Field, Klamath Falls, for construction of a pumphouse and fencing; installation of Government-furnished pump and chlorinator at the base; Inv. No. 59-29. LOW BIDS: Eldon Alt, Rt. 3, Box 64, Klamath Falls, $11,435; A. E. Fitzgerald Construction Co., 329 Rogers St., $11,830; A. H. Patterson Construction Co., 2074 Earle St., Klamath Falls, $12,304. ZZ 4-10. Previous report 3-25

**▲SEALING APRONS—Kingsley Field, Ore.**

Four bids ranging from a low of $8,940 to a high of $32,222 were opened April 8 by base procurement officer, Kingsley Field, Klamath Falls, for sealing approximately 30,000 ft. of cracks in tar-rubber aprons covering 72,000 sq. yd. on operational aprons at the base; Inv. No. 59-31. LOW BIDS: Federal Joint Sealing Co., E. 3420 Sprague Ave., Spokane, $8,940; Charles R. Watts Co., 4121 6th Ave., Seattle, $12,606; A. H. Patterson Construction Co., 2074 Earle St., Klamath Falls, $13,385. ZZ 4-10. Previous report 4-1

**★GRADING— Lakeview, Ore.**

Award to Roy Norquist, 1327 L St., Sweet home, Ore., $29,900, by Lake County Commissioners, Courthouse, Lakeview, for construction of a roadbed approximately eight mi. in length on Plush Road located in Townships 36 S. and 37 S., Range 23, east of the Willamette Meridian, Lake County.

VK 4-15. Previous report 3-18

**●BRIDGE— Lane County, Ore.**

Bids will be opened 2 p.m., April 28, by Bureau of Public Roads, 720 S.W. Washington, Portland, for constructing a 160' reinforced concrete bridge on Mill Creek Road, over Siuslaw River, Lane County, Bureau of Land Management-Eugene District, Ore.; TARP BLM 19-8-13A. Plans with Portland office.

Quantities: 240 c.y. structure excavation; 261 c.y. concrete; 48,500 lb. reinforcement steel. DM 4-15

**●TRANSFORMER BANK— McMinnville, Ore.**

Bids will be opened 3 p.m., April 27, by Bonneville Administration, 1001 N.E. Lloyd Blvd., Portland, for construction of transformer bank k4 addition at substation on 5th St. east of city limits of McMinnville, Yamhill County; Inv. No. 8956. Plans with Portland office. Bid guarantee 25%. Completion time 60 calendar days. DM 4-11

**DOCK FACILITIES— McNary, Ore.**

(Estimated cost $256,000)

Bids may be called soon by The Port of Umatilla Commission, Umatilla, for construction of dock facilities in the vicinity of McNary townsite on the Columbia River. Plans by Cornell, Howland, Hayes & Merryfield, engineers, 1600 Western Ave., Corvallis, include a 250' long dock with 900' of moorage, a 600' two-lane road, a railroad spur, a 100'x200' warehouse, utilities. VC 4-11

**★PAVING, CURBS, GUTTERS— Ontario, Ore.**

Award to Central Paving Co., Ft. C, Independence, $121,166, by City Council, City Hall, Ontario, for 1—concrete paving on a leveling and binder course, 2—concrete combination curbs and gutters, concrete gutters and plain concrete curbs. Plans by city engineer, City Hall.

PAVING—2nd Low: J. C. Compton, Box 86, McMinnville, $127,129. 3rd Low: Babler Brothers, Inc., 4617 S.E. Milwaukie Ave., Portland, $129,205. CURBS AND GUTTERS—Only Bid: Johnson Construction Co., Ontario, $68,310. VK 4-11. Previous report 3-21

**▲IRRIGATION SYSTEMS— Portland, Ore.**

Bids received April 10 by City Purchasing Agent, 208 City Hall, Portland, for furnishing and installing irrigation systems in three city parks. LOW BIDS: Ernest Ferrante & Co., 3908 S.E. Bybee Blvd., Portland, $13,027; Riverside Construction Co., 2433 N.W. Lovejoy St., Portland, $13,786; Conely Co., 1224 S.W. Morrison St., Portland, $15,930.

VP 4-14. Previous report 3-28

**● STREET IMPROVEMENTS—** **Portland, Ore.**

Bids will be opened 10:30 a.m., April 21, by Multnomah County Commissioners, John W. West, purchasing agent, 304 County Courthouse, Portland, for two street improvement projects. Plans with Roadmaster, 2115 S.E. Morrison St. $2 charge each project. Certified check or bid bond 10%.

PROJ. 331—Grading, constructing rock base, concrete curbs, and surfacing with asphaltic concrete on S.E. and N.E. 102nd Ave. (S.E. Stark St. northerly 2,250'), and E. Burnside St. (500' east and 500' west from 102nd Ave.)

PROJ. D-321—Grading, constructing rock base and paving with asphaltic concrete on S.E. 71st Ave. from S.E. Ogden St. to Cooper St. WB 4-10

**RELEVEL RUNWAY—** **Portland, Ore.**

Bid call has been withdrawn and will be re-issued about April 14 by Port of Portland, 5858 N. Lagoon Ave., Swan Island, Portland, Ore., (Box 4099), for surface releveling of Runway 10R-28L at Portland International Airport. Bid opening was scheduled for April 10. WB 4-11. Previous report 4-2

**● TRACTOR WINCH—** **Portland, Ore.**

Bids will be opened 2 p.m., April 22, by City Purchasing Agent, 208 City Hall, Portland, for one single-drum tractor winch with ⅞" cable for D-6 Caterpillar tractor. Certified check or bid bond 10%. WB 4-11

**● STREET IMPROVEMENTS—** **Portland, Ore.**

Bids will be opened 10:30 a.m., April 23, by Multnomah County Commissioners, John W. West, purchasing agent, 304 County Courthouse, Portland, for two street improvement projects. Plans with Roadmatser, 2115 S.E. Morrison St., Portland. $2 charge each project. Certified check or bid bond 10%.

S.E. ANKENY ST.—From S.E. 117th to 119th Ave. Grading, constructing rock base and surfacing with asphaltic concrete.

S.E. 138th AVE.—From S.E. Powell north to dead end; Proj. D-322. Grading, constructing rock base and surfacing with bituminous macadam (penetration type) or asphaltic concrete. WB 4-11

**● POWER CHECK PAD (Airport)—** **Portland, Ore.**

Bids will be opened 2 p.m., P.S.T., April 22, by Corps of Engineers, 1519 Alaskan Way, Seattle, Wash., for construction of power check pad at International Airport, Portland, Ore.; ENG-45-108-59-63. Plans with Seattle office. Bid bond 20%. Completion time 120 calendar days.

Quantities: 23,000 c.y. excavation; 1,750 c.y. select fill; 580 c.y. base course; 1,010 bbl. portland cement; 675 c.y. portland cement concrete pavement; 3 ton prime coat; 0.5 ton tack coat; 13.6 ton asphalt cement; 214 ton asphalt concrete; modification of taxiway lighting system; topsoiling, fertilizing, seeding. VK 4-14. Previous report 4-3

**● CRUSHED ROCK—** **Powers, Ore.**

Bids will be opened 2 p.m., P.S.T., April 29, by U.S. Forest Service, 729 N.E. Oregon St., room 201, Portland (Box 4137), for furnishing 10,000 c.y. of crushed gravel or stone to be stockpiled approximately 13 mi. southwest of Powers, Ore.; Inv. No. R6-59-240. Specifications with above office, phone BEl-mont 4-8211, Ext. 521. Bid guarantee 5%. Rock to be crushed is available in Forest Service quarry in near vicinity of stockpile area. WB 4-11

**SEWAGE LAGOON—** **Prineville, Ore.**

Plans are being started by Clark & Groff, consulting engineers, and Benjamin Cave, architect, 3240 Triangle Drive S.E., Salem, for a sewage lagoon, connecting sewer line, and a pumping station at the Ochoco Heights area, Prineville.

VC 4-4. Previous report 12-26

**ROAD—** **Roseburg, Ore.**

(Estimated cost $17,000)

A delegation of Reedsport and Gardiner citizens has asked Douglas County Commissioners to construct a road from Gardiner to the ocean beach on the north side of the Umpqua River. DC 4-4

**SEWAGE IMPROVEMENT DISTRICT (Cloakes Ferry)—** **Roseburg, Ore.**

The Roseburg City Council has given tentative approval to plans and specifications for the Cloakes Ferry sewage improvement district, located on Roseburg's west side, including the residential area north of W. Harvard Ave. and west of Agee St. Work will include installation of 5.8 mi. of pipe and 23 roads and streets, at an estimated cost of $167,689. Storm sewers and sanitary sewers will be laid in the same ditch, with the city paying for the storm drainage system. Public hearing on the project is scheduled for April 27. RC 4-3

**▲ STATE HIGHWAY PROJECTS—** **Salem, Ore.**

Bids were opened April 14 by Oregon State Highway Commission, Salem, on the following construction projects. Awards will be made at the April 16 meeting.

PAVING, City of Baker—Asphaltic concrete paving 0.55 mi. on 10th St.-Main St. section of Campbell Ave., Baker County; a State Project. Involves 1,940 ton asphaltic concrete.

ONLY BIDS: Cartwright Construction Co., Durkee, $17,767; Russell Olson Construction Co., Box 272, Pendleton, $25,596.

ROCK PRODUCTION, Durkee - Malheur County Line—About 12,200 c.y. crushed materials in stockpile on Old Oregon Trail Highway, Baker County; a State Project. Project was withdrawn.

GRADING, Little Clear Creek Section—Grading 0.19 mi. Oregon City-Viola Road about 10 mi. southeast of Oregon City, Clackamas County; FAP No. S-395(2).

LOW BIDS: George E. Blaisdell and Shirley G. Stone, 2351 S.W. Market, Oswego, $17,880; Inland Construction Co., 6202 S.E. Harmony, Milwaukie, $18,410; Dwaine and Millard Angell, Portland, $20,355.

GRADING, PAVING, Clatskanie—Grading paving 0.23 mi. on 4th St., Columbia County; a State Project.

LOW BIDS: Walter Goodat, 1735 S.E. Union, Portland, $21,617; United Contracting Co., Box 5075, Portland, $21,719; J. C. Compton, McMinnville, $22,042.

PAINTING BRIDGE, Pistol River—Cleaning, painting about 208 ton structural steel on bridge on Oregon Coast Highway about 12 mi. south of Gold Beach, Curry County; a State Project.

LOW BIDS: J. E. Brown Co., 1000 S.E. 12th, Portland, $8,622; A. H. Barbour & Son, Inc., 2828 N.E. Alberta, Portland, $11,000; Tri-State Painting Co., 9100 S.E. Stanley, Portland, $15,600.

GRADING, PAVING, North Fork Chetco River Section—Grading and paving 1.51 mi. Chetco River Road about 3.6 mi. northeast of Brookings, Curry County; FAP No. S-308(2).

LOW BIDS: Pellican Bay Construction Services, Inc., Smith River, Calif., $94,992; F. L. Somers, Box 668, Medford, $99,445; Miller & Hutchins, Roseburg, $111,871.

GRADING, OILING, Deep Canyon-Deschutes River Section—Grading, oiling 3.62 mi. McKenzie Highway about 10.5 mi. east of Sisters, Deschutes County; FAP No. F-117 (24).

LOW BIDS: Q. L. Rufener, Inc., 4729 S.E. Ash, Portland, $181,923; Fred H. Slate and E. C. Hall Co., 7805 S.W. 40th, Portland, $192,043; Durbin Bros., Route 5, Box 490, Eugene, $210,338.

MEDIAN BARRIER, Fords Bridge Section—About 3,190' of metal median barrier on existing concrete island and structures on Pacific Highway about 5.6 mi. south of Myrtle Creek, Douglas County; FAIHP No. I-5-2(20)102.

LOW BIDS: John A. and Dale Clarendeauh, McMinnville, $13,972; R & M Construction Co., Box 426, Central Point, $14,163; R & W Construction Co., 628 N.E. 202nd Place, Portland, $14,674.

GRADING, PAVING, Prairie City—Grading, paving 0.20 mi. on Bridge St. and Upriver Road, Grant County; a State Project.

ONLY BID: Arthur Simonsen & Co., 2758 8th, Baker, $9,738.

SAND SHED, Hood River—Frame, 60'x79' shed at State Highway maintenance yard at Hood River, Hood River County; a State Project.

LOW BIDS: Wint Roberts and Troy Roberts, Hood River, $9,552; Gilbert Roberts, Hood River, $9,732; R. H. Jones, Route 1, Box 258, Hillsboro, $10,910.

GRADING, Seven Oaks-Table Rock Section—Grading 4.5 mi. Pacific Highway near Central Point, Jackson County; FAIHP No. I-5-1(4)31.

LOW BIDS: Peter Kiewit Sons' Co., 400 E. Main, Medford, $716,294; R. A. Heintz Construction Co., 211 N.E. Columbia Blvd., Portland, $722,147; Babler Bros., Inc., 402 S.E. Milwaukie, $790,898.

ROCK PRODUCTION, Triangle Lake-Chesire—About 10,050 c.y. crushed materials in stockpile on Siuslaw Highway southwest of Junction City, Lane County; a State Project.

LOW BIDS: C. C. Meisel, Box 206, McMinnville, $34,873; Morse Bros., Box 208, Lebanon, $35,532; John T. Conser, 404 Dare Lane, Junction City, $39,798.

LATRINE, Fogart Creek State Park—Addition to existing latrine, Oregon Coast Highway 16 mi. north of Newport, Lincoln County; a State Project.

LOW BIDS: Merlin R. Stam, 1974 Pierce St., Eugene, $6,440; Adam J. Bean, Oakridge, $6,615; C. M. Corkum Co., Box 789, Portland, $10,064.

STRUCTURES, Twin Buttes - McKenzie Section—Four twin and three single reinforced concrete structures about 21 to 22 mi. south of Albany on Pacific Highway, Linn and Lane counties; FAIHP No. I-5-4(32)199.

LOW BIDS: C. M. Corkum, Portland, $274,455; Inter City Sand and Gravel Co., Inc., 3698 Franklin Blvd., Eugene, $291,440; Hamilton & Thoms, Box 726, Eugene, $292,596.

PAVING, Ontario-Idaho Line Section—Paving 3.79 mi. Old Oregon Trail Highway near Ontario, Malheur County; FAIHP No. I-80N-8(8)372.

LOW BIDS: Rogers Construction Co., 11760 N.E. Glisan, Portland, $577,901; Roy L. Houck, Portland, $594,476; Central Paving Co., Independence, $649,290.

STRUCTURE, PAVING, Harbor-Drive-Washington County Line Section—Construct 208' reinforced concrete cut-and-cover tunnel; two timber pile trestle detour structures, grading and paving on main highway, service road, connecting roads, streets and detours for connection of Pacific Highway with Harbor Drive at Water Ave. in southwest Portland, Multnomah County; FAIHP No. I-5-6(12)300.

LOW BIDS: C. M. Corkum, Portland, $396,926; Roy L. Houck, Portland, $400,88[illegible]; Peter Kiewit Sons' Co., Box 531, Vancouver, Wash., $428,885.

TOLL COLLECTION SYSTEM, Interstate Bridge—Cooperative project by Oregon and Washington and Washington Toll Bridge Authority involving furnishing and installing automatic toll collection equipment at south end of both interstate bridges at Portland, Multnomah County, Ore., and five - year maintenance contract. Alt. A for rental equipment, sale of tokens, maintenance. Alt. B for sale of equipment and tokens and maintenance.

Bids will be opened April 21.

BRIDGE PAINTING, Mills Bridge—Maintenance cleaning, painting, 780' of metal handrail and 200 ton structural steel, Wilson River Highway six mi. east of Tillamook, Tillamook County; a State Project.

LOW BIDS: C. H. Savage Co., 4120 S.E. Milwaukie, Portland, $4,587; Hollow Paint Co., Hood River, $5,840; Tri-State Paint Co., Portland, $6,540.

PAVING, Rowena-Chenoweth Creek Section—Paving 5.58 mi. Columbia River Highway about seven mi. east of Mosier, Wasco County; FAIHP No. I-80N-3(11)74.

LOW BIDS: Rogers Construction Co., Portland, $548,037; Vernie Jarl, Gresham, $588,721; Porter W. Yett, Portland, $598,3[illegible]

PAVING, The Dalles-Eightmile Creek Section—Paving 6.83 mi. The Dalles-California Highway, southerly from The Dalles, Wasco County; FAP No. F-102(4).

LOW BIDS: Vernie Jarl, Gresham, $5[illegible]469; Roy L. Houck, Portland, $689,548; Newport Construction Co., 7031 N.E. Halsey, Portland, $732,601.

DM 4-15. Previous report 4-[illegible]

**● SANITARY SEWERS—** **West Linn, Or[illegible]**

(Dillow Drive-Hughes Drive)

(Estimated cost $16,000)

Bids will be opened 8 p.m., May 13 (tenta[illegible]

tive), by Andy Harila, city recorder, City Hall, West Linn, for construction of sanitary sewers in the Dillow Drive and Hughes Drive Sewer District. Plans by John W. Cunningham & Associates, 714 Portland Trust Bldg., Portland, will be available in late April. WB 4-11. Previous report 1-20

★CAST IRON PIPE— West Linn, Ore.

Award to U. S. Pipe & Foundry Co., Colman Bldg., Seattle, (2,000' of 8" cast iron pipe) $2.995 per ft., and (1,000' of 4" cast iron pipe) $1.42 per ft., by Andy Harila, city recorder, City Hall, West Linn. Three bids received April 8. OTHER BIDS: Pacific States Cast Iron Pipe Co., Portland Trust Bldg., Portland, $2.996, $1.42; Pacific Water Works Supply, 0440 S.W. Porter St., Portland, $3.10, $1.44.
WB 4-11. Previous report 3-21

## WASHINGTON

▲PIPE— Aberdeen, Wash.

Five bids, ranging from a low of $1,790 to a high of $2,509, received April 1 by William J. Murphy, Jr., manager, Port of Grays Harbor, Box 110, Aberdeen, for furnishing not more than six lengths of pipe whose total length shall equal 84' and 20 pieces of tapered dredge pipe nipples, fob Port Dock, Aberdeen. LOW: Hydraulic Supply Manufacturing Co., 7500 8th Ave. S., Seattle, $1,790; King Brothers, Inc., 3500 S.E. 17, Portland, $2,300; American Pipe & Construction Co., Box 1898, Portland, $2,500.
VK 4-14. Previous report 3-17

PAVING, STREET LIGHTING— Auburn, Wash.

A resolution of intention has been adopted by Town Council, Buckley, to form an LID for the resurfacing of Main St. with asphaltic concrete, replacing sidewalks and installing new street lighting. DC 4-4

PLAYGROUND— Auburn, Wash.

Razing of remaining buildings at Auburn Terrace will start soon, as a preliminary step toward plans for construction of a playground, park and administration building. The Chamber of Commerce has adopted a resolution asking the City Council to consider the plan. DC 4-4

★SEWERAGE PROJECT— Battle Ground, Wash.

Awards to James G. Robertson, Route 1, Box 385-A, Clackamas, Ore. (Sched. I) $124,235; Packard Pipe & Pump Co., 554 14th Ave., Longview, (Sched. II) $23,867, and to Harry Parker Construction Co., 1100 N.E. 154th St., Vancouver, $25,394, by S. L. Falin, town clerk, City Building, Battle Ground, for construction of sewage collection system (Sched. I), sewage lift station (Sched. II), and sewage treatment lagoon (Sched. III). Plans by N. W. Haner & Associates, consulting engineers, 220 S.W. Alder St., Portland, Ore. Award is subject to federal approval.
WB 4-11. Previous report 4-9

●SEWER SYSTEM— Bellevue, Wash.

Bids will be opened 2 p.m., May 22, by Bellevue Sewer District, S.E. 6th, Bellevue, for construction of sewer facilities in ULID No. 8, including Medina, Clyde Hill, Hunts Point, North Bellevue, and adjacent unincorporated areas. Project involves approximately 40 miles of sewer line, seven miles of underwater line, and 15 pumping stations. Plans call for five separate schedules.

**Plans and specifications available with R. W. Beck & Associates, consulting engineers, 1505 Tower Bldg., on or after April 21. Deposit on plans will be returned to only firms (general contractors), who submit bonafide bids to the Bellevue Sewer District.**

Quantities—SCHED. 1, Gravity Sewer Pipe: 46,000' of 8"; 700' of 10"; 1,000' of 12;" 8,000' of 16" pressure pipe. SCHED. 2, Gravity Sewer Pipe: 46,000' of 8"; 265' of 10"; 4,800' of 12"; 500' of 15"; 900' of 12" pressure pipe; 16,000' of 16"; 5,000' of 18 pressure pipe. SCHED. 3, Gravity Sewer Pipe: 57,000' of 8"; 4,500' of 10"; 1,000' of 15"; 4,800' of 21"; 2,300' of 24"; 4,200' of 8" pressure pipe. SCHED. 4: Lake Line Interceptor Sewer. SCHED. 5: 15 pumping stations. AM 4-14. Previous report 3-25

●WATER SYSTEM IMPROVEMENTS— Bonney Lake, Wash.

Bids will be received until 8 p.m., April 27, by Town Council, Bonney Lake (Box 157, Sumner), and opened in the Bonney Lake Town Hall, for construction of water system improvements in the town of Bonney Lake. Plans with Richard B. Wolff, consulting engineer, 1506 Smith Tower, Seattle. $20 deposit. Certified check 5%.

Work involves: furnishing and installing 12,000' of 6" steel pipe; 1,800' of 8" steel pipe; two horizontal submersible pumps and appurtenances. AM 4-14

SEWAGE SYSTEM— Cathlamet, Wash.

John W. Cunningham & Associates, consulting engineers, 714 Portland Trust Bldg., Portland, have been retained by Town of Cathlamet, to revise plans made in 1955 for a sewage disposal plant and sewer extensions. The town plans to make application by May 15 to the Washington State Pollution Control Commission for a federal grant to help construct the system. The bulk of funds would come from revenue bonds.
WB 4-3

▲SEWAGE PLANT, SEWERS— Coupeville, Wash.

Two bids received April 13 by Town Council, Town Hall, Coupeville, for construction of sewage treatment plant, lift station and sewer lines in Coupeville. Plans by Hill & Ingman, consulting engineers, 3104 Western Ave., Seattle. BIDS: Snelson Plumbing & Heating Co., 506 W. State St., Sedro Woolley, $56,096; Pacific Mechanical Constructors, Lloyd Bldg., Seattle, $79,956.
AM 4-15. Previous report 4-11

● PIPE— Everett, Wash.

Bids will be opened 8 p.m., May 12, by Public Utility District No. 1 of Snohomish County, 2320 California Ave., Everett, for furnishing asbestos-cement pipe, steel pipe, Spec. No. 54. Plans with above Everett address. Certified check, cashier's check or bid bond 5%. HH 4-15

● STEEL RESERVOIR— Everett, Wash.

Bids will be opened 8 p.m., May 12, by Public Utility District No. 1 of Snohomish County, 2320 California Ave., Everett, for construction of a 300,000-gal. steel reservoir. Plans with above Everett address. $5 deposit. Certified check, cashier's check or bid bond 5%. HH 4-15

▲EARTHWORK, LINING, STRUCTURES (BuRec)— Ephrata, Wash.

Bids received April 14, by Bureau of Reclamation, Box 368, Ephrata, for earthwork, concrete lining, structures for Block 201 laterals, wasteway and drains and for White Bluffs Pumping Plant No. 2, and WB10A3 Pumping Plant, Wahluke Branch Canal Laterals, south of Othello, Columbia Basin Project, Wash.; Spec. No. 5167.

LOW BIDS: Triangle Construction Co., and George L. Thompson, joint venture, Box 644, Kennewick, $589,262; Lewis Hopkins Co., Box 930, Pasco, $607,457; Cherf Bros., Inc., & Sandkay Contractors, Inc., Box 938, Ephrata, $647,805. Six bids received. Government estimate $637,365.
AM 4-15. Previous report 3-5

▲OFFSITE UTILITIES (Capehart Housing Proj. 3)— Fort Lewis, Wash.

Bids received April 14 by Corps of Engineers, 1519 S. Alaskan Way, Seattle, for construction of offsite utilities for Capehart Housing Project 3 at Fort Lewis; ENG-45-108-59-68. Completion time 270 calendar days.

LOW BIDS: Milone & Tucci, 2815 S. Lawrence, Tacoma, $327,752; Murphy Brothers, Inc., Box 2193, Spokane, $370,078; Butler Construction & Engineering Co., 3419 13th S.W., Seattle, $377,550. Bive bids received. Government estimate $382,695.
AM 4-15. Previous report 3-26

■ SEWERS— Kennewick, Wash.

Planholders announced for construction of approximately 2,093' of sanitary sewer line on E. 4th Ave. at etl in LID No. 63. Bids will be opened 2 p.m., April 21, by city manager, City Hall, Kennewick. Plans with city engineer, City Hall. $10 deposit.

Planholders: Howard T. Alsbury, Benton City Construction, Benton City; N. L. Kimball, 2801 W. Yakima Ave., Yakima; Paul Hughes, 3032 W. Hood, Kennewick.
VK 4-15. Previous report 4-9

▲SITE WORK— King County, Wash.

Nine bids received April 13, by Bonneville Power Administration, 1001 N.E. Lloyd Blvd., Portland, Ore., for site development in the warehouse area at Covington Substation on State Highway 5A about five mi. east of Kent and one mi. south of County Road No. 410, King County, Wash.; Inv. No. 8952. LOW BIDS: Elling Halvorson, 20054 Pacific Highway S., Seattle, $69,881; John M. King Co., 1601 Taylor Way, Tacoma, $70,204; Charles R. Schmiedeskamp, 47226 S.E. Milwaukie Ave., Portland, $74,313.
WB 4-15. Previous report 4-8

●WATER MAIN RELOCATION AND REPAIR— La Push, Wash.

Bids will be opened 2 p.m., P.S.T., April 27, by 13th Coast Guard District, Room 922, 618 2nd Ave., Seattle, for relocation and repair of 6" cast iron water main, at U. S. Coast Guard Lifeboat Station, Quillayute River, La Push, Wash.; Bid No. FS-1944. Plans with Seattle office. Bid bond 5%. Completion time 30 calendar days. VK 4-15

● GATES (Conconully Dam)— Okanogan, Wash.

Bids will be opened 2 p.m., P.S.T., May 12 by Bureau of Reclamation, Box 937, Boise, Idaho, for installation of two 54" cast iron slide gates, and for unwatering at Conconully Dam, about 14 mi. northwest of Omak and one mile south of Conconully, Okanogan County, Okanogan Project, Wash.; Spec. No. 100C-361. Plans with H. T. Nelson, regional director, Boise; with Percy M. Pharr, project construction engineer, Box 0219, East Wenatchee and with David P. Brown, manager, Okanogan Irrigation District, Okanogan. DM 4-15

● STATE HIGHWAY PROJECTS— Olympia, Wash.

Bids will be opened 10 a.m., April 28, by Washington State Highway Commission, Transportation Bldg., Olympia, on 13 highway construction projects. Plans with above office.

PAVING, East Beach Road to Indian Creek—Clearing, draining, grading, surfacing, asphaltic concrete paving, cement treated base and bituminous surface treatment and signing on 3.183 mi. of PSH No. 9, Clallam County; FAP No. F-007-3(8).

Quantities: 42 acre clearing; 472,720 c.y. unclassified excavation; 3,880 acre clearing; 472,720 c.y. unclassified excavation; 2,880 c.y. unsuit. foundation excavation; 34,200 c.y. select road borrow; 20,530 ton special gravel surfacing; 8,500 ton crushed surfacing; 1,155 c.y. crushed cover stone, prime coat aggregate; 150 ton asphalt cement; 9,800 ton asphaltic concrete; 8,750' asphaltic concrete curb; 3,980 bbl. portland cement; 15,080 ton cement treated base; 2,559' concrete pipe; 1,604' metal pipe; 300' wood stave pipe; 1,492' concrete cribbing headers, stretchers; 2,862' beam guard rail; 72 guide posts.

BRIDGE, Yakima River and Naches River and Selah Interchange Structures — Construct two steel truss bridges and one precast prestressed concrete bridge on 0.108 mi. PSH No. 3, Yakima County; FAP UI-82-1(1) and UI-82-1(4).

Quantities: 3,085 c.y. concrete; 285,000 lb. steel reinforcing bars; 870' prestressed concrete girders; two lump sum bids for structural steel (about 1,360,000 lb.); 295' standard bridge rail.

BRIDGE, Military Road Overcrossing Vicinity Lake Dolloff—Construct two reinforced concrete box girder bridges on 0.038 mi. of PSH No. 1, King County; FAP No. I-5-3(64)145.

Quantities: 385 c.y. concrete; 94,000 lb. steel reinforcing bars; lump sum bid for

superstructure (about 1,530 c.y. concrete and 487,000 lb. steel reinforcing bars); 776' standard bridge rail.

PAVING, Graham to Mitchell - Gould County Road—Clearing, draining, grading, surfacing, cement treated base, bituminous surface treatment, asphaltic concrete paving 4.431 mi. of SSH No. 5-N, Pierce County; FAS No. S-0391(3).

Quantities: 39 acre clearing; 73,890 c.y. common excavation; 27,100 ton crushed surfacing, ballast; 965 c.y. crushed cover stone, prime coat aggregate; 155 ton asphalt cement; 11,425 ton asphaltic concrete; 3,300' asphaltic concrete curb; 2,540 bbl. portland cement; 10,640 ton cement treated base; 436' concrete pipe 126' metal pipe; 52 guide posts.

PAVING, Teanaway Jct. to Teanaway River and Teanaway Jct. to Hayward Hill—Surfacing, asphaltic concrete paving, bituminous surface treatment on 13.270 mi. SH Nos. 2 and 3, Kittitas County; FAP No. F-028-1(19) and State Project.

Quantities: 7,750 ton maintenance rock; 800 c.y. mineral aggregate; 133 ton asphalt cement; 20,490 ton asphaltic concrete.

SURFACING, Ensley Change in Almota Road and Pullman-Wawawai Road—Draining, grading, surfacing 2.128 mi. of Whitman County roads; FAS Nos. S-1154(3), S-0668(1).

Quantities: 152,870 c.y. common excavation; 9,920 c.y. solid rock excavation; 66,540 ton crushed surfacing, crushed cover stone; 1,442' metal pipe.

SURFACING, La Push Road—Clearing, draining, grading, select roadway borrow surfacing 3.401 mi. Clallam County road; FAS No. S-1240(3).

Quantities: 27 acre clearing; 66,200 c.y. common excavation; 6,600 c.y. solid rock excavation; 27,000 c.y. select roadway borrow; 1,630' concrete pipe; 95 guide posts.

SURFACING, Middle Waitsburg Road—Draining, surfacing 4.437 mi. of Walla Walla County road; FAS No. S-0635(3).

Quantities: 25,380 ton select roadway borrow; 8,370 ton crushed surfacing; 50' metal pipe.

SURFACING, Gould City and Mayview Road—Surfacing, bituminous surface treatment 6.104 mi. Garfield County roads; FAS Nos. S-0561(6), S-1138(2).

Quantities: 20,940 ton crushed surfacing, crushed cover stone; 525 c.y. crushed cover stone; 169 ton asphalt cement.

SURFACING, North Touchet, Thorn Hollow and McKay Hollow Roads—Surfacing, bituminous surface treatment 9.449 mi. Columbia County roads; FAS Nos. S-0457(2), S-1134(3), S-0633(2).

Quantities: 6,115 c.y. crushed surfacing, screenings, cover stone; 168 ton asphalt cement.

SURFACING, Teanaway River to Iron Creek Et Al—Bituminous surface treatment; 52.350 mi. SH Nos. 2, 3, 7, 3-K, 11-A, Kittitas, Columbia, Garfield, Yakima, and Benton counties; a State Project.

Quantities: 9,280 c.y. mineral aggregate; 862 ton asphalt cement; four mi. processing, finishing.

BRIDGE, Yale Bridge No. 1-S/11—Replacing stringers and redecking bridge on 0.057 mi. SSH No. 1-S, Clark and Cowlitz counties.

Quantities: 56 MBM treated timber and lumber; lump sum for removing portions of existing structure.

PAINTING BRIDGES, Hamilton Creek Bridge Et Al—Cleaning, painting four bridges on SH Nos. 8, 1-S, 8-B, Klickitat, Skamania, Clark and Cowlitz counties; a State Project.

Quantities: four lump sum bids for cleaning and painting. DM 4-10

### ▲STATE HIGHWAY PROJECTS— Olympia, Wash.

Bids were opened April 14 by Washington State Highway Commission on 10 construction projects.

UNDERCROSSINGS, Seattle Freeway-E. 45th St. and E. 50th St.—Draining, grading, surfacing, cement concrete paving, installing illumination, constructing two reinforced concrete box girder bridges on PSH No. 1, King County; FAP Nos. I-5-3(50)169 and I-5-3(51)170.

LOW BIDS: MacRae Bros. Construction Co., 5900 2nd Ave. S., Seattle, $594,506; M. P. Butler, 3419 13th S.W., Seattle, $617,433; Harry H. Hawkins, 16274 39th N.E., Seattle, $621,170. Eight bidders.

BRIDGE, Wilburton Interchange, N. P. Railway Overcrossing—Reinforced concrete box girder bridge on 0.055 mi. PSH No. 1, King County; FAP No. IG-405-3(36)167.

LOW BIDS: Troy T. Burnham Co., 18666 Beverly Road, Seattle, $101,846; Dale M. Madden, 3010 E. 163rd, Seattle, $104,808; John E. Alexander, Inc., Box 3583, Seattle, $110,892. Seven bidders.

BRIDGE, Satus Creek—Reinforced concrete flat slab bridge on 0.019 mi. PSH No. 8, Klickitat County; FAP No. F-014-3(7).

LOW BIDS: Hans S. Skov Construction Co., Liberty Bldg., Yakima, $52,900; Troy T. Burnham, Seattle, $54,867; Marshall Construction Co., Hermiston, Ore., $56,316. Eight bidders.

SURFACING, FENCING, Red Rock Coulee Road—Draining, grading, surfacing, fencing on 4.453 mi. of a Grant County road; FAS No. S-1404(2).

LOW BIDS: James Crick & Sons, Box 102, Yardley, $79,306; Murphy Bros., Inc., Box 2193, Spokane, $80,009; Russell Gillett Co., Box G, Cle Elum, $81,437. Ten bidders.

PAVING, Government Springs Road—Surfacing, asphaltic concrete paving on 3.110 mi. Skamania County road; FAS No. S-0264(2).

ONLY BIDS: United Construction & Contracting Co., Box 5075, Portland, Ore., $52,455; K. F. Jacobsen & Co., Inc., Portland, $63,351; Smith Bros., Inc., Vancouver, $64,966.

SURFACING, West Side Calispel Road—Clearing, draining, grading, surfacing with select roadway borrow on 2.604 mi. Pend Oreille County road; FAS No. S-1341(2).

LOW BIDS: Murphy Bros., Spokane, $22,777; J. W. Hardison Co., Yakima, $24,404; N. A. Dagerstrom, Spokane, $24,825. Eight bidders.

SURFACING, Kiona Creek to Randle—Bituminous surface treatment and fog seal on 72.52 mi. State Highways Nos. 5, 8, 12, 1-Q, 1-R, 1-T, 1-U, 8-D in Lewis, Cowlitz, Pacific, Clark and Klickitat counties; a State Project.

LOW BIDS: Horton Construction Co., Box 1872, Portland, $89,483; Doolittle Construction Co., 510 Adams, Seattle, $94,540; Babler Bros., Inc., Portland, $96,549. Four Bidders.

STOCKPILING, Ellensburg to Selah Creek and Saddle Mountain Vicinity—Stockpiling 7,000 ton sand, 54,000 ton maintenance rock, crushed surfacing, crushed screenings on PSH Nos. 3 and 7, Kittitas County; a State Project.

LOW BIDS: Frank G. Baulne, Inc., Box 84, Yardley, $60,425; R. Wamberg, 7404 S. Tacoma Way, Tacoma, $72,431; C & E Construction Co., Inc., Box 1545, Yakima, $73,385. Five bidders.

PAINTING BRIDGES, North Fork of Willapa River Bridge—Cleaning, painting three bridges on State Highways Nos. 13, 1-R and 12-C in Pacific, Cowlitz and Wahkiakum counties; a State Project.

LOW BIDS: C. H. Savage Co., 4126 S.E. Milwaukie, Portland, $10,725; Puget Sound Painters, Inc., 6323 Brooklyn Ave., Seattle, $12,510; Runnels Industries, 16826 Pacific Highway S., Seattle, $13,810. Six bidders.

TRESTLE RAMPS, Orcas Island Terminal—Constructing ferry terminal trestle ramps for Washington Toll Bridge Authority in San Juan County; a State Project.

LOW BIDS: Manson Construction and Engineering Co., 5209 E. Marginal Way, Seattle, $34,065; American Pile Driving Co., Everett, $34,220; Cotton Engineering and Shipbuilding Corp., 126 Madison, Port Townsend, $34,977. Six bidders.

DE 4-15. Previous report 4-7

### ●WATER SYSTEM— Olympia, Wash.

Bids will be opened 2 p.m., April 21, by G. E. Marshall, city clerk, City Hall, Olympia, for trenching, backfilling and installing 10,588' of 6" and 8" AC pipe, 190' of 2" galvanized pipe and appurtenances (certain materials to be furnished by the city) in northeast Olympia. Plans with city engineer, City Hall. $5 deposit. Certified check or bid bond 5%.

Quantities: 2,584' trenching, backfill for 8" AC pipe; 8,004' same for 6" AC pipe; 190' same for 2" galvanized pipe; 2,584' installation of 8" AC pipe and appurtenances; 8,004' of same for 6"; 190' of same for 2"; installation of 11, 4" hydrants with auxiliary valves and appurtenances; 40' remove and restore concrete pavement; 60 c.y. pit run gravel for roadway shoulder restoration.

DM 4-11

### ▲WELL CASING— Pullman, Wash.

Two bids received April 7 by City Council, City Hall, Pullman, on furnishing and installing 162' of 12" I.D. diameter well casing. Plans by Carl Arness, city engineer, City Hall. BIDS: Oliver Kinkgraf Water Well Drilling, E. 1606 Sharp, Spokane, $6,451; Midland Drilling Co., 115 W. Rees, Walla Walla, $7,390. MH 4-10. Previous report 3-31

### STREET IMPROVEMENTS—Pullman, Wash. (Estimated cost $375,000)

Bids will be called late in April for opening early in May by City Council, City Hall, Pullman, for street improvements, curbs, gutters and asphaltic topping on various streets in Pullman. Plans by Carl Arness, city engineer, City Hall, Pullman.

Quantities: 23,300 c.y. common excavation; 7,900 c.y. embankment; 6,100 c.y. trench excavation (earth); 90 c.y. trench excavation (rock); 5,330' of 8" pipe; 670' of 10" pipe; 2,430' of 12" pipe; 670' of 15" pipe; 400' of 18" pipe; 2,000' of 21" pipe; 42 manholes; 64 catch basins; 27,000' curb and gutter; 23,000 tons crushed stone backfill; 5,000 tons type B asphalt.

MH 4-11. Previous report 3-31

### ●FENCING— Puyallup, Wash.

Bids will be opened 8 p.m., April 20, by City Council, City Hall, Puyallup, for construction of industrial fences at Maplewood Springs, at the sewage treatment plant and at the municipal shops in Puyallup. Plans with city engineer, City Hall. VC 4-14

### ★TEST CELL (Boeing)— Seattle, Wash.

Award to John H. Sellen Construction Co., 3840 Iowa, Seattle, $43,790, by Boeing Airplane Co., Plant 2, Seattle, for construction of a high temperature test cell in Bldg. 301, Plant 2, Seattle. Plans by Cuykendall, Ries & Blean, architects, Arcade Bldg., Seattle. Mechanical and electrical engineer is C. E. Wieland, Arcade Bldg., Seattle.

VK 4-11. Previous report 1-31

### ■WATER SUPPLY— Seattle, Wash.

Planholders announced for construction of a water supply main from pump station at 146th and 8th S. to the water district's distribution system at 24th and 146th St., Seattle. Bids will be opened 8 p.m., April 22, in the office of King County Water District No. 43, 2849 S. 150th St., Seattle. Plans with Hill & Ingman, consulting engineers, 3104 Western Ave., Seattle.

Planholders: O. R. Alia, 3319 Dose Terrace, Seattle; Argentieri & Colarossi, 1111 Jackson St., Seattle; Harbert Construction Co., 107 S. 3rd W., Longview; Pacific Mechanical Constructors, Inc., Lloyd Bldg., Seattle; Frank Coluccio, 7779 Seward Park Ave., Seattle; Libri Lario Construction Co., 5960 Empire Way S., Seattle.

AM 4-15. Previous report 4-6

### ▲TRUNK SEWER, LIFT STATIONS (Contract 1)— Seattle, Wash.

Five bids received April 13 by the Lake City Sewer District, 12721 30th Ave. N.E., Seattle, for construction of a trunk sewer, lateral sewer and lift station (contract 1) part of the sanitary sewer system to be constructed in the Lake City area, King County, Seattle; ULID No. 16. Plans by Hill & Ingman, consulting engineers, 3104 Western Ave., Seattle. LOW BIDS: Max Malaspina Co., 1901 23rd S., Seattle, $491,350; Murphy Bros., Inc., 7029 Swift, Seattle, $495,485; Frank Coluccio, 7778 Seward Park Ave., Seattle, $507,840.

AM 4-15. Previous report 4-6

### ▲UTILITY TUNNEL (U. of W.)— Seattle, Wash.

Bids received April 14, by Board of Regents, 209 Administration Bldg., University of Washington campus, Seattle, for additions and alterations to campus utility tunnel system, which will serve future Women's Residence Hall. Plans by Bouillon, Griffis & Christofferson, consulting engineers, 1411 Fourth Ave. Bldg., Seattle. Separate con-

tracts for general construction and piping. ONLY BIDS—GEN.: Scheumann & Johnson, Lloyd Bldg., Seattle, $139,700; A. J. Cheff Construction Co., 10054 W. Marginal Way, Seattle, $167,298. LOW BIDS—Pipe-ing: Copper Plumbing & Heating Co., Seattle, $28,695.
AM 4-15. Previous report 4-11

**▲ALTERATIONS, PARKING AREAS (Boeing)— Seattle, Wash.**

Bids received April 14, by Boeing Airplane Co., Pilotless Aircraft Division, Box 3925, Seattle, for alterations and rebuilding of parking areas on the west side of E. Marginal Way; Phase 7. Plans by Harmon, Pray & Detrich, architects, and engineers, 2000 Fifth Ave. Bldg., Seattle.

LOW BIDS: Brazier Construction Co., 309 Pontius, Seattle, $163,389; Hugh S. Ferguson, 1927 1st S., Seattle, $167,500; Cawdrey & Vemo, 3601 Fremont, Seattle, $168,275. Five bids received.
AM 4-15. Previous report 4-11

**●WATER MAINS— Seattle, Wash.**

Bids will be opened 2 p.m., April 22, by Board of Public Works, E. G. Henry, secretary, 512 County City Bldg., Seattle, for construction of water mains between 39th Ave. S.W. and Walnut on West Lander St., Seattle; Ord. No. 88010.

**Plans and specifications available on or after April 13, in room 404, County City Bldg., Seattle. $10 deposit. Bid bond 5%.**

Quantities: 305′ of 12″ pipe, various fittings and appurtenances.
AM 4-10

**BRIDGE— Skagit County, Wash.**
(Estimated cost $450,000)

A bridge across the Skagit River at Rockport to connect with the South Cascade Road (which runs along the Cascade River), and approaches, are in the planning stage by Skagit County Commissioners. Construction will be underway in two years. Plans are being prepared by Frank Gilkey, engineer, Route 2, Mount Vernon. The bridge is estimated at $350,000, the approaches at $100,000.
ET 4-8

**PAVING— Spokane, Wash.**

A new street paving plan to reduce by two-thirds the city's 350 mi. of dirt and gravel streets has been approved by city commissioners. Various districts will be canvassed to determine public reaction toward the program. According to A. M. Eschbach, city engineer, over $500,000 is spent annually in maintenance on unpaved streets.
DC 4-4

**▲FENCING— Spokane, Wash.**

Four bids received by Spokane County Commissioners, Courthouse, Spokane, for 749′ of chain linking, fencing and two 20′ chain link gates for the Mission Pit on E. Mission Ave. near Bowdish Road; CRP No. 390-S. Plans by John W. Arrasmith, county engineer, Courthouse, Spokane. LOW BIDS: Colorado Fuel & Iron Corp., 4320 E. Trent Ave., Spokane, $2,148; Anchor Post Products, Inc., 4502 14th Ave. N.W., Seattle, $2,197; United States Steel Corp., Cyclone Fence Dept., 400 N.E. 11th, Portland, Ore., $2,210.
VK 4-10. Previous report 3-21

**▲STREET IMPROVEMENT—Sumner, Wash.**

Bids rejected by City Council, City Hall, Sumner, for improvement of 1,500′ of Sumner Ave. under LID No. 1-59. The low bidder at the March 19 bid opening was Rainier Asphalt Paving Co., Box 486, Auburn, $9,056.
DM 4-11. Previous report 3-25

**★WALKS, CURBS, Tacoma, Wash.**

Award to Bona Fide Builders, Inc., 11012 Pacific Ave., Tacoma, $43,378, by City Council, City Hall, Tacoma, for constructing new walks and replacing defective walks, curbs, etc., in various locations in WO No. 73158.
VK 4-11. Previous report 3-17

**★CLEARING, GRADING— Tacoma, Wash.**

Award to Harrison Brothers Co., 225 Wakefield Drive, Tacoma, $14,595, by Pierce County Commissioners, County City Bldg., Tacoma, for clearing, grubbing, grading and draining 0.589 mi. of Fox Island Bridge Road, Smeby section, in section 26, township 21 N. range 1-E, W.M., Tacoma; CPR No. 1867. Plans by Keith F. Jones, county road engineer, County City Bldg.
VK 4-11. Previous report 4-1

**★SURFACING— Tacoma, Wash.**

Award to Harrison Brothers Co., 225 Wakefield Ave., Tacoma, $42,783, by Pierce County Commissioners, County City Bldg., Tacoma, for clearing, grubbing, grading, draining, surfacing 1.362 mi. on 53rd Ave. N.W., 11th St. N.W. and 49th Ave. N.W.; CRP No. 1775. VK 4-11. Previous report 4-1

**●SUBSTATION— Tacoma, Wash.**

Bids will be received until 11 a.m., April 27, by city clerk, 305 City Hall, Tacoma, for furnishing one 10,000 kva. three-phase, 60 cycle, outdoor type, mobile unit substation. Plans with Public Utilities Purchasing Office, 2nd floor, Public Utilities Bldg., Tacoma (Box 1639). Certified check or bid bond 5%. Bids were previously opened February 16 and rejected.
DM 4-11. Previous report 1-28

**■HYDROELECTRIC POWER PROJECT— Wanapum Dam, Wash.**

Planholders announced on construction of Wanapum Dam on a site on the Columbia River 18 mi. upstream from Priest Rapids Dam, and three mi. above Beverly. Bids will be opened 9 a.m., P.S.T., May 15, by Grant County Public Utility District, 30 C St. S.W., Ephrata. Plans with Harza Engineering Co., 400 W. Madison, Chicago, Ill.

Planholders—American Pipe and Construction Co., 158 N.E. Columbia Blvd., Portland, Ore.; The Arundel Corp., Pier 2, Pratt St., Baltimore, Md.; Guy F. Atkinson Co., 10 W. Orange, South San Francisco, Calif.; Condon - Cunningham Co., 4229 Lafayette, Omaha, Neb.; L. E. Dixon Co., 409 S. California St., San Gabriel, Calif.; Frazier-Davis Construction Co., 1319 Macklind Ave., St. Louis, Mo.; S. J. Groves & Sons Co., 19 Rector St., New York, N.Y.; Hunkin Conkey Construction, 1740 E. 12th, Cleveland, Ohio; Johnson, Drake & Piper Inc., 1138 Baker Bldg., Minneapolis, Minn.; Al Johnson Construction Co., 608 Foshay Tower, Minneapolis; J. A. Jones Construction Co., 432 Medical Arts Bldg., Seattle; Kaiser Engineers, Inc., 1924 Broadway, Oakland, Calif.; Peter Kiewit Sons' Co., 1024 Omaha National Bank Bldg., Omaha, Neb.; Bud King Construction Co., 1203 Wyoming St., Missoula, Mont.

E. V. Lane Corp., 2675 Park Blvd., Palo Alto, Calif.; Macco Corp., 14409 S. Paramount Blvd., Paramount, Calif.; Mannix Ltd., 332 7th W., Calgary, Alberta, Canada; Merritt-Chapman & Scott Corp., 260 Madison Ave., New York, N. Y.; Mid-Valley Utility Constructors, Inc., Houston, Tex.; Montag-Halvorson-Austin & Associates, Box 666, Pasco; Morrison-Knudsen Co., Inc., 319 Broadway, Boise, Idaho; MacLean-Grove & Co., Inc., 400 Madison Ave., New York, N.Y.; Soletanche & Associates, 509 Royal Bank Bldg., 675 W. Hastings, Vancouver, B.C.; Charles H. Tompkins Co., 907 16th St. N.W., Washington D.C.; Wunderlich Co., Box 359, Palo Alto; DeLong Corp., 29 Broadway, New York, N.Y.; Harder Industrial Contractors of Washington, Inc., 2148 N.E. Union, Portland, Ore.; Jacobs Associates, 504 Market, San Francisco; LeBoeuf & Dougherty Inc., 2nd St. and Cutting Blvd., Richmond, Calif.; Winston Bros. Co., 301 Clifton Ave., Minneapolis.

Bailey-Lewis-Williams of Florida, Inc., 7541 N.E. 3rd Place, Miami, Florida; The Bay Co., 1512 Center St., Tacoma; Cherf-Sandkay, Box 938, Ephrata; S. A. Healy Co., Box 11, McCook, Ill.; Isbell Construction Co., Box 2351, Reno, Nev.; Maxon Construction Co., Inc., 2600 Far Hills Ave., Dayton, Ohio; Mountain States Construction Co., Box 648, Edgemont Branch, Golden, Colo.; Penn. Southern Construction Co., 152 Wabash Ave., Pittsburgh, Pa.; Perini Corp., 1404 Russ Bldg., San Francisco; Walsh Construction Co., 2 Pine St., San Francisco; Raymond International Inc., 140 Cedar, New York.
DM 4-11. Previous report 4-8

**●SEWER EXTENSIONS— Winslow, Wash.**

Bids will be opened 8 p.m., April 21, by Town Council, Town Hall, Winslow, for construction of sewer line extensions in the Hawley district in Winslow. Plans and specifications available with F. H. Saul, town clerk, at above address. $25 deposit per set. Plans and specifications were prepared by George Roats, civil engineer and land surveyor, Poulsbo. Bids will be submitted separately for each item.

Item 1: Ditching, laying and backfilling for 8″ gravity sewer line; and 4″ pressure sewer line. Item 2: Construction of sewage lift station and 27 manholes. Item 3: 6,910′ of 8″ sewer pipe. Item 4: 611′ of 4″ asbestos-cement pressure pipe. Item 5: One 4″ sewage ejector pump and materials required to construct sewage lift station together with 150′ of 8″ concrete overflow pipe.
AC 4-10

**★BOILER PUMP— Yakima, Wash.**

Award to Central Plumbing & Heating, 510 S. 1st St., Yakima, $16,142, by Lawrence Mathews, commissioner of public works, City Hall, Yakima, for installation of a new boiler and centrifugal pump in city sewage treatment plant.
IG 4-11. Previous report 4-8

## IDAHO

**▲STATE HIGHWAY PROJECTS— Boise, Idaho**

Bids were opened April 7 by Idaho Department of Highways, 603 Main St., Boise, on five highway projects.

STOCKPILE PROJ. 282, 284 — Furnish crushed gravel and cover coat material in stockpiles on Highways US 91 and State 35 at Preston and near Dayton, Franklin County.

LOW BIDS: LeGrand Johnson Construction Co., Inc., 639 E. 1st S., Logan, Utah, $17,000; Western Construction Co., 1695 Yellowstone Ave., Pocatello, $19,377; Germer, Abbott & Waldron, Tremonton, Utah, $22,777.

STOCKPILE PROJ. 275, 276, 278—Furnish crushed gravel surfacing, cover coat material in stockpiles on Highways US 95 and 2 near Naples, Moyie Canyon and Copeland Jct., Boundary County.

LOW BIDS: Grant Construction Co., Box 351, Coeur d'Alene, $56,755; Henry J. Holien, 405 St. Clair Ave., Sandpoint, $58,582; Frank G. Bauine, Inc., Box 84, Yardley, Wash., $58,750.

SEAL COATING, STOCKPILING — Seal coating 5.411 mi. U.S. Highway 10, Silver Beach-Wolf Lodge, and furnishing cover coat and sanding material in stockpiles at Mullan, Proj. No. STM-5041(515) and Stockpile No. 277, Kootenai and Shoshone counties.

LOW BIDS: Grant Construction Co., Box 351, Coeur d'Alene, $70,793; Lewiston Pre-Mix Concrete, Inc., 11th Ave. and 27th, Lewiston, $83,903; Frank G. Baulne, Inc., Box 84, Yardley, Wash., $88,610.

STOCKPILE PROJ. 281—Furnish crushed gravel surfacing and cover coat material in stockpiles on Highway U.S. 191 near Downey, Bannock County.

LOW BIDS: Western Construction Co., 1695 Yellowstone Ave., Pocatello, $12,530; C. B. Eaton & Sons, Box 265, Wendell, $12,900; LeGrand Johnson Construction Co., Inc., 639 E. 1st S., Logan, Utah, $13,110.

BRIDGE, North Fork Teton River—Construct 60′ concrete bridge on Salem road, Madison County; FAP No. S-6770(3).

LOW BIDS: Charles Zollinger, Rexburg, $16,661; Titus, Inc. 320 W. Ave. A, Jerome, $17,377; W. R. Cahoon Construction Co., 3208 Pole Line Rd., Pocatello, $21,117.
RM 4-10. Previous report 3-17, 3-25

**●STATE HIGHWAY PROJECT— Boise, Idaho**

Bids will be opened 2 p.m., April 28, by Idaho Department of Highways, 603 Main St., Boise for bridge repair. Plans with office at Boise and Coeur d'Alene. Certified check, cashier's check or bid bond 5%.

BRIDGE REPAIR, Mashburn — Repairing bridge over St. Maries River on U. S. H. No. 95 Alt., Benewah County; STM-5152(506).

Quantities: lump sum for steel bridge; furnish and drive 80′ of steel pipes; 1,600 MFBM timber untreated.
DM 4-15

● **STREETS, CURBS, GUTTERS—** **Caldwell, Idaho**

Bids will be received until 5 p.m., April 20 by city clerk, City Hall, Caldwell, for street, curb and gutter work on 23 blocks in southeast and north sections of town, in LID 47. Plans with city engineer, City Hall. DC 4-14

● **WALKWAYS—** **Hagerman, Idaho**

Bids will be opened 10 a.m., P.S.T., April 28, by Bureau of Sport Fisheries and Wildlife, 1001 N.E. Lloyd Blvd., Portland, Ore. (Box 3737) for removal of existing wooden walkways and construction and installation of 97 reinforced precast concrete walkway slabs for existing rearing ponds at the U.S. Fish-cultural station near Hagerman, Idaho. Plans with Portland office. DM 4-11

●■ **EXHAUST DUCT SYSTEM (AEC)—** **Idaho Falls, Idaho**

Bids will be opened 3 p.m., M.S.T., May 6, by Atomic Energy Commission, Idaho Operations Office, 550 2nd St., Idaho Falls, for construction of an exhaust duct and stack system for the Flight Engine Test Facility at the National Reactor Testing Station, Idaho; Inv. No. AT(10-1)-916. Plans with Idaho office. Bid bond 10%.

Work calls for the construction of an exhaust duct system to receive exhaust gases from the test facility. Specifications provide for a 150' high steel stack having a base diameter of 18'. The basic FET facility is now being constructed under a $6,000,000 joint venture contract of Wright-Cheney-Birch, northwest construction firms.

Planholders: Teller Construction Co., Box 2288, Idaho Falls; Arrington Construction Co., Inc., Box 881, Idaho Falls; Chicago Bridge & Iron Co., Box 687, Salt Lake City, Utah; Diversified Builders, Inc., Box 2270, Idaho Falls; Nelson Brothers Construction Co., 347 W. 16th S., Salt Lake City, Utah; Bumstead-Woolford Co., 1411 4th Ave., Seattle, Wash.; Technical Constructors, Inc., Box 2488, Dallas, Tex.; E. V. Lane Corp., Box 417, Palo Alto, Calif.; Howard S. Wright Construction Co., Box 3764, Seattle, Wash.; Larson & Co., 361 W. 4th S., Salt Lake City, Utah; Watkins Construction Co., Box 1786, Boise; Grenco Services, Inc., 210 W. 28th St., Baltimore, Md.; American Pipe & Construction Co., 518 N.E. Columbia Blvd., Portland, Ore.; Amercon Corp., 900 N. Alvarado St., Los Angeles, Calif.; Shaw & Estes, Inc., Box 2399, Dallas, Tex.; Mohr Vacuum Process Division, John Mohr & Sons, 3200 E. 96th St., Chicago, Ill.; Graver Tank & Mfg. Co., 1045 E. Huntington Drive, Arcadia, Calif.; Southwest Welding & Mfg. Division, Yuba Consolidated Industries, Inc., 3201 W. Mission Road, Alhambra, Calif.

VK 4-11. Previous report 3-14

●■ **SODIUM-BOILER, FUEL CYCLE (AEC)—** **Idaho Falls, Idaho**

(Estimated $2,500,000 to $3,000,000)

Bids will be opened 3 p.m., M.S.T., May 20, by Atomic Energy Commission, Idaho Operations Office, 550 2nd St., Idaho Falls (Box 2108), for construction of sodium-boiler plant, fuel cycle facility, utilities and facilities at EBR 2 area at the National Reactor Testing Station, Idaho; Inv. No. AT(10-1)-1002. Plans with above office. Bid guarantee 10%.

Plans and specifications are on file with Pacific Builder & Engineer, 2418 3rd Ave., Seattle, Wash.

1—Sodium Boiler Plant—To house heat exchanger for generation of steam from reactor energy along with sodium system pumping, storage and control equipment. Plant will be 117'x43', with a 78'x43' boiler wing of reinforced concrete with interior structural steel framing, and a 46'x43' sodium wing with concrete walls, structural steel framing and metal roof deck. Portions of walls to have corrugated translucent plastic panels, corrugated aluminum siding, built-up roofing. 2—Fuel Cycle Facility—Two main processing and fabrication cells, offices, service facilities. Overall size is 168'x134'. Heavily shielded, high density concrete; structural steel framework; steel roof deck; built-up roofing and insulation; corrugated insulated aluminum siding; pumice block walls, partitions; reinforced concrete substructure; fixed aluminum sash; ceramic tile, asphalt tile, acoustical tile. 3—Pump House No. 2—Pumice block, 11'x18' building including deep well pump with controls, heating, power and lighting, instrumentation. 4—Yard facilities including ditching, drainage, driveway, walkways, parking lot, yard lighting, fencing, underground utilities and services. 5—Alarm systems—Fire alarm, evacuation alarm, vault alarm, watchman tour and master clock system.

Planholders—Gen.: Fegles Construction Co., Inc., 2110 Nicollet Ave., Minneapolis, Minn.; Holmes & Narver, Inc., 828 S. Figueroa St., Los Angeles, Calif.; Stearns-Roger Manufacturing Co., 660 Bannock St., Denver, Colo.; Western-Knapp Engineering Co., 650 5th St., San Francisco, Calif.; M. J. Brock & Sons, Inc., 2894 Rowena Ave., Los Angeles, Calif.; Robert E. McKee General Contractor, Inc., Box 1748, Albuquerque, New Mexico; Technical Constructors, Inc., Box 2488, Dallas, Tex.; E. V. Lane Corp., Box 417, Palo Alto, Calif.; The Abbott-Warner Co., Box 3852, Youngstown, Ohio; H. Halvorson, Inc., 630 Judge Bldg., Salt Lake City, Utah.

Howard S. Wright Construction Co., Box 3764, Seattle, Wash.; Paul Hardeman, Inc., 11558 Tennessee Ave., Los Angeles, Calif.; Arrington Construction Co., Inc., Box 881, Idaho Falls; Diversified Builders, Inc., Box 2270, Idaho Falls; Davis Construction Co., Box 874, Idaho Falls; Gunther & Shirley Co., 4560 Sherman Oaks Ave., Sherman Oaks, Calif.; P. S. Lord Mechanical Contractors, 4507 S.E. Milwaukie Ave., Portland, Ore.; Petroleum Combustion and Engineering Co., 11941 Wilshire Blvd., Los Angeles; James Stewart Co., Box 2111, Phoenix, Ariz.; Hoffman Construction Co., 1345 Lee Blvd., Richland, Wash.; The J. F. White Engineering Corp., Box 144, Englewood, Colo.

The Patterson Foundry and Machine Co., Division of Ferro Corp., East Liverpool, Ohio; Manco Construction Co., 3754 Long Beach Blvd., Long Beach, Calif.; Malan Construction Corp., 2 Park Ave., New York, N.Y.; Construction Consultants Corp., 507 5th Ave., New York; Grove, Shepherd, Wilson & Kruge, Inc., 400 Madison Ave., New York; Jacobsen Construction Co., Box 1768, Salt Lake City, Utah; Long Construction Co., Inc., Box 8363, University Park Station, Denver, Colo.; The Refinery Engineering Co., Box 1558, Tulsa, Okla.; Grenco Services, Inc., 210 W. 28th, Baltimore, Md.; Eichleay Corp., 1180 Richard Ave., Santa Clara, Calif.; Rothschild, Raffin & Weirick, 274 Brannan St., San Francsico; The Ralph M. Parsons Co., 617 W. 7th, Los Angeles; Hilp & Rhodes, 918 Harrison, San Francisco; Williams, Chilquist & McArthur Co., Box 1038, Compton, Calif.; Southwestern Engineering Co., 4800 Santa Fe Ave., Los Angeles; Patti-MacDonald Construction Co., 1100 5th Ave., Seattle.

National Enterprises, 569 Laurel, San Carlos; Hood Construction Co., Box 2167, Whittier, Calif.; Eisenman & Elliott, Box 2178, Columbus, Ohio; Farnsworth & Chambers Co., Box 74, Houston, Tex.; Lummus Co., 385 Madison Ave., New York; Rosendahl Corp., 11933 Wilshire Blvd., Los Angeles; General Contractors, 1618 Pennsylvania Ave., Philadelphia, Pa.; Bowers Building and Construction Co., 2260 S. 3rd E., Salt Lake City, Utah; Zephyr Construction Co., Inc., 7412 New Utrecht Ave., Brooklyn, N.Y.; Shaw & Estes, Inc., Box 2339, Dallas, Tex.; Space Corp., Box 1496, Garland, Tex.; Leslie Miller, Inc., Box 3338, Fort Worth, Tex.; Fruin-Colnon Contracting Co., 48 Park Road, Burlingame, Calif.; C. W. Regan, Inc., 327 Hewes, Brooklyn, N.Y.; Henry C. Beck Co., 503 First National Bank Bldg., Dallas, Tex.

DM 4-11. Previous report 3-6

▲ **ALARM SYSTEM (AEC)—** **Idaho Falls, Idaho**

Six bids, ranging from a low of $30,378 by C-L Electric Co., 410 S. Main, Pocatello, to a high of $37,842 were received April 9 by Atomic Energy Commission, 550 2nd St., Idaho Falls, for installation of operation alarm system at the Flight Engine Test Facility and Shield Test (Pool) Facility, and the addition of special power services to serve the FET installation; AT(10-1),1009. OTHER LOW: Interstate Electric Co., 540 W. 7th, Salt Lake City, Utah, $30,975; Selo Electric Co., Inc., Box 1546, Seattle, $31,900.

VK 4-15. Previous report 3-21

**GRADING, SURFACING—Sandpoint, Idaho**

A request by property owners to repair Dehlin Road in area of Kep's Crossing, southeast of Idaho Falls, has been approved by Bonneville County Commissioners, Courthouse, Sandpoint. DC 4-11

## MONTANA

★ **WATER TANK—** **Chester, Mont.**

Award to Pittsburgh-Des Moines Steel Co., 1015 Tuttle St., Des Moines, Iowa, $34,945, by Town Council, Town Hall, Chester, for construction of 100,000-gal. capacity elevated steel water tank on a 100' steel tower with connections to the existing distribution system and appurtenant work in Chester. VK 4-15. Previous report 4-1

▲ **SEWAGE FACILITIES—** **Glasgow AFB, Mont.**

Bids received April 8 by Corps of Engineers, Bldg. 602, City County Airport, Walla Walla, Wash., for construction of sewage treatment and disposal facilities at Glasgow Air Force Base, near Glasgow, Mont.; ENG-45-164-59-26. Completion time 180 calendar days.

LOW BIDS: Peter Kiewit Sons' Co., Inc., 501 St. Johns Ave., Billings, Mont., $114,170; Cherf Bros., Inc., & Sandkay Contractors Inc., Box 938, Ephrata, Wash., $144,695; McLaughlin Inc., Box 1824, Great Falls, Mont., $161,272. Five bids received. Government estimate $168,957.

AM 4-10. Previous report 3-3

▲ **PAVING, GRADING—Great Falls, Mont.**

Three bids received April 6 by City Council, Civic Center, Great Falls, for construction of integral curb and gutter, water and sewer lines, and grading boulevard areas at Prospect Heights and Volk Terrace in Great Falls. BIDS: Nilson-Smith Construction Co., Box 1147, Great Falls, $81,785; McLaughlin, Inc., Box 1824, Great Falls, $84,[illegible]; S. Birch, Inc., Box 1926, Great Falls, $84,[illegible].

VK 4-11. Previous report 4-1

★ **WATER, SEWER LINES—** **Great Falls, Mont.**

Award to Joe Fogenstrom & Sons, [illegible] Smelter Ave., Black Eagle, $37,674, by City Council, Civic Center, Great Falls, for relocation of water mains and the replacement of the sanitary sewer for Block 12, Country Club addition, Great Falls.

VK 4-11. Previous report 4-

■ **STATE HIGHWAY PROJECTS** **Helena, Mont.**

Planholders announced on highway construction for which bid will be opened 9 a.m. April 22, by Montana State Highway Commission, Helena.

PLANTMIX SURFACING, Dillon - Butte Road—Grading, aggregate surfacing, plantmix bituminous surfacing, draining 4.245 mi. and construction of 209.5' reinforced concrete overpass at Victor Interchange, and construction of two concrete and steel overpasses totaling 1,421' over Butte, Anaconda and Pacific Railway; Chicago, Milwaukee St. Paul and Pacific Railway; and Northern Pacific Railway, and the Clark Fork River in Silver Bow County beginning about 5 mi. west of Butte and extending 4.245 mi. southwesterly; I-ING 15-2(8)118.

Planholders—S. Birch Inc., Box 1926, Great Falls; Hanson & Parr Construction Co., W. 315 Boone Ave., Spokane, Wash.; Kiely Construction Co., Drawer 246, Butte; Peter Kiewit Sons' Co., 1024 National Bank Bldg., Omaha, Neb.; Albert LaLonde Co., Sidney; McLaughlin Inc., Box 1824, Great Falls; N. A. Nelson Construction Co., Box 644, Sheridan, Wyo.; Nilson-Smith Construction Co., Box 1147, Great Falls; Northwest Engineering Co., Rapid City, S. Dak.; Richardson Construction Co., Inc., Box 335, Miles City; W. F. Roscoe Co., Box 2033, Billings; Virgil Smith, Box 895, Miles City; Gus M. Albert, Box 43[illegible] Miles; Baltrusch Construction Co., 436 W. 1st, Havre.

F & S Construction Co., 1300 Chicago, Butte; Holland Construction Co., 1121 [illegible]

34th, Bozeman; Bud King Construction Co., 1203 Wyoming, Missoula; Long Construction Co., Box 1875, Billings; Robinson & Shepherd Construction Co., 208 28th, Great Falls; Stanley H. Arkwright, Box 1211, Billings; Billings Construction Co., Box 267, Billings; Cherf Bros. Inc., and Sandkay Contractors Inc., Box 938, Ephrata; G. E. Marshall, Roundup; Naranche & Konda, 2000 Aberdeen, Butte; Aster, Johnson & Pedersen, 2020 W. 28th, Minneapolis, Minn.; Cahill-Mooney, 1220 E. Front, Butte; Carlson-Lien Co. and Central Construction Co., joint venture, Box 1072, Rapid City, S. Dak.; J. C. Compton Co., Box 86, McMinnville, Ore.; James Crick & Sons, Box 102, Yardley, Wash.

Gibbons & Reed Co., 825 W. 9th N., Salt Lake City, Utah; F. R. Hewett Co., Box 36, Parkwater Station, Spokane, Wash.; S. S. Mullen Inc., Box 3886 Terminal Annex, Seattle, Wash.; Robertson & Cave Inc., Box 1488, Great Falls; Roth Construction Co., Box 1226, Rapid City, S. Dak.; Sather & Sons, 1410 Havre St., Yardley, Wash.; Schultz & Lindsay Construction Co., 320½ Broadway, Fargo, N. Dak.; Sletten Construction Co., Box 1188, Great Falls; Summit Construction Co., Box 1609, Rapid City, S. Dak.; Union Construction Co., Box 1506, Missoula; C. B. Lauch Construction Co., Box 1566, Boise, Idaho; Megarry Bros., 436 33rd N., St. Cloud, Minn.; Fred H. Slate Co., 7805 S.W. 40th, Portland, Ore.; Zook Bros., Big Fork; Haggart Construction Co., Box 1310 Fargo, N. Dak.; A & B Construction Co., Box 554, Helena. Carl Nelson Construction Co., Box 297, Logan, Utah.

PLANTMIX SURFACING, Philipsburg-Maxville Road—Grading, aggregate surfacing- plantmix bituminous surfacing, draining 9.702 mi. in Granite County beginning about 0.5 mi. northwest of Philipsburg and extending 9.702 mi. northeasterly; F 78(7).

Planholders: S. Birch Inc., Great Falls; Kiely Construction Co., Butte; Peter Kiewit Sons' Co., Omaha, Neb.; Albert LaLonde Co., Sidney; McLaughlin Inc., Great Falls; Nilson-Smith Construction Co., Great Falls; Northwestern Engineering Co., Rapid City, S. Dak.; Richardson Construction Co. Inc., Miles City; Virgil Smith, Miles City; Gus M. Albert, Miles City; Baltrusch Construction Co., Havre; F & S Construction Co., Butte; Holland Construction Co., Bozeman; Bud King Construction Co., Missoula; Long Construction Co., Billings; Stanley H. Arkwright, Billings; Billings Construction Co., Billings; Cherf Bros. Inc. and Sandkay Contractors Inc., Ephrata, Wash.; G. E. Marshall, Roundup; Naranche & Konda, Butte; O'Brien Construction Co., Box 1801, Great Falls; Carlson-Lien Co., Box 1629, Rapid City, S. Dak.; Clifton & Applegate, Box 8, Yardley, Wash.; J. C. Compton Co., McMinnville, Ore.; James Crick & Sons, Yardley, Wash.; Dillsworth Construction Co., Box 1005, Helena; Gibbons & Reed Co., Salt Lake City, Utah; F. R. Hewett Co., Spokane, Wash.

Neil R. Miller, Box 1033, Missoula; P. S. Mullen Inc., Seattile, Wash.; Robertson & Cave Inc., Great Falls; Roth Construction Co., Rapid City, S. Dak.; Sather & Sons, Yardley, Wash.; Schultz & Lindsay Construction Co., Fargo, N. Dak.; Summit Construction Co., Rapid City, S. Dak.; R. J. Sundling, Box 210, Livingston; Union Construction Co., Missoula; United Construction Co., Inc., Box 176, Bainville; Wickens Bros., Suffolk, Mont.; Megarry Bros., 476 33th N. St., Cloud, N. D.; Fred H. Slate Co., Portland, Ore.; Zook Bros. Construction Co., Big Fork; Haggarty Construction Co., Fargo, N. Dak.; Francis Tindall, 1302 W. Broadway, Lewistown.

PLANTMIX SURFACING, Wolf Point-North Dakota Line Road—Grading, aggregate surfacing, plantmix bituminous surfacing, draining 9.846 mi. in Roosevelt County beginning about 9.846 mi. west of Poplar and extending easterly to point within the city limits of Poplar; F 84(26).

Planholders—S. Birch Inc., Great Falls; Kiely Construction Co., Butte; Peter Kiewit Sons' Co., Ohama, Neb., Albert LaLonde Co., Sidney; McLaughlin Inc., Great Falls.; Nilson-Smith Construction Co., Great Falls; Northwestern Engineering Co., Rapid City, S. Dak.; Richardson Construction Co. Inc., Miles City; Virgil Smith, Miles City; Guy M. Albert, Miles City; Baltrusch Construction Co., Havre; F & S Construction Co., Butte; Holland Construction Co., Bozeman; Bud King Construction Co., Missoula; Long Construction Co., Billings; Stanley H. Arkwright, Great Falls; Billings Construction Co., Billings; G. E. Marshall, Roundup; Naranche & Konda, Butte; O'Brien Construction Co., Great Falls.

Carlson-Lien Co., Rapid City, S. Dak.; Clifton & Applegate, Yardley, Wash.; James Crick & Sons, Yardley, Wash.; Norgaard & Hilling, Box 1230, Williston, N. Dak.; Robertson & Cave Inc., Great Falls; Roth Construction Co., Rapid City, S. Dak.; Dean R. Rounds, Box 869, Rapid City; Schultz & Lindsay, 320½ Broadway, Fargo, N. Dak.; Summit Construction Co., Rapid City, S. Dak.; R. J. Sundling, Livingston; United Construction Co., Bainville; Megarry Bros., St. Cloud, Minn.; Northern Improvement Co., 633 1st N., Fargo, N. Dak.; Zook Bros. Construction Co., Big Fork; Haggart Construction Co., Fargo, N. Dak.

PLANTMIX SURFACING, Glendive-Wibaux—Grading, aggregate surfacing, plantmix surfacing, draining, constructing 17' concrete junior grade separation on 4.184 mi. of Glendive East Road in Dawson County beginning about 2.5 mi. east of Glendive and extending easterly toward Wibaux; I 94-6(2)216.

Planholders—S. Birch Inc., Great Falls; Kiely Construction Co., Butte; Peter Kiewit Sons' Co., Omaha, Neb.; Albert LaLonde Co., Sidney; McLaughlin Inc., Great Falls; N. A. Nelson Construction Co., Sheridan, Wyo.; Nilson-Smith Construction Co., Sheridan, Wyo.; Northwestern Engineer Co., Rapid City, S. Dak.; Richardson Construction Co., Miles City; W. P. Roscoe Co., Billings; Virgil Smith, Miles City; Gus M. Albert, Miles City; Baltrusch Construction Co., Havre; F & S Construction Co., Butte; Holland Construction Co., Bozeman; Bud King, Missoula; Long Construction, Billings; Stanley H. Arkwright, Billings; Billings Construction Co.; Cherf-Sandkay, Ephrata; G. E. Marshall, Roundup.

Naranche & Konda, Butte; Culp Construction Co., Box 1027, Big Timber; Harris Construction Co., Box 966, Aberdeen, S. Dak.; Holm Construction Co., Glendive; Carlson-Lien, Rapid City, S. Dak.; Clifton & Applegate, Yardley, Wash.; James Crick & Sons, Yardley; Norgard & Hillings, Williston, N. Dak.; Robertson & Cave, Inc., Great Falls; Roth Construction, Rapid City, S. Dak.; Schultz & Lindsay, Fargo, N. Dak.; Summit Construction Co., Rapid City, R. J. Sundling, Livingston; United Construction Co., Inc, Bainville, Mont.; Wickens Bros., Suffolk, Mont.; Megarry Bros., St. Cloud, Min.; Northern Improvement, Fargo, N. Dak.; Zook Bros. Construction, Big Fork; Haggart Construction Co., Fargo.

SURFACING, Circle Northwest Road—Grading, aggregate surfacing, draining 8.097 mi. in McCone County beginning about 15 mi. northwest of Circle and extending 8.097 mi. northwesterly to about 0.5 mi. west of Weldon; S 31(4).

Planholders—S. Birch Inc., Great Falls; Kiely Construction Co., Butte; Peter Kiewit Sons' Co., Omaha, Neb.; Albert LaLonda Co., Sidney; McLaughlin Inc., Great Falls; Nilson-Smith Construction Co., Great Falls; Northwestern Engineering Co., Rapid City; Richardson Construction Co., Miles City; Virgil Smith, Miles City; Gus M. Albert, Miles City; Baltrusch Construction, Havre; F & S Construction, Butte; Holland Construction, Bozeman; Bud King, Missoula; Long Construction, Billings; Stanley H. Arkwright, Billings; Billings Construction, Billings; G. E. Marshall, Roundup; Naranche & Konda, Butte; Culp Construction Big Timber; Carlson-Lien, Rapid City; James Crick & Sons, Yardley; Dillsworth, Helena; Norgaard & Hillings, Williston; The O'Neil Construction Co., Box 1154, Havre; Robertson & Cave, Inc., Great Falls; Roth Construction, Rapid City; Dean R. Rounds, Rapid City; Schultz & Lindsay, Fargo; Summitt Construction, Rapid City; R. J. Sundling, Livingston; United Construction, Bainville; Wickens Bros., Suffolk; Hagen Construction Co., Alamo, N. Dak.; Northern Improvement, Fargo; Zook Bros., Big Fork; Francis Tindall, Lewistown.

PLANTMIX SURFACING, Armells Creek-Hayes-Harlem Road—Plantmix bituminous surfacing 38.343 mi. in Blaine County beginning near the Phillips and Blaine County line and extending northerly to the Fort Belknap Agency; S 187(6).

Planholders—S. Birch Inc., Great Falls; Kiely Construction, Butte; Peter Kiewit Sons' Co., Omaha; Albert LaLonde, Sidney; McLaughlin Inc., Great Falls; Nilson-Smith, Great Falls; Northwestern Engineering, Rapid City; Richardson Construction, Miles City; Virgil Smith, Miles City; Gus M. Albert, Miles City; Baltrusch Construction, Havre; F & S Construction, Butte; Holland Construction, Bozeman; Bud King, Missoula; Long Construction, Billings; Stanley H. Arkwright, Billings Construction, Billings; G. E. Marshall, Roundup; Naranche & Konda, Butte; O'Brien Construction, Great Falls; Culp Construction, Big Timber.

Clifton & Applegate, Yardley; J. C. Compton, McMinnville; James Crick & Sons, Yardley; Gibbons & Reed, Salt Lake City; Robertson & Cave, Inc., Great Falls; Dean R. Rounds, Rapid City; Schultz & Lindsay, Fargo; Summit Construction, Rapid City; R. J. Sundling, Livingston; Asbell Bros. Construction and Wyoming Roofing, Box 449, Riverton, Wyo.; Megarry Bros., St. Cloud; Northern Improvement, Fargo; Zook Bros., Big Fork; Haggart Construction, Fargo; Francis Tindall, Lewistown.

PLANTMIX SURFACING, Plentywood-Canadian Line Road—Plantmix bituminous surfacing 15.633 mi. in Sheridan County beginning in Plentywood and extending northerly to the International Boundary at the Port of Raymond; S 313(4).

Planholders—S. Birch Inc., Great Falls; Kiely Construction, Butte; Peter Kiewit Sons', Omaha; Albert LaLonde, Sidney, McLaughlin Inc., Great Falls; Nilson-Smith, Great Falls; Northwestern Engineer, Rapid City; Richardson Construction, Miles City; Virgil Smith, Miles City; Gus M. Albert, Miles City; Baltrusch Construction, Havre; F & S Construction, Butte; Holland Construction, Bozeman; Bud King, Missoula; Long Construction, Billings; Stanley Arkwright, Billings; Billings Construction, Billings; G. E. Marshall, Roundup; Naranche & Konda, Butte; O'Brien Construction, Great Falls; Culp Construction, Big Timber; Billings Blacktop Co., Box 174, Billings; Clifton & Applegate, Yardley; James Crick & Sons, Yardley; Gibbons & Reed, Salt Lake City; Dean R. Rounds, Rapid City; Schultz & Lindsay, Fargo; Summit Construction, Rapid City; R. J. Sundling, Livingston; Asbell Bros. Construction and Wyoming Paving, Riverton; Megarry Bros., St. Cloud; Northern Improvement, Fargo; Zook Bros., Big Fork; Haggart Construction, Fargo; Francis Tindall, Lewistown.

LATRINES, TANKS, Tiber Dam—Constructing three double latrines with concrete tanks and floor slab and construction of concrete tank and erection of state-furnished latrine house for four single latrines at various recreation sites at Tiber Dam in Toole and Liberty counties; SPP 071-9009-08.

Planholders—S. Birch Inc., Great Falls; Kiely Construction, Butte; Peter Kiewit Sons' Co., Omaha; Albert LaLonde, Sidney; McLaughlin Inc., Great Falls; Nilson-Smith Construction, Great Falls; Northwestern Engineering, Rapid City; Richardson Construction, Miles City; Virgil Smith, Miles City; Gus M. Albert, Miles City; Baltrusch Construction, Havre; F & S Construction, Butte; Holland Construction, Bozeman; Bud King, Missoula; Long Construction, Billings; Leigland Co., Great Falls; Walter Mackin & Son, 1145 N. 30th, Billings.

LS 4-14. Previous report 4-4

## ALASKA

■ **PAVING, SEWERS— Anchorage, Alaska**

Planholders announced for street, curb, gutter, sidewalk and storm sewer improvements totaling 89 blocks in Anchorage. Bids will be opened 2 p.m., April 23, by City Council, City Hall, Anchorage. Plans with Robert Smith, city engineer, City Hall. $25 deposit. Bid bond 10%. Group A involves 56 blocks, Group B, 33 blocks.

Quantities: 98,450 c.y. excavation; 62,740 c.y. classified backfill; 12,480 tons leveling course; 12,670 ton asphaltic concrete pavement; 29,600 gal. seal coat; 1,670 ton chips;

29,450 sq. yd. portland cement concrete sidewalk; 58,990' curb and gutter. ALT A—Add to basic bid—1,651' of 10", 99' of 12", 772' of 15", concrete pipe; 350' of 15", 344' of 18 reinforced concrete pipe. ALT B—Add to basic bid—449' of 10", 1,202' of 12", 99' of 15", 1,122' of 18", 1,414' of 21" corrugated metal pipe.

Planholders: Alaska Concrete Products Co., Box 97, Anchorage; Cheney Construction Co., 208 Central Bldg., Seattle; Ramstad Construction Co., Box 1454, Anchorage; Stock & Grove, Inc., Box 2051, Anchorage; A & G Excavating Co., Box 41349, Anchorage; Doughty Construction Co., Box 1167, Spenard; The Bachner Co., 1603 Bannister Road, Anchorage; Morrison-Knudsen Co., Inc., Box 320, Anchorage; William D. Burk, Box 1618, Anchorage; Wesco Constructors, Inc., 29 Christensen Road, Anchorage; McLaughlin, Inc., Box 112, Palmer; American Service, Inc., Box 915, Anchorage; Basher, Inc., Box 517, Anchorage; Alcan Pacific, Box 1551, Anchorage; Anchorage Sand & Gravel; Box 1994, Anchorage; Taylor Construction Co., Box 5509, Mountain View; S. S. Mullen, Inc., Box 3886 Terminal Annex, Seattle; W. R. Wilkinson Co., Inc., Box 88, Monrovia, Calif. AL 4-15. Previous report 4-1

**●PILING, FLOATS— Cordova, Alaska**

Bids will be opened 10 a.m., P.S.T., April 21, by Alaska Highway and Public Works Department, 503 Alaska Office Bldg., Juneau (Box 1361), for driving 2,000' of piling and construction and installation of 132' of 12' float and 297' of 10' float in Cordova Boat Harbor, Cordova. Plans with Juneau office.

Planholders: United General, Box 397, Seattle, Wash.; M. B. Munter, Heady Hotel, Homer; Marine and Industrial Supply Co., Pier 50, Seattle; Koppers Co., Inc., White-Henry-Stuart Bldg., Seattle; Sontag Construction Co., Box 345, Valdez. JU 4-14

**▲DRAINAGE, BARRICADES— Eielson AFB, Alaska**

Ten bids ranging from a low of $61,973 by Peter Kiewit Sons' Co., 1300 Aloha, Seattle, to a high of $197,280 by Ghemm Construction Co., Fairbanks, were received April 9 by Corps of Engineers, Box 1288, Anchorage, for drainage rehabilitation and additional barricades in the ordnance storage area at Eielson Air Force Base, Alaska; ENG-95-507-59-54. OTHER LOW: Moore & Mosley Construction Co., Box 1011, Fairbanks, $127,701; Morrison-Knudsen Construction Co., Inc., Box 320, Anchorage, $139,652. AL 4-14. Previous report 4-1

**■GRADING, PAVING— Juneau, Alaska**

Planholders announced for grading, drainage, paving .667 mi. of 3rd Ave., Division St. and Front St. in Nome and paving .889 mi. of Nome Airport Road. Bids will be opened 11 a.m., April 21, by Bureau of Public Roads, 319 Federal Bldg., Juneau. Plans with Juneau office. Bid guarantee 10% ($100,000 or less), 5% (over $100,000).

Planholders: Wm. A. Smith, 1401 Fairfax Trafficway, Kansas City, Kansas; Morrison-Knudsen Co., Inc., Box 320, Anchorage; Green Construction Co., Box 830, Fairbanks; E and B Construction Co., Nome; Beall Pipe and Tank Corp., 218 N. 16th, Billings, Mont.; McLaughlin, Inc., Box 1824, Great Falls, Mont.

JU 4-10. Previous report 3-25

**■SURFACING— Juneau, Alaska**

Planholders announced for bituminous surfacing 6.920 mi. of Steese Highway between Chena Hot Springs Road and Elliott Highway, near Fairbanks; Proj. F-O-61-1(5). Bids will be opened 11 a.m., April 21, by Bureau of Public Roads, 319 Federal Bldg., Juneau. Plans with Juneau office. Bid guarantee 14% ($100,000 or less), 5% (over $100,000).

Planholders: S. S. Mullen, Inc., Box 3886, Terminal Annex, Seattle; Burgess Construction Co., Box 1410, Fairbanks; Ramstad Construction Co., Box 1454, Anchorage; Wm. A. Smith, 1401 Fairfax Trafficway, Kansas City, Kansas; Morrison-Knudsen Co., Inc., Box 320, Anchorage; Green Construction Co., Box 830, Fairbanks; McLaughlin, Inc., Box 112, Palmer; Ghemm Co., Box 787, Fairbanks. JU 4-10. Previous report 3-25

**●MICROWAVE SYSTEM— Juneau, Alaska**

Bids will be opened 1 p.m., P.S.T., June 1, by Alaska Communication System, 421 Federal Office Bldg., Seattle, for construction of a complete microwave system including microwave terminal equipment, antenna systems, towers, reflectors and accessory equipment, between Juneau and Lena Point, Alaska; SC 45-041-59-13. Specifications available from Seattle office; Deputy Commander, ACS, Anchorage; Sector Commander, ACS, Juneau; Station Commander, ACS, Ketchikan. Bid bond 5%. Prebid conference 10 a.m., May 18, in room 538 of Federal Office Bldg., Seattle. RM 4-10

**●TRESTLE, FLOAT — Seward, Alaska**

Bids will be opened 10 a.m., P.S.T., April 21, by Alaska Highway and Public Works Department, 503 Alaska Office Bldg., Juneau, for construction and installation of 145'xx6' approach trestle; 3,740 sq. ft. of 10' float; 11 float mooring piling; one gangway ramp at Seward Harbor, Seward; Proj. 9653-06. Plans with Juneau office (Box 1361); and with field office at 1228 E. 7th Ave., Anchorage. Certified check or cashier's check 10%.

Planholders: Steinacker & Sandstrom, Box 64, Cordova; Charles Herbert, Box 119, Juneau; York Steel Co., Box 1705, Anchorage; H. G. Date, Box 258, Cordova; Swalling Construction Co., 203 Turnagain Apartment, Anchorage. JU 4-14

**★POWERHOUSE— St. Paul Island, Alaska**

Award to Teller Construction Co., 845 N. Graham, Portland, $71,900, by Fish and Wildlife Service, Bureau of Commercial Fisheries, The Interior Bldg., 1001 N.E. Lloyd Blvd., Portland, Ore. (Box 3737), for construction of a reinforced concrete powerhouse with overhead crane and related work, but without engine or generation equipment, on St. Paul Island, Pribilof Island, Alaska. WB 4-11. Previous report 4-2

**●SURFACING— Valdez, Alaska**

Bids will be opened 10 a.m., P.S.T., May 13, by Alaska Public Works, 123 W. 3rd, Juneau (Box 1181), for street improvements in Valdez; Proj. Aaa-50-A-125. Plans with Juneau office. $25 deposit. Certified check or bid bond 5%.

Basic Bid: 24,000' of subgrade preparation and 4" crushed aggregate base course on city streets. Quantities: 31,270 c.y. unclassified excavation and disposal; 39,180 c.y. borrow excavation; 8,536 c.y. crushed aggregate base course; 822' of 30" pipe culvert; 1,598' of 24" pipe culvert; five monuments; five manholes; adjustment of 18 manholes and 30 valve boxes.

Alternates: 695 sq. yd. of concrete sidewalk and construction of 2" bituminous roadmix surface course ranging from 2,000 sq. yd. to 6,000 sq. yd., with prime coat and seal coat. Acceptance of alternates will be contingent upon availability of funds.

DM 4-15

## NORTHERN CALIFORNIA

**★WATER SUPPLY SYSTEM— Almaden AFS, Calif.**

Award to Granite Construction Co., Box 900, Watsonville, $194,680, by Corps of Engineers, 180 New Montgomery St., San Francisco, for construction of water supply system, including pumphouse, water storage tank, electrical work, earthwork, stabilized aggregate access road, drainage facilities, Almaden Air Force Station, Santa Clara County; ENG-04-203-59-7.

RM 4-18. Previous report 4-11

**▲JUNCTION DAM— El Dorado County, Calif.**

Bids were opened April 9 by Sacramento Municipal Utility District, 1708 59th St., Sacramento, for construction of concrete arch Junction Dam; reinforced concrete structure at intake to Jaybird Tunnel; reinforced concrete lining in upstream portion to Jaybird Tunnel; transmission lines; clearing Junction Reservoir; Upper American River Project, El Dorado County; Inv. No. 2207.

LOW BIDS: Fruin-Colnon Contracting Co., 48 Park Rd., Burlingame, $1,557,270; Pacific Bridge Co., Foot of Sherman St., Alameda, $1,657,525; John C. Gist Co., Box 296, Floria, $1,934,845. PB 4-18. Previous report 4-4

**★CLEARING RESERVOIR SITE— Lewiston, Calif.**

Awards to Hubner & Michner, Inc., Box 8757, University Park Station, Denver, Colo., $350,000 (Sched. 1—Stuart Fork to Sawmill Gulch), and to J. H. Trisdale, Inc., Box 779, Redding, $553,350 (Scheds. 2 and 3—Sawmill Gulch to East Fork), by Bureau of Reclamation, Box 247, Lewiston, for clearing Trinity Reservoir site, Stuart Fork to East Fork, Trinity River, near Lewiston, Trinity County; Spec. No. 200C-407. Bids opened March 10. RM 4-18. Previous report 2-25

**●GRADING, BRIDGE, SURFACING— Madera County, Calif.**

Bids will be opened 2 p.m., May 7, by Bureau of Public Roads, Third Floor, New Mint Bldg., San Francisco, for grading, bridge, slope stabilization, and bituminous surfacing 3.708 mi. along east side of Bass Lake, Proj. Calif. Forest Highway 74-A(1), Unit 2, North Fork, Sierra National Forest, Madera County. Specs with above office. Completion time 200 calendar days.

Quantities: 32 acre clearing and grubbing, 188,000 c.y. unclassified excavation; 31,300 c.y. selected borrow; 23,400 yd. mi. overhaul; 27 ton asphalt, RC-2; 3,706 mi. roadmix surfacing laid; 810 ton asphalt,MC-3; 89 c.y. class A concrete; 7,380 lb. reinforcement steel; 4,030' galvanized corrugated metal pipe; 240' concrete piles; 57' bridge railing; 18,720' barbed wire fence. RM 4-

**●DEEP WELL PUMP— Modesto, Calif.**

Bids will be opened 2 p.m., April 21, by City Council, City Hall, Modesto, for furnishing and installing one deep well turbine pump and electrical equipment in Modesto. Specs with Public Works Director, 715 10th St. $10 deposit. Cash, bid bond, cashier's or certified check 10%. RM 4-

**▲SEWERS— Oakland, Calif.**

Two bids were opened April 9 by City Council, City Hall, Oakland, for construction sewers and a pumping station southeast of High St. near Tidewater Ave., A. M. Peralta portion of Rancho San Antonio, Oakland. Res. 37914 C.M.S. BIDS: McClure Construction Co., 11375 Elvessa St., Oakland, $59,9 McGuire and Hester, 796 66th Ave., Oakland, $98,490.

RM 4-18. Previous report

**★SITE PREPARATION— Oakland, Calif.**

Award to Gallagher and Burk, Inc., High St., Oakland, $84,947, by Oakland Unified School District of Alameda County, 1205 Second Ave., Oakland, for grading and incidental work on the Redwood Road Elementary School site, 5000 Redwood Road, Oakland. RM 4-18. Previous report 4-

**★SLIDE GATES— Oakland, Calif.**

Award to Willamette Iron and Steel Co., 2800 N.W. Front Ave., Portland, Ore., $ 705, by Corps of Engineers, 1209 8th St., Sacramento, for furnishing five tandem slide gate assemblies and services of one erection engineer during erection and testing equipment for Black Butte Project, Stony Creek, near Orland; Spec. 2403.

RM 4-18. Previous report 4-

**●INTAKE CHANNEL, DISCHARGE LINES (BuRec)— Red Bluff, Calif.**

Bids will be opened 10 a.m., P.S.T., May 28 by Bureau of Reclamation, Box 752, Red Bluff, for construction of intake channel and discharge lines at Corning Canal Pumping Plant, three miles southeast of Red Bluff, Tehama County, Central Valley Project, Calif.; Spec. No. DC-5181. Specifications obtainable from Red Bluff; Box 2511, Sacramento; Bldg. 53, Denver Federal Center, Denver, Colo.

Quantities: 347,000 c.y. excavation; 3 c.y. concrete; superstructure for pump unit; other work. Completion time 490 d

DM

★EARTHWORK, STRUCTURES, SURFACING— Redding, Calif.

Award to Ray Kizer Construction Co., 3760 S.W. Jerald Ct., Portland, Ore., $613,735, by Bureau of Reclamation, Box 247, Lewiston, for earthwork, structures, and bituminous surfacing, 5 mi., relocation of Trinity County road, Ridgeville to Covington Hill, Central Valley Project, Calif.; Spec. No. 5150. RM 4-18. Previous report 3-14

●PLANTMIX SURFACING, CURBS, SIDEWALKS, DRAINAGE— Sacramento, Calif.

Bids will be opened 10 a.m., April 22, by Sacramento County Board of Supervisors, 827 7th St., Sacramento, for improving Morse Terrace Assessment District, involving plantmix surfacing, concrete curbs, gutters, and sidewalks, and drainage facilities. Engineers: Packard, Muir and Train, 3260 J St., Sacramento. Quantities: 1,550 c.y. excavation; 3,120 sq. yd. 4" untreated base; 3,120 sq. yd. 2" plantmix surfacing; 3,120 sq. yd. seal coat; 1,960' concrete curb, gutter; 5,520 sq. ft. 3½" concrete sidewalks; 706' reinforced concrete pipe, 8" to 15"; 812' vitrified clay pipe, 4" and 6". PB 4-18

★ASPHALTIC CONCRETE PAVING— Sacramento, Calif.

Award to A. Teichert and Son, Inc., 1931 Stockton Blvd., Sacramento, $30,721, by City Council, Sacramento, for construction of 24th St. bypass road, involving asphaltic concrete paving, curbs, gutters and sewers in Sacramento. PB 4-18. Previous report 3-21

●SEWERS— Sacramento, Calif.
(Estimated cost $80,000)

Bids will be opened 10 a.m., April 22, by Sacramento County Board of Supervisors, 827 7th St., Sacramento, for constructing sewers in Fair Oaks Blvd. Sewer Assessment District, Sacramento County. Specs with county engineer Arthur Kiefer, room 404, above address. $10 deposit. Quantities: 10,839' of 6" 1,212' of 8", vitrified clay sewer pipe; 60' corrrugated metal pipe, 36". PB 4-18

▲PAVING, SEWERS, CURBS— Sacramento, Calif.

Five bids were opened April 9 by City Council, City Hall, Sacramento, for widening Sutterville Rd. from Del Rio Rd. to Freeport Blvd. in Sacramento, involving asphaltic concrete pavement, curbs, gutters, sewers, et al. LOW BIDS: McGillivray Construction Co., 65th and Folsom Blvd., $47,697; A. Teichert and Son, Inc., 1931 Stockton Blvd., $52,825; Lentz Construction Co., 2416 Sutterville Rd., $57,306. All of Sacramento. PB 4-18. Previous report 3-28

★PAVING, CURBS, SIDEWALKS— Sacramento, Calif.

Award to A. Teichert and Son, Inc., 1931 Stockton Blvd., Sacramento, $29,481, by Sacramento County Board of Supervisors, 827 7th St., Sacramento, for paving, constructing curbs, gutters, sidewalks, sewers, Wood Crest Assessment District, Sacramento County. PB 4-18. Previous report 4-4

●DRAINAGE CANAL— Sacramento, Calif.

Bids will be opened for the second time 10 a.m., April 22, by Sacramento County Board of Supervisors, 827 7th St., Sacramento, for construction of drainage canal, involving 22,000 c.y. excavation and 28,000 sq. ft. gunnite, South Sacramento Drainage Unit No. 1, part A, Sacramento County. All bids received April 1 were rejected. PB 4-18. Previous report 4-4

●STATE HIGHWAY PROJECT— Sacramento, Calif.

Additional bids to be opened 2 p.m., April 29, by California Division of Highways, 510 Public Works Bldg., Sacramento, on the following highway construction project. Plans with state highway engineer, above address.

V-SLO,MON-56-A,B,C — Plantmix surface 28.8 mi. on existing surfacing, 28.8 mi. from Arroyo De La Cruz Creek to Lucia, San Luis Obispo and Monterey counties. RM 4-18. Previous report 4-4, 4-11

★STATE HIGHWAY PROJECTS— Sacramento, Calif.

Awards announced by California Division of Highways, 510 Public Works Bldg., Sacramento, on the following highway construction projects for which bids were opened April 1.

II-SIS-82-E—Grade approaches, plantmix surface, construct bridge, 0.4 mi., at Shasta River, 1 mi. west of Montague, Siskiyou County. AWARD: Bos Construction Co., 1035 Grayson, Berkeley, $107,518.

X-SOL-74-B—Grade, plantmix surface 0.4 mi. from east city limit of Vallejo to Ream St., Solano County. AWARD: Oliver DeSilva, 2333 Eden Road, San Leandro, $39,125.

V-MON-118-SAL — Construct channelization, install traffic signal systems, 0.12 mi., in Salinas between Main St. and Monterey St., Monterey County. AWARD: Marshall Electric Co., 1701 Industrial Rd., San Carlos, $33,013.

IV-ALA-69-HAY,D—Prepare and plant 42 acres roadside areas, 2.1 mi., from south of Tennyson Rd. to north of Jackson St., in and near Hayward, Alameda County. AWARD: The Justice Co., 1260 59th, Oakland, $60,704.

III-YUB-15-A—Plantmix surface and seal coat 5 mi. existing highway, from 1.8 mi. east of Marysville to Dry Creek, Yuba County. AWARD: Baldwin Contracting Co., Inc., 9th and Yuba, Marysville, $32,975.

III-SAC,YOL-3,4,11;50,7,87-VAR— Plantmix surface and seal coat 12.7 mi., various locations, Sacramento, Broderick, in and near Woodland, and between Brooks and Esparto, Sacramento and Yolo counties. AWARD: A. Teichert and Son, Inc., 1931 Stockton Blvd., Sacramento, $77,840. PB 4-18. Previous report 4-4

▲STATE HIGHWAY PROJECTS— Sacramento, Calif.

Bids were opened April 15 by California Division of Highways, 510 Public Works Bldg., Sacramento, on the following highway construction projects.

IV-CC-7-D A—Grade, plantmix surface over cement treated base, frontage roads between Grand View Ave. and Pomona St., near Crockett, Contra Costa County.

LOW BIDS: Gallagher & Burk, Inc., 344 High St., Oakland, $105,538; McGuire & Hester, Oakland, $118,117; Krull & Pachaeco, Decoto, $118,197.

II-PLU-21-A—Construct two reinforced concrete bridges, 0.75 mi., grade approach roadways and plantmix surface on untreated base, at Chambers Creek and at Chipps Creek, 5 mi. north and 10 mi. north of Storrie, Plumas County.

LOW BIDS: G. S. Herrington, Box 708, Auburn, $215,996; Baldwin Contracting Co., Inc., 9th and Yuba, Marysville, $219,594; Thomas Construction Co., 4665 E. Hedges, Fresno, $226,714.

IV-NAP-6-A B—Grade, plantmix surface on untreated base and existing pavement, 1.7 mi., widen two bridges, install drainage facilities, various locations from 6 mi. northeast of Napa to Rt. 102, Napa County.

LOW BIDS: Slinsen Construction Co., 1539-A Trancas Road, Napa, $114,918; Oliver De Silva, 2333 Eden Road, San Leandro, $122,380; Harold Smith, Box 232, St. Helena, $122,470.

V-MON-22,56-A, I — Modify traffic signal system, construct channelization at intersection, junction routes 22 and 56 in Castroville, Monterey County.

LOW BIDS: Smith-Wehner Co., Inc., 4665 E. Hedges, Fresno, $19,588; Marshall Electric Co., 1701 Industrial Road, San Carlos, $24,867; Granite Construction Co., Box 900, Watsonville, $27,383. PB 4-18. Previous report 4-4

●STATE HIGHWAY PROJECTS— Sacramento, Calif.

Bids received April 8, by California Division of Highways, 510 Public Works Bldg., Sacramento, on the following highway construction projects.

III-YOL-90,6-A,B,WIN,D — Graded freeway to be paved with concrete on cement treated subgrade and plantmix surfacing on untreated base, existing highway to be plantmix surfaced on existing surfacing, other roadbeds to be graded and surfaced, 13.7 mi. between Solano County line and Long Creek, Yolo County.

LOW BIDS: Gordon H. Ball, 300 Camille Ave., Danville, $1,392,945; A. Teichert and Son, Inc., 1931 Stockton Blvd., Sacramento, $1,417,710; Peter Kiewit Sons Co., 442 Post, San Francisco, $1,514,370.

III-E,D-11,38-J,K,B—Widen existing highway by grading, plantmix surfacing on cement treated base and existing surfacing, 2.9 mi., widen two bridges, channelize intersection of routes 11 and 38, between Mays and Globins, El Dorado County.

LOW BIDS: Harms Bros., 5261 Stockton Blvd., Sacramento, $371,348; Baun Construction Co., Inc., 3229 W. Dudley Ave., Fresno, $419,686; Bragato Paving Co., 500 Bragato Rd., Belmont, $419,968.

I-LAK-15A—Grade, plantmix surface on untreated base, 0.3 mi., two-lane highway, construct reinforced concrete bridge, 0.3 mi. west of Upper Lake, Lake County.

LOW BIDS: John M. Ferry, 5201 San Fernando Rd., Glendale, $195,617; G. S. Herrington, Box 708, Auburn, $197,260; Thomas Construction Co., 4665 E. Hedges Ave., Fresno, $204,402.

II-TRI-29,35-A,B—Grade approaches, construct two bridges, 0.2 mi., at Hayfork Creek, 10 mi. southeast of Peanut and at Dobbins Gulch, Trinity County.

LOW BIDS: Dalzell Rigging Co., 1150 6th, Berkeley, $42,714; W. H. Lindeman and Sons, Inc., Rt. 1, Box 740, Red Bluff, $43,059; Morgan Construction Co., Box 904, Redding, $44,470.

III-SUT-3-YC,A—Widen highway by grading, plantmix surfacing on cement treated base and existing pavements, 0.9 mi., modify traffic signal systems and highway lighting, between Rt. 15 and 0.9 mi. north in and near Yuba City, Sutter County.

LOW BIDS: Brown-Ely Co., State Highway, Corte Madera, $179,821; Lester L. Rice and Sons, Inc., 235 Sumner St., Yuba City, $187,164; Wright Bros., Rt. 1, Box 226, Gridley, $189,755.

IV-CC-609—Repair storm damaged portions of two-lane highway by grading, placing untreated base and plantmix surfacing, installing drainage facilities and metal bin-type retaining wall, 0.3 mi., 5 mi. southeast of Clayton, on Marshy Creek Rd. between 4.9 mi. east of Ygnacio Valley Rd. and Sycamore Rd., Contra Costa County.

LOW BIDS: J. E. Douglass, 1201 12th Ave., San Francisco, $43,333; O. C. Jones and Sons, 1520 4th St., Berkeley, $43,839; Antioch Paving Co., Inc., Box 640, Antioch, $44,833.

VI-MAD-4-B,C—Surface with portland cement concrete on cement treated subgrade and plantmix surfacing, 3.9 mi., grade existing pavement and shoulder and plantmix surface on untreated base, between Berenda and Califa, Madera County.

LOW BIDS: Madonna Construction Co., Box 910, San Luis Obispo, $376,159; Gordon H. Ball, 300 Camille Ave., Danville, $387,769; Fredrickson and Watson Construction Co., 873 81st Ave., Oakland, $412,222.

IV-SON-56-B—Redeck timber bridge with reinforced concrete, remove another timber bridge, across Salmon Creek, 12.5 mi. north of Marin County line, Sonoma County.

LOW BIDS: Christensen and Foster and R. S. Selmers Construction Co., Santa Rosa, $13,330; Barton Construction Co., 140 South Ave., Alamo, $15,047; Power-Mullin Construction, Inc., 2553 Park Blvd., Palo Alto, $15,764. PB 4-18. Previous report 3-28

★STATE HIGHWAY PROJECTS— Sacramento, Calif.

Awards announced by California Division of Highways, 510 Public Works Bldg., Sacramento, on the following highway construction projects for which bids were opened March 25.

X-SJ-5-A—Widen bridge, 0.6 mi., construct approaches, plantmix surface, at East Tracy overhead, San Joaquin County. AWARD: Charles MacClosky, 15900 S. Broadway, Gardena, $416,621.

II-TEH-29-D—Grade 1.4 mi. two-lane highway, seal coat, install drainage facilities, construct reinforced concrete bridge, Dry Creek, 31 mi. west of Red Bluff, Tehama County. AWARD: Thomas Construction Co., 2665 Hedges Ave., Fresno, $178,276.

II-SIS-1089—Remove slides, install drain-

age facilities, six locations between 9 mi. northwest of Fort Jones and 1.1 mi. south of Klamath River, Scott River Road, Siskiyou County. AWARD: Gibbons & Reed Co., 825 W. 9th North St., Salt Lake City, Utah, $37,468.

V-MON-2-D—Grade, plantmix surface, asphalt concrete pave four-lane divided freeway, 3.3 mi., construct three bridges, remove and reconstruct bridge railing, from south of Salinas River to north of Soledad, Monterey County. AWARD: John Delphia and Fred J. Early, Jr. Co., Inc., Box 607, Patterson, $1,838,924.

X-SAC-11-C—Repair bridge across the San Joaquin River near Antioch, Sacramento County. AWARD: Healy-Tibbitts Construction Co., 411 Brannan St., San Francisco, $42,812. PB 4-18. Previous report 3-28

**● STATE HIGHWAY PROJECTS—**
**Sacramento, Calif.**

Bids will be opened 2 p.m., May 6, by California Division of Highways, 510 Public Works Bldg., Sacramento, on the following highway construction projects. Plans with state highway engineer, above address.

III-BUT-3-CHC,D — Grade, plantmix surface on cement treated base. 1.6 mi., widen bridge, install traffic signal systems and highway lighting, from Big Chico Creek in Chico to 0.3 mi. north of Lindo Channel, Butte County.

IV-CC-794—Remove slides, install drainage facilities, on San Pablo Dam Rd. and on Moraga Highway, from Glorietta Blvd. to La Honda Rd., Contra Costa County.

IV-SCR-STATE PARK—Construct park roads, parking areas, office area, and service area, plantmix surface on untreated base, Henry Cowell Redwoods State Park, Santa Cruz County.

IV-SCL-32-B—Widen 2.4 mi. two-lane highway, grade, plantmix surface over cement treated base and existing pavement, from San Felipe to Hollister wye, Santa Clara County.

III-COL-7-A—Prepare and plant 0.9 mi. (9 acres) roadside areas, install watering system, at Arbuckle from high school road to north of Gail Ave., Colusa County.

II-PLU-1251—Place imported subbase material and untreated base on 2.5 mi. existing grade roadbed, Beckwourth-Calpine Rd., from 2.6 mi. south of U.S. 40A to U.S. 40A at Beckwourth, Plumas County.

I-TRI,HUM-20.35-C,D,A—Plantmix surface 29.7 mi. on existing surface, from Humboldt County line to 4 mi. east of Del Loma and from 1.3 mi. west of Hydesville to 3.1 mi. east of Carlotta, Trinity and Humboldt counties.

X-STA-916—Construct bridge, surface approaches, on Las Palmas Rd. across San Joaquin River near Patterson, Stanislaus County.

IV-ALA,CC-5.75-C,HAY,D—Plantmix surface on existing surfacing, 10.9 mi., from north city limit of Fremont to Tennyson Rd. in Hayward, and from Brentwood to San Joaquin County line, Alameda and Contra Costa counties.

IV-SCL-5-B,LGTS,SJS,CMB — Plantmix surface over existing surfacing, 4.4 mi., from Kennedy Rd. to 0.3 mi. south of Stevens Creek Rd., Santa Clara County.

II-LAS-29-C—Construct reinforced concrete slab bridge, grade approach roadways, plantmix surface on untreated base, 0.23 mi., at Susan River bridge, 3.4 mi. east of Susanville, Lassen County.

IV-ALA,CC-75-OAK—Clean and paint two traffic bores, in Broadway low level tunnel at east city limit of Oakland, Alameda and Contra Costa counties. PB 4-18

**★BRIDGE RAMP— San Francisco, Calif.**

Award to Peter Kiewit Sons' Co., 442 Post, San Francisco, $1,572,166, by California State Department of Public Works, Division of San Francisco-Oakland Bay Toll Crossings, 151 Fremont St., San Francisco, for construction of Stillman St. ramp for San Francisco-Oakland Bay Bridge. PB 4-18

**★SITE REHABILITATION—**
**San Francisco County, Calif.**

Award to Hart & Hynding, Inc., 472 Tehama St., San Francisco, $16,394, by Corps of Engineers, 180 New Montgomery St., San Francisco, for site rehabilitation at Golden Gate Park and Fort Funston, San Francisco County; ENG-04-203-59-31.
RM 4-18. Previous report 3-28

**★STORM DRAIN— Sunnyvale, Calif.**

Award to Dewey M. Marquess, 1462 Creepe Drive, San Jose, $14,412, by City Council, City Hall, Sunnyvale, for constructing 1,619' of 30" reinforced concrete pipe in Ahwanee Storm Drain No. 1. Bids opened April 2.
RM 4-18. Previous report 3-28

**● STORM DRAIN— Sunnyvale, Calif.**

Bids will be opened 3 p.m., April 23, by City Council, City Hall, Sunnyvale, for construction of reinforced concrete Ahwanee storm drain No. 2, involving 2,899' of 29" and 54" reinforced concrete pipe. Specs with above address. RM 4-18

# Advertisements for Bids

**Advertisements reaching us not later than Wednesday noon will appear the same week.**

THE RATE for Advertisements for Bids is 35 cents per line for the first insertion; 25 cents per line for each insertion thereafter.

### SURFACING
### BIDS CLOSE 11 A.M., APRIL 21
### Juneau, Alaska
### NOTICE TO CONTRACTORS

Department of Commerce, Bureau of Public Roads, Region 10. March 20, 1959, Juneau, Alaska. Sealed bids in single copy for furnishing all labor, equipment and materials and performing all work for Project F-061-1 (5), Steese Highway, State of Alaska, described herein, will be received until 11:00 a.m., April 21, 1959, in Room 319, Federal Building, Juneau, Alaska. This project is located near Fairbanks, Alaska, and consists of bituminous surfacing of 6.920 miles of the Steese Highway between the Chena Hot Springs Road and the Elliott Highway. Principal items of work consist of the following: crushed aggregate base, grading D-1—36,250 tons; aggregate, designation AT-50 bituminous surface treatment—2,500 tons; asphalt, grade RC-3 bituminous surface treatment—200 tons. All work shall be completed within 150 days after date of receipt of notice to proceed. Specifications and plans may be obtained free of charge by all who have a bonafide need for them for bidding purposes at Room 211, Federal Building, Juneau, Alaska. Specifications, which include plan sheets, should be returned to the Division Engineer, Bureau of Public Roads, Fairbanks, Alaska. A bid guaranty is required with each bid in the sum of not less than 10% of the total amount bid for the work when the amount bid is $100,000 or less, and in the sum of not less than 5% of the total amount bid for the work when the amount bid is over $100,000. If the bidder fails to accompany his bid with the required bid guaranty, **his bid will not be read or otherwise considered.** Telegraphic notification of execution of a bid bond does not meet the above requirement of a bid security accompanying a bid. E. H. Swick, Regional Engineer.
6441—4-4

### GRADING, PAVING
### BIDS CLOSE 11 A.M., APRIL 21
### Juneau, Alaska
### NOTICE TO CONTRACTORS

Department of Commerce, Bureau of Public Roads, Region 10. March 20, 1959, Juneau, Alaska. Sealed bids in single copy for furnishing all labor, equipment and materials and performing all work for Project S-OI30(4) and S-0130(5), Nome Airport Road, State of Alaska, described herein, will be received until 11:00 a.m., April 21, 1959, in Room 319, Federal Building, Juneau, Alaska. This project is located at Nome, Alaska, and consists of grading, drainage and paving of .667 miles of Third Avenue, Division Street and Front Street in the City of Nome, and paving .889 mile of the Nome Airport Road. All work shall be completed within 150 calendar days after date of receipt of notice to proceed. Principal items of work are as follows: crushed aggregate base, grading D-1—7485 tons; hot bituminous concrete pavement—3310 tons; asphalt, Grade RC-3—178 tons; 18" asbestos-bonded corrugated metal pipe with paved invert—1,000 lineal feet. Plans and specifications may be obtained free of charge by all who have a bonafide need for them for bidding purposes at Room 211, Federal Building, Juneau, Alaska. It is requested that plans be returned to the Division Engineer, Bureau of Public Roads, Fairbanks, Alaska. A bid guaranty is required with each bid in the sum of not less than 10% of the total amount bid for the work when the amount bid is $100,000 or less, and in the sum of not less than 5% of the total amount bid for the work when the amount bid is over $100,000. If the bidder fails to accompany his bid with the required bid guaranty, **his bid will not be read or otherwise considered.** Telegraphic notification of execution of a bid bond does not meet the above requirement of a bid security accompanying a bid. E. H. Swick, Regional Engineer.
6442—4-4

### SHUNT REACTORS
### BIDS CLOSE 2 P.M., M.S.T., APRIL 28
### Fort Peck, Montana
### NOTICE TO CONTRACTORS

DEPARTMENT OF THE INTERIOR, Bureau of Reclamation. Sealed bids (Invitation No. DS-5173) will be received at Denver, Colorado, until 2 p.m., Mountain Standard Time, April 28, 1959, for furnishing fifteen (15) 5,000-kva, 13,200-volt, 656-ampere, 1-phase, dry-type, self-cooled shunt reactors for Dawson County, Fargo, Granite Falls, and Jamestown Substations, Ft. Peck and Missouri River Basin Projects, Montana and North and South Dakota. Delivery is desired within 330 days. For particulars, address Bureau of Reclamation, Building 53, Denver Federal Center, Denver 25, Colorado. W. A. Dexheimer, Commissioner.
6438—4-4

### TRASH REMOVAL EQUIPMENT
### BIDS CLOSE 10 A.M., P.S.T., APRIL 30
### Winters, California
### ADVERTISEMENT FOR BIDS

DEPARTMENT OF THE INTERIOR, Bureau of Reclamation. Sealed bids (Specifications No. DC-5172) will be received at Winters, California, until 10 a.m., Pacific Standard Time, April 30, 1959, for furnishing labor and materials for trash removal equipment for fish collecting facilities at Delta-Mendota Intake Canal, Central Valley Project, California. Location near Tracy, California. Principal items are 2,430 cu. yds. excavation; 4,840 cu. yds. compacted backfill; 460 cu. yds. concrete in structures; lump sum furnishing and installing trash removal equipment; and other work. Completion time 350 days. For particulars, address Bureau of Reclamation, P.O. Box 2511, Sacramento,

California; or Building 53, Denver Federal Center, Denver 25, Colorado. W. A. Dexheimer, Commissioner.
6437—4-4

### RIPRAP
### BIDS CLOSE 10 A.M., APRIL 22
### Yakima, Washington
### NOTICE TO CONTRACTORS

NOTICE is hereby given that sealed bids will be received by the Board of Yakima County Commissioners at their office in the Courthouse at Yakima, Washington, until 11:00 A.M., April 22, 1959, for the letting of one contract involving the following work:

Contract: River Improvement Project No. 5 for furnishing, loading, hauling and placing of heavy loose riprap on a section of dike in the vicinity of Naches, Washington.

The following is the principal quantity involved: Furnishing, loading, hauling, and placing of heavy loose riprap, 1,200 cubic yards.

A set of plans and specifications for the contract may be obtained from the County Road Engineers office in Yakima for $4.00 a set.

All bid proposals shall be accompanied by a bid proposal deposit in cash, certified check or cashiers check, payable to Yakima County Treasurer in an amount equal to five percent (5%) of the amount bid. The deposit will be forfeited to the County if the successful bidder fails to enter into a contract and furnish a satisfactory performance bond within ten (10) days from date of award.

The Board of County Commissioners expressly reserves the right to reject any and all bids or parts thereof.

HAROLD PURDIN,
County Auditor
By Lois Mathus,
Deputy County Auditor

6451—4-8, 15

### STATE HIGHWAY PROJECTS
### BIDS CLOSE 10 A.M., APRIL 28
### Olympia, Washington
### NOTICE TO CONTRACTORS

Sealed bids will be received by the Washington State Highway Commission at Olympia, Washington, on Tuesday, April 28, 1959, until 10:00 A.M. and will then and there be opened and publicly read for the construction of the improvements listed below.

Bid proposals delivered in person will be received only at the Reception Desk located on the first floor of the Transportation Building.

All bid proposals shall be accompanied by a bid proposal deposit in cash, certified check, cashier's check or surety bond in an amount equal to five per cent (5%) of the amount of such bid proposal. Should the successful bidder fail to enter into such contract and furnish satisfactory performance bond within the time stated in the specifications, the bid proposal deposit shall be forfeited to the State of Washington.

Prequalification of bidders is required. Maps, plans and specifications may be obtained from this office upon written request therefor and payment to the Director of Highways by cash, certified check, cashier's check or money order in the sum of two dollars ($2.00) for each copy of such maps, plans and specifications as a rental for the use of them. Plans will be forwarded by First Class Mail.

Informational copies of maps, plans and specifications are on file in the office of the County Engineer of the County in which the work is situated, the Chapter offices of the Associated General Contractors of America in Seattle, Spokane, Tacoma and Portland and the offices of the District Engineers of the Department of Highways where they may be inspected.

Federal Funds have been allocated for items Nos. 1 to 10 inclusive.

The improvements for which bids will be received follow:

1. Clearing, Draining, Grading, Surfacing, Paving with Asphaltic Concrete, Constructing Cement Treated Base and Bituminous Surface Treatment and Signing on 3.183 miles of Primary State Highway No. 9 in Clallam County, EAST BEACH ROAD TO INDIAN CREEK, FAP No. F-007-3(8), involving about 42 acres of Clearing, 472,720 cubic yards of Unclassified Excavation, 2,880 cubic yards of Unsuitable Foundation Excavation, 34,200 cubic yards of Selected Roadway Borrow, 20,530 tons of Special Gravel Surfacing, 8,500 tons of Crushed Surfacing, 1,155 cubic yards of Crushed Cover Stone and Prime Coat Aggregate, 150 tons of Asphalt Cement, 9,800 tons of Asphaltic Concrete, 8,750 linear feet of Asphaltic Concrete Curb, 3,980 barrels of Portland Cement, 15,080 tons of Cement Treated Base, 1 cubic yard of Concrete, 2,559 linear feet of Concrete Pipe, 1,604 linear feet of Metal Pipe, 300 linear feet of Wood Stave Pipe, 1,492 linear feet of Concrete Cribbing Headers and Stretchers, 2,862 linear feet of Beam Guard Rail, 72 Guide Posts, a lump sum bid for Signing and other items.
2. Constructing Two Steel Truss Bridges and a Precast Prestressed Concrete Bridge on 0.108 mile of Primary State Highway No. 3 in Yakima County, YAKIMA RIVER AND NACHES RIVER BRIDGES AND SELAH INTERCHANGE STRUCTURE, FAP Nos. UI-82-1(1) and UI-82-1(4), involving about 3,085 cubic yards of Concrete, 285,000 pounds of Steel Reinforcing Bars, 870 linear feet of Prestressed Concrete Girders, 2 lump sum bids for Structural steel (about 1,360,000 pounds), 295 linear feet of Standard Bridge Railing and other items. Minimum Wage Rates for this project have been predetermined by law and are set forth in the bid proposal.
3. Constructing Two Reinforced Concrete Box Girder Bridges on 0.038 mile of Primary State Highway No. 1 in King County, MILITARY ROAD OVERCROSSING-VICINITY LAKE DOLLOFF, FAP No. I-5-3(64)145, involving about 385 cubic yards of Concrete, 94,000 pounds of Steel Reinforcing Bars, a lump sum bid for Superstructure (about 1,530 cubic yards of Concrete and 487,000 pounds of Steel Reinforcing Bars), 776 linear feet of Standard Bridge Railing and other items. Minimum Wage Rates for this project have been predetermined by law and are set forth in the bid proposal.
4. Clearing, Draining, Grading, Surfacing, Constructing Cement Treated Base and Bituminous Surface Treatment and Paving with Asphaltic Concrete on 4.431 miles of Secondary State Highway No. 5-N, in Pierce County, GRAHAM TO MITCHELL-GOULD COUNTY ROAD, FAS No. S-0391(3), involving about 39 acres of Clearing, 73,890 cubic yards of Common Excavation, 27,100 tons of Crushed Surfacing and Ballast, 965 cubic yards of Crushed Cover Stone and Prime Coat Aggregate, 155 tons of Asphalt Cement, 11,425 tons of Asphaltic Concrete, 3,300 linear feet of Asphaltic Concrete Curb, 2,540 barrels of Portland Cement, 10,640 tons of Cement Treated Base, 537 linear feet of Concrete Pipe, 126 linear feet of Metal Pipe, 52 Guide Posts and other items.
5. Surfacing, Paving with Asphaltic Concrete and Constructing Bituminous Surface Treatment on 13.270 miles of State Highways Nos. 2 and 3 in Kittitas County, TEANAWAY JCT. TO TEANAWAY RIVER AND TEANAWAY JCT. TO HAYWARD HILL, FAP No. F-028-1(19) and State Project, involving about 7,750 tons of Maintenance Rock, 800 cubic yards of Mineral Aggregate, 133 tons of Asphalt Cement, 20,490 tons of Asphaltic Concrete and other items.
6. Draining, Grading and Surfacing on 2.128 miles of Whitman County Roads, ENSLEY CHANGE IN ALMOTA ROAD AND PULLMAN-WAWAWAI ROAD, FAS Nos. S-1154(3) and S-0668(1), involving about 152,870 cubic yards of Common Excavation, 9,920 cubic yards of Solid Rock Excavation, 66,540 tons of Crushed Surfacing and Crushed Cover Stone, 1,442 linear feet of Metal Pipe and other items.
7. Clearing, Draining, Grading and Surfacing with Selected Roadway Borrow on 3.401 miles of a Clallam County Road, LA PUSH ROAD, FAS No. S-1240(3), involving about 27 acres of Clearing, 66,200 cubic yards of Common Excavation, 6,600 cubic yards of Solid Rock Excavation, 27,000 cubic yards of Selected Roadway Borrow, 1,630 linear feet of Concrete Pipe, 95 Guide Posts and other items.
8. Draining and Surfacing on 4.437 miles of a Walla Walla County Road, MIDDLE WAITSBURG ROAD, FAS No. S-0635(3), involving about 25,380 tons of Selected Roadway Borrow, 8,370 tons of Crushed Surfacing, 50 linear feet of Metal Pipe and other items.
9. Surfacing and Constructing Bituminous Surface Treatment on 6.104 miles of Garfield County Roads, GOULD CITY AND MAYVIEW ROAD, ET AL, FAS Nos. S-0561(6) and S-1138(2), involving about 20,940 tons of Crushed Surfacing and Crushed Cover Stone, 525 cubic yards of Crushed Cover Stone, 169 tons of Asphalt Cement and other items.
10. Surfacing and Constructing Bituminous Surface Treatment on 9.449 miles of Columbia County Roads, NORTH TOUCHET, THORN HOLLOW AND McKAY HOLLOW ROADS, FAS Nos. S-0457(2), S-1134(3) and S-0633(2), involving about 6,115 cubic yards of Crushed Surfacing, Crushed Screenings and Crushed Cover Stone, 168 tons of Asphalt Cement and other items.
11. Constructing Bituminous Surface Treatment on 52.350 miles of State Highways Nos. 2, 3, 7, 3-K and 11-A in Kittitas, Columbia, Garfield, Yakima and Benton Counties, TEANAWAY RIVER TO IRON CREEK, ET AL, a State Project, involving about 9,280 cubic yards of Mineral Aggregate, 862 tons of Asphalt Cement and 4 miles of Processing and Finishing.
12. Replacing Stringers and Redecking Bridge on 0.057 mile of Secondary State Highway No. 1-S in Clark and Cowlitz Counties, YALE BRIDGE No. 1-S/11, involving about 56 MBM of Treated Timber and Lumber and a lump sum bid for Removing Portions of Existing Structure.
13. Cleaning and Painting Four Bridges on State Highways Nos. 8, 1-S and 8-B in Klickitat, Skamania, Clark and Cowlitz Counties, HAMILTON CREEK BRIDGE, ET AL-PAINTING, a State Project, involving 4 lump sum bids for Cleaning and Painting.

ERNEST J. KETCHAM, Chairman
W. A. BUGGE, Director of Highways

6457—4-11, 18

### PRECAST CONCRETE WALKWAYS
### BIDS CLOSE 10 A.M., APRIL 28
### Hagerman, Idaho
### NOTICE TO CONTRACTORS

U. S. Department of the Interior, Fish and Wildlife, Service, Bureau of Sport Fisheries and Wildlife, the Interior Bldg., 1001 N.E. Lloyd Blvd., P.O. Box 3737, Portland 8, Oregon. Telephone BElmont 4-3361, Extension 246. Sealed bids will be received in this office until 10:00 A.M., P.S.T., April 28, 1959, and then publicly opened, for the removal of existing wooden walkways and the construction and installation of 97 reinforced precast concrete walkway slabs for existing rearing ponds at the U. S. Fish-cultural Station near Hagerman, Idaho. Plans and specifications may be obtained at the above address. Leo L. Laythe, Regional Director.

6459—4-14, 21

### BATHHOUSE, CREW QUARTERS
### BIDS CLOSE 2 P.M., MAY 6
### Clark, Skamania Counties, Washington
### NOTICE TO CONTRACTORS

Sealed bids for construction of one combination bathhouse and 10-man crew quarters at Chelatchie Prairie Ranger Station; and three combination bathhouse and 10-man crew quarters at Pine Creek Work Center, Gifford Pinchot National Forest, Clark and Skamania Counties, Washington, will be received until 2:00 p.m., May 6, 1959, by the Regional Contracting Officer, P.O. Box 4137, 729 N.E. Oregon Street, Portland, Oregon. Bids may be secured from him or the Forest Supervisor, 801 W. 8th Street, Vancouver, Washington. Tour of the Chelatchie Prarie Ranger Station site will be held at 10:30 a.m. and the Pine Creek Work Center at 1:00 p.m., April 22, 1959.

6458—4-10

## STATE HIGHWAY PROJECTS
### BIDS CLOSE 9 A. M., APRIL 22
### Helena, Montana
### NOTICE TO CONTRACTORS

Sealed bids on the following projects will be received by the Montana Highway Commission at the offices of said Commission in the city of Helena until 9:00 a.m. on April 22, 1959. The proposals will be publicly opened and read immediately thereafter.

The form for **Bid Bond** is no longer included in the "Instruction to Bidders," and no Bid Bond will be acceptable. No proposal will be considered unless accompanied by a proposal guaranty, in an amount of at least five (5) per cent of the bid, made unconditionally payable to the State Highway Commission of Montana, which at the bidder's option may be cash, cashier's check, certified check, bank, postal or express money order, or bank draft.

1. **I-ING 15-2(8)118**—Grade, aggregate surfacing, plant-mix bituminous surfacing, and drain 4.245 miles and construction of one 209.5' reinforced concrete overpass at the Victor Interchange and construction of two concrete and steel overpasses totaling 1,421.5' over the Butte, Anaconda and Pacific Railway; Chicago, Milwaukee, St. Paul and Pacific Railroad; Northern Pacific Railway, and the Clark Fork River on the Dillon-Butte Road in Silver Bow County, beginning approximately 5.0 miles west of Butte and extending 4.245 miles southwesterly, involving about 891,068 cu. yds. excavation; 439,090 mi. yds. overhaul; 3,564 units rolling; 23,698 M gals. watering; 240,945 tons crushed aggregate; 1,842.96 tons asphalt cement; 213.22 tons emulsified asphalt; 161,489 gals. emulsified asphalt; 33,509 tons plant mix; 60 lin. ft. relay pipe culverts; 813 cu. yds. backfill material; 450 lin. ft. corrugated metal pipe; 606 lin. ft. structural plate pipe; 4,271 lin. ft. reinforced concrete pipe; 2,705 rods wire fence, metal posts; 25 each deadmen; 77 each fence panels; 5 each cattle guard; 8,212.5 lin. ft. galvanized steel beam guard rail, concrete posts; 4,838 gals. bituminous material additive; 590 lin. ft. median concrete curb; 7 each median inlet cover; 87 lin. ft. jiggle bars; all lump sum remove existing structure and maintain traffic; 7,325 lin. ft. precast prestressed concrete beams; 4,065 lin. yds. structure excavation; 2,596.8 cu. yds. concrete; 356,965 lbs. reinforcing steel; all lump sum structural steel; all lump sum treated timber test piles; 1,025 lin. ft. furnish treated timber piles; 1,003.5 lin. ft. drive treated timber piles; 420.58 lin. ft. steel beam bridge rail; 2,421 lin. ft. steel bridge rail; 240.96 lin. ft. guard fence; 784 sq. ft. corrugated asbestos cement sheets; and other items. Project to be completed in 330 calendar days.

2. **F 78(7)**—Grade, aggregate surfacing, plant-mix bituminous surfacing, and drain 9.702 miles on the Philipsburg-Maxville Road in Granite County, beginning approximately 0.5 mile northwest of Philipsburg and extending 9.702 miles northeasterly, involving about all lump sum clearing and grubbing; 975,182 cu. yds. excavation; 208,967 mi. yds. overhaul; 3,619 units rolling; 24,573 M gals. watering; 214,135 tons crushed aggregate; 1,675.52 tons asphalt cement; 248.11 tons cutback asphalt; 248.11 tons emulsified asphalt; 27,928 tons plant mix; 6,085 cu. yds. riprap; 100 lin. ft. relay pipe culverts; 264 cu. yds. backfill material; 254 lin. ft. structural plate pipe; 3,742 lin. ft. reinforced concrete pipe; and other items. Project to be completed in 250 calendar days.

3. **F 84(26)**—Grade, aggregate surfacing, plant-mix bituminous surfacing, and drain 9.846 miles on the West of Wolf Point-North Dakota Line Road in Roosevelt County, beginning approximately 9.846 miles west of Poplar and extending easterly to a point within the city of Poplar, involving about 349,811 cu. yds. excavation; 136,096 mi. yds. overhaul; 2,733 units rolling; 16,115 M gals. watering; 323,580 tons crushed aggregate; 45,172 cu. yds. crushed aggregate; 1,661.93 tons asphalt cement; 246.91 tons cutback asphalt; 247.63 tons emulsified asphalt; 27,693 tons plant mix; 453 cu. yds. backfill material; 1,556 lin. ft. corrugated metal pipe; 324 lin. ft. structural plate pipe; and other items. Project to be completed in 220 calendar days.

4. **I 94-6(2)216**—Grade, aggregate surfacing, plant-mix bituminous surfacing, drain and construction of one 17.25' concrete junior-grade separation on 4.184 miles of the Glendive-East Road in Dawson County, beginning approximately 2.5 miles east of Glendive and extending easterly toward Wibaux, involving about 962,610 cu. yds. excavation; 210,841 mi. yds. overhaul; 3,564 units rolling; 24,537 M gals. watering; 219,199 tons crushed aggregate; 1,353.11 tons asphalt cement; 151.02 tons cutback asphalt; 151.02 tons emulsified asphalt; 22,551 tons plant mix; 318.8 cu. yds. riprap; 62 lin. ft. relay pipe culverts; 959 cu. yds. backfill material; 4,158 lin. ft. corrugated metal pipe; 1,134 lin. ft. structural plate pipe; 88 lin. ft. reinforced concrete pipe; 2,806 rods wire fence, metal posts; 105 each fence panels; 6 each cattle guard; 14,837.5 lin. ft. galvanized steel beam guard rail, concrete posts; 24 each deadmen; 280 cu. yds. structure excavation; 236.3 cu. yds. concrete; 20,689 lbs. reinforcing steel; all lump sum treated test piles; 1,240 lin. ft. furnishing treated timber piles; 1,178 lin. ft. driving treated timber piles; 36.70 lin. ft. steel beam bridge rail; and other items. Project to be completed in 270 calendar days.

5. **S 31(4)**—Grade, aggregate surfacing, and drain 8.097 miles on the Circle-Northwest Road in McCone County, beginning approximately 15 miles northwest of the town of Circle and extending 8.097 miles northwesterly to approximately 0.50 mile west of Weldon, involving about 456,656 cu. yds. excavation; 12,700 mi. yds. overhaul; 261 units rolling; 10,398 M gals. watering; 32,663 cu. yds. crushed aggregate; 190 lin. ft. relay pipe culverts; 517 cu. yds. backfill material; 3,418 lin. ft. corrugated metal pipe; 188 lin. ft. structural plate pipe; 2,064 yd. miles haul binder; 1,032 cu. yds. binder; all lump sum remove existing structure; and other items. Project to be completed in 150 calendar days.

6. **S 187(6)**—Plant-mix bituminous surfacing; 39.343 miles in the Armells Creek-Hays-Hariem Road in Blaine County, beginning near the Phillips and Blaine County Line and extending northerly to the Fort Belknap Agency, involving about 390 tons crushed aggregate; 6,334.7 tons asphalt cement; 65,782 gals. cutback asphalt; 5.18 tons crushed asphalt; and 105,587 tons plant mix. Project to be completed in 100 calendar days.

7. **S 313(4)**—Plant-mix bituminous surfacing 15.633 miles on the Plentywood-Canadian Line Road in Sheridan County, beginning in the city of Plentywood and extending northerly to the International Boundary at the Port of Raymond, Montana, involving about 100 cu. yds. excavation; 119 units rolling; 279 tons crushed aggregate; 1,840.41 tons asphalt cement; 100.76 tons cutback asphalt; 300.62 tons emulsified asphalt; and 30,632 tons plant mix. Project to be completed in 100 calendar days.

8. **SPP 071-9009-08**—Construction of 3 double latrines with concrete tanks and floor slab and construction of concrete tank and erection of state-furnished latrine house for 4 single latrines at various recreation sites at Tiber Dam in Toole and Liberty counties, involving about 18.7 cu. yds. Class "DD" reinforced concrete; construction of 3 double latrine houses with state-furnished materials and erection only of 4 single state-furnished prefabricated latrine houses. Project to be completed by May 22, 1959.

Federal funds have been allocated to all Federal-aid projects.

Insofar as practicable, labor employed for all projects shall be obtained from the agencies designated by the Montana State Employment Service.

Should the successful bidder fail to enter into his contract and furnish a satisfactory performance bond within the time stated in his proposal, the bid deposit shall be forfeited to the State Highway Commission of Montana.

Prequalification of bidders, at least 72 hours prior to the opening of bids, is required.

Plans, specifications, forms of contract and bond, proposal blanks, and full instructions are on file for examination and may be obtained at the offices of the State Highway Commission in Helena, Montana. Plans and specifications for all Federal-aid projects are also on file and may be examined in the offices of the Bureau of Public Roads at Helena, Montana.

Harry L. Burns, Chairman
Fred Quinnell, Jr., State Highway Engineer
6453—4-11, 18

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## GRADING, DRAINING, PAVING
### BIDS CLOSE 11 A.M., MAY 18
### Juneau, Alaska
### NOTICE TO CONTRACTORS

Date: April 10, 1959, Juneau, Alaska. Department of Commerce, Bureau of Public Roads, Region 10. Sealed bids in single copy for furnishing all labor, equipment and materials and performing all work for Project S-0520(3) and S-0529(3), Sand Lake and Jewel Lake Roads, State of Alaska, described herein, will be received until 11:00 a.m., May 12, 1959, in Room 319, Federal Building, Juneau, Alaska. This project at Anchorage, Alaska, and consists of grading, drainage and paving of 3.1 miles of the Sand Lake Road and 1.5 miles of the Jewel Lake Road, beginning at the intersection of Jewel Lake Road and Raspberry Road and ending at the intersection of Sand Lake Road and the Seward-Anchorage Highway. All work shall be completed within 210 calendar days after date of receipt of notice to proceed. Principal items of work are as follows: unclassified excavation—105,000 cubic yards; borrow excavation, Class 1—103,000 cubic yards; crushed aggregate base, grading D-1 (Campbell Creek Bridge)—31,729 tons; structural steel piles, 14BP73, driven—22 each; treated timber, creosote preservative—9.492 MBM; and dismantling of the existing Campbell Creek Bridge. Plans and specifications may be obtained free of charge by all who have a bonafide need for them for bidding purposes at Room 211, Federal Building, Juneau, Alaska. It is requested that plans be returned to the Division Engineer, Bureau of Public Roads, Anchorage, Alaska. A bid guaranty is required with each bid in the sum of not less than 10% of the total amount bid for the work when the amount bid is $100,000 or less, and in the sum of not less than 5% of the total amount bid for the work when the amount bid is over $100,000. If the bidder fails to accompany his bid with the required bid guaranty, **his bid will not be read or otherwise considered.** Telegraphic notification of execution of a bid bond does not meet the above requirement of a bid security accompanying a bid. Wm. J. Niemi, Regional Engineer.
6463—4-18, 25

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## INTAKE CHANNEL, DISCHARGE LINES
### BIDS CLOSE 10 A.M., P.S.T., MAY 28
### Red Bluff, California
### NOTICE TO CONTRACTORS

DEPARTMENT OF THE INTERIOR, Bureau of Reclamation. Sealed bids (Specification No. DC-5181) will be received at Red Bluff, California, until 10 a.m., Pacific Standard Time, May 28, 1959, for furnishing labor and materials for Corning Canal Pumping Plant Intake Channel and Discharge Lines, Central Valley Project, California. Location 1 miles southeast of Red Bluff, Tehama County, California. Principal items are excavation, 347,000 cu. yds.; concrete, 3,200 cu. yds.; constructing pumping superstructure and other work. Completion time 460 days. For particulars, address Bureau of Reclamation, P.O. Box 752, Red Bluff, California; P.O. Box 2511, Sacramento, California, or Building 53, Denver Federal Center, Denver 25, Colorado. W. A. Dexheimer, Commissioner.
6456—4-25

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## RESIDENCE
### BIDS CLOSE 2 P.M., P.S.T., APRIL 30
### Cle Elum, Washington
### NOTICE TO CONTRACTORS

Sealed bids for construction of a residence at Cle Elum Ranger Station, Wenatchee National Forest, Kittitas County, Wash., will be received until 2:00 p.m., P.S.T., April 30, 1959, by the Regional Contracting Officer, P.O. Box 4137, 729 N.E. Oregon St., Portland, Oregon. Bids may be secured from him or the Forest Supervisor, Post Office Bldg., Wenatchee, Wash. A tour of the site has been arranged for 3:30 p.m., April 15.
6449—4-4

***Bids will be opened . . .***

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## STREET IMPROVEMENTS
### BIDS CLOSE 10 A.M., P.S.T., MAY 13
### Valdez, Alaska
### NOTICE TO CONTRACTORS

INVITATION FOR BIDS (Construction Contract) — Project Aaa. 50-A-125, Street Improvements, Valdez, Alaska, April 10, 1959. Name and Location of Project. STREET IMPROVEMENTS, Project Aaa. 50-A-125, Valdez, Alaska. Department or Agency, Alaska Public Works, Office of Territories, Department of the Interior. By (Issuing office), Thomas G. Mooney, Director, Alaska Public Works, Office of Territories, Department of the Interior, Post Office Box 1181, Juneau, Alaska. **Sealed bids** in single copy for furnishing all labor, equipment, and materials and performing all work for the project described herein will be received until 10:00 .M. Pacific Standard Time, May 13, 1959, in the mailroom of the office of the Director, Alaska Public Works, Office of Territories, Department of the Interior, 123 West Third Street, Post Office Box 1181, Juneau, Alaska, and then **publicly** opened and read aloud. Information regarding bidding material, bid guarantee, and bonds follows: Plans and specifications and other proposed contract documents are open for public inspection at the Director's office, Juneau, Alaska; at Room 6070 Interior Bldg., Washington 25, D. C.; at the Area Engineer's Office, Alaska Public Works, Reliable Service Bldg., Anchorage, Alaska; and Associated General Contractors of America offices as follows: Seattle Chapter, Construction Center, 215 West Harrison St., Seattle, Wash.; Mountain Chapter, 220 West Harrison St., Seattle, Wash.; Tacoma Chapter, 1605 Center Street, Tacoma, Wash.; Portland Chapter, 129 S.W. Third Avenue, Portland, Oregon; the Alaska Chapter, 306 Central Bldg., Anchorage, Alaska, and the Plan Bureau, 2413 Western Ave., Seattle, Wash.; and the Builders Exchange Cooperative, 317 Builders Exchange Bldg., Portland, Oregon. A set of such documents may be procured from the office of the Director at Juneau, Alaska, upon deposit of $25.00, all of which will be refunded upon the return of the plans and specifications in good condition **within twenty (20) days from date of bid opening.** Each bid must be accompanied by a satisfactory bid security (certified check or bid bond) in an amount not less than 5 percent of the total bid in dollars and cents. No bid will be withdrawn until thirty days after the scheduled closing date for the receipt of bids. The successful bidder will be required to furnish a performance bond and payment bond, each in the amount of 100 percent of the contract price. The Government reserves the right to award a contract for the Project on the basis of the acceptance of any or all of the alternates, whichever course is in the best interest of the Government. DESCRIPTION: STREET IMPROVEMENTS, Project Aaa. 50-A-125, Valdez, Alaska. **Basic Bid**—Consists of subgrade preparation and 4-inch crushed aggregate base course on approximately 24,000 lineal feet of city streets. The work will involve approximately 31,270 cubic yards of unclassified excavation and disposal, 39,180 cubic yards of borrow excavation, 8,536 cubic yards of crushed aggregate base course, 822 lineal feet of 30-inch pipe culvert, 1,598 lineal feet of 24-inch pipe culvert, 5 monuments, 5 manholes and adjustment of 18 manholes and 30 valve boxes. **Alternates**—Alternate bids will be taken for construction of a 2-inch bituminous road-mix surface course ranging from 2,000 sq. yds. to 6,000 sq. yds., with prime coat and seal coat. Acceptance of alternates will be contingent upon availability of funds.
6461—4-14, 21, 28

## SLIDE STABILIZATION
### BIDS CLOSE 2 P.M., MAY 1
### Clallam County, Washington
### NOTICE TO CONTRACTORS

DEPARTMENT OF THE INTERIOR, NATIONAL PARK SERVICE. April 17, 1959. SEALED BIDS will be received at the office of the Bureau of Public Roads, Room 824 Morgan Building, 720 S.W. Washington Street, Portland 5, Oregon, until 2 p.m., on May 1, 1959, for furnishing the materials and performing the work for constructing 0.058 mile slide stabilization (gunite blanket), Olympic National Park Project 1-C6, Unit 1, HEART O' THE HILLS ROAD, Clallam County, Washington, involving 70 Cu. Yds. Gunite blanket; 1,500 Lbs. Reinforcement steel, and other small items of work. The attention of prospective bidders is directed to the special clause "United States-Flag Vessel Provisions" included in the Special Provisions for this project. Plans, specifications and proposals may be obtained at the address shown above or by phoning CApitol 6-3361, Extension 460. B. M. FRENCH, Regional Engineer.
6464—4-18

## SCHOOL ADDITIONS, ALTERATIONS
### BIDS CLOSE 10 A.M., P.S.T., MAY 20
### Juneau, Alaska
### NOTICE TO CONTRACTORS

INVITATION FOR BIDS (Construction Contract) 5th Street High School Additions and Alterations. Project Aaa. 50-A-238, Unit 3, Juneau, Alaska. Project Aaa. 50-A-238, Unit 3, Additions and Alterations, 5th Street High School, Juneau, Alaska, April 8, 1959. Department or Agency, Alaska Public Works, Office of Territories, Department of the Interior. By (Issuing office) Thomas G. Mooney, Director, Alaska Public Works Office of Territories, Department of the Interior, Post Office Box 1181, Juneau, Alaska. Sealed bids in single copy for furnishing all labor, equipment, and materials and performing all work for the project described herein will be received until 10:00 A.M. Pacific Standard Time May 20, 1959, in the mailroom of the Office of the Director, Alaska Public Works, Office of Territories, Department of the Interior, 123 West Third Street, P. O. Box 1181, Juneau, Alaska, and then publicly opened and read aloud. Information regarding bidding material, bid guarantee, and bonds follows: Plans and specifications and other proposed contract documents are open for public inspection at the Director's office, Juneau, Alaska; at Room 6070 Interior Bldg., Washington 25, D.C.; and Associated General Contractors of America offices as follows: Seattle Chapter, Construction Center, 215 West Harrison St., Seattle, Wash.; Mountain Chapter, 220 West Harrison St., Seattle, Wash.; Tacoma Chapter, 1605 Center St., Tacoma 3, Wash.; Portland Chapter, 129 S.W. Third Avenue, Portland, Oregon; and the Alaska Chapter, Anchorage, Alaska; at the Plan Bureau, 2413 Western Ave., Seattle, Wash.; and Builders Exchange Cooperative, 317 Builders Exchange Bldg., Portland, Oregon. A set of such documents may be procured from the office of the Director at Juneau, Alaska upon deposit of $25.00, all of which will be refunded upon the return of the plans and specifications in good condition within twenty (20) days from date of bid opening. Each bid must be accompanied by a satisfactory bid security (certified check or bid bond) in an amount not less than 5 per cent of the total bid in dollars and cents. No bid will be withdrawn until thirty days after the scheduled closing date for the receipt of bids. The successful bidder will be required to furnish a performance bond and payment bond, each in the amount of 100 per cent of the contract price. The Government reserves the right to award a contract for the project on the basis of the acceptance of any or all of the alternates, whichever course is in the best interest of the Government. Description: Additions and alterations, 5th Street High School, Project Aaa. 50-A-238, Unit 3, Juneau, Alaska. The construction of additions and alterations to an existing school building. Information regarding liquidated damages (if any), payments, etc., is attached or made a part of the specifications. Bids shall be submitted on the forms furnished or copies thereof.
6462-4—18, 25; 5-2

## BRIDGE
### BIDS CLOSE 2 P.M., APRIL 28
### Lane County, Oregon
### NOTICE TO CONTRACTORS

DEPARTMENT OF COMMERCE, BUREAU OF PUBLIC ROADS April 14, 1959. SEALED BIDS will be received at the office of the Bureau of Public Roads, Room 824 Morgan Building, 720 S. W. Washington Street, Portland 5, Oregon, until 2 p.m. on April 28, 1959, for furnishing the material and performing the work for constructing a 180-foot reinforced concrete bridge, Oregon Timber Access Road Project BLM 19-8-51A, MILL CREEK ROAD, Siuslaw River Bridge, Bureau of Land Management-Eugene District, Lane County, Oregon, involving 340 cu. yds. Structure Excavation; 261 cu. yds. Concrete; 48,500 lbs. Reinforcement Steel and other small items of work. Plans, specifications and proposals may be obtained at the address shown above or by phoning CApitol 6-3361, Extension 460. B. M. FRENCH, Regional Engineer.
6460—4-18

## TRANSMISSION LINE
### BIDS CLOSE 10 A.M., M.S.T., APRIL 28
### Fremont County, Wyoming
### NOTICE TO CONTRACTORS

DEPARTMENT OF THE INTERIOR, Bureau of Reclamation. Sealed bids (Specification No. DC-5171) will be received at Cody, Wyoming, until 10 a.m., Mountain Standard Time, April 28, 1959, for furnishing labor and materials for Boysen-Pilot Butte 115-Kilovolt Transmission Line, Transmission Division, Wyoming, Missouri River Basin Project. Location Fremont County, Wyoming. Principal items are 77,000 pounds furnishing and erecting steel towers; 23 structures — furnishing and constructing wood-pole structures of various types and maximum pole lengths; 37.3 miles of line—furnishing and stringing three 477,000 circular-mil ACSR conductors; 37.28 miles of line—furnishing and stringing two ⅜-inch galvanized steel overhead ground wires; and other work. Completion time 240 days. For particulars, address Bureau of Reclamation, P.O. Box 2553, Billings, Montana; P.O. Box 1189, Cody, Wyoming; or Building 53, Denver Federal Center, Denver 25, Colorado. W. A. Dexheimer, Commissioner.
6436—4-4

## GRADING, SURFACING
### BIDS CLOSE 2 P.M., APRIL 21
### Grant County, Oregon
### NOTICE TO CONTRACTORS

DEPARTMENT OF COMMERCE, BUREAU OF PUBLIC ROADS. April 7, 1959. SEALED BIDS will be received at the office of the Bureau of Public Roads, Room 824 Morgan Building, 720 S.W. Washington Street, Portland 5, Oregon, until 2 p.m. on April 21, 1959, for furnishing the material and performing the work for constructing 4.480 miles grading and surfacing, Oregon Forest Highway Project 35-E3, JOHN DAY-BURNS HIGHWAY, Malheur National Forest, Grant County, Oregon, involving 33 Acres Clearing and Grubbing; 186,420 Cu. Yds. Excavation; 643,000 Sta. Yds. Overhaul; 30,000 Tons Crushed Rock; 111 Tons Asphalt, RC-2 prime; 127 Tons Asphalt Cement, 120-150 pen.; 13.7 MBM Treated Timber; 3,334 Lin. Ft. Culvert Pipe; 60 Lin. Ft. 50"x31" Metal Pipe-arch, and other small items of work. Plans, specifications and proposals may be obtained at the address shown above or by phoning CApitol 6-3361, Extension 460. B. M. FRENCH, Regional Engineer.
6452—4-11

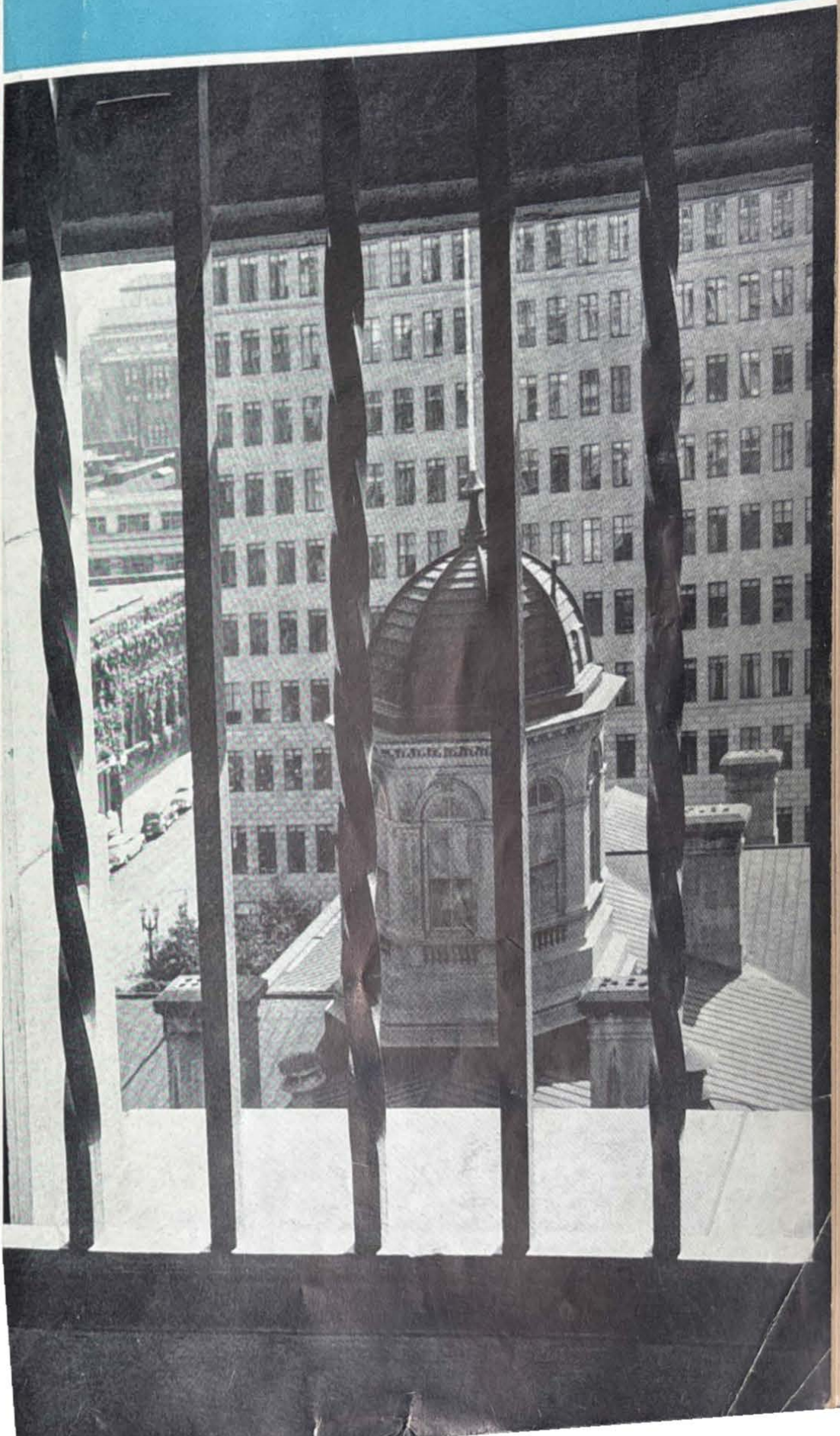
## DRAINS
### BIDS CLOSE 10 A.M., P.S.T., APRIL 28
### Ephrata, Washington
### NOTICE TO CONTRACTORS

DEPARTMENT OF THE INTERIOR, Bureau of Reclamation. Sealed bids (Specification No. 117C-558) will be received at Ephrata, Washington, until 10 a.m., P.S.T., April 28, 1959, for furnishing labor and materials for DEEPENING AND EXTENDING DRAINS W648DD, W653D, W653D2, W653D2A, and W645W BLOCK 72. Location in vicinity of Quincy. Principal items are 210,226 cu. yds. excavation; 2,508 lin. ft. drain, culvert of corrugated-metal, or asbestos-bonded cement-gated-metal pipe; and other work. Completion time 80 and 230 days. For particulars address the Bureau of Reclamation, P. O. Box 368, Ephrata, Washington, P. R. Nash, Project Manager.
6455—4-11

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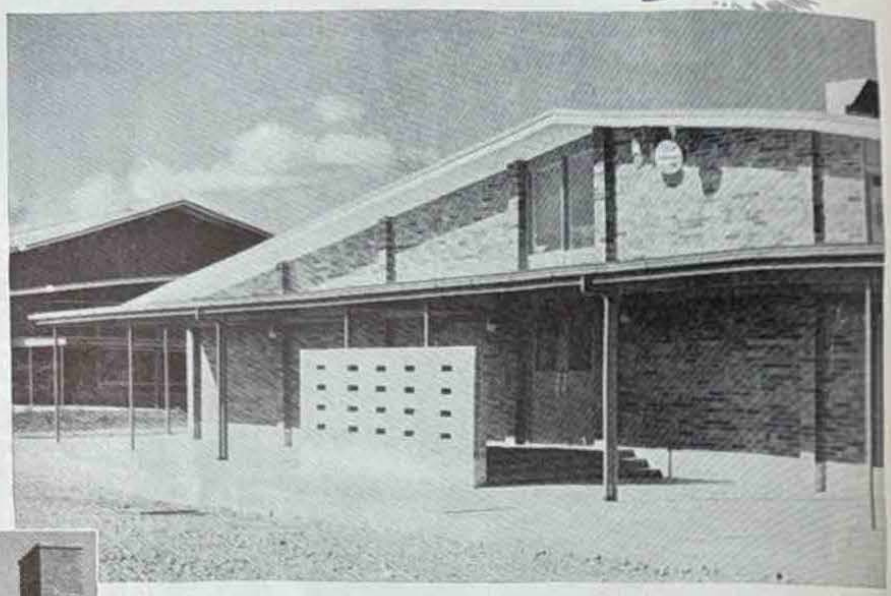


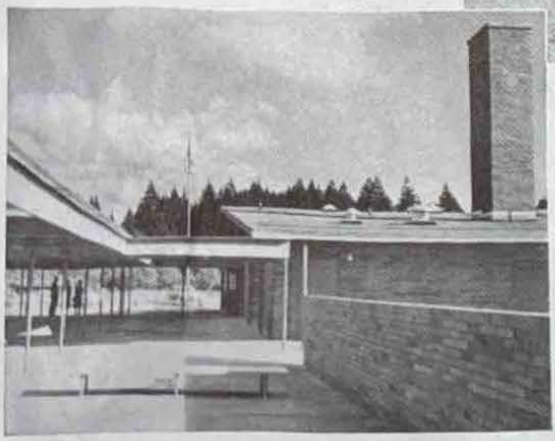
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Seattle to Get Monorail for 1961 Exposition 8

$315 Million Redevelopment Set for Los Angeles 9

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**COVER:** Pioneer Post Office, Portland (see p. 21): Tom Burns Jr. photo.

# April adds $279 million to '59 total

For the fourth straight month building permit volume in the West shows a considerable gain over 1958 figures. The total for April is $279,083,697, a tally $56¾ million higher than the corresponding month of last year. California, with an increase of $60¼ million, is primarily responsible for the high volume. Washington also is up $13¼ million. Although the Oregon total shows a decrease of $16 million, this is not as drastic as it sounds. A single $21.3 million permit for the Lloyd Center in Portland had been issued in April of last year, considerably boosting the Oregon volume above normal figures. As the tabulation shows, Montana and Idaho also record decreases for the month, each about $300,000.

The 1959 volume to date is $986,060,822, nearly $163 million higher than January through April of 1958. California, Washington, Montana and Idaho all are well ahead of last year. Oregon is trailing by $9 million.

| | Jan.-Apr. 1959 | Jan.-Apr. 1958 |
|---|---|---|
| Calif. | $779,839,144 | $653,477,234 |
| Ore. | 51,681,008 | 60,671,150 |
| Wash. | 136,329,679 | 94,731,813 |
| Idaho | 8,117,282 | 6,376,048 |
| Mont. | 10,093,709 | 8,071,342 |

## ANALYSIS OF TYPICAL AREAS—APRIL

(Number of permits is followed by total dollar volume)

| | Dwelling | | Commercial & Industrial | | Public | |
|---|---|---|---|---|---|---|
| King County | 856 | $10,517,545 | 26 | $ 751,530 | 2 | $ 225,000 |
| Seattle | 657 | 3,251,490 | 227 | 3,940,869 | 2 | 396,000 |
| Tacoma | 140 | 935,395 | 7 | 361,500 | | |
| Orange County | 333 | 5,197,703 | 26 | 223,788 | 2 | 70,000 |
| Los Angeles County | 1,701 | 14,526,563 | 81 | 2,914,832 | 18 | 655,550 |
| Sacramento County | 992 | 10,395,690 | 60 | 2,449,800 | 12 | 1,189,633 |

## Building Permit Totals for 116 Western Agencies for April

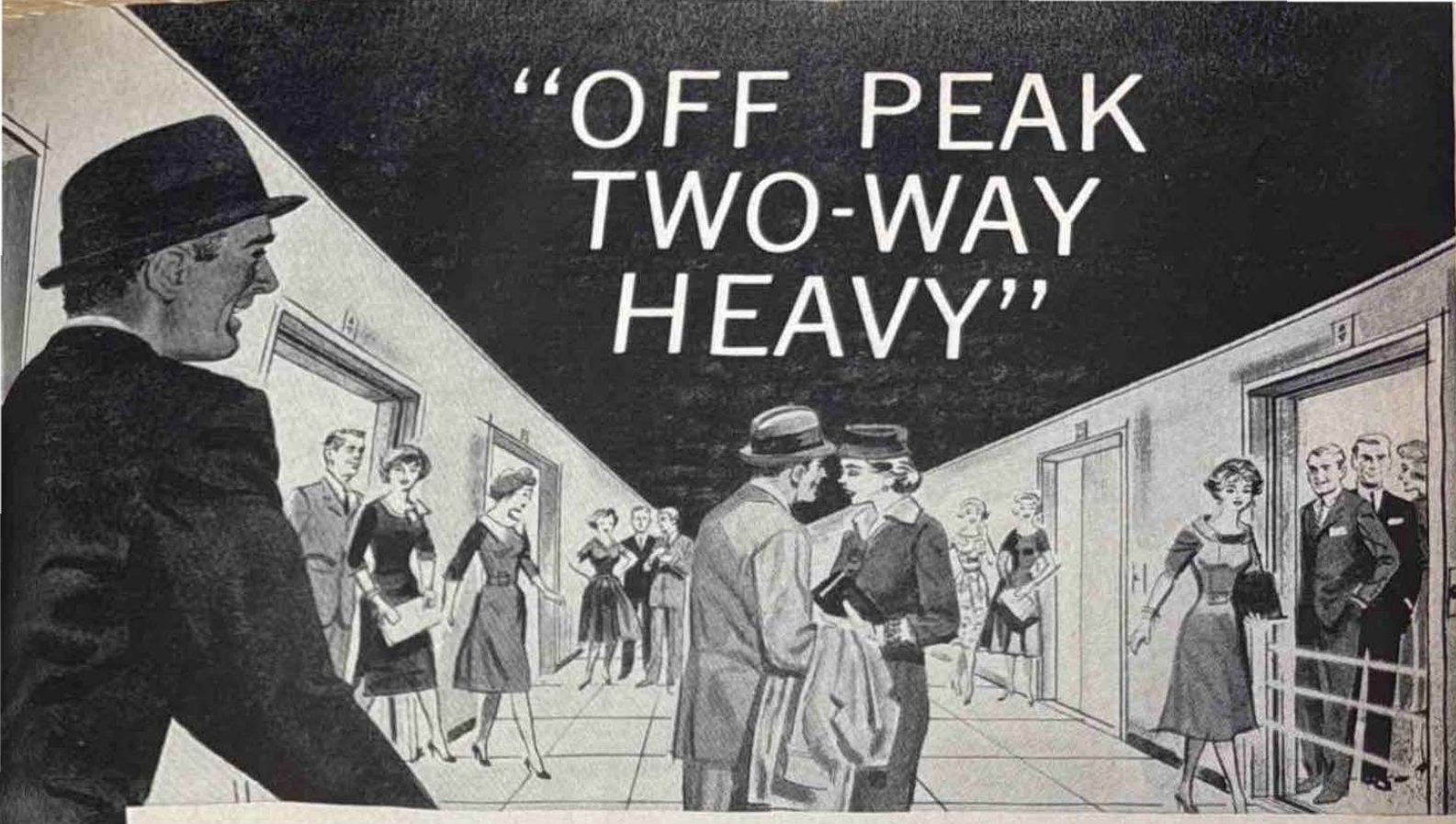
| CALIFORNIA | Apr. 1959 | Mar. 1959 | Apr. 1958 |
|---|---|---|---|
| Alameda County | $ 2,368,585 | $ 1,389,675 | $ 1,401,750 |
| Anaheim | 5,863,499 | 4,131,649 | 5,132,236 |
| Bakersfield | 1,355,725 | 1,059,510 | 786,488 |
| Burbank | 1,564,670 | 599,510 | 1,231,742 |
| Contra Costa County | 4,228,967 | 3,607,161 | 2,536,542 |
| Fresno | 1,122,750 | 1,323,855 | 2,469,561 |
| Fullerton | 2,248,936 | 1,582,091 | 730,737 |
| Glendale | 2,250,426 | 2,680,844 | 1,902,669 |
| Inglewood | 1,559,521 | 1,457,703 | 756,127 |
| Long Beach | 4,728,340 | 4,251,230 | 5,854,520 |
| Los Angeles | 53,765,643 | 60,209,657 | 42,613,701 |
| Los Angeles County | 19,713,459 | 27,953,935 | 21,470,821 |
| Oakland | 6,465,517 | 5,525,541 | 3,627,342 |
| Ontario | 803,130 | 486,114 | 439,990 |
| Orange County | 5,876,991 | 6,536,202 | 2,376,911 |
| Palo Alto | 1,657,224 | 1,007,514 | 1,556,358 |
| Pasadena | 3,790,131 | 1,666,581 | 1,688,074 |
| Pomona | 904,693 | 2,229,172 | 696,774 |
| Richmond | 800,577 | 1,263,799 | 395,207 |
| Riverside | 2,585,739 | 2,400,185 | 3,824,477 |
| Sacramento | 4,229,962 | 3,901,138 | 2,658,109 |
| Sacramento County | 14,392,594 | 12,558,595 | 6,222,979 |
| San Bernardino | 2,094,016 | 2,269,884 | 3,685,377 |
| San Bernardino County | 7,331,051 | 8,337,114 | 4,355,851 |
| San Diego | 15,603,072 | 12,498,778 | 11,296,622 |
| San Diego County | 14,961,900 | 12,866,300 | 5,572,900 |
| San Francisco | 5,325,748 | 6,599,437 | 4,975,695 |
| San Jose | 12,107,022 | 17,027,450 | 4,305,631 |
| San Mateo | 1,270,051 | 1,130,380 | 968,756 |
| San Mateo County | 1,262,258 | 2,316,288 | 1,718,642 |
| Santa Ana | 3,002,034 | 2,019,830 | 2,422,652 |
| Santa Monica | 1,802,559 | 2,325,241 | 2,553,992 |
| Stockton | 2,151,047 | 2,009,043 | 957,918 |
| Sunnyvale | 3,687,545 | 4,230,725 | 1,548,836 |
| Torrance | 2,556,460 | 2,738,421 | 777,332 |
| West Covina | 751,057 | 3,077,189 | 415,010 |
| TOTAL | $216,182,899 | $227,267,741 | $155,928,329 |

| OREGON | Apr. 1959 | Mar. 1959 | Apr. 1958 |
|---|---|---|---|
| Albany | $ 264,001 | $ 247,095 | $ 176,700 |
| Astoria | 17,418 | 30,220 | 58,768 |
| Baker | 154,010 | 154,150 | 203,325 |
| Bend | 99,795 | 154,290 | 60,175 |
| Coos Bay | 127,695 | 251,252 | 90,325 |
| Corvallis | 415,070 | 342,300 | 223,850 |
| Eugene | 729,750 | 597,192 | 852,400 |
| Grants Pass | 182,950 | 224,100 | 116,560 |
| Gresham | 63,590 | 88,500 | 134,470 |
| Hillsboro | 295,200 | 143,750 | 60,945 |
| Klamath Falls | 168,010 | 1,128 | 353,750 |
| LaGrande | 95,980 | 29,642 | 67,825 |
| Lane County | 1,159,975 | 882,338 | 822,051 |
| Medford | 322,902 | 828,387 | 1,012,554 |
| Multnomah County | 2,959,565 | 3,578,223 | 2,303,150 |
| North Bend | 334,343 | 124,190 | 33,910 |
| Oregon City | 65,450 | 28,500 | 33,700 |
| Pendleton | 112,320 | 364,207 | 165,045 |
| Portland | 9,821,770 | 4,626,460 | 26,079,260 |
| Roseburg | 122,163 | 180,460 | 123,385 |
| Salem | 321,192 | 250,058 | 904,991 |
| Springfield | 99,776 | 148,742 | 78,896 |
| The Dalles | 106,040 | 104,060 | 89,693 |
| TOTAL | $ 18,038,965 | $ 13,382,224 | $ 34,045,728 |

| WASHINGTON | Apr. 1959 | Mar. 1959 | Apr. 1958 |
|---|---|---|---|
| Aberdeen | $ 125,887 | $ 88,913 | $ 86,026 |
| Anacortes | 60,310 | 86,760 | 68,430 |
| Auburn | 244,640 | 234,400 | 6,175 |
| Bellingham | 795,665 | 270,474 | 245,520 |
| Bremerton | 225,440 | 865,305 | 95,860 |
| Centralia | 141,485 | 156,316 | 30,805 |
| Chehalis | 67,305 | 84,481 | 13,437 |
| Clarkston | 11,405 | 22,900 | 119,080 |
| Ellensburg | 84,737 | 55,521 | 13,300 |
| Ephrata | 37,812 | 12,725 | 17,835 |
| Everett | 394,483 | 596,340 | 116,347 |
| Kelso | 31,600 | 52,300 | 37,800 |
| Kennewick | 156,195 | 138,150 | 198,933 |
| King County | 11,668,835 | 11,750,430 | 7,933,743 |
| Kirkland | 83,150 | 101,100 | 101,400 |
| Longview | 239,004 | 593,730 | 383,542 |
| Moses Lake | 110,760 | 428,222 | 148,830 |
| Olympia | 172,197 | 295,453 | 188,142 |
| Pasco | 215,285 | 270,598 | 62,805 |
| Pierce County | 2,041,333 | 1,943,868 | 1,830,889 |
| Port Angeles | 34,020 | 93,300 | 34,140 |
| Puyallup | 134,945 | 80,250 | 90,859 |
| Ritzville | 37,200 | 17,350 | 2,150 |
| Seattle | 7,780,088 | 6,479,851 | 8,003,733 |
| Shelton | 36,700 | 50,275 | 13,750 |
| Spokane | 6,493,791 | 3,915,080 | 1,697,867 |
| Spokane County | 2,405,781 | 2,625,048 | 1,766,629 |
| Sumner | 7,600 | 58,000 | 21,900 |
| Tacoma | 1,955,963 | 1,861,485 | 1,120,747 |
| Vancouver | 2,001,881 | 699,128 | 628,936 |
| Walla Walla | 371,552 | 345,729 | 96,135 |
| Wenatchee | 264,041 | 118,112 | 24,360 |
| Yakima | 421,725 | 638,077 | 231,279 |
| TOTAL | $ 38,852,815 | $ 35,029,731 | $ 25,681,527 |

| MONTANA | Apr. 1959 | Mar. 1959 | Apr. 1958 |
|---|---|---|---|
| Billings | $ 442,603 | $ 690,395 | $ 280,500 |
| Bozeman | 559,250 | 94,050 | 150,900 |
| Butte | 22,793 | 55,742 | 49,950 |
| Glasgow | 97,200 | 10,300 | 332,174 |
| Glendive | 62,900 | 39,500 | 66,500 |
| Great Falls | 835,774 | 1,723,109 | 951,213 |
| Helena | 269,935 | 505,726 | 997,285 |
| Kalispell | 250 | 54,600 | 66,610 |
| Lewistown | 21,000 | 14,000 | 19,200 |
| Livingston | 174,410 | 27,822 | 90,809 |
| Miles City | 119,405 | 106,530 | 67,872 |
| Missoula | 269,300 | 392,075 | 152,200 |
| TOTAL | $ 2,874,820 | $ 3,713,849 | $ 3,227,254 |

| IDAHO | Apr. 1959 | Mar. 1959 | Apr. 1958 |
|---|---|---|---|
| Boise | $ 656,237 | $ 914,293 | $ 406,255 |
| Caldwell | 151,700 | 106,725 | 35,820 |
| Coeur d'Alene | 92,040 | 110,150 | 253,950 |
| Idaho Falls | 998,067 | 749,136 | 1,861,900 |
| Jerome | 23,625 | 50,200 | 23,975 |
| Lewiston | 351,800 | 168,407 | 192,250 |
| Nampa | 167,055 | 323,485 | 117,550 |
| Payette | 38,025 | 30,425 | 30,525 |
| Pocatello | 263,685 | 518,500 | 226,500 |
| Sandpoint | 106,134 | 39,142 | 62,250 |
| St. Maries | 23,300 | 8,000 | 15,100 |
| Twin Falls | 266,530 | 193,250 | 233,300 |
| TOTAL | $ 3,134,198 | $ 3,211,713 | $ 3,453,419 |
| GRAND TOTAL | $279,083,697 | $282,605,258 | $222,258,347 |




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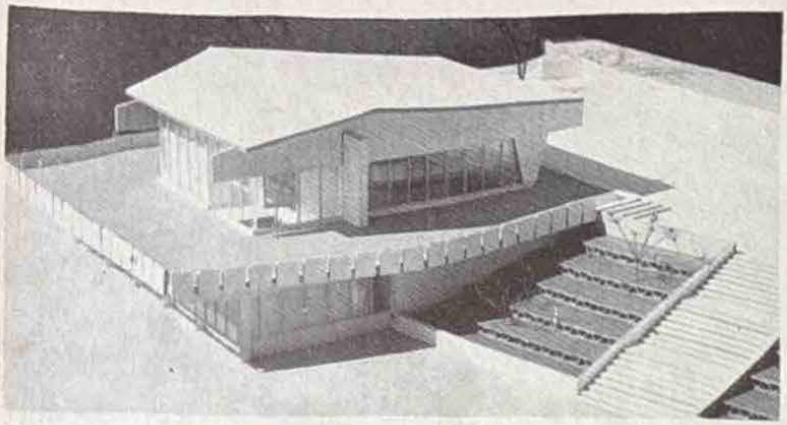
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# PROJECT PREVIEW



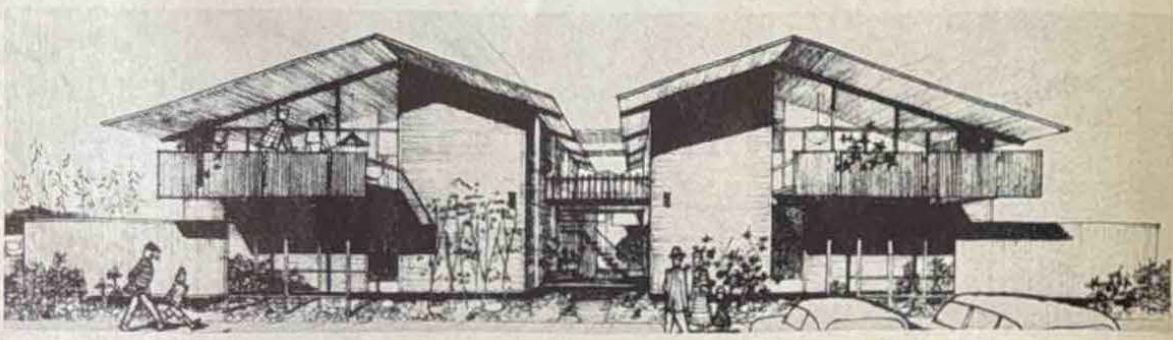
## NUCLEAR REACTOR WING

of Mechanical Engineering Building at University of Washington in Seattle will be of reinforced concrete throughout. Observation deck will permit viewing of critical reactor from outside building; shielded areas will be below grade. Architects: Zema, Lovett & Streissguth (The Architect Artist Group).



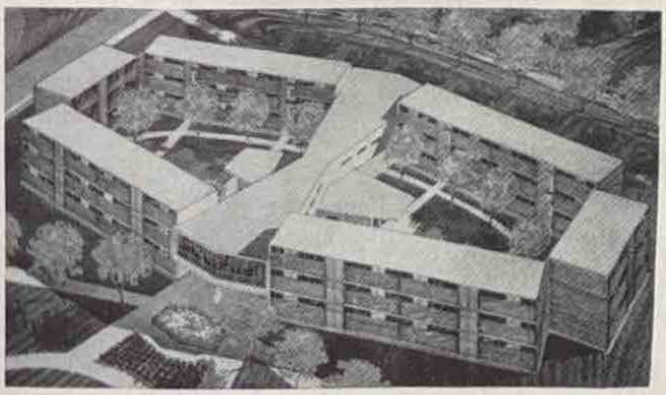
## WEST COAST HEADQUARTERS

now under construction for John Hancock Mutual Li Insurance Co. in downtown San Francisco will hav integrated surfacing of gray granite, bronze windo frames and gray tinted glass hung from reinforce concrete bearing walls. Lower two floors will featur hand tooled and roughened concrete columns and arch circled by bronze balcony railing. Architects: Skidmor Owings & Merrill.



## APARTMENT PROJECT

being built in Oswego, Ore., will have four one- and two-bedroom units in each of four separate buildings, with entry to upper floor via stairway between each pair. Cedar will be used for exterior siding, roof decking and some interior paneling. Architects: Donald Blair and Zaul Saik.

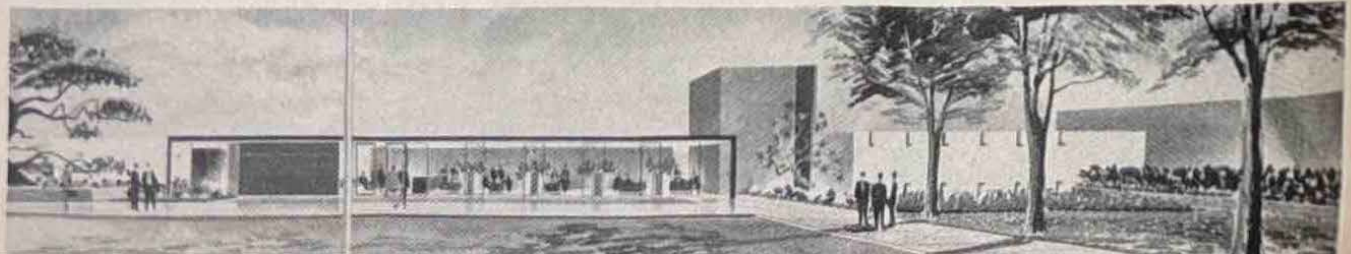


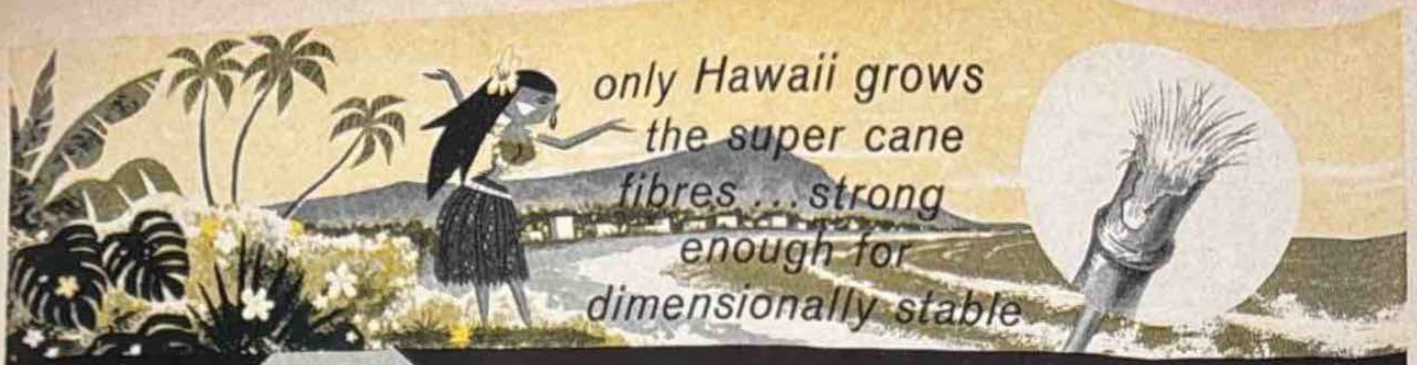
## MEN'S DORMITORY COMPLEX

at Central Washington College of Education in Ellensburg will consist of six three-story buildings, providing 57 four-student housing units and counselor quarters, grouped around office and lounge facilities. Reinforced concrete project will be faced with brick spandrels. Architects: Cowan & Paddock.

## POLICE FACILITIES BUILDING

for Redondo Beach, Calif., will house administrative offices and jail in 10,000-sq. ft. structure, costing $266,000. Architects: Victor Gruen Associates.






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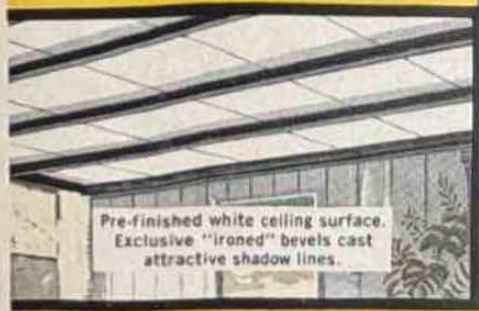
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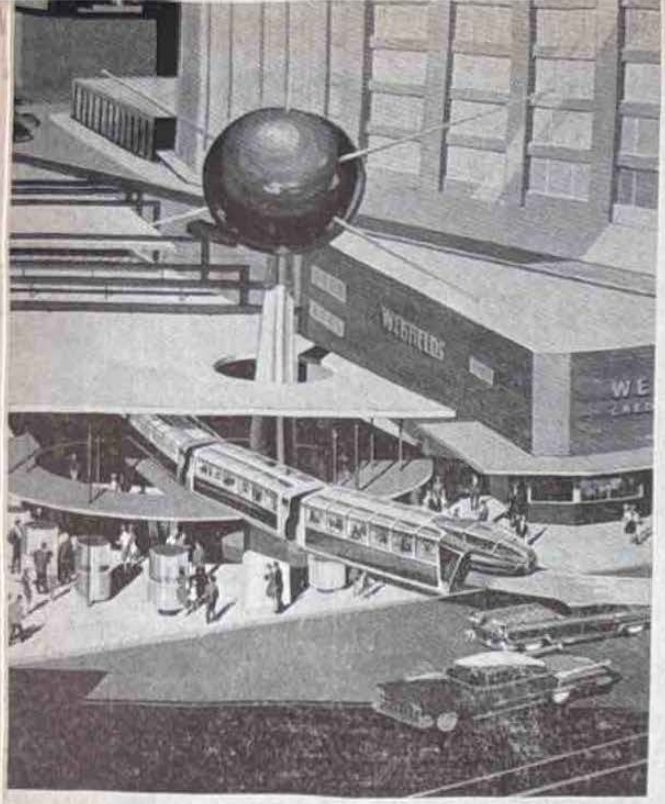
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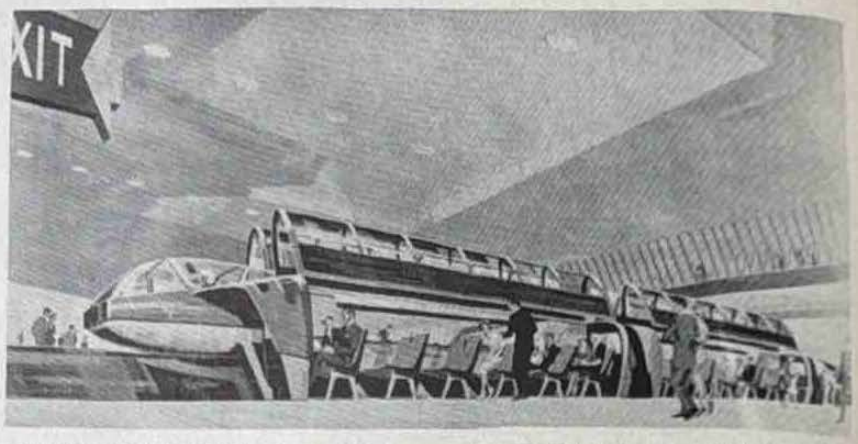
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**DOWNTOWN TERMINAL** of Seattle's proposed monorail system, scheduled to be in operation by November 1960, is shown here, with track circling triangular block bounded by Westlake Avenue, Pine Street and Fifth Avenue.

# Seattle plans $5 million monorail line for '61 exposition

## • System to be first ever tried to solve a city's mass transportation problem

The Seattle Transit Commission late last month named Lockheed Aircraft Corp. as prime contractor to produce an airliner-like monorail system for Seattle's Century 21 Exposition and gave a real shot in the arm to the show which is scheduled to open two years from now but has had a tough time getting its feet off the ground.

And at a meeting just a week later, local business and civic leaders heard of San Francisco's plan for a 123-mile, $700 million rapid transit system, most likely a conventional rail type although the monorail has not been ruled out (adjacent article).

To be the first monorail line ever installed within a city for solving a mass transportation problem, the system will operate on Fifth Avenue from Pine Street to the exposition site, covering the distance—about a mile—in 94 sec., with a top speed of 60 mph. Estimated cost is $5 million, including three "airtrains," supporting structures and terminals. The line is expected to pay for itself solely out of its revenue during a two-year operation.

Cyril Chappellet, Lockheed senior vice president, says his company will begin work immediately on engineering and production detail design and will have the system in service on November 1, 1960, six months before the opening of the exposition. The commission studied six monorail designs and one proposal for a moving belt before selecting Lockheed.

Riders boarding airtrains at street level will sense a gentle, quiet "take-off" as the four-car, 96-passenger units spiral upward for the above-the-street ride, Chappellet explains. The train will increase speed at a rate of 4 mps. until it attains top speed.

Basic engineering studies at Lockheed's California division in Burbank provide for a supported type of monorail system, Chappellet points out, in which vehicles are mounted atop the rail well clear of street traffic below. This is in contrast to suspended or hanging trains which dangle from overhead suspension systems.

The new airtrain design calls for automatic block controls, automatic speed and braking controls, radiant heating and built-in public address units.

The Lockheed executive explains that each city's system must be "tailor made" to fit its peculiar requirements. "Seattle's monorail not only will solve a specific problem; it also will serve as a proving ground for an operating device that may be of more significance to more people than any local transit development since the replacement of the horse-drawn streetcar.

"We are optimistic about the future of monorails for urban travel, for speeding passengers to and from airports, for moving people and cargo within the confines of airports themselves and for other uses."

Chairman W. W. Scruby says that the commission is installing the monorail system for two reasons: "First, the transit system must meet the serious problem of transporting millions of visitors to the exposition site. Secondly, it will give the people of Seattle a version of future rapid transit which could solve this city's—and cities'—congestion problems."

## High speed rapid transit eyed by San Francisco

San Francisco is mapping plans for 70-mph. trains operating over 123 miles of entirely private routes in five counties, providing service as frequent as every 90 sec. during peak commuting hours.

John M. Peirce, general manager of the San Francisco Bay Area Rapid Transit District, told the Central Association of Seattle earlier this month that his organization has retained three engineering consulting firms and within the next month will employ one or possibly two financial consulting firms.

"This engineering-financial planning team will be given a deadline of

May 1960 to complete in detailed final form our plans for the world's most modern rail rapid transit system," Peirce said, adding that voters will be asked the following November to approve a general obligation bond issue to guarantee financing.

A conventional rail system using subways, tubes under the Bay, elevated structures and surface lines, depending upon the area and terrain, seems to be in favor, Peirce continued, although a monorail line has not been ruled out entirely. He emphasized, however, that tracks on the ground would be cheaper in outlying areas.

In outlining the program, he explained: "To maintain its eminence, built up over a century, as the heart of its great metropolitan area, San Francisco must have accessibility. Not just the barely scraping-by accessibility of today in an area of some 3.5 million people and 1.3 million motor vehicles; but the jet-age accessibility of tomorrow when the population of people has doubled, the population of motor vehicles has trebled and the residential development has stretched out to now-vacant land far from the central core."

Peirce went on to say that "people have turned to their cars because public transportation has been allowed to deteriorate to the point that it is not now—nor has it been for some time—competitive with the private automobile."

He pointed out that operating unimpeded over its own rights-of-way, a two-track rapid transit system has the carrying capacity of 30 to 40 lanes of freeways. Referring to the latter, he declared: "Let's provide freeways to accommodate the base load requirements for movement—in other words, for the off-peak hours. But let's not build freeways just to accommodate the peak floods of commuters who create the most critical congestion during the two morning and two afternoon peak hours, five days a week."

## Washington laws affect architects, engineers

Washington State legislators wound up their work in Olympia by passing a strengthened Architects' Registration Law, including a section which prohibits the corporate practice of architecture; and by passing another bill which would allow a corporation to practice engineering provided it employs one licensed engineer. The latter has been opposed by the Professional Engineers' legislative committee which is seeking 60,000 signatures by June 10 in support of a referendum eliminating part of the law to be presented on the November 1960 ballot.

# Los Angeles okays $315 million project

The concern of city planners for 32 years, the Bunker Hill project has finally been given the green light by the Los Angeles City Council, following six months of hearings and compilation of 1,200 pages of transcript. The program is concerned with transforming a 136-acre semi-slum area into a combination business, hotel and apartment center at a cost of $315 million.

The master plan divides Bunker Hill into three separate sections of different elevation, each built around plazas and connected to one another for foot traffic by a series of street overpasses, moving stairs and moving sidewalks. Supervising architects are Charles Luckman Associates, with William L. Pereira, associate architect, and Donald R. Warren Co., consulting engineering firm.

Multistory buildings of the residential plaza will include one- and two-bedroom and efficiency apartments for 2,500 to 4,000 persons of various income groups. Apartments will be designed with adequate open spaces. A recreational area plus convenient shopping facilities will be provided on the ground level.

The office plaza will incorporate a number of air conditioned, multistory structures of an institutional or headquarters type, permitting the construction of a maximum amount of square footage with minimum ground coverage. On the lower level, the Hill Street side, there will be office buildings accommodating 700,000 sq. ft. of rental space; on the "Hill," or upper plaza, will be 2,000,000 sq. ft. of space of the institutional type.

The third plaza at the southwest corner will be set aside for a major hotel and related facilities, with a capacity of about 1,000 rooms.

Parking will be provided on the perimeter of the site in multistoried, above-ground structures and also by subsurface areas below each plaza, accommodating 10,000 cars for those working or living in the Bunker Hill area. Space for an additional 10,000 cars will help solve the parking problem of the adjacent downtown business area and new Civic Center. Improvements include elimination of substandard streets and alleys.

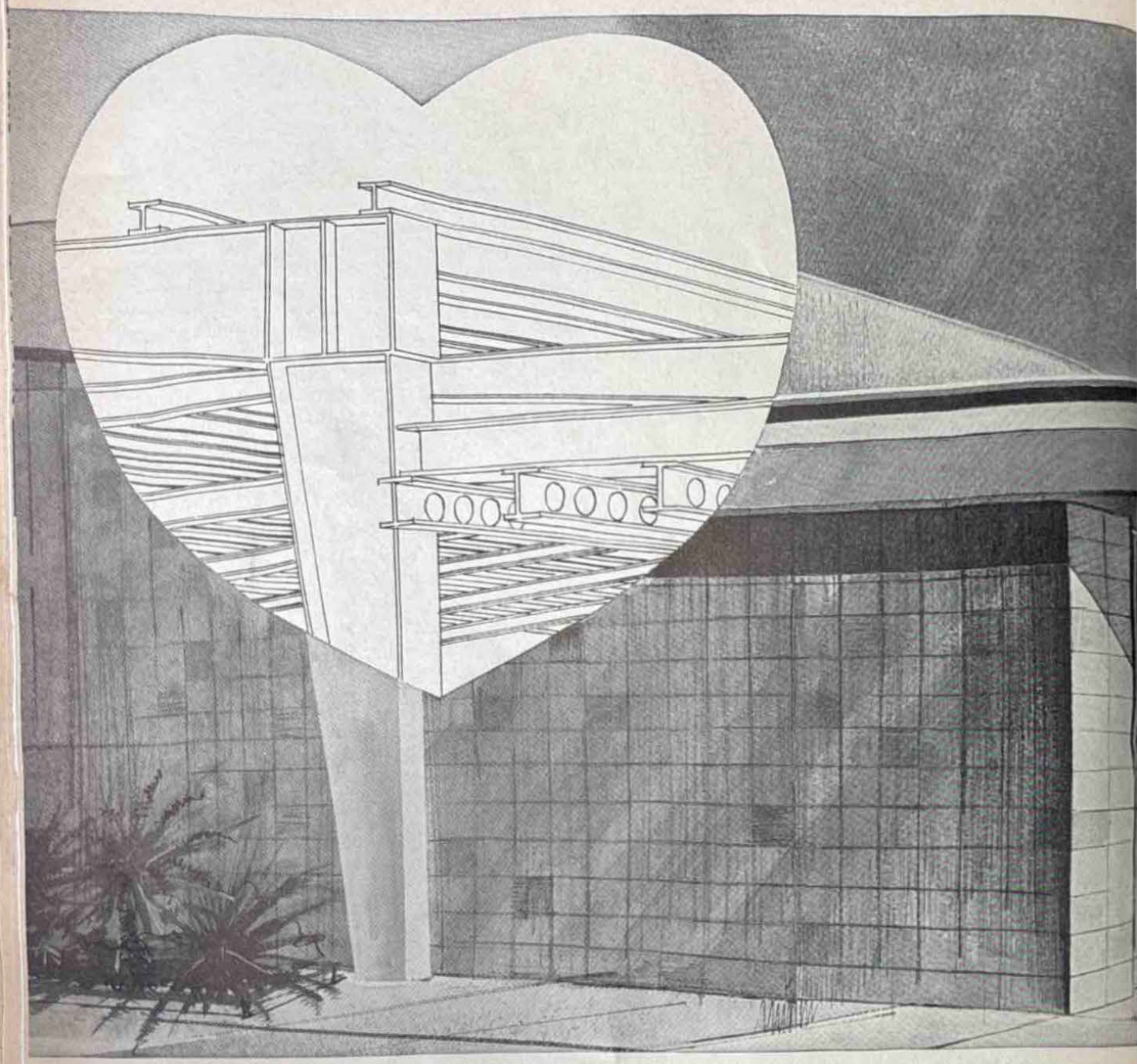
About $65 million will be spent for the purchase of the land and preparation of the site for private enterprise construction, comments William T. Sesnon Jr., chairman of the Community Redevelopment Agency which will execute the plan. The federal government has pledged $58.7 million of this as a loan and grant, and the CRA will return $42.9 million from the sale of land to private concerns.

Sesnon also says that the CRA will lean over backwards to give present property owners every possibility to participate in the new development. The master plan is designed, he points out, to permit smaller structures in a two-block area along Hill Street, allowing present owners to participate in the development if additional small parcels of land are purchased.

Joseph T. Bill, CRA executive director, estimates that the city's tax revenue from the area will increase from about $500,000 yearly at present to $4.4 million when the project is completed. He says that the program will have no bearing on property tax rates. The city's cash outlay will be limited to $15 million, to be raised by a bond issue and repaid from the increase in tax revenue.



**BUNKER HILL**, which will be nation's largest redevelopment project in downtown Los Angeles, is flanked on north by Civic Center, on south and east by business district, on west by freeway.



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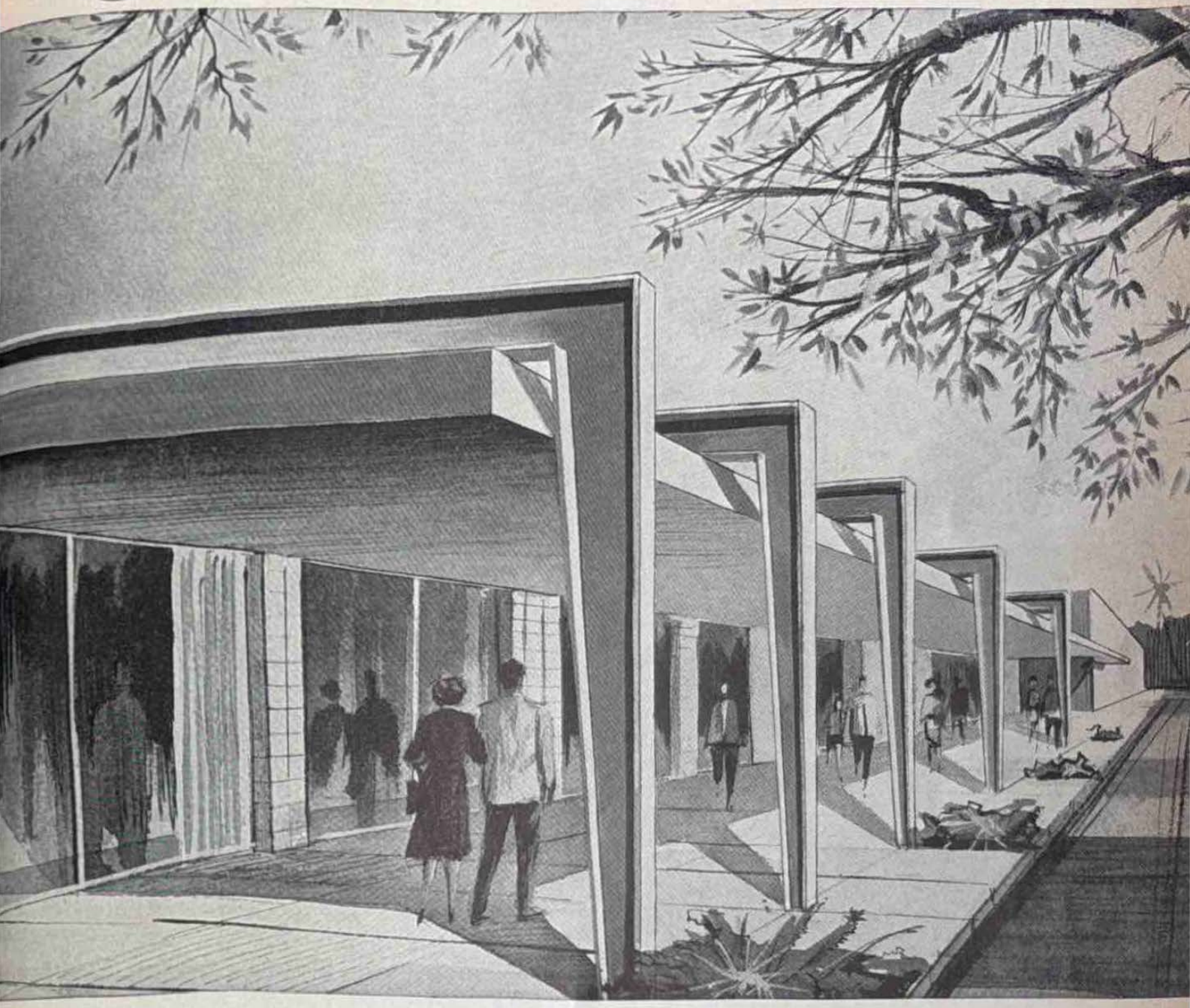
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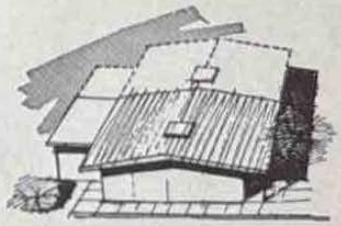
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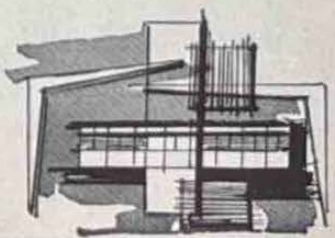
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# Three West Coast jobs cited in national AIA competition

Two Spokane architects—Kenneth W. Brooks and Bruce M. Walker—have received a First Honor Award, one of five presented in the 1959 competition of the American Institute of Architects, for their design of a water power company's service center. Among 10 projects cited for Awards of Merit are a supermarket in Washington and a residence in Oregon, both designed by California architects.

The all-architect jury consisted of Walter Bogner of Harvard University's Graduate School of Design, chairman; Walter Gordon, dean of the School of Architecture and Allied Arts at the University of Oregon; Albert S. Golemon, Houston; Vincent G. Kling, Philadelphia; and Harry Weese, Chicago.

In reviewing 332 submissions, the jurors were guided by three criteria: architectural distinction, totality of the solution and character of the design. They observed a general aim of architects to make buildings richer in their appearance and to give them a certain human quality as a reaction against the more austere functional appearance associated with earlier modern styles. Winning projects not shown here:

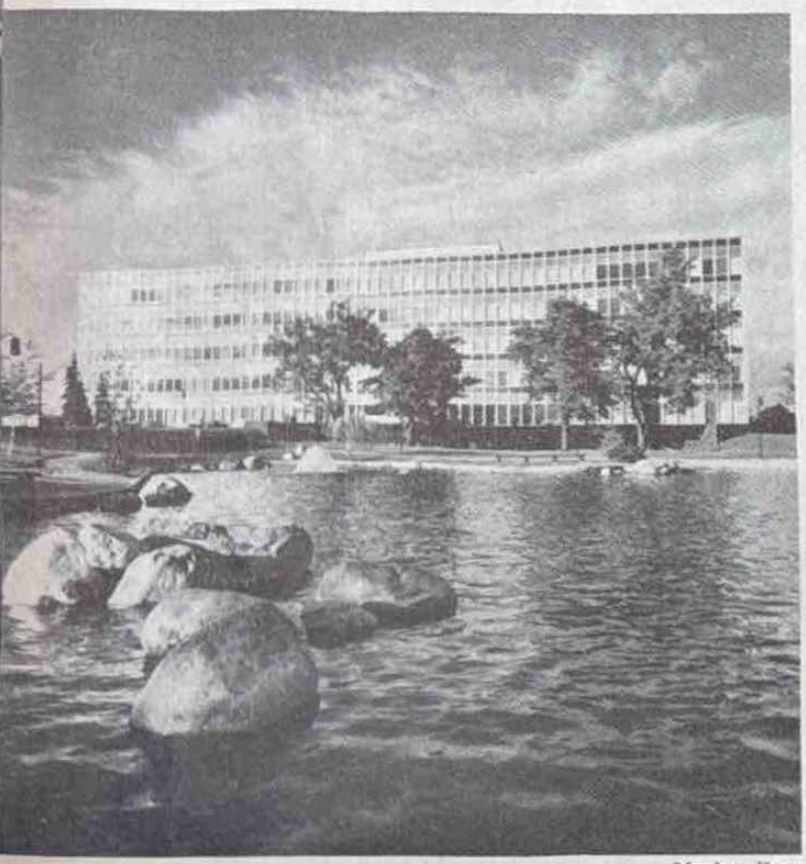
FIRST HONOR AWARDS — Diaz-Simon Pediatric Clinic, New Orleans: Colbert & Lowrey & Associates, architects; McGregor Memorial Community Conference Center, Detroit: Minoru Yamasaki & Associates, architects; Concordia Senior College, Fort Wayne, Ind.: Eero Saarinen & Associates; Zeckendorf Plaza Development, May-D & F Department Store, Denver: I. M. Pei & Associates, architects, and Ketchum & Sharp, associate architects.

AWARDS OF MERIT—Florida's Silver Springs (tourist center), Silver Springs: Victor A. Lundy, architect; Temple Emanu-El, Dallas: Howard R. Meyer & Max M. Sandfield, associated architects, and William W. Wurster, consulting architect; Benjamin Franklin Junior High School, Wayne, Mich.: Minoru Yamasaki & Associates; San Angelo Central High School, San Angelo, Texas: Caudill, Rowlett & Scott, architects, and Max D. Lovett, associate architect; Richard Beattie Residence, Rye, N. Y.: Ulrich Franzen, architect; Mile High Center, Denver: I. M. Pei & Associates, architect, and Kahn & Jacobs, associate architects; John Black Lee Residence, New Canaan, Conn.: John Black Lee, architect; Gretna Methodist Church, Gretna, La.: Lawrence & Saunders, architects.

## *First Honor Award*

Central Service Facility for Washington Water Power Co., Spokane: Kenneth W. Brooks and Bruce M. Walker, architects; William W. Wilson and Jack M. Lyerla, structural engineers; Kendall M. Wood Associates, mechanical engineers; Lawrence Halprin, landscape architect; Johnson-Busboom-Rauh, general contractors.

*"A utilitarian building group dominated by an effective office structure of refreshingly simple form and faced with a well-proportioned and neatly detailed curtain wall. The beautiful effect of the structure was aided by a well-handled landscape treatment."* — Jury comment.



Morley Baer

## *Awards of Merit*

Dunbar Carpenter Residence, Medford, Ore.: George T. Rockrise, architect; William B. Gilbert, engineer; Lawrence Halprin, landscape architect; Dunbar Carpenter, contractor.

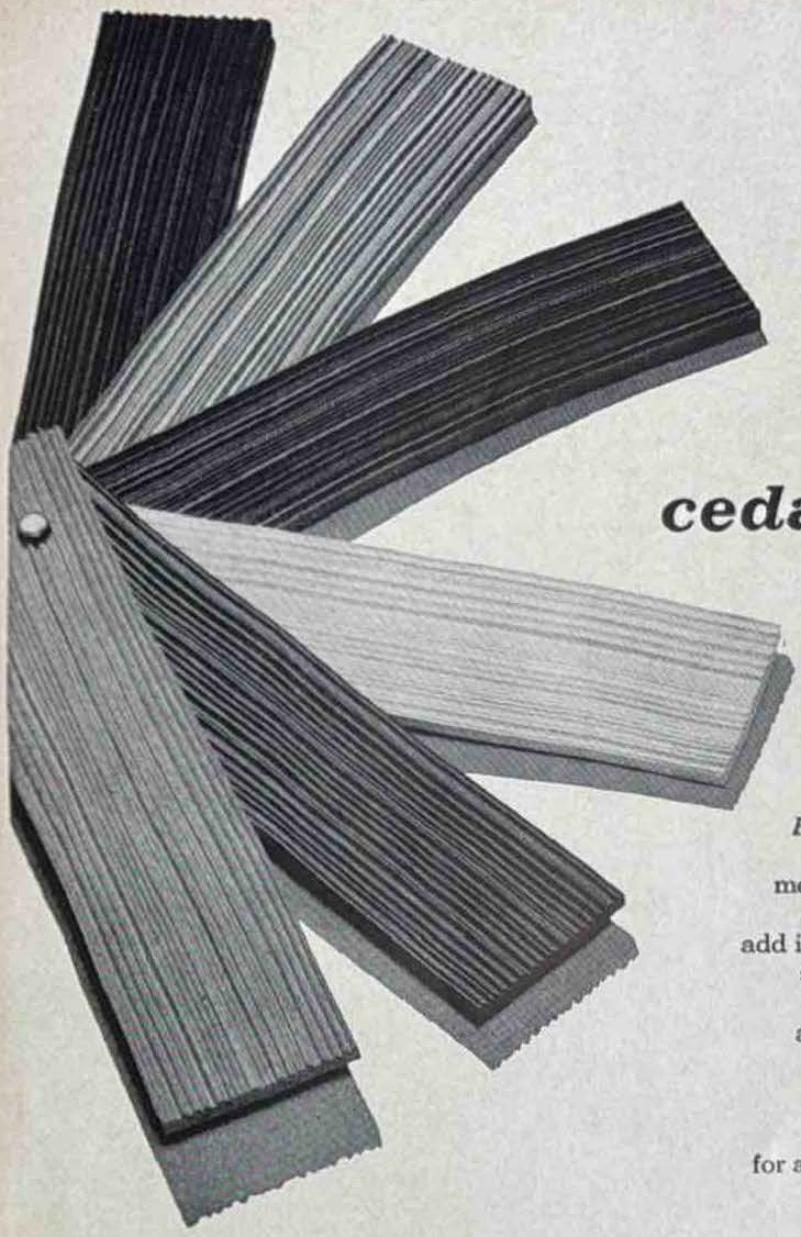
Ernest Braun



Tradewell Market (PA&B for Jan. '58), Burien, Wash.: Welton Becket & Associates, architects, and Rushmore & Woodman, associate architects; Richard R. Bradshaw, structural engineer; Jentoft & Forbes, general contractors.

Charles R. Pearson





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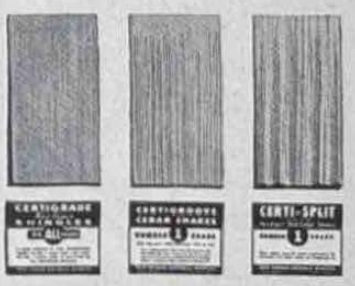
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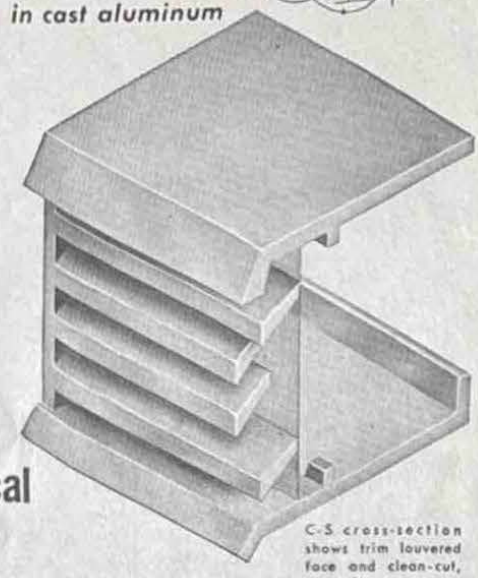
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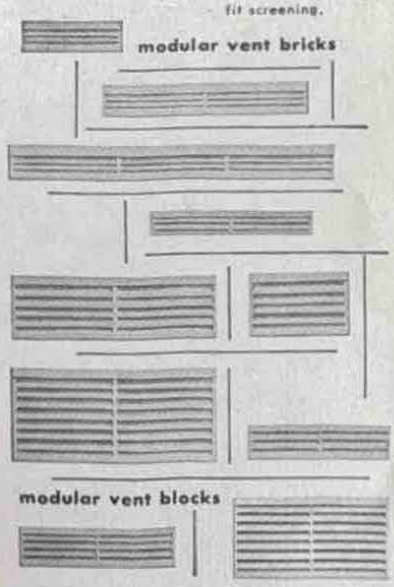
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## Aspen readies for annual design conference

- **Los Angeles designer among moderators**

The ninth annual International Design Conference to be held in Aspen, Colo., June 21-27 will analyze the world of visual communication, focusing attention on the film, the magazine, television, newspapers and books. Program chairman Morton Goldsholl, Chicago designer, reports that the sessions "will examine the purpose to which this vast communication machinery is put and the ends which it serves."

The conference will be conducted in three cycles with seminar workshops as has been the custom. Moderators will consist of Saul Bass, Los Angeles designer; Prof. Thomas M. Folds, director, fine arts department, Northwestern University; and Ralph Eckerstrom, design director, Container Corporation of America.

Among the panelists: Bruce MacKenzie, editor of the IBM Journal of Research and Development; Abram Games, London designer; Gyorgy Kepes, professor of design, Massachusetts Institute of Technology; William Capitman, president, The Center for Research in Marketing, Inc.; William Golden, executive director, CBS television; Jim Real, designer-consultant; Len Lye, pioneer in experimental films; Richard Griffith, curator, film library Museum of Modern Art; Dr. Roman Vishniac, U.S. scientific photographer; Gilbert Cohen-Seat, French film philosopher; Lancelot Law White, English philosopher of science and author; Lancelot Hogben, English statistical scientist and author.

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## Harbor development for Redondo Beach

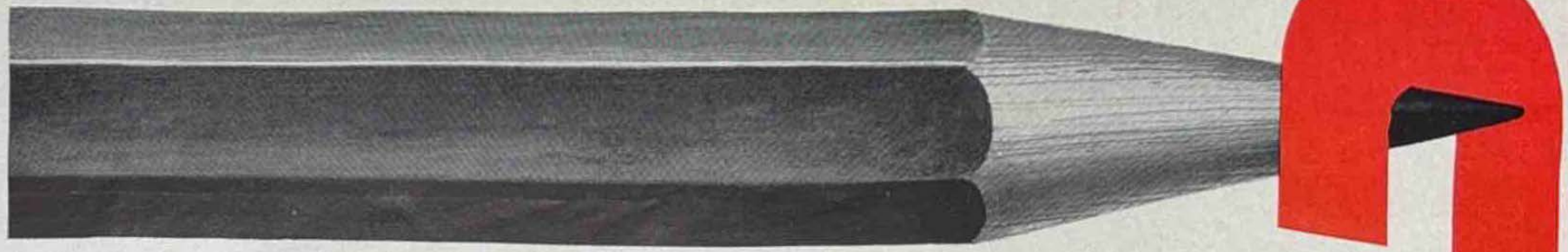
Plans for a somewhat unusual architectural assignment in California — the $16 million development of Redondo Beach harbor and central business district — have been completed by the firm of Victor Gruen Associates. The City Council has authorized an election for a $9 million revenue bond issue, while the remaining $7 million would be financed through surplus revenue derived from the harbor itself.

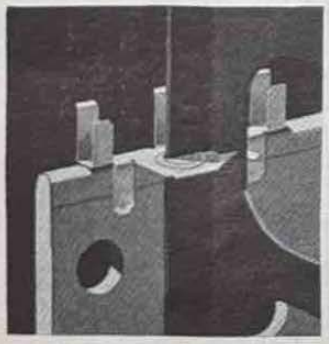
First stage consists of berthing facilities for more than 1,000 boats together with parking accommodations, with ultimate provision for 2,400 boats, 3,100 parking stalls and 26 acres available for commercial development. The project includes comprehensive planning for all areas adjacent to the harbor. (A sketch of the Police Facilities Building designed for Redondo Beach by the Gruen office is shown on p. 6).



**INITIAL STAGE**—berthing facilities and parking accommodations—is expected to be completed in about 18 months.

# Two FIRE and SOUND Resistant Partition Systems





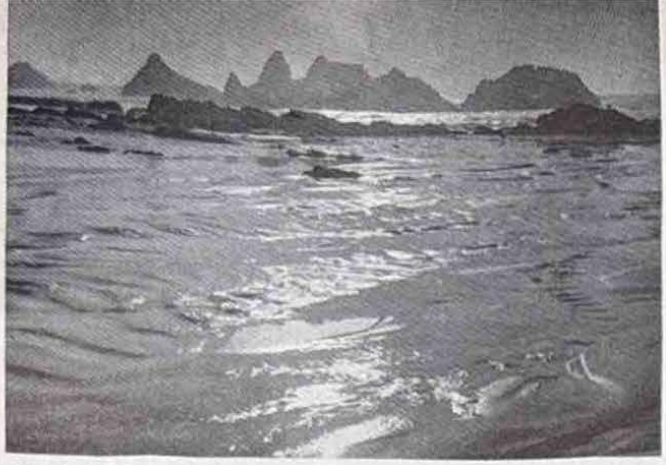
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Average sound transmission performance: Plaster system (Spee-Dee Clip), 44 decibels; Wallboard (Perma Wall), 45 decibels. Call your nearest Kaiser Gypsum office for information and technical bulletins.

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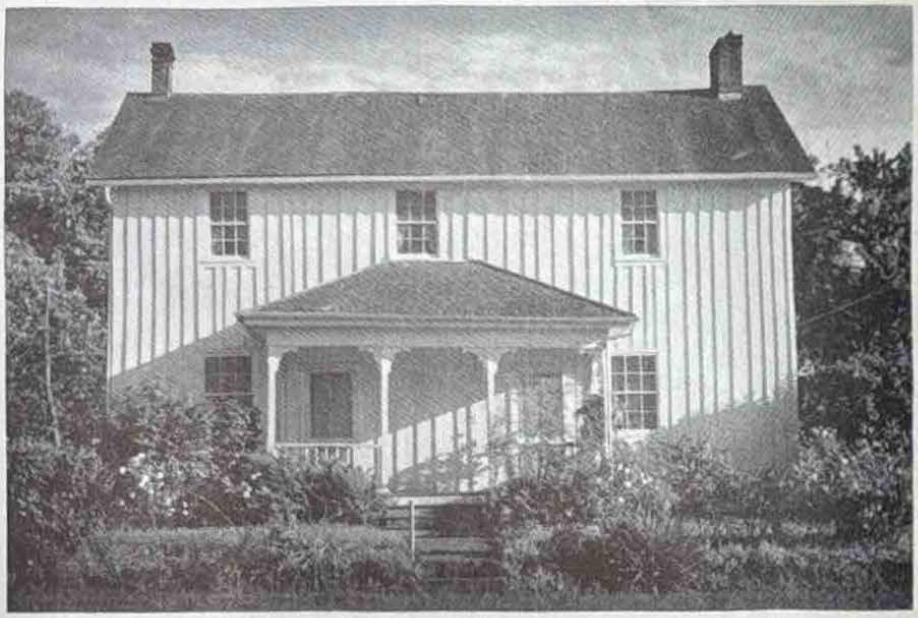
**KAISER GYPSUM COMPANY, INC.** Kaiser Building–1924 Broadway, Oakland, California



# *Oregon Impressions*

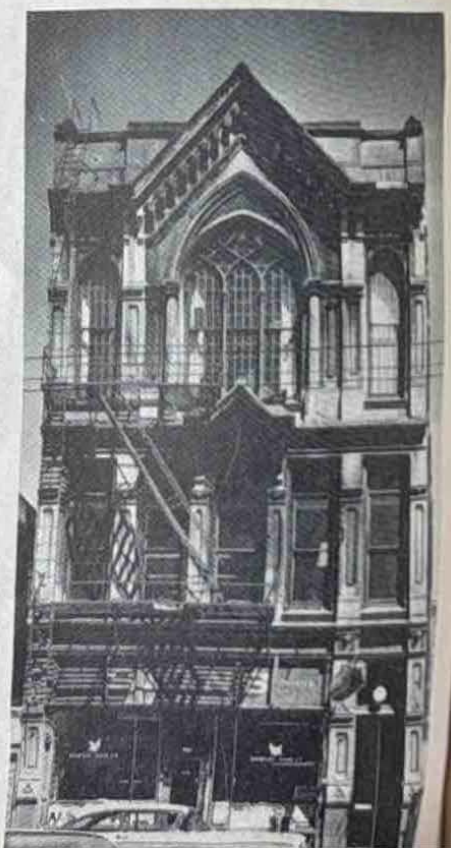
PHOTOS BY TOM BURNS JR.

*COASTLINE near Seal Rock State Park.*



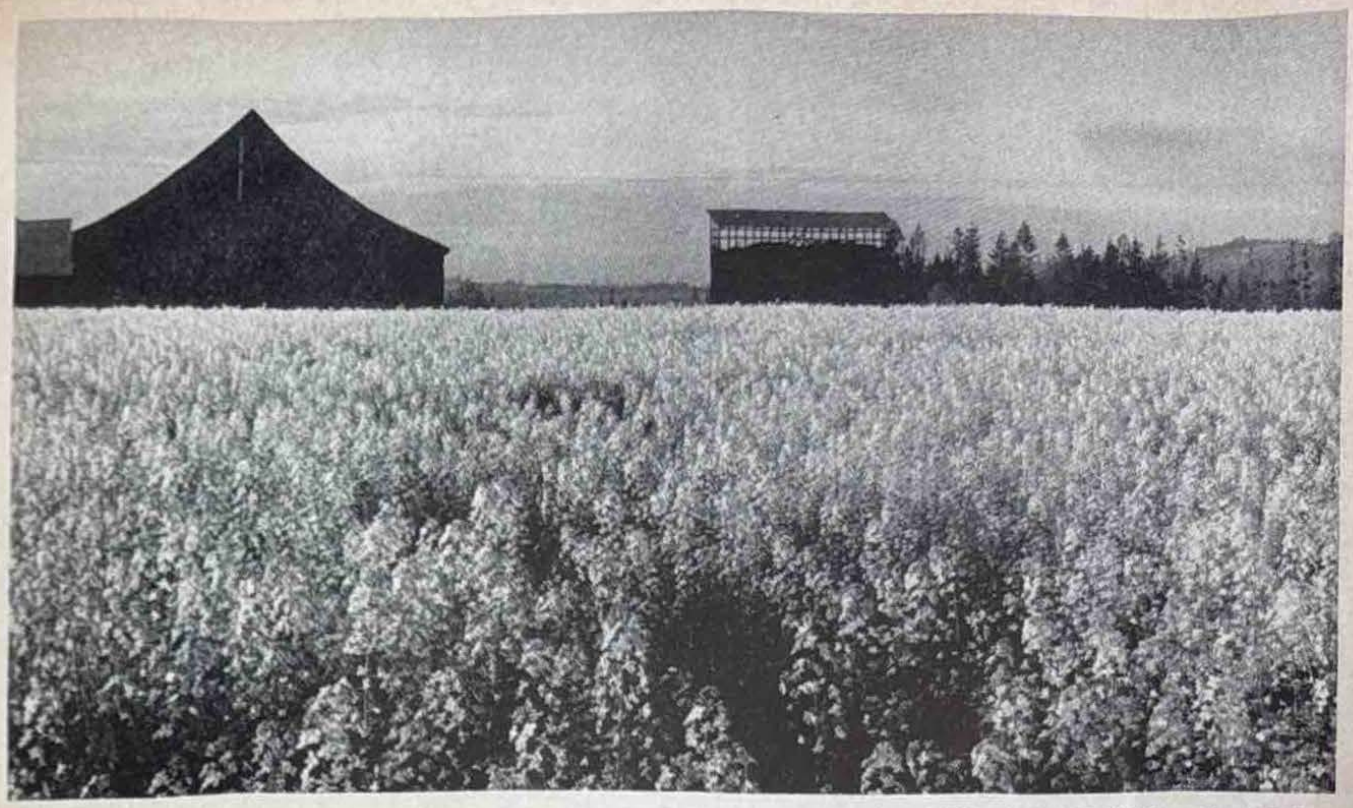
*PIONEER HOUSE of communal experiment which flourished in Aurora during 1850s.*

*CAST IRON GOTHIC FRONT built about 1885-90 at Southwest Second and Stark streets in Portland.*



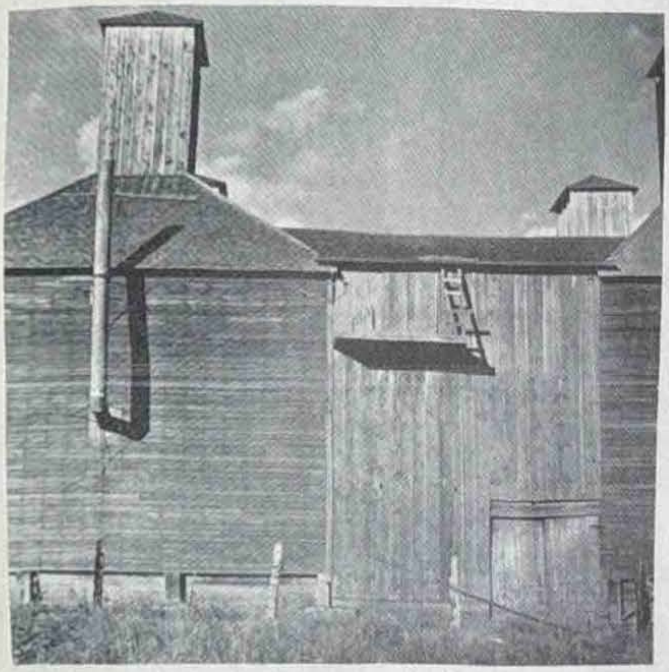
"The ideals of the modern man may then be very briefly summarized as follows: He must come to terms with his environment; only thus can an architect hope to become creative, not in the anemic method of the academy or as a fashionable hireling of the wealthy, but as a lively interpreter of the new social order and as a prophet of his age.

"To what extent have we succeeded up to now? We readily admit that our accomplishments are very modest and our successes mostly on the negative side. What little we have to show for our efforts has not been easily achieved, not so much because of the doubters among clients and public, but mostly because of our own conflicts and limitations. We had to find our way among the great many technical advances and distinguish the basic from the superficial; we had to develop the inner discipline which alone could prevent us from being seduced by the many transitory forms offered for daily consumption. It is also apparent that we have succeeded in designing good factories but have failed to create beautiful monuments. Today we are more honest, more practical and quite functional but it has been at the expense of grace and gentility. We have taken away many of the established forms, so cherished by our ancestors, and have replaced them with stark utilitarian ones which give little nourishment to the senses. We have taken away from the man in the street all the stereotyped little ornaments, cornices, cartouches and green fake shutters but we have not been



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capable of giving him back the equivalent in emotional value. The fact is, that after three decades of rather cold functionalism, we have come to the realization that emotion is a great force in our everyday world; it pervades our actions, our political motives, our very happiness—yet emotions have not been given the guidance they deserve, although they are the very soil in which both architects and public may grow to creativeness and understanding."— *from an address entitled "Architecture and Society" delivered by Pietro Belluschi at Reed College, Portland, in 1951.*

OLD GROWTH TREES near McKenzie River in Willamette National Forest.





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## Job of the month

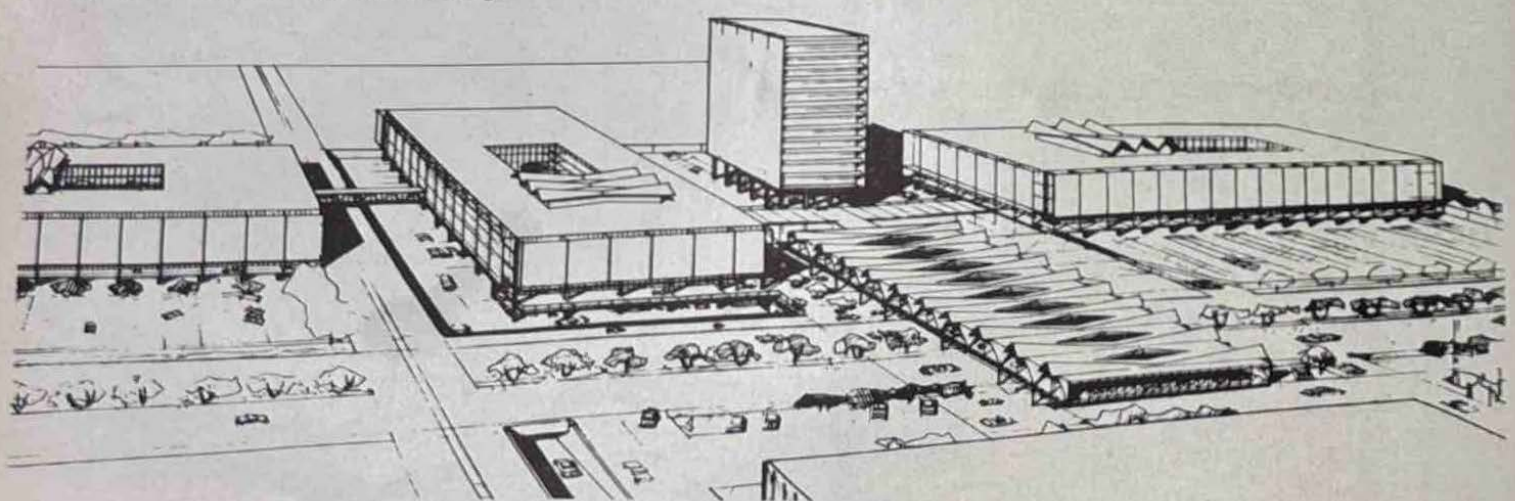
# Major expansion set for large California research center

ELECTRONICS RESEARCH CENTER, SANTA MONICA, CALIF.: A folded plate, one-story structure doubling as a display-recreation area will span a major boulevard to connect new and existing operations in this huge research project. Developer John M. Stahl, who completed a $50 million facility for Systems Development Corp. in 1958, will enlarge the center with a $38,000 million program for Rand Corp. on the opposite side of Colorado Avenue. (Figures include land and improvements.)

In addition to the thin shell, reinforced concrete passageway, the expansion will consist of three identical four-story manufacturing and research buildings and a 12-story office tower, all elevated on columns to form a pedestal effect 2 ft. above normal grade. They will be grouped about a landscaped mall which will serve as the main entrance plaza and feature a 50x200-ft. reflecting pool. Continuous metal grillage, integral sunshades cantilevered from the structures, will break the predominating horizontal emphasis of the overall design. The manufacturing facilities will have extensive free-span areas. Full height, movable partitions will allow flexibility in interior space arrangements.

Plans call for a 1:2 ratio of parking area (475,560 sq. ft.) to building square footage (700,000 sq. ft.). The solution revolves around lowering the ground level 6 ft. and utilizing this entire area for parking. A future four-level concrete parking deck, to be located at the rear of one of the research buildings, will advance the capacity to 1,500 cars. Underground tunnels will accommodate subterranean parking areas.

**INTERIOR COURT** within each of three identical buildings will have continuous ramp connecting all four floors to facilitate materials handling.



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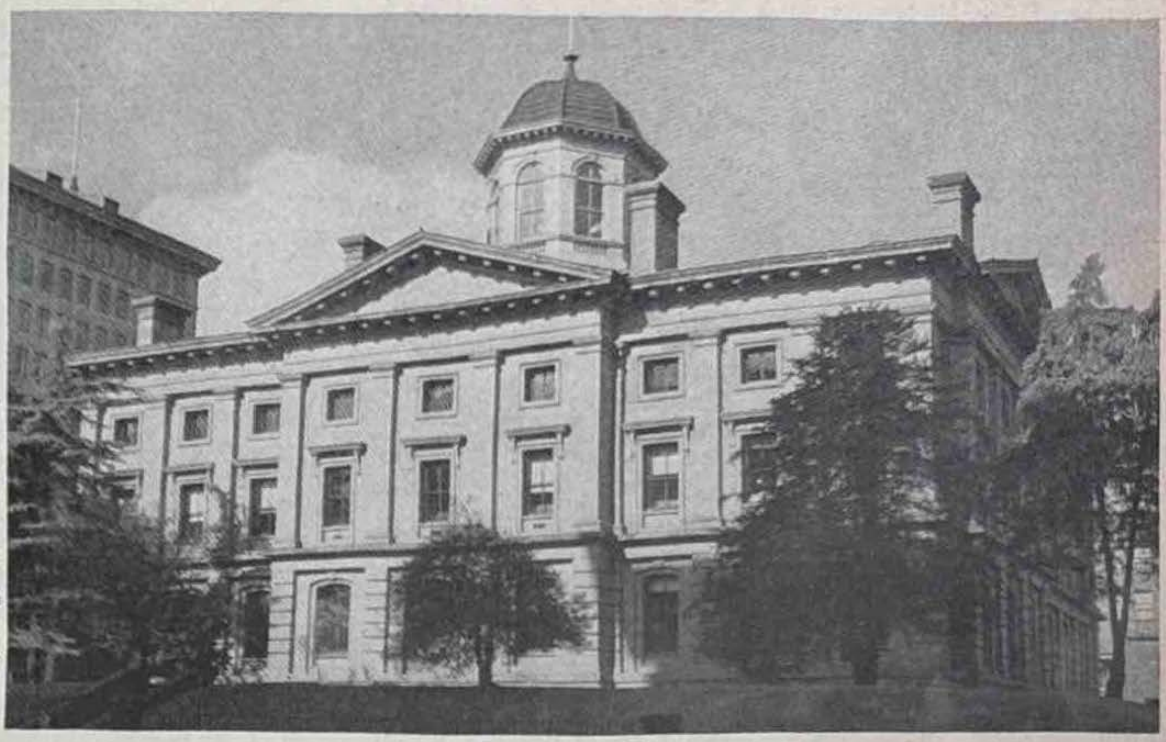
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Courtesy Oregon Historical Society

## A 100th anniversary and a few words about preservation activities

OREGON'S CENTENNIAL YEAR is a good time to look backward for a moment, as Marion Dean Ross has so aptly done in the article that follows; and it is also a proper time to seriously reflect on buildings which ought to be preserved. A case in point is Portland's Pioneer Post Office, shown on the cover and above in a view taken from the east some time ago.

Built of blue freestone from Bellingham, Wash., the structure was begun in 1869 and finished in 1875. It was designed in the office of the supervising architect of the U.S. Treasury Department and was carried out under the direction of E. St. John. An addition was made to the original block but in the same style. Comments Professor Ross: "The post office is, I believe, the only monumental government building of its date in the West north of San Francisco. There have been efforts by civic organizations and others to avoid its loss. It certainly is an asset to the city and should be maintained."

Typical of the renewed interest in preservation across the land are these remarks by Herman M. Lazerson, president of Solar Light Manufacturing Co., Chicago and Los Angeles, who wrote on the threat to great architecture in a recent monthly letter:

"Americans have always looked ahead rather than back. It's a national characteristic; one that may well be responsible for our preeminent position in the world today. We're all for it. But newness for its own sake is hardly a worthwhile goal. Today should build on the past, not replace it entirely. The greatest things in life, like the greatest works of art, are not always the most modern.

"What we have in mind is the truly alarming rate at which we continue to tear down old buildings and replace them with shining new ones. Not all old buildings are worth keeping; certainly not. But neither should they all be destroyed without consideration of their intrinsic worth.

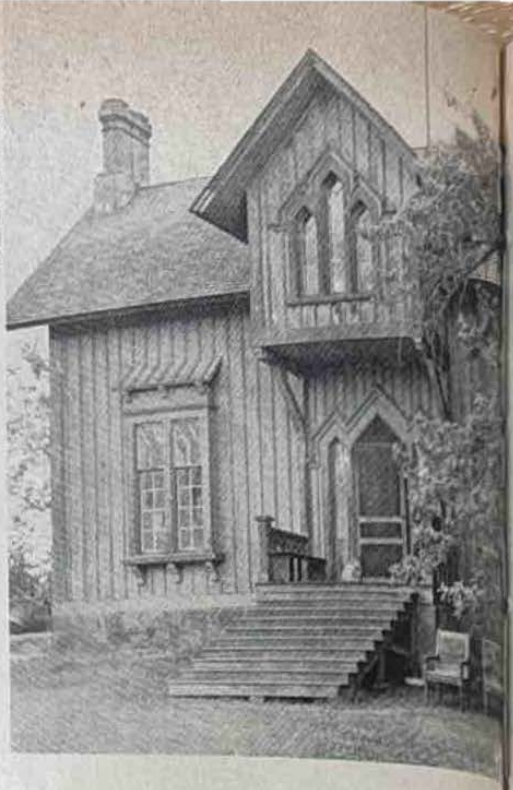
"A great architectural achievement is timeless. Wright's Robie House has had a broad and still growing influence. It has been often copied but never excelled. Yet only desperate, last minute action obtained even a temporary stay in its execution. That would have been a loss, indeed. No less a loss would be New York's Grand Central Terminal, Chicago's Auditorium or Boston's Public Library —but the threat is ever present. Buffalo's Larkin Building is gone and few achievements in our history more deserved preservation.

"These are only a few. Hundreds of cities and towns across America possess examples which are just as valid—and in just as great jeopardy. Who knows what will be the next to go unless some concerted effort is made?"

*'While Oregon in 1859 was in no sense a center of architectural development, it had a quality that gave it considerable distinction. In a technologically advanced position today, it may well be questioned—considering all advantages—whether the result is commensurably better.'*

# Oregon architecture 100 years ago

by MARION DEAN ROSS



Marion Dean Ross

**SURGEON'S QUARTERS,** The Dalles (1857): "It would not be wrong to call it the finest surviving house of its period in Oregon."

IN CONSIDERING building in Oregon 100 years ago, both the fashions popular in the eastern United States and the geographic position of Oregon must be taken into account. When Oregon became a state the communication of ideas, particularly those requiring illustration, was by no means as rapid as today. Photography was still in its infancy and illustrations were for the most part lithographs or engravings. It is not surprising that a region like the Pacific Northwest, so far removed from the center of architectural production, should have been somewhat behind the times. It is remarkable that it should have been as progressive as it was.

The Classic Revival which had dominated American architecture for several decades was gradually being less used in the East though public buildings were still being built in that style. Various Medieval Revival forms were popular in domestic and ecclesiastical work, though they were no longer new. The Italian Villa mode for houses and the similar Commercial Italianate were perhaps the most fashionable styles in the East. French mansarded designs had already appeared, but this style did not become accepted until after the Civil War. Samuel Sloan, a Philadelphia architect and a prolific writer of popular works on architecture, published in 1859 his book called "City and Suburban Architecture." This book is representative of the fashions of the period and while it contains some other designs, by far the most are Italianate.

Without doubt the dome of the United States Capitol in Washington was the most significant work in progress in 1859 in the East. Work on Thomas Ustick Walter's superb design had been begun in 1856, but was not finished until 1864. This design while harmonizing with the classical quality of the earlier work on the Capitol was substantially different in detail. An effect of greater plastic richness was due both to the tendencies to the Italianate and to the material: cast iron. This metal was just at the height of its greatest popularity in 1859 and many commercial structures had been erected in the preceding decade in which its potential for rich ornament had been exploited.

The new state was not only far from the sources of architectural inspiration, but was still largely untouched wilderness. The total population was small. There were a few small towns, chiefly in the Willamette Valley, but the general character of the state was predominantly rural. California, the only other state in the Far West, was separated from the principal Oregon communities by miles of arduous trail or perilous ocean. Communication with the East was slow and difficult either by land or sea. Oregon was not yet a place toward which the eye of the professional architect looking for a good opportunity to practice would turn. Even books on architecture were costly and few were to be had. But buildings were needed and in spite of all difficulties the needs were met.

The quality of much of the work belies the difficulties and great credit must go to those early and often anonymous craftsmen who struggled to bring the first architectural order in this new area. Improvised shelters and crude cabins of various sorts were often the first buildings, but the desire for a better and more orderly environment was strongly felt by the early settlers and as soon as possible they tried to express it in their buildings. Relatively few types of building and modestly scaled structures sufficed, but by 1859 the pioneers had already achieved suitable provision for domestic, religious, public and commercial needs. From the few fortunately surviving examples and from illustrations of much that has been destroyed, one can get an idea of the character of architecture in the new state in 1859.

## Houses

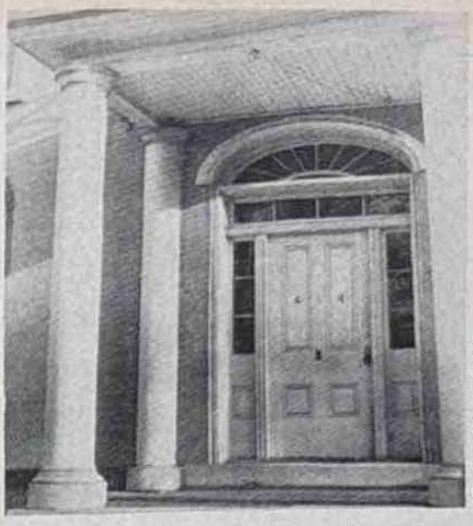
Unquestionably the greatest need was for the individual dwelling either on the farm or in the small but growing towns. Quite a few rural houses survive from the 1850s and they are often excellent buildings most of them are in the Classic Revival style. They are almost invariably of wood, usually frame construction. Two principal types can be noted, depending on whether they were of one or two stories.

A one-story house with a low pitched roof and its long side towards the street front was well known. A columned porch often stretched across

A member of the Society of Architectural Historians, Mr. Ross is a professor in the School of Architecture and Allied Arts, University of Oregon.

Courtesy Oregon Historical Society





Marion Dean Ross

**RESIDENCES** for Benjamin F. Dowel in Jacksonville (1859), porch detail, and T. J. Holmes in Portland (1858), from Kuchel and Dresel view.

the front, though in some examples it was not the full width, and in a few it was recessed in the center of the facade. The Hiram Colver House at Phoenix (c. 1855), is one of the best of the type with a porch across the entire front. It seems to have been inspired by a design published in Edward Shaw's "Rural Architecture" (Boston, 1843, Plate 13). The Jacob Conser House (c. 1854) at Jefferson is an interesting example with the porch recessed in the center. The Baber House near Jefferson (c. 1850), is generally similar but has a projecting pedimented portico with Doric columns in the center of the facade.

The other principal type of Classic Revival House, perhaps somewhat more common though often less richly detailed, was a two-story block with roof of low pitch with gables at the ends and placed with the long side toward the front. Many of these houses had two-story columned porches across the front, others had a porch on the ground floor alone and some a small porch in the center only. This type provided more spacious accommodation and was used for country inns as well as farm houses. Examples with two-story porches are the Wolf Creek Tavern (1857), the Dickey House at Molalla (early 1850s), the Kotan House near Scio (c. 1852), the Applegate House at Yoncalla (1856), and Rose Farm at Mount Pleasant (c. 1848). The last was rather unusual in having the end bays of the second floor porch enclosed, perhaps showing southern influence. The Samuel Colver House in Phoenix was similar though the two-story porch has been changed.

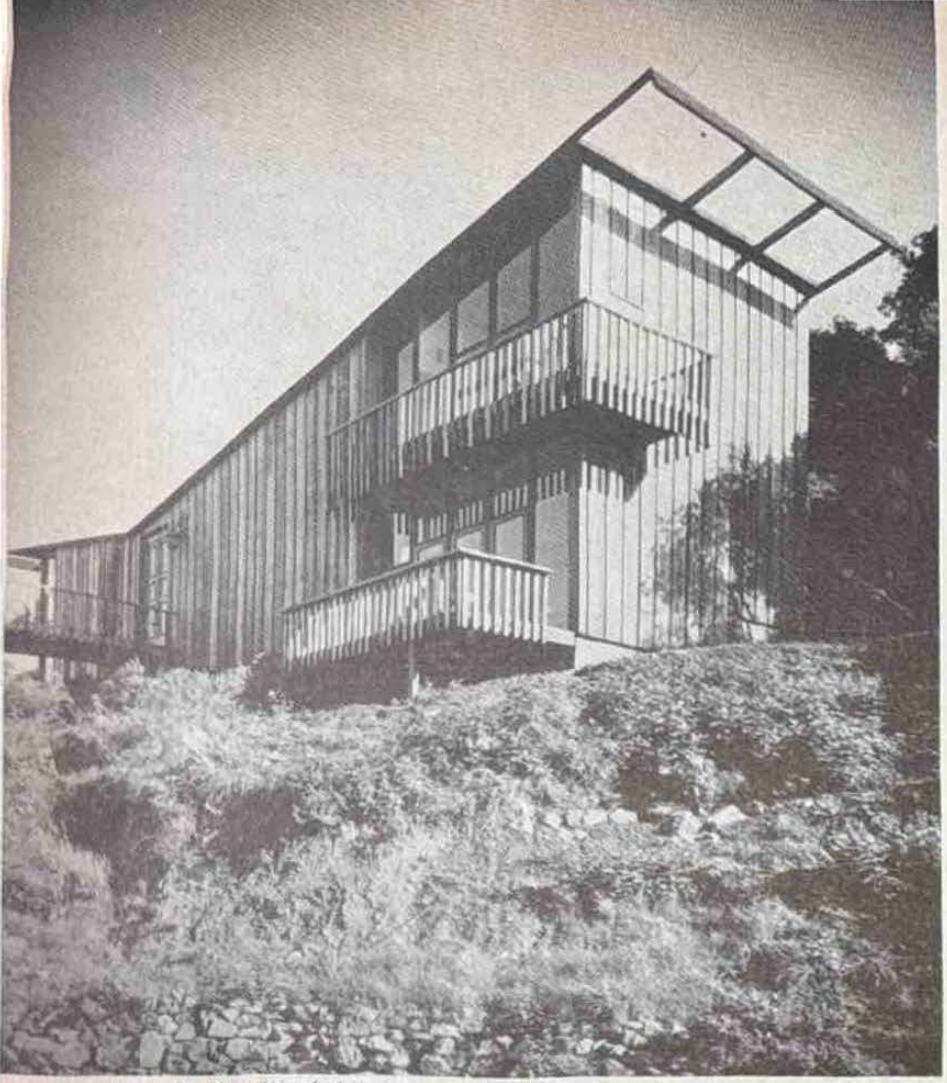
Classically derived detail appeared in the treatment of the cornices, the door and window frames and the detailing of the porches. In general square pillars were used in lieu of round columns though the latter were not unknown. The entablature was usually simplified in detail. The Reed House at Reedville (c. 1850) represents the type with a one-story porch. The Cartwright House near Lorane (1853) formerly had a one-story porch across the front with a deck at the second-floor level. The Bybee House near Jacksonville was an example of this type with a small porch at the center only. Sometimes there was a wing extending to the rear, but in general the mass was simple and symmetrical in most Classic Revival houses. The plan had a central hall with one or two rooms on each side. Some houses of this type do not have a central hall, but are provided with two doors of equal importance opening into the main rooms from the porch. Such a plan marked the Kotan House, for example.

The inspiration for the classical type of house often came from those with which their owners had been familiar in older parts of the country. Frequently there is a strong suggestion of the Classic Revival, as it was known in the Old Northwest Territory, though types found in Kentucky and Tennessee are also suggested. There appear to have been few truly temple-like houses in Oregon. Some one-story examples with a temple front were known; one exists near Brownsville and others were represented in prints of the 1850s. The only surviving example of a two-story house with a temple front is the Captain Ainsworth House (1851) at Mount Pleasant near Oregon City. This tetrastyle portico is a rather crude but impressive version of a type popular in the East some 20 years earlier. Perhaps technical difficulties encountered in the construction of large scale columns prevented wider use of this feature.

The quiet massing of the Classic Revival was not really the taste of the mid-century and it is not surprising to find that more picturesque forms were introduced. This tendency sometimes appeared only in the steeper pitch of roof and the presence of gables that broke its outline in houses that still had classical detail. This composition was used in examples such as the Newell House at Champoeg, the Lily Moore House at Roseburg and the Davis House near Harrisburg. The use of Gothic forms for American domestic building had been greatly encouraged by Andrew Jackson Downing, the landscape architect, in his popular books published from 1841 onward. His "Cottage Residences," first published in 1842, and "The Architecture of Country Houses," first published in 1850, were widely read and continued to appear in further editions as late as the 1880s, long after Downing's death in 1852.

Although there were many other publications dealing with cottage building, Downing's would seem to have been most influential in spreading the popularity of the Rural Gothic. This style of building has actually little in common with the Middle Ages, but in its use of wood and free character of planning it was as well adapted to American materials and requirements as any style in the 19th century. A pointed arch for a window or a barge-boarded gable were often

**Continued on page 43**



Stone & Stecatti photos

THE CHALLENGE of a difficult site—the long, narrow lot runs parallel to and slopes steeply up from the street—has been turned into a highly imaginative solution: a split-level rectangular structure with a 1½-story living room wing and a 2-story bedroom wing. The former features an all-glass end wall looking out toward San Francisco Bay to become the dramatic highlight of the house; the latter accommodates two bedrooms—one for the owners and another for their two daughters—on the upper level, a guest room and a painting studio on the lower. Projecting decks permit floor-to-ceiling windows on the street side and a view of Mount Tamalpais without sacrificing privacy.

The long rear wall of the living room, extending through to the kitchen, is painted white to serve as a gallery for the client's paintings; the entire front wall of which continues through the guest room is covered with natural grass cloth. Because of a moderate budget, the architect decided to economize on a compact but efficient 7½x10½-ft. kitchen. Among its features: a foldaway counter for serving snacks to the children; a marble slab in another counter for rolling out pastries; a large skylight edged with fluorescent tubes.

Completed in the fall of 1958, the 2,764-sq. ft. house has a redwood board and batten (reversed) exterior, a gravel surfaced t&g roof and bleached oak strip floors.

# Split-level pullman: an answer to a site problem

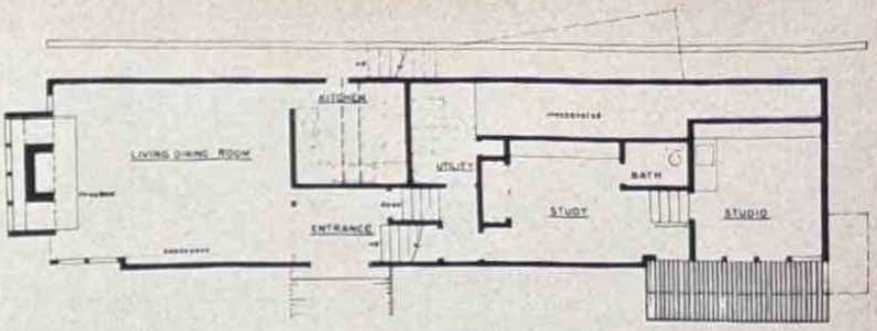
Jacques Neuville Residence
Sausalito, California

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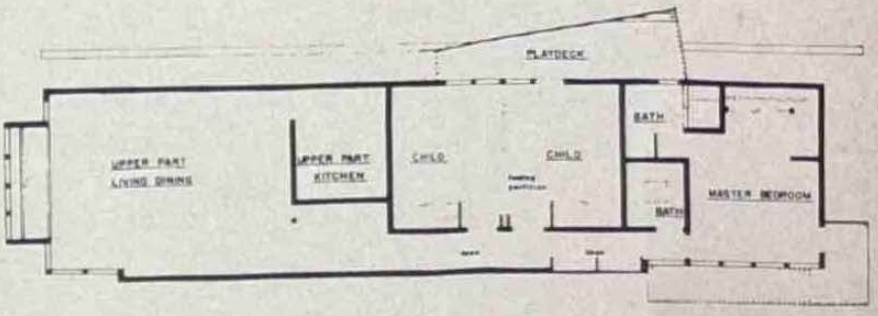
MARIO CORBETT
Architect

ALEXIS TELLIS
Contractor





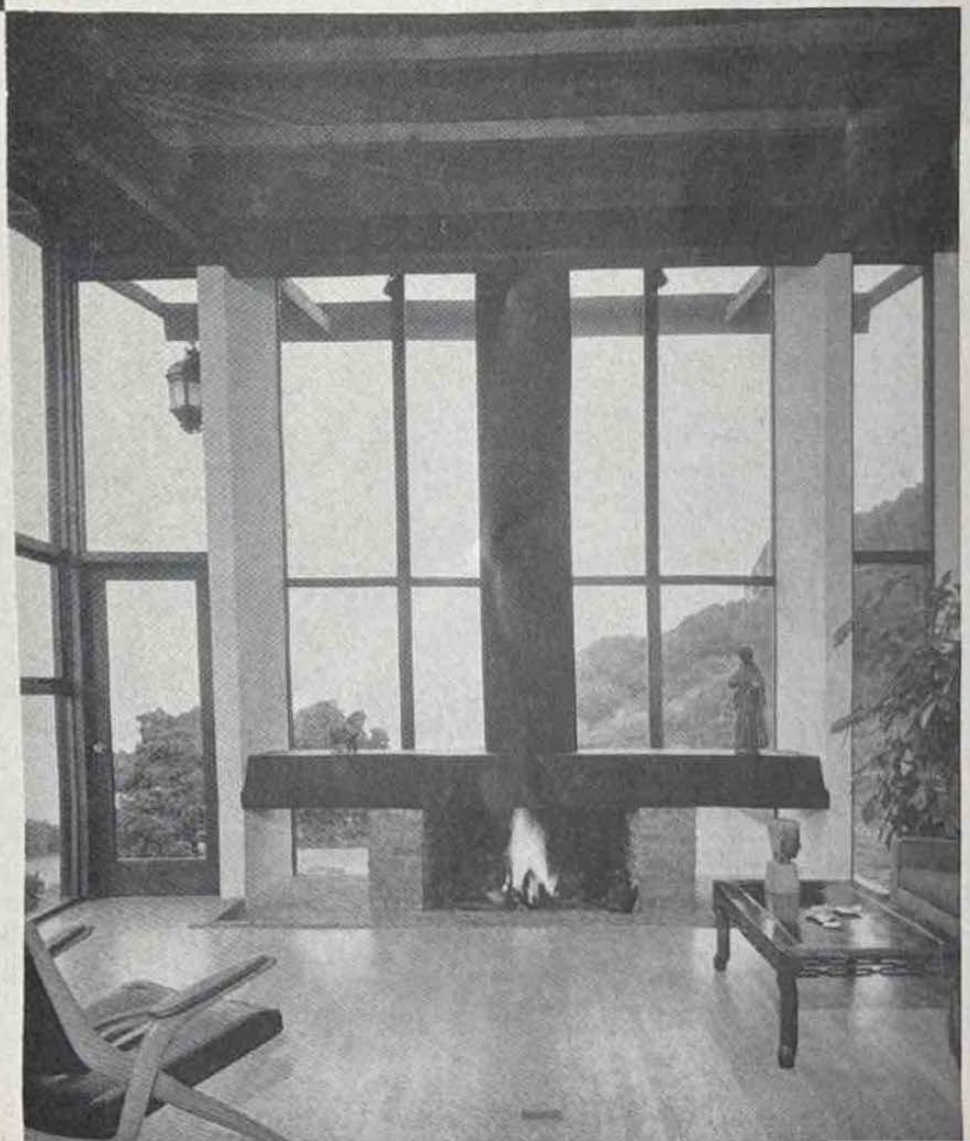

FIRST FLOOR

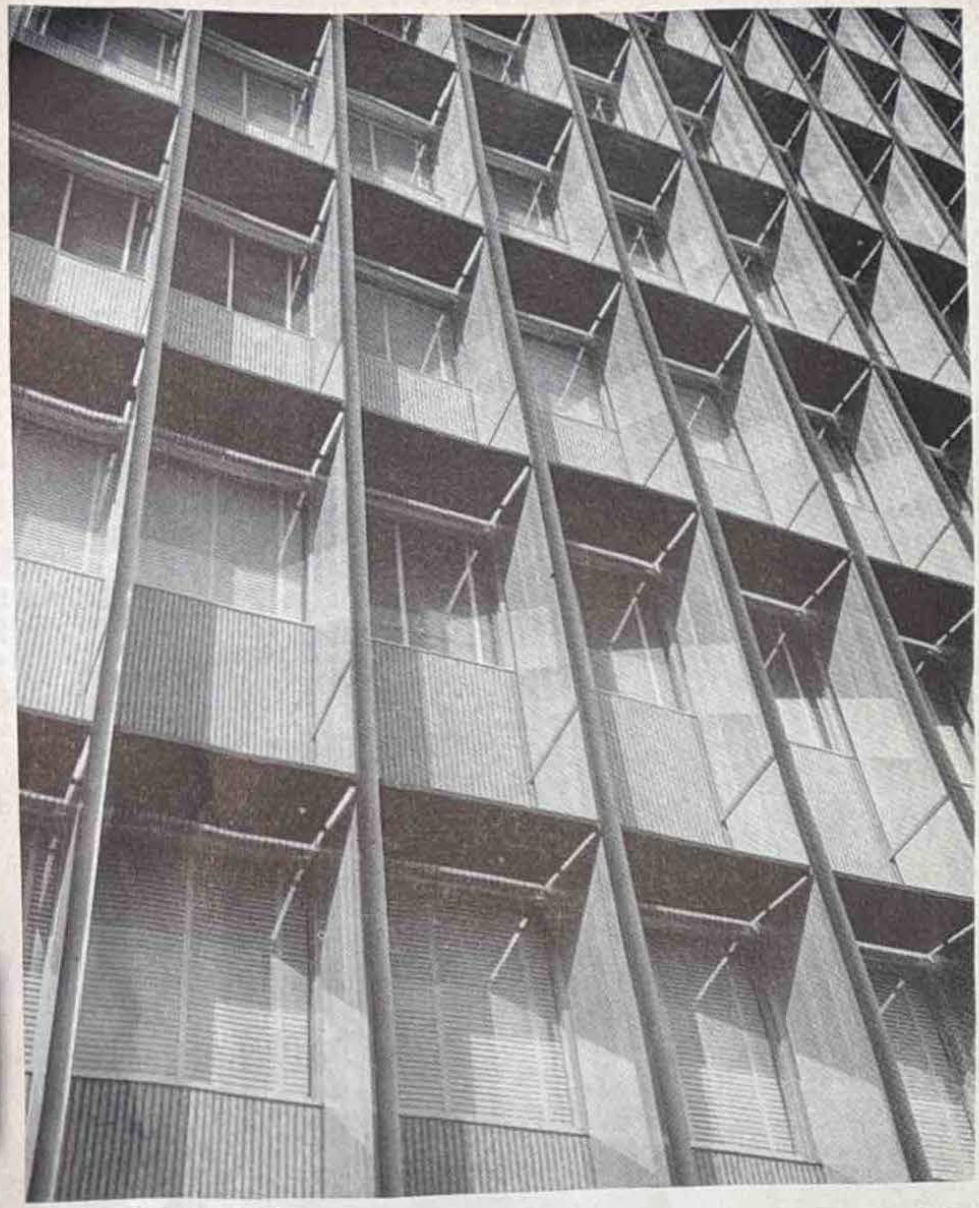



SECOND FLOOR



**HEARTH** is sunk below floor level so that top of fireplace does not obstruct view from sitting position. Among art objects collected by client are carved antique doors from Florence used at entrance, along with Italian glass and metal lighting fixtures.

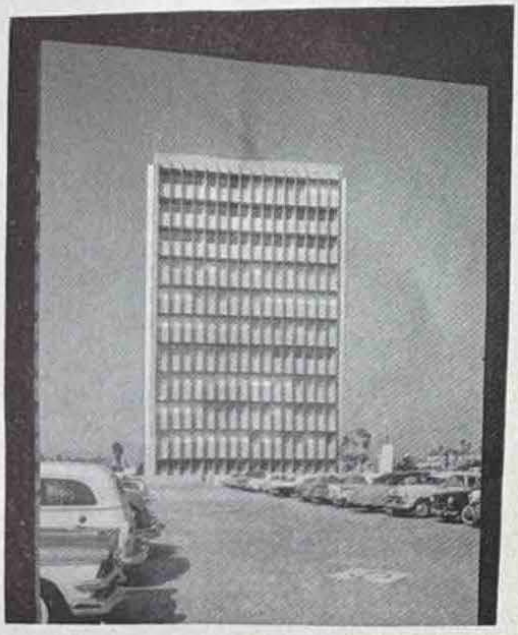


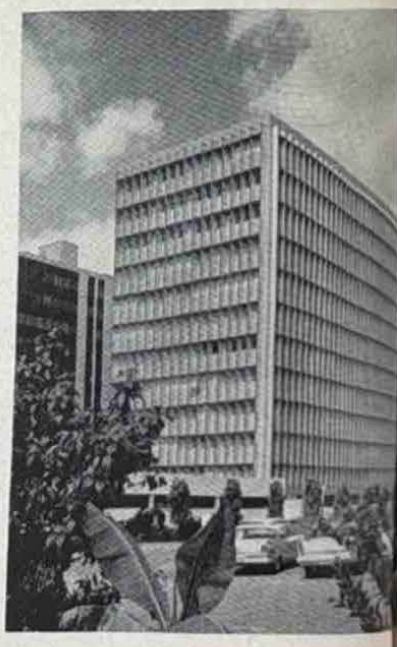


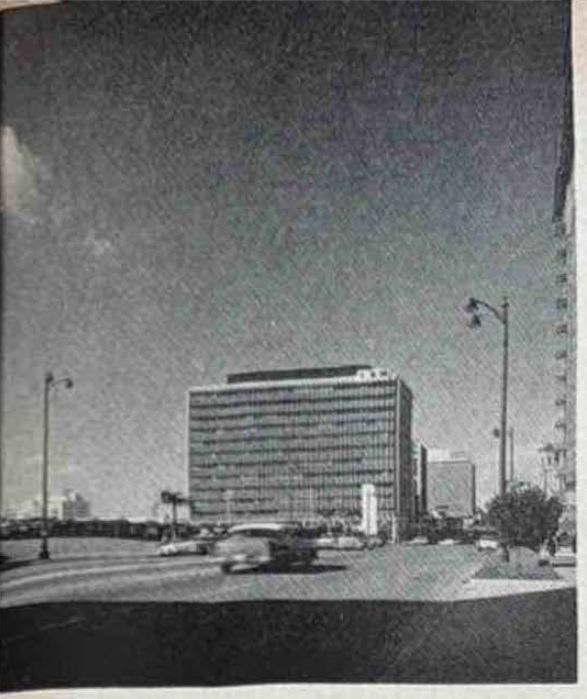
Marvin Rand photos

**NETWORK** of vertical aluminum fins and horizontal black and gray louvers insure day-round sun control. Exterior facing: black and gray mosaic tile.









Western Headquarters Building
International Business Machines Corp.
Los Angeles, Calif.

•

PEREIRA & LUCKMAN
Architects-Engineers

McNEIL CONSTRUCTION CO.
General Contractor

# Handsome new neighbor for Wilshire's office row

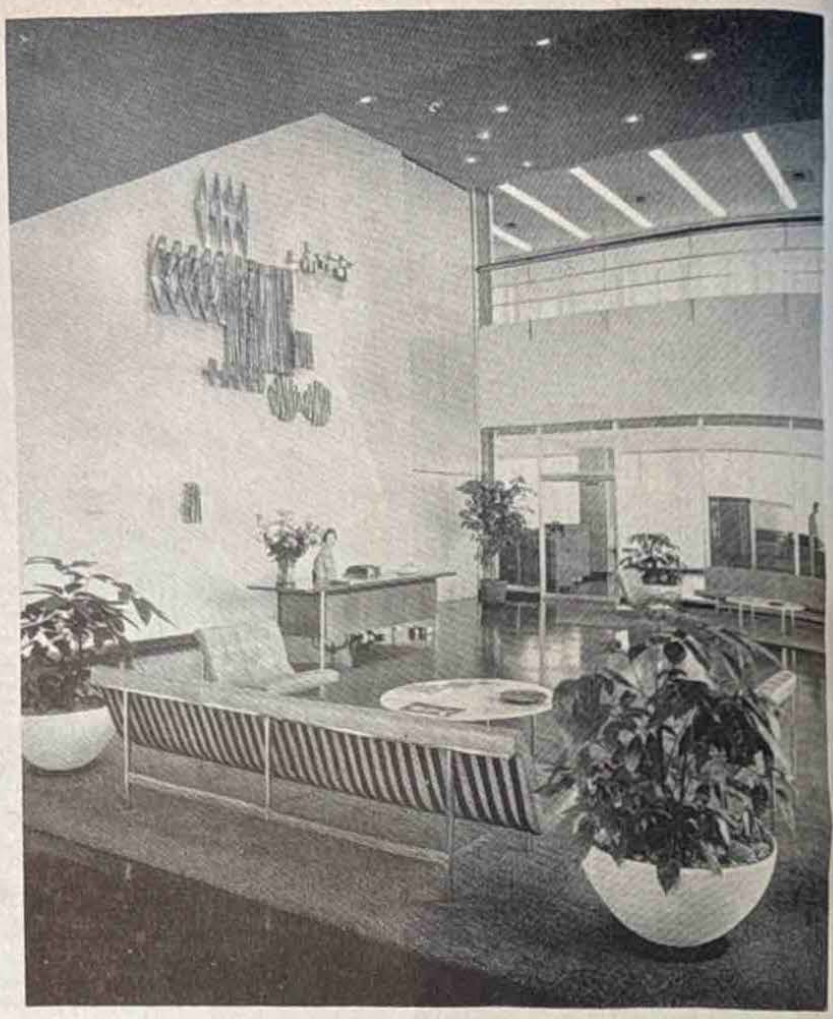
DESIGN of this 13-story, steel frame structure was predicated in part on its proximity to three Tishman buildings to the west on Wilshire Boulevard. To achieve a measure of visual separation, the architects brought the IBM tower forward as far as possible toward the street. The natural slope of the 1½-acre site was used to create a glass enclosed lobby-display area, which is 5 ft. above the sidewalk and reached by a continuous base of terrazzo stairs. The reception area is shared by an exhibit of company products. Also installed on the ground floor are two data processing systems used for customer demonstrations and for training purposes.

Of columnar cantilever type construction with none of the weight on the exterior walls, the building contains 234,000 sq. ft. of office space and has an attached five-level garage which accommodates 400 cars. Some 1,800 tons of steel went into the frame and foundation, extending to 25 ft. below the street level on spread footings. Reinforced concrete slab floors enclose the complex electrical conduit system.

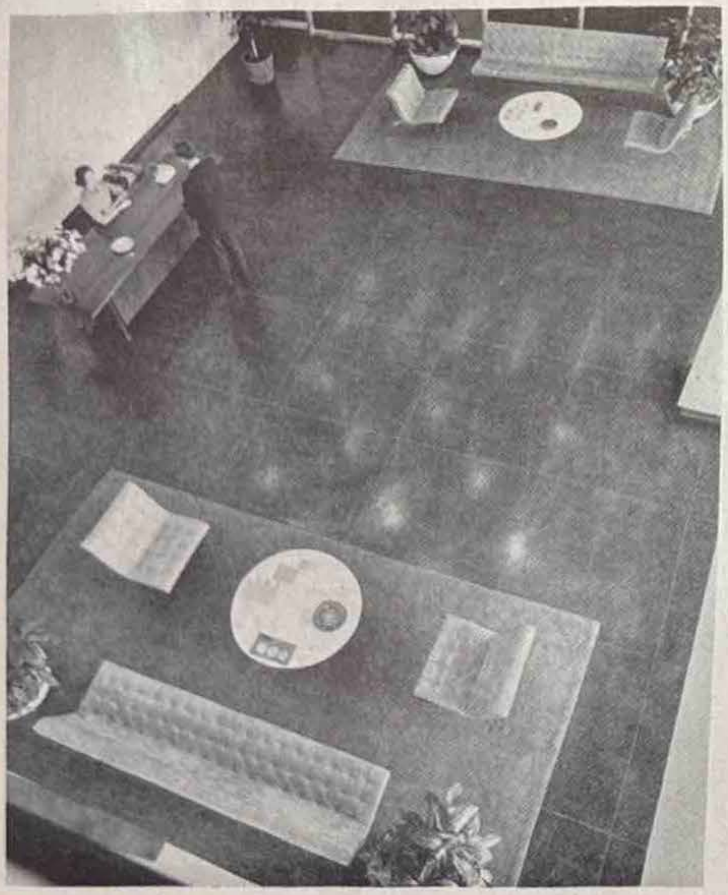
Sculptor Bernard Rosenthal, whose brass and bronze relief is a focal point of the lobby (photo next page), summed up IBM's architectural character when he said that his artistic goal was "to express the almost mathematical simplicity of the building and of modern business machines."

**MEZZANINE** provides outdoor dining area adjacent to cafeteria.





**BERNARD ROSENTHAL SCULPTURE,** 25 ft. high and weighing 3,300 lb., dominates lobby's south wall. Design of brass and bronze relief represents screen of oscilloscope, employed in maintaining electronic equipment. Long-wearing plastics and vivid accent colors are used for office furniture and upholstery.



## OUTLINE SPECIFICATIONS

**Structure:** Foundation: spread footings; frame: structural steel; roof: concrete; walls: concrete shear; floors: flat slab.

**Exterior Finish:** glass mosaic tile.

**Roof Surfacing:** built-up with gravel finish.

**Windows:** aluminum store front.

**Floor Surfacing:** vinyl asbestos tile, pure vinyl tile and terrazzo.

**Partitions:** plaster, wood and glass, aluminum and glass; toilet—metal.

**Interior Finish:** painted plaster.

**Ceilings:** acoustical mineral tile, demountable system.

**Lighting Fixtures:** continuous fluorescent strip.

**Total Area:** 233,000 sq. ft., office building; 117,000 sq. ft., parking area.

**Total Cost:** $5,200,000.

**Cost per Square Foot:** $20 (office portion).

**Date of Completion:** January 1959.




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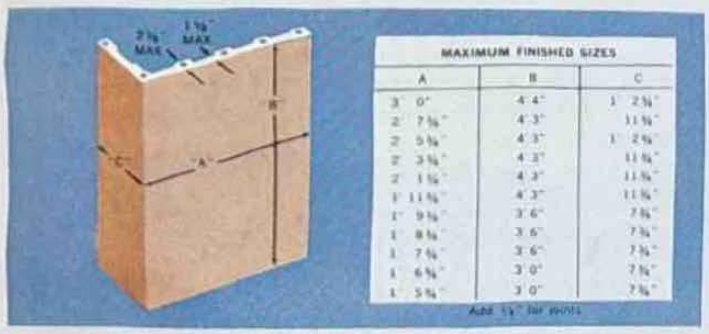
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| 2' 3½" | 4'3" | 11½" |
| 2' 1½" | 4'3" | 11½" |
| 1' 11½" | 4'3" | 11½" |
| 1' 9½" | 3'6" | 7½" |
| 1' 8½" | 3'6" | 7½" |
| 1' 7½" | 3'6" | 7½" |
| 1' 6½" | 3'0" | 7½" |
| 1' 5½" | 3'0" | 7½" |

Add ½" for joints

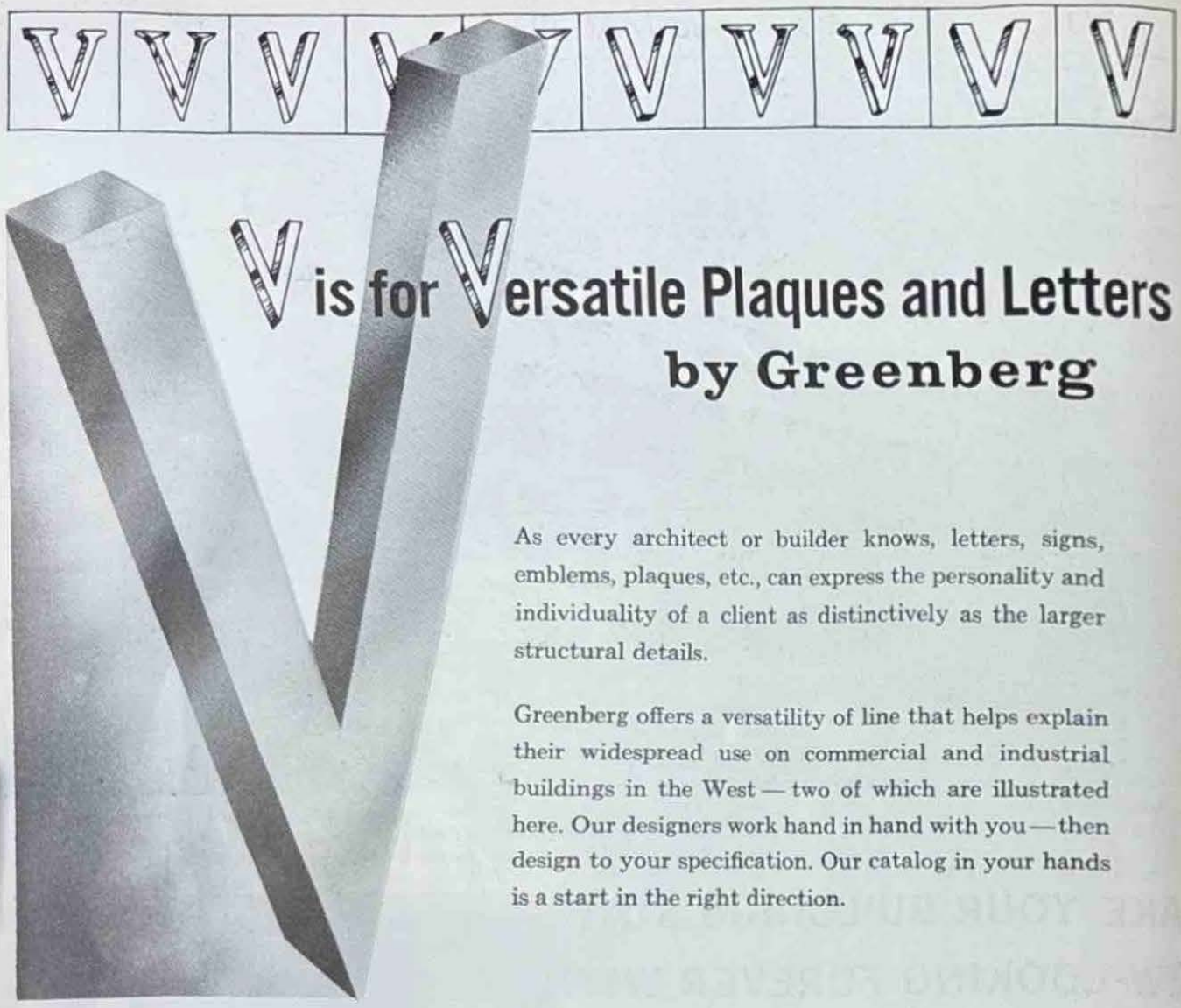
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# Gold alloy sheet used for spandrels

The $45 million Kaiser Center project, scheduled for completion in late 1959, will have both front and back elevations covered with curtain wall of natural, gray and gold aluminum alloy and tinted gray glass. Enclosing a 420-ft. long, 390-ft. high structural frame, the wall will represent the largest single application of aluminum in the building, which will use more than two million pounds of the material or slightly more than 2 psf.

The gold aluminum alloy, which is having its first major architectural use in this building, was developed by Kaiser Aluminum & Chemical Corp. especially for curtain wall construction. The spandrel panels and glass are divided into 5-ft modules by extruded aluminum mullions and framed in 30-ft. wide sections with dark tinted anodized column covers and natural finished beam fascia. Kawneer Co. is fabricating and installing all curtain wall components.

The gold alloy sheet used for the spandrels is ⅛-in. thick with a surface embossing. Unlike other colored aluminum sections which are colored with dyes, the Kaiser alloy gains its color from the metal itself when anodized.

The spandrel panels have a lining of foil covered glass fiber insulating material and are covered on the inside with a painted finish aluminum sheet which forms the paneling.





**CURTAIN WALL SECTIONS** for Kaiser Center, shown here during erection, are made of extruded aluminum sections and aluminum spandrel panels. Building's solid end walls are composed of 5-ft. wide, story-high blocks cast with dolomite embedded into steel reinforced lightweight aggregate concrete.

**Completely air conditioned**

Another interesting aspect of the project is the radiant panel ceiling heating and cooling system, designed by Dudley Deane & Associates, consulting engineers, which will be the largest single installation of its kind in the world. Consisting of perforated acoustical aluminum tiles behind which a sound-absorbing blanket and pipes carrying hot and chilled water will be concealed, the ceiling will provide by radiation an evenly controlled temperature throughout the building regardless of load conditions.

Twenty-five hundred tons of refrigeration will be required for which 5,000 gpm. of 45-deg. chilled water will be circulated throughout the structure; and 7,500 gpm. of condenser water through a two-cell induced draft cooling tower for heat rejection.

Three boilers each will produce 12,500 lb. of steam per hour, heating water to a maximum of 110 deg. Steam-to-water heat exchangers will be installed on every fourth floor to provide hot water for use in radiant ceiling panel grids.

A modular underfloor duct system will be used for electrical outlets and telephones. Continuous strip fluorescent lighting will have fixtures recessed flush with ceilings.

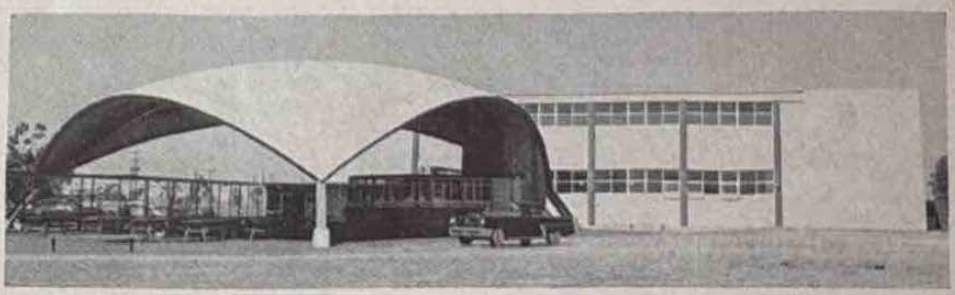
Worthington Corp. will supply the refrigeration equipment; Minneapolis-Honeywell Regulator Co., control system; American Air Filter Co., automatic filters; B. F. Sturtevant Division, Westinghouse Electric Corp., air handling equipment; Pacific Pumping Co., pumps; and Burgess-Manning Co., radiant panel ceiling.

Architects for the Kaiser Center, largest office building west of the Rocky Mountains when completed, are Welton Becket & Associates; general contractor, Robert E. McKee, Inc.

## Curved symmetry provides low cost eating shelter

In designing this interesting structure for Newport Union High School in Costa Mesa, Calif., the architectural firm of Lind, Pleger, Blurock & Hougan provided an economical free span—100 ft.—to cover an outdoor eating space. The dome is suspended on three points and utilizes standard rolled steel beams with a poured gypsum roof over asbestos formboard. Noyes Roach Co., general contractor, used this procedure:

1. Steel frame was secured in heavy concrete footings.
2. Bulb tees were positioned to support formboard.
3. Asbestos formboard was placed.
4. Gypsum (Pyrofill) in plastic liquid form was applied with a gun.
5. After the gypsum was troweled smooth, a fiberglass roof coating was added.
6. The roof was then covered with a synthetic paint.



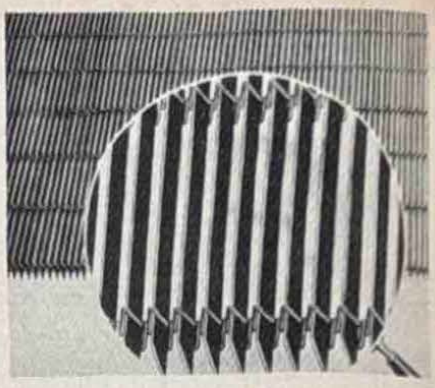
**EATING SHELTER** which stands before multipurpose gymnasium has roof thickness of only 4 in.

## Air conditioning load cut by new sunscreen

Solar conditioning through a new product installed on three exterior walls of the Texaco Co. building in Los Angeles (photo in PA&B for Feb. '59) has resulted in only 650 tons of refrigeration equipment to serve 170,-200 sq. ft. of interior space.

Used on the walls facing east, west and south, Glare-X consists of two layers of clear glass hermetically sealed together with a sheet of Kool-Shade sunscreen between them. The latter is a venetian blind, the horizontals of which are tiny metal fixed louvers .05 in. wide and .005 in thick. These are permanently set at a 17-deg. angle, determined to be the optimum for reflecting a maximum of solar energy at all hours of the day throughout the year.

The louvers block heat-producing solar energy as well as glare. With the sun at an elevation of 40 deg. or more, they reflect or reradiate 80% of the solar energy incident upon the window before it can enter a room and become converted into heat. The sunscreen keeps rooms up to 15 deg. cooler in summer. The system has been designed to maintain 75 deg. F. and 50% relative humidity in air conditioned areas when the outside temperature is 90 deg. F. dry bulb and 70 deg. F. wet bulb.



**MAGNIFIED VIEW** of sunscreen shows how louvers are literally woven in place, secured by tough vertical wires spaced ½ in. apart.

In order to minimize the operations and fuel cost of the compressor plant, the supply fan systems in the Texaco building are planned to automatically use 100% outdoor air when desired.

Outward visibility is comparable to that through conventional insect screen and greater than that possible through venetian blinds, whether solid or louvered.

## Taped column cap forms produce smooth finish

Use of pressure-sensitive tape on high density overlaid fir plywood column cap forms eliminated fins and allowed more form reuses during construction of a two-story parking garage for Tacoma's County-City Building.

Mike Hansler, superintendent of Macdonald Building Co., general contractor, reports that use of the tape resulted in smooth finish concrete and allowed "several" more reuses of the forms. He adds that it made formwork cleaning easier and helped keep the plywood edges from being coated with cement.

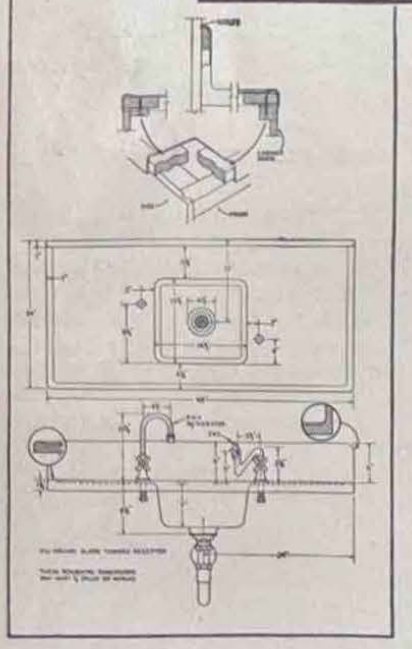
The tape (Minnesota Mining and Manufacturing Co.'s 3M Scotch brand) adheres to bare, unoiled plywood, to high density resin overlaid fir plywood and to clean metal. It is also widely used in forms for vertical pours and to seal holes around flues, pipes and conduits at the time concrete is poured.

Oiled plywood forms must be cleaned or treated by wiping a resinous primer over the area before the tape is applied. After the tape is in place, the oil may be applied directly over it.

The recently completed County-City building was designed by architect A. Gordon Lumm.




one piece fiberglass deck-type



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Acoustical ceiling of Cemex in the Dr. Kent Barber home in Quincy, Illinois (architect, Charles F. Behrensmeyer) is highly decorative and helps equalize Midwest temperature extremes.

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PAB 5-59

### steel and foam panels

Steel building panels filled with foamed plastic have been installed for the first time as part of the outside wall of an office building in the East. The meeting of steel (U. S. Steel Homes) and Nopcofoam has produced a panel that is extremely light, flat and strong and has excellent resistance to impact, puncture and corrosion. The foam, poured into the panel as a liquid, expands as a result of chemical action until it pushes firmly against all sides of the panel cavity.—Nopco Chemical Co. **(Item No. 1)**

### fire-retardant tile

Of particular significance in the design and construction of public buildings is the introduction of Armstrong's Fire-Guard, first acoustical tile ceiling to gain a two-hour fire rating in Underwriters' Laboratory tests. The new system not only provides a simplified procedure for protecting structural steel members and floor assemblies against fire, but saves construction costs as well. Up until now, mechanically suspended acoustical tile ceilings could not prohibit the passage of flame and heat to areas above. As a result, before acoustical tile could be applied, it has been necessary under most local building codes to utilize reinforced concrete construction or to build some type of intermediate fire stop using metal lath and plaster or certain spray-on materials. Fire-Guard eliminates the need for such measures. It can be suspended directly from bar joists or carrying channels and requires only a 10-in air space between the structural floor or deck and the tile to meet the two-hour rating. A t&g edge detail permits an interlocking of the tiles, initially available in a random perforated design only.—Armstrong Cork Co. **(Item No. 2)**

### water mixer

The Hydroguard thermostatic shower-tub water mixer is now available in a



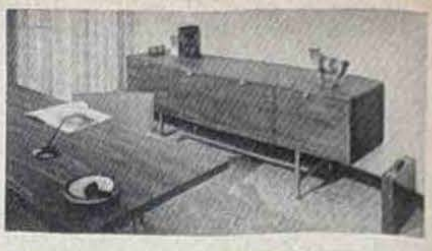
5-gpm. capacity to match smaller shower heads and conserve hot water. Mounted on the shower or tub wall, the mixer takes the place of conventional hand valves. Regardless of fluctuations in supply lines, it maintains the water at the desired temperature. A built-in safety limit prevents delivery of hot water above 110 deg. F., protecting the user from scalds.—The Powers Regulator Co. **(Item No. 3)**

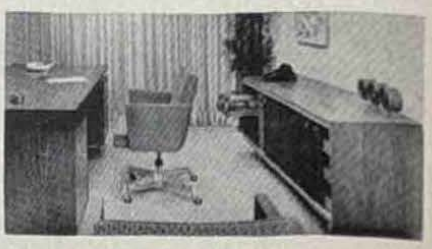
### exterior siding

Par-Tex III-D exterior siding with its vertical grooves is a new dimension in particle board. It can be vertically grooved at any spacing on a 2-in. modular, regular or random, and with the choice of random or channel grooving. All panels have a smooth sanded finish; standard size is 4x8 ft. Shiplap joints do not show and panel interlocking produces a continuous pattern effect.—Pacqua, Inc. **(Item No. 4)**

### office storage units

To supplement storage space in executive work areas, George Nelson has designed a group of five basic units for Herman Miller. Cabinets are walnut in a choice of close-to-the-wood or oil finishes; desk and storage unit tops, walnut veneer or laminated

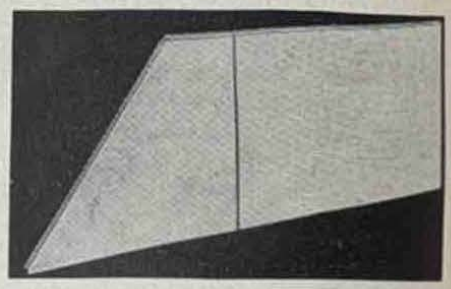




plastic. A horizontal file cabinet with four legal size file drawers (top) would be as handsome in a living room or den as in an office. Another cabinet (bottom), 70 in. long, has gun metal, lacquered sliding doors which conceal four equal compartments with such fittings as an adjustable shelf, three deep trays, utility tray and file drawer, and dictaphone slide. This same unit is available as a bookcase with five adjustable shelves, with or without sliding doors. Completing the group are a compact unit on casters and an L-shaped executive desk with concealed wastepaper basket.—Herman Miller Furniture Co. **(Item No. 5)**

### marble curtain wall

Marble, whose weight and cost factors have been drawbacks to its use as the



skin of multistory structures, is the latest entry into the curtain wall parade. Preassembled panels combine a facing of marble ½ in. thick with a core of rigid insulating material encased in a frame of extruded anodized aluminum—at costs comparable to those of more common types of facings. Flush-mount panels of Series 100 are 20 ft. square, 3 in. thick, with an approximate weight of 10.4 psf. Marble units 1 ft. square make up the surface which comes in a variety of colors. Two marble facings can be provided on the same panel; the exterior with its satin finish and the interior with a polished surface.—Vermont Marble Co. **(Item No. 6)**

## Reader Service

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### aluminum sliding door

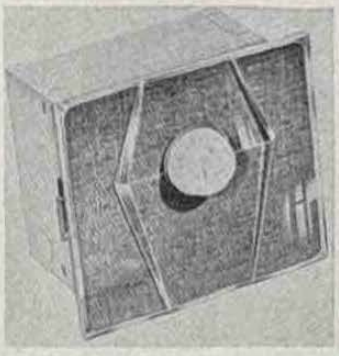
The Trimline aluminum frame sliding glass door, a moderate priced model for both exterior walls and interior partitions, is alodine satin finished, with a simplified sill track for better water runoff and wedge shaped interlockers for added weather seal and greater rigidity. It has continuous weatherstripping of Schlegel wool pile on sliding panels and complete V-seal on fixed panels. There are five different handle combinations and the door is approved for use of ⅝-in. insulating glass. — Trimview Metal Products. **(Item No. 7)**

### grid color technique

The Geyser Barcolor system provides a means of applying permanent color to aluminum windows and curtain wall and of improving weathering characteristics of the exposed surfaces. It consists of porcelain enameled aluminum covers which are applied to the exterior face of framing, vertical and horizontal members. The same covers can also be supplied in stainless steel. When ventilator color is desired, it can be achieved either with color anodizing or a vinyl base paint.—Geyser Co. **(Item No. 8)**

### wall mounted dimmer

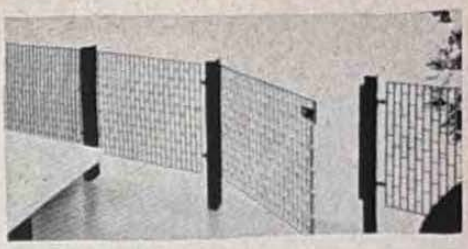
One dial does all the work in controlling light with this well mounted dimmer for it has a built-in integral on/off switch. Other features: a transparent 6½x7¼-in. face plate that matches any decor; an automatic reset circuit breaker which eliminates fuses; a single terminal panel for easy time-saving installation; a compact size with no unsightly control panel. A transformer type switch and not a



resistor, the dimmer controls up to eight rapid-start 40-watt fluorescent lamps or eight trigger-start 20-watt fluorescent lamps.—Moe Light Division, Thomas Industries, Inc. **(Item No. 9)**

### penetrating stain

To meet the requests from architects for popular soft browns and grays, Olympic has introduced a penetrating stain series that allows the grain of the wood to show and also has long durability. The 14 colors are designed for use on new woods or for refinishing colors of the same shade.—Olympic Stained Products Co. **(Item No. 10)**



### aluminum grating

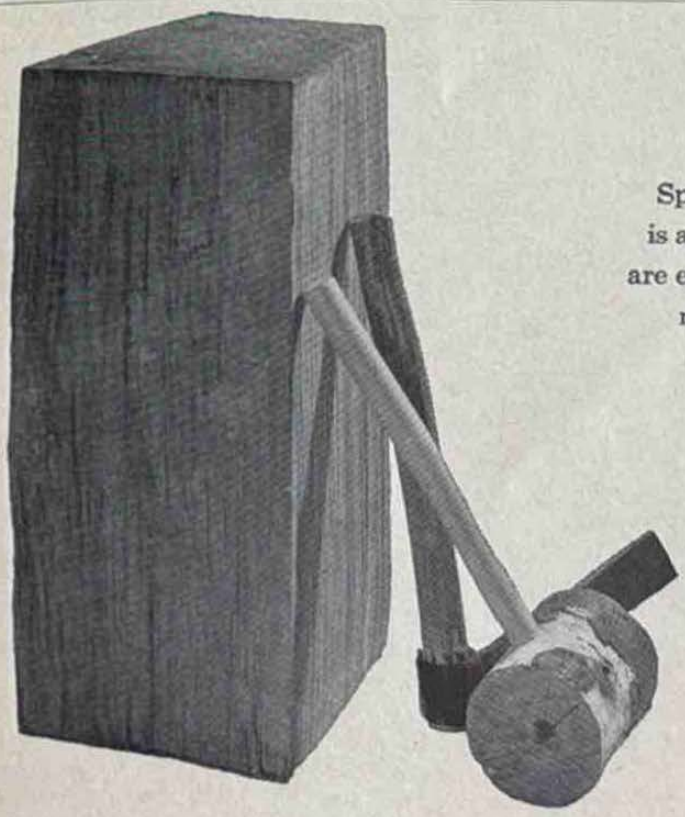
An anodized aluminum grating called Anotec has a variety of architectural uses—as sun deflectors or shades, spandrels, column facings, window guards, room dividers, terrace railings, swimming pool enclosures, patio screens, grills and louvers. Among the colors in which it can be fabricated, besides clear anodized, are gold, blue copper pink, green, black, brass and red.—Klemp Metal Grating Corp. **(Item No. 11)**

### plastic diffusers

Dirt specks or stains are not visible on these luminous ceiling diffusers



which consist of two plastic sheets placed 1½ in. apart and fastened around the perimeter with a metal edge. Light transmission is 45-50%. The white 2-ft. square diffusers come in several new designs. — Western States Equipment Co. **(Item No. 12)**

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## LITERATURE

**Slide-View Sliding Glass Doors** (AIA 16-E): has details, specifications and full-color photos of current installations; 8 pp.—Slide-View Door and Window Co., 1557 N. Tyler Ave., El Monte, Calif.

**Iron Fireman AirRing Burner** (AIA 30-G): includes cutaway views, diagrams and photos to illustrate how integral air register improves combustion and reduces installation costs; 4 pp.—Iron Fireman Manufacturing Co., 3170 W. 106th St., Cleveland 11, Ohio.

**Plyglaze High Density Overlaid Plywood Concrete Form Panels:** has data on breakdown of costs per reuse, sizes, specifications, source of supply and applications; 4 pp.—St. Paul & Tacoma Lumber Co., Tacoma, Wash.

**Foamsil:** lists physical characteristics and recommendations for possible uses of new insulating and refractory materials; 4 pp.—Pittsburgh Corning Corp., 1 Gateway Center, Pittsburgh 22, Pa.

**Airline Grilles:** contains unusually detailed engineering data designed to simplify selection of right grille for the right job: 6 pp.—Waterloo Register Co., Inc., Waterloo, Iowa.

**Asbestos-Cement Building Sewer Pipe Connections:** reference chart shows most efficient way of connecting asbestos-cement sewer pipe with that made from other materials.—Keasbey & Mattison.

**Capitol Dome:** gives specifications and data on applications and construction of new aluminum strut dome structure, 57 ft. in diameter, 16 ft high; 8 pp.; Capitol Products Corp., Mechanicsburg, Pa.

**Automatic Controls Systems Guide for Architects and Engineers** (AIA 30-E): covers electric, electronic and electronic automatic control systems for heating, ventilating and air conditioning; 8 pp.—Barber-Colman Co., Rockford, Ill.

**Dow Corning Silicones:** serves as reference guide to silicone products of greatest general interest; 16 pp.—Dow Corning Corp., Midland, Mich.

**How to Install High Strength Structural Steel Bolts:** covers installation procedure in four principal steps on

17½x22-in. chart.—Republic Steel Corp., 1441 Republic Bldg., Cleveland 1, Ohio.

**Simes Lighting Fixtures:** describes the lighting concepts used for eight recent installations; 8 pp.—The Simes Co., Inc., 114-15 15th Ave., College Point, N.Y.

**Calcore Curtain Wall Panels:** combines set of 40 8½x11-in. detail specification sheets.—Caloric Appliance Corp., Jenkintown, Pa.

**Aluminum for Architecture** (AIA 15-J): describes varieties of special finishes, their appearance and how obtained; 12 pp.—Olin Mathieson Chemical Corp., 400 Park Ave., New York 22, N.Y.

**Ualco Lifetime Aluminum Windows:** shows sectional details, standard and modular sizes for more than 20 types; 40 pp.—Southern Sash Sales & Supply Co., Inc., Sheffield, Ala.

**Horn Construction Data Handbook:** devotes more than 40 pages to tables and charts for estimating building material requirements; includes mensuration tables, construction details and data on painting and concrete work; 160 pp.—A. C. Horn Companies, Division of Sun Chemical Corp., 550 Third St., San Francisco 7, Calif.

**Lignophol In-the-Wood Treatments and Finishes:** has application and coverage data for both interior and exterior uses; 4 pp.—L. Sonneborn Sons, Inc., 404 Fourth Ave., New York 16, N.Y.

**Winn-Maid Kitchen Cabinets** (AIA 35-C-12): illustrates standard units in line and gives general specifications; 4 pp.—Winn-Maid Kitchens, Odenton, Md.

**Kolorkoded Guth Wyteliner Industrials** (AIA 3-F-2): dscribes color coding system for industrial lighting fixtures to facilitate workers' movements, lessen hazards and help direct flow of work; 8 pp.—Edwin F. Guth Co., 2615 Washington Blvd., St. Louis 3, Mo.

**Standard Specifications for Structural Glued Laminated West Coast Hemlock Lumber—Design:** offers data intended primarily for architects and engineers; 11 pp.—West Coast Lumbermen's Association, 1410 S.W. Morrison St., Portland 5, Ore.

**Sketch Book of Special Fixtures** (AIA 29-H-5): presents with detailed dimensions and roughing-in data in workbook fashion showing faucets that range from hospitals to prisons, from service sinks to autopsy tables; 64 pp.—Chicago Faucet Co., 2700 N. Pulaski Road, Chicago 39, Ill.

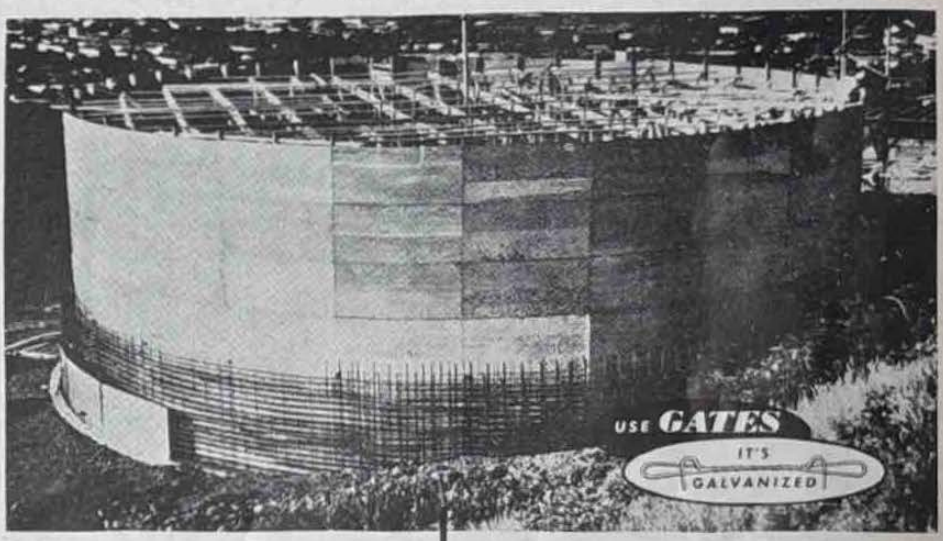
**KoolShade Sunscreen** (AIA 35-P-1): covers methods of preventing sun's heat and glare from entering through windows; has brief case histories; 8 pp.—Reflectal Corp., 200 S. Michigan Ave., Chicago, Ill.

**Geyer Curtain Walls/Windows** (AIA 17-A): delineates design features and data required to take advantage of grid system; 20 pp.—E. K. Geyser Co., 915 McArdle Roadway, Pittsburgh 3, Pa.

**Aluminum in Architecture** (AIA 15-J): lists architectural availabilities, characteristics and suggested applications; 24 pp.—Kaiser Aluminum & Chemical Sales, Inc., 919 N. Michigan Ave., Chicago 11, Ill.

**Lighting by Progress:** describes residential fixture line and illustrated in full color; 52 pp.—Progress Manufacturing Co., Inc., Castor Avenue and


# Difficult Battered-Wall Tank Simplified with Gates




Water storage tank, Ft. Shaftner, Hawaii
U. S. Army Corps of Engineers
Contractor:
John Scully Company, Honolulu, T. H.

Army specifications on this 62′ diameter water storage tank called for the 24′-high wall to taper from 18″ at the base to 10″ at the top.

Using the Gates Vertical Rod System and color-coded PlastiCone ties, the contractor first erected the inside form to full wall height. Inside form bracing was minimized by using the heavy studs and shoring required to support a future concrete roof. The outside forms were "floated" to eliminate all exterior bracing, and the wall was poured in three 8′ lifts.

The contractor was well pleased and stated, "Gates produced the finest concrete and truest radius of any job I have ever done." This with an inexperienced crew... and Gates.

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Tulip Street, Philadelphia 34, Pa.

**Professional Identification:** shows many types of donor plaques, symbols and name plates for hospitals and clinics, as well as professional people; 6 pp.—A. J. Bayer Co., 2300 E. Slausen Ave., Los Angeles 58, Calif.

**Rilco Glued Laminated Wood** (AIA 19-K): contains connection details, tables of dimensions and chart showing typical shapes, uses and spans; 4 pp.—Rilco Laminated Products, Inc., 233 Tacoma Bldg., Tacoma 1, Wash.

**Capri Sliding Glass Door Catalog** (AIA 16-E): has plan and elevation drawings for each model in line; 8 pp.—T. V. Walker & Son, Inc., P.O. Box 547, Burbank, Calif.

**Mahon Aluminum Roll-Up Walls:** shows how combination gymnasium and balcony installation was worked out to double utility of the space; 4 pp.—The R. C. Mahon Co., East Eight-Mile Road, Detroit 34, Mich.

**Steel Doors and Frames:** shows Amweld lines for heavy duty, high frequency application in standard types and sizes; 20 pp.—Amweld Building Products, 604 Plant St., Niles, Ohio.

**Acoustical Ceiling Design:** covers true sound isolation, low cost partitions, rated fire protection, easy access to utilities and low cost maintenance; 4 pp.—The Schuyler Hopper Co., 12 E. 41st St., New York 17, N.Y.

**Truscon Erection Details:** provides a detailed photo story on how to quickly and efficiently erect the new standard steel building; 8 pp.—Truscon Division, Republic Steel Corp., Youngstown, Ohio.

**Adhesives, Coatings and Sealers:** describes, design concepts, typical applications and general characteristics; 12 pp.—Minnesota Mining and Manufacturing Co., 411 Piquette Ave., Detroit 2, Mich.

**Logan Showergon Multistation Shower Fixtures** (AIA 29-H-3): covers new Belanea series available in units of four, six, eight, ten or twelve shower stations, back-to-back arrangement; 12 pp.—The Logan Manufacturing Co., P. O. Box 111, Glendale, Calif.

**Marlite Plastic Finished Wall and Ceiling Paneling:** illustrates entire line in color; 8 pp.—Marsh Wall Products, Inc., Dover, Ohio.

**About Lumber Paneling** (AIA 19-E-6): describes 10 western pine region species; 8 pp.—Western Pine Association, 510 Yeon Bldg., Portland 4, Ore.

**Insulating Concrete Catalog:** has specifications and applications for use of Permalite insulating concrete for roof decks and floor fills; 8 pp.—Mining and Mineral Products Division, Great Lakes Carbon Corp., 612 S. Flower St., Los Angeles 17, Calif.

**Laminated Architectural Glass:** describes how much glass is manufactured, how special decorative effects are achieved and how the plastic interlayer is tailored to obtain light control, glare reduction, etc.; discusses installation techniques; 8 pp.—Monsanto Chemical Co., Springfield, Mass.

**Electronic Air Cleaners for Residential Installation:** describes Health-Air, a three-stage filtering system with disposable filters; 8 pp.—Electronic Division, Mamco Corp., Fourth and Ontario Sts., Racine, Wis.

**Morgan Custom-line Entrance Doors:** illustrates new M-400 which makes possible 1,500 designs by utilizing a basic door with any combination of 3 of 12 insert panels available.—Morgan Co., Oshkosh, Wis.

**Reynolds 500 Series Commercial Projected and Economy Wall System 101** (AIA 16-E and 17-A): contain complete drawings printed on tracing paper and specifications for convenient use by architects and engineers in two slip-sheet file folders.—Reynolds Metals Co.

**Elegance in Electric Heat Thermostats:** describes wall mounted and integrally mounted types, with full-color illustrations and specifications for each of seven thermostats; 4 pp. — White Rodgers Co., 1209 Cass Ave., St. Louis 6, Mo.

**AmBridge Modular Schools** (AIA 17-A): shows components and construction techniques used in this type of educational plant; beautifully illustrated exteriors and interiors; 22 pp.—American Bridge Division, United States Steel Corp., 525 William Penn Place, Pittsburgh 30, Pa.

**Code of Standard Practice for Steel Buildings and Bridges:** outlines in reasonable detail commonly accepted practices relating to design, fabrication and erection of structural steel; most important change in this revised edition refers to tolerances permitted in erection; 9 pp.—American Institute of Steel Construction, Inc.




## Plastics industry must conform and inform

The plastics industry, which makes about 20% of its total sales in building products, approaches the field of construction "not only without a past but with some questionable character references." Addressing the 14th annual conference of the Reinforced Plastics Division of the Society of the Plastics Industry, Inc., in Chicago recently, Felix N. Williams, vice president of Monsanto Chemical Co., St. Louis, went on:

"It is easy for others to get the false impression that too much of our time is spent in trying to exempt plastics from regulations that apply to construction materials. This is a disservice to the enormous amount of solid but inconspicuous work that is being done by our industry to develop, standardize and qualify plastics for their deserved role in construction.

"We have failed in part to recognize the hazard that, by appearing to demand special tests and considerations for plastics, we encourage the specifying engineer and the regulating official to suspect not only our materials but also our motives—and we leave them with few valid reference points for comparison of plastics with traditional materials."

Williams urged that the industry set and meet standards of uniform quality and stressed the need for more information to the construction industry about the capabilities of plastics, discussing the weaknesses as well as the strengths.

"Beyond this level of information lies the task for us of challenging the architects and consulting engineers to make full use of the new concepts of structural design that plastics make available to them," Williams explained. "Monsanto's 'home of the Future' at Anaheim, Calif., is just such a challenge to escape the rectilinear, to make use of the preformed module. Literally millions of people have filed through that structure to learn what plastics can offer to their future home."

## Pacific Rim exhibition

A building products exhibition will be held in conjunction with the Pacific Rim conference being sponsored by the California Council, AIA, in Honolulu October 7-14. Exhibits will be housed in two areas of the Hawaiian Village: the Long House in the center of the hotel complex and the Tree Fern Room adjacent to the main walkway leading to the beach and dining room.

• **Gladding, McBean & Co.** has elected A. R. Said as executive vice president and a director and Addison Hawley as vice president at its Los Angeles headquarters. Said previously was vice president, general manager of the Franciscan dinnerware division; Hawley, general manager of the pipe products division.

• **Simpson Timber Co.** of Seattle has appointed Ross H. Hughes as sales promotion manager.

• **Bethlehem Pacific Coast Steel Corp.** has put its new merchant bar mill into production, the last major installation in the two-year expansion and modernization program at the Seattle plant.

• **Fibreboard Paper Products Corp.** has appointed Jack L. Davies to the post of director of market planning.

• **The R. C. Mahon Co.**, in a western expansion move, has acquired three affiliated California corporations—Walter G. Mitchell Industries, Mitchell Steel, Inc., and Mitchell Properties, Inc., of Torrance—and will merge their operations with those of Mahon in a new plant now being constructed in that city.

•



**RETIRING PRESIDENT**

of American Concrete Institute, Douglas McHenry (right), discusses scale model with Yin Li of Los Angeles, first place winner of $200 in design competition staged at University of Southern California in conjunction with ACI's annual convention. Jurors were Henry L. Wright, architect; Henry M. Layne, consulting structural engineer; Ernest Maag, principal structural engineer of California Division of Architecture; and Emil Wohl, general contractor.

• **Graystone, Inc.**, of Seattle has appointed Paul D. Burton as administrative assistant and Raymond J. Kraatz as concrete pipe sales representative.

• **Schlage Lock Co.** of San Francisco has purchased Peabody Co., Inc., manufacturer of custom-made miscellaneous hardware and ornamental lock trim, which will continue operations from its plant at 5816 Hooper Ave., Los Angeles, as a subsidiary.

• **Signet Controls**, an outgrowth of Iron Fireman Electronics Division, will manufacture a line of products for the heating and air conditioning industries in Portland.

• **Glenmart Co., Inc.**, distributor of Unistrut framing systems and manufacturer of several proprietary products, is scheduled to move into a new $300,000 plant at 2850 S. Tanager Ave., Los Angeles, this month.

• **Yuba Consolidated Industries, Inc.**, of San Francisco has appointed Monte Lindmoe, formerly executive vice president of Southwest Welding and Manufacturing Co., as vice president and director of sales for all operating divisions and subsidiaries.

• **Concrete Thermal Casings, Inc.**, with one of three offices in Seattle (2107 N. 34th St.), has been organized to administer and sell Z-crete underground pipe insulation systems, formerly handled by Zonolite Co.

• **In-Sink-Erator Mfg. Co.** has appointed Robert Morrison as western divisional sales manager and Howard Hoskins as Los Angeles sales manager.

• **Builders Brick Co.** of Seattle has appointed Truxton H. King as sales engineer for glass lined clay sewer pipe produced by Clayburn-Harbison, Ltd., at Kilgard, B.C.

• **Permanente Cement Co.** will build a cement manufacturing plant in Hawaii on Oahu's Waianae area.

• **Simpson Logging Co.** vice president and general manager, H. W. (Hal) McClary of Shelton, has been chosen this year's "Honored Alumnus of the College of Forestry" at the University of Washington.



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### new offices

Lester Wertheimer has opened an office for the practice of architecture at 451 N. La Cienega, Los Angeles.

John O. Phillips has established an office for the practice of architecture at 2330 Shoreland Drive, Seattle, and will open a downtown office in the near future.

James Longwood, associated with the firm of Wilmsen & Endicott for the past seven years, has opened his own architectural office at 308 Tiffany Building, Eugene.

### firm changes

Henry W. Howell has retired from the Santa Barbara, Calif., firm of Howell, Arendt, Mosher & Grant, which is continuing the practice of architecture under the name of Arendt, Mosher, Grant.

Albert W. Hilgers, formerly of the Portland firm of Wick & Hilgers, is continuing the practice of architecture at 909 Portland Trust Building.

The San Francisco architectural firm of Masten & Hurd has added a new principal, Cabell Gwathmey, and is known as Masten, Hurd & Gwathmey.

Douglas A. Russell, former partner of Daniel, Mann, Johnson & Mendenhall, Los Angeles architects-engineers, will form a private corporation aimed at assisting the economic progress of less developed nations. He will maintain his headquarters in the DMJM offices and will serve as a staff consultant.

The firm of Worthington & Skilling, Seattle professional engineers, has changed its name to Worthington, Skilling, Helle & Jackson and has named John V. Christiansen as an associate.

### new addresses

William Bruce Reiner, architect, to the Civic Center Building, 225 W. Winton Ave., Hayward, Calif.

Hale & Jacobsohn, architects, to 43291 Mission Blvd., Mission San Jose, Calif.

Nelson A. Hodges Jr., architect, to 8879 S.W. Center St., Tigard, Ore.

Philip S. Buckingham, architect, to 120 E. Palm Ave., Redlands, Calif.

Ivan M. Palmaw, architect, to 2006 Smith Tower, Seattle.

Harold T. Johnson & Associates, architects, to 1989 Shrader Drive, San Jose, Calif.

Knorr-Elliott, Associates, designers, to 40 Gold St., San Francisco.

### elections, appointments

Northwest Regional Council, AIA, has nominated a new director, Harry Weller, head of the department of architectural engineering at Washington State College. He replaces John E. Toohey who won the nomination at the regional conference last fall but later declared himself ineligible because he resides outside the region in Wyoming.

Architects - Engineers Conference Committee of California has elected these officers: Wesley T. Hayes, San Francisco structural engineer; president; C. Day Woodford, Los Angeles architect, vice chairman; and Melton Ferris, CCAIA executive director, re-elected executive secretary.

Northern California Chapter, AIA, has appointed an executive director, Don Curlee, whose seven years in public relices work include two as counsel for the San Joaquin Chapter. Following graduation from Fresno State College, he spent 3½ years as a security investigator at an Atomic Energy Commission facility in Kentucky.

H. Aldworth Christian, former vice president of Raymond Loewy Corp.,

•



**BUILDING CENTER**

at 7933 W. Third St., Los Angeles, has entered its second year of exhibition of architecture, landscape architecture, interior decoration, building materials and appliances, displayed in a series of pavilions grouped around three garden areas. Similar center opened in San Francisco at 40 Gold St., just off Jackson Square, in December.

New York, where he developed a retail store planning division, has joined Charles Luckman Associates as vice president in charge of retail store interiors and planning divisions.

Charles D. Kratka, formerly director of interior design for Pereira & Luckman, has joined the Los Angeles architectural firm of William L. Pereira & Associates.

Architect Paul J. Huston has been named president of the Palo Alto, Calif., Chamber of Commerce.

### resignations

William T. Wright of the Los Angeles architectural - engineering firm of Kistner, Wright & Wright has resigned as member of the California State Board of Registration for Civil and Professional Engineers, a post he has held since 1953.

### honors

Architect Henry Klein of Mount Vernon, Wash., has received a $5,000 grant for advanced study by the George A. and Eliza Gardner Howard Foundation, which he will use for the preparation of an illustrated book on town planning in America.

Wendell H. Lovett, assistant professor of the College of Architecture and Urban Planning at the University of Washington, has been awarded a Fulbright grant to lecture in Germany during the academic year and will serve as U. S. delegate to the Congress of International Architecture Moderne in Otterlo, Holland, in September.

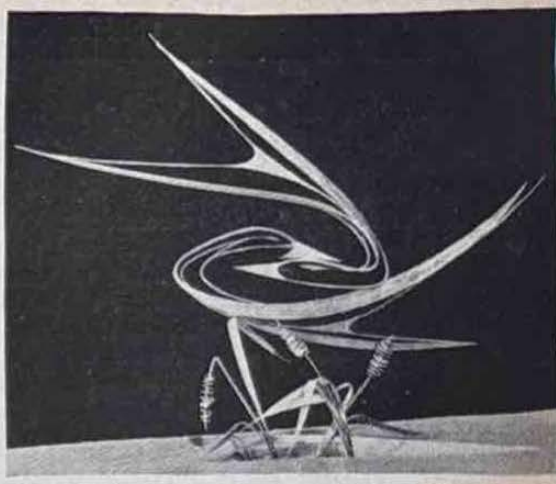
### lecturers

Architect Ernest J. Kump of Palo Alto, Calif., conducted a 10-day lecture tour last month during which he addressed students at the University of Utah, Harvard University and Massachusetts Institute of Technology on "Russia and Architecture."

Upon learning of the death of Frank Lloyd Wright, AIA president John Noble Richards issued the following statement: "The American Institute of Architects joins the world in respectful homage to Frank Lloyd Wright, the great architectural genius of our time. His place in history is secure; his continuing influence on architectural thought assured. This century's achievement in architecture would be unthinkable without him. He has been a teacher to us all."

### competitions

Winner of the $4,500 first prize in a sculpture competition for the Logan Building now being erected in downtown Seattle is Archie M. Graber of Wallace, Idaho, whose entry was selected over 93 others. Bronze with a hammered finish, the abstract design will be 10 ft. high, 11¾ ft. wide, standing above a shallow, graduated pool. It will be located just inside the building's entrance against a black granite and white marble background which is recessed about 3½ ft. from the wall section. The artist is a graduate of the Minneapolis School of Art and winner of four art scholarships, a Charles M. Russell competitor and is represented in several private collections.



WINNER: flights of birds or horsetail clouds?




## Contractor registration urged by CSI president

Properly operated state contractor registration is the only way to rid the construction industry of chiselers and fly-by-nighters and give the reputable contractor good competition to shoot at, an architect-engineer told the ninth annual convention of the Mason Contractors Association of America in St. Louis.

J. Stewart Stein, president of the Construction Specifications Institute, said registration simply means keeping the contractor in his own financial bracket so that he will only estimate jobs that he can finance and supervise.

"States which have registration," he continued, "say it has been working successfully. When a contractor registers, he gives a list of successful jobs he has completed and has approval by the surety companies if a performance bond is required, a record of successful relations with the trade unions, up-to-date financial statements and a license to indicate good standing."

Stein also recommended that a prospective contractor should work for at least a year in the office of an architect or engineer to learn about the administration of a job, the design, drawings, specifications, supervision, details and the usual problems on the job.

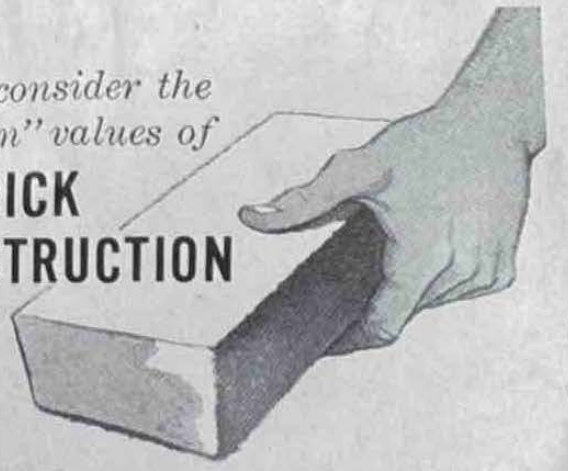
"A promising architect should work for the same period in a contractor's office," Stein said. "By doing this, he can learn how a contractor operates and some of the problems they are confronted with. This exchange of prospective architects and contractors will certainly train these young men early in these careers that bidding is a task, not a cat-and-mouse game, and preparing drawings and specifications also is a tedious operation not to be taken lightly."

• **Ford J. Twaits,** 72, founder and partner of Twaits-Wittenberg Co., Los Angeles constructors and engineers, died April 18. A graduate of Michigan State College in 1908, he spent 10 years in the practice of structural engineering and formed his own company in 1919. For five years he served as executive vice president of Consolidated Steel Corp. and president of Consolidated Rock Products Co. A founder of the Southern California Chapter, AGC, he was its president twice and a national director for many years.

• **James W. Cawdrey,** national AGC president who heads Cawdrey & Vemo, Seattle contracting firm, received the Edwin K. Dawson Memorial Award at a luncheon given in his honor last month. Presented for the first time this year in the name of the late president of Dawson & Co., Pacific Northwest bonding organization, the award will be made annually to a leader in the construction industry.

• **Pacific Northwest Branch, AGC,** has named these officers: Andrew P. Wick, Wick Construction Co., Seattle, president; Ivan Bruensbach, Peter Kiewit Sons' Co., Vancouver, Wash. (outgoing president), vice president; and Colton D. (Coke) Harper, manager of the Seattle Chapter, AGC, secretary-treasurer.

• **Harry G. Stewart,** former executive director of the Building Contractors Association of California, has been appointed regional manager of Dek Industries, Inc., of California, whose East Los Angeles plant will be the state's largest producer of aluminum home building products.

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$4 up — with bath

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EARL J. WOLFORD Manager

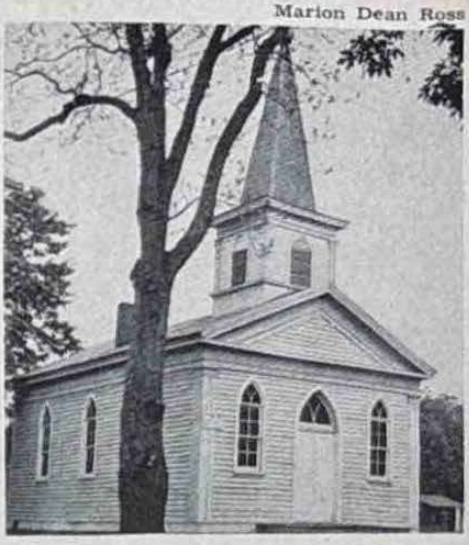
**HOTEL FIGUEROA**

Figueroa and Olympic Blvd., Los Angeles 15, Calif.



Courtesy Oregon Historical Society

Marion Dean Ross



**CATHOLIC CHURCHES** in Portland (1858), from Kuchel and Dresel view, and in Jacksonville (1858).

## OREGON ARCHITECTURE 100 YEARS AGO (Cont'd from p. 23)

the only really Gothic features. Downing indicated that vertical boards and battens were appropriate as they suggested the predominant verticality of the Middle Ages. By breaking the mass and varying the outline, more picturesque compositions were possible than in the Classic Revival.

Most of the houses in this manner were what would be called a story-and-a-half, thus achieving richer roofing forms without undue extravagance of space. Ornamental window boxes, latticed or rustic porches, and other features might be added to enhance the effect if the means were available. It was suggested in some of the plan books that these might be a kind of family enterprise, a sort of eclectic "do-it-yourself." By 1859 this style was already in use in Oregon. The Morton McCarver House at Mount Pleasant (c. 1850), while it does not have obvious Gothic features, is rather vertical in mass and is of board and batten construction. This house has the further interest that it was actually a prefabricated building made in the East, probably Maine. It was not sent directly to Oregon but purchased in San Francisco by the client who had been drawn to California by the Gold Rush.

The buildings at the fort at The Dalles were more correctly in the Gothic Cottage style. Of these buildings designed by Louis Scholl in the middle 50s, only the Surgeon's Quarters (1857) remains. It would not be wrong to call it the finest surviving house of its period in Oregon. From the marked similarity to a design in "The Architecture of Country Houses," it seems that it was inspired by Downing, but the excellent detailing and care of execution are sufficient to show that Scholl was an accomplished builder. Some of his drawings are preserved in the house now owned by the Oregon Historical Society and operated as a local museum. He signed himself "architect" and perhaps he was the first person to deserve the title in Oregon.

It is uncertain that any other surviving examples of the Gothic Cottage can be dated before 1859, but there were examples in the lithographic views of Oregon towns published by Kuchel and Dresel of San Francisco in 1858-59. Three Gothic houses were shown in the vignettes around the general view of Portland. One of these, the T. J. Holmes House, was characteristic. A number of surviving examples of this style date from the early 1860s. The Peter Britt house in Jacksonville is perhaps the most distinguished, but the MacMahon House in Salem, and the Peters-Wintermeier House in Eugene are also good.

Brick and stone were rarely used in domestic building, but the John Gay House which formerly stood near Hopewell was built of locally made brick about 1844. Brick, of course, was made for chimney construction. By 1859 there were a few other brick houses, one of which, the Benjamin Franklin Dowel House in Jacksonville (1859) is uniquely interesting. It has a two-story oblong block with the broad side to the street and a one-story wing asymmetrically extended to the rear. Though not large, there being only one room on each side of the central hall, it was rather elaborate. There were imported marble mantelpieces, probably Italian, and stone was used for the foundations and other detail. It originally had a flat roof. This, together with the round-headed windows and certain other details, suggests that the builder had the fashionable Villa style in mind. It may have been the first house in this mode in Oregon which soon after 1859 became the most widespread manner of domestic design, usually in wooden construction.

### Churches

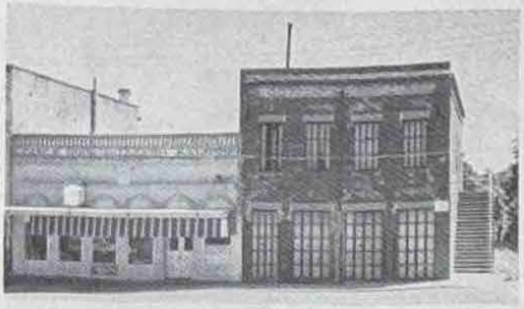
There was considerable if rather varied religious sentiment among the settlers in Oregon and among the earliest buildings there were simple churches. These were generally of meeting house character; even Catholic churches had little liturgical elaboration. In most cases the plan was a simple rectangle of modest dimensions and the structure was frame. The Catholic Church at St. Paul, now much altered, was by exception brick.

One of the earliest was the Baptist Church at West Union (c. 1853). It was a plain wooden box measuring 30x40 ft. in plan which cost the modest sum of $1,500. The builder was William Kane of Forest Grove. The detail was minimal but basically classical in origin. The Methodist Church in Jacksonville (1854) was quite similar. Both represented the general level of church architecture in 1859.

Sometimes the detailing was a little more elaborate and pointed arches were used to suggest a Gothic character in a rather 18th century way. The first Catholic Church in Portland, illustrated on the Kuchel and Dresel view of 1858, was of this sort, as was the delightful surviving Catholic church in Jacksonville (1858-59). St. John's Episcopal Church in Milwaukie was in a slightly more advanced expression of the Gothic Revival,

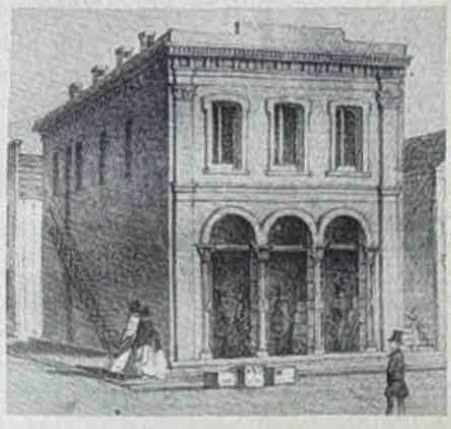


Courtesy Oregon Historical Society



Marion Dean Ross

**COMMERCIAL BUILDINGS** in Portland (1858), from Kuchel and Dresel view, left and below; Table Rock Billiard Saloon (1858) and McCully Building (1855), lower left; building at 118 First St., Portland (1860), across page.



Courtesy Oregon Historical Society

## OREGON ARCHITECTURE 100 YEARS AGO

though in its present altered state it is hard to judge its quality.

In the Spring Valley Presbyterian Church (1859) near Salem, there was a slight suggestion of the Villa style in detail. Nearly all these simple buildings were distingushed with a simple square tower rising above the front gable. The very simplicity of these small but well-proportioned structures produced a serene and pious effect that was often missed in the more decorated churches of the following decades.

### Public buildings

Public buildings in the new state were as unpretentious as the churches and the dwellings. Some 15 years were to pass until the first monumental character appeared in buildings like the State Capitol in Salem or the Pioneer Post Office in Portland. Unfortunately time has dealt more severely with public buildings than with any other type and practically none survive.

Perhaps the only example of a building built for public use before 1895 that still exists is the tiny Clerk's Office in Eugene and even it has long since been removed from its original location in the town center. Built in 1853 this little building served for all the county government until the first courthouse was erected in 1855. The Clerk's Office was a modest little temple-like structure. It followed the great tradition of Classic Revival public edifices in the East at a considerable distance in style as well as in space. The intent to give it appropriate public character can be seen in the schematic entablature, pediment, and portico, all reduced to the simplest terms. Very similar was the building in Astoria known as the first Custom House (1852).

By 1859 there were a number of courthouses in the state though none survive. They were most frequently two-story frame buildings with a classical portico at one end. The order was generally intended to be Doric. Typical examples had been built in Eugene — 40x60-ft. structure which had cost $8,500 (1855)—and in Dallas (1859). Others which seem to have been similar were those of Hillsboro (1852), Salem (1852), Roseburg (1854), Astoria (1855) and The Dalles (1859). It is most regrettable that not one of these is still in existence and very little detailed information seems to be available about them.

Few public buildings other than courthouses were needed in 1859. While the Classic Revival lingered on in public buildings longer than in other types, there were at least a few public buildings in other styles by 1859. The 1859 view of Portland shows that the Vigilance Hook and Ladder Co. was the occupant of a stylish Gothic Revival firehouse. While this was probably still something of an exception, the penitentiary at Salem, built a little later, was also in the Castellated Gothic.

### Commercial buildings

The last important class of structure to be found in Oregon in 1859 was the commercial building. It was just the beginning of a period of urban growth, but commercial enterprise was well established in Portland, Salem, Oregon City and Jacksonville. The commercial buildings have suffered almost as much as the public buildings, but enough remains to make it possible to establish their character. They were the pride of the new communities and as such figure prominently in contemporary views of the towns. This class of building was predominantly of wooden construction like the others, but the great danger of heavy loss from fire had already led to the introduction of more durable materials. While function dictated the general character, there was already the desire to give a grand expression to the importance of business enterprise and they were rather more up to date in fashion than churches or houses.

From the 1840s onward a palatial character had been increasingly popular for commercial structures in the East. Detail was applied that was drawn from the Venetian and Florentine Renaissance palaces. This idea Italianate Palatial had been notably realized in A. T. Stewart's marble store in New York. In a modest way the stores in Oregon followed the same ideal. Brick which was rarely used in other types of building was recognized as most durable and suitable for shops and warehouses. The first brick building in Portland is said to have been the Ladd Building at 42 Front St., built in 1853. The designer was A. B. Hallock.

By 1859 there were a number of such buildings not only in Portland but in Jacksonville and other thriving towns. The Kuchel and Dresel



Marion Dean Ross

Courtesy Oregon State Archives



**BROWNSVILLE WOOLEN MILL** (1866), which survived until quite recently.

view of Portland in 1858 showed some 14 brick commercial structures and there were no doubt others that were not illustrated. In Jacksonville by the same date there were at least four brick buildings. Heavily moulded arches, paneled pilasters and ornamental brackets in the cornice were all essential features of the fashionable commercial style. This taste for richer detail was costly and in the primitive conditions of the West difficult to achieve at any price due to the scarcity of expert craftsmen.

During the 1850s in the East, cast iron had come to be widely used in commercial building. It was considered fireproof and it had the further advantage of permitting ornamental features to be mass produced from an original pattern. It was suitable for prefabrication and building parts had already been supplied to various outlying areas of the world, San Francisco among them, from England and the eastern United States.

It is not surprising that cast iron had made its appearance in Oregon. It appears in at least two of the commercial structures seen in the 1858 view of Portland. One of these is the W. S. Ladd Building, probably the same as that built in 1853, and said to have been the first brick structure in the city, in which case both brick and cast iron made their first appearance in the same building. The iron was used for the columns of the ground-floor front. They were paneled and ornamented in an Italianate way and carried an arched lintel, probably also of cast iron.

By the late 1850s there was a considerable use of this material. The Moore Produce Co. Building on Front Street in Portland, built in 1860 and demolished in 1954, was a typical example. There the iron was structurally used only in the front of the ground floor. The upper wall, as well as the party walls, was of brick. However, the window lintels and sills, both enriched with brackets, and the other ornamental features were of cast iron. It would seem that while the use of cast iron was economical for the ornament, it was not economical enough to be used for the entire structure as it was in the East. The first iron work was imported, but foundries were soon established and began to supply it locally, perhaps from patterns supplied from the East. A considerable amount of the cast iron used in Oregon in the late 1850s and early 1860s was produced in the San Francisco area.

In spite of the desirability of fire-resistant construction, many commercial buildings continued to be built of wood. The Beekman Bank in Jacksonville is a surviving example in which the entire equipment of the establishment as well as the structure has been preserved. It is a one-story building with sparse Italianate detail and the "false front" concealing the gable end that is a typical feature of so much western building. These constructions were certainly not used to deliberately disguise the truth but to give an air of magnificence and a properly urban look. Used in solid rows of building, as in this example, they contributed to the unity of the block.

Portland, the rising commercial center of the state, had the most splendid commercial buildings, but nearly all towns of any pretense to prosperity had some examples. Regrettably the very growth of the communities has contributed to their destruction and the diminishing number of survivors must often be sought in places that have declined commercially. As these buildings represent the architecture of the expansionist period in 19th century America at its most typical, it is sad that none may survive for future generations to see.

### Industrial buildings

Of industrial architecture before 1859 there was almost none. Only one class of building might be so considered. In 1856 a woolen mill had been established in Salem. Said to have been the first in the West, it was a large heavy-timber framed structure. No conscious effort had been made to give it architectural interest, but it was not without merit. Though long destroyed, a similar structure, the Brownsville Woolen Mill, built in 1863 and rebuilt in 1866 survived until quite recently. It followed the mill building tradition established in New England with Slater's Mill at Pawtucket, R. I., in 1796. Its massive outline and long and voluminous shape was unmarred by decorative features. There was a distinct horizontality quite sympathetic to modern eyes in the extended range of narrow dormer windows. If the Salem mill was as handsome, as seems probable, it was a not unworthy contribution to the vernacular tradition. There were a few flour and sawmills in use by 1859, but they would seem not to have had an impressive architectural effect equal to that of the woolen mills.

### An overall view

Taken as a whole, the buildings in the new state were simple. They were generally small in scale and without monumental character. Wood was by far the most common building material. Fashion was a little behind the contemporary trend in the East, but the straightforward practicality and directness of expression gave a timelessness that many of their more fashionable counterparts lacked.

The towns were nearly all laid out in regular patterns following that excellent but much abused scheme: the gridiron. Usually an open space was set aside for public use near the center. Except in one or two business blocks, the buildings were detached and rather widely spaced. While the streets were unpaved, there were board sidewalks and a remarkable degree of finish was given to many of these wilderness towns by the use of picket fences enclosing the individual properties. The fence was a practical necessity in a day when livestock were uncontrolled, but it also gave a feeling of order to the towns that is sometimes lacking in their modern descendents.



Ford Motor Company, Milpitas, California
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### pa&b ramblings

Construction News Bulletin, a weekly summary of Pacific Construction Daily, which heretofore has been found in this portion of the magazine will now be published separately, beginning with this issue.

Our publication last month of the Westchester Branch Post Office created quite a stir among postal real estate officers in the Los Angeles area and copies have gone to Postmaster General Summerfield, according to designer Craig Ellwood, who adds: "I guess this is the first time that a branch station has been featured." The post office and another Ellwood-designed building—South Bay Bank (PA&B for July '58)—are among the projects to be shown at the U.S. exhibition in Moscow this summer.

### 40 years too soon

In reporting the proposed monorail for Seattle's exposition (see p. 8), the Seattle Times has come up with this interesting sidelight. It seems that way back in 1916 Universal Elevated Railway Co. began a campaign to sell the town on such a system. The conception as indicated by an artist's drawings on photographs, still in existence, is not much different from the current version. After fighting a losing battle, the monorail firm attempted to sell the system to Los Angeles and finally folded in 1923.

### the good that men do

We were forcefully reminded this month, upon learning of the death of Ford J. Twaits, that we had intended for quite a spell to comment on the excellent brochure published by Twaits-Wittenberg Co. Even some of the finest efforts produced by West Coast architects would be hard put to match the 24-page presentation of the Los Angeles contracting and engineering firm—an orderly and tasteful document of its accomplishments during the past 40 years, its services and its approach.

The company founder was indeed an elder statesman among U.S. construction engineers and his contributions to civic and educational affairs were of no small proportions. He is still remembered for his disaster work following the flood caused by the breaking of the St. Francis Dam in 1927 when he was placed in complete charge of all emergency assistance and rehabilitation by the City of Los Angeles. His living memorials are plainly evident on the campuses of the University of Southern California, UCLA, Associated Colleges at Claremont and California Tech at the Ramo-Woolridge Research and Development Center in Southwest Los Angeles and at U.S. Borax and Chemical Corp. in Boron, to name just a few.

### throw another log on the fire

Another reminder, this one in a much happier vein, was prompted by Newsweek's article on Skidmore, Owings & Merrill. We like to recall a statement made by Nathaniel Owings during his talk before the Oregon Chapter, AIA, at its centennial celebration two years ago: "I don't think that success in architecture is the end product of our lives. It isn't mine. To put it in crude terms, I think a pipe, a dog and a log fire are the end results of most of our lives, not the sole impersonal product of architecture as such."

R.E.

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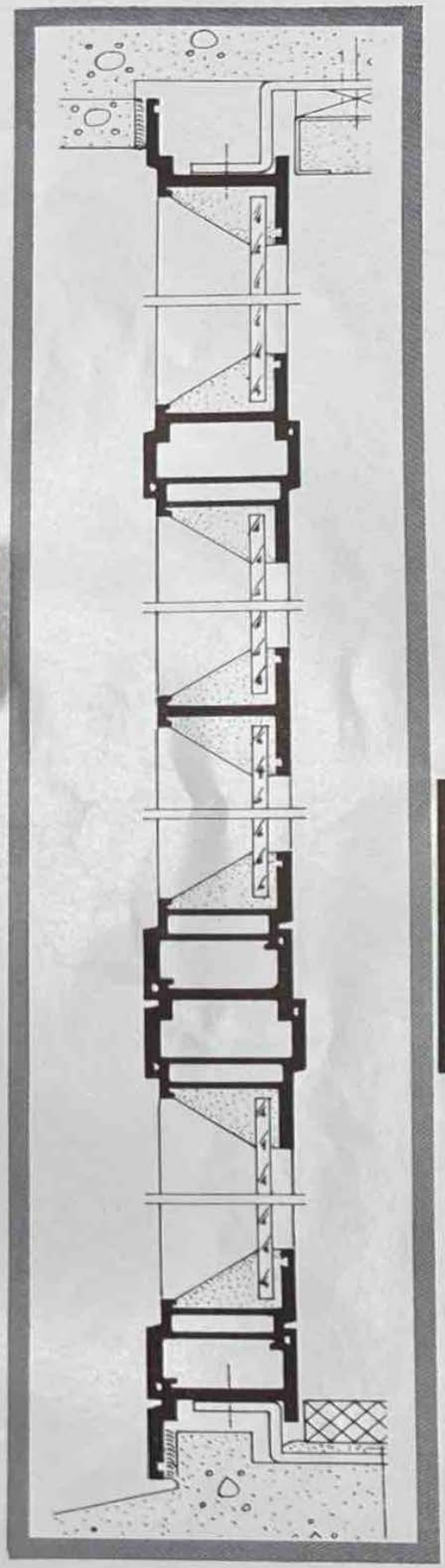
# pacific architect and builder

Courts for living and working

Big cranes: boon to construction



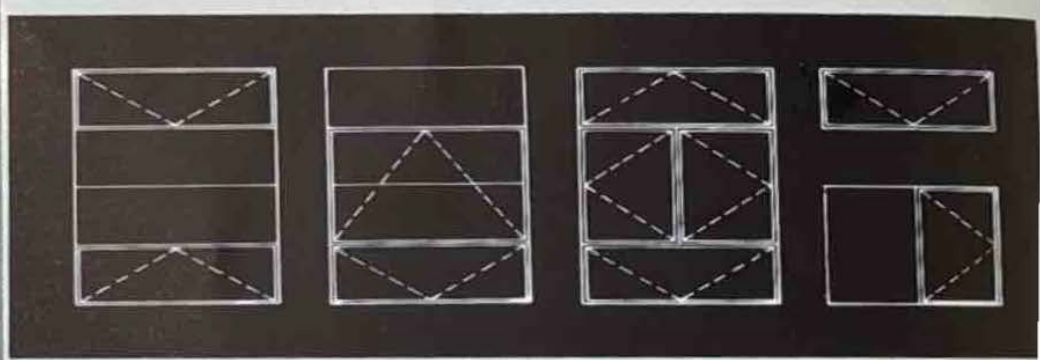
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Magazine of West Coast Architecture

# pacific architect and builder

VOLUME 65, NUMBER 6 JUNE 1959

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COVER: Courtyard, Chamber of Commerce Building, Los Angeles (see p. 16): Jack Laxer photo.

# May is $48 million ahead of year ago

Building permits in the West continue to show strong gains with nearly $300 million added to the year's tab during May. Dollar volume of $297,387,610 is $48 million higher than May 1958 and marks the fifth consecutive month that the total has surpassed the corresponding period last year.

California again leads the way, topping last year by $43½ million. Washington, Montana and Idaho also record increases, while Oregon lists a $2 million drop.

The cumulative total for 1959 is even more outstanding. Volume to date is $1,274,448,432, a whopping $211.6 million ahead of the January through May figures for 1958. California's $170 million increase takes up the lion's share. Washington also is running a good $36½ million ahead of last year; Idaho is up $2.3 million; and Montana, $4 million. Oregon is trailing by $11.1 million.

| | Jan.-May 1959 | Jan.-May 1958 |
|---|---|---|
| Calif. | $1,020,088,380 | $850,114,453 |
| Ore. | 65,110,505 | 76,295,117 |
| Wash. | 173,187,355 | 126,646,200 |
| Idaho | 12,501,075 | 10,155,458 |
| Mont. | 13,561,117 | 9,565,872 |

## ANALYSIS OF TYPICAL AREAS—MAY

(Number of permits is followed by total dollar volume)

| | Dwelling | | Commercial & Industrial | | Public | |
|---|---|---|---|---|---|---|
| King County | 832 | $10,285,140 | 62 | $1,236,085 | 5 | $1,185,450 |
| Seattle | 596 | 4,808,128 | 155 | 3,776,565 | 3 | 43,600 |
| Tacoma | 157 | 870,530 | 5 | 687,000 | 1 | 128,000 |
| Orange County | 506 | 7,788,155 | 15 | 535,568 | 1 | 20,000 |
| Los Angeles County | 1,170 | 17,521,670 | 68 | 2,345,595 | 40 | 1,998,750 |
| Sacramento County | 785 | 9,847,175 | 54 | 1,989,268 | 11 | 1,146,571 |

## Building Permit Totals for 116 Western Agencies for May

| CALIFORNIA | May 1959 | Apr. 1959 | May 1958 |
|---|---|---|---|
| Alameda County | $ 1,834,750 | $ 2,368,585 | $ 1,480,350 |
| Anaheim | 5,534,666 | 5,863,499 | 3,399,211 |
| Bakersfield | 912,645 | 1,355,725 | 556,085 |
| Burbank | 1,092,555 | 1,564,670 | 760,927 |
| Contra Costa County | 5,470,473 | 4,288,967 | 3,422,102 |
| Fresno | 2,629,524 | 1,122,750 | 2,594,941 |
| Fullerton | 1,307,568 | 2,248,936 | 3,522,441 |
| Glendale | 2,378,716 | 2,250,426 | 2,252,490 |
| Inglewood | 882,863 | 1,559,521 | 1,820,256 |
| Long Beach | 6,244,975 | 4,728,340 | 6,021,350 |
| Los Angeles | 71,083,701 | 53,765,643 | 64,256,539 |
| Los Angeles County | 26,731,850 | 19,713,459 | 19,575,558 |
| Oakland | 4,615,572 | 6,465,517 | 2,874,378 |
| Ontario | 606,035 | 803,130 | 405,527 |
| Orange County | 8,838,439 | 5,876,991 | 3,769,026 |
| Palo Alto | 2,922,046 | 1,657,224 | 1,353,588 |
| Pasadena | 2,196,643 | 3,790,131 | 1,995,034 |
| Pomona | 2,224,181 | 904,693 | 1,889,068 |
| Richmond | 1,393,352 | 800,577 | 993,366 |
| Riverside | 1,967,110 | 2,585,739 | 2,642,293 |
| Sacramento | 5,005,816 | 4,299,962 | 7,067,799 |
| Sacramento County | 13,204,725 | 14,392,594 | 7,583,807 |
| San Bernardino | 1,424,861 | 2,094,016 | 4,026,302 |
| San Bernardino County | | 7,331,051 | 5,341,430 |
| San Diego | 19,648,240 | 15,603,072 | 15,470,459 |
| San Diego County | 12,784,800 | 14,961,900 | 5,818,800 |
| San Francisco | 6,815,141 | 5,325,748 | 5,696,780 |
| San Jose | 13,471,853 | 12,107,022 | 7,797,129 |
| San Mateo | 1,119,067 | 1,270,051 | 1,461,678 |
| San Mateo County | 2,203,207 | 1,262,258 | 1,954,164 |
| Santa Ana | 3,391,442 | 3,002,034 | 3,145,577 |
| Santa Monica | 2,862,921 | 1,802,559 | 1,283,769 |
| Stockton | 771,425 | 2,151,047 | 1,024,575 |
| Sunnyvale | 2,677,097 | 3,687,545 | 966,160 |
| Torrance | 3,264,600 | 2,556,460 | 899,159 |
| West Covina | 735,495 | 751,057 | 1,515,101 |
| TOTAL | $240,249,236 | $216,182,899 | $196,637,219 |

| OREGON | May 1959 | Apr. 1959 | May 1958 |
|---|---|---|---|
| Albany | $ 250,870 | $ 264,001 | $ 167,100 |
| Astoria | 40,457 | 17,418 | 49,188 |
| Baker | 118,550 | 154,010 | 118,550 |
| Bend | 156,250 | 99,795 | 92,098 |
| Coos Bay | 88,500 | 127,695 | 24,010 |
| Corvallis | 376,150 | 415,070 | 230,670 |
| Eugene | 595,565 | 729,750 | 937,297 |
| Grants Pass | 39,150 | 182,950 | 129,255 |
| Gresham | 105,000 | 63,590 | 252,400 |
| Hillsboro | 231,612 | 295,200 | 46,377 |
| Klamath Falls | 405,684 | 168,010 | 188,561 |
| LaGrande | 92,351 | 95,980 | 17,335 |
| Lane County | 1,109,155 | 1,159,975 | 1,283,239 |
| Medford | 559,675 | 322,902 | 287,160 |
| Multnomah County | 3,769,670 | 2,959,565 | 2,721,095 |
| North Bend | 75,698 | 334,343 | 34,580 |
| Oregon City | 71,503 | 65,450 | 5,780 |
| Pendleton | 55,802 | 112,320 | 426,200 |
| Portland | 4,324,705 | 9,821,770 | 7,916,495 |
| Roseburg | 82,313 | 122,163 | 135,886 |
| Salem | 678,185 | 321,192 | 323,670 |
| Springfield | 105,652 | 99,776 | 81,970 |
| The Dalles | 97,000 | 106,040 | 155,051 |
| TOTAL | $ 13,429,497 | $ 18,038,965 | $ 15,623,967 |

| WASHINGTON | May 1959 | Apr. 1959 | May 1958 |
|---|---|---|---|
| Aberdeen | $ 104,344 | $ 125,887 | $ 71,371 |
| Anacortes | 45,155 | 60,310 | 73,695 |
| Auburn | 453,800 | 244,640 | 140,290 |
| Bellingham | 317,776 | 795,665 | 239,483 |
| Bremerton | 123,930 | 225,440 | 171,000 |
| Centralia | 206,865 | 141,485 | 68,295 |
| Chehalis | 119,800 | 67,305 | 40,266 |
| Clarkston | 15,832 | 11,405 | 13,324 |
| Ellensburg | 81,500 | 84,737 | 23,294 |
| Ephrata | 16,710 | 37,812 | 22,818 |
| Everett | 448,548 | 394,483 | 601,750 |
| Kelso | 8,800 | 31,600 | 109,000 |
| Kennewick | 100,850 | 156,195 | 156,580 |
| King County | 12,899,400 | 11,668,835 | 9,070,290 |
| Kirkland | 39,900 | 83,150 | 80,600 |
| Longview | 754,049 | 239,004 | 394,716 |
| Moses Lake | 91,599 | 110,760 | 13,410 |
| Olympia | 246,150 | 172,197 | 330,307 |
| Pasco | 256,955 | 215,285 | 172,725 |
| Pierce County | 2,887,842 | 2,041,333 | 2,237,687 |
| Port Angeles | 94,621 | 34,020 | 51,650 |
| Puyallup | 159,540 | 134,945 | 61,290 |
| Ritzville | 2,550 | 37,200 | 33,900 |
| Seattle | 8,866,569 | 7,780,088 | 8,756,062 |
| Shelton | 40,323 | 36,700 | 17,600 |
| Spokane | 1,811,928 | 6,493,791 | 3,533,915 |
| Spokane County | 2,721,479 | 2,405,781 | 2,513,045 |
| Sumner | 72,100 | 7,600 | 110,318 |
| Tacoma | 2,180,487 | 1,955,963 | 1,376,858 |
| Vancouver | 609,379 | 2,001,881 | 388,238 |
| Walla Walla | 364,811 | 371,552 | 164,769 |
| Wenatchee | 138,540 | 264,041 | 148,929 |
| Yakima | 575,544 | 421,725 | 798,284 |
| TOTAL | $ 36,857,676 | $ 38,852,815 | $ 31,915,187 |

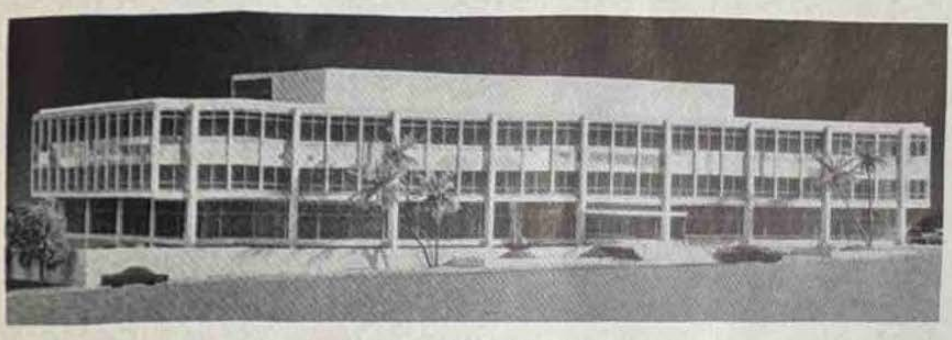
| MONTANA | May 1959 | Apr. 1959 | May 1958 |
|---|---|---|---|
| Billings | $ 755,200 | $ 442,603 | $ 382,200 |
| Bozeman | 125,440 | 559,250 | 201,600 |
| Butte | 50,121 | 22,793 | 215,400 |
| Glasgow | 192,000 | 97,200 | 199,500 |
| Glendive | 68,900 | 62,900 | 39,770 |
| Great Falls | 903,018 | 835,774 | 1,464,428 |
| Helena | 769,300 | 269,935 | 241,120 |
| Kalispell | 31,200 | 250 | 42,180 |
| Lewistown | 75,474 | 21,000 | 76,900 |
| Livingston | 27,900 | 174,410 | 27,175 |
| Miles City | 247,755 | 119,405 | 119,153 |
| Missoula | 221,100 | 269,300 | 186,600 |
| TOTAL | $ 3,467,498 | $ 2,874,820 | $ 3,195,824 |

| IDAHO | May 1959 | Apr. 1959 | May 1958 |
|---|---|---|---|
| Boise | $ 475,961 | $ 656,237 | $ 287,974 |
| Caldwell | 204,025 | 151,700 | 79,000 |
| Coeur d'Alene | 83,760 | 92,040 | 46,200 |
| Idaho Falls | 1,559,137 | 998,067 | 626,390 |
| Jerome | 23,050 | 23,625 | 24,143 |
| Lewiston | 94,785 | 351,800 | 414,933 |
| Nampa | 193,735 | 167,055 | 225,787 |
| Payette | 70,325 | 38,025 | 22,450 |
| Pocatello | 331,765 | 263,685 | 233,644 |
| Sandpoint | 75,700 | 106,134 | 18,100 |
| St. Maries | 23,000 | 23,300 | 1,200 |
| Twin Falls | 266,550 | 266,530 | 104,295 |
| TOTAL | $ 3,383,793 | $ 3,134,198 | $ 2,084,116 |
| GRAND TOTAL | $297,387,610 | $279,083,697 | $249,456,313 |



**HOTEL AND OFFICE BUILDING PROJECT**

scheduled for completion in 1960 in downtown Anchorage will be one of the largest building jobs in Alaska. Two 11-story structures will be sheathed in white porcelain and gold aluminum panels, costing $10 million. Hotel will have 200 rooms; office building, 130,000 sq. ft. Architects-engineers: Hedrick & Stanley; associate architect: Edwin Crittenden.



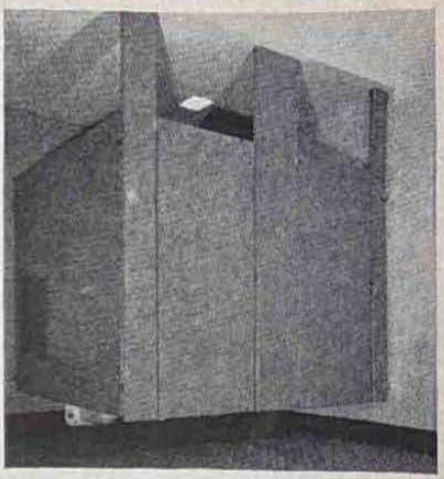
**OFFICE HEADQUARTERS**

for Welton Becket & Associates will be housed in $2½ million reinforced concrete and steel structure, keynoting vast Century City development in Los Angeles. Mural will surround building between second and third levels, latter featuring central two-story court with reflecting pool and sculptural elements, illuminated by skylight. First floor will contain rental space; penthouse level, employee lounge facilities and cafeteria. Architects-engineers: Welton Becket & Associates.



**MEDICAL CENTER**

in Los Angeles will be six-story building accommodating 75 professional suites. Of concrete and steel construction and estimated to cost $2½ million, it will include three-level parking area with 3,000-car capacity. Architects: Sidney Eisenshtat & Associates.

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**COMPLETED COMPLEX** will form oval with existing terminal building at one end and two new terminals on either side, each having vaulted roof and more than 300,000 sq. ft. of floor space, including piers and concourses.



SAN FRANCISCO INTERNATIONAL AIRPORT MASTER PLAN: The world's fifth ranking airport in terms of passenger traffic is preparing for the jet age with a comprehensive plan for its ultimate development, providing for three separate terminal buildings for a total of 60 gate positions and a three-level parking structure for 6,000 cars. The long-range program will be financed by a $25 million bond issue passed in 1956, which will up the city's total capital investment at the airport to $55 million.

The south terminal, piers and concourses will be the first elements contructed, at a cost of about $7.8 million, including roadways. These additions will accommodate all international and two major domestic carriers. The general traffic flow will be similar to that in the existing building. Passenger ticketing and check-in functions will be on the second floor and baggage handling and claim functions on the ground level. Both new terminals will allow for future construction of a mezzanine above the second level.

To handle jet aircraft, the piers are designed to accomplish second level passenger loading and unloading by means of movable bridges. Stairs or escalators also will be provided to the apron level where ground loading and unloading are desired. Passenger room for each gate position, together with lounges, restrooms and concessions will be on the second level, airlines operational offices on the first. The maximum passenger-walking distance from ticket counter to the farthest gate position will be no more than the recommended 1,000 ft.

The terminal buildings are to be connected at the upper mezzanine level to the parking structure via overhead walks and at the lower level by underground walks to afford a complete separation of pedestrian and auto traffic. An elevated roadway will run around the parking structure and terminal perimeter at the second floor level as well as at the ground floor level. The upper roadway will incorporate the ramp to the second floor level of the existing building.

The parking facility will be broken up into four units separated by sloping landscaped areas, with walks on either side, leading up and down to the three levels. Each terminal will be enhanced by a reflecting pool, the parking area by sculpture. Architects—engineers: Welton Becket & Associates.



**THREE-LEVEL PARKING SECTION WITH PEDESTRIAN RAMPS IN CENTER**

# Coast builders plan meeting

## • First affair set for San Francisco

First annual Pacific Coast Builders Conference is set for July 6-9 in San Francisco's Sheraton-Palace Hotel, with Norman P. Mason, HHFA administrator, heading the list of guest speakers. In addition to hearing a dozen other building authorities, the registrants will view an exhibition of more than 65 displays of products and equipment.

Formerly FHA commissioner, Mason will talk at the "VA-FHA Workshop" on Tuesday, July 7, at which Ben C. Deane, past president, Home Builders Association of Los Angeles, Orange and Ventura Counties, will be chairman. NAHB president Carl Mitnick of Merchantville, N. J., will address the luncheon that day.

Other events: an income tax panel conducted by M. A. Samuelson and his staff of Los Angeles; a meeting of executive officers and presidents of local builders' associations with Stanley C. Scott of San Diego, head of the host Home Builders Council of California, in charge; a "New Methods" session with Earl W. Smith, El Cerrito builder, as chairman; a "Financing Your House" forum, with John Dickerman, NAHB executive vice president, and several California business executives on the panel; a demonstration of selling techniques by a merchandising sales training team; and an "Editor Looks at the Builder" forum with these panelists: Carl Norcross, executive editor, House & Home; James M. Lange, executive edotor, Practical Builder; Maxine Livingston, family home editor, Parents Magazine; Walter Reese Browder, editor, Ameaican Builder; and Beatrice West, interior decorator.

Stetson Shuey of Sacramento is chairman of the conference which may draw several thousand home builders and their wives. A special program for the latter is being arranged by Richard E. Doyle.

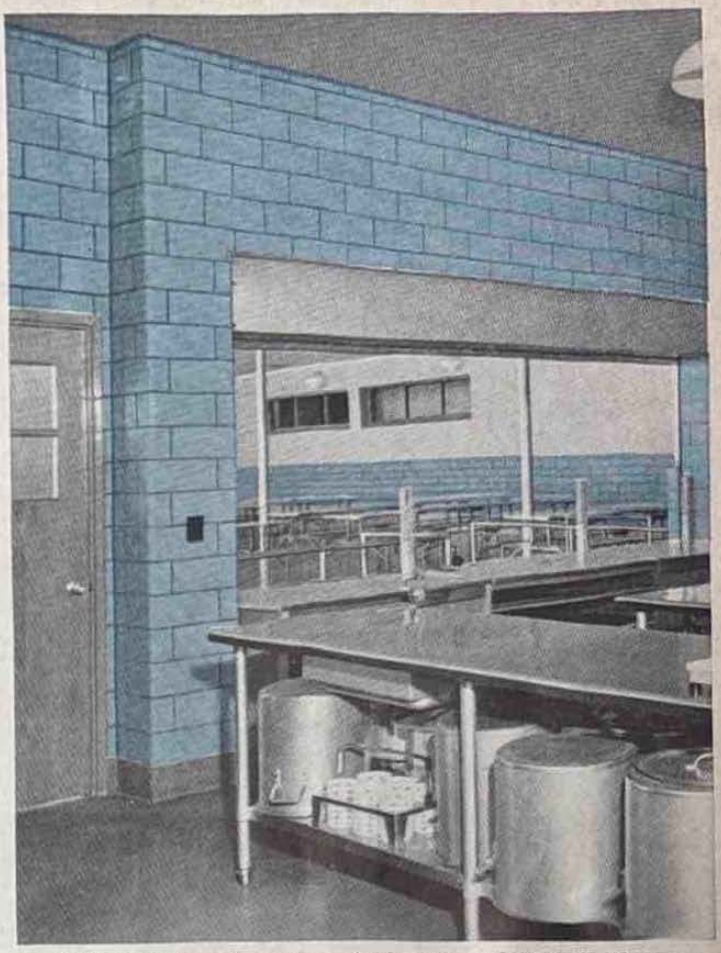
Registration forms are available by writing Rodney Radom & Associates, 235 Post St., San Francisco, Calif.

## Seattle to host nation's planners in July

More than 500 members of the American Institute of Planners are expected to gather in Seattle July 26-30 for their first convention to be held in the Pacific Northwest. The nature of the professional sessions, scheduled for the Olympic Hotel, will also draw a number of architects, engineers and citizens particularly concerned with city planning.

Among a host of planning consultants and others in related fields who will appear on the program are Carl Feiss of Washington, D.C.; Prof. Charles Elliot of Harvard University and Paul Opperman of Chicago, who will summarize the conference. An all-day session will be devoted to problems confronting the central business district of Seattle and other American cities and the solutions currently being proposed. Other major topics will be natural resources planning, metropolitan government and planning, the impact of aviation on tomorrow's cities and planning in the Pacific Basin countries, including Alaska and Hawaii.

Conference chairman is J. D. Braman Jr. of the Seattle City Planning Commission, who can be contacted at 503 County-City Building.

Ashton, Evans & Brazier, Architects, selected Kraftone Color Glaze No. 222 Ocular Green Kraftile Glazed Structural Units for walls of this clean, cheerful Mt. Jordan School Cafeteria and Kitchen.

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## Pacific Rim speakers selected

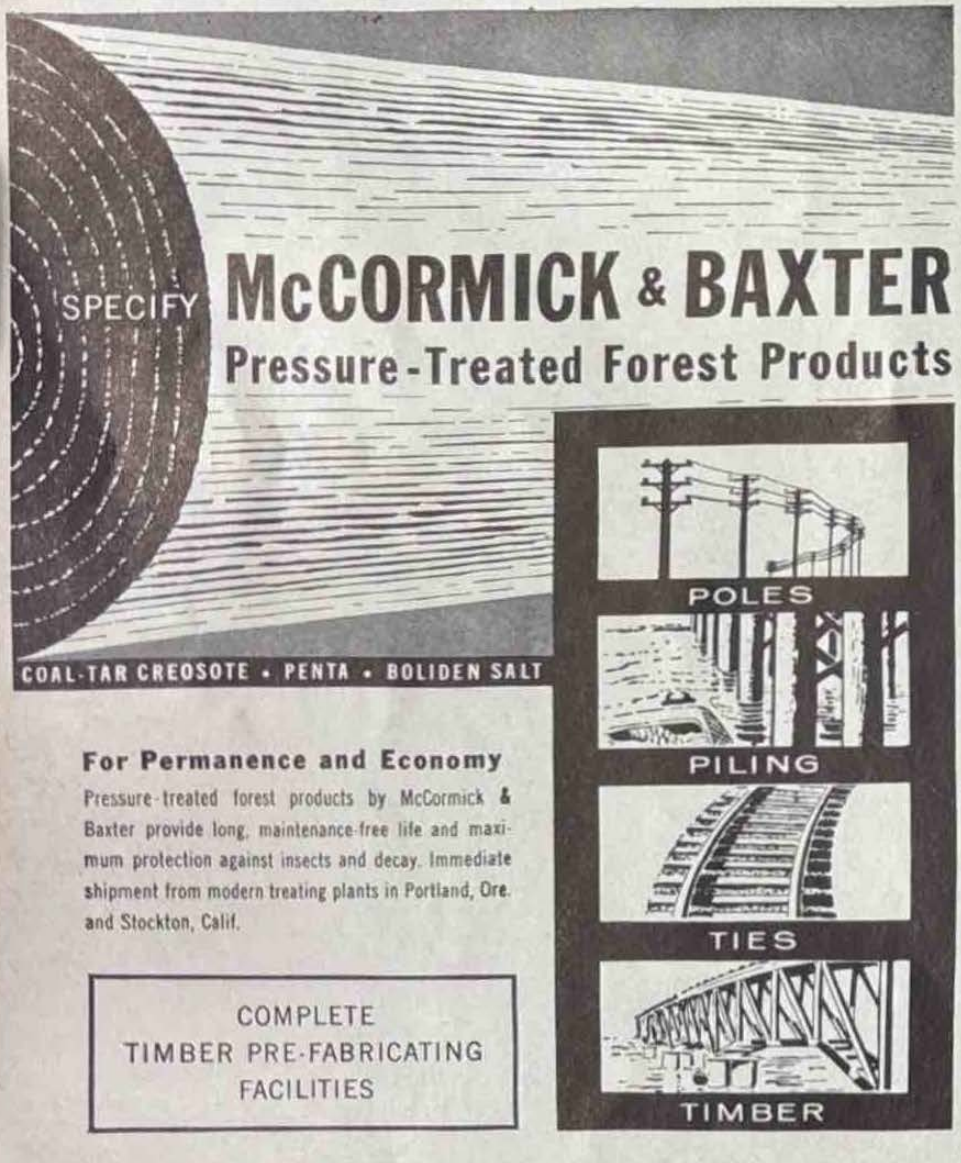
Keynoter at the first Pacific Rim Conference to be held October 8-13 in Honolulu will be Sir Leslie Munro, permanent New Zealand representative to the United Nations and former president of the UN General Assembly. Sponsored by the California Council, American Institute of Architects, the six-day program will include that state's first regional AIA meeting (California became a separate district this year) and the 14th annual meeting of the Women's Architectural League of California.

With "Wellsprings of Design" as its theme, the conference will examine three aspects—physical, social and cultural—with all panelists brought together for the final session devoted to "Synthesis."

Other speakers who have been announced in the preliminary program are Carlos Contreras, Mexican architect and an honorary fellow of the AIA. Vice president of the International Federation for Housing and Town Planning, he has represented his government at planning congresses in New York, Paris, London and Havana. Others are Dr. Paul A. Siple, explorer and military geographer, best known for his exploits in the Polar Regions; Wendell Bell, associate professor of sociology and anthropology, and Dr. Karl With, chairman of the department of integrated arts, both of UCLA; Robin Boyd, Australian architect and lecturer in design and architectural history at the University of Melbourne; and John A. Kouwenhoven, author, lecturer and professor of English at Barnard College, Columbia University.

The conference will get underway on Thursday afternoon with a welcome by Douglas Freeth, president of the Hawaii Chapter, AIA, and greeting from Henry J. Kaiser.

Conference committee members include Robert E. Alexander, George B. Allison, Welton Becket, Robert Trask Cox and J. Dewey Harnish, Southern California; Robert S. Anshen, Gardner A. Dailey and John W. Kruse, Northern California; H. Douglas Byles, Pasadena; Victor L. Wulff Jr., San Diego; George Wimberly, Hawaii.



## Portland begins program to revitalize downtown

Lloyd Keefe, former planning director for the City of Portland, started June 1 as executive director of Downtown Portland, Inc. No successor has been named. Keefe left his job, which he had held since 1952, just as the City Council passed a new zoning code which had been in the works over 12 years. The city's four-zone code has been replaced by 14 new zoning classifications for land use.

Downtown Portland has established offices in the Equitable Building and has a two-year budget of $200,000 for study, planning and action on downtown problems. The organization is designed to unite all segments of the business and financial community to speak for that area.

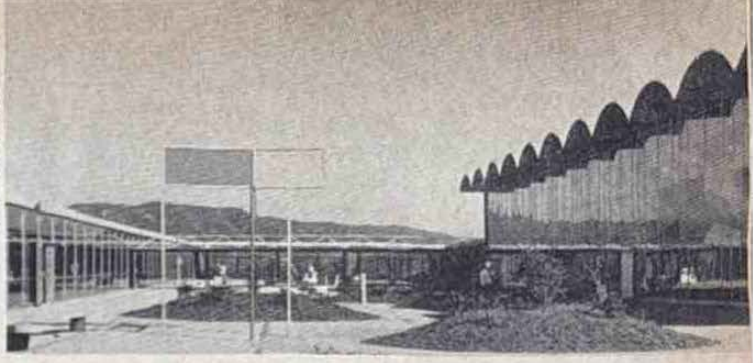
In still another move to revitalize and beautify the heart of the city, the Metropolitan Improvement Committee has lined a 40-block area in downtown Portland with trees in concrete tubs. Funds to cover the program for a full year came from the Rose Festival Association, Multnomah County Centennial Committee, Portland Retail Trade Bureau and other organizations.

The trees—maples, ashes, cherries and hawthornes—were selected by Robert Hale Ellis Jr., landscape architect; Daniel McGoodwin, architect; and Lewis Crutcher, architect, University of Oregon School of Architecture and Allied Arts. Crutcher has been credited with starting the movement with his series of talks on the need for beautifying the downtown area. Crutcher is a new member of the Portland Art Commission, which carried the ball for the project until the Metropolitan Improvement Committee was formed.

# Californians win four top awards for school design

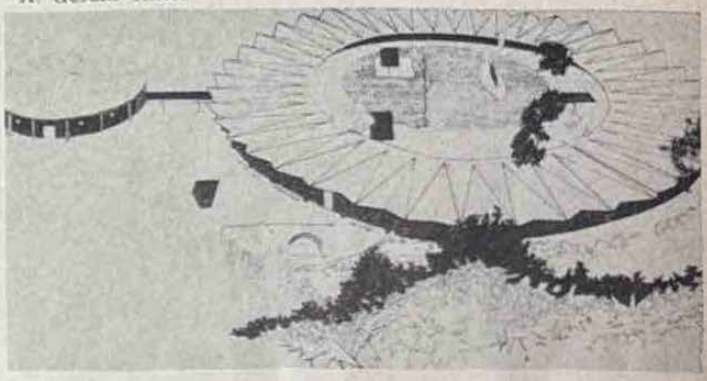
Eight Top Awards were made by School Executive magazine in its annual design competition this year and four of them went to California projects, two of them by the same architect, Mario J. Ciampi of San Francisco. Other citations included three Honorable Mentions and six Special Feature Awards, one of these to another California entry. The competition was limited to school and college buildings in the U.S. and Canada which were under construction in 1958. Two educators on the jury were joined by three architects: chairman Eberle M. Smith, Detroit; William M. Pena (Caudill, Rowlett & Scott), Houston; and Vincent G. Kling, Philadelphia.

Karl H. Riek



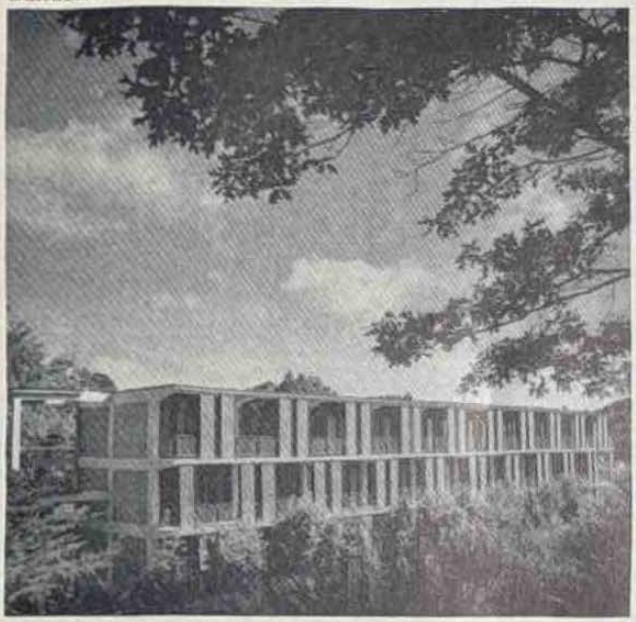
**TOP AWARD**—Westmoor High School (PA&B for Oct. '58), Daly City, Calif.: Mario J. Ciampi, architect. "This school has all the qualities for a happy educational environment. A lyrical, almost festive design. Introduction of sculpture and murals adds to the cheerful overall concept. Commendable central mall and group activities space."

A. Gerald Ratto



**TOP AWARD**—Vista Mar Elementary School, Daly City, Calif.: Mario J. Ciampi, architect. "A joyful building. Very imaginative exploration of the basic idea of a circular school which turns its teaching areas toward a generous central court. The rich oasis central court is a logical derivative of the climatic conditions."

Dandelet



**TOP AWARD**—San Francisco Theological Seminary Residence Hall, San Anselmo, Calif.: John Carl Warnecke & Associates. "A unique solution to a difficult site problem, the result being a dramatic building at home on an attractive steep slope. Delicate, well-handled up-slope approach to building; vertical screens facing into rooms insure privacy and add charm."

Jack Laxer



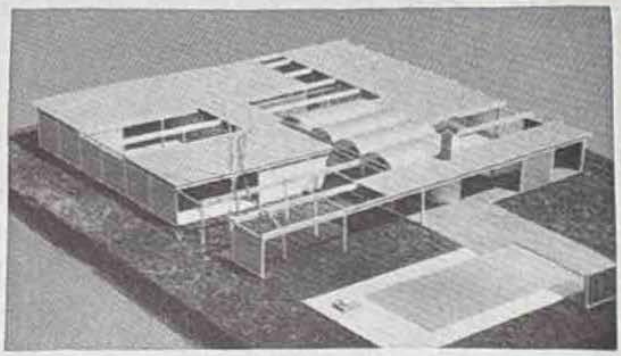
**TOP AWARD**—Cerritos College, Norwalk, Calif.: Kistner, Wright & Wright, architects. "The architects have created a simple, gay and energizing environment for higher education. There is a careful attention to inner relationships, facilities and spaces on the campus. An orderliness appears in the rectangles flanking the central space."

Marvin Rand



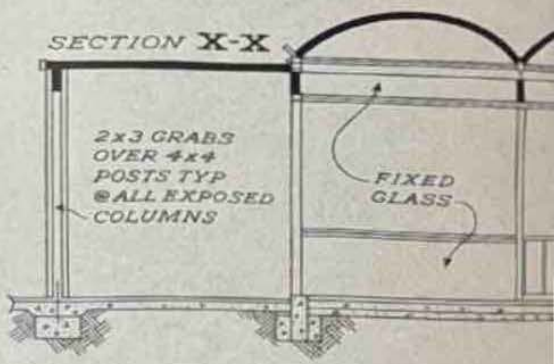
**SPECIAL FEATURE AWARD**—Narbonne High School, Los Angeles: Daniel, Mann, Johnson & Mendenhall. "Fresh idea of unifying internal curved canopy form around which school is built."

# new approaches to structural design with fir plywood



Clean, light lines of this striking residence show how new plywood structural elements can be used to help wood construction meet the requirements of contemporary design.

## Case Study House demonstrates imaginative handling of




**ARTS & ARCHITECTURE Case House Study No. 20**

**OWNER: Saul Bass, Whittier, California**

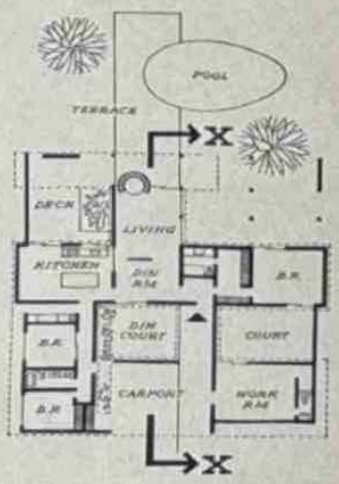
**ARCHITECTS: Buff, Straub and Hensman Los Angeles, California**

**COMPONENTS: Fabricated and erected by Berkeley Plywood Company**

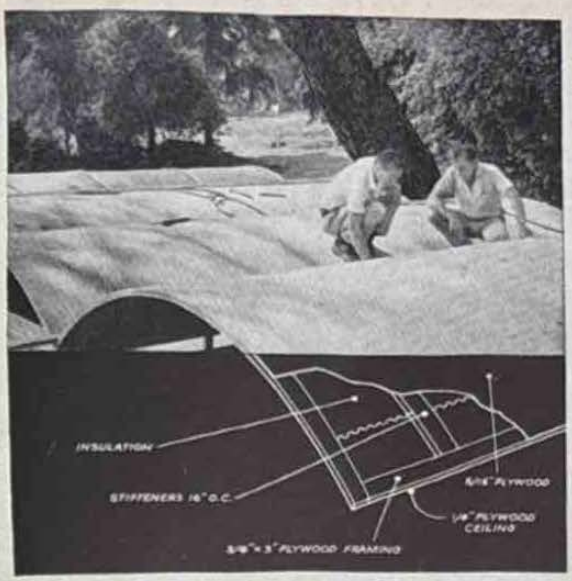
THIS SOPHISTICATED ROOF SYSTEM employs lightweight, shop-fabricated plywood components that present traditionally acceptable wood construction in a fresh context.

The architects report these new plywood structural elements—box beams, barrel vaults and flat stressed skin panels—make sense from a standpoint of cost as well as design. For the loads and spans involved, they say there is no cheaper—or better—way to do the job.

The basic structure is post and beam. Installed cost of the plywood box beams was $2 a foot, using premium overlaid plywood for the finest painting surface. The flat roof panels cost 40c per square foot in place; the barrel vaults 75c. Both were made in 2' and 4' widths, 8' and 12' lengths, combining roof deck, finish ceiling and insulation in one easily handled component.

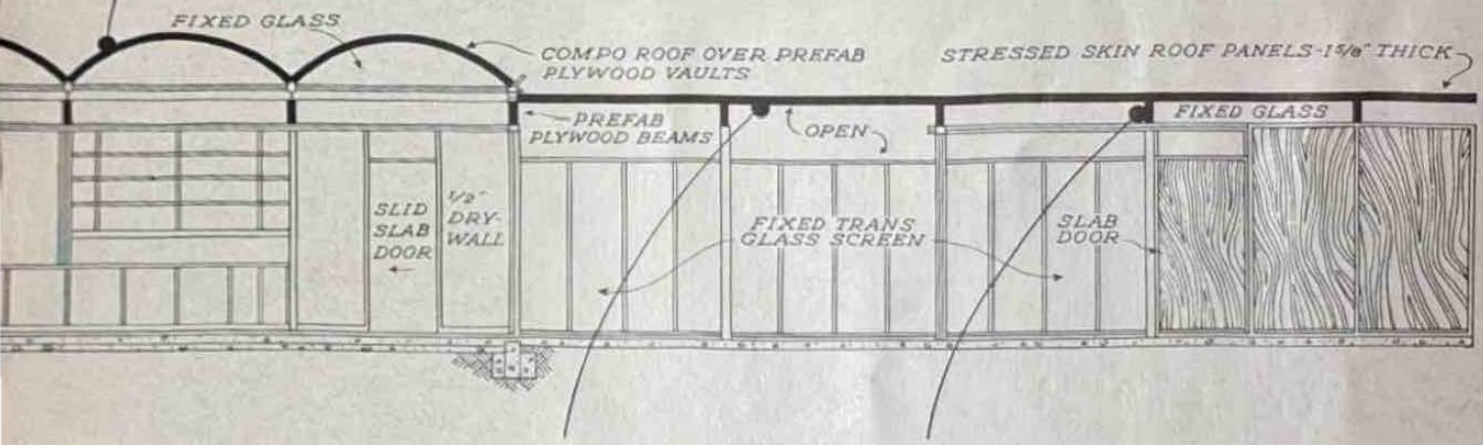



**FOR MORE INFORMATION** about fir plywood—or DFPA design and engineering consultation services—write (USA only) Douglas Fir Plywood Association, Tacoma 2, Washington.

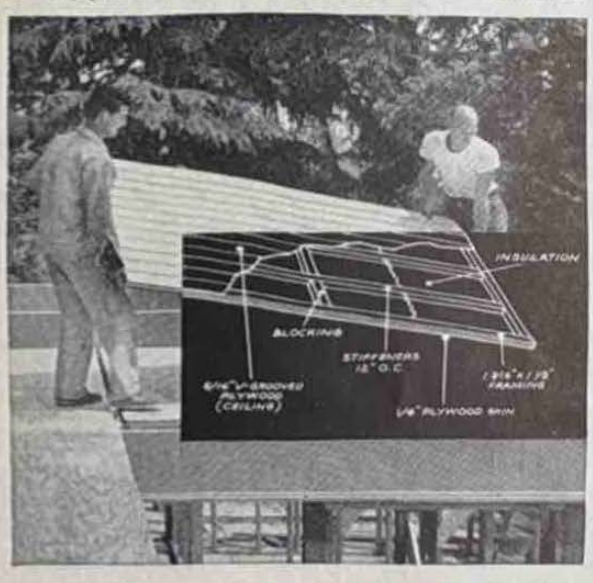



**CURVED PANELS** over living areas have same basic construction as flat panels. Underside serves as finish ceiling.

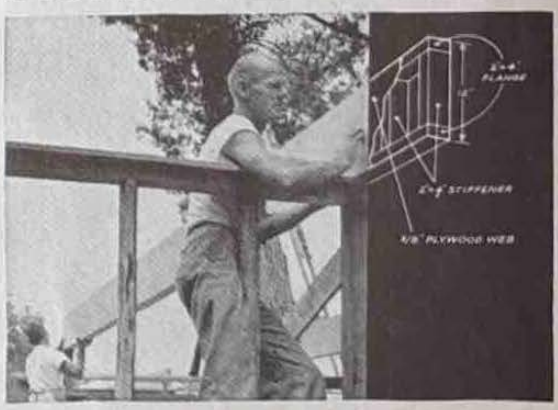
# fir plywood components

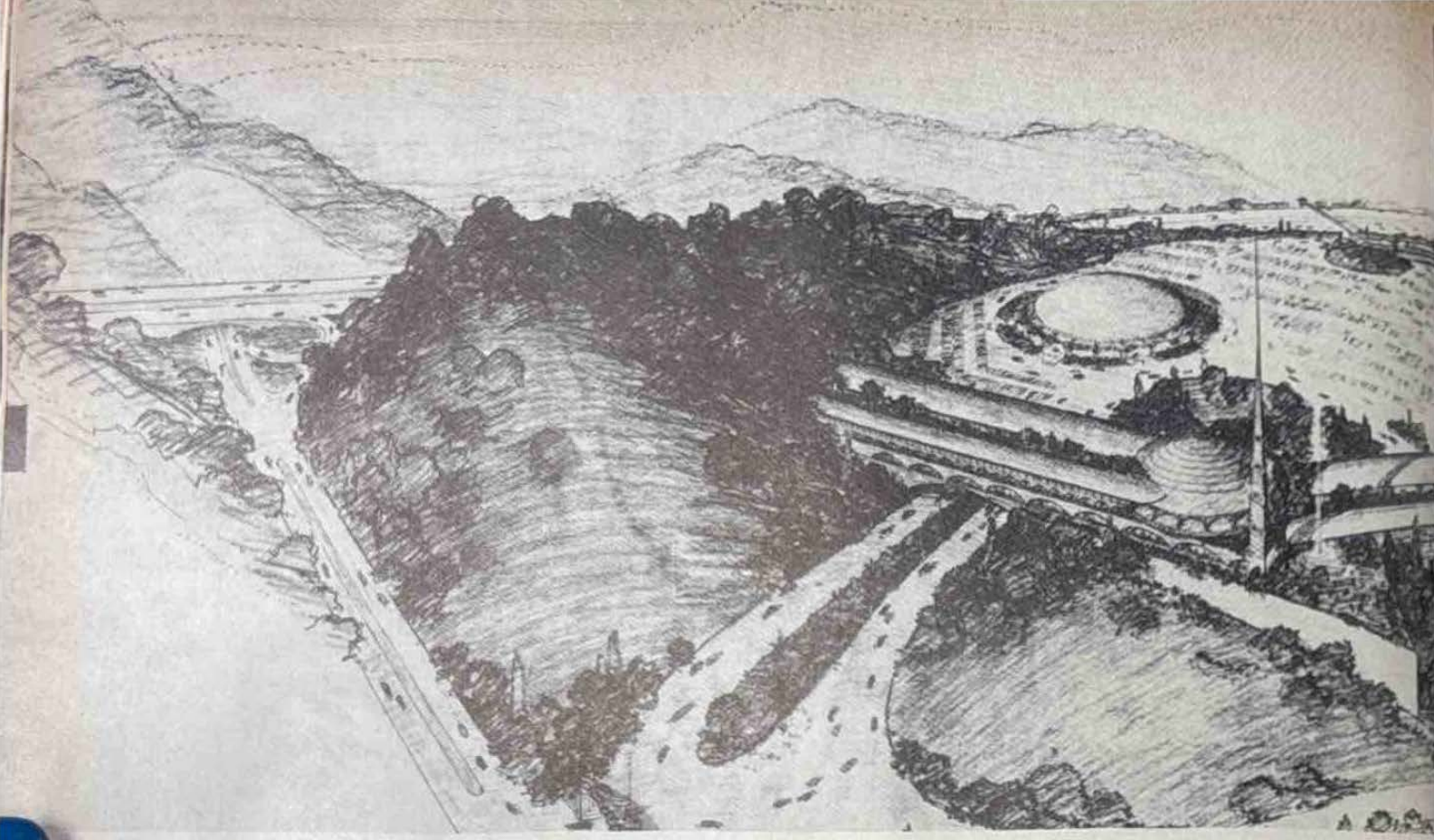



**FLAT STRESSED SKIN PANELS** have 5/16" upper, 1/4" lower plywood skins with lumber edge frames and stiffeners.




**PLYWOOD BOX BEAMS** are light, easily handled, span 16' on 8' centers. Fir plywood skins are nail-glued to 2 x 4s.





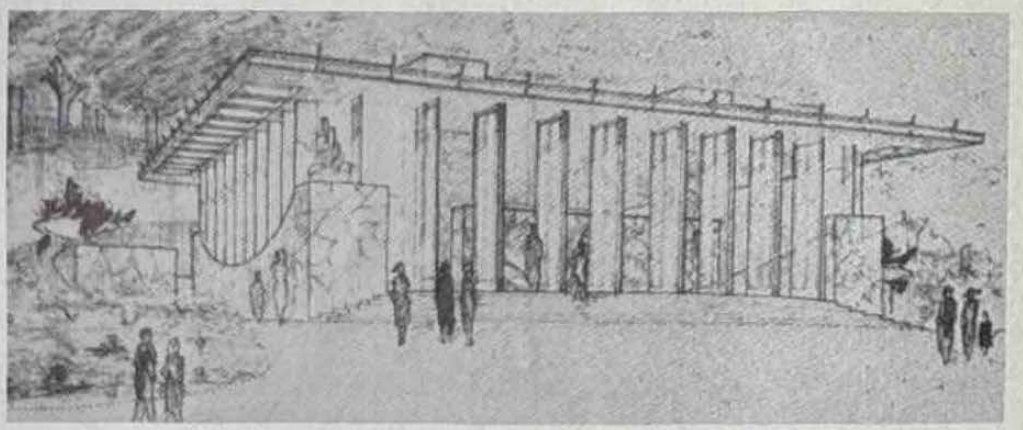
# Two projects in California's Marin County

When Frank Lloyd Wright died in April at the age of 89, he left a considerable amount of work in process, including the three western projects shown on these pages: the controversial Marin County Government Center (across top) and two others now under construction — a Christian Science Church, also in Marin County, and a clinic building, his only testimonial to the state of Montana.

Aaron Green, Wright's representative in San Francisco, states that working drawings are nearing completion on the first and second construction stages of the government center, consisting of county offices and facilities for administrators, welfare department, superintendent of schools, physician and library. Allocation of funds has just been made by the State Public Works Board for preliminary sitework on the fairgrounds area where a community pavilion will be built.

Other construction stages call for the sheriff's offices and jail, courtrooms and school library. The master plan also allows for such eventual activities as a heliport, fire station, 3,000-capacity auditorium and historical museum.

Wright was commissioned in July 1957 to create the master plan and to design the buildings for the county center on a 140-acre site immediately north of San Rafael. But the finalized contract almost went on the rocks when a letter was introduced at a hearing of the Board of Supervisors charging the architect with being a "Communist sympathizer." Snorted



**CHRISTIAN SCIENCE CHURCH** for Bolinas, Calif., small sea coast community, will seat 140, with Sunday school on lower level.



## one in Montana among Frank Lloyd Wright's last

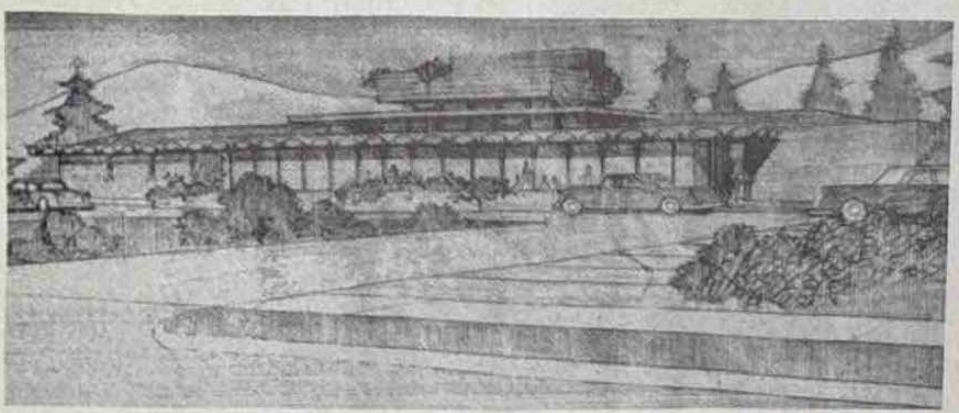
Wright, waving his cane and heading for the door: "Oh, rats. This is an absolute and utter insult and I will not be subject to it. I am a loyal American and people will have to take me for what I am." Later, however, he agreed to visit the proposed center site with the supervisors.

The Christian Science project is not the only Wright church near or under construction in California. He designed what he called a "Pole and Boulder Gothic" structure for the Pilgrim Congregational Church in Redding. To be built on a rugged hillside, it will rise from the ground with rough stone walls and a redwood log A-frame supporting the roof.

Ironically, the announcement that Wright was designing the Montana clinic broke during the week that he died. The Whitefish Pilot reported that the architect had planned to visit the only building he was to design in the state and that his desire to have a structure in the Montana mountains was one reason he took the job.

The brick and glass building will have 5,000 sq. ft. housing three doctors' offices, 12 examining rooms and facilities for minor surgery. Among its distinctive features: a clear plastic indoor-outdoor circular planter besides the one on the roof.

And as if the Wright project weren't enough excitement for the townsfolk, Whitefish (1950 pop.: 3,268) community leaders last month laid forth a proposal for the complete renovation of the business district, with plans developed by the architectural firm of Taylor, Thon, Schwartz & Kirkpatrick.



**CLINIC BUILDING** for Drs. Lockridge, Whalen and McIntyre in Whitefish, Mont., will be dominated by planter on roof.

*For the Motel Investor who thinks ahead!*

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## OFFERS AN OUTSTANDING
# MOTEL FRANCHISE




If you or your company is contemplating the purchase or construction of a Motor Hotel, now is the time to investigate what the CONGRESS INNS franchise can add to your investment.

As a business man, you know what the "brand name" means in virtually all fields of enterprise. And in the motel business, the trend is in the same direction. The establishments with familiar *brand names* and with uniform service and facilities, are—now and in the future—most likely to succeed.

The CONGRESS INNS Franchise offers you exactly this: a familiar brand name. In less than four years, the Congress of Motor Hotels, with 700 members throughout the United States and in Canada, has become the largest organization of its kind and is recognized from coast to coast as a symbol of finest facilities and service.

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*Now, you may buy, build or convert to a CONGRESS INN of your own!*

If you are interested in investing in the profitable motel industry, or if you are interested in a "brand name" for your present facility, we would like to correspond with you.

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## ALL THE RIGHTS OF PRIVATE OWNERSHIP!



Bert M. Olden, Pres. Congress of Motor Hotels

### WHAT IS THE CONGRESS OF MOTOR HOTELS?

The Congress of Motor Hotels was organized in 1955 to provide the independent operator with a means of identity, and strength through cooperation with fellow members. Through a united program of advertising and guest referrals, Congress offers its members an opportunity for increased business, including the impact of listing in 2,000,000 Guide Books each year; no-cash-cost advertising, through the Congress Ad-Plan; free Reservation System; affiliation with Diners' Club and American Express credit cards; Discount Purchasing Department; and many other features.

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*Which is better*—a planned program, or hit-and-miss promotion?

*Which is cheaper*—"go-it-alone" or pooled impact?

**AN ESTABLISHED NAME AND A PLANNED PROGRAM FOR MORE PROFIT**

***Congress Inn License Applications now being considered***

Write, Wire or Phone

## Congress of Motor Hotels

***Congress Inns Division***

2503 Santa Monica Boulevard
Santa Monica, California EXbrook 5-2071

# Courtyards for living and working as well as for viewing

Art Hupy Photo



**IVAR HAGLUND RESIDENCE**, Seattle: William G. Teufel, landscape architect.

*"The court was designed as a multifunctional space for entry, outdoor use and direct vision from within."*

A WELL-DESIGNED COURT should have an order that becomes an integral space relationship with the function of the architecture. It can be either active, passive or transitional. However, it has to interlock and be a part of the total idea; otherwise, it will fail. A court should compliment the physical detail and spirit of the architecture in its basic order. But the plant materials or other elements should offer relief to the highly disciplined order of today's design.—WILLIAM G. TEUFEL.

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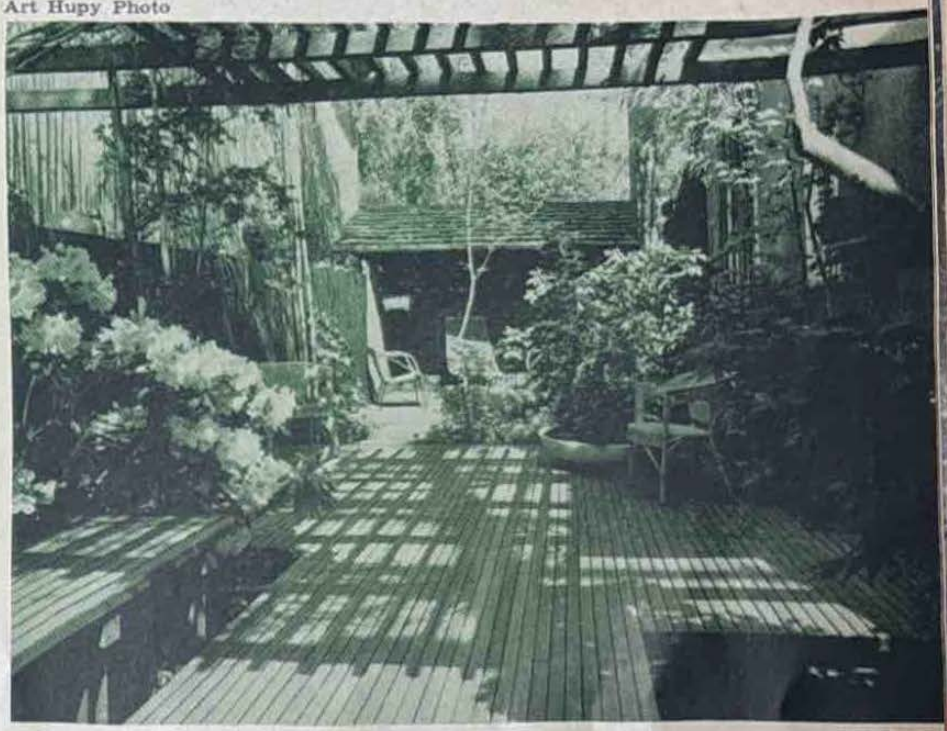
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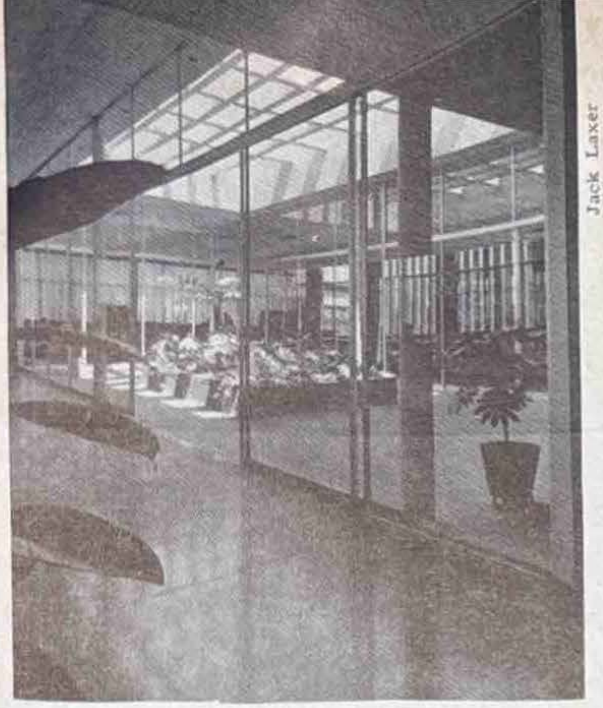
Art Hupy Photo



**IVAR HAGLUND RESIDENCE,** Seattle: William G. Teufel, landscape architect.

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Jack Laxer

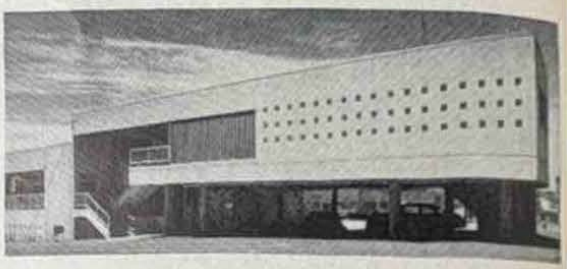
**CHAMBER OF COMMERCE BUILDING,** Los Angeles: Heitschmidt & Thompson and A. C. Martin, associated architects-engineers; Cornell, Bridgers & Troller, landscape architects.

*"The interior court is entirely surrounded with glass to introduce natural light inside the building and visual interest to the space."*

*"The court adjacent to the cafeteria (cover photo) provides an outdoor dining area and admits light to the meeting and luncheon rooms as they are situated below the normal grade. The enclosing brick wall with espaliered planting reduces street noises and offers a restricted but pleasing vista from the adjoining rooms."*

*"Located in a commercial district, the second-story tiled court separates the private office and living quarters of the owner and immediately establishes a residential quality. The louvers can be opened on warm days, closed on windy or rainy ones."*

**KUNEY-JOHNSON BUILDING,** Seattle: Paul Thiry and William Aitken, associate architects.





Art Hupy photos

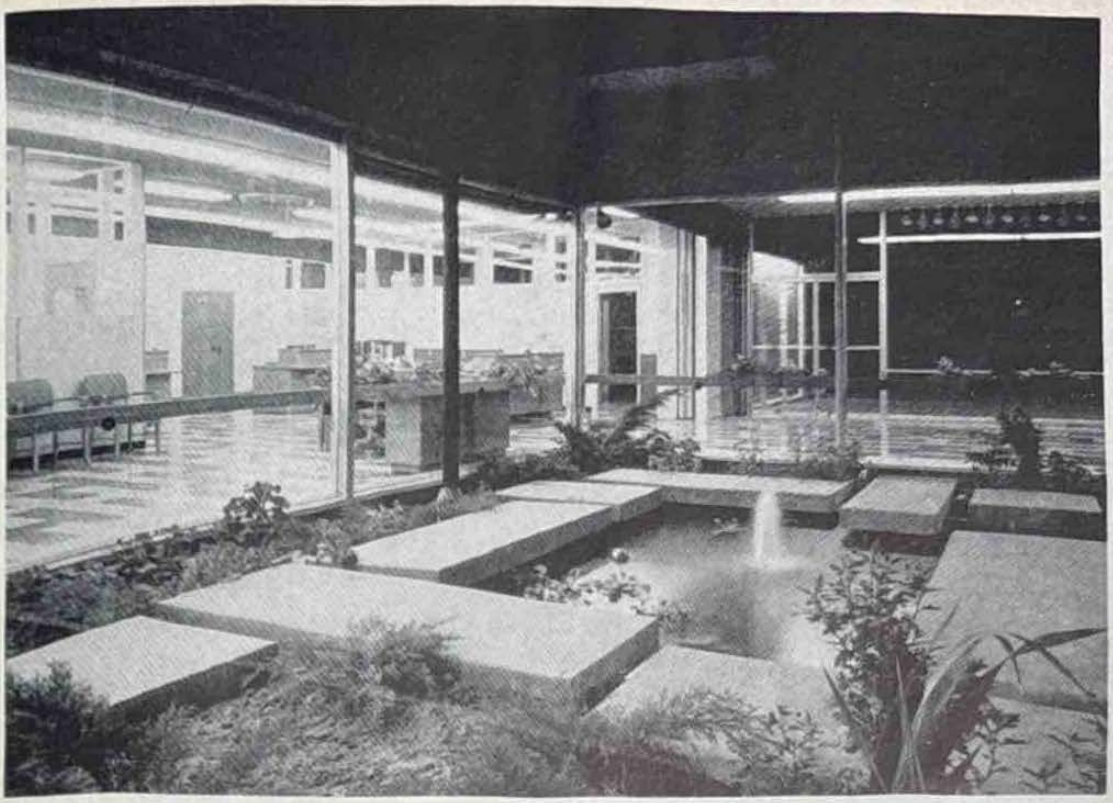
Stone & Steccatti



**BOARDWALK SHOPPING CENTER,** Belvedere, Calif.: John Lord King, architect; Thomas D. Church, landscape architect.

*"The courtyards — a second is not shown — give flexibility in locating small shops and additional corners for identification in different directions and traffic areas; lend general interest not only to the architecture but to the landscaping which is an important feature of the whole design; provide good protection from the wind, a significant factor in this particular site, and develop an outdoor eating area which has become extremely popular and presently is being enlarged for serving dinners."*

Art Hupy

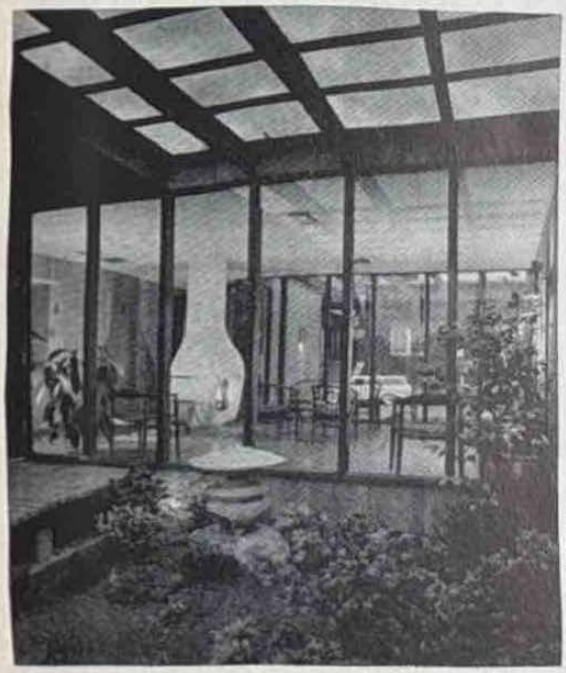


**BENTON COUNTY PUBLIC UTILITY DISTRICT ADMINISTRATION BUILDING,** Kennewick, Wash.: Bassetti & Morse, architects; Eckbo, Royston & Williams, landscape architects.

*"The enclosed space between the auditorium and office area creates a pleasant outlook for employees and an attractive entry."*

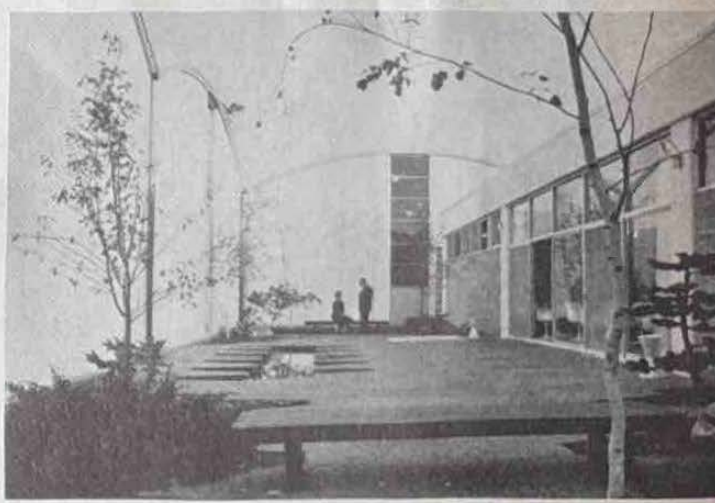
*"This and another court help to avoid a sterile, clinical appearance and to produce an intimate atmosphere in the quarters shared by five doctors in a residential district."*

**HOYT STREET CLINIC,** Portland: Skidmore, Owings & Merrill, architects; Walter and Florence Gerke, landscape architects.



Dearborn-Massar

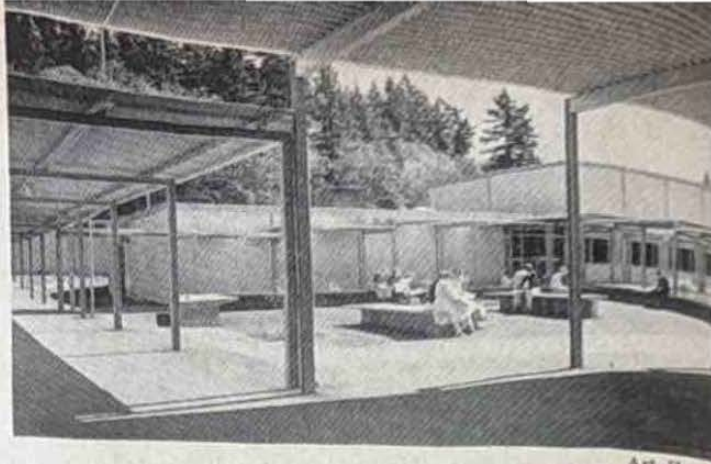
Tom Vano



**PARKE, DAVIS & CO. BRANCH OFFICE-WAREHOUSE BUILDING,** Menlo Park, Calif.: Yamasaki, Leinweber & Associates, architects, and Knorr-Elliott Associates, associate architects; Lawrence Halprin, landscape architect.

*"The courtyard is used as an interesting space result of integrating the office building and warehouse. Rimmed with redwood benches, it can be entered through sliding glass walls from the dining room at the right."*

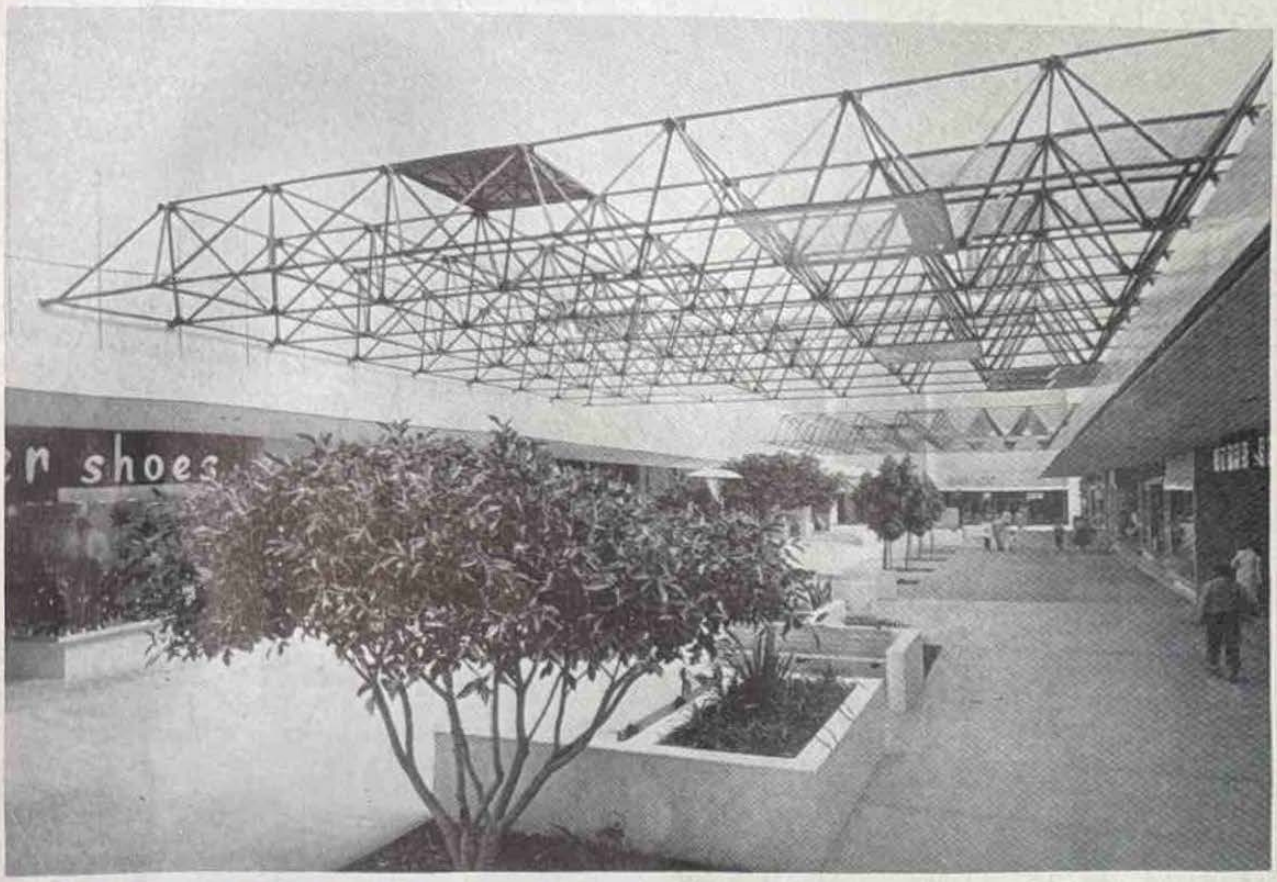
## COURTYARDS FOR LIVING AND WORKING



Art Hupp

**OLYMPIC VIEW JUNIOR HIGH SCHOOL,** Mukilteo, Wash.: Waldron & Dietz, architects; Roberta Wightman, landscape architects.

*"The courtyard forms a transition from one building element to the other and an area for sitting and relaxing. No less important, it gives to the student an esthetic lift so lacking in our everyday environment."*

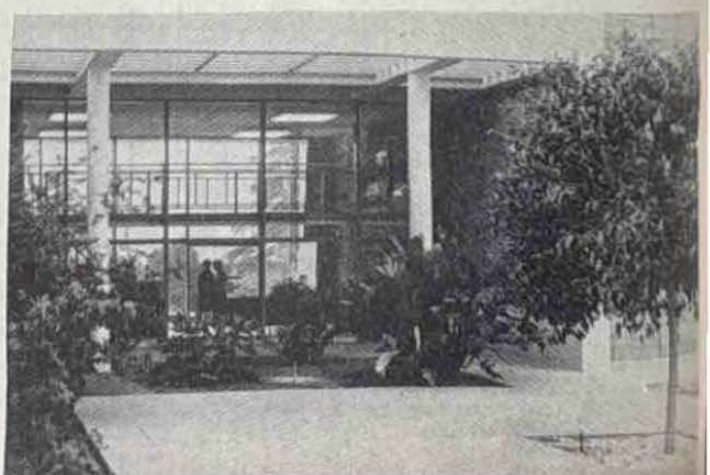



**EASTLAND SHOPPING CENTER,** West Covina, Calif.: Albert C. Martin & Associates, architects; John Ratekin, landscape architect.

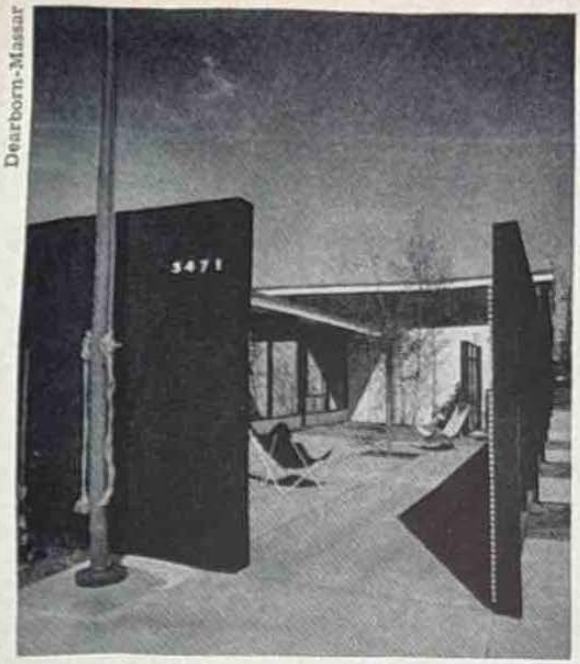
*"The overhead decorative structure in the mall area creates a sense of intimate scale by defining height; carries out the triangular theme of the center; provides interesting shadow patterns and patches of reflected color through the use of transparent panels."*

**RIVERSIDE CEMENT CO. OFFICE-LABORATORY BUILDING,** Crestmore, Calif.: Allison & Rible, architects; Edward Huntsman-Trout, landscape architect.

*"In the hot climate of Riverside, this court provides a colorful landscaped outlook from full-height windows in the administrative and business wing of the building. Development of design includes the use of different types of cement produced by the owner."*



Dearborn-Massar




**CITY OF TACOMA FIRE STATION;** Robert Billsbrough Price, architect; Lawrence Halprin, landscape architect.

*"Placed on the sunny side of the structure and screened from passing traffic by planting and fences, the court is used as an auxiliary summer lounge area."*

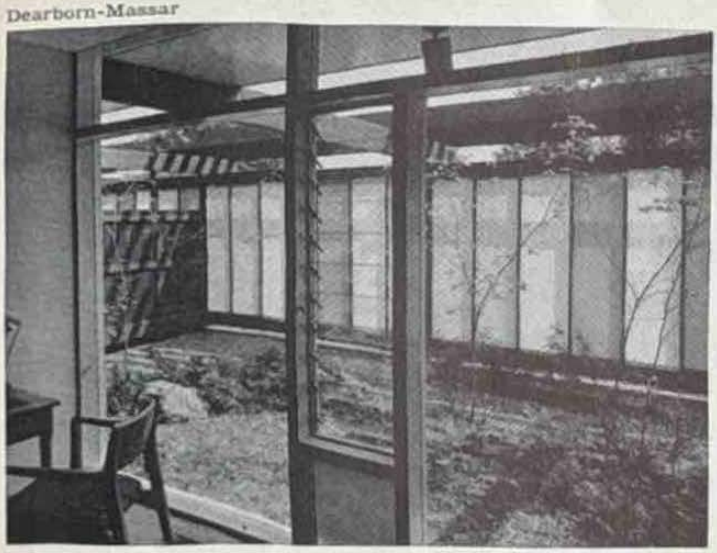
*"The space is a visual extension of the interior through the use of sliding doors and repetition of white concrete flooring. It adjoins the kitchen and living areas for outdoor dining and dancing under the stars. At other times it is a private sun trap screened from wind and view by a small pine forest.*

**LLOYD RUOCCO RESIDENCE,** San Diego: Lloyd Ruocco, architect.



Douglas Simmonds

Dearborn-Massar

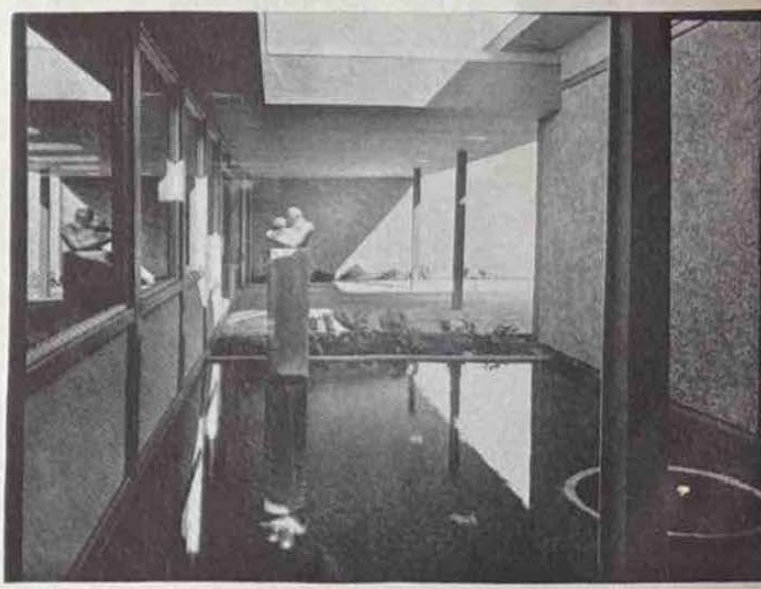


**BLAKELEY PSYCHIATRIC GROUP,** Seattle: Paul Hayden Kirk & Associates, Donald S. Wallace, David A. McKinley, architects; Glen Hunt, landscape architect.

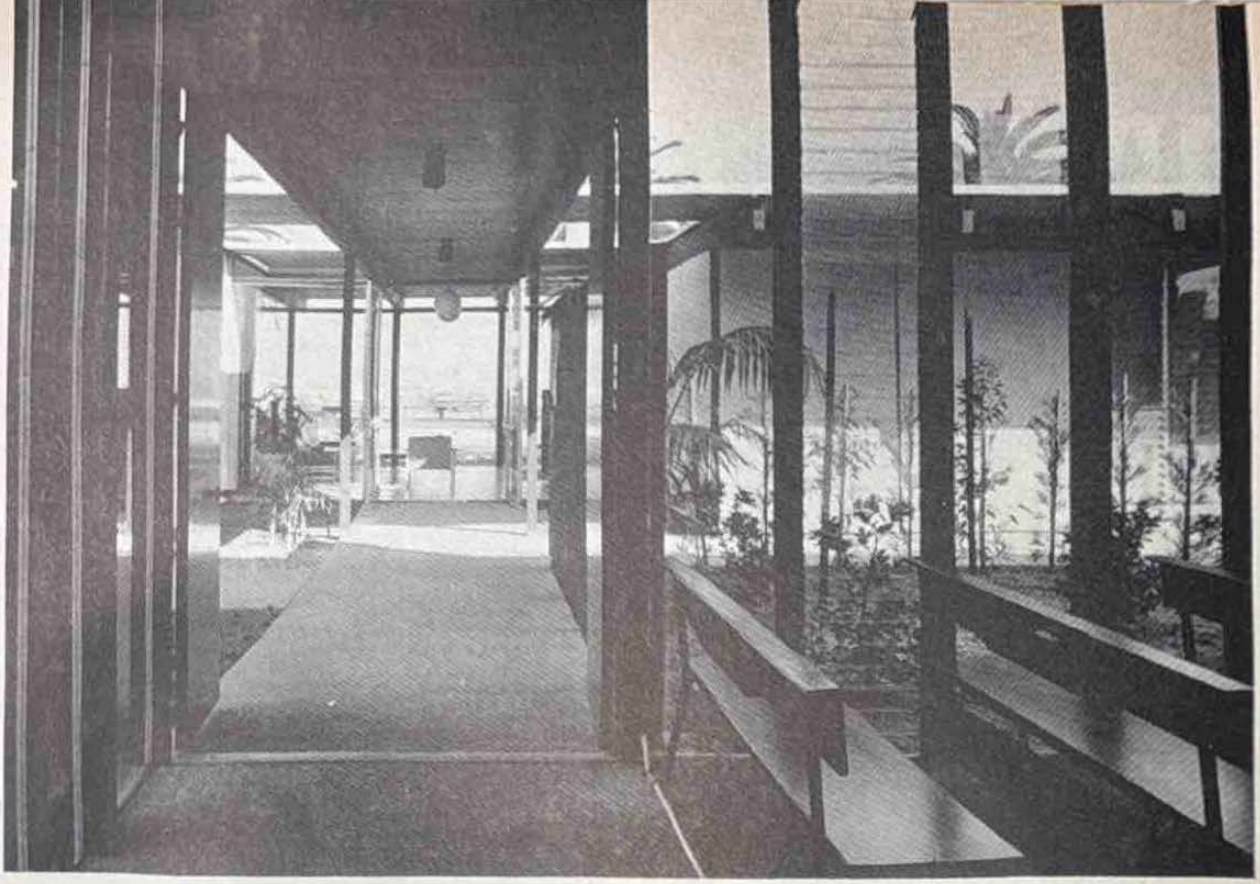
*"All the psychiatric treatment rooms visually open into a controlled garden which enables the patients to have a vista of some interest and a sense of being with nature—an air of response and relaxation. The courts are oriented so that all rooms receive either north or south light. The latter have trellis members to shield them from direct sunlight and this north-south orientation, coupled with the translucent colored plastic screens, gives an interplay of light and shadow."*

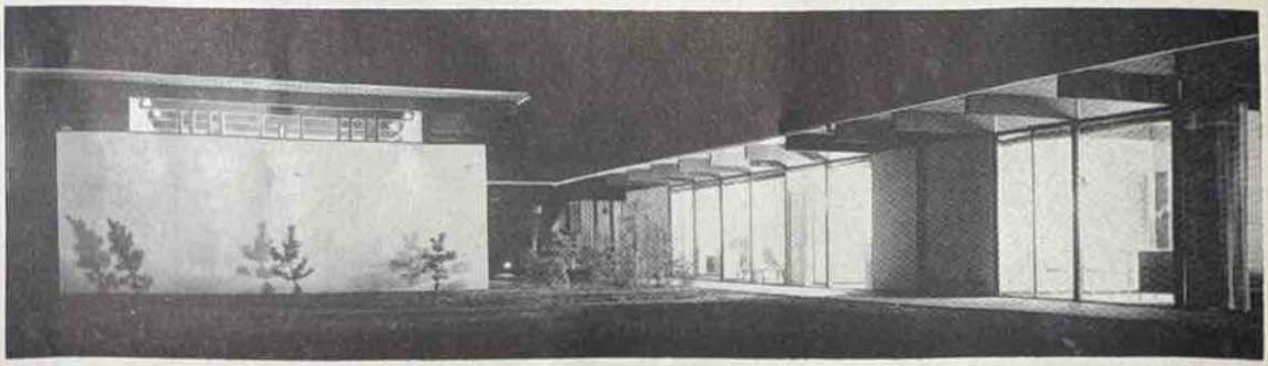
*"The courtyard provides a visual retreat from the chaos of downtown activity as well as an effective setting for the structure. It has been used for art exhibits and summer story hours."*

**SPRINGFIELD (ORE.) PUBLIC LIBRARY:** Lutes & Amundson, architects-community planners; Wallace Ruff, landscape architect.



Tom Burns Jr.





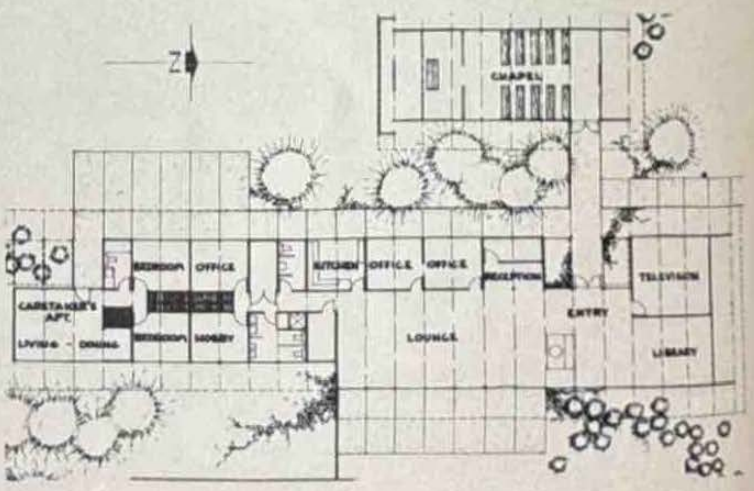
Seaman's Center Building
San Pedro, California

CARLETON WINSLOW
Architect

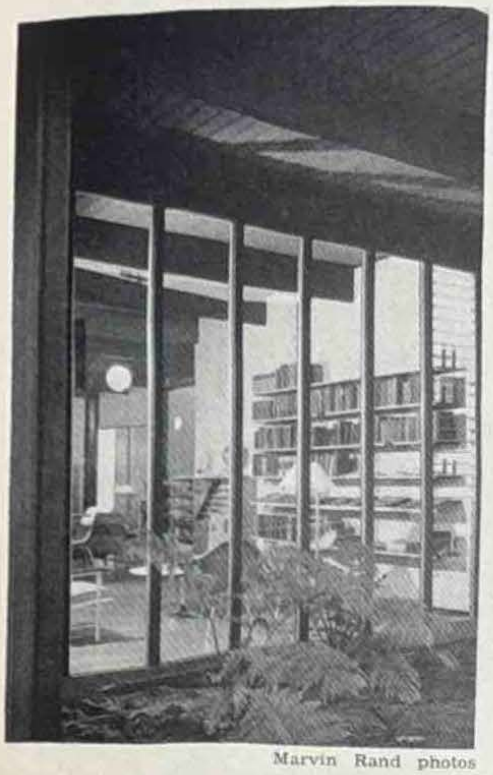
WARREN WALTZ
Project Director

ANDREW JONCICH
WILLIAM LUSBY
Associate Architects

FRANK SEBESTA
General Contractor

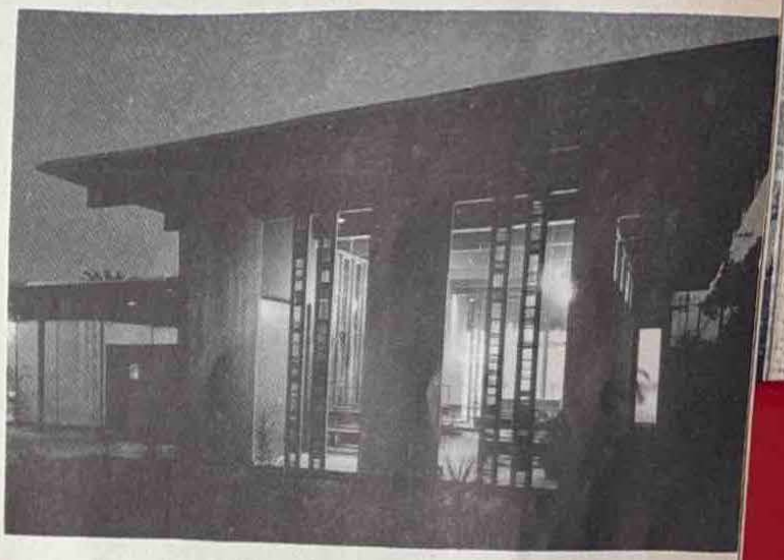


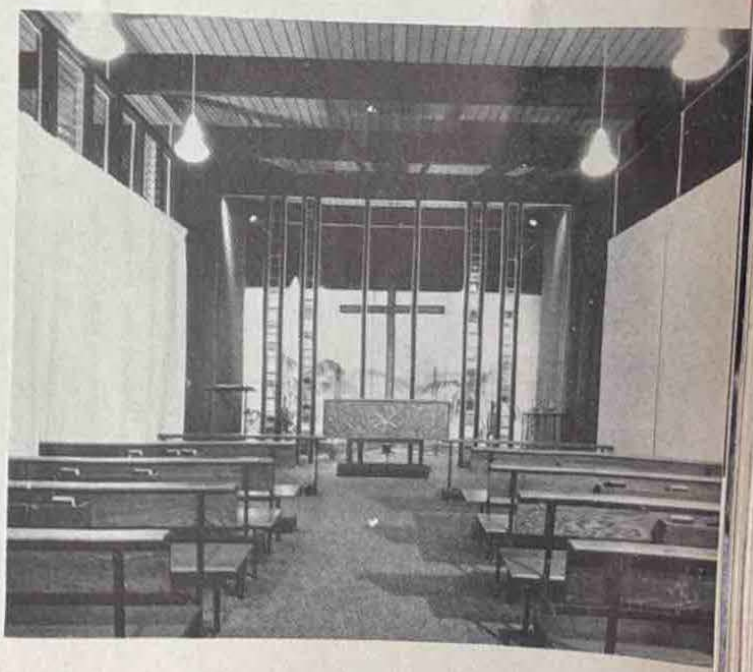
# A happy integration of two distinct functions



Marvin Rand photos

SINCE it was deemed desirable to have two separate structures, the main problem here was to integrate a chapel with a larger essentially non-religious building to house recreational facilities for merchant seamen away from home. Thus the smaller chapel by virtue of a higher roof dominates its companion, whose extension of beams creates a covered passage and unifies the buildings, both fitted to the same module. The pure lines and crisp detailing of the wood frame complex are relieved by a generous use of glass set in aluminum, by accents of intense color and by extensive landscaping which relates the project to its site overlooking the bay.





### OUTLINE SPECIFICATIONS

**Structure:** foundation: concrete; frame: Douglas fir; roof: 2-in. wood joists; floor: concrete slab.

**Exterior Finish:** metal edged plaster panels and glass with redwood inspots.

**Roof Surfacing:** tar and gravel.

**Windows:** fixed glass louvers.

**Doors:** flush wood.

**Floor Surfacing:** vinyl asbestos—(Matico) Mastic Tile Corporation of America.

**Interior Finish:** Painted plaster.

**Ceilings:** t&g Douglas fir.

**Lighting Fixtures:** incandescent—Prescolite Manufacturing Co.

**Heating:** hot water radiant floor panels, copper tube boiler— Raypak Co., Inc.

**Plumbing and Sanitary:** Crane Co.

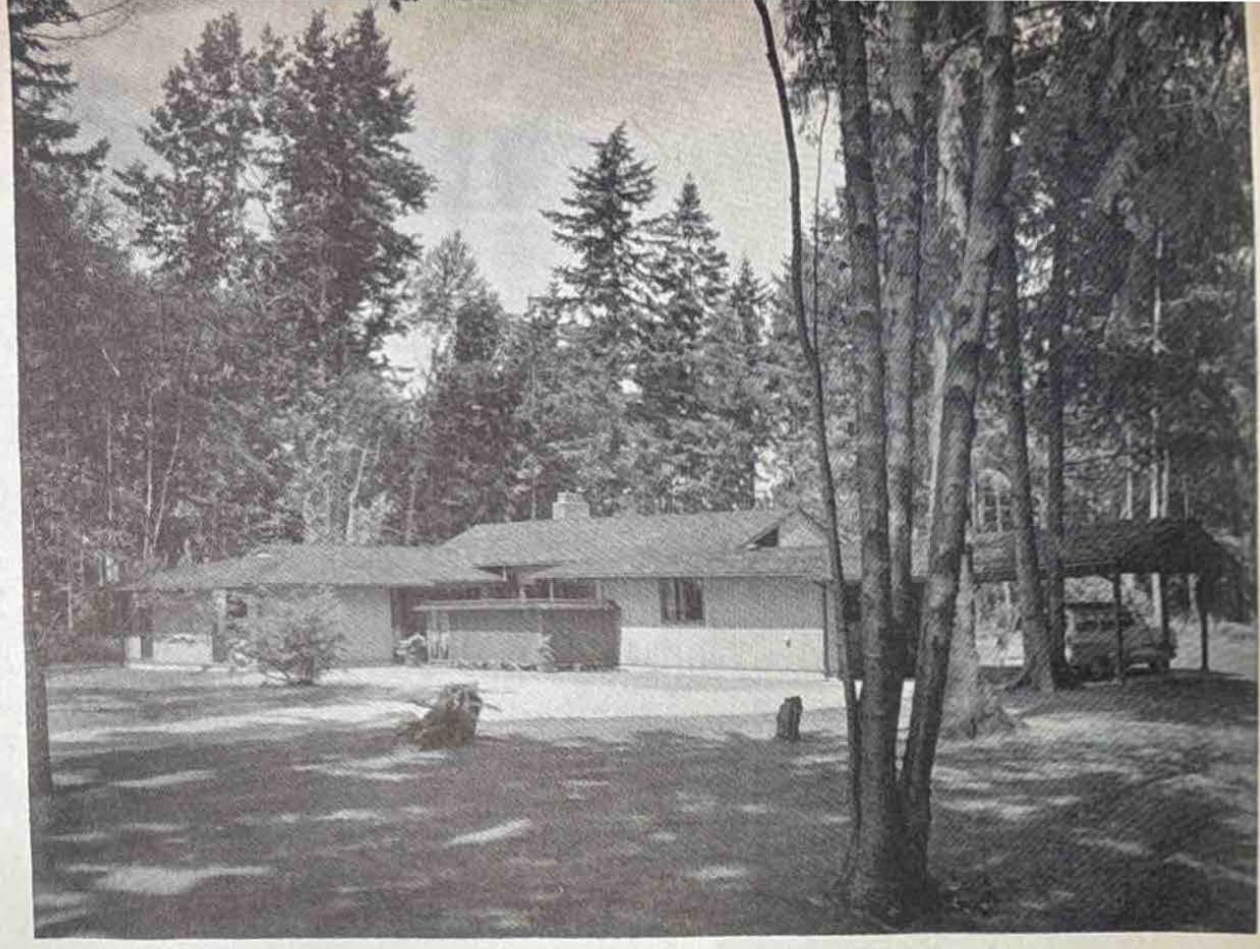
**Total Area:** 5,000 sq. ft.

**Total Cost:** $58,000.

**Cost per Square Foot:** $11.

**Date of Completion:** November 1958.

**ALTAR AND CROSS,** which stands in garden behind glass wall, both are inlaid with plastic and mosaic executed by Dale Owen. Ceramic plaque at opposite end (behind wall panel in top photo) is work of Betsy Brown. Chapel furnishings, including iron and wood pews, were designed by Warren Waltz.



# An informal wood house in keeping with the site

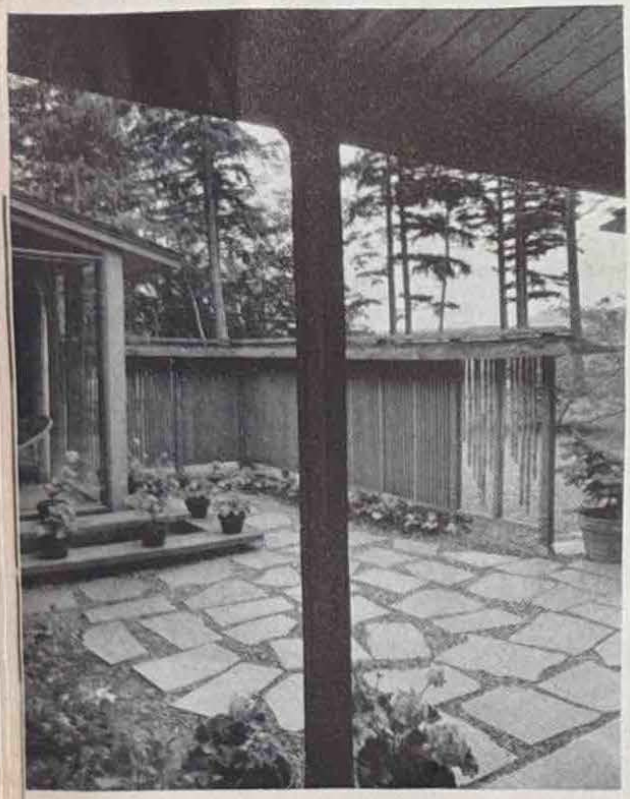
Dr. Eldee L. Schneider Residence
Mount Vernon, Washington

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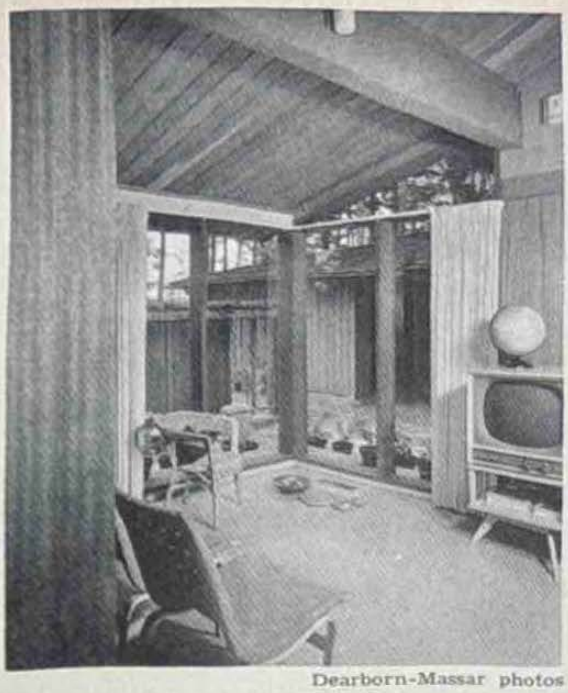
HENRY KLEIN
Architect

NORMAN L. OMODT
Mechanical Engineer

BUSTAD CONSTRUCTION CO.
Contractor





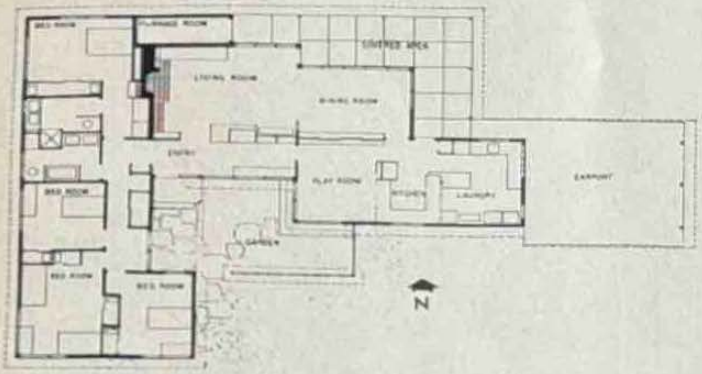


Dearborn-Massar photos

THE VARIETY of interests and requirements of the doctor, his wife and four children called for an informal plan; wood was employed throughout for reasons of fitness—a 240x280-ft. lot within the city limits—, economy and availability. The dominant roof unifies the exterior and adds interest to the interior where the ceilings follow the slope. Only in the halls flat ceilings conceal return air ducts. Where privacy so dictates, partitions are full height. Principal colors on the outside are gray, brown and dark green; inside the wood is treated with natural stainwax but plaster surfaces are in blues and tans.

**DINING ROOM** is separated from kitchen by bank of cabinets. Folding door in foreground divides dining and living areas. Playroom (left) looks into entrance court. Windbell is incorporated in garden fence beyond.





## OUTLINE SPECIFICATIONS

**Structure**: foundation—concrete; frame: wood—Weyerhaeuser Timber Co., roof: 2x6 fir decking—Weyerhaeuser Timber Co.; floors: 4-in. concrete slab.

**Exterior Finish**: 1x8 vertical fir siding—Weyerhaeuser Timber Co.; creosote stain—Samuel Cabot, Inc.

**Roof Surfacing**: 18-in. cedar shingles; creosote stain—Samuel Cabot, Inc.

**Windows**: fir sash.

**Doors**: hollow core flush panel; folding—(Pella) Rolscreen Co.

**Floor Surfacing**: entry, Vermont slate; kitchen and playroom, vinyl asbestos—(Excelon) Armstrong Cork Co.; bedrooms, living and dining rooms, cork—Armstrong Cork Co.

**Insulation**: walls: 3-in. batt—Pioneer-Flintkote; roof: 1-in. rigid—Owens-Corning Fiberglas Corp.

**Partitions**: wood studs and gypsum lath; rotary cut mahogany cabinets, natural finish.

**Interior Finish**: painted plaster; hemlock with natural stainwax—Samuel Cabot, Inc.

**Ceilings**: fir decking, natural stainwax finish.

**Lighting Fixtures**: incandescent—Finland House Lighting Corp., Le Klint Co., Prescolite Manufacturing Corp., Kurt Versen Co.; fluorescent—John C. Virden Co.

**Heating**: forced warm air modified perimeter system with downflow furnace—Mueller Co.

**Plumbing and Sanitary**: Kohler Co.

**Total Area**: 2,200 sq. ft., enclosed; 3,261 sq. ft., roofed (including carport and porches).

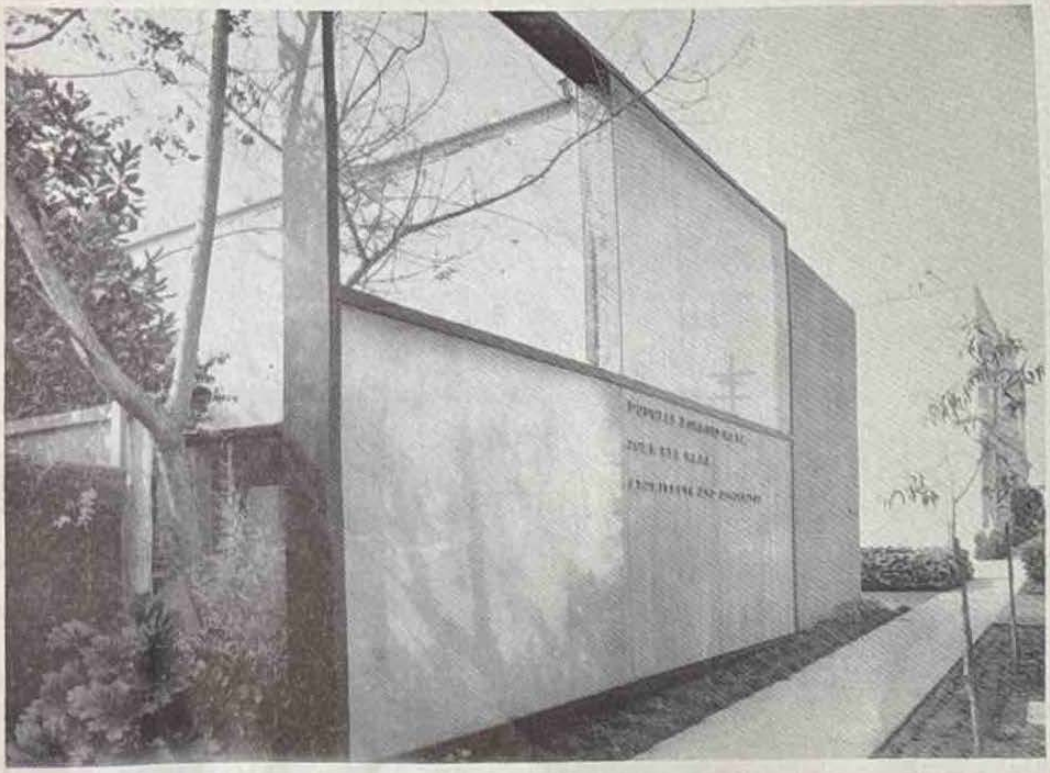
**Total Cost**: $32,541.

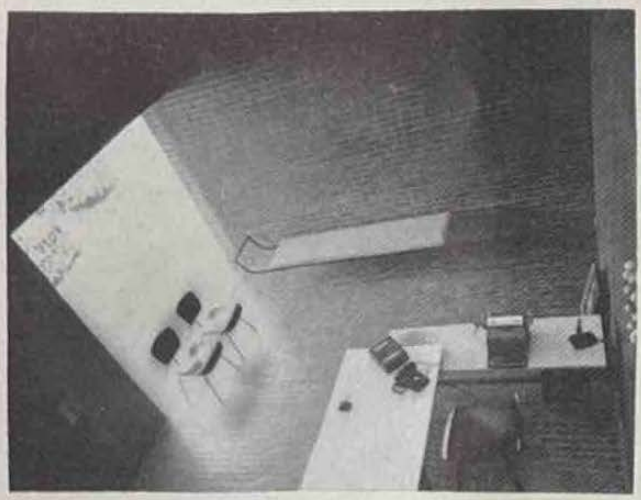
**Cost per Square Foot**: $12.75 (using one-third of carport and porch areas for area computation).

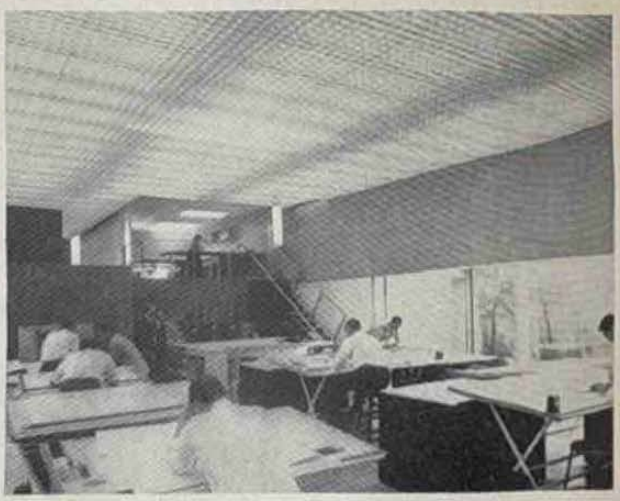
**Date of Completion**: March 1956.

# *Where architects hang their hats*

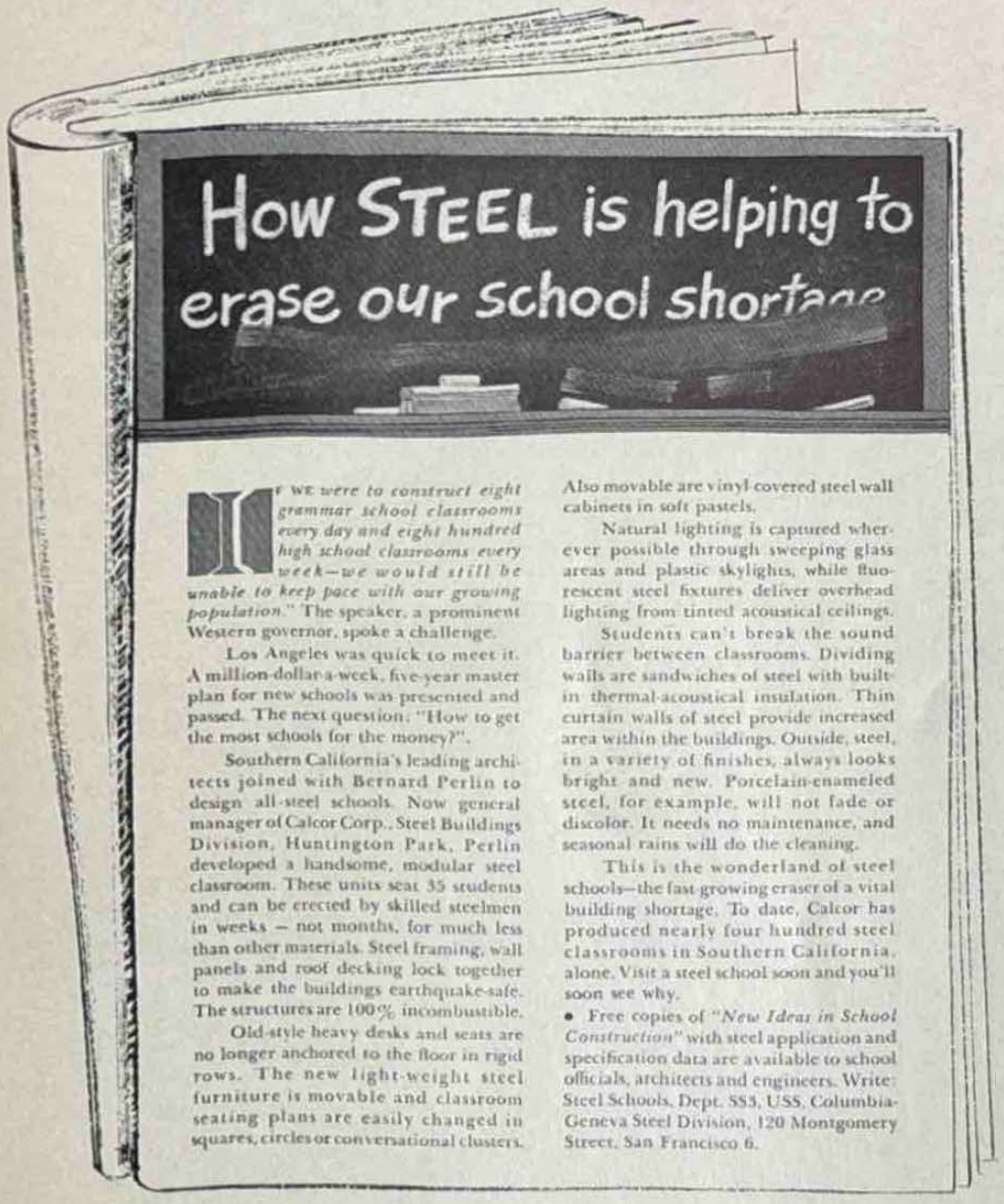
DOUGLAS HONNOLD, JOHN REX
Architects & Associates
Los Angeles, California







THE OFFICE BUILDING to which the architects moved earlier this year has been modernized and enlarged to provide for present needs and future expansion. The two principals' offices have access to a private patio. A continuous glass wall with a sliding door opens the main drafting room to a landscaped court on the east; a clerestory on the west is protected by adjustable aluminum louvers. The controlled daylight in conjunction with an integrated luminous ceiling insures virtually shadowless illumination on all drafting tables. A balcony overlooking this area houses the design department and a production room for models, graphics and presentation work.




*"If we were to construct eight grammar school classrooms every day and eight hundred high school classrooms every week—we would still be unable to keep pace with our growing population."* The speaker, a prominent Western governor, spoke a challenge.

Los Angeles was quick to meet it. A million-dollar-a-week, five-year master plan for new schools was presented and passed. The next question: "How to get the most schools for the money?".

Southern California's leading architects joined with Bernard Perlin to design all-steel schools. Now general manager of Calcor Corp., Steel Buildings Division, Huntington Park, Perlin developed a handsome, modular steel classroom. These units seat 35 students and can be erected by skilled steelmen in weeks — not months, for much less than other materials. Steel framing, wall panels and roof decking lock together to make the buildings earthquake-safe. The structures are 100% incombustible.

Old-style heavy desks and seats are no longer anchored to the floor in rigid rows. The new light-weight steel furniture is movable and classroom seating plans are easily changed in squares, circles or conversational clusters. Also movable are vinyl-covered steel wall cabinets in soft pastels.

Natural lighting is captured wherever possible through sweeping glass areas and plastic skylights, while fluorescent steel fixtures deliver overhead lighting from tinted acoustical ceilings.

Students can't break the sound barrier between classrooms. Dividing walls are sandwiches of steel with built-in thermal-acoustical insulation. Thin curtain walls of steel provide increased area within the buildings. Outside, steel, in a variety of finishes, always looks bright and new. Porcelain-enameled steel, for example, will not fade or discolor. It needs no maintenance, and seasonal rains will do the cleaning.

This is the wonderland of steel schools—the fast growing eraser of a vital building shortage. To date, Calcor has produced nearly four hundred steel classrooms in Southern California, alone. Visit a steel school soon and you'll soon see why.

• Free copies of *"New Ideas in School Construction"* with steel application and specification data are available to school officials, architects and engineers. Write: Steel Schools, Dept. SS3, USS, Columbia-Geneva Steel Division, 120 Montgomery Street, San Francisco 6.

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# New eyes for old: the perspective of a new people on a landscape immeasurably old

by STANLEY WHITE

THE TITLE, recalling the lamp of Aladdin that contained a miraculous spirit with the power of fulfilling wishes at the asking, merely suggests the present situation where unbelievably great power and opportunity now lie before us. We live in a stream of activity and thought never before known, plunging in dizzy flight at top speed into a great unknown, where the scientist points to science, the educator points to education and many of the faithful point to God for attaining something hoped for but little understood in any sort of universal focus. No two people agree on what this should be.

A widely read magazine tells us that America could be beautiful if we would devote ourselves to culture but neglects to identify the culture in its historical or timeless sense of a population growing up normally on a particular soil or landscape. Another periodical reviews a Frenchman's idea that we are now, as the Romans were, ready to turn over our country and ourselves to the Caesars or dictators who will growl and fight and eat each other up until the earth settles down to a primitive old mud puddle open to the sunshine and to the seeding of new cultures.

Book after book rolls off the press with warnings against the violation of the planet itself. One in particular: "Country Relicts" by Massingham shows how the Age of the Machine, instead of merely providing all the people with all the necessities and luxuries, is actually moving whole populations off of their landscape—and out of their culture—into institutions for mental health.

All our calculations for planning of every sort are underlain by a growing population becoming wealthier in dollars that are getting smaller and smaller, with vast fiscal implications. We think we are in an unending age of prosperity and we intend this time to make it stick.

While the cities deteriorate at the core they grow all around the edges. We move from the country into the city, then move out of the apartment into the automobile and ride out again into the country. It is all very costly but we pay for it by financing. The bill is startling but everything is insured.

Frequently the thought comes to us that if we could slow down the headlong pace to permit of more time for thought, or if we could more quickly train people in sufficient numbers to carry on the amount of study needed, we think there would be greater conservation of those resources such as the very configuration or countenance of the earth that are everywhere being wiped out by ruthless digging for impermanent kinds of wealth. When the early settlers first arrived in what they called the new world they found an extraordinary landscape of rare beauty and proceeded at once to take it to pieces. After about two centuries landscape architects began to help put it together again, trying to make it worthy of the verses of the song of the little children: "I love thy rocks and rills, thy woods and templed hills." But the bulldozer turned up to make destruction quicker and cheaper, and we are frantically extending the mutilation to a new high.

## The city is many things

Against this background of fabulously bewildering and mostly frightening circumstances, we find a large number of thoughful people courting attention to their ideas and talents as pointing to a definite solution to the many vexing problems.

The city is engineering, says the engineer very rightly, and he presents us with the streets, bridges, aqueducts and sewers that, of all things, make up the indispensable network of facilities that form at once the immovable cryptomorph leading to the eventual petrifact. There is some truth in the analogy between cities and organisms of nature, where the spores of death are sown with the germs of life. But look around you and see that the houses are to be found clustered around the great sewers even more than they are along the highways, which may come later, or sometimes never.

The city is a vision of magical charm, says the architect, pushing the towers up through the clouds ever higher and higher to achieve the ultimate symbol and incidentally to create the maximum population density.

The city is misery and evil, says Theodore Dreiser and Victor Hugo of Chicago and Paris and O. Henry of New York. A thousand others have written of the hopelessness of the lives drawn into the net of human bankruptcy the crowded city appears to be. All these are allegories, pointing for relief to the great qualities to be found guiding all human destiny called soul, spirit or conscience.

The city is concentration, says Brooks Adams, sitting up all night with his brother, Henry, reporting dismally on what he calls greed and putting the blame on money and trade as the embodiment of evils, opposed to virtuous pursuits.

The city is civilization itself, says the gloomy philosopher - historian, Spengler, in about a thousand pages of informed comment on all cultures that have bloomed, born fruit, and rotted of the same impulse that brought them forth. Destiny, says he.

Default, said my father, riding the top of a bus down the length of Fifth Avenue and pointing at all the half-empty new office buildings with an accusing finger. They defaulted on their bonds.

The city is total landscape architecture, reportedly said the eminent architect, sailing over Chicago and finding it green. But a wonderful wizard had long ago discovered a mechanical way of accomplishing this amenity by providing people as they entered the city gates with green spectacles—probably the most ingenious and economical city planning that has ever been effected. Landscape design, however, goes much deeper than that and there is great need to make its functions clear. Whereas any piece of construction requires, of necessity, the sacrifice of the ground on which it stands, a careful fitting of the subject to the situation can reduce the area of destruction and bring the amount of mutilation of the surroundings to a minimum. It is not so much that needless damage to abutting property is done by heedless building operations, but that incompetent design of the whole city areas as suggested by both ground and building forms may impose sacrifices of visual and practical amenities far beyond any necessity. The landscape, even of the city, and its design are inseparably to be identified with all trends in our present actively moving lifetimes, where the new attaches itself to the old and, bluntly calling itself progress, goes to work at the modification or total obliteration of existing things, ideas and habits.

But during the time when the culture is in its early springtime, through

Continued on page 43

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An address delivered by the professor of landscape architecture at the University of Illinois before the College of Architecture and Urban Planning at the University of Washington.




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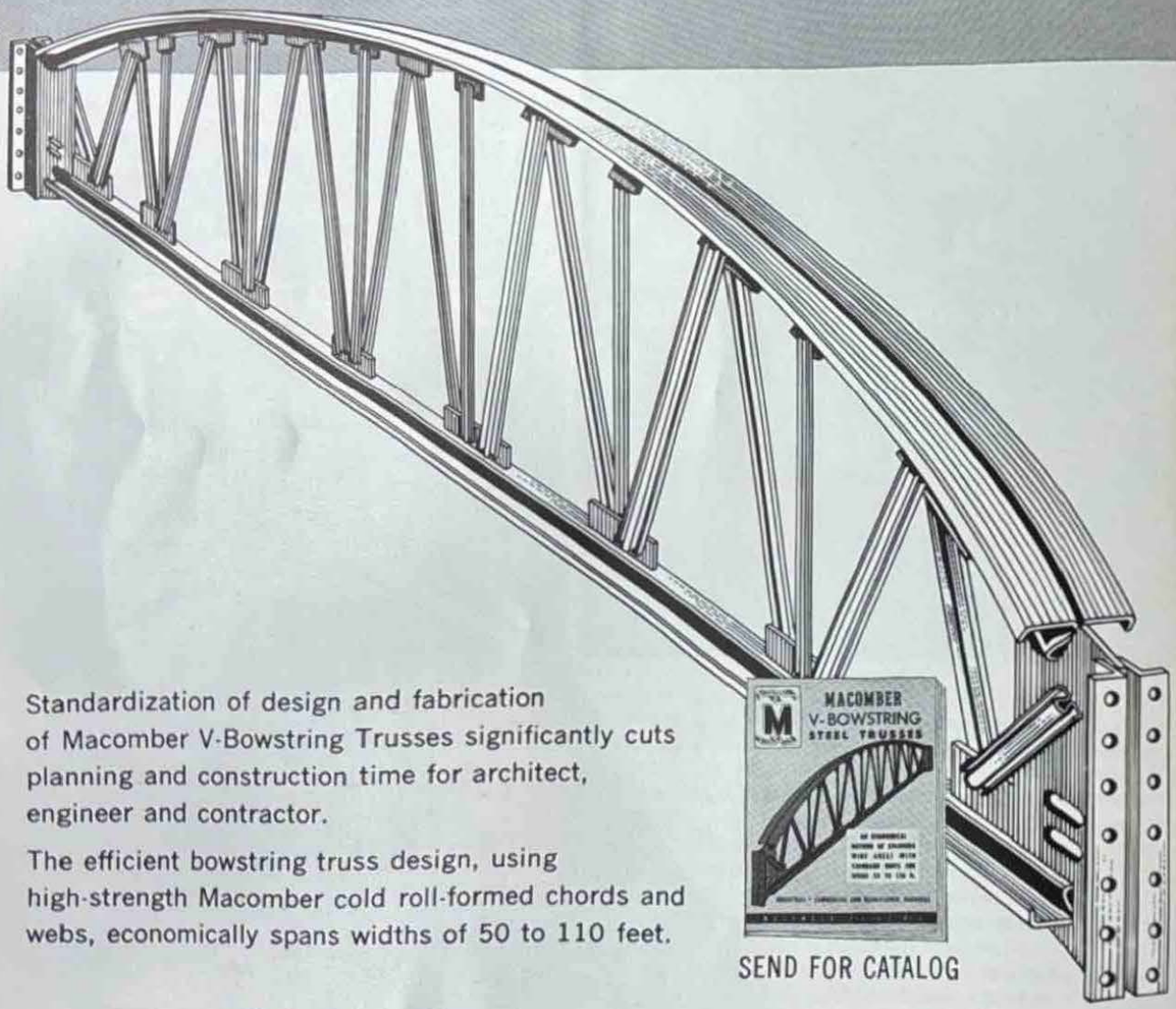
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# BIG cranes: construction's latest boon

Because of their tremendous reach—the largest is 24 stories high—and maneuverability, the German-developed cranes which appeared on the U.S. building scene last year have been living up to advance billing on jobs requiring the use of more than one standard model. One of these giants has made its way to the West Coast where it is expected to take the place of two regular cranes and at least one materials handling tower and to cut construction time by more than 20 days.

Introduced in Los Angeles by Beatty Scaffold, Inc., the crane is being employed by McNeil Construction Co. and Vinnell Co., Inc., steel fabricator, on the new Pacific Fidelity Life Insurance Co. office building, designed by Welton Becket & Associates. While this particular project is only six stories high, the Beatty-Peco model can stretch itself from a horizontal position to a maximum 17 stories in less than 10 minutes, lifting a 4½-ton load to that height in one minute flat. At lower heights, up to about 10 stories, it can lift nine tons.

The crane's jib can reach out about 100 ft. in any direction, pick up a two-ton load, lift it high enough to clear a 10-story building and swing it into place 100 ft. in the opposite direction. The time: less than one minute. This 200-ft. carry represents the crane's reach when it is stationary, since it can also travel along its track while lifting and turning. Just enough track is laid to give the crane a base position, then it goes to work laying its own ties and rails to run a track completely around the building site if need be.

### Two levers do all the work

The driver operates just two levers and all of the crane's actions—lifting or lowering, turning, luffing and traveling—can be carried out simultaneously or independently at a choice of four different speeds. The operator can work from any one of three driving posts: at the base of the tower, midway or high up directly under the jib point, depending upon which position gives him the best view of the work at hand. Or he can operate the crane from a position anywhere on or near the jobsite by means of a remote control unit small enough to carry under his arm.

The crane travels from site to site without dismantling it. It can be towed by a heavy truck with rear cab steering such as is used by hook and ladder units. (The largest size has its own prime mover.) Removal of the transport axle is accomplished by the use of the luffing winch which raises the base of the crane off the axle. After the installation of the ballast, the same winch is used to erect the crane into working position. In 1½ hours after arrival on the building site, it can be ready to go into operation.

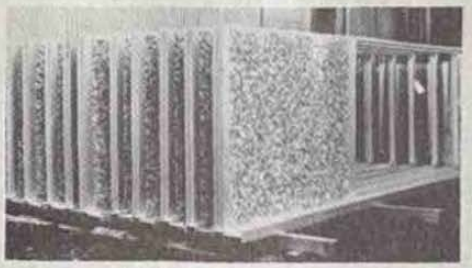
Alfred Faillace, chief engineer of American Pecco Corp., New York City, charted materials handling costs on jobs in eastern states where his company's crane was used, buildings ranging in height from six to sixteen stories. "The crane's ability to feed materials to all work sections of a floor area — concrete pouring, steel placement, formwork and electrical work—saves from 15 to 25% of the work-cycle time on each floor. Averaging out the costs on complete jobs versus costs by standard methods, as estimated by the contractors in charge, it was shown that the Beatty-Pecco crane cuts materials handling costs by 20¢ per square foot."



**CRANE** towers 17 stories high during jobsite demonstration in Los Angeles.

## Glass mosaic curtain wall makes Northwest debut

First National Bank of Oregon's new office building in downtown Portland is the first in the Northwest to employ a new type of glass curtain wall construction: imported Italian blue mosaic in five shades mounted in Reynolds aluminum wall sections. (Major use of this mosaic in California is the City National Bank of Beverly Hills.)



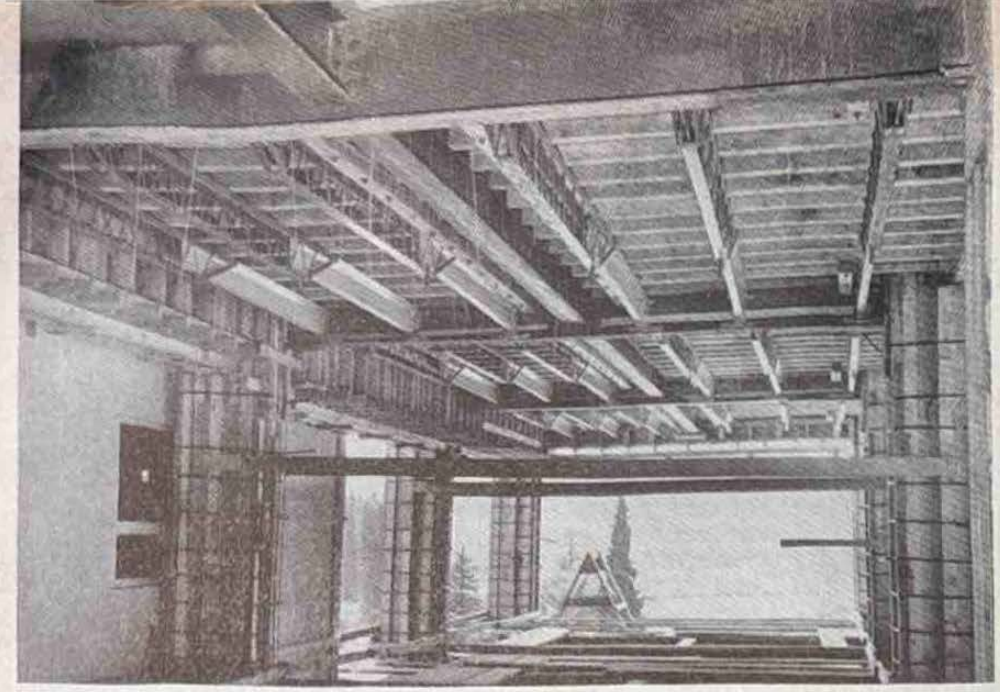


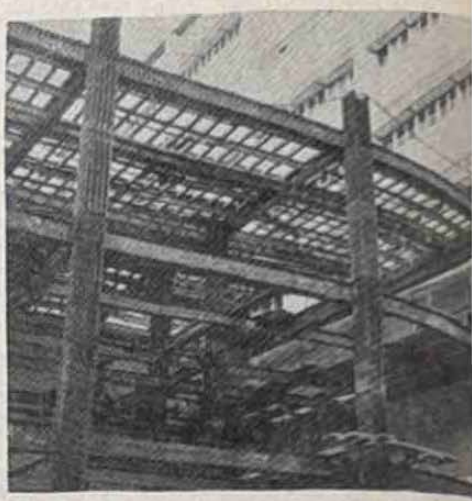
**ALUMINUM SASH** with completed mosaic glass sections are ready for installation as exterior wall of bank building in Portland. In this type of curtain wall construction, sections are hung from building frame, not set into it.

Universal Corp. of Dallas fabricated the panels—540 in all—in a Portland plant for Hoffman Construction Co., general contractor on the $3½ million project. The architectural firm of Stanton, Boles, Maguire & Church designed the building.

Fabrication of the panels starts with extruded sash, roughly 5x10 ft. Small squares of the imported glass are fitted face down into a 4-ft section at one end of each sash. Backside of the mosaic is covered with grout to fill the cracks, waterproof the surface and bond it to a concrete backing.

Next, metal reinforcing mat is fitted into place. Bolts and anchor eyes for hanging the panel to the building frame are affixed to the reinforcing metal. Final step is pouring of a 3-in. layer of concrete up to the rear edge of the aluminum sash.





**STEEL SPANS** shown in place before decking is installed (above) and supporting heavy framework. Note how spans are supported on flanges by means of 4x4 wedges.

## Roof is poured first on unusual job in Seattle

Reversing the usual order, W. G. Clark Construction Co. poured the concrete slab for the roof first on the Dr. Samuels Institute Building at the University of Washington in Seattle.

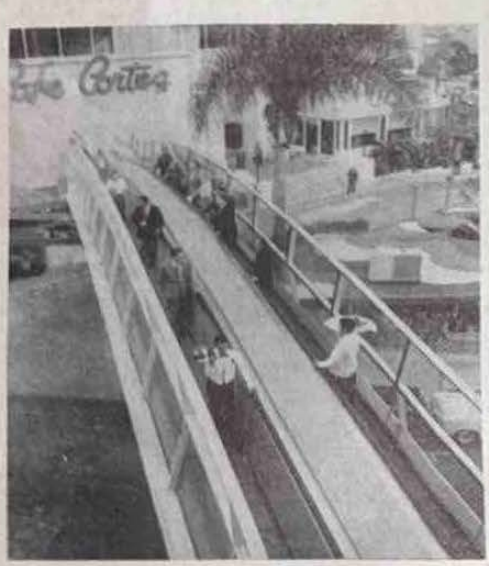
The 4x4 bolted frame and ¾-in. plywood deck to support the concrete slab were carried on Acrow span units, supported on 4x4 wedges resting on the lower flanges of the cross beams. All spans ran lengthwise of the panel.

Concrete floor slabs are 4½ in. thick. The largest slab poured was 18x10 ft., the total 18,000-lb. weight of slab and forms being carried by three Acrow units. To lower the formwork—the size of the net area of the panel—without damaging any part of it, the spans first were freed by loosening the bolts and telescoping the members sufficiently to clear the flanges. Next the entire form was dropped slightly to free the underside of the slab. Finally the form, with spans attached, was tipped cornerwise to pass the flange of the beam, then lowered to the floor below and placed to receive the next slab pour.

The entire operation was handled rapidly and easily by three men working from a wood scaffold hung from the flanges of the exposed beams, comments James B. Dodge of Van Daal Distributors, Acrow supplier in the Northwest.

The roof will eventually become the fourth floor since plans prepared by Naramore, Bain, Brady & Johanson called for a 15-story structure. However, the contract as awarded was for three floors, roof and penthouse.

## Moving sidewalks transport San Diego visitors



**ARCHING** 127 ft. across normally busy street, moving sidewalks connect new motel and garage with existing hotel, are outlined by neon lights at night.

The world's first Travolator developed by Otis Elevator Co. connects the main building of the 251-room El Cortez Hotel with a new 138-room motel and 500-car parking garage in downtown San Diego.

The moving platforms carry guests and employees back and forth on a series of safety cleated platforms which incorporate the same features as found in modern escalators. They are capable of accommodating up to 7,500 persons per hour in each direction. Open to the sky, the conveyors have glass railings and brightly colored panels, outlined at night by neon lights.

The next Travolators to go into service probably will be in the Bank Street station of the London underground, where Otis is installing the equipment in a sloping, 300-ft. tunnel connecting two busy rail lines.



## A few ideas on prestressed and architectural concrete

*Summaries of three papers presented at the annual convention of the American Concrete Institute in Los Angeles*

**Precast and Prestressed Folded Plate Slabs**—Harry H. Edwards, president, Leap Concrete, Inc., Lakeland, Fla.

Prestressed precast folded plate concrete slabs offer tremendous potential for widespread use in buildings for roof, floor and wall construction and in highway bridges. A relatively low capital investment in prestressing facilities will produce a complete span range of folded plate products limited only by the ability to deliver and erect. The cost of folded plate structures promises to be competitive with all other building materials for long spans and heavy loads.

Prestressed folded plate offers the opportunity of bringing the advantages of concrete construction — strength, fire resistance, blast resistance, and low maintenance — into buildings of all price ranges and, in addition, makes it economically feasible to design for concrete construction in the 50- to 120-ft. span range.

**Exposed Aggregate Type of Decorative Panels**—C. D. Wailes Jr., president, Wailes Precast Concrete Corp., Sun Valley, Calif.

Emphasis on color and texture in recent years has focused attention on the almost unlimited variation of both of these qualities as found in exposed aggregate concrete panels.

Although finely etched small aggregate is used for detail and tracery, the trend to bold, rugged use of relatively large aggregate exposed by removing the matrix ⅜ in. to ¾ in. and more for flat fascia indicates the desire for "readable" textures at considerable distance and these provide interesting contrast to adjoining smooth or polished materials, metals and glass.

Used as exterior forms against which concrete is cast or shot, applied as veneer, or installed as complete curtain walls, these panels may function structurally as well as decoratively.

Generally, natural aggregates are used, but glass, ceramics and other manufactured aggregate lend extra color, brilliance and interest.

**Plastic Forms for Architectural Concrete**—J. A. Hanson, development engineer, Portland Cement Association, Chicago.

Plastic forms are being used to obtain unusual and pleasing architectural effects in concrete. The architectural treatment may consist of both surface finish and pattern decoration. The concrete surface can be either glossy smooth or textured. The finish is achieved by thorough consolidation of the mix that would ordinarily be used in the product. Pattern decoration is achieved by vacuum forming the plastic sheet over wood, plaster, metal, glass or other materials. Almost any intricate or bold pattern may be used, limited only by maintaining sufficient draft along pattern lines and maintaining the depth of depressions less than the width.

The extremely fine smooth finish of plastic formed concrete greatly improves the attractiveness of integral colors. Due to the higher reflectivity, smaller amounts of pigments are required to obtain a given color intensity.

The plastic is relatively expensive, but several reuses may be obtained. Laboratory tests of different types of plastics have indicated that at least 10 reuses can be obtained with a reasonable amount of care in cleaning and handling the forms.

(Ed. note: This method is being used at American River Junior College in Sacramento for the first buildings going up on the new campus. A layer of small rocks is placed inside the forms, leaving impressions as deep as half an inch thick. The walls, given two weeks to set, come out with a high gloss.)

## Lath technique omits nails on ceiling, wall angles

A nail-on installation method for gypsum lath—"floating angles"—eliminates the last two nails in the two pieces of lath that form an angle, whether it is horizontal, vertical, exterior or interior. Conventional nailing of four nails per sheet of lath on each joist or stud, spaced about 5 in. apart, should be used throughout the remainder of both the ceiling and wall areas, with the ceiling lath applied first.

Cornerite or expanded corner bead, with flanges of 2 in. or more, is then attached only to the lath, not to the framing members. This will enable the corner sections to "float," thereby lessening the effect of the structural movement on the plastered angles.

The Gypsum Association has recommended the floating angle construction for either plain or insulating gypsum lath—⅜ or ½ in. thick—over joists 16 in o.c.


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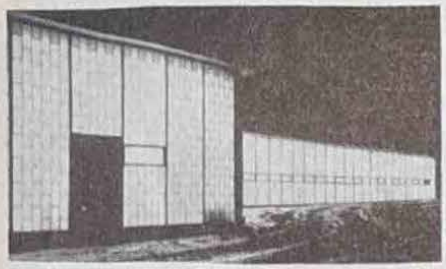

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### translucent curtain wall

Fabrication of the translucent roof for the U. S. Pavilion at the Brussels Fair sparked this curtain wall system utilizing translucent fiberglass plastic panels bonded to both sides of an aluminum framework. Kalwall panels require no supporting framework. They are completely prefabricated and sealed at the factory with any combination of windows, doors or vents. On the building site they are set into floor and ceiling tracks so



quickly that a 300-ft. section can be installed in four days. Panels are so light in weight that two men can handle units 20 ft. high and 4 ft. wide. They admit up to 85% of glareless light but permit little sun heat to enter a building or interior heat to leave. Insulating factor of a 2¾ in. panel is equal to 8 in. of brick, the manufacturer reports. Panels can be made in soft colors or with combinations of color inserts and opaque sections. Prefabricated skylights and translucent roofs or canopies also are available. Panels will span unsupported distances of up to 12 ft., have weatherproof joints and come in a variety of light transmission types.—Kalwall Corp. (Item No. 1)

### water temperature control

Suddenly the water pressure changes and just as suddenly the temperature of the shower plummets down or zooms upward. To eliminate this freezing or scalding event, Tempo holds a selected temperature to within 1 deg. This is not a mixing valve but a pressure balancing line valve that compensates for pressure changes regardless of the amount of water coming through the line. Unit is fully automatic, requiring no manual controls or adjustments and can be installed into the supply lines wherever convenient.—Tempo Valve Co. (Item No. 2)

### sliding glass door

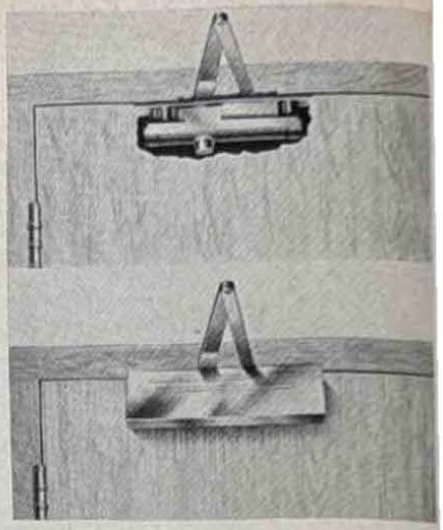
Option of single or dual glazing to meet varying climate needs is offered in the Ador line of budget priced aluminum sliding glass doors. Slim-lined hardware includes a flip latch and provision for installation of a keyed lock. Door also has top-hung, full-frame screens; two completely enclosed, fully adjustable nylon sheaves; one-piece, continuous vinyl glazing bead for positive sealing; and a sloping threshold with stucco trim. Standard height is 6 ft. 9 in.—Ador Sales, Inc. (Item No. 3)

### drywall laminating system

To speed installation of soundproof walls in apartments, motels and hotels, Wilhold Products has developed a dryfall laminating system using only glue for the second course. First course is nailed. Second section is glued in place with the firm's drywall cement. No shoring or nails are required. Taping can be done at once. System has been accepted by FHA.—Wilhold Products Co. (Item No. 4)

### door closer

The Top Railer, a concealed door closer for interior doors mortised in one location regardless of the degree of opening, offers economies in installation and rugged construction. It is also available for surface mounting complete with a wrought cover in a



range of finishes. The closer may be fully concealed in 1¾-in. doors, surface mounted or installed in 1⅜-in. minimum thick doors and concealed with trim plates.—Russwin Division, American Hardware Corp. (Item No. 5)

### metal weatherstripping

For steel or aluminum projected types of sash this metal weatherstripping has corner caps for the ventilators to protect hands and clothing. Seal-Draft is formed of corrosion-resistant chrome-aluminum alloys. In laboratory tests, infiltration on new steel intermediate projected windows was reduced from 1.25 cmf. to .68 at 50-mph wind. Material is easy to install and will not pull away from sash frame if vent frame warps.—Sun Screen Products, Inc. (Item No. 6)

### nurse call system

A nurse call system utilizing a bedside speaker eliminates the wall microphone and provides much greater privacy to the patient. Small hand speaker-microphone also can be used to control TV and radio programs.—Dahlberg, Inc. (Item No. 7)



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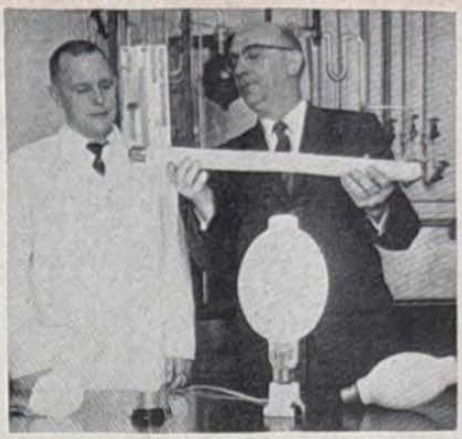
City Zone State

### aluminum panel system

Here's one economical solution to the need for face lifting outdated structures: an all-aluminum sun shading and decorative wall system known as Sol-Dec. It consists of only three extrusions—a clip angle, a miniature I-beam and a panelette which can be cut, finished in a variety of colors and spaced as desired—and requires no special fabrication at the site. Although 11 standard patterns are offered on a price-per-square-foot basis, the design possibilities are unlimited. The new system also is expected to find wide use in new construction, including overlays for cooling towers, elevator penthouses, lobby walls, vision screens and barriers for terraces and swimming pool areas.—Aluminum Company of America. **(Item No. 8)**

### fluorescent lamps

Single-ended fluorescent lamps which require no external ballast or starter and can be burned in ordinary light sockets offer a myriad of design possibilities. The self-ballasted fluorescent lamp developed by Westinghouse contains a built-in bimetal starting switch similar to that used in a fluorescent starter and an incandescent filament which eliminates the need for the large external inductor ballast commonly used for lamps of this type.



This in turn eliminates the need for large metal or plastic fixtures to house the lamps. Use of the internal incandescent filament also adds to the total lumen output and improves the light color. The lamp can be made in the conventional double-ended variety, with a socket on a single end, with a threaded base for screwing into conventional incandescent built sockets and in decorative shapes for unusual lighting effects. The lamp is not yet on the market although it is past the laboratory and experimental stage.—Westinghouse Electric Corp. **(Item No. 9)**

### blueprint cabinet

A line of filing cabinets developed in England and now being distributed in the U.S. provides a quick reference system for handling large numbers of blueprints, plans and master drawings. Planstore is a sheet metal cabinet subdivided honeycomb fashion into horizontal square section tubes. Each compartment is equipped with a plastic cap which grips the drawing, seals the compartment and provides indexing. As many as 3,100 indexed drawings can be stored in a single 44x22x30-in. unit. The system provides immediate access to all drawings and at the same time indicates at a glance whether they are in use.—Consumers Engineering Co. **(Item No. 10)**

### beam and slab construction

Pressure is no longer brought against the slab to cause breaking and cracking when Jay voids are used in place of sand, gravel and other fill materials in beam and slab construction on grade. During pouring and setting the voids withstand the pressure of beams in the slab. After the concrete is dry the corrugated asphalt-impregnated fiberboard deteriorates, leaving a void under the slab. This provides a positive and calculable space, either 4 in. or 6 in., for expansion or contraction. The fiberboard material of which the voids are made is a weather-resistant product patented under the name of FreezurBoard and said to be capable of supporting from 650 to over 1,000 psi. **(Item No. 11)**





Handsplit cedar shakes are unquestionably the most luxurious, most lasting, roofing material available. That is why they are in such demand by those concerned with quality. Cedar shakes are made by hand. No two are ever quite alike. For this reason, the wise buyer specifies mill-inspected material! Always look for, always insist on, the genuine *Certi-Split* label of *inspected* quality when you buy handsplit shakes. You'll find the label under the bandstick of the bundle.

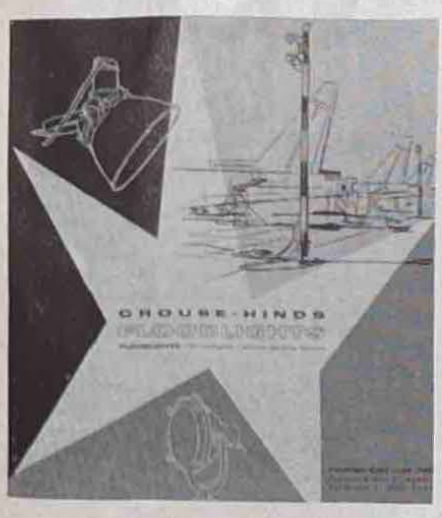
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**pa&b pick of the month**

Of interest to architects, engineers and roofing contractors, Certain-teed's 56-page "Built-up Roof Manual" (AIA 12-B) is said to represent the most complete set of specifications in the field. Each of four series—asphalt felt, Certaglas, tarred felt and mineral surface—has its own index page showing the specification number, years bonded, deck type, roof surface, number of plies and Underwriters' classification. One section contains data on the correct type of specification to use with all presently known deck construction; another on design criteria depicts varying conditions affecting specifications for gravel, mineral and smooth surfaced roofs. Flashing specifications, construction details and roof drainage information round out the manual.— Certain-teed Products Corp., 120 E. Lancaster Ave., Ardmore, Pa.




**pa&b pick of the month**

To facilitate easy selection of the proper floodlight for the job, Crouse-Hinds has departmentalized its loose leaf catalog by using colored divider sheets, each tabbed with an individual table of contents. Besides the customary descriptions and prices, there is some general information too, including a section of floodlighting calculations.—Crouse-Hinds Co., Syracuse 1, N.Y.

**T Steel Catalog:** describes new Cepco T-lite luminous ceiling system and new methods of attaching hung ceilings, in addition to long-span steel roof deck; 16 pp.—T Steel Corp., 1124 Stewart St., Seattle 1, Wash.

**Curtain Walls by Albro:** discusses three series that are adaptable to all architectural treatments; has typical sections, project photos and specifications; 12 pp.—Albro Metal Products Corp., 944 Longfellow Ave., New York 59, N.Y.

**Tile-Tex All-Products Catalog:** has selection table to help determine right tile for various subfloors; 16 pp.—Tile-Tex Division, The Flintkote Co., 30 Rockefeller Plaza, New York, N.Y.

**Architectural Stainless Engineering Data (AIA 15-H-1):** describes four stainless steel grades, with composition, mechanical properties, available widths, lengths and thicknesses, finishes, approximate costs per square foot and a table of comparative gauges for stainless steel and aluminum; 6 pp.—Washington Steel Corp., Washington, Pa.

**Mathews Poly-Fil** (AIA 26-C): contains specifications and application instructions; has job photos; 8 pp.—Mathews Paint Co., 598 W. Ave. 26th, Los Angeles 65, Calif.

**Masterplate Iron-Clad Concrete Floor:** explains major features sought in design of any industrial floor, with photos, diagrams and installation methods; 24 pp. — The Master Builders Co., Cleveland 3, Ohio.

**The Aristocrats of Floors: Rubber Flooring and Solid Vinyl Flooring:** consolidates basic generic information relating to characteristics, styles, colors and uses of both rubber and solid vinyl; 12 pp.—Rubber and Vinyl Flooring Council, Rubber Manufacturers Association, Inc., 444 Madison Ave., New York 22, N.Y.

**What You Should Know About Shop Glazing:** tells how new shop glazing methods can cut costs as well as speed and simplify construction of buildings; 12 pp.—Pemko Manufacturing Co., 5755 Landregan, Emeryville, Calif.

**New Ideas in School Construction with Steel:** describes and pictures framing, flooring, roofing and paneling operations with western elementary and secondary schools and colleges as examples; 16 pp.—Columbia-Geneva Division, United States Steel Corp., 120 Montgomery St., San Francisco 6, Calif.

**Commercial Construction with Rilco Laminated Wood:** shows basic laminated forms available and schematic floor plans for several of the building featured; 8 pp.—Rilco Laminated Products, Inc., 615 Tacoma Bldg., Tacoma 1, Wash.

**Alsynite Fiberglass Panels** (AIA 26-A-9): contains specifications on new line of residential and industrial translucent fiberglass panels; itemizes light and heat transmission values for 30 different types; 4 pp.—Alsynite Company of America, 4654 De Soto St., San Diego 9, Calif.

**Insulation Applications of Styrofoam and Scorbord** (AIA 37-B-3, 37-B-4 and 37-D-1): reports on pipe and vessel covering, low temperature space insulation, insulation-plaster base and foamed plastic insulation board in four separate bulletins.—Dow Chemical Co., Midland, Mich.

**Introductory Manual: Ceco Electro-Channel Steel Joists** (AIA 13-G): illustrates how the hollow top chord of the new steel joists serves as a structural member and an underfloor cable duct with step-by-step photos showing erection; 26 pp.—Ceco Steel Products Corp., 5601 W. 26th St., Chicago 50, Ill.

**Claridge Chalkboards, Bulletin Boards, Aluminum Trim** (AIA 35-B-11): has specification data, line drawings showing construction details and recommended installation; 24 pp.—Claridge Products & Equipment Co., Harrison, Ark.

**Operation Uplight:** covers fixture cost comparisons and cost of lighting per square foot for industrial lighting, with numerous installation photos; 16 pp.—Day-Brite Lighting, Inc., 6260 N. Broadway, St. Louis 15, Mo.

**A Simple Guide to Wall Systems for Buildings of Every Size and Budget** (AIA 17-A): presents a thorough explanation of suggested applications of four new Kawneer wall systems; 20 pp.—Kawneer Co., 1105 N. Front St., Niles, Mich.

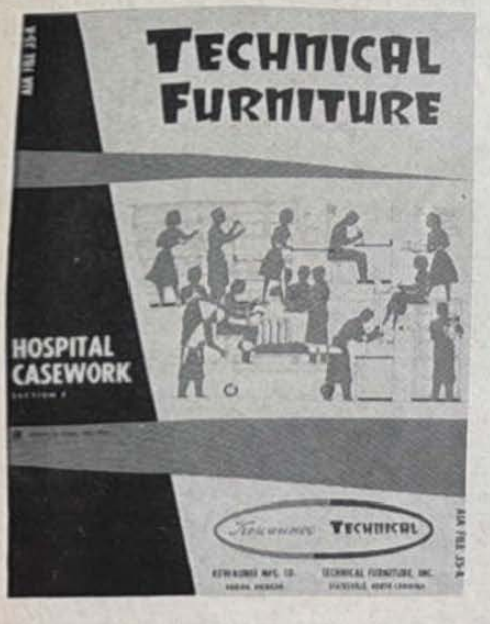
**High Strength Bolting for Structural Joints:** describes the use of this type of bolt, outlines specifications for assembly of structural joints and explains the method used for torquing; 20 pp.—Bethlehem Pacific Coast Steel Corp., 20th and Illinois Sts., San Francisco 19, Calif.

**Vertical and Roll Filing Equipment** AIA 35-H-32): illustrates space-saving way to file and protect plans, blueprints, maps, drawings and other large sheets down to such small materials as plates, negatives and stencils; 12 pp.—Plan Hold Corp., 5204 Chakemoc St., South Gate, Calif.

**Cookson Rolling Doors and Partitions** (AIA 16-D): has blueprints of 13 basic door types showing all necessary dimensions and a series of charts to simplify selection of proper gauge and type of slats, guide type, power units and other components; 16 pp.—The Cookson Co., 1525 Cortland Ave., San Francisco 10, Calif.

**pa&b pick of the month**

This 82-page catalog (AIA 35-K) of hardwood furniture and equipment made expressly to fill the casework requirements in the general hospital should prove valuable to anyone connected with planning that type of project. The material is well organized, showing equipment, floor plans and elevations for laboratories, pharmacies, operating rooms, nurseries, patient and utility rooms, offices and suites. Each section is printed in a different color and with its own index. In short, the book is a guide in providing function arrangements of specialized furniture and equipment.—Technical Furniture, Inc., 3021 W. Front St., Stateville, N. C.







6690-A

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**When You Build Your Church.** By John R. Scotford. Channel Press, 159 Northern Blvd., Great Neck, N. Y. 1958. 245 pp. $3.50.

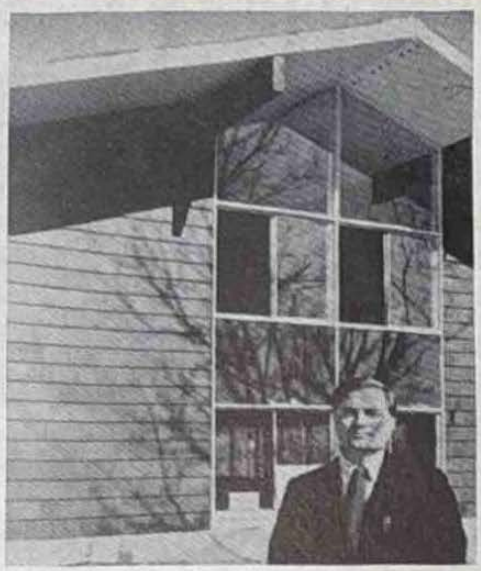
The jacket of this revised edition points out that "the basic decisions on what to build and where to build will not be made by professionals and specialists but by ministers and committees of laymen in the churches." It is for the latter that the author, winner of the 1958 Conover Award of the Church Architectural Guild of America, has written the book. The architect, who gets only scanty mention, will find it of interest only in that it presents, more or less, a typical point of view of the church building client. A new section contains photos of "outstanding church buildings"—four from the West Coast—but unfortunately a number of the examples do not live up to their billing. A reference of "Churches Worth Seeing" ends up with St. Elizabeth's of Burien, Wash., called "the most revolutionary on the list." (For a case study by the architect, Robert L. Durham of Durham, Anderson & Freed, see PA&B for May, '58.)

**At Home with Tomorrow.** By Carl Koch, with Andy Lewis. Rinehart & Co., Inc., 232 Madison Ave., New York 16, N. Y. 1958. 208 pp. $6.95.

In the introduction Carl Koch explains how he and his co-author undertook another book on houses: "As an architect I have realized that what a civilization builds expresses its beliefs and aspirations — its meaning. I feel strongly that two outstanding meanings of civilization are the provision of equal opportunity and the elimination of want. Here in America now, we believe that both aims are finally possible of realization. The house of the average man is certainly a better place to look for the visual realization of these ideals than in our commercial, religious or civic centers. Therefore, the provision of everyman's house and his living community has seemed to me, as an architect living in America today, the most interesting job to tackle.

"But to build a house for everyone, we must use the facility which is making it possible for us to reach these objectives: equal opportunity and elimination of poverty. This facility is industrialized mass production.

"And there is an understandable reluctance on the part of everyman to build his castle of nuts, bolts and chromium. The industrial revolution will help us realize our dreams if we can handle it but we haven't handled it too well so far. Although it is pathetic to think we can escape the pressure of competitive business, the battle of home-office tranportation and the compulsion to drive ourselves too far, too fast, too much, by escaping into a fantasy in the shape of an 18th century farmhouse, it is understandable that we try.



CARL KOCH and his Techbuilt house.

"This book is written with the hope that the experiences recorded herein may help everyman (at least a valid sample of him) to take a little more objective and affirmative look at his living problems and opportunities. For he, the customer, must make an affirmative demand for a living environment worthy of his real aspirations. The builder only builds what he thinks this customer wants to buy. Only by his making this affirmative demand will we designers, producers and builders be able to devote the time, effort and inspiration necessary to produce an affirmative answer: a castle for everyman."

**Buildings for Research,** F. W. Dodge Corp., 119 W. 40th St., New York 18, N. Y. 1958. 224 pp. $9.50.

A selection of 44 research buildings, with covering commentary and photos, owned by corporations, government agencies and universities. Another section on planning the laboratory provides data on safety measures, waste removal, corrosion prevention, vents and drains and modular units.

**Saving Dollars in Building Schools.** By David Pierce. Reinhold Publishing Corp., 430 Park Ave., New York 22, N.Y. 1959. 112 pp. $5.95.

This book is, according to Walter A. Taylor, director of the AIA's department of education and research, "a very comprehensive and excellent analysis of cost factors in school design. Especially valuable is the comparison of total annual cost, including heating and maintenance, an antidote to uneconomical cheapness."

**The Selection of Retail Locations.** By Richard L. Nelson. F. W. Dodge Corp., 119 W. 40th St., New York 18, N. Y. 1959. 422 pp. $9

A real estate economist presents a study of site selection and business volume estimating for establishments selling consumer goods or services.

**Architectural Practice.** By Clinton H. Cowgill and Ben John Small. Reinhold Publishing Corp., 430 Park Ave., New York 22, N. Y. 1959. 260 pp. $12.

Third edition of a standard work on the professional, legal and business aspects, with more than 300 reproductions of documents, drawings and charts. The book is divided into three parts: "General Considerations"; "The Architectural Working Organization"; "The Architect's Service."

**Parking.** By Geoffrey Baker and Bruno Funaro. Reinhold Publishing Corp., 430 Park Ave., New York 22, N. Y. 1958. 202 pp. $9.50.

This book is a concise analysis of the parking problem and a critical discussion of what others have done about it. Here are photos and plans of parking lots, ramp garages, parking decks, underground garages and elevator garages—examples drawn from large cities and small towns. To simplify the layout of parking space, there is a special 10-page section of easy-to-use diagrams and tables which show parking patterns and stall sizes for most advantageous use of a given site under various parking conditions.

**Green Power.** By James Stevens. Superior Publishing Co., 2809 Third Ave., Seattle 11, Wash. 1958. 95 pp. $3.

Through years of personal experience and observation, the author writes of the Olympic Peninsula in the first person and his story is about forest management rather than about companies. He describes in detail the congressional act of 1944 which brought new promise for the forests, the timber towns and the people of the woods.

**Residential Rehabilitation: Private Profits and Public Purposes.** By William W. Nash, directed by Miles L. Colean. McGraw-Hill Book Co., Inc., 330 W. 42nd St., New York 36, N. Y. 1959. 268 pp. $8.

Part of the ACTION series in housing and community development, the book examines the contribution of rehabilitation to public and private urban renewal and housing programs and suggests new directions in public policies which might increase the volume and effectiveness of that contribution.

**The Contemporary Curtain Wall: Its Design, Fabrication and Erection.** By William Dudley Hunt Jr. F. W. Dodge Corp., 119 W. 40th St., New York 18, N. Y. 1959. 462 pp. $12.75.

An architect presents a practical aid in selecting, designing and installing the right curtain wall for any building, with scores of detailed drawings, more than 140 application photos and 71 tables.

**Building Construction Handbook.** Edited by Frederick S. Merritt. McGraw-Hill Book Co., Inc., 330 W. 42nd St., New York 36, N. Y. 1958. 851 pp. $15.

Composed of 29 sections written by 25 authorities, this volume covers stress analysis; structural design; properties of building materials; construction practices; relationship of owner, architect, consulting engineer and contractor; control of internal environment; building services; surveying; specifications; construction management; insurance and bonds.

**Plastic Design of Steel Frames.** By Lynn S. Beedle. John Wiley & Sons, Inc., 440 Fourth Ave., New York 16, N. Y. 406 pp. $13.

A research professor of civil engineering at Lehigh University has written the first book in the U.S. that deals entirely with this topic. In addition to presenting the simple plastic theory and the methods of plastic analysis, it covers such secondary design considerations as the influence of shear force, buckling, etc.

**Frames and Arches: Condensed Solutions for Structural Analysis.** By Valerian Leontovich. McGraw-Hill Book Co., Inc., 330 W. 42nd St., New York 36, N. Y. 1959. 494 pp. $20.

Gives over 400 condensed solutions for 20 principal types of statically indeterminate frames and arches, each applying to a particular structure and a load. Solutions allow most limitless variation in members' shape or cross section and can be used in steel, concrete and wood design. Comprehensive tables and charts to facilitate the analysis of haunched frames and arches also are included.

**Construction Accounting and Financial Management.** By William E. Coombs. F. W. Dodge Corp., 119 W. 40th St., New York 18, N. Y. 1958. 490 pp. $12.85.

The first book ever written on this vital phase of the industry and authored by an attorney and CPA, it tells what records to keep and why; relates accounting and record keeping to the size of the firm, the type of work being done; and never loses sight of the fundamental purpose: to give effective financial control over every operation.

**Legal Aspects of Construction.** By Walter C. Sadler. McGraw-Hill Book Co., Inc., 330 W. 42nd St., New York 36, N.Y. 1959. 400 pp. $8.50.

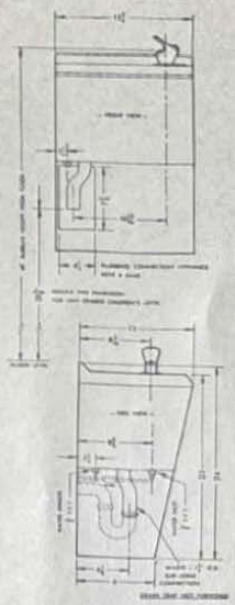
Discusses a number of actual cases illustrating the adjudicated rights and liabilities of the parties-in-interest and includes coverage of boundary, lateral support and foundation rights.

**Engineering Manual: A Practical Reference of Data and Methods in Architecture, Chemical, Civil, Electrical, Mechanical and Nuclear Engineering.** Edited by John H. Perry and Robert H. Perry. McGraw-Hill Book Co., Inc., 330 W. 42nd St., New York 36, N. Y. 1959. 680 pp. $9.50.

Gives engineers a concise reference to the most commonly used data and methods in the fields mentioned and should be helpful in preparing for engineer license examinations.

**Roofing: Estimating, Applying, Repairing.** By James McCawley. Shelter Publications, 180 N. Wacker Drive, Chicago 6, Ill., 1959. 426 pp. $10.

A handbook describing the mechanics of shelter and the application of roof coverings for the roofing and sheet metal trades and as a guide for the architect and builder. The author, for 13 years secretary of the National Roofing Contractors' Association, has not been sparing of his opinions on what he considers poor design in connection with parapet walls, expansion joints, flashing and other building sections associated with roofing.

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**Manual of Hospital Planning Procedures.** American Hospital Association, 840 N. Lake Shore Drive, Chicago 11, Ill. 1959. 72 pp. $1.50

A guide to new construction and remodeling, including a checklist for appraising community needs.

**Sound Absorption Coefficients** (AIA 39-B). Acoustical Materials Association, 335 E. 45th St., New York 17, N.Y. 1959. 44 pp. 50c

Revised edition features summary tables which classify materials according to appearance and composition and producers' tables which classify according to each member company.

**How to Lay out a Parking Lot.** Western Industries, Inc., 2742 W. 36th Place, Chicago 32, Ill. 1959. 40 pp. $1.




Illustrated with engineering drawings, charts and pictures of various types of parking lots, the booklet points up such things as: Is the lot on a one-way street? Is the lot to be attended or to be automatic? Is an alley involved? What are the advantages of barriers and gates? What are turnaround requirements? What about front and back overhang on today's cars?

**Installation and Maintenance of Resilient Smooth Surface Flooring.** Building Research Institute, 2101 Constitution Ave., Washington 25, D. C. 1959. 145 pp. $5.

Especially valuable is a chart which compared physical properties, standard dimensions, installed cost per square foot and the use level at which each material may perform successfully — whether on, above or below grade.

**Building with Plastic Structural Sandwich Panels.** Monsanto Chemical Co., Springfield, Mass. 1958. 116 pp. $3.

Based on a study directed by Marvin E. Goody at MIT defining the status of the panels and their architectural potentialities. (Basic design for the "House of the Future" built in Disneyland at Anaheim, Calif., was created by architects Hamilton & Goody as the outgrowth of a similar Monsanto-MIT project.)

**How to Design Pole Type Buildings.** By Donald Patterson. American Wood Preservers Institute, 111 W. Washington St., Chicago 2, Ill. 1958. 72 pp. $1.50.

A second edition with additional tables and illustrations for those who plan, design or contract to erect this type of structure.

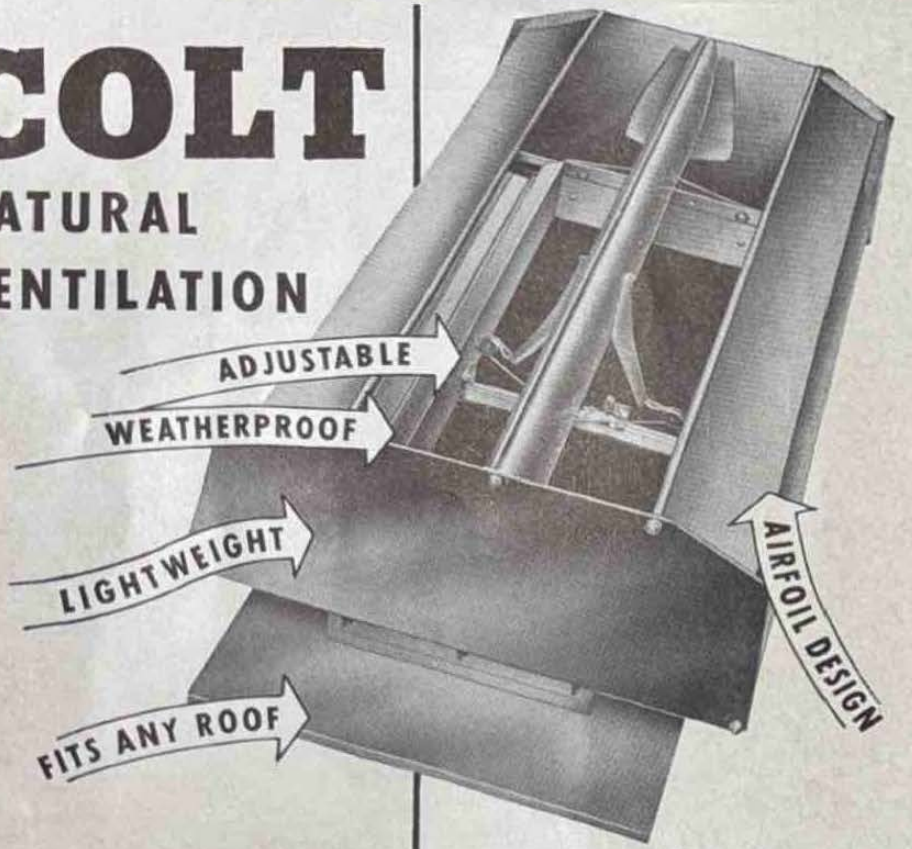
**Fundamentals of Pipe Drafting.** By Charles H. Thompson. John Wiley & Sons, Inc., 440 Fourth Ave., New York 16, N.Y. 1958. 66 pp. $3.50.

Designed for students who have accomplished the basic skills of mechanical drawing and wish to develop specialized skills in the field of pipe drafting, a subject to which little consideration has been given.

**Handbook on Powder Actuated Fastening.** Ramset Fastening System 12117, Berea Rd., Cleveland 11, Ohio, 1959. 48 pp. $2.

Only publication of its type ever published, the loose leaf manual provides data for the architect and engineer on powder driven fasteners in general, not only Ramset, and covers recommended loads.


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**new offices**

Olof Dahlstrand has opened an office for the practice of architecture at Fifth and Junipero, Carmel, Calif.

**new partners, associates**

Lawrence G. Evanoff, Nicholas A. Kabush and James Waldowski have formed a partnership under the name of Evanoff, Kabush & Waldowski in the American Legion Building, Spokane.

The Seattle architectural firm of Bassetti & Morse has named three new associates—James Blair, Robert W. Murphy and J. William Dimmich—and has enlarged its quarters in the Tower Building.

**firm changes**

Clarence H. Wick, formerly of the Portland firm of Wick & Hilgers, is continuing the practice of architecture at 417 S.W. Washington St.

**new addresses**

Bowerman & Hobson, architects, to 14547 Victory Blvd., Van Nuys, Calif.

Fred L. Rudat, architect, to 1023 S.W. Yamhill, Portland.

Donald P. Polsky, architect, to 1151 S. Beverly Drive, Los Angeles.

Hayes & Little, structural and civil engineers, to 47 Kearny St., San Francisco.

**deaths**

Waldo B. Christenson, 50, partner in the Seattle architectural firm of Decker & Christenson since 1950, died of a heart attack May 16. A native of Leeds, N.D., he was graduated from the University of Washington in 1932 and began his practice of architecture three years later. Long active in AIA affairs, he served as Northwest regional director from 1953-55 and was elected to fellowship two years ago.

**appointments, elections**

Cecil H. Wells Jr., structural engineer, has been chosen president of the San Francisco, San Mateo and Santa Clara Tri-County Planning Council.

David A. Pugh, participating associate in Skidmore, Owings & Merrill, and Dr. Francis J. Newton, curator of the Portland Art Museum, have been elected to the board of directors of the Oregon Ceramic Studio.

Five architects have been named to the newly created Washington State Board of Registration for Architects: G. Stacey Bennett, Olympia, five-year term; Arnold Gangnes, Seattle, four; Richard Eddy, Spokane, three; Albert Funk, Spokane, two; and Kenneth Branch, Bremerton, one.

Lyle Swedberg, Tacoma architect, has been named to the City Planning Commission, succeeding another architect, Charles Pearson, who resigned to allow his firm—Lea, Pearson & Richards—to enter into a city contract for preliminary design of the downtown escalators.

**awards**

Oregon Chapter of Artists Equity has made citations for outstanding contribution in the use of art in architecture to Burns, Bear, McNeil & Schneider, architects, for their use of a Louis Bunce mural (long the center of a civic controversy) at the Portland International Airport Terminal; and to Thomas K. Welch, contractor, for his use of sculptures by Michele Russo and Manuel Izquierdo in apartment houses.




# AGC chapters discuss stand on labor

Unity is imperative in these days of attacks on the contract method and the construction industry.

This became very evident during the second annual Western Chapters Conference of the Associated General Contractors of America held April 23 in Monterey and the two-day meeting of the Northern and Central California Chapter which followed.

The dangers confronting contractors and the construction industry are stemming from certain governmental agencies, vicious competition among contractors and, as one delegate put it, "out-of-this-world demands from unions during current and coming contract negotiations."

The main attack on the contract method appears to be coming from some local government agencies, such as cities and counties, and some federal agencies, such as the Bureau of Reclamation, that are constantly increasing the amount of construction done with day labor, said James D. Marshall, executive director of the national AGC. He declared that accurate estimates place a $2 billion figure on construction lost to the contract method through this practice.

Another loss to the contract method is coming from industry which seems increasingly inclined to use its own employees for certain construction jobs, rather than to ask for bids. But this segment of business actually affords contractors an opportunity to get additional work he said, as it seems that industry could be convinced that even maintenance work should be handled through the contract method.

Another danger to contractors is coming from pressures being put by Congress on the Small Business Administration, reported William E. Dunn, associate executive director of the national AGC. Dunn told how Congress is forcefully asking the SBA to grant more and more loans to small businesses, even though the business man applying might have poor credit ratings.

This can affect the construction industry by opening the way for persons with no background in construction to enter the field, Dunn continued.

Another service offered by the SBA, technical assistance, would also make it easy for an uninitiated person to begin general contracting, he said.

But both of these things are still new and have not had much of an affect as yet. However, the SBA has had great success in their set-aside program, he pointed out. The SBA has already met with success with the Corps of Engineers and the Defense Department. Under this program government agencies limit bidding on certain projects to contractors who meet the present qualifications of being a small business.

Dunn's main objection to the set-aside program was that the qualifications for smallness are poorly thought out and that the program in some cases is unfair to established contractors, both large and small.

National AGC president James W. Cawdrey of Seattle told the delegates that many things are being done to protect the contract method and the general contractor's interests.

He said that a recent executive committee meeting held in Washington, D.C. and a joint industry conference where management and labor discussed problems of the construction industry came up with good objectives that should be supported by individual members. These, he said, are:

- Promote the construction industry.
- Protect the contract method.
- Strive for better performance by both contractors and workers.
- Provide a forum where contractors and workers could discuss mutual problems.

An impassioned plea for unity and support came from delegates during the afternoon sessions when contract negotiations were discussed. As various reports were given from the different chapters represented, it became evident that contractors were swinging toward a tough stand against union demands in coming contract negotiations.

One delegate who is a member of a negotiating committee said his committee was advising the contractors they represent that the committee was not planning to give in easily to union demands this year. He said they were asking those they represent to back their stand up to and through a strike.

Western Chapters president George B. Seebeck of Spokane summed up the general feeling of the afternoon sessions when he said that it looked like something was finally going to be done in certain touchy areas. "California is the cradle of all the ills that beset us in our labor relations," he said, "and I'm glad that California now seems about to take the most forward steps to right these ills."



• **Reynolds Aluminum Supply Co. of Los Angeles,** an affiliate of Reynolds Metals Co., recently broke ground for a warehouse and office building in the central manufacturing district at 6446 E. Washington Blvd., Los Angeles. The 100,000 sq. ft. warehouse section will serve not only the Greater Los Angeles metropolitan area but also as a central distributing point for 11 western states.

• **Radford Supply Co.,** Burbank, Calif., has changed its name to Radco Products, Inc.

• **Fibreboard Paper Products Corp.,** San Francisco, has elected three executives to vice presidencies: Mel R. Baruh, George W. Burgess and Jack H. Grady.

• **Hexcel Products Inc.** has completed manufacturing facilities in Berkeley, Calif., for the mass production of structural paper honeycomb core materials.

• **Hawaiian Cement Corp.,** a new company formed by both local and mainland interests, will build a $12 million plant at Barber's Point on Oahu. President of the firm is Robert D. Fisher, who also is vice president and a director of Cyprus Mines Corp., Los Angeles.

• **In-Sink-Erator Manufacturing Co.** has expanded western division activities with the appointment of two new district managers, Raymond Mounts of Los Angeles and N. K. White of Pasadena.

• **Plastic Lume, Inc.,** Sausalito, Calif., has appointed Robert E. Harvey Jr. as general sales manager. He formerly was director, general manager and chief executive officer of Sunshine Curtains, Inc., of San Francisco and Los Angeles.

• **Bethlehem Pacific Coast Steel Corp.** observed completion of a $25 million expansion and modernization program at its Seattle plant during an open house attended by industrial development officials last month. New production facilities include 1) two electric arc steelmaking furnaces which will boost the plant's annual capacity to 420,000 ingot tons; 2) a battery of eight soaking pits where ingots are heated prior to rolling; 3) a 32-in. blooming mill for reducing ingots down to sizes suitable for the finishing mills; and 4) a 12-in. merchant bar mill that is capable of producing a wide range of rolled products at high speed.



**EXAMINING MODEL** of Bethlehem Pacific's new Seattle office building are W. J. Bolton, local general manager; John G. White, district sales manager; H. Dewayne Kreager, director of Washington State Department of Commerce and Economic Development; and H. H. Fuller, president. Designed by Bindon & Wright, project is expected to get underway in July.

• **W. P. Fuller & Co.** has made a number of personnel shifts. C. R. Millikan becomes manager of the Spokane District. H. T. Joslin, formerly in


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charge of dealer sales in southern California, moves to San Francisco to succeed Millikan as consumer sales manager for the paint marketing division. A. A. Kroske becomes glass manager at Portland; Wayne De Arment of San Jose succeeds him as glass manager in Sacramento; and Major Chance of Oakland becomes glass manager in San Jose.

• **Keasbey & Mattison Co.** has named Republic Supply Co. of Los Angeles as a sales agent for the company's complete pipe line in southern California and Arizona. Republic has established a new waterworks supplies department headed by Robert Muse to handle the line.

• **Soule' Steel Co.** of San Francisco has named Richard Lee Swan, formerly with Formica Corp., as product manager in charge of developing a program for a new decorative material for various applications in the commercial and residential building field.

• **Gladding, McBean & Co.** has named Charles J. Daugherty to the post of southern California area sales manager for the pipe products division.

• **Chrysler Airtemp** has appointed Corwin-Hall Distributing Co. of Los Angeles as wholesale distributor of room air conditioners in 10 southern California counties.

• **Capri Sales, Inc.,** has appointed Ivar Oerman Jr. as direct factory representative in Washington and British Columbia.

• **The Siegler Corp.** and **Rheem Manufacturing Co.** have concluded a joint manufacturing arrangement which provides for manufacture of Siegler's line of general water heaters at the Rheem plant in South Gate, Calif., and production of certain lines of Rheem heating equipment at the Holly-General Division plant of Siegler in Pasadena. Only actual manufacturing is involved in the agreement. At the same time Siegler has announced the appointment of Lee D. Nutter, formerly of General Electric Co., as vice president in charge of marketing for Holly-General.

• **Ready Hung Door Corp.** has awarded a franchise license to Builders' Products, Inc., a new Seattle firm, to manufacture and distribute the Ready Hung door in the Pacific Northwest.

• **Inland Steel Products Co.** has picked Charles G. Harris to be Los Angeles regional manager for the engineered products division, succeeding the late Paul R. Dunn.

• **Dek Industries, Inc.,** has been formed for the production of aluminum home building products such as siding, awnings, carports, screen enclosures, etc. Subsidiaries in Los Angeles, Pennsylvania and Ohio will manufacture and distribute the products. President is R. Carter Dye; executive vice president, Fred H. Edgar; and vice president for sales, Walter E. Kemmerer. All three formerly served in key posts for Olin Mathieson Chemical Corp. and Reynolds Metals Co.

• **Benjamin Metals Co.** has moved its Los Angeles warehouse and general offices to new and expanded facilities at 1829 El Segundo Blvd., Compton.

• **Omark Industries, Inc.,** Portland, industrial equipment and saw chain manufacturing firm, has purchased controlling interest in Graham Manufacturing Corp., producer of stored-energy welding equipment in Boston.

• **Santiam Lumber Co.** has completed a plywood plant at Sweethome, Ore., for the production of both interior and exterior fir sheathing. President C. H. Wheeler announces that plant manager will be Sam Wheeler, with sales

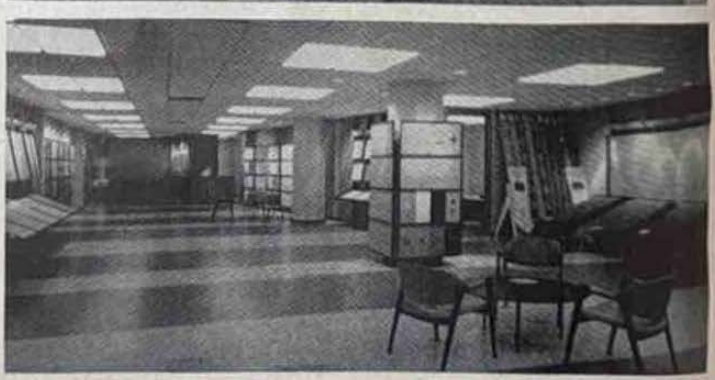





**FLOOR DIVISION SHOWROOMS**

of Armstrong Cork Co. in San Francisco's Western Merchandise Mart feature product display planned for maximum adaptability. Facilities were designed by Milton T. Pflueger, local architect, in conjunction with firm's bureau of interior decoration.



handled by Merwin Speer under the supervision of the firm's general sales manager, Richard Davis.

• **The Payne Co.**, La Puente, Calif., has selected Joseph H. Hoff as factory district manager to help coordinate the air conditioning equipment sales program.

• **Ideal Cement Co.** has begun construction of a $1,682,000 cement distribution center at Vancouver, Wash., which will include six 129-ft. high bulk cement silos, a building for sacking cement and a structure straddling the railroad tracks for loading into rail cars.

• **Douglas Fir Plywood Association** has added three new members to the field promotion staff in the West. They are Paul J. Marsh, to be based in Seattle; Harlow T. Richardson, Los Angeles; and Harold J. Tejes, Sacramento.

• **National Association of Architectural Metal Manufacturers** reports that the new president of the Tablet and Letter Division for 1959-60 is E. P. Benson, manager of the bronze and aluminum division of A. J. Bayer Co., Los Angeles. Among new directors for the Store Front and Entrance Division are T. Hallett Rebele, president of Rebco, Inc., Los Angeles; and Thomas A. Beyrle, vice president of Acme Metal Molding Co., Los Angeles. New director for the Iron and Steel Division is William G. Zimmerman, owner of the firm bearing his name in Denver.

## New eyes for old (Cont'd from p. 26)

good times and bad, storm and stress, neither race nor language, nor anything short of an upheaval of nature or the coming of the invader can obscure the beauty of those ageless qualities of the native landforms.—"without which life, soul and thought are inconceivable."

* * *

In review, these manifestations of cultural development, spread so variously over the map, might seem to hold the key to human destiny; but through the millenium no way has been discovered of holding onto the fleeting success of the momentary culture on its own landscape. Someone always appears with a bulldozer. From Harpers to Life, Look and the Ladies Home Journal, we have month by month the running complaint that we are culturally only partly solvent as earth's dominant species—"but little lower than the angels." All the arts and faiths, the institutions and the political systems have so far fallen short of giving man the knack of stabilizing his own culture. Perhaps the new crop of planners who now carry the torch can light the way. And who knows but the magical formula may be found in the very soil of the landscape at last. This is the challenge to the landscape architect. And it is the burden we call landscape architecture.

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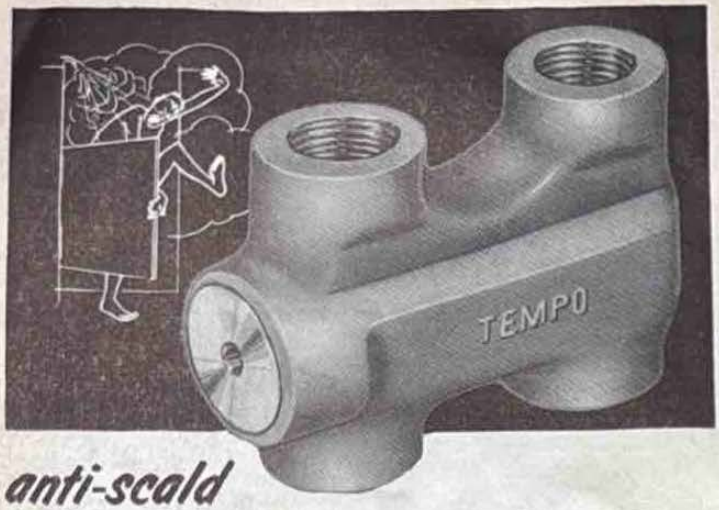
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### on deck at pa&b

Because of a change in publication date, the July issue will be in the mail shortly after this one has arrived. Two of its highlights: the initial PA&B profile spotlighting the work of John Carl Warnecke of San Francisco and the first of eight installments on "Preparing the Building Estimate," a feature being rerun because of its popularity.

### way down yonder

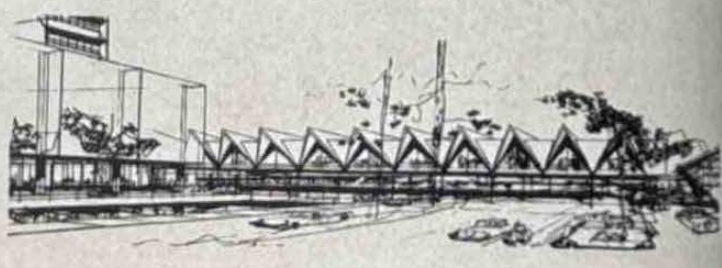
As the June issue of PA&B goes to press, architects are converging on New Orleans—and undoubtedly finding their way to Bourbon Street—for the annual AIA convention. There has been so much preliminary talk about human rights and segregation that the professional program has almost become completely lost in the shuffle. We'll be getting a first-hand report from our consulting editor, A. O. Bumgardner, who also is an official delegate of the Washington State Chapter. Upon returning from a vacation in his native state (Illinois, class of '49), he will begin working drawings on the headquarters building which PA&B will share with its publisher, Pacific Builder and Engineer, Inc., and Pacific Printing Co. (Photos of model appeared in March.)

### hi ho (hum) come to the fair

As guests of the Oregon Centennial Exposition at a press preview (public opening: June 10), perhaps we are being unhospitable to candidly state that we found the whole affair lived up to what we had expected—"a carnival gayway at a county fair or a Friday surprise at a shopping center," as one Portland architect so aptly put it. We hasten to add that we do not point the finger of guilt at the architectural profession since it was assigned, at best, a Johnny-come-lately role by management (see PA&B for Feb.). And we will admit that we toured the Pacific International Livestock Building site and environs on a miserably rainy, chilly day when considerable portions of the exhibition were not yet finished. But we think we are on firm ground when we say that, in the final analysis, it is a design jungle and that the structure most worthy of note is the Forest Products Pavilion. We'll present a capsule photographic tour next month so that you can judge for yourself.

### it should have been in red

We regret that the name of the architects, Richard Dorman & Associates, was inadvertently omitted from our "Job of the Month" in the May issue. The article, which described the expansion program of the Electronics Research Center in Santa Monica, Calif., carried the line drawing shown below in blue. R.E.K.



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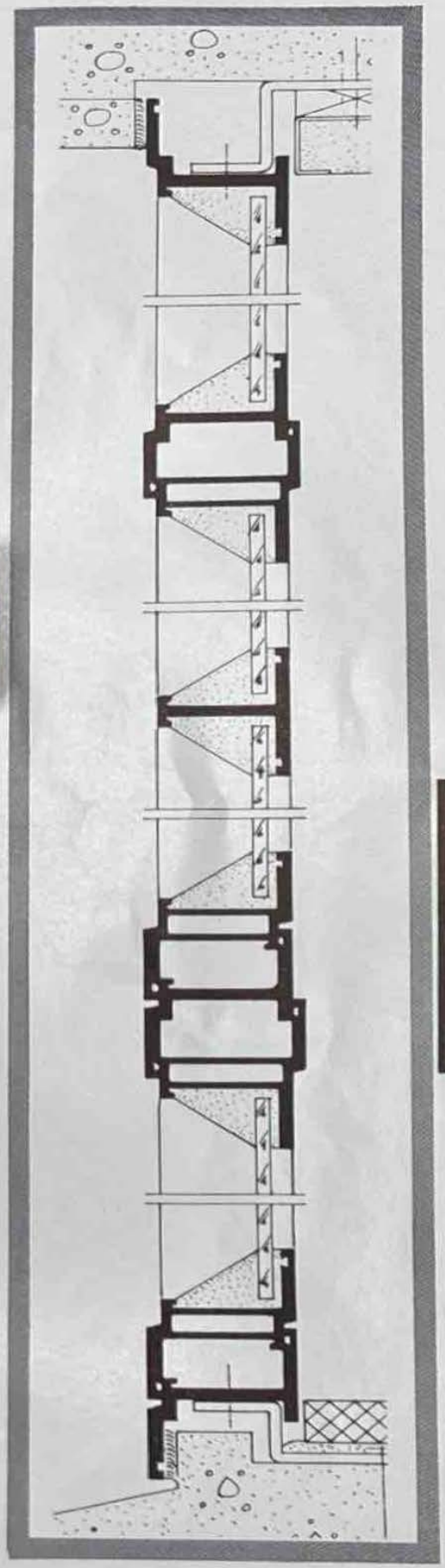
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Big cranes: boon to construction



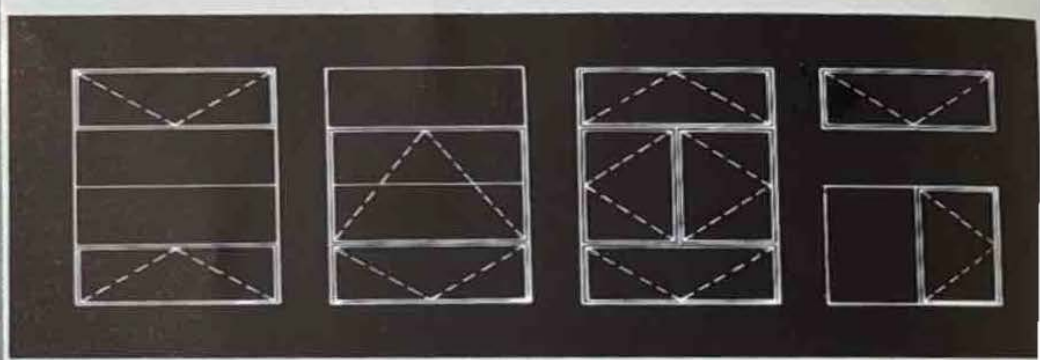
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COVER: Courtyard, Chamber of Commerce Building, Los Angeles (see p. 16): Jack Laxer photo.

# May is $48 million ahead of year ago

Building permits in the West continue to show strong gains with nearly $300 million added to the year's tab during May. Dollar volume of $297,387,610 is $48 million higher than May 1958 and marks the fifth consecutive month that the total has surpassed the corresponding period last year.

California again leads the way, topping last year by $43½ million. Washington, Montana and Idaho also record increases, while Oregon lists a $2 million drop.

The cumulative total for 1959 is even more outstanding. Volume to date is $1,274,448,432, a whopping $211.6 million ahead of the January through May figures for 1958. California's $170 million increase takes up the lion's share. Washington also is running a good $36½ million ahead of last year; Idaho is up $2.3 million; and Montana, $4 million. Oregon is trailing by $11.1 million.

| | Jan.-May 1959 | Jan.-May 1958 |
|---|---|---|
| Calif. | $1,020,088,380 | $850,114,453 |
| Ore. | 65,110,505 | 76,295,117 |
| Wash. | 173,187,355 | 126,646,200 |
| Idaho | 12,501,075 | 10,155,458 |
| Mont. | 13,561,117 | 9,565,872 |

## ANALYSIS OF TYPICAL AREAS—MAY

(Number of permits is followed by total dollar volume)

| | Dwelling | | Commercial & Industrial | | Public | |
|---|---|---|---|---|---|---|
| King County | 832 | $10,285,140 | 62 | $1,236,085 | 5 | $1,185,450 |
| Seattle | 596 | 4,808,128 | 155 | 3,776,565 | 3 | 43,600 |
| Tacoma | 157 | 870,530 | 5 | 687,000 | 1 | 128,000 |
| Orange County | 506 | 7,788,155 | 15 | 535,568 | 1 | 20,000 |
| Los Angeles County | 1,170 | 17,521,670 | 68 | 2,345,595 | 40 | 1,998,750 |
| Sacramento County | 785 | 9,847,175 | 54 | 1,989,268 | 11 | 1,146,571 |

## Building Permit Totals for 116 Western Agencies for May

| CALIFORNIA | May 1959 | Apr. 1959 | May 1958 |
|---|---|---|---|
| Alameda County | $ 1,834,750 | $ 2,368,585 | $ 1,480,350 |
| Anaheim | 5,534,666 | 5,863,499 | 3,399,211 |
| Bakersfield | 912,645 | 1,355,725 | 556,085 |
| Burbank | 1,092,555 | 1,564,670 | 760,927 |
| Contra Costa County | 5,470,473 | 4,288,967 | 3,422,102 |
| Fresno | 2,629,524 | 1,122,750 | 2,594,941 |
| Fullerton | 1,307,568 | 2,248,936 | 3,522,441 |
| Glendale | 2,378,716 | 2,250,426 | 2,252,490 |
| Inglewood | 882,863 | 1,559,521 | 1,820,256 |
| Long Beach | 6,244,975 | 4,728,340 | 6,021,350 |
| Los Angeles | 71,083,701 | 53,765,643 | 64,256,539 |
| Los Angeles County | 26,731,850 | 19,713,459 | 19,575,558 |
| Oakland | 4,615,572 | 6,465,517 | 2,874,378 |
| Ontario | 606,035 | 803,130 | 405,527 |
| Orange County | 8,838,439 | 5,876,991 | 3,769,026 |
| Palo Alto | 2,922,046 | 1,657,224 | 1,353,588 |
| Pasadena | 2,196,643 | 3,790,131 | 1,995,034 |
| Pomona | 2,224,181 | 904,693 | 1,889,068 |
| Richmond | 1,393,352 | 800,577 | 993,366 |
| Riverside | 1,967,110 | 2,585,739 | 2,642,293 |
| Sacramento | 5,005,816 | 4,299,962 | 7,067,799 |
| Sacramento County | 13,204,725 | 14,392,594 | 7,583,807 |
| San Bernardino | 1,424,861 | 2,094,016 | 4,026,302 |
| San Bernardino County | | 7,331,051 | 5,341,430 |
| San Diego | 19,648,240 | 15,603,072 | 15,470,459 |
| San Diego County | 12,784,800 | 14,961,900 | 5,818,800 |
| San Francisco | 6,815,141 | 5,325,748 | 5,696,780 |
| San Jose | 13,471,853 | 12,107,022 | 7,797,129 |
| San Mateo | 1,119,067 | 1,270,051 | 1,461,678 |
| San Mateo County | 2,203,207 | 1,262,258 | 1,954,164 |
| Santa Ana | 3,391,442 | 3,002,034 | 3,145,577 |
| Santa Monica | 2,862,921 | 1,802,559 | 1,283,769 |
| Stockton | 771,425 | 2,151,047 | 1,024,575 |
| Sunnyvale | 2,677,097 | 3,687,545 | 966,160 |
| Torrance | 3,264,600 | 2,556,460 | 899,159 |
| West Covina | 735,495 | 751,057 | 1,515,101 |
| TOTAL | $240,249,236 | $216,182,899 | $196,637,219 |

| OREGON | May 1959 | Apr. 1959 | May 1958 |
|---|---|---|---|
| Albany | $ 250,870 | $ 264,001 | $ 167,100 |
| Astoria | 40,457 | 17,418 | 49,188 |
| Baker | 118,550 | 154,010 | 118,550 |
| Bend | 156,250 | 99,795 | 92,098 |
| Coos Bay | 88,500 | 127,695 | 24,010 |
| Corvallis | 376,150 | 415,070 | 230,670 |
| Eugene | 595,565 | 729,750 | 937,297 |
| Grants Pass | 39,150 | 182,950 | 129,255 |
| Gresham | 105,000 | 63,590 | 252,400 |
| Hillsboro | 231,612 | 295,200 | 46,377 |
| Klamath Falls | 405,684 | 168,010 | 188,561 |
| LaGrande | 92,351 | 95,980 | 17,335 |
| Lane County | 1,109,155 | 1,159,975 | 1,283,239 |
| Medford | 559,675 | 322,902 | 287,160 |
| Multnomah County | 3,769,670 | 2,959,565 | 2,721,095 |
| North Bend | 75,698 | 334,343 | 34,580 |
| Oregon City | 71,503 | 65,450 | 5,780 |
| Pendleton | 55,802 | 112,320 | 426,200 |
| Portland | 4,324,705 | 9,821,770 | 7,916,495 |
| Roseburg | 82,313 | 122,163 | 135,886 |
| Salem | 678,185 | 321,192 | 323,670 |
| Springfield | 105,652 | 99,776 | 81,970 |
| The Dalles | 97,000 | 106,040 | 155,051 |
| TOTAL | $ 13,429,497 | $ 18,038,965 | $ 15,623,967 |

| WASHINGTON | May 1959 | Apr. 1959 | May 1958 |
|---|---|---|---|
| Aberdeen | $ 104,344 | $ 125,887 | $ 71,371 |
| Anacortes | 45,155 | 60,310 | 73,695 |
| Auburn | 453,800 | 244,640 | 140,290 |
| Bellingham | 317,776 | 795,665 | 239,483 |
| Bremerton | 123,930 | 225,440 | 171,000 |
| Centralia | 206,865 | 141,485 | 68,295 |
| Chehalis | 119,800 | 67,305 | 40,266 |
| Clarkston | 15,832 | 11,405 | 13,324 |
| Ellensburg | 81,500 | 84,737 | 23,294 |
| Ephrata | 16,710 | 37,812 | 22,818 |
| Everett | 448,548 | 394,483 | 601,750 |
| Kelso | 8,800 | 31,600 | 109,000 |
| Kennewick | 100,850 | 156,195 | 156,580 |
| King County | 12,899,400 | 11,668,835 | 9,070,290 |
| Kirkland | 39,900 | 83,150 | 80,600 |
| Longview | 754,049 | 239,004 | 394,716 |
| Moses Lake | 91,599 | 110,760 | 13,410 |
| Olympia | 246,150 | 172,197 | 330,307 |
| Pasco | 256,955 | 215,285 | 172,725 |
| Pierce County | 2,887,842 | 2,041,333 | 2,237,687 |
| Port Angeles | 94,621 | 34,020 | 51,650 |
| Puyallup | 159,540 | 134,945 | 61,290 |
| Ritzville | 2,550 | 37,200 | 33,900 |
| Seattle | 8,866,569 | 7,780,088 | 8,756,062 |
| Shelton | 40,323 | 36,700 | 17,600 |
| Spokane | 1,811,928 | 6,493,791 | 3,533,915 |
| Spokane County | 2,721,479 | 2,405,781 | 2,513,045 |
| Sumner | 72,100 | 7,600 | 110,318 |
| Tacoma | 2,180,487 | 1,955,963 | 1,376,858 |
| Vancouver | 609,379 | 2,001,881 | 388,238 |
| Walla Walla | 364,811 | 371,552 | 164,769 |
| Wenatchee | 138,540 | 264,041 | 148,929 |
| Yakima | 575,544 | 421,725 | 798,284 |
| TOTAL | $ 36,857,676 | $ 38,852,815 | $ 31,915,187 |

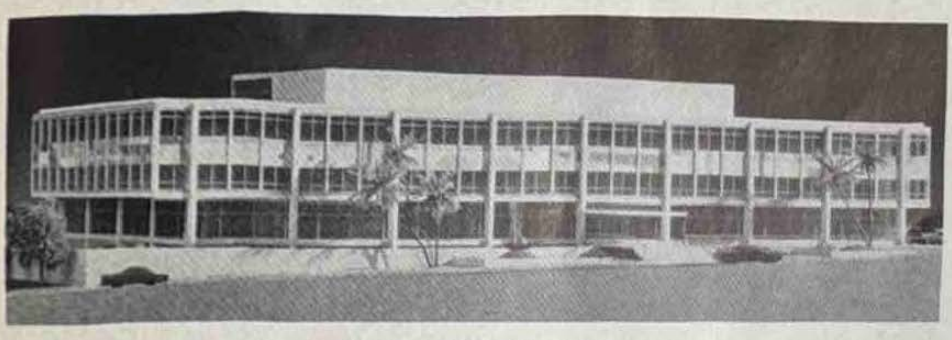
| MONTANA | May 1959 | Apr. 1959 | May 1958 |
|---|---|---|---|
| Billings | $ 755,200 | $ 442,603 | $ 382,200 |
| Bozeman | 125,440 | 559,250 | 201,600 |
| Butte | 50,121 | 22,793 | 215,400 |
| Glasgow | 192,000 | 97,200 | 199,500 |
| Glendive | 68,900 | 62,900 | 39,770 |
| Great Falls | 903,018 | 835,774 | 1,464,428 |
| Helena | 769,300 | 269,935 | 241,120 |
| Kalispell | 31,200 | 250 | 42,180 |
| Lewistown | 75,474 | 21,000 | 76,900 |
| Livingston | 27,900 | 174,410 | 27,175 |
| Miles City | 247,755 | 119,405 | 119,153 |
| Missoula | 221,100 | 269,300 | 186,600 |
| TOTAL | $ 3,467,498 | $ 2,874,820 | $ 3,195,824 |

| IDAHO | May 1959 | Apr. 1959 | May 1958 |
|---|---|---|---|
| Boise | $ 475,961 | $ 656,237 | $ 287,974 |
| Caldwell | 204,025 | 151,700 | 79,000 |
| Coeur d'Alene | 83,760 | 92,040 | 46,200 |
| Idaho Falls | 1,559,137 | 998,067 | 626,390 |
| Jerome | 23,050 | 23,625 | 24,143 |
| Lewiston | 94,785 | 351,800 | 414,933 |
| Nampa | 193,735 | 167,055 | 225,787 |
| Payette | 70,325 | 38,025 | 22,450 |
| Pocatello | 331,765 | 263,685 | 233,644 |
| Sandpoint | 75,700 | 106,134 | 18,100 |
| St. Maries | 23,000 | 23,300 | 1,200 |
| Twin Falls | 266,550 | 266,530 | 104,295 |
| TOTAL | $ 3,383,793 | $ 3,134,198 | $ 2,084,116 |
| GRAND TOTAL | $297,387,610 | $279,083,697 | $249,456,313 |



**HOTEL AND OFFICE BUILDING PROJECT**

scheduled for completion in 1960 in downtown Anchorage will be one of the largest building jobs in Alaska. Two 11-story structures will be sheathed in white porcelain and gold aluminum panels, costing $10 million. Hotel will have 200 rooms; office building, 130,000 sq. ft. Architects-engineers: Hedrick & Stanley; associate architect: Edwin Crittenden.



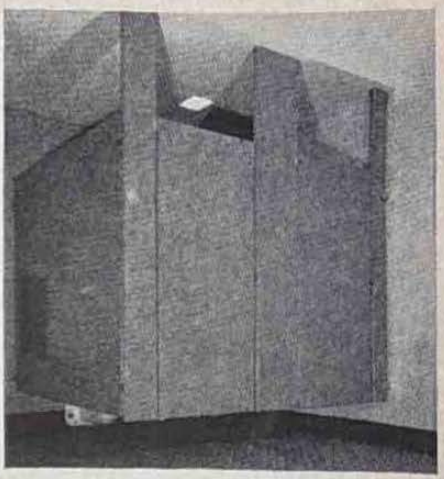
**OFFICE HEADQUARTERS**

for Welton Becket & Associates will be housed in $2½ million reinforced concrete and steel structure, keynoting vast Century City development in Los Angeles. Mural will surround building between second and third levels, latter featuring central two-story court with reflecting pool and sculptural elements, illuminated by skylight. First floor will contain rental space; penthouse level, employee lounge facilities and cafeteria. Architects-engineers: Welton Becket & Associates.



**MEDICAL CENTER**

in Los Angeles will be six-story building accommodating 75 professional suites. Of concrete and steel construction and estimated to cost $2½ million, it will include three-level parking area with 3,000-car capacity. Architects: Sidney Eisenshtat & Associates.

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**CAN HAVE THAT**
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San Diego 10 — Jerry Dean Bldg. Specialties Co., P. O. Box 217
San Francisco 5 — Continental Bldg. Products Co., 178 Fremont St.

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Seattle 3 — Builders Specialties, Inc., 3601 Greenwood Ave.
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*Also:* Representatives in Albuquerque, Billings, Boise, Cheyenne, Denver, Great Falls, Phoenix, Salt Lake City, and Tucson — *see listings under "Partitions" in Telephone Directory Yellow Pages.*



**COMPLETED COMPLEX** will form oval with existing terminal building at one end and two new terminals on either side, each having vaulted roof and more than 300,000 sq. ft. of floor space, including piers and concourses.



SAN FRANCISCO INTERNATIONAL AIRPORT MASTER PLAN: The world's fifth ranking airport in terms of passenger traffic is preparing for the jet age with a comprehensive plan for its ultimate development, providing for three separate terminal buildings for a total of 60 gate positions and a three-level parking structure for 6,000 cars. The long-range program will be financed by a $25 million bond issue passed in 1956, which will up the city's total capital investment at the airport to $55 million.

The south terminal, piers and concourses will be the first elements contructed, at a cost of about $7.8 million, including roadways. These additions will accommodate all international and two major domestic carriers. The general traffic flow will be similar to that in the existing building. Passenger ticketing and check-in functions will be on the second floor and baggage handling and claim functions on the ground level. Both new terminals will allow for future construction of a mezzanine above the second level.

To handle jet aircraft, the piers are designed to accomplish second level passenger loading and unloading by means of movable bridges. Stairs or escalators also will be provided to the apron level where ground loading and unloading are desired. Passenger room for each gate position, together with lounges, restrooms and concessions will be on the second level, airlines operational offices on the first. The maximum passenger-walking distance from ticket counter to the farthest gate position will be no more than the recommended 1,000 ft.

The terminal buildings are to be connected at the upper mezzanine level to the parking structure via overhead walks and at the lower level by underground walks to afford a complete separation of pedestrian and auto traffic. An elevated roadway will run around the parking structure and terminal perimeter at the second floor level as well as at the ground floor level. The upper roadway will incorporate the ramp to the second floor level of the existing building.

The parking facility will be broken up into four units separated by sloping landscaped areas, with walks on either side, leading up and down to the three levels. Each terminal will be enhanced by a reflecting pool, the parking area by sculpture. Architects—engineers: Welton Becket & Associates.



**THREE-LEVEL PARKING SECTION WITH PEDESTRIAN RAMPS IN CENTER**

# Coast builders plan meeting

## • First affair set for San Francisco

First annual Pacific Coast Builders Conference is set for July 6-9 in San Francisco's Sheraton-Palace Hotel, with Norman P. Mason, HHFA administrator, heading the list of guest speakers. In addition to hearing a dozen other building authorities, the registrants will view an exhibition of more than 65 displays of products and equipment.

Formerly FHA commissioner, Mason will talk at the "VA-FHA Workshop" on Tuesday, July 7, at which Ben C. Deane, past president, Home Builders Association of Los Angeles, Orange and Ventura Counties, will be chairman. NAHB president Carl Mitnick of Merchantville, N. J., will address the luncheon that day.

Other events: an income tax panel conducted by M. A. Samuelson and his staff of Los Angeles; a meeting of executive officers and presidents of local builders' associations with Stanley C. Scott of San Diego, head of the host Home Builders Council of California, in charge; a "New Methods" session with Earl W. Smith, El Cerrito builder, as chairman; a "Financing Your House" forum, with John Dickerman, NAHB executive vice president, and several California business executives on the panel; a demonstration of selling techniques by a merchandising sales training team; and an "Editor Looks at the Builder" forum with these panelists: Carl Norcross, executive editor, House & Home; James M. Lange, executive edotor, Practical Builder; Maxine Livingston, family home editor, Parents Magazine; Walter Reese Browder, editor, Ameaican Builder; and Beatrice West, interior decorator.

Stetson Shuey of Sacramento is chairman of the conference which may draw several thousand home builders and their wives. A special program for the latter is being arranged by Richard E. Doyle.

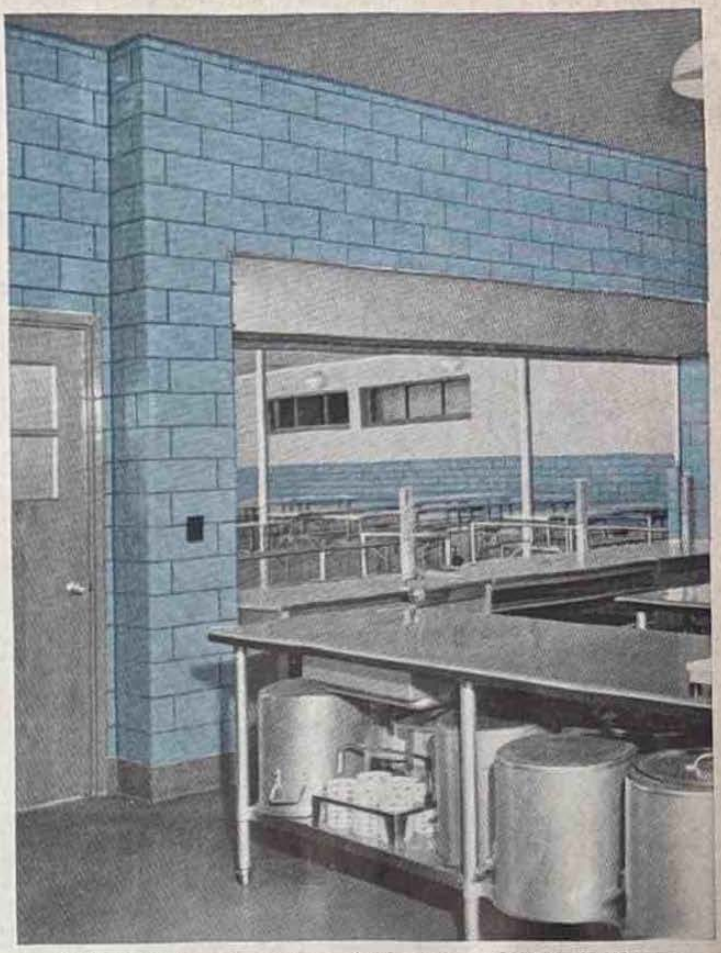
Registration forms are available by writing Rodney Radom & Associates, 235 Post St., San Francisco, Calif.

## Seattle to host nation's planners in July

More than 500 members of the American Institute of Planners are expected to gather in Seattle July 26-30 for their first convention to be held in the Pacific Northwest. The nature of the professional sessions, scheduled for the Olympic Hotel, will also draw a number of architects, engineers and citizens particularly concerned with city planning.

Among a host of planning consultants and others in related fields who will appear on the program are Carl Feiss of Washington, D.C.; Prof. Charles Elliot of Harvard University and Paul Opperman of Chicago, who will summarize the conference. An all-day session will be devoted to problems confronting the central business district of Seattle and other American cities and the solutions currently being proposed. Other major topics will be natural resources planning, metropolitan government and planning, the impact of aviation on tomorrow's cities and planning in the Pacific Basin countries, including Alaska and Hawaii.

Conference chairman is J. D. Braman Jr. of the Seattle City Planning Commission, who can be contacted at 503 County-City Building.

Ashton, Evans & Brazier, Architects, selected Kraftone Color Glaze No. 222 Ocular Green Kraftile Glazed Structural Units for walls of this clean, cheerful Mt. Jordan School Cafeteria and Kitchen.

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## Pacific Rim speakers selected

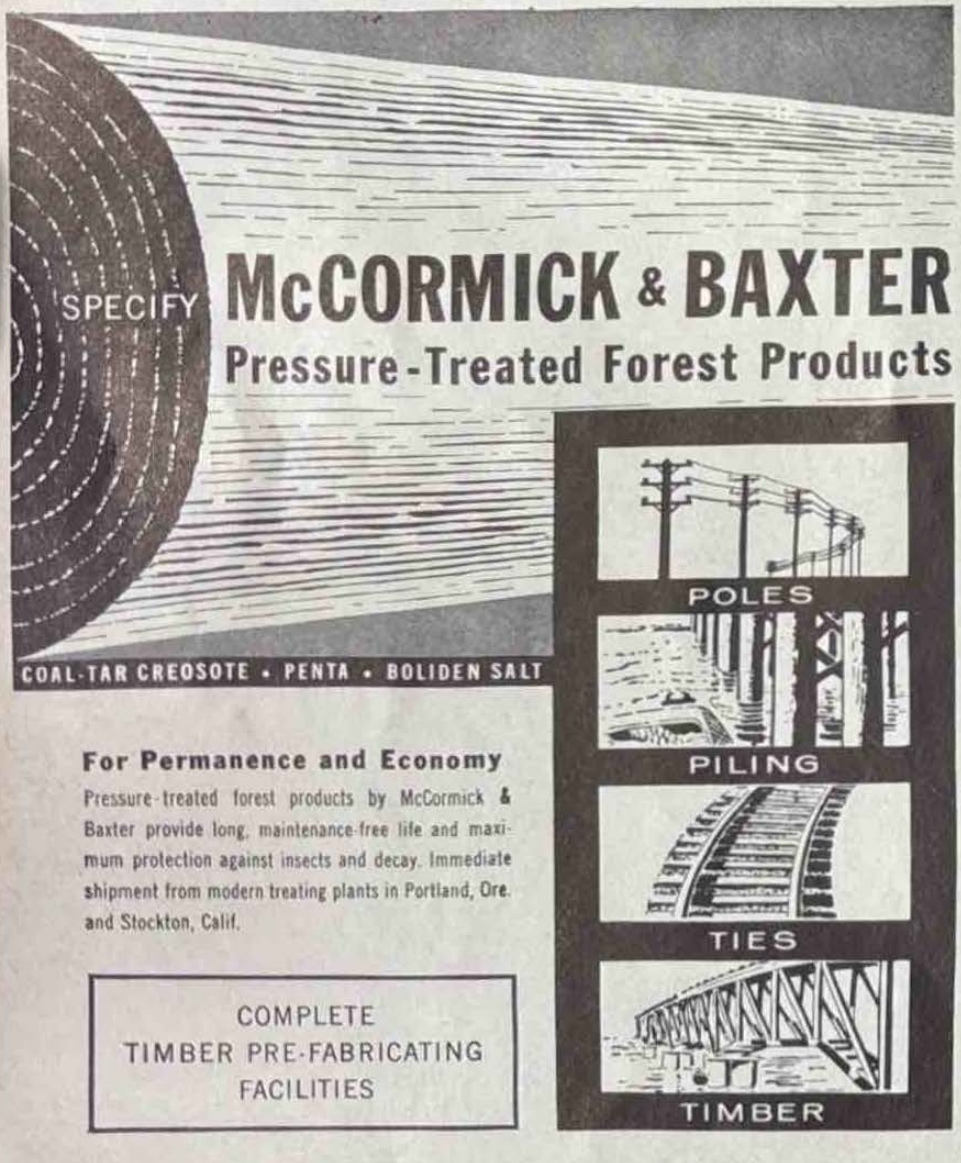
Keynoter at the first Pacific Rim Conference to be held October 8-13 in Honolulu will be Sir Leslie Munro, permanent New Zealand representative to the United Nations and former president of the UN General Assembly. Sponsored by the California Council, American Institute of Architects, the six-day program will include that state's first regional AIA meeting (California became a separate district this year) and the 14th annual meeting of the Women's Architectural League of California.

With "Wellsprings of Design" as its theme, the conference will examine three aspects—physical, social and cultural—with all panelists brought together for the final session devoted to "Synthesis."

Other speakers who have been announced in the preliminary program are Carlos Contreras, Mexican architect and an honorary fellow of the AIA. Vice president of the International Federation for Housing and Town Planning, he has represented his government at planning congresses in New York, Paris, London and Havana. Others are Dr. Paul A. Siple, explorer and military geographer, best known for his exploits in the Polar Regions; Wendell Bell, associate professor of sociology and anthropology, and Dr. Karl With, chairman of the department of integrated arts, both of UCLA; Robin Boyd, Australian architect and lecturer in design and architectural history at the University of Melbourne; and John A. Kouwenhoven, author, lecturer and professor of English at Barnard College, Columbia University.

The conference will get underway on Thursday afternoon with a welcome by Douglas Freeth, president of the Hawaii Chapter, AIA, and greeting from Henry J. Kaiser.

Conference committee members include Robert E. Alexander, George B. Allison, Welton Becket, Robert Trask Cox and J. Dewey Harnish, Southern California; Robert S. Anshen, Gardner A. Dailey and John W. Kruse, Northern California; H. Douglas Byles, Pasadena; Victor L. Wulff Jr., San Diego; George Wimberly, Hawaii.



## Portland begins program to revitalize downtown

Lloyd Keefe, former planning director for the City of Portland, started June 1 as executive director of Downtown Portland, Inc. No successor has been named. Keefe left his job, which he had held since 1952, just as the City Council passed a new zoning code which had been in the works over 12 years. The city's four-zone code has been replaced by 14 new zoning classifications for land use.

Downtown Portland has established offices in the Equitable Building and has a two-year budget of $200,000 for study, planning and action on downtown problems. The organization is designed to unite all segments of the business and financial community to speak for that area.

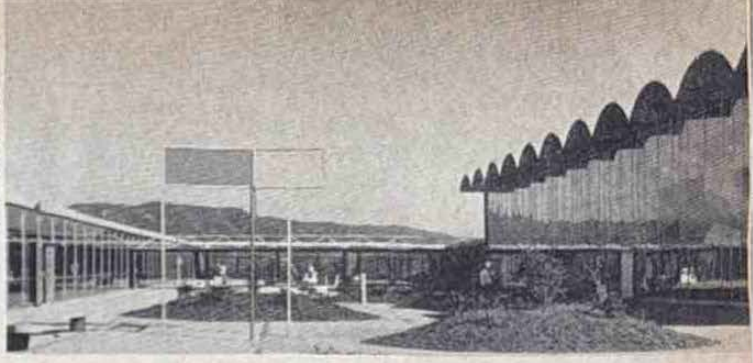
In still another move to revitalize and beautify the heart of the city, the Metropolitan Improvement Committee has lined a 40-block area in downtown Portland with trees in concrete tubs. Funds to cover the program for a full year came from the Rose Festival Association, Multnomah County Centennial Committee, Portland Retail Trade Bureau and other organizations.

The trees—maples, ashes, cherries and hawthornes—were selected by Robert Hale Ellis Jr., landscape architect; Daniel McGoodwin, architect; and Lewis Crutcher, architect, University of Oregon School of Architecture and Allied Arts. Crutcher has been credited with starting the movement with his series of talks on the need for beautifying the downtown area. Crutcher is a new member of the Portland Art Commission, which carried the ball for the project until the Metropolitan Improvement Committee was formed.

# Californians win four top awards for school design

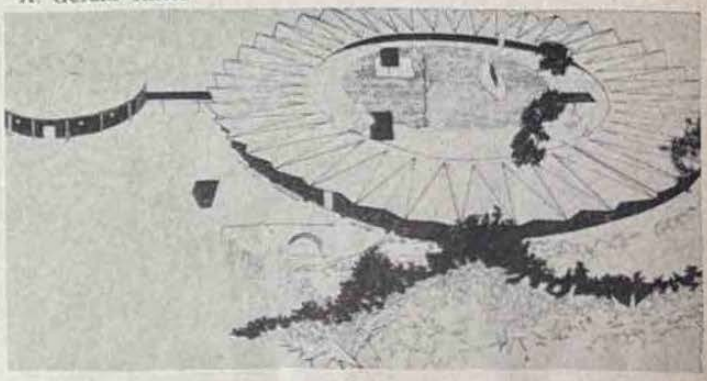
Eight Top Awards were made by School Executive magazine in its annual design competition this year and four of them went to California projects, two of them by the same architect, Mario J. Ciampi of San Francisco. Other citations included three Honorable Mentions and six Special Feature Awards, one of these to another California entry. The competition was limited to school and college buildings in the U.S. and Canada which were under construction in 1958. Two educators on the jury were joined by three architects: chairman Eberle M. Smith, Detroit; William M. Pena (Caudill, Rowlett & Scott), Houston; and Vincent G. Kling, Philadelphia.

Karl H. Riek



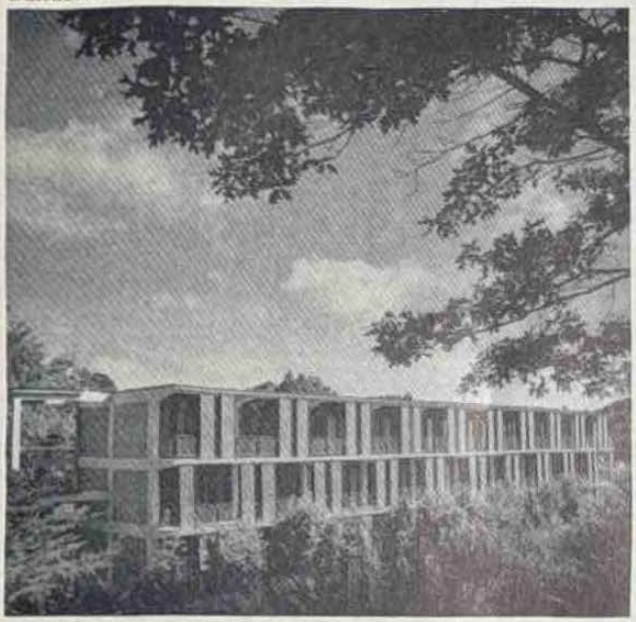
**TOP AWARD**—Westmoor High School (PA&B for Oct. '58), Daly City, Calif.: Mario J. Ciampi, architect. "This school has all the qualities for a happy educational environment. A lyrical, almost festive design. Introduction of sculpture and murals adds to the cheerful overall concept. Commendable central mall and group activities space."

A. Gerald Ratto



**TOP AWARD**—Vista Mar Elementary School, Daly City, Calif.: Mario J. Ciampi, architect. "A joyful building. Very imaginative exploration of the basic idea of a circular school which turns its teaching areas toward a generous central court. The rich oasis central court is a logical derivative of the climatic conditions."

Dandelet



**TOP AWARD**—San Francisco Theological Seminary Residence Hall, San Anselmo, Calif.: John Carl Warnecke & Associates. "A unique solution to a difficult site problem, the result being a dramatic building at home on an attractive steep slope. Delicate, well-handled up-slope approach to building; vertical screens facing into rooms insure privacy and add charm."

Jack Laxer



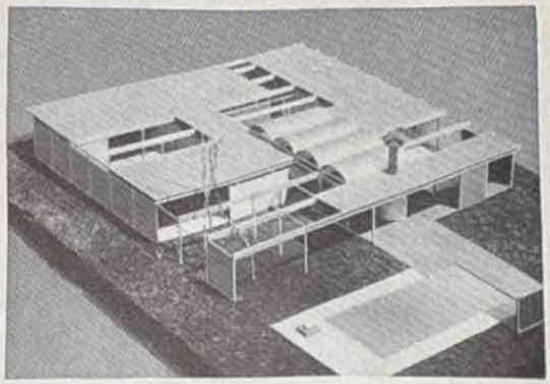
**TOP AWARD**—Cerritos College, Norwalk, Calif.: Kistner, Wright & Wright, architects. "The architects have created a simple, gay and energizing environment for higher education. There is a careful attention to inner relationships, facilities and spaces on the campus. An orderliness appears in the rectangles flanking the central space."

Marvin Rand



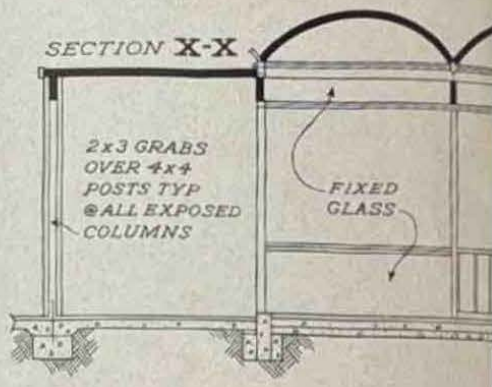
**SPECIAL FEATURE AWARD**—Narbonne High School, Los Angeles: Daniel, Mann, Johnson & Mendenhall. "Fresh idea of unifying internal curved canopy form around which school is built."

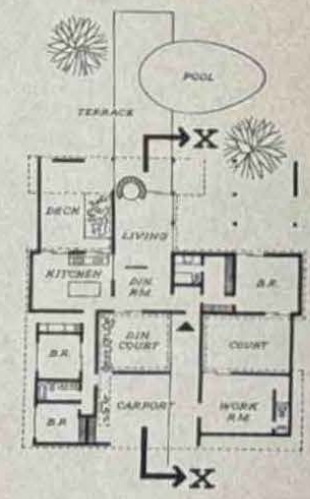
# new approaches to structural design with fir plywood



Clean, light lines of this striking residence show how new plywood structural elements can be used to help wood construction meet the requirements of contemporary design.

## Case Study House demonstrates imaginative handling of




**ARTS & ARCHITECTURE Case House Study No. 20**

**OWNER: Saul Bass, Whittier, California**

**ARCHITECTS: Buff, Straub and Hensman Los Angeles, California**

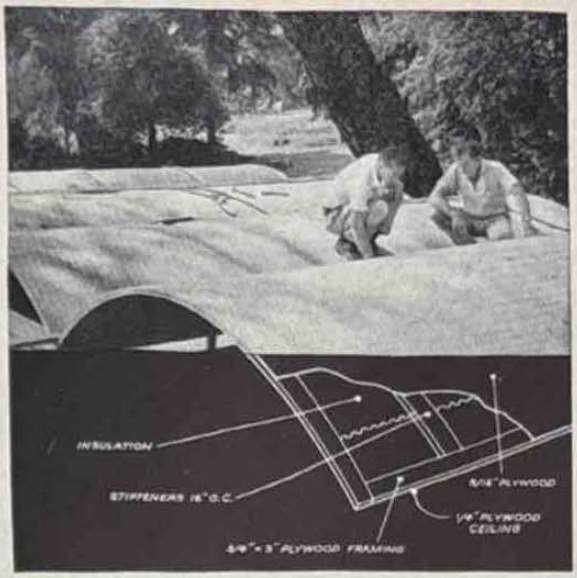
**COMPONENTS: Fabricated and erected by Berkeley Plywood Company**

THIS SOPHISTICATED ROOF SYSTEM employs lightweight, shop-fabricated plywood components that present traditionally acceptable wood construction in a fresh context.

The architects report these new plywood structural elements—box beams, barrel vaults and flat stressed skin panels—make sense from a standpoint of cost as well as design. For the loads and spans involved, they say there is no cheaper—or better—way to do the job.

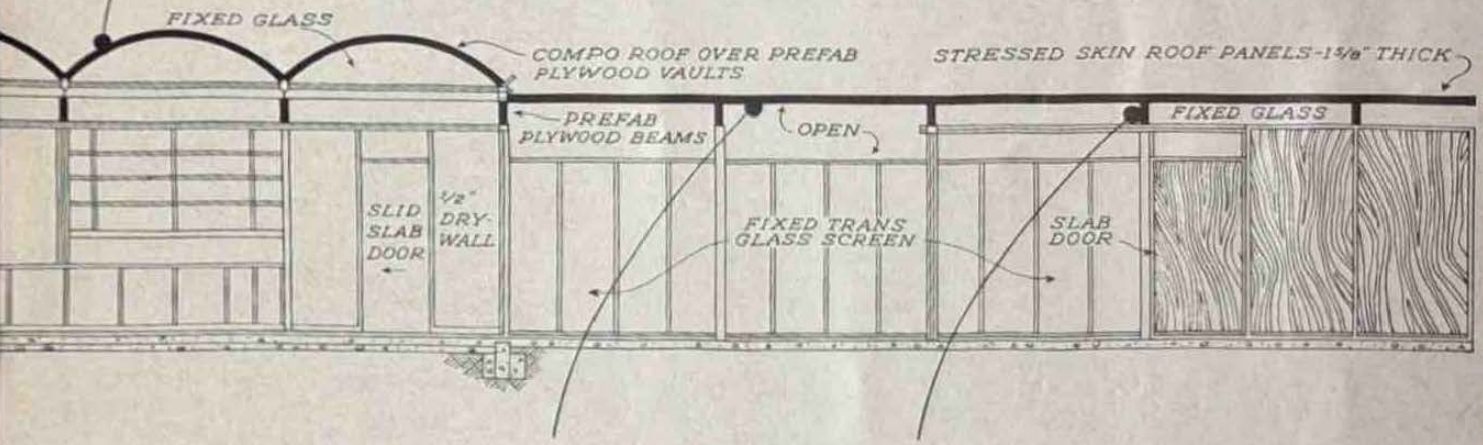
The basic structure is post and beam. Installed cost of the plywood box beams was $2 a foot, using premium overlaid plywood for the finest painting surface. The flat roof panels cost 40c per square foot in place; the barrel vaults 75c. Both were made in 2' and 4' widths, 8' and 12' lengths, combining roof deck, finish ceiling and insulation in one easily handled component.

**FOR MORE INFORMATION** about fir plywood—or DFPA design and engineering consultation services—write (USA only) Douglas Fir Plywood Association, Tacoma 2, Washington.

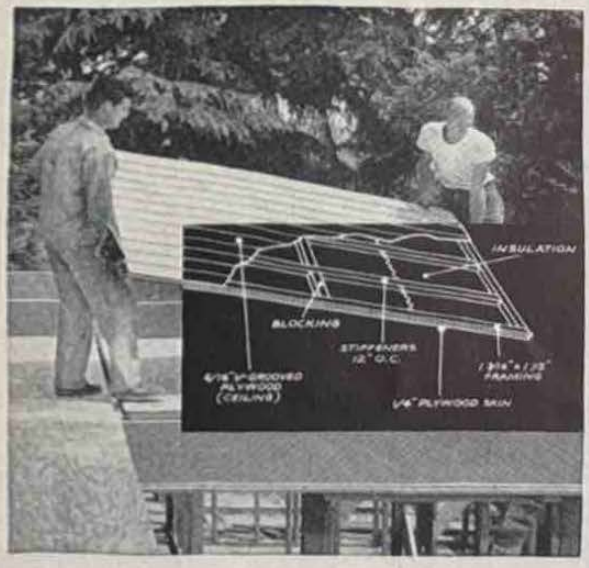



**CURVED PANELS** over living areas have same basic construction as flat panels. Underside serves as finish ceiling.

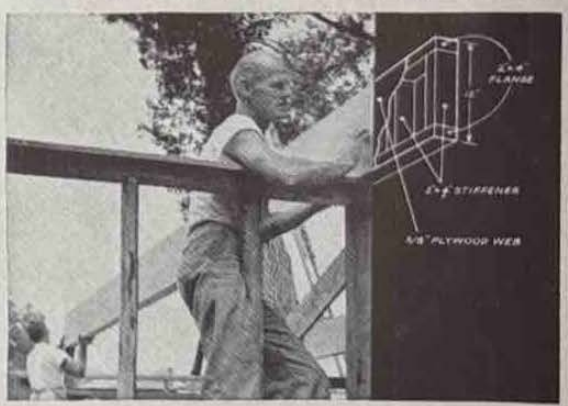
# fir plywood components



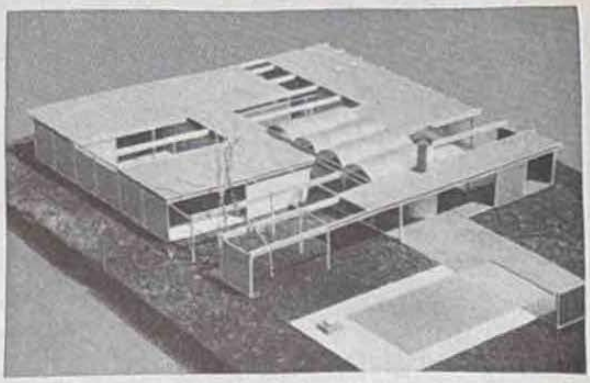

**FLAT STRESSED SKIN PANELS** have 5/16" upper, 1/4" lower plywood skins with lumber edge frames and stiffeners.




**PLYWOOD BOX BEAMS** are light, easily handled, span 16' on 8' centers. Fir plywood skins are nail-glued to 2 x 4s.



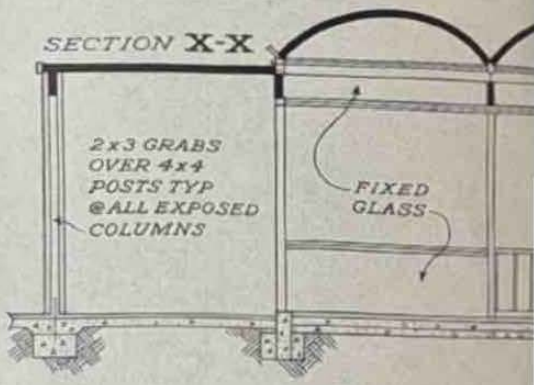
# new approaches to structural design with fir plywood

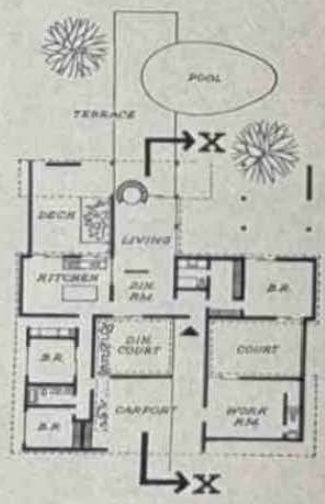


Clean, light lines of this striking residence show how new plywood structural elements can be used to help wood construction meet the requirements of contemporary design.

## Case Study House demonstrates imaginative handling of

**ARTS & ARCHITECTURE Case House Study No. 20**
**OWNER: Saul Bass, Whittier, California**
**ARCHITECTS: Buff, Straub and Hensman**
**Los Angeles, California**
**COMPONENTS: Fabricated and erected by**
**Berkeley Plywood Company**



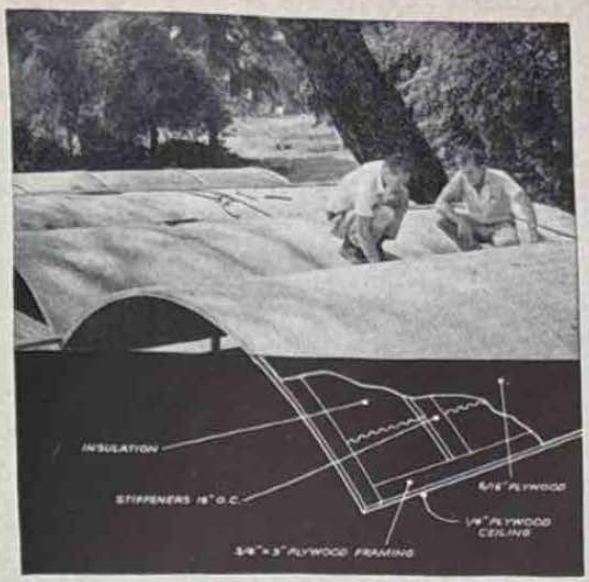




THIS SOPHISTICATED ROOF SYSTEM employs lightweight, shop-fabricated plywood components that present traditionally acceptable wood construction in a fresh context.

The architects report these new plywood structural elements—box beams, barrel vaults and flat stressed skin panels—make sense from a standpoint of cost as well as design. For the loads and spans involved, they say there is no cheaper—or better—way to do the job.

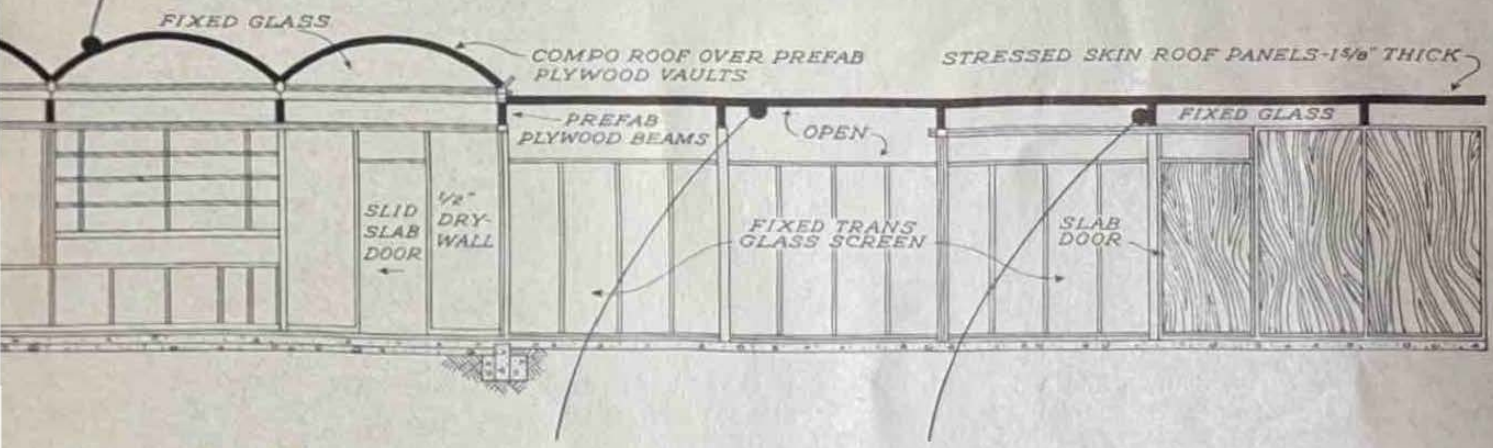
The basic structure is post and beam. Installed cost of the plywood box beams was $2 a foot, using premium overlaid plywood for the finest painting surface. The flat roof panels cost 40c per square foot in place; the barrel vaults 75c. Both were made in 2' and 4' widths, 8' and 12' lengths, combining roof deck, finish ceiling and insulation in one easily handled component.

**FOR MORE INFORMATION** about fir plywood—or DFPA design and engineering consultation services—write (USA only) Douglas Fir Plywood Association, Tacoma 2, Washington.

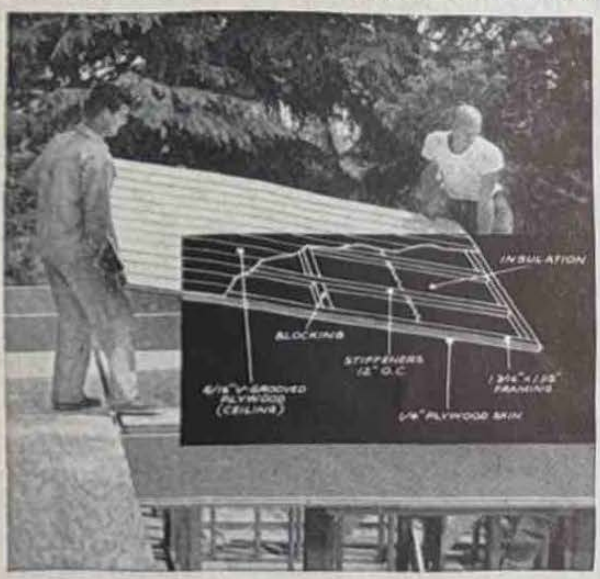



**CURVED PANELS** over living areas have same basic construction as flat panels. Underside serves as finish ceiling.

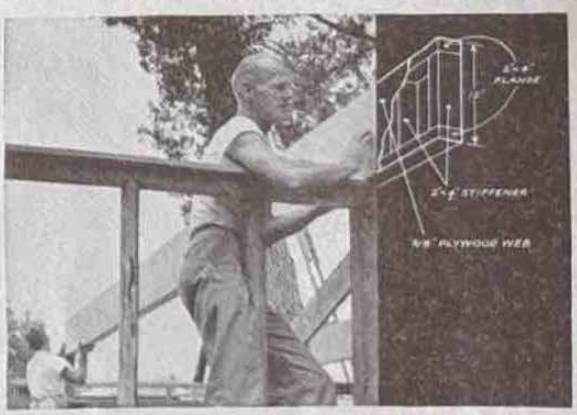
# fir plywood components



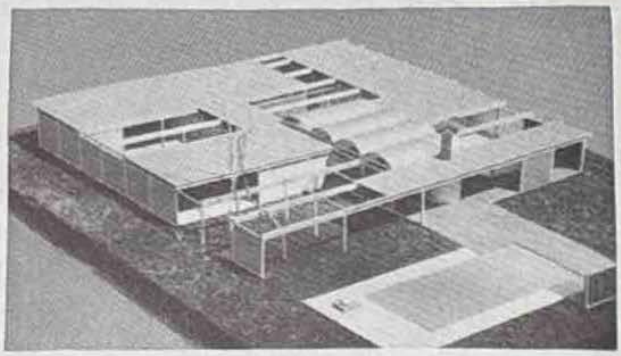

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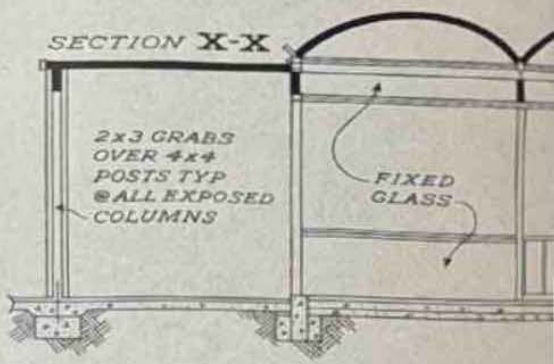


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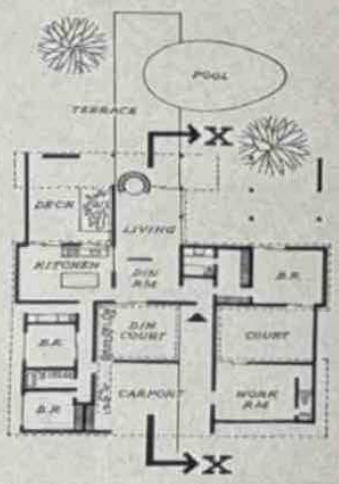
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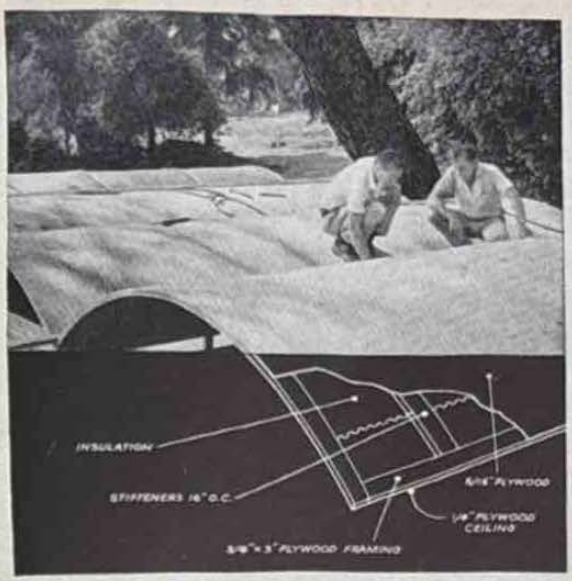
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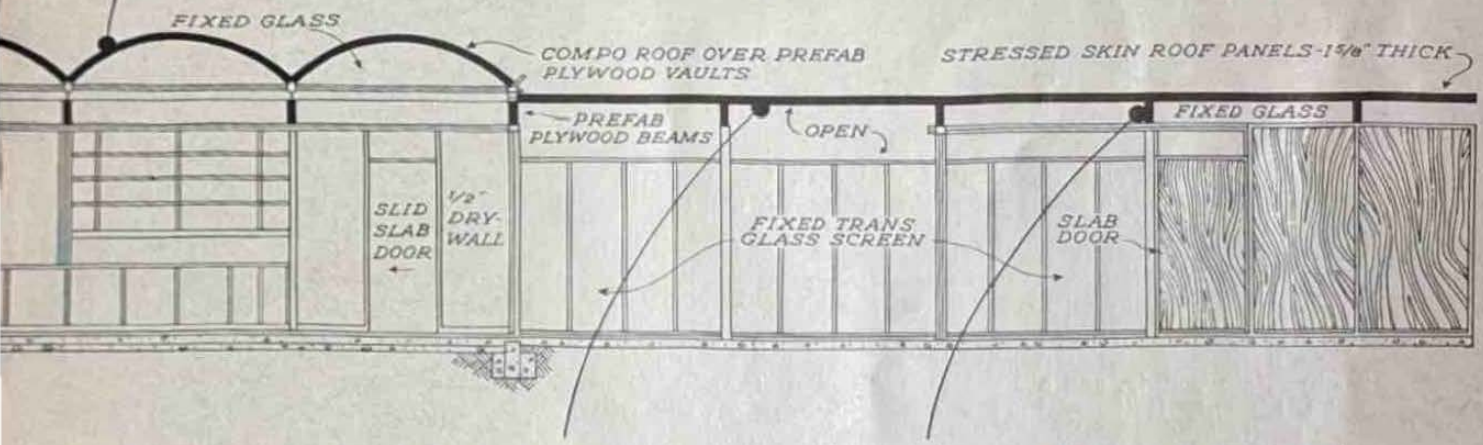



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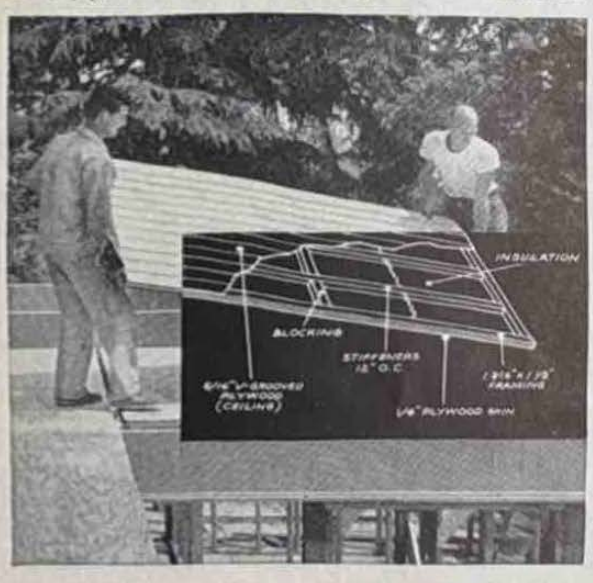



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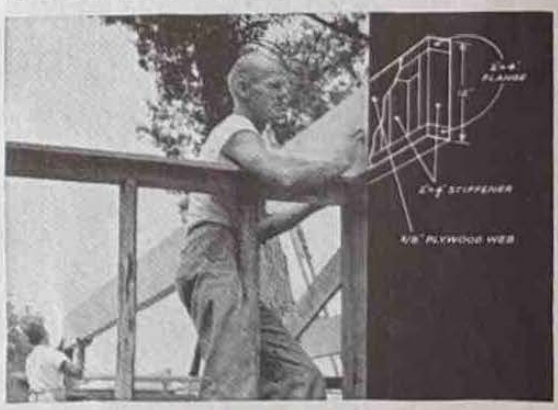
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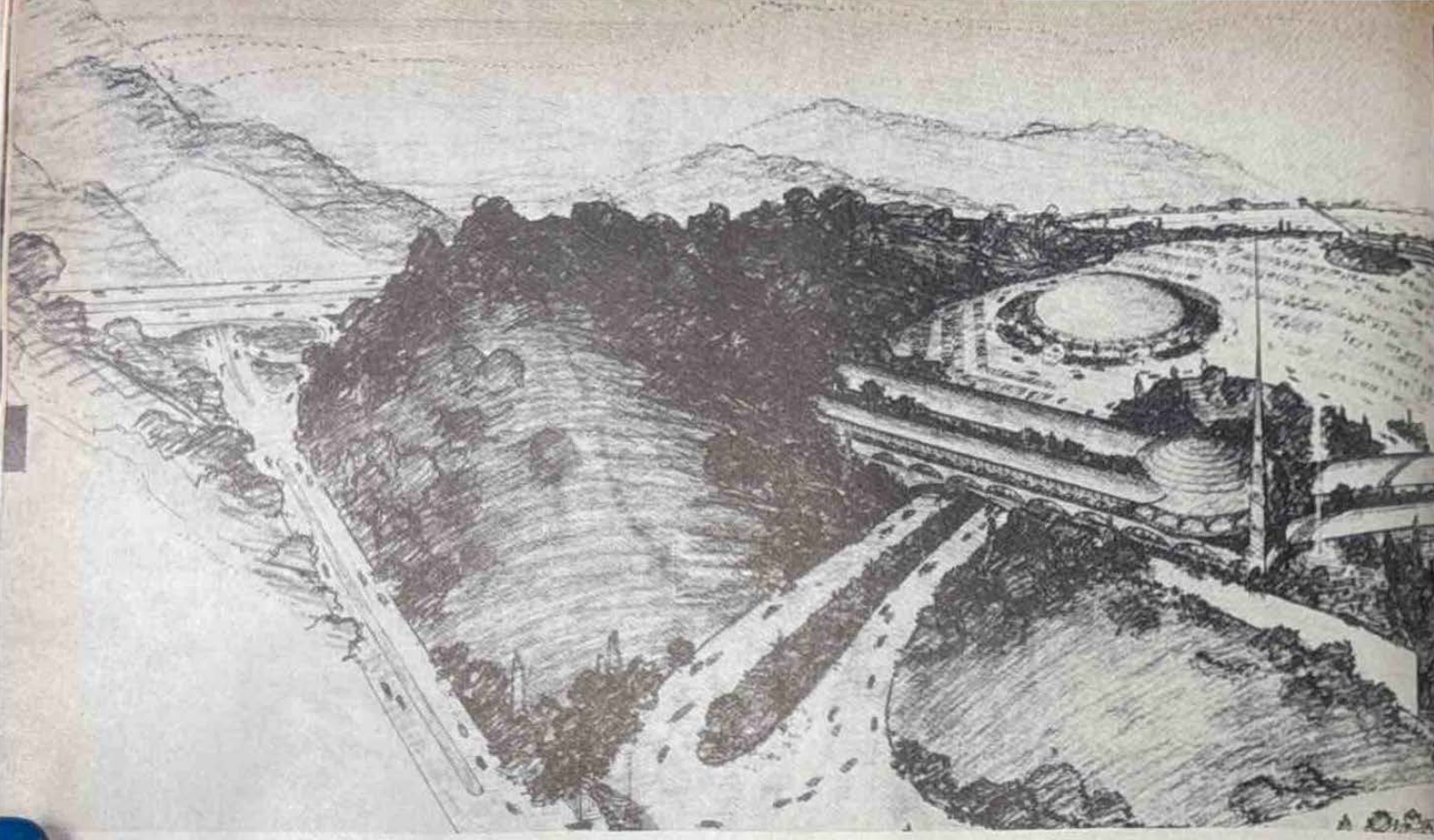



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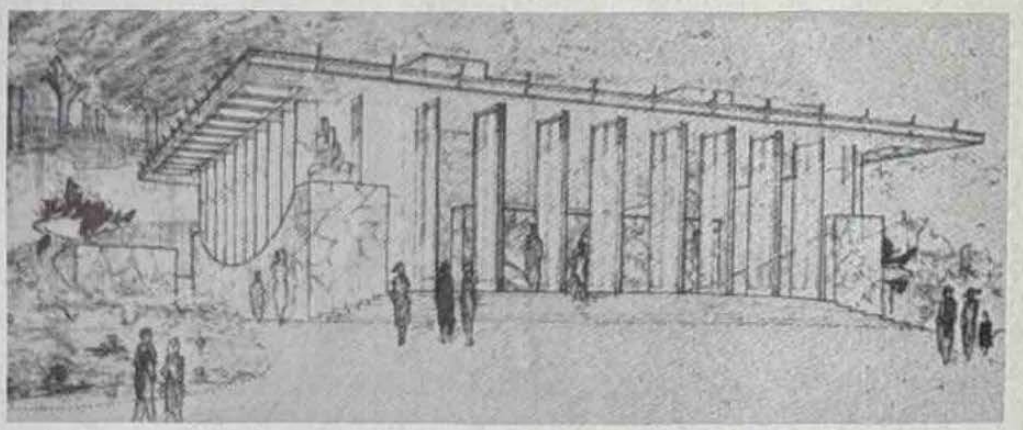
# Two projects in California's Marin County

When Frank Lloyd Wright died in April at the age of 89, he left a considerable amount of work in process, including the three western projects shown on these pages: the controversial Marin County Government Center (across top) and two others now under construction — a Christian Science Church, also in Marin County, and a clinic building, his only testimonial to the state of Montana.

Aaron Green, Wright's representative in San Francisco, states that working drawings are nearing completion on the first and second construction stages of the government center, consisting of county offices and facilities for administrators, welfare department, superintendent of schools, physician and library. Allocation of funds has just been made by the State Public Works Board for preliminary sitework on the fairgrounds area where a community pavilion will be built.

Other construction stages call for the sheriff's offices and jail, courtrooms and school library. The master plan also allows for such eventual activities as a heliport, fire station, 3,000-capacity auditorium and historical museum.

Wright was commissioned in July 1957 to create the master plan and to design the buildings for the county center on a 140-acre site immediately north of San Rafael. But the finalized contract almost went on the rocks when a letter was introduced at a hearing of the Board of Supervisors charging the architect with being a "Communist sympathizer." Snorted



**CHRISTIAN SCIENCE CHURCH** for Bolinas, Calif., small sea coast community, will seat 140, with Sunday school on lower level.



## one in Montana among Frank Lloyd Wright's last

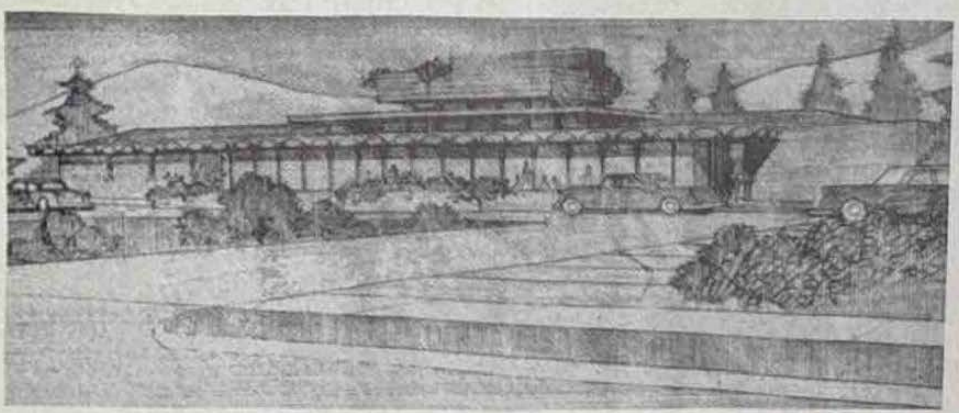
Wright, waving his cane and heading for the door: "Oh, rats. This is an absolute and utter insult and I will not be subject to it. I am a loyal American and people will have to take me for what I am." Later, however, he agreed to visit the proposed center site with the supervisors.

The Christian Science project is not the only Wright church near or under construction in California. He designed what he called a "Pole and Boulder Gothic" structure for the Pilgrim Congregational Church in Redding. To be built on a rugged hillside, it will rise from the ground with rough stone walls and a redwood log A-frame supporting the roof.

Ironically, the announcement that Wright was designing the Montana clinic broke during the week that he died. The Whitefish Pilot reported that the architect had planned to visit the only building he was to design in the state and that his desire to have a structure in the Montana mountains was one reason he took the job.

The brick and glass building will have 5,000 sq. ft. housing three doctors' offices, 12 examining rooms and facilities for minor surgery. Among its distinctive features: a clear plastic indoor-outdoor circular planter besides the one on the roof.

And as if the Wright project weren't enough excitement for the townsfolk, Whitefish (1950 pop.: 3,268) community leaders last month laid forth a proposal for the complete renovation of the business district, with plans developed by the architectural firm of Taylor, Thon, Schwartz & Kirkpatrick.



**CLINIC BUILDING** for Drs. Lockridge, Whalen and McIntyre in Whitefish, Mont., will be dominated by planter on roof.

*For the Motel Investor who thinks ahead!*

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## OFFERS AN OUTSTANDING
# MOTEL FRANCHISE




If you or your company is contemplating the purchase or construction of a Motor Hotel, now is the time to investigate what the CONGRESS INNS franchise can add to your investment.

As a business man, you know what the "brand name" means in virtually all fields of enterprise. And in the motel business, the trend is in the same direction. The establishments with familiar *brand names* and with uniform service and facilities, are—now and in the future—most likely to succeed.

The CONGRESS INNS Franchise offers you exactly this: a familiar brand name. In less than four years, the Congress of Motor Hotels, with 700 members throughout the United States and in Canada, has become the largest organization of its kind and is recognized from coast to coast as a symbol of finest facilities and service.

*Now, CONGRESS has become a brand name for a new chain of independents!*

*Now, you may buy, build or convert to a CONGRESS INN of your own!*

If you are interested in investing in the profitable motel industry, or if you are interested in a "brand name" for your present facility, we would like to correspond with you.

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## ALL THE RIGHTS OF PRIVATE OWNERSHIP!



Bert M. Olden, Pres. Congress of Motor Hotels

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The Congress of Motor Hotels was organized in 1955 to provide the independent operator with a means of identity, and strength through cooperation with fellow members. Through a united program of advertising and guest referrals, Congress offers its members an opportunity for increased business, including the impact of listing in 2,000,000 Guide Books each year; no-cash-cost advertising, through the Congress Ad-Plan; free Reservation System; affiliation with Diners' Club and American Express credit cards; Discount Purchasing Department; and many other features.

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*Which is better*—a planned program, or hit-and-miss promotion?

*Which is cheaper*—"go-it-alone" or pooled impact?

**AN ESTABLISHED NAME AND A PLANNED PROGRAM FOR MORE PROFIT**

***Congress Inn License Applications now being considered***

Write, Wire or Phone

## Congress of Motor Hotels

***Congress Inns Division***

2503 Santa Monica Boulevard
Santa Monica, California EXbrook 5-2071

# Courtyards for living and working as well as for viewing

Art Hupy Photo



**IVAR HAGLUND RESIDENCE**, Seattle: William G. Teufel, landscape architect.

*"The court was designed as a multifunctional space for entry, outdoor use and direct vision from within."*

A WELL-DESIGNED COURT should have an order that becomes an integral space relationship with the function of the architecture. It can be either active, passive or transitional. However, it has to interlock and be a part of the total idea; otherwise, it will fail. A court should compliment the physical detail and spirit of the architecture in its basic order. But the plant materials or other elements should offer relief to the highly disciplined order of today's design.—WILLIAM G. TEUFEL.

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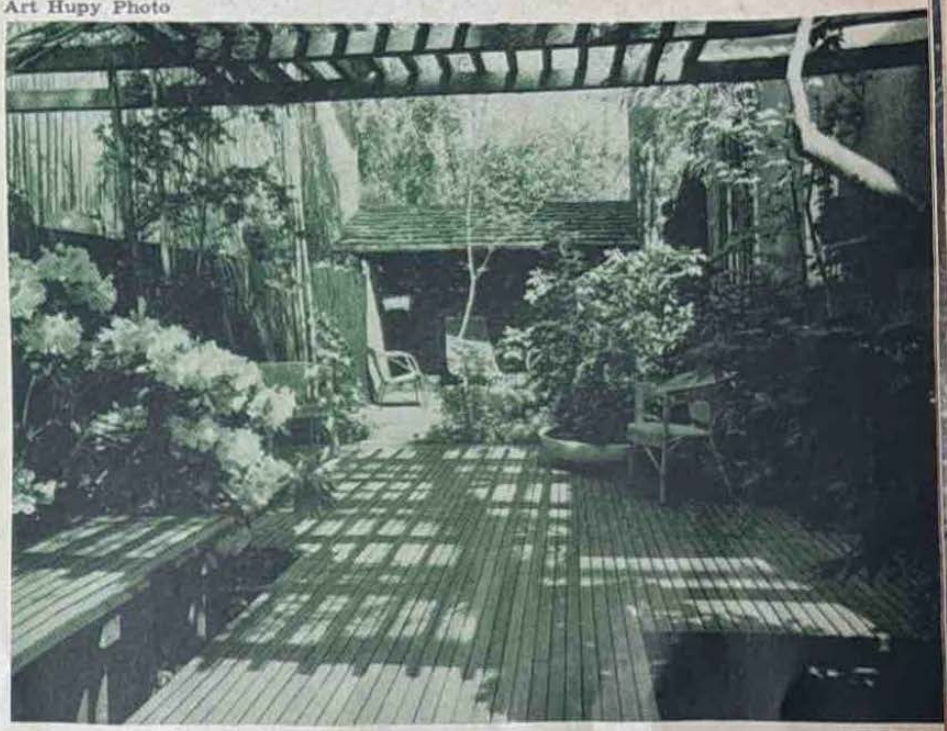
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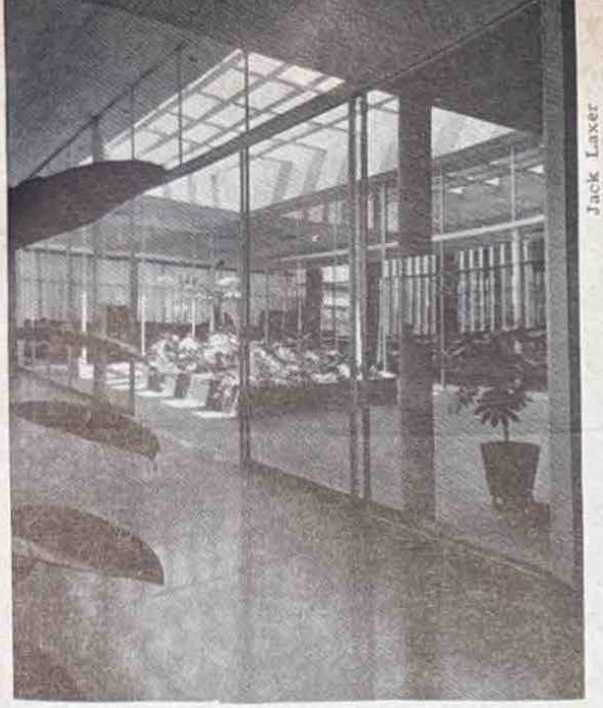
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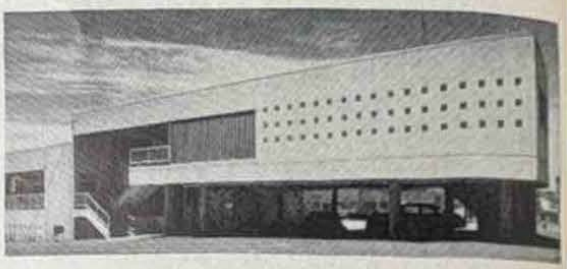
**CHAMBER OF COMMERCE BUILDING,** Los Angeles: Heitschmidt & Thompson and A. C. Martin, associated architects-engineers; Cornell, Bridgers & Troller, landscape architects.

*"The interior court is entirely surrounded with glass to introduce natural light inside the building and visual interest to the space."*

*"The court adjacent to the cafeteria (cover photo) provides an outdoor dining area and admits light to the meeting and luncheon rooms as they are situated below the normal grade. The enclosing brick wall with espaliered planting reduces street noises and offers a restricted but pleasing vista from the adjoining rooms."*

*"Located in a commercial district, the second-story tiled court separates the private office and living quarters of the owner and immediately establishes a residential quality. The louvers can be opened on warm days, closed on windy or rainy ones."*

**KUNEY-JOHNSON BUILDING,** Seattle: Paul Thiry and William Aitken, associate architects.





Art Hupy photos

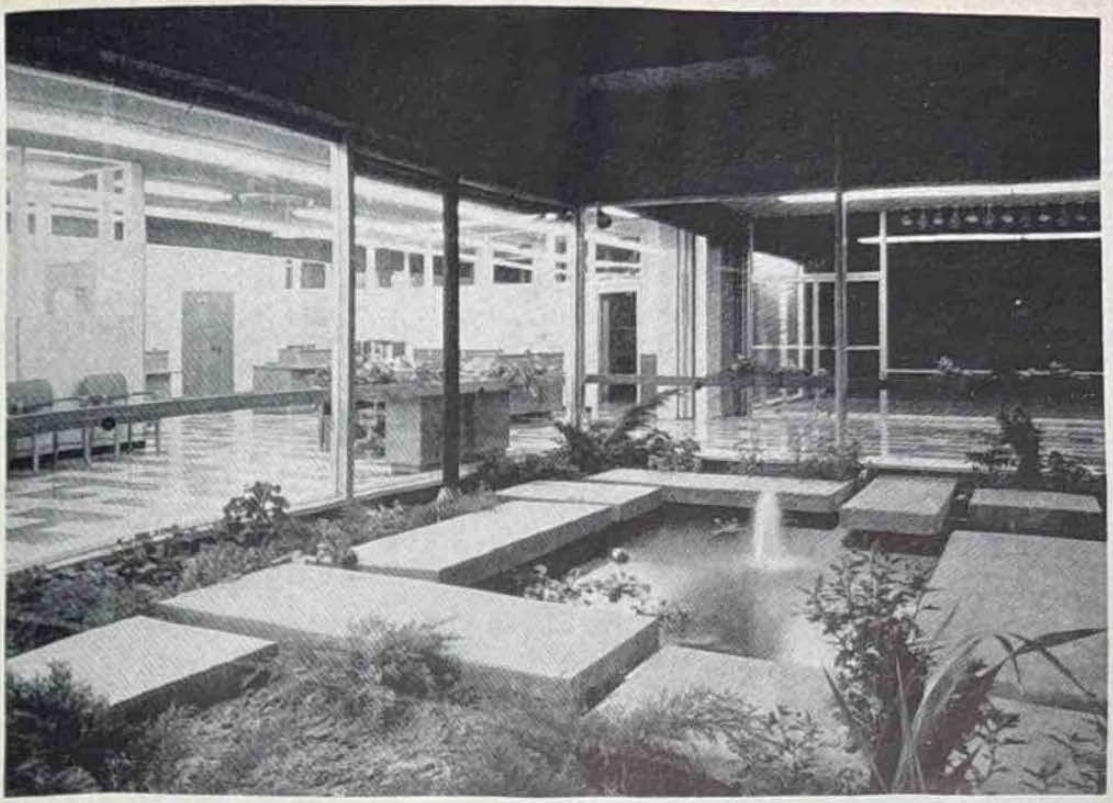
Stone & Steccatti



**BOARDWALK SHOPPING CENTER,** Belvedere, Calif.: John Lord King, architect; Thomas D. Church, landscape architect.

*"The courtyards — a second is not shown — give flexibility in locating small shops and additional corners for identification in different directions and traffic areas; lend general interest not only to the architecture but to the landscaping which is an important feature of the whole design; provide good protection from the wind, a significant factor in this particular site, and develop an outdoor eating area which has become extremely popular and presently is being enlarged for serving dinners."*

Art Hupy

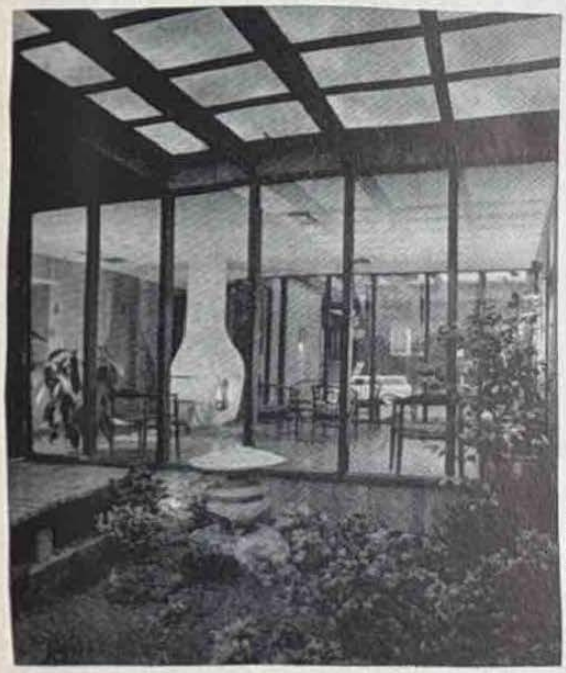


**BENTON COUNTY PUBLIC UTILITY DISTRICT ADMINISTRATION BUILDING,** Kennewick, Wash.: Bassetti & Morse, architects; Eckbo, Royston & Williams, landscape architects.

*"The enclosed space between the auditorium and office area creates a pleasant outlook for employees and an attractive entry."*

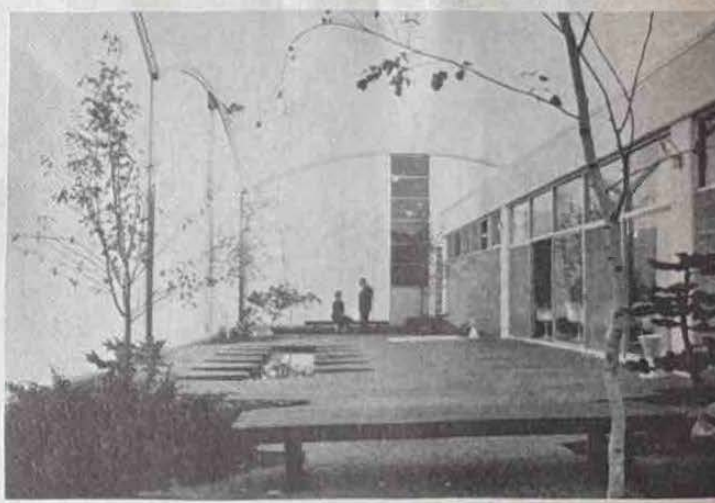
*"This and another court help to avoid a sterile, clinical appearance and to produce an intimate atmosphere in the quarters shared by five doctors in a residential district."*

**HOYT STREET CLINIC,** Portland: Skidmore, Owings & Merrill, architects; Walter and Florence Gerke, landscape architects.



Dearborn-Massar

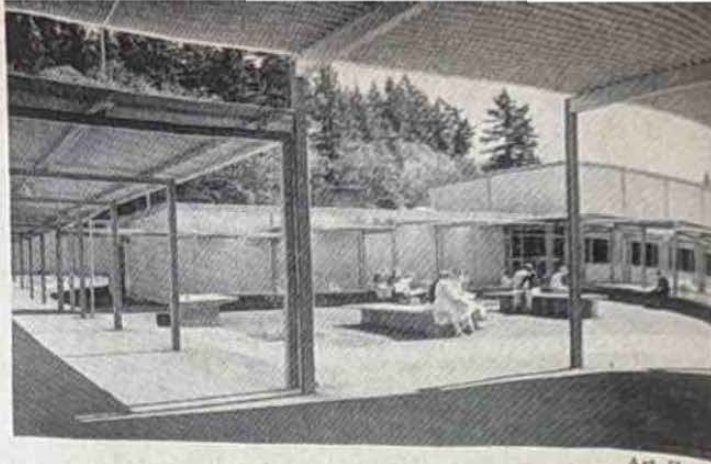
Tom Vano



**PARKE, DAVIS & CO. BRANCH OFFICE-WAREHOUSE BUILDING,** Menlo Park, Calif.: Yamasaki, Leinweber & Associates, architects, and Knorr-Elliott Associates, associate architects; Lawrence Halprin, landscape architect.

*"The courtyard is used as an interesting space result of integrating the office building and warehouse. Rimmed with redwood benches, it can be entered through sliding glass walls from the dining room at the right."*

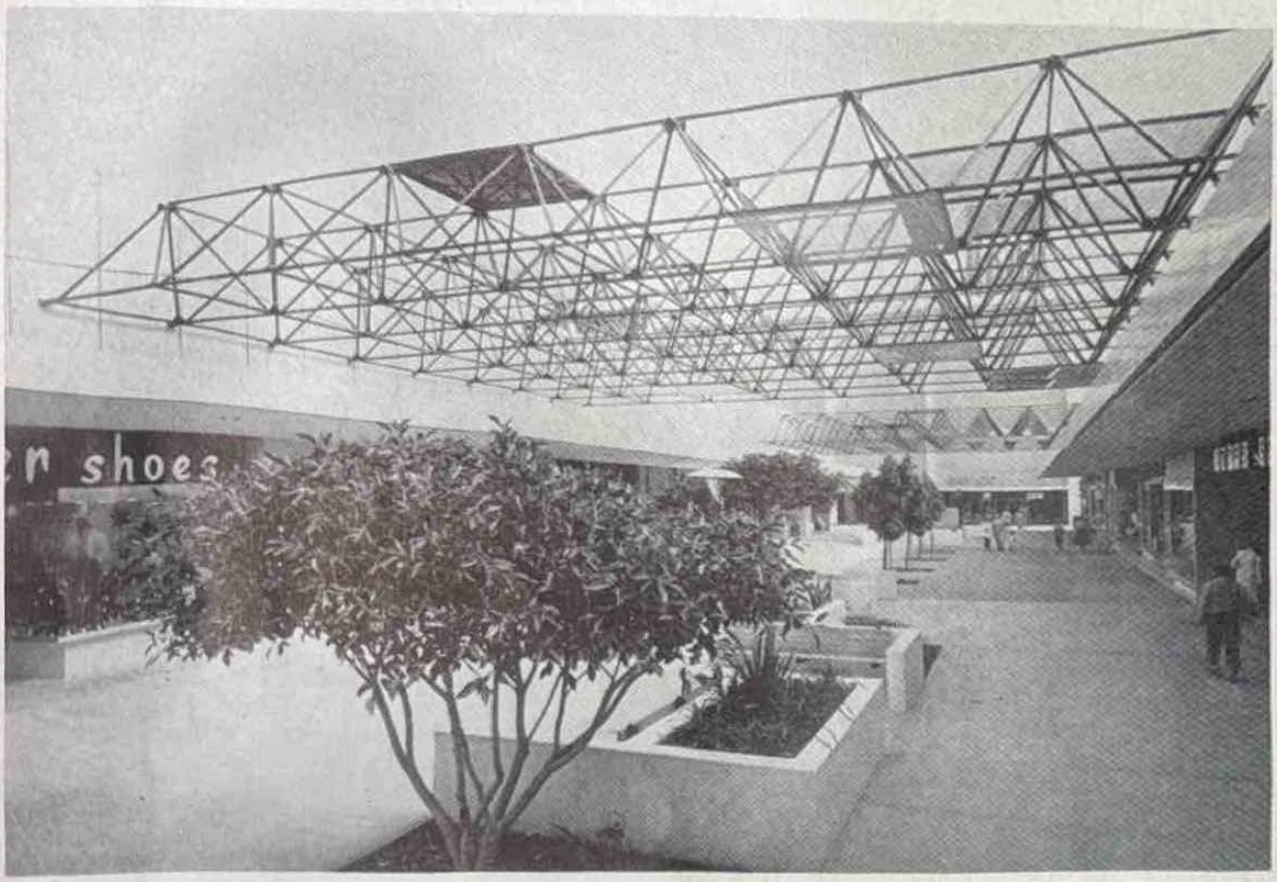
## COURTYARDS FOR LIVING AND WORKING



Art Hupp

**OLYMPIC VIEW JUNIOR HIGH SCHOOL,** Mukilteo, Wash.: Waldron & Dietz, architects; Roberta Wightman, landscape architects.

*"The courtyard forms a transition from one building element to the other and an area for sitting and relaxing. No less important, it gives to the student an esthetic lift so lacking in our everyday environment."*

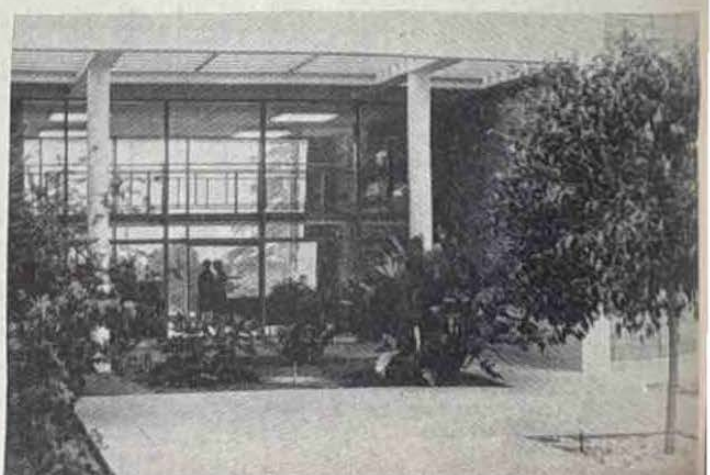



**EASTLAND SHOPPING CENTER,** West Covina, Calif.: Albert C. Martin & Associates, architects; John Ratekin, landscape architect.

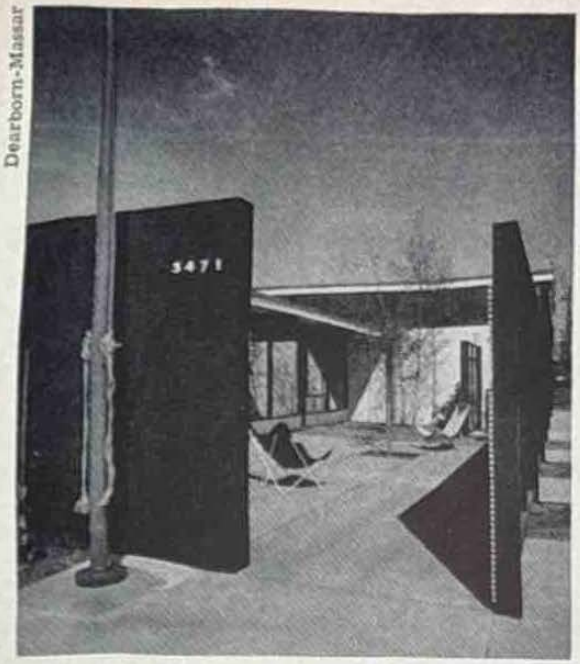
*"The overhead decorative structure in the mall area creates a sense of intimate scale by defining height; carries out the triangular theme of the center; provides interesting shadow patterns and patches of reflected color through the use of transparent panels."*

**RIVERSIDE CEMENT CO. OFFICE-LABORATORY BUILDING,** Crestmore, Calif.: Allison & Rible, architects; Edward Huntsman-Trout, landscape architect.

*"In the hot climate of Riverside, this court provides a colorful landscaped outlook from full-height windows in the administrative and business wing of the building. Development of design includes the use of different types of cement produced by the owner."*



Dearborn-Massar




**CITY OF TACOMA FIRE STATION;** Robert Billsbrough Price, architect; Lawrence Halprin, landscape architect.

*"Placed on the sunny side of the structure and screened from passing traffic by planting and fences, the court is used as an auxiliary summer lounge area."*

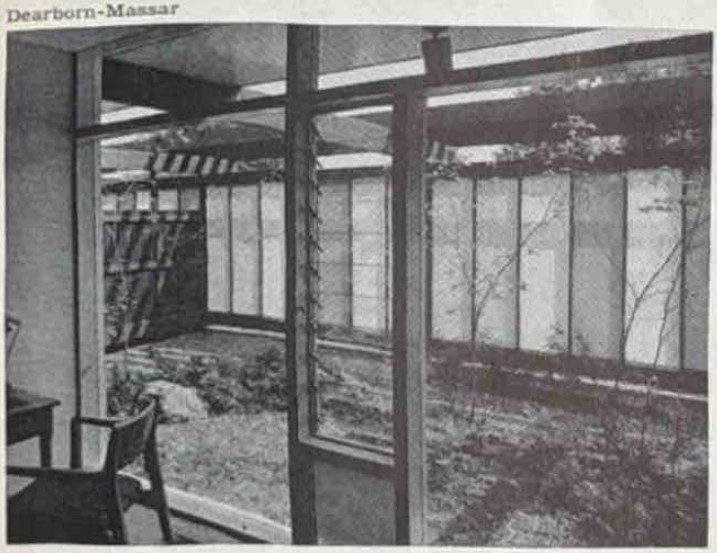
*"The space is a visual extension of the interior through the use of sliding doors and repetition of white concrete flooring. It adjoins the kitchen and living areas for outdoor dining and dancing under the stars. At other times it is a private sun trap screened from wind and view by a small pine forest.*

**LLOYD RUOCCO RESIDENCE,** San Diego: Lloyd Ruocco, architect.



Douglas Simmonds

Dearborn-Massar

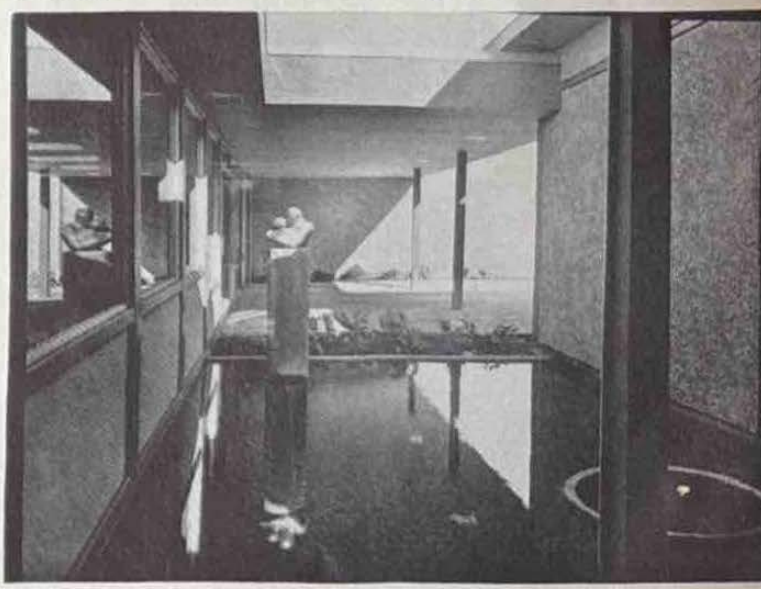


**BLAKELEY PSYCHIATRIC GROUP,** Seattle: Paul Hayden Kirk & Associates, Donald S. Wallace, David A. McKinley, architects; Glen Hunt, landscape architect.

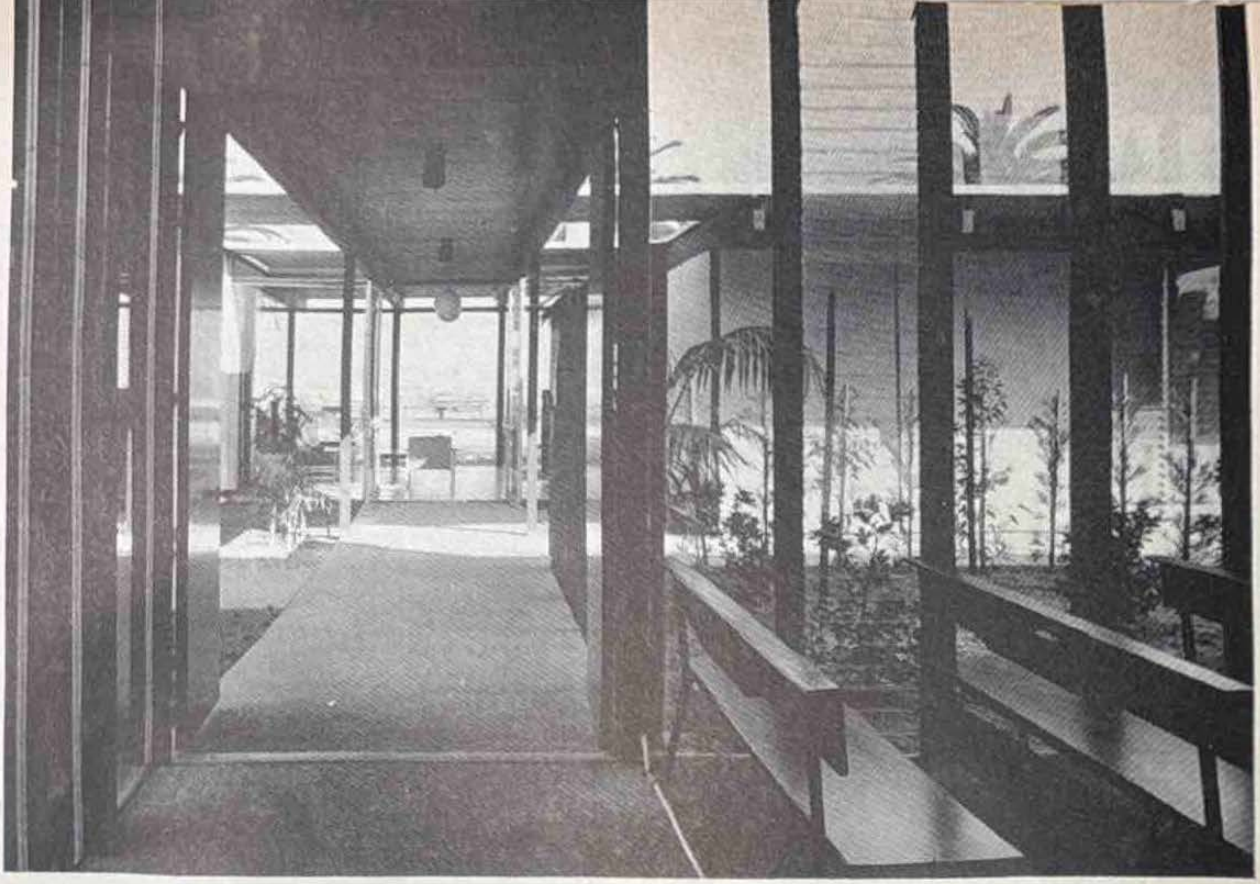
*"All the psychiatric treatment rooms visually open into a controlled garden which enables the patients to have a vista of some interest and a sense of being with nature—an air of response and relaxation. The courts are oriented so that all rooms receive either north or south light. The latter have trellis members to shield them from direct sunlight and this north-south orientation, coupled with the translucent colored plastic screens, gives an interplay of light and shadow."*

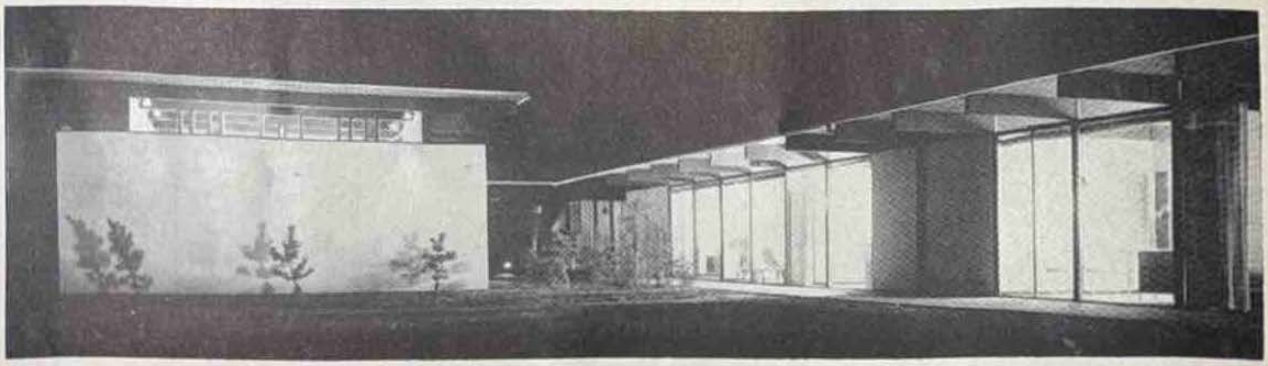
*"The courtyard provides a visual retreat from the chaos of downtown activity as well as an effective setting for the structure. It has been used for art exhibits and summer story hours."*

**SPRINGFIELD (ORE.) PUBLIC LIBRARY:** Lutes & Amundson, architects-community planners; Wallace Ruff, landscape architect.



Tom Burns Jr.





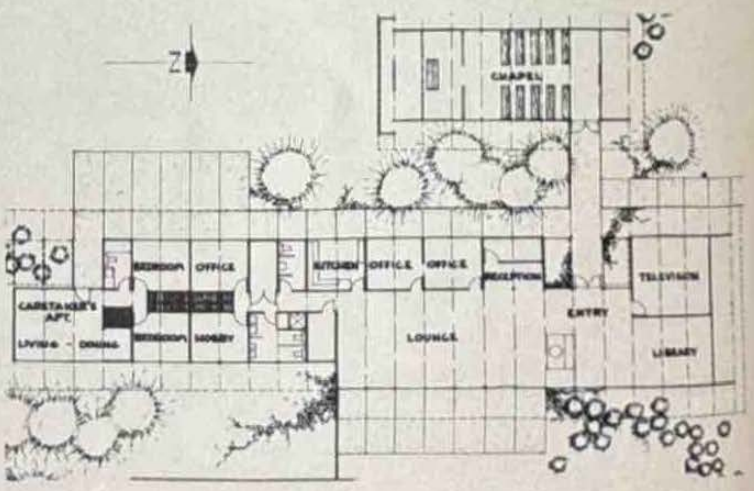
Seaman's Center Building
San Pedro, California

CARLETON WINSLOW
Architect

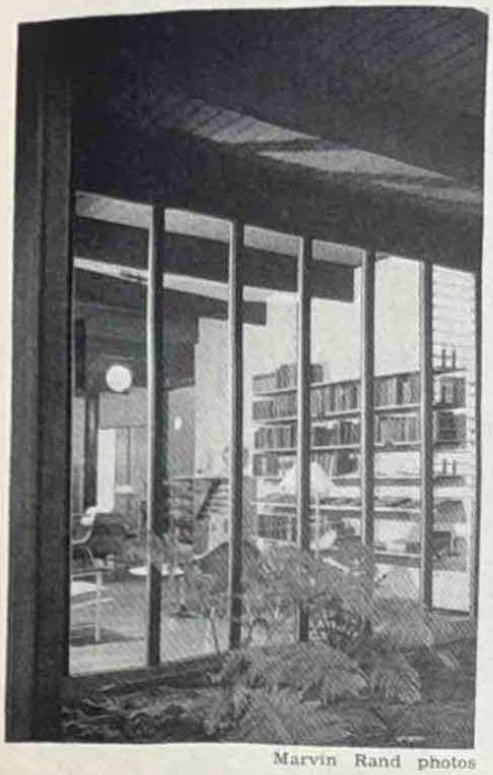
WARREN WALTZ
Project Director

ANDREW JONCICH
WILLIAM LUSBY
Associate Architects

FRANK SEBESTA
General Contractor

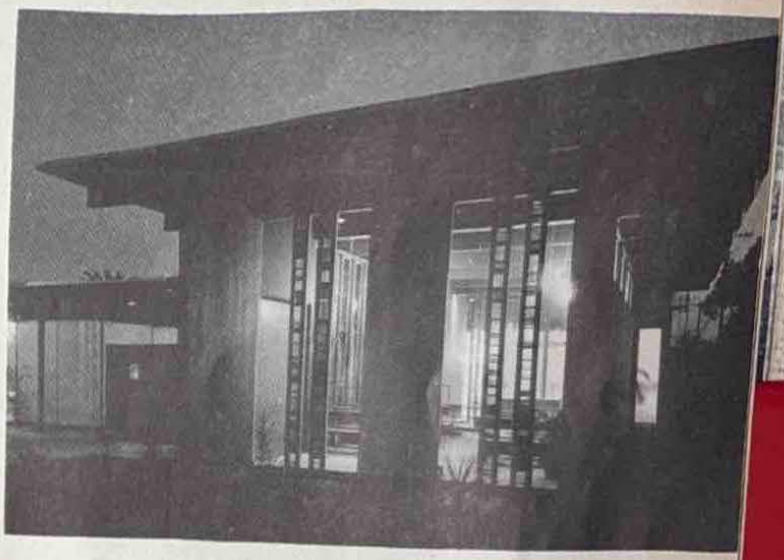


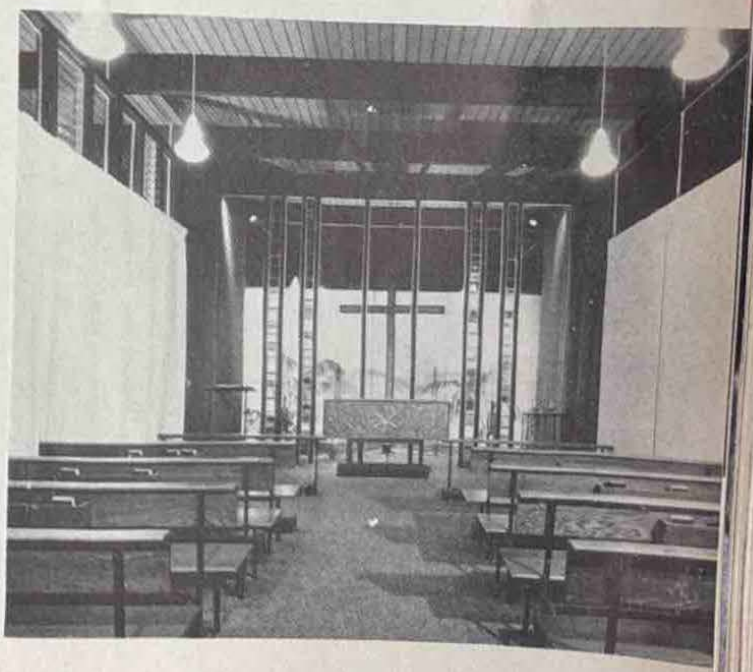
# A happy integration of two distinct functions



Marvin Rand photos

SINCE it was deemed desirable to have two separate structures, the main problem here was to integrate a chapel with a larger essentially non-religious building to house recreational facilities for merchant seamen away from home. Thus the smaller chapel by virtue of a higher roof dominates its companion, whose extension of beams creates a covered passage and unifies the buildings, both fitted to the same module. The pure lines and crisp detailing of the wood frame complex are relieved by a generous use of glass set in aluminum, by accents of intense color and by extensive landscaping which relates the project to its site overlooking the bay.





### OUTLINE SPECIFICATIONS

**Structure:** foundation: concrete; frame: Douglas fir; roof: 2-in. wood joists; floor: concrete slab.

**Exterior Finish:** metal edged plaster panels and glass with redwood inspots.

**Roof Surfacing:** tar and gravel.

**Windows:** fixed glass louvers.

**Doors:** flush wood.

**Floor Surfacing:** vinyl asbestos—(Matico) Mastic Tile Corporation of America.

**Interior Finish:** Painted plaster.

**Ceilings:** t&g Douglas fir.

**Lighting Fixtures:** incandescent—Prescolite Manufacturing Co.

**Heating:** hot water radiant floor panels, copper tube boiler— Raypak Co., Inc.

**Plumbing and Sanitary:** Crane Co.

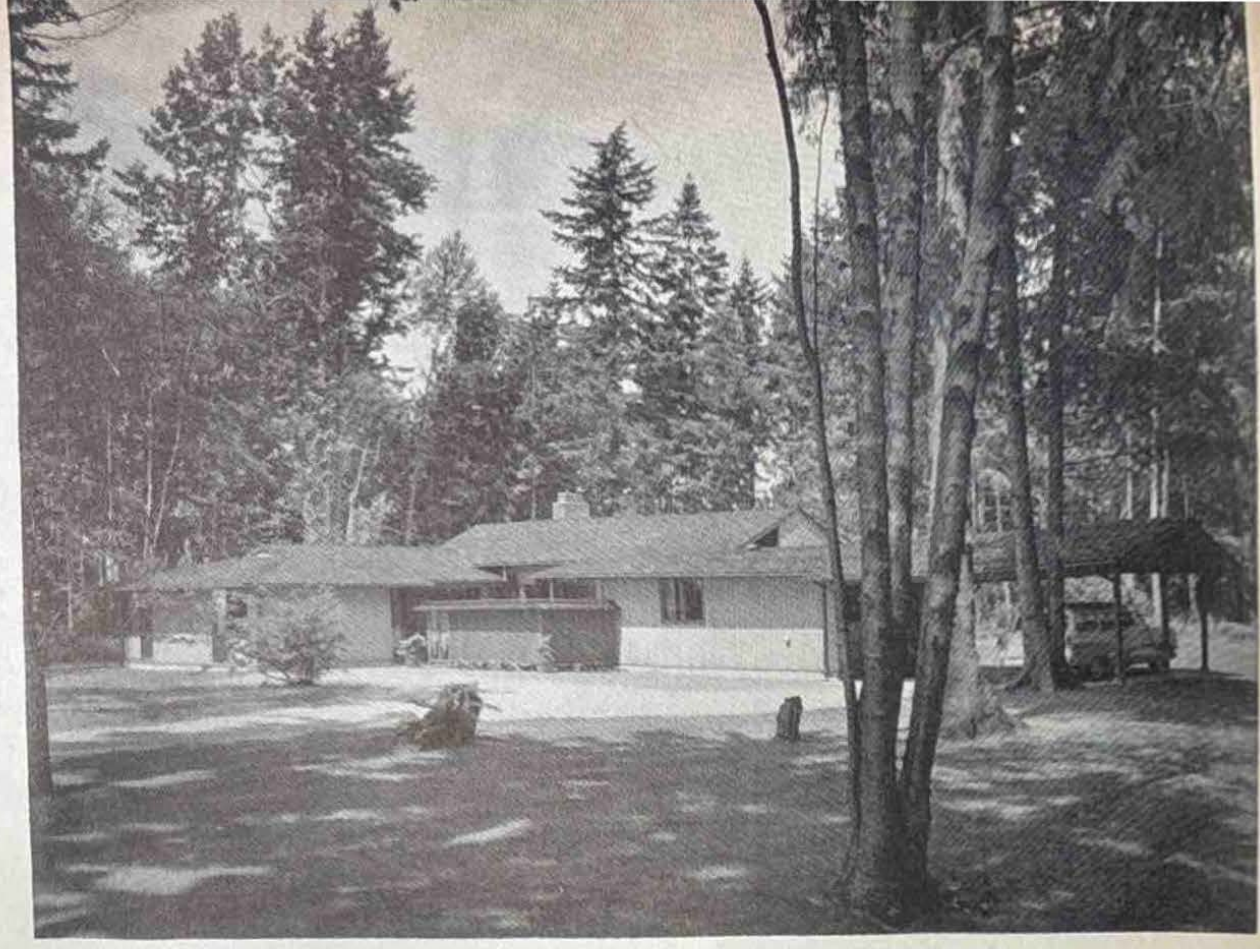
**Total Area:** 5,000 sq. ft.

**Total Cost:** $58,000.

**Cost per Square Foot:** $11.

**Date of Completion:** November 1958.

**ALTAR AND CROSS,** which stands in garden behind glass wall, both are inlaid with plastic and mosaic executed by Dale Owen. Ceramic plaque at opposite end (behind wall panel in top photo) is work of Betsy Brown. Chapel furnishings, including iron and wood pews, were designed by Warren Waltz.



# An informal wood house in keeping with the site

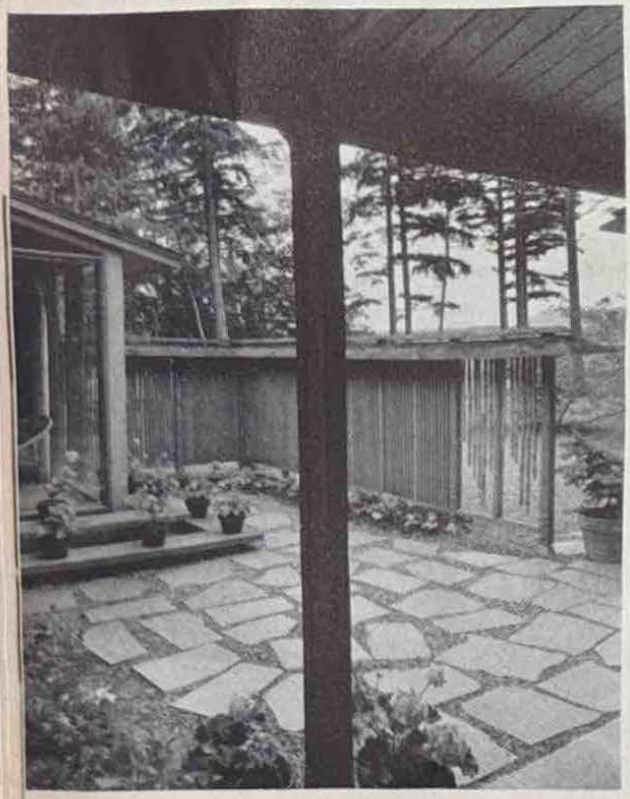
Dr. Eldee L. Schneider Residence
Mount Vernon, Washington

•

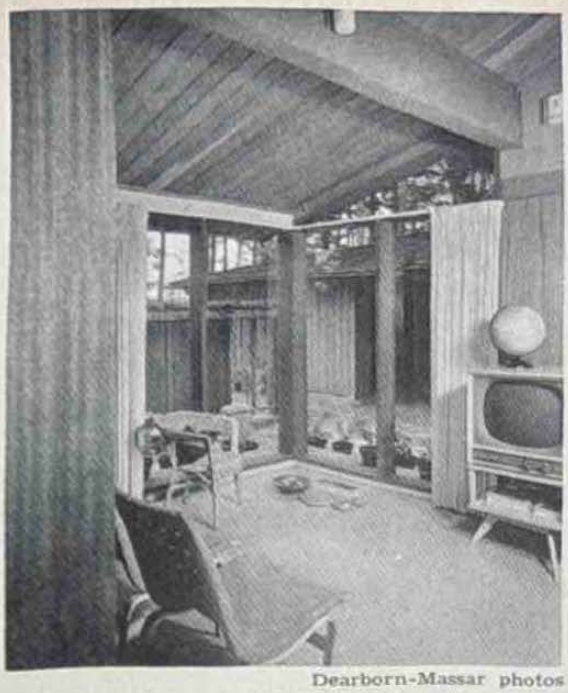
HENRY KLEIN
Architect

NORMAN L. OMODT
Mechanical Engineer

BUSTAD CONSTRUCTION CO.
Contractor





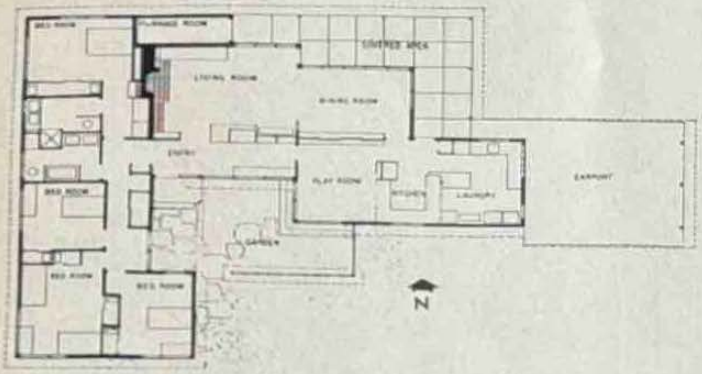


Dearborn-Massar photos

THE VARIETY of interests and requirements of the doctor, his wife and four children called for an informal plan; wood was employed throughout for reasons of fitness—a 240x280-ft. lot within the city limits—, economy and availability. The dominant roof unifies the exterior and adds interest to the interior where the ceilings follow the slope. Only in the halls flat ceilings conceal return air ducts. Where privacy so dictates, partitions are full height. Principal colors on the outside are gray, brown and dark green; inside the wood is treated with natural stainwax but plaster surfaces are in blues and tans.

**DINING ROOM** is separated from kitchen by bank of cabinets. Folding door in foreground divides dining and living areas. Playroom (left) looks into entrance court. Windbell is incorporated in garden fence beyond.





## OUTLINE SPECIFICATIONS

**Structure**: foundation—concrete; frame: wood—Weyerhaeuser Timber Co., roof: 2x6 fir decking—Weyerhaeuser Timber Co.; floors: 4-in. concrete slab.

**Exterior Finish**: 1x8 vertical fir siding—Weyerhaeuser Timber Co.; creosote stain—Samuel Cabot, Inc.

**Roof Surfacing**: 18-in. cedar shingles; creosote stain—Samuel Cabot, Inc.

**Windows**: fir sash.

**Doors**: hollow core flush panel; folding—(Pella) Rolscreen Co.

**Floor Surfacing**: entry, Vermont slate; kitchen and playroom, vinyl asbestos—(Excelon) Armstrong Cork Co.; bedrooms, living and dining rooms, cork—Armstrong Cork Co.

**Insulation**: walls: 3-in. batt—Pioneer-Flintkote; roof: 1-in. rigid—Owens-Corning Fiberglas Corp.

**Partitions**: wood studs and gypsum lath; rotary cut mahogany cabinets, natural finish.

**Interior Finish**: painted plaster; hemlock with natural stainwax—Samuel Cabot, Inc.

**Ceilings**: fir decking, natural stainwax finish.

**Lighting Fixtures**: incandescent—Finland House Lighting Corp., Le Klint Co., Prescolite Manufacturing Corp., Kurt Versen Co.; fluorescent—John C. Virden Co.

**Heating**: forced warm air modified perimeter system with downflow furnace—Mueller Co.

**Plumbing and Sanitary**: Kohler Co.

**Total Area**: 2,200 sq. ft., enclosed; 3,261 sq. ft., roofed (including carport and porches).

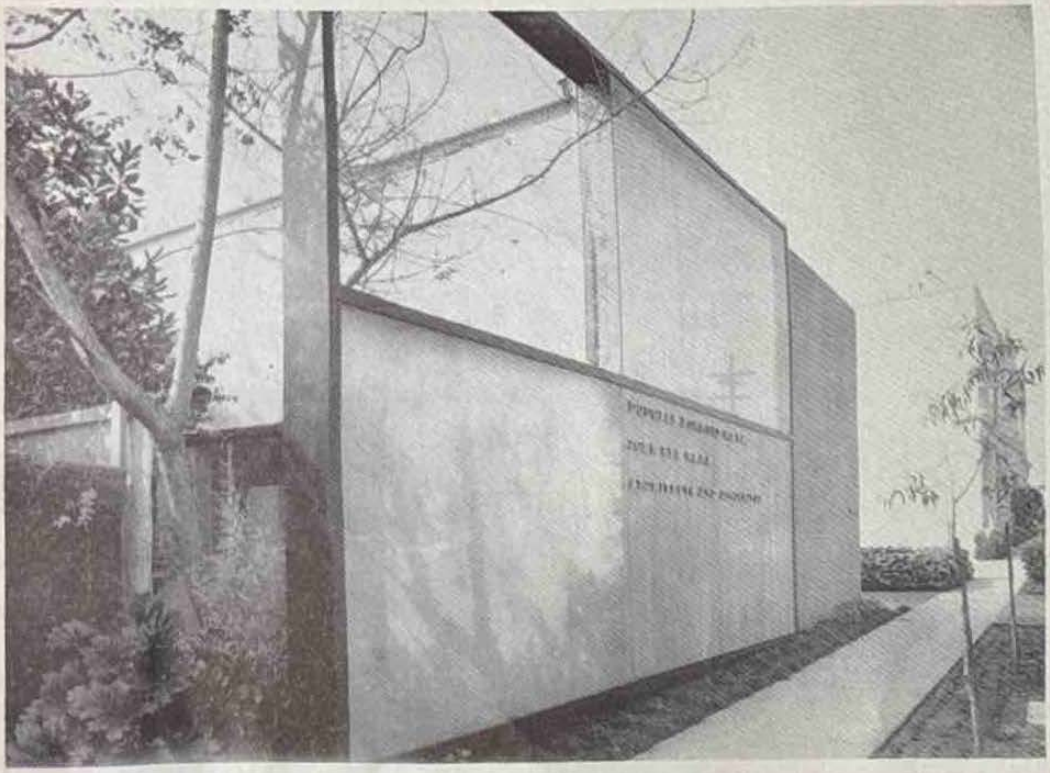
**Total Cost**: $32,541.

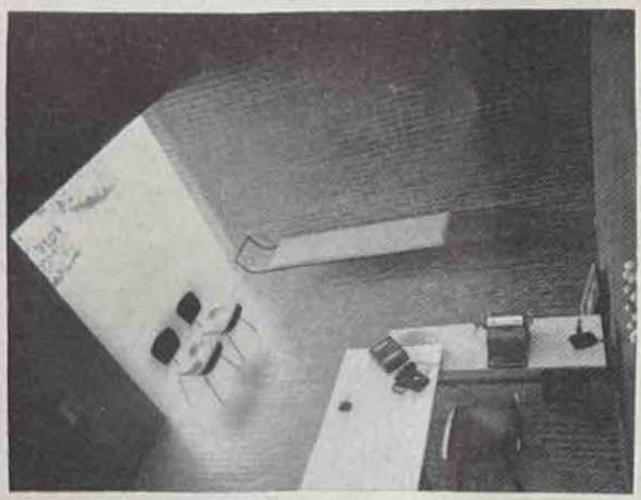
**Cost per Square Foot**: $12.75 (using one-third of carport and porch areas for area computation).

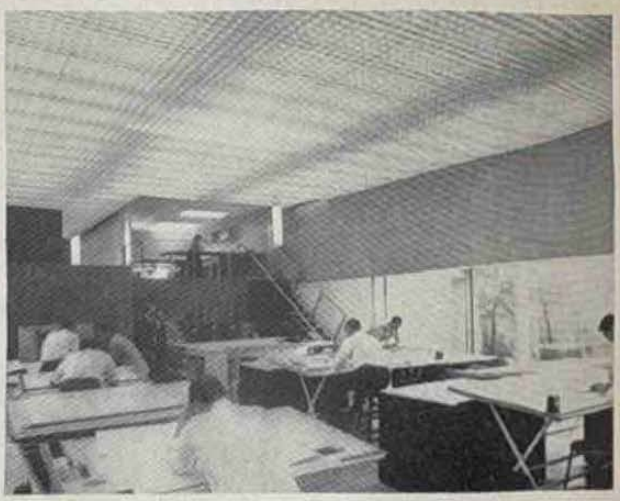
**Date of Completion**: March 1956.

# *Where architects hang their hats*

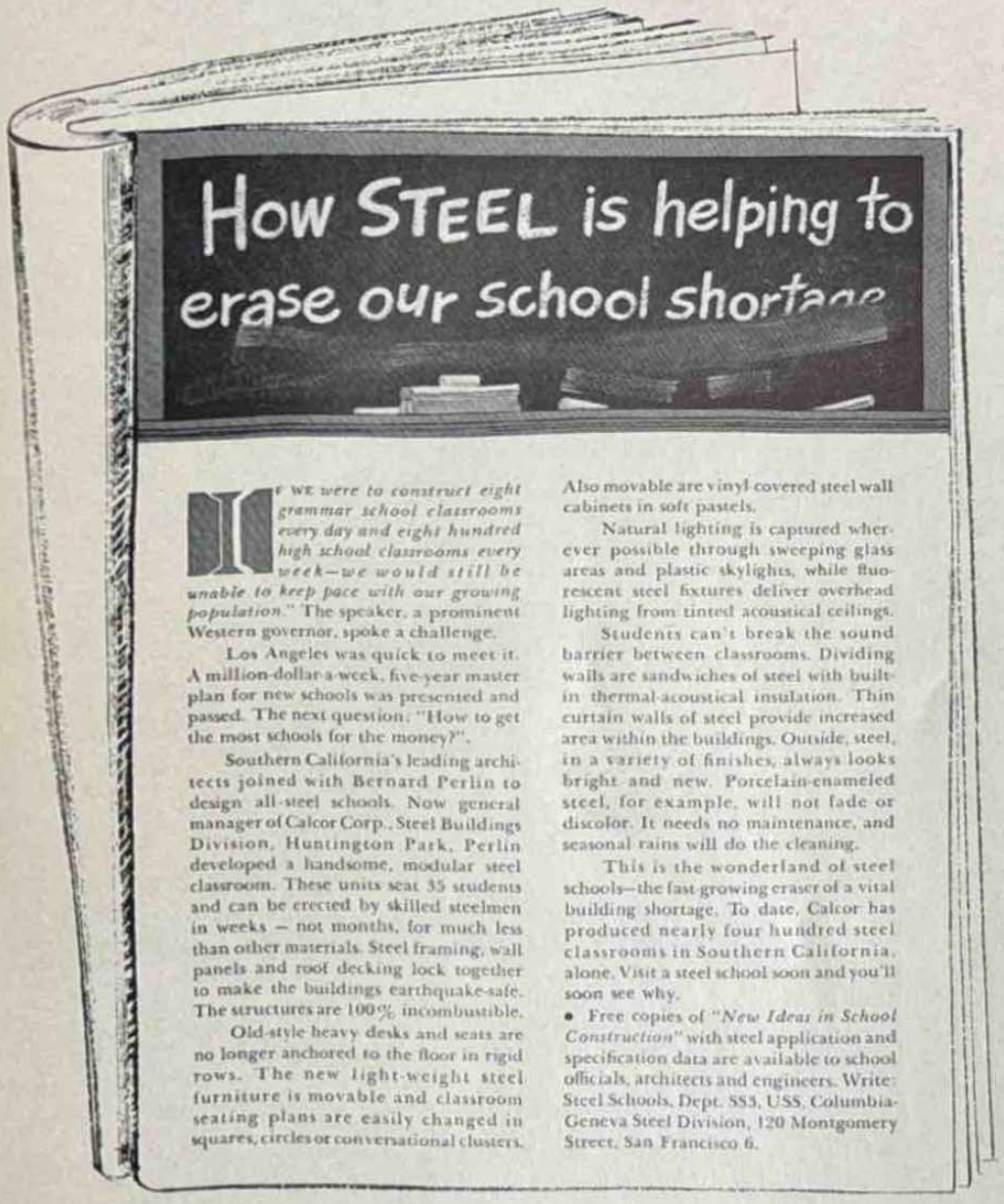
DOUGLAS HONNOLD, JOHN REX
Architects & Associates
Los Angeles, California







THE OFFICE BUILDING to which the architects moved earlier this year has been modernized and enlarged to provide for present needs and future expansion. The two principals' offices have access to a private patio. A continuous glass wall with a sliding door opens the main drafting room to a landscaped court on the east; a clerestory on the west is protected by adjustable aluminum louvers. The controlled daylight in conjunction with an integrated luminous ceiling insures virtually shadowless illumination on all drafting tables. A balcony overlooking this area houses the design department and a production room for models, graphics and presentation work.




*"If we were to construct eight grammar school classrooms every day and eight hundred high school classrooms every week—we would still be unable to keep pace with our growing population."* The speaker, a prominent Western governor, spoke a challenge.

Los Angeles was quick to meet it. A million-dollar-a-week, five-year master plan for new schools was presented and passed. The next question: "How to get the most schools for the money?".

Southern California's leading architects joined with Bernard Perlin to design all-steel schools. Now general manager of Calcor Corp., Steel Buildings Division, Huntington Park, Perlin developed a handsome, modular steel classroom. These units seat 35 students and can be erected by skilled steelmen in weeks — not months, for much less than other materials. Steel framing, wall panels and roof decking lock together to make the buildings earthquake-safe. The structures are 100% incombustible.

Old-style heavy desks and seats are no longer anchored to the floor in rigid rows. The new light-weight steel furniture is movable and classroom seating plans are easily changed in squares, circles or conversational clusters. Also movable are vinyl-covered steel wall cabinets in soft pastels.

Natural lighting is captured wherever possible through sweeping glass areas and plastic skylights, while fluorescent steel fixtures deliver overhead lighting from tinted acoustical ceilings.

Students can't break the sound barrier between classrooms. Dividing walls are sandwiches of steel with built-in thermal-acoustical insulation. Thin curtain walls of steel provide increased area within the buildings. Outside, steel, in a variety of finishes, always looks bright and new. Porcelain-enameled steel, for example, will not fade or discolor. It needs no maintenance, and seasonal rains will do the cleaning.

This is the wonderland of steel schools—the fast growing eraser of a vital building shortage. To date, Calcor has produced nearly four hundred steel classrooms in Southern California, alone. Visit a steel school soon and you'll soon see why.

• Free copies of *"New Ideas in School Construction"* with steel application and specification data are available to school officials, architects and engineers. Write: Steel Schools, Dept. SS3, USS, Columbia-Geneva Steel Division, 120 Montgomery Street, San Francisco 6.

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# New eyes for old: the perspective of a new people on a landscape immeasurably old

by STANLEY WHITE

THE TITLE, recalling the lamp of Aladdin that contained a miraculous spirit with the power of fulfilling wishes at the asking, merely suggests the present situation where unbelievably great power and opportunity now lie before us. We live in a stream of activity and thought never before known, plunging in dizzy flight at top speed into a great unknown, where the scientist points to science, the educator points to education and many of the faithful point to God for attaining something hoped for but little understood in any sort of universal focus. No two people agree on what this should be.

A widely read magazine tells us that America could be beautiful if we would devote ourselves to culture but neglects to identify the culture in its historical or timeless sense of a population growing up normally on a particular soil or landscape. Another periodical reviews a Frenchman's idea that we are now, as the Romans were, ready to turn over our country and ourselves to the Caesars or dictators who will growl and fight and eat each other up until the earth settles down to a primitive old mud puddle open to the sunshine and to the seeding of new cultures.

Book after book rolls off the press with warnings against the violation of the planet itself. One in particular: "Country Relicts" by Massingham shows how the Age of the Machine, instead of merely providing all the people with all the necessities and luxuries, is actually moving whole populations off of their landscape—and out of their culture—into institutions for mental health.

All our calculations for planning of every sort are underlain by a growing population becoming wealthier in dollars that are getting smaller and smaller, with vast fiscal implications. We think we are in an unending age of prosperity and we intend this time to make it stick.

While the cities deteriorate at the core they grow all around the edges. We move from the country into the city, then move out of the apartment into the automobile and ride out again into the country. It is all very costly but we pay for it by financing. The bill is startling but everything is insured.

Frequently the thought comes to us that if we could slow down the headlong pace to permit of more time for thought, or if we could more quickly train people in sufficient numbers to carry on the amount of study needed, we think there would be greater conservation of those resources such as the very configuration or countenance of the earth that are everywhere being wiped out by ruthless digging for impermanent kinds of wealth. When the early settlers first arrived in what they called the new world they found an extraordinary landscape of rare beauty and proceeded at once to take it to pieces. After about two centuries landscape architects began to help put it together again, trying to make it worthy of the verses of the song of the little children: "I love thy rocks and rills, thy woods and templed hills." But the bulldozer turned up to make destruction quicker and cheaper, and we are frantically extending the mutilation to a new high.

## The city is many things

Against this background of fabulously bewildering and mostly frightening circumstances, we find a large number of thoughful people courting attention to their ideas and talents as pointing to a definite solution to the many vexing problems.

The city is engineering, says the engineer very rightly, and he presents us with the streets, bridges, aqueducts and sewers that, of all things, make up the indispensable network of facilities that form at once the immovable cryptomorph leading to the eventual petrifact. There is some truth in the analogy between cities and organisms of nature, where the spores of death are sown with the germs of life. But look around you and see that the houses are to be found clustered around the great sewers even more than they are along the highways, which may come later, or sometimes never.

The city is a vision of magical charm, says the architect, pushing the towers up through the clouds ever higher and higher to achieve the ultimate symbol and incidentally to create the maximum population density.

The city is misery and evil, says Theodore Dreiser and Victor Hugo of Chicago and Paris and O. Henry of New York. A thousand others have written of the hopelessness of the lives drawn into the net of human bankruptcy the crowded city appears to be. All these are allegories, pointing for relief to the great qualities to be found guiding all human destiny called soul, spirit or conscience.

The city is concentration, says Brooks Adams, sitting up all night with his brother, Henry, reporting dismally on what he calls greed and putting the blame on money and trade as the embodiment of evils, opposed to virtuous pursuits.

The city is civilization itself, says the gloomy philosopher - historian, Spengler, in about a thousand pages of informed comment on all cultures that have bloomed, born fruit, and rotted of the same impulse that brought them forth. Destiny, says he.

Default, said my father, riding the top of a bus down the length of Fifth Avenue and pointing at all the half-empty new office buildings with an accusing finger. They defaulted on their bonds.

The city is total landscape architecture, reportedly said the eminent architect, sailing over Chicago and finding it green. But a wonderful wizard had long ago discovered a mechanical way of accomplishing this amenity by providing people as they entered the city gates with green spectacles—probably the most ingenious and economical city planning that has ever been effected. Landscape design, however, goes much deeper than that and there is great need to make its functions clear. Whereas any piece of construction requires, of necessity, the sacrifice of the ground on which it stands, a careful fitting of the subject to the situation can reduce the area of destruction and bring the amount of mutilation of the surroundings to a minimum. It is not so much that needless damage to abutting property is done by heedless building operations, but that incompetent design of the whole city areas as suggested by both ground and building forms may impose sacrifices of visual and practical amenities far beyond any necessity. The landscape, even of the city, and its design are inseparably to be identified with all trends in our present actively moving lifetimes, where the new attaches itself to the old and, bluntly calling itself progress, goes to work at the modification or total obliteration of existing things, ideas and habits.

But during the time when the culture is in its early springtime, through

Continued on page 43

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An address delivered by the professor of landscape architecture at the University of Illinois before the College of Architecture and Urban Planning at the University of Washington.




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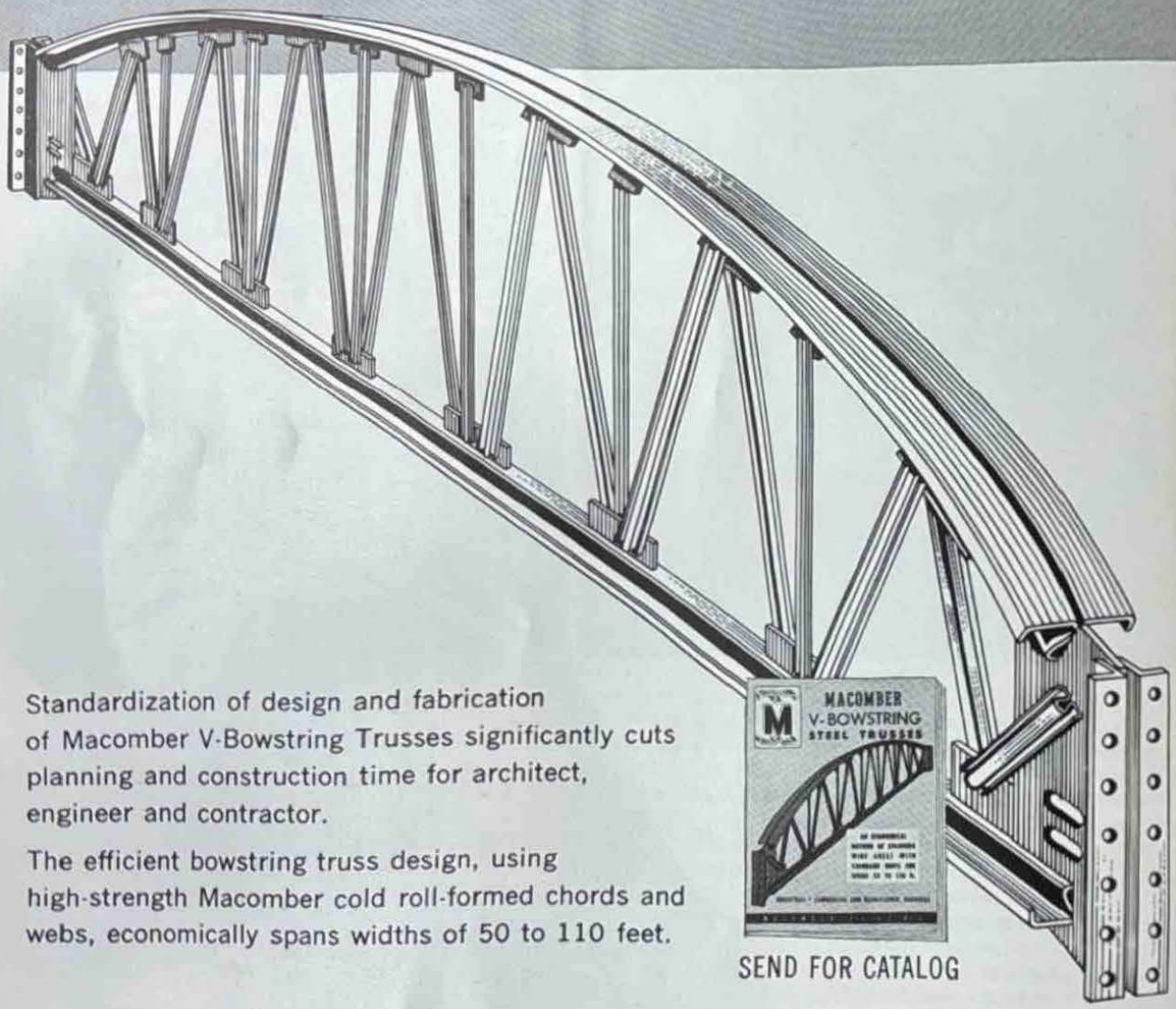
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# BIG cranes: construction's latest boon

Because of their tremendous reach—the largest is 24 stories high—and maneuverability, the German-developed cranes which appeared on the U.S. building scene last year have been living up to advance billing on jobs requiring the use of more than one standard model. One of these giants has made its way to the West Coast where it is expected to take the place of two regular cranes and at least one materials handling tower and to cut construction time by more than 20 days.

Introduced in Los Angeles by Beatty Scaffold, Inc., the crane is being employed by McNeil Construction Co. and Vinnell Co., Inc., steel fabricator, on the new Pacific Fidelity Life Insurance Co. office building, designed by Welton Becket & Associates. While this particular project is only six stories high, the Beatty-Peco model can stretch itself from a horizontal position to a maximum 17 stories in less than 10 minutes, lifting a 4½-ton load to that height in one minute flat. At lower heights, up to about 10 stories, it can lift nine tons.

The crane's jib can reach out about 100 ft. in any direction, pick up a two-ton load, lift it high enough to clear a 10-story building and swing it into place 100 ft. in the opposite direction. The time: less than one minute. This 200-ft. carry represents the crane's reach when it is stationary, since it can also travel along its track while lifting and turning. Just enough track is laid to give the crane a base position, then it goes to work laying its own ties and rails to run a track completely around the building site if need be.

### Two levers do all the work

The driver operates just two levers and all of the crane's actions—lifting or lowering, turning, luffing and traveling—can be carried out simultaneously or independently at a choice of four different speeds. The operator can work from any one of three driving posts: at the base of the tower, midway or high up directly under the jib point, depending upon which position gives him the best view of the work at hand. Or he can operate the crane from a position anywhere on or near the jobsite by means of a remote control unit small enough to carry under his arm.

The crane travels from site to site without dismantling it. It can be towed by a heavy truck with rear cab steering such as is used by hook and ladder units. (The largest size has its own prime mover.) Removal of the transport axle is accomplished by the use of the luffing winch which raises the base of the crane off the axle. After the installation of the ballast, the same winch is used to erect the crane into working position. In 1½ hours after arrival on the building site, it can be ready to go into operation.

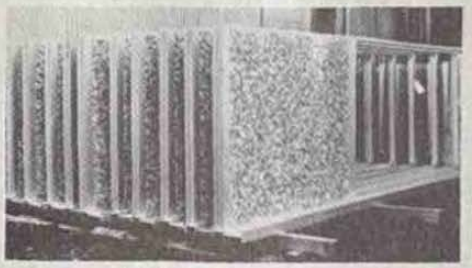
Alfred Faillace, chief engineer of American Pecco Corp., New York City, charted materials handling costs on jobs in eastern states where his company's crane was used, buildings ranging in height from six to sixteen stories. "The crane's ability to feed materials to all work sections of a floor area — concrete pouring, steel placement, formwork and electrical work—saves from 15 to 25% of the work-cycle time on each floor. Averaging out the costs on complete jobs versus costs by standard methods, as estimated by the contractors in charge, it was shown that the Beatty-Pecco crane cuts materials handling costs by 20¢ per square foot."



**CRANE** towers 17 stories high during jobsite demonstration in Los Angeles.

## Glass mosaic curtain wall makes Northwest debut

First National Bank of Oregon's new office building in downtown Portland is the first in the Northwest to employ a new type of glass curtain wall construction: imported Italian blue mosaic in five shades mounted in Reynolds aluminum wall sections. (Major use of this mosaic in California is the City National Bank of Beverly Hills.)



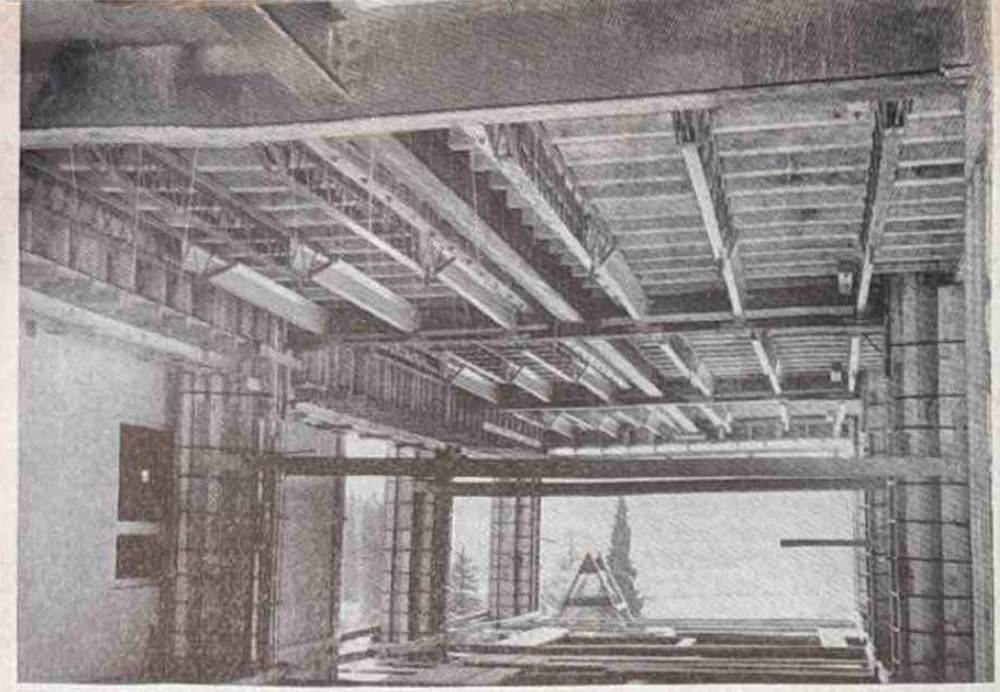


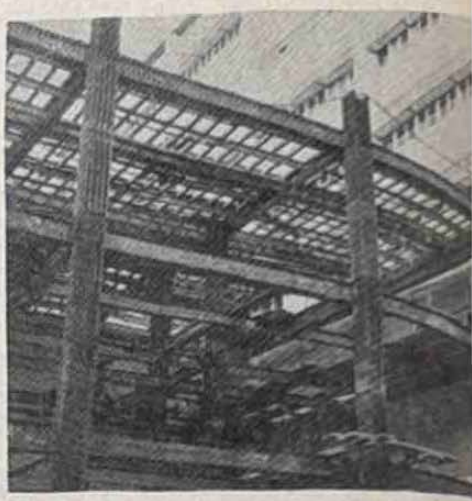
**ALUMINUM SASH** with completed mosaic glass sections are ready for installation as exterior wall of bank building in Portland. In this type of curtain wall construction, sections are hung from building frame, not set into it.

Universal Corp. of Dallas fabricated the panels—540 in all—in a Portland plant for Hoffman Construction Co., general contractor on the $3½ million project. The architectural firm of Stanton, Boles, Maguire & Church designed the building.

Fabrication of the panels starts with extruded sash, roughly 5x10 ft. Small squares of the imported glass are fitted face down into a 4-ft section at one end of each sash. Backside of the mosaic is covered with grout to fill the cracks, waterproof the surface and bond it to a concrete backing.

Next, metal reinforcing mat is fitted into place. Bolts and anchor eyes for hanging the panel to the building frame are affixed to the reinforcing metal. Final step is pouring of a 3-in. layer of concrete up to the rear edge of the aluminum sash.





**STEEL SPANS** shown in place before decking is installed (above) and supporting heavy framework. Note how spans are supported on flanges by means of 4x4 wedges.

## Roof is poured first on unusual job in Seattle

Reversing the usual order, W. G. Clark Construction Co. poured the concrete slab for the roof first on the Dr. Samuels Institute Building at the University of Washington in Seattle.

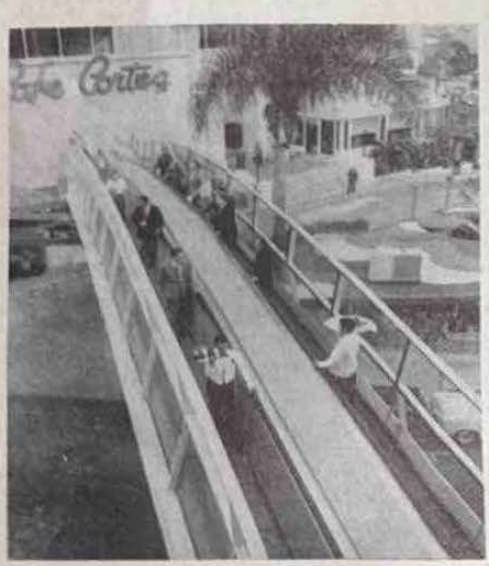
The 4x4 bolted frame and ¾-in. plywood deck to support the concrete slab were carried on Acrow span units, supported on 4x4 wedges resting on the lower flanges of the cross beams. All spans ran lengthwise of the panel.

Concrete floor slabs are 4½ in. thick. The largest slab poured was 18x10 ft., the total 18,000-lb. weight of slab and forms being carried by three Acrow units. To lower the formwork—the size of the net area of the panel—without damaging any part of it, the spans first were freed by loosening the bolts and telescoping the members sufficiently to clear the flanges. Next the entire form was dropped slightly to free the underside of the slab. Finally the form, with spans attached, was tipped cornerwise to pass the flange of the beam, then lowered to the floor below and placed to receive the next slab pour.

The entire operation was handled rapidly and easily by three men working from a wood scaffold hung from the flanges of the exposed beams, comments James B. Dodge of Van Daal Distributors, Acrow supplier in the Northwest.

The roof will eventually become the fourth floor since plans prepared by Naramore, Bain, Brady & Johanson called for a 15-story structure. However, the contract as awarded was for three floors, roof and penthouse.

## Moving sidewalks transport San Diego visitors



**ARCHING** 127 ft. across normally busy street, moving sidewalks connect new motel and garage with existing hotel, are outlined by neon lights at night.

The world's first Travolator developed by Otis Elevator Co. connects the main building of the 251-room El Cortez Hotel with a new 138-room motel and 500-car parking garage in downtown San Diego.

The moving platforms carry guests and employees back and forth on a series of safety cleated platforms which incorporate the same features as found in modern escalators. They are capable of accommodating up to 7,500 persons per hour in each direction. Open to the sky, the conveyors have glass railings and brightly colored panels, outlined at night by neon lights.

The next Travolators to go into service probably will be in the Bank Street station of the London underground, where Otis is installing the equipment in a sloping, 300-ft. tunnel connecting two busy rail lines.



## A few ideas on prestressed and architectural concrete

*Summaries of three papers presented at the annual convention of the American Concrete Institute in Los Angeles*

**Precast and Prestressed Folded Plate Slabs**—Harry H. Edwards, president, Leap Concrete, Inc., Lakeland, Fla.

Prestressed precast folded plate concrete slabs offer tremendous potential for widespread use in buildings for roof, floor and wall construction and in highway bridges. A relatively low capital investment in prestressing facilities will produce a complete span range of folded plate products limited only by the ability to deliver and erect. The cost of folded plate structures promises to be competitive with all other building materials for long spans and heavy loads.

Prestressed folded plate offers the opportunity of bringing the advantages of concrete construction — strength, fire resistance, blast resistance, and low maintenance — into buildings of all price ranges and, in addition, makes it economically feasible to design for concrete construction in the 50- to 120-ft. span range.

**Exposed Aggregate Type of Decorative Panels**—C. D. Wailes Jr., president, Wailes Precast Concrete Corp., Sun Valley, Calif.

Emphasis on color and texture in recent years has focused attention on the almost unlimited variation of both of these qualities as found in exposed aggregate concrete panels.

Although finely etched small aggregate is used for detail and tracery, the trend to bold, rugged use of relatively large aggregate exposed by removing the matrix ⅜ in. to ¾ in. and more for flat fascia indicates the desire for "readable" textures at considerable distance and these provide interesting contrast to adjoining smooth or polished materials, metals and glass.

Used as exterior forms against which concrete is cast or shot, applied as veneer, or installed as complete curtain walls, these panels may function structurally as well as decoratively.

Generally, natural aggregates are used, but glass, ceramics and other manufactured aggregate lend extra color, brilliance and interest.

**Plastic Forms for Architectural Concrete**—J. A. Hanson, development engineer, Portland Cement Association, Chicago.

Plastic forms are being used to obtain unusual and pleasing architectural effects in concrete. The architectural treatment may consist of both surface finish and pattern decoration. The concrete surface can be either glossy smooth or textured. The finish is achieved by thorough consolidation of the mix that would ordinarily be used in the product. Pattern decoration is achieved by vacuum forming the plastic sheet over wood, plaster, metal, glass or other materials. Almost any intricate or bold pattern may be used, limited only by maintaining sufficient draft along pattern lines and maintaining the depth of depressions less than the width.

The extremely fine smooth finish of plastic formed concrete greatly improves the attractiveness of integral colors. Due to the higher reflectivity, smaller amounts of pigments are required to obtain a given color intensity.

The plastic is relatively expensive, but several reuses may be obtained. Laboratory tests of different types of plastics have indicated that at least 10 reuses can be obtained with a reasonable amount of care in cleaning and handling the forms.

(Ed. note: This method is being used at American River Junior College in Sacramento for the first buildings going up on the new campus. A layer of small rocks is placed inside the forms, leaving impressions as deep as half an inch thick. The walls, given two weeks to set, come out with a high gloss.)

## Lath technique omits nails on ceiling, wall angles

A nail-on installation method for gypsum lath—"floating angles"—eliminates the last two nails in the two pieces of lath that form an angle, whether it is horizontal, vertical, exterior or interior. Conventional nailing of four nails per sheet of lath on each joist or stud, spaced about 5 in. apart, should be used throughout the remainder of both the ceiling and wall areas, with the ceiling lath applied first.

Cornerite or expanded corner bead, with flanges of 2 in. or more, is then attached only to the lath, not to the framing members. This will enable the corner sections to "float," thereby lessening the effect of the structural movement on the plastered angles.

The Gypsum Association has recommended the floating angle construction for either plain or insulating gypsum lath—⅜ or ½ in. thick—over joists 16 in o.c.


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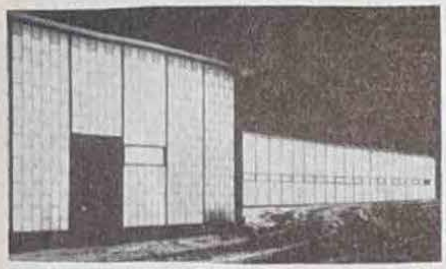

318

Slake It Today. . .Use It Tomorrow

ASH GROVE LIME & PORTLAND CEMENT CO.
1105 Fairfax Bldg., Kansas City, Mo.

### translucent curtain wall

Fabrication of the translucent roof for the U. S. Pavilion at the Brussels Fair sparked this curtain wall system utilizing translucent fiberglass plastic panels bonded to both sides of an aluminum framework. Kalwall panels require no supporting framework. They are completely prefabricated and sealed at the factory with any combination of windows, doors or vents. On the building site they are set into floor and ceiling tracks so



quickly that a 300-ft. section can be installed in four days. Panels are so light in weight that two men can handle units 20 ft. high and 4 ft. wide. They admit up to 85% of glareless light but permit little sun heat to enter a building or interior heat to leave. Insulating factor of a 2¾ in. panel is equal to 8 in. of brick, the manufacturer reports. Panels can be made in soft colors or with combinations of color inserts and opaque sections. Prefabricated skylights and translucent roofs or canopies also are available. Panels will span unsupported distances of up to 12 ft., have weatherproof joints and come in a variety of light transmission types.—Kalwall Corp. (Item No. 1)

### water temperature control

Suddenly the water pressure changes and just as suddenly the temperature of the shower plummets down or zooms upward. To eliminate this freezing or scalding event, Tempo holds a selected temperature to within 1 deg. This is not a mixing valve but a pressure balancing line valve that compensates for pressure changes regardless of the amount of water coming through the line. Unit is fully automatic, requiring no manual controls or adjustments and can be installed into the supply lines wherever convenient.—Tempo Valve Co. (Item No. 2)

### sliding glass door

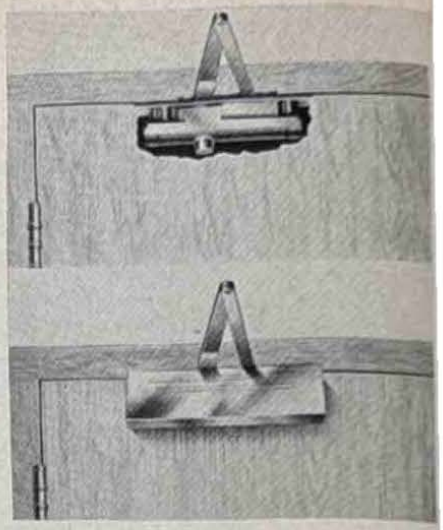
Option of single or dual glazing to meet varying climate needs is offered in the Ador line of budget priced aluminum sliding glass doors. Slim-lined hardware includes a flip latch and provision for installation of a keyed lock. Door also has top-hung, full-frame screens; two completely enclosed, fully adjustable nylon sheaves; one-piece, continuous vinyl glazing bead for positive sealing; and a sloping threshold with stucco trim. Standard height is 6 ft. 9 in.—Ador Sales, Inc. (Item No. 3)

### drywall laminating system

To speed installation of soundproof walls in apartments, motels and hotels, Wilhold Products has developed a dryfall laminating system using only glue for the second course. First course is nailed. Second section is glued in place with the firm's drywall cement. No shoring or nails are required. Taping can be done at once. System has been accepted by FHA.—Wilhold Products Co. (Item No. 4)

### door closer

The Top Railer, a concealed door closer for interior doors mortised in one location regardless of the degree of opening, offers economies in installation and rugged construction. It is also available for surface mounting complete with a wrought cover in a



range of finishes. The closer may be fully concealed in 1¾-in. doors, surface mounted or installed in 1⅜-in. minimum thick doors and concealed with trim plates.—Russwin Division, American Hardware Corp. (Item No. 5)

### metal weatherstripping

For steel or aluminum projected types of sash this metal weatherstripping has corner caps for the ventilators to protect hands and clothing. Seal-Draft is formed of corrosion-resistant chrome-aluminum alloys. In laboratory tests, infiltration on new steel intermediate projected windows was reduced from 1.25 cmf. to .68 at 50-mph wind. Material is easy to install and will not pull away from sash frame if vent frame warps.—Sun Screen Products, Inc. (Item No. 6)

### nurse call system

A nurse call system utilizing a bedside speaker eliminates the wall microphone and provides much greater privacy to the patient. Small hand speaker-microphone also can be used to control TV and radio programs.—Dahlberg, Inc. (Item No. 7)



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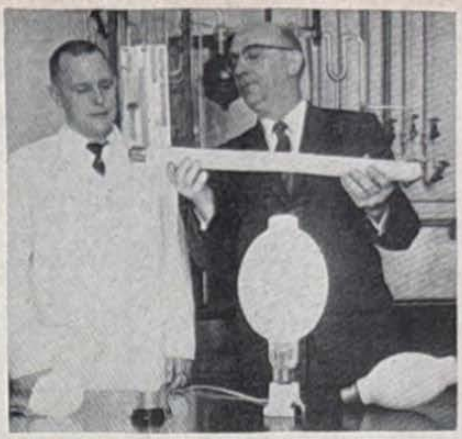
City Zone State

### aluminum panel system

Here's one economical solution to the need for face lifting outdated structures: an all-aluminum sun shading and decorative wall system known as Sol-Dec. It consists of only three extrusions—a clip angle, a miniature I-beam and a panelette which can be cut, finished in a variety of colors and spaced as desired—and requires no special fabrication at the site. Although 11 standard patterns are offered on a price-per-square-foot basis, the design possibilities are unlimited. The new system also is expected to find wide use in new construction, including overlays for cooling towers, elevator penthouses, lobby walls, vision screens and barriers for terraces and swimming pool areas.—Aluminum Company of America. **(Item No. 8)**

### fluorescent lamps

Single-ended fluorescent lamps which require no external ballast or starter and can be burned in ordinary light sockets offer a myriad of design possibilities. The self-ballasted fluorescent lamp developed by Westinghouse contains a built-in bimetal starting switch similar to that used in a fluorescent starter and an incandescent filament which eliminates the need for the large external inductor ballast commonly used for lamps of this type.



This in turn eliminates the need for large metal or plastic fixtures to house the lamps. Use of the internal incandescent filament also adds to the total lumen output and improves the light color. The lamp can be made in the conventional double-ended variety, with a socket on a single end, with a threaded base for screwing into conventional incandescent built sockets and in decorative shapes for unusual lighting effects. The lamp is not yet on the market although it is past the laboratory and experimental stage.—Westinghouse Electric Corp. **(Item No. 9)**

### blueprint cabinet

A line of filing cabinets developed in England and now being distributed in the U.S. provides a quick reference system for handling large numbers of blueprints, plans and master drawings. Planstore is a sheet metal cabinet subdivided honeycomb fashion into horizontal square section tubes. Each compartment is equipped with a plastic cap which grips the drawing, seals the compartment and provides indexing. As many as 3,100 indexed drawings can be stored in a single 44x22x30-in. unit. The system provides immediate access to all drawings and at the same time indicates at a glance whether they are in use.—Consumers Engineering Co. **(Item No. 10)**

### beam and slab construction

Pressure is no longer brought against the slab to cause breaking and cracking when Jay voids are used in place of sand, gravel and other fill materials in beam and slab construction on grade. During pouring and setting the voids withstand the pressure of beams in the slab. After the concrete is dry the corrugated asphalt-impregnated fiberboard deteriorates, leaving a void under the slab. This provides a positive and calculable space, either 4 in. or 6 in., for expansion or contraction. The fiberboard material of which the voids are made is a weather-resistant product patented under the name of FreezurBoard and said to be capable of supporting from 650 to over 1,000 psi. **(Item No. 11)**





Handsplit cedar shakes are unquestionably the most luxurious, most lasting, roofing material available. That is why they are in such demand by those concerned with quality. Cedar shakes are made by hand. No two are ever quite alike. For this reason, the wise buyer specifies mill-inspected material! Always look for, always insist on, the genuine *Certi-Split* label of *inspected* quality when you buy handsplit shakes. You'll find the label under the bandstick of the bundle.

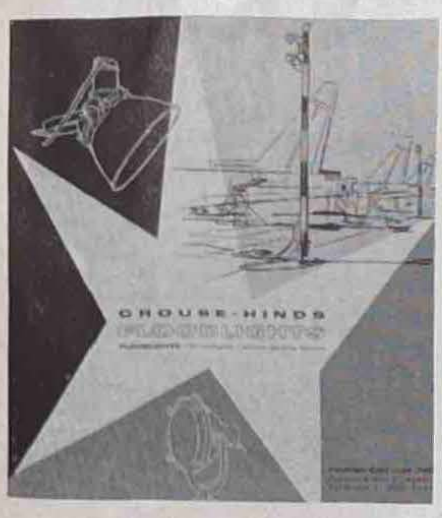
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**pa&b pick of the month**

Of interest to architects, engineers and roofing contractors, Certain-teed's 56-page "Built-up Roof Manual" (AIA 12-B) is said to represent the most complete set of specifications in the field. Each of four series—asphalt felt, Certaglas, tarred felt and mineral surface—has its own index page showing the specification number, years bonded, deck type, roof surface, number of plies and Underwriters' classification. One section contains data on the correct type of specification to use with all presently known deck construction; another on design criteria depicts varying conditions affecting specifications for gravel, mineral and smooth surfaced roofs. Flashing specifications, construction details and roof drainage information round out the manual.— Certain-teed Products Corp., 120 E. Lancaster Ave., Ardmore, Pa.




**pa&b pick of the month**

To facilitate easy selection of the proper floodlight for the job, Crouse-Hinds has departmentalized its loose leaf catalog by using colored divider sheets, each tabbed with an individual table of contents. Besides the customary descriptions and prices, there is some general information too, including a section of floodlighting calculations.—Crouse-Hinds Co., Syracuse 1, N.Y.

**T Steel Catalog:** describes new Cepco T-lite luminous ceiling system and new methods of attaching hung ceilings, in addition to long-span steel roof deck; 16 pp.—T Steel Corp., 1124 Stewart St., Seattle 1, Wash.

**Curtain Walls by Albro:** discusses three series that are adaptable to all architectural treatments; has typical sections, project photos and specifications; 12 pp.—Albro Metal Products Corp., 944 Longfellow Ave., New York 59, N.Y.

**Tile-Tex All-Products Catalog:** has selection table to help determine right tile for various subfloors; 16 pp.—Tile-Tex Division, The Flintkote Co., 30 Rockefeller Plaza, New York, N.Y.

**Architectural Stainless Engineering Data (AIA 15-H-1):** describes four stainless steel grades, with composition, mechanical properties, available widths, lengths and thicknesses, finishes, approximate costs per square foot and a table of comparative gauges for stainless steel and aluminum; 6 pp.—Washington Steel Corp., Washington, Pa.

**Mathews Poly-Fil** (AIA 26-C): contains specifications and application instructions; has job photos; 8 pp.—Mathews Paint Co., 598 W. Ave. 26th, Los Angeles 65, Calif.

**Masterplate Iron-Clad Concrete Floor:** explains major features sought in design of any industrial floor, with photos, diagrams and installation methods; 24 pp. — The Master Builders Co., Cleveland 3, Ohio.

**The Aristocrats of Floors: Rubber Flooring and Solid Vinyl Flooring:** consolidates basic generic information relating to characteristics, styles, colors and uses of both rubber and solid vinyl; 12 pp.—Rubber and Vinyl Flooring Council, Rubber Manufacturers Association, Inc., 444 Madison Ave., New York 22, N.Y.

**What You Should Know About Shop Glazing:** tells how new shop glazing methods can cut costs as well as speed and simplify construction of buildings; 12 pp.—Pemko Manufacturing Co., 5755 Landregan, Emeryville, Calif.

**New Ideas in School Construction with Steel:** describes and pictures framing, flooring, roofing and paneling operations with western elementary and secondary schools and colleges as examples; 16 pp.—Columbia-Geneva Division, United States Steel Corp., 120 Montgomery St., San Francisco 6, Calif.

**Commercial Construction with Rilco Laminated Wood:** shows basic laminated forms available and schematic floor plans for several of the building featured; 8 pp.—Rilco Laminated Products, Inc., 615 Tacoma Bldg., Tacoma 1, Wash.

**Alsynite Fiberglass Panels** (AIA 26-A-9): contains specifications on new line of residential and industrial translucent fiberglass panels; itemizes light and heat transmission values for 30 different types; 4 pp.—Alsynite Company of America, 4654 De Soto St., San Diego 9, Calif.

**Insulation Applications of Styrofoam and Scorbord** (AIA 37-B-3, 37-B-4 and 37-D-1): reports on pipe and vessel covering, low temperature space insulation, insulation-plaster base and foamed plastic insulation board in four separate bulletins.—Dow Chemical Co., Midland, Mich.

**Introductory Manual: Ceco Electro-Channel Steel Joists** (AIA 13-G): illustrates how the hollow top chord of the new steel joists serves as a structural member and an underfloor cable duct with step-by-step photos showing erection; 26 pp.—Ceco Steel Products Corp., 5601 W. 26th St., Chicago 50, Ill.

**Claridge Chalkboards, Bulletin Boards, Aluminum Trim** (AIA 35-B-11): has specification data, line drawings showing construction details and recommended installation; 24 pp.—Claridge Products & Equipment Co., Harrison, Ark.

**Operation Uplight:** covers fixture cost comparisons and cost of lighting per square foot for industrial lighting, with numerous installation photos; 16 pp.—Day-Brite Lighting, Inc., 6260 N. Broadway, St. Louis 15, Mo.

**A Simple Guide to Wall Systems for Buildings of Every Size and Budget** (AIA 17-A): presents a thorough explanation of suggested applications of four new Kawneer wall systems; 20 pp.—Kawneer Co., 1105 N. Front St., Niles, Mich.

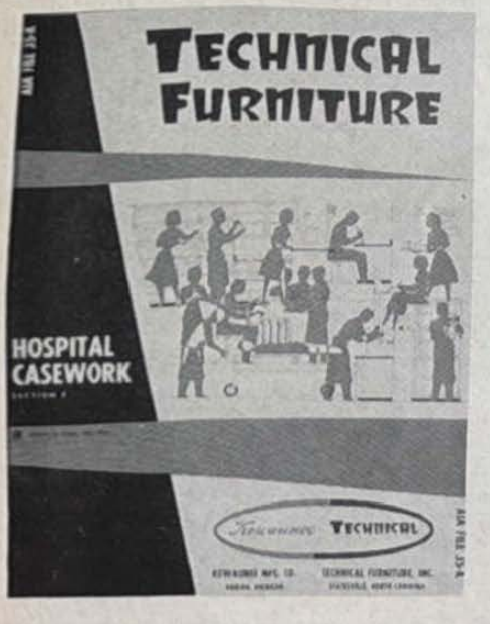
**High Strength Bolting for Structural Joints:** describes the use of this type of bolt, outlines specifications for assembly of structural joints and explains the method used for torquing; 20 pp.—Bethlehem Pacific Coast Steel Corp., 20th and Illinois Sts., San Francisco 19, Calif.

**Vertical and Roll Filing Equipment** AIA 35-H-32): illustrates space-saving way to file and protect plans, blueprints, maps, drawings and other large sheets down to such small materials as plates, negatives and stencils; 12 pp.—Plan Hold Corp., 5204 Chakemoc St., South Gate, Calif.

**Cookson Rolling Doors and Partitions** (AIA 16-D): has blueprints of 13 basic door types showing all necessary dimensions and a series of charts to simplify selection of proper gauge and type of slats, guide type, power units and other components; 16 pp.—The Cookson Co., 1525 Cortland Ave., San Francisco 10, Calif.

**pa&b pick of the month**

This 82-page catalog (AIA 35-K) of hardwood furniture and equipment made expressly to fill the casework requirements in the general hospital should prove valuable to anyone connected with planning that type of project. The material is well organized, showing equipment, floor plans and elevations for laboratories, pharmacies, operating rooms, nurseries, patient and utility rooms, offices and suites. Each section is printed in a different color and with its own index. In short, the book is a guide in providing function arrangements of specialized furniture and equipment.—Technical Furniture, Inc., 3021 W. Front St., Stateville, N. C.







6690-A

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THE COLORADO FUEL AND IRON CORPORATION

**When You Build Your Church.** By John R. Scotford. Channel Press, 159 Northern Blvd., Great Neck, N. Y. 1958. 245 pp. $3.50.

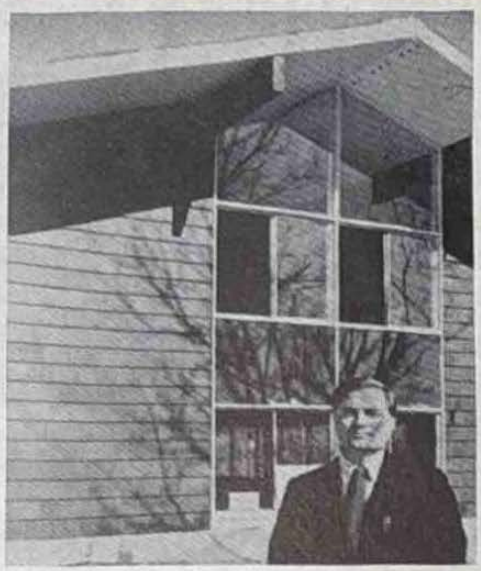
The jacket of this revised edition points out that "the basic decisions on what to build and where to build will not be made by professionals and specialists but by ministers and committees of laymen in the churches." It is for the latter that the author, winner of the 1958 Conover Award of the Church Architectural Guild of America, has written the book. The architect, who gets only scanty mention, will find it of interest only in that it presents, more or less, a typical point of view of the church building client. A new section contains photos of "outstanding church buildings"—four from the West Coast—but unfortunately a number of the examples do not live up to their billing. A reference of "Churches Worth Seeing" ends up with St. Elizabeth's of Burien, Wash., called "the most revolutionary on the list." (For a case study by the architect, Robert L. Durham of Durham, Anderson & Freed, see PA&B for May, '58.)

**At Home with Tomorrow.** By Carl Koch, with Andy Lewis. Rinehart & Co., Inc., 232 Madison Ave., New York 16, N. Y. 1958. 208 pp. $6.95.

In the introduction Carl Koch explains how he and his co-author undertook another book on houses: "As an architect I have realized that what a civilization builds expresses its beliefs and aspirations — its meaning. I feel strongly that two outstanding meanings of civilization are the provision of equal opportunity and the elimination of want. Here in America now, we believe that both aims are finally possible of realization. The house of the average man is certainly a better place to look for the visual realization of these ideals than in our commercial, religious or civic centers. Therefore, the provision of everyman's house and his living community has seemed to me, as an architect living in America today, the most interesting job to tackle.

"But to build a house for everyone, we must use the facility which is making it possible for us to reach these objectives: equal opportunity and elimination of poverty. This facility is industrialized mass production.

"And there is an understandable reluctance on the part of everyman to build his castle of nuts, bolts and chromium. The industrial revolution will help us realize our dreams if we can handle it but we haven't handled it too well so far. Although it is pathetic to think we can escape the pressure of competitive business, the battle of home-office tranportation and the compulsion to drive ourselves too far, too fast, too much, by escaping into a fantasy in the shape of an 18th century farmhouse, it is understandable that we try.



CARL KOCH and his Techbuilt house.

"This book is written with the hope that the experiences recorded herein may help everyman (at least a valid sample of him) to take a little more objective and affirmative look at his living problems and opportunities. For he, the customer, must make an affirmative demand for a living environment worthy of his real aspirations. The builder only builds what he thinks this customer wants to buy. Only by his making this affirmative demand will we designers, producers and builders be able to devote the time, effort and inspiration necessary to produce an affirmative answer: a castle for everyman."

**Buildings for Research,** F. W. Dodge Corp., 119 W. 40th St., New York 18, N. Y. 1958. 224 pp. $9.50.

A selection of 44 research buildings, with covering commentary and photos, owned by corporations, government agencies and universities. Another section on planning the laboratory provides data on safety measures, waste removal, corrosion prevention, vents and drains and modular units.

**Saving Dollars in Building Schools.** By David Pierce. Reinhold Publishing Corp., 430 Park Ave., New York 22, N.Y. 1959. 112 pp. $5.95.

This book is, according to Walter A. Taylor, director of the AIA's department of education and research, "a very comprehensive and excellent analysis of cost factors in school design. Especially valuable is the comparison of total annual cost, including heating and maintenance, an antidote to uneconomical cheapness."

**The Selection of Retail Locations.** By Richard L. Nelson. F. W. Dodge Corp., 119 W. 40th St., New York 18, N. Y. 1959. 422 pp. $9

A real estate economist presents a study of site selection and business volume estimating for establishments selling consumer goods or services.

**Architectural Practice.** By Clinton H. Cowgill and Ben John Small. Reinhold Publishing Corp., 430 Park Ave., New York 22, N. Y. 1959. 260 pp. $12.

Third edition of a standard work on the professional, legal and business aspects, with more than 300 reproductions of documents, drawings and charts. The book is divided into three parts: "General Considerations"; "The Architectural Working Organization"; "The Architect's Service."

**Parking.** By Geoffrey Baker and Bruno Funaro. Reinhold Publishing Corp., 430 Park Ave., New York 22, N. Y. 1958. 202 pp. $9.50.

This book is a concise analysis of the parking problem and a critical discussion of what others have done about it. Here are photos and plans of parking lots, ramp garages, parking decks, underground garages and elevator garages—examples drawn from large cities and small towns. To simplify the layout of parking space, there is a special 10-page section of easy-to-use diagrams and tables which show parking patterns and stall sizes for most advantageous use of a given site under various parking conditions.

**Green Power.** By James Stevens. Superior Publishing Co., 2809 Third Ave., Seattle 11, Wash. 1958. 95 pp. $3.

Through years of personal experience and observation, the author writes of the Olympic Peninsula in the first person and his story is about forest management rather than about companies. He describes in detail the congressional act of 1944 which brought new promise for the forests, the timber towns and the people of the woods.

**Residential Rehabilitation: Private Profits and Public Purposes.** By William W. Nash, directed by Miles L. Colean. McGraw-Hill Book Co., Inc., 330 W. 42nd St., New York 36, N. Y. 1959. 268 pp. $8.

Part of the ACTION series in housing and community development, the book examines the contribution of rehabilitation to public and private urban renewal and housing programs and suggests new directions in public policies which might increase the volume and effectiveness of that contribution.

**The Contemporary Curtain Wall: Its Design, Fabrication and Erection.** By William Dudley Hunt Jr. F. W. Dodge Corp., 119 W. 40th St., New York 18, N. Y. 1959. 462 pp. $12.75.

An architect presents a practical aid in selecting, designing and installing the right curtain wall for any building, with scores of detailed drawings, more than 140 application photos and 71 tables.

**Building Construction Handbook.** Edited by Frederick S. Merritt. McGraw-Hill Book Co., Inc., 330 W. 42nd St., New York 36, N. Y. 1958. 851 pp. $15.

Composed of 29 sections written by 25 authorities, this volume covers stress analysis; structural design; properties of building materials; construction practices; relationship of owner, architect, consulting engineer and contractor; control of internal environment; building services; surveying; specifications; construction management; insurance and bonds.

**Plastic Design of Steel Frames.** By Lynn S. Beedle. John Wiley & Sons, Inc., 440 Fourth Ave., New York 16, N. Y. 406 pp. $13.

A research professor of civil engineering at Lehigh University has written the first book in the U.S. that deals entirely with this topic. In addition to presenting the simple plastic theory and the methods of plastic analysis, it covers such secondary design considerations as the influence of shear force, buckling, etc.

**Frames and Arches: Condensed Solutions for Structural Analysis.** By Valerian Leontovich. McGraw-Hill Book Co., Inc., 330 W. 42nd St., New York 36, N. Y. 1959. 494 pp. $20.

Gives over 400 condensed solutions for 20 principal types of statically indeterminate frames and arches, each applying to a particular structure and a load. Solutions allow most limitless variation in members' shape or cross section and can be used in steel, concrete and wood design. Comprehensive tables and charts to facilitate the analysis of haunched frames and arches also are included.

**Construction Accounting and Financial Management.** By William E. Coombs. F. W. Dodge Corp., 119 W. 40th St., New York 18, N. Y. 1958. 490 pp. $12.85.

The first book ever written on this vital phase of the industry and authored by an attorney and CPA, it tells what records to keep and why; relates accounting and record keeping to the size of the firm, the type of work being done; and never loses sight of the fundamental purpose: to give effective financial control over every operation.

**Legal Aspects of Construction.** By Walter C. Sadler. McGraw-Hill Book Co., Inc., 330 W. 42nd St., New York 36, N.Y. 1959. 400 pp. $8.50.

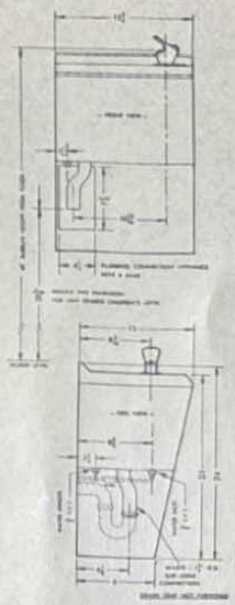
Discusses a number of actual cases illustrating the adjudicated rights and liabilities of the parties-in-interest and includes coverage of boundary, lateral support and foundation rights.

**Engineering Manual: A Practical Reference of Data and Methods in Architecture, Chemical, Civil, Electrical, Mechanical and Nuclear Engineering.** Edited by John H. Perry and Robert H. Perry. McGraw-Hill Book Co., Inc., 330 W. 42nd St., New York 36, N. Y. 1959. 680 pp. $9.50.

Gives engineers a concise reference to the most commonly used data and methods in the fields mentioned and should be helpful in preparing for engineer license examinations.

**Roofing: Estimating, Applying, Repairing.** By James McCawley. Shelter Publications, 180 N. Wacker Drive, Chicago 6, Ill., 1959. 426 pp. $10.

A handbook describing the mechanics of shelter and the application of roof coverings for the roofing and sheet metal trades and as a guide for the architect and builder. The author, for 13 years secretary of the National Roofing Contractors' Association, has not been sparing of his opinions on what he considers poor design in connection with parapet walls, expansion joints, flashing and other building sections associated with roofing.

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**Manual of Hospital Planning Procedures.** American Hospital Association, 840 N. Lake Shore Drive, Chicago 11, Ill. 1959. 72 pp. $1.50

A guide to new construction and remodeling, including a checklist for appraising community needs.

**Sound Absorption Coefficients** (AIA 39-B). Acoustical Materials Association, 335 E. 45th St., New York 17, N.Y. 1959. 44 pp. 50c

Revised edition features summary tables which classify materials according to appearance and composition and producers' tables which classify according to each member company.

**How to Lay out a Parking Lot.** Western Industries, Inc., 2742 W. 36th Place, Chicago 32, Ill. 1959. 40 pp. $1.




Illustrated with engineering drawings, charts and pictures of various types of parking lots, the booklet points up such things as: Is the lot on a one-way street? Is the lot to be attended or to be automatic? Is an alley involved? What are the advantages of barriers and gates? What are turnaround requirements? What about front and back overhang on today's cars?

**Installation and Maintenance of Resilient Smooth Surface Flooring.** Building Research Institute, 2101 Constitution Ave., Washington 25, D. C. 1959. 145 pp. $5.

Especially valuable is a chart which compared physical properties, standard dimensions, installed cost per square foot and the use level at which each material may perform successfully — whether on, above or below grade.

**Building with Plastic Structural Sandwich Panels.** Monsanto Chemical Co., Springfield, Mass. 1958. 116 pp. $3.

Based on a study directed by Marvin E. Goody at MIT defining the status of the panels and their architectural potentialities. (Basic design for the "House of the Future" built in Disneyland at Anaheim, Calif., was created by architects Hamilton & Goody as the outgrowth of a similar Monsanto-MIT project.)

**How to Design Pole Type Buildings.** By Donald Patterson. American Wood Preservers Institute, 111 W. Washington St., Chicago 2, Ill. 1958. 72 pp. $1.50.

A second edition with additional tables and illustrations for those who plan, design or contract to erect this type of structure.

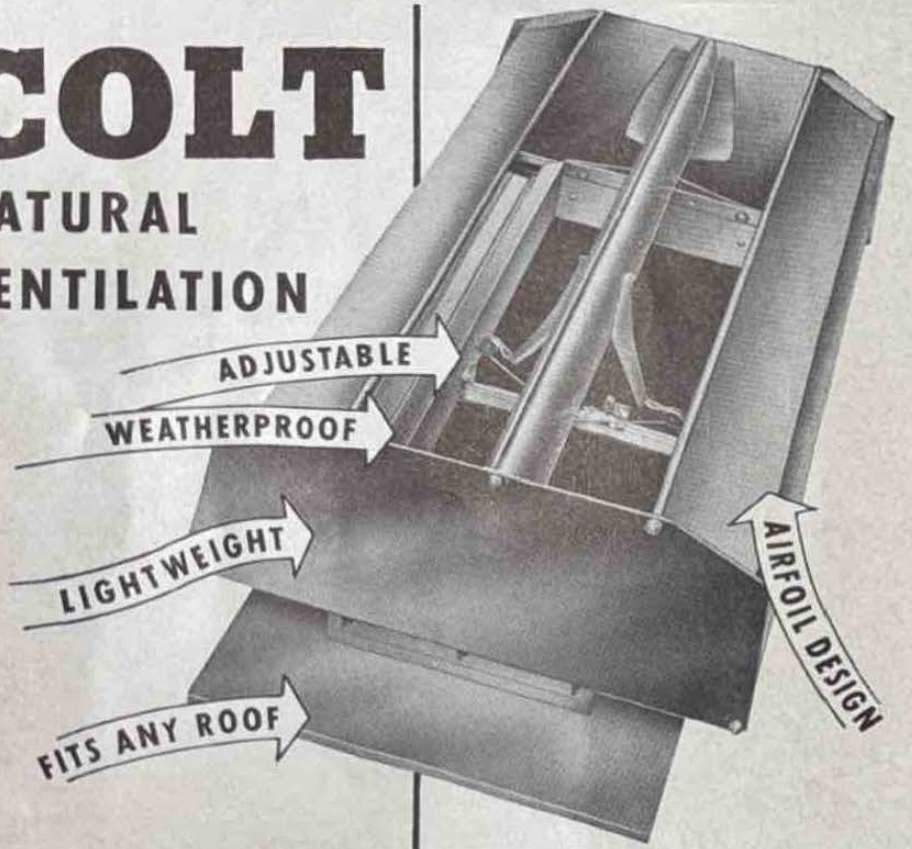
**Fundamentals of Pipe Drafting.** By Charles H. Thompson. John Wiley & Sons, Inc., 440 Fourth Ave., New York 16, N.Y. 1958. 66 pp. $3.50.

Designed for students who have accomplished the basic skills of mechanical drawing and wish to develop specialized skills in the field of pipe drafting, a subject to which little consideration has been given.

**Handbook on Powder Actuated Fastening.** Ramset Fastening System 12117, Berea Rd., Cleveland 11, Ohio, 1959. 48 pp. $2.

Only publication of its type ever published, the loose leaf manual provides data for the architect and engineer on powder driven fasteners in general, not only Ramset, and covers recommended loads.


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**new offices**

Olof Dahlstrand has opened an office for the practice of architecture at Fifth and Junipero, Carmel, Calif.

**new partners, associates**

Lawrence G. Evanoff, Nicholas A. Kabush and James Waldowski have formed a partnership under the name of Evanoff, Kabush & Waldowski in the American Legion Building, Spokane.

The Seattle architectural firm of Bassetti & Morse has named three new associates—James Blair, Robert W. Murphy and J. William Dimmich—and has enlarged its quarters in the Tower Building.

**firm changes**

Clarence H. Wick, formerly of the Portland firm of Wick & Hilgers, is continuing the practice of architecture at 417 S.W. Washington St.

**new addresses**

Bowerman & Hobson, architects, to 14547 Victory Blvd., Van Nuys, Calif.

Fred L. Rudat, architect, to 1023 S.W. Yamhill, Portland.

Donald P. Polsky, architect, to 1151 S. Beverly Drive, Los Angeles.

Hayes & Little, structural and civil engineers, to 47 Kearny St., San Francisco.

**deaths**

Waldo B. Christenson, 50, partner in the Seattle architectural firm of Decker & Christenson since 1950, died of a heart attack May 16. A native of Leeds, N.D., he was graduated from the University of Washington in 1932 and began his practice of architecture three years later. Long active in AIA affairs, he served as Northwest regional director from 1953-55 and was elected to fellowship two years ago.

**appointments, elections**

Cecil H. Wells Jr., structural engineer, has been chosen president of the San Francisco, San Mateo and Santa Clara Tri-County Planning Council.

David A. Pugh, participating associate in Skidmore, Owings & Merrill, and Dr. Francis J. Newton, curator of the Portland Art Museum, have been elected to the board of directors of the Oregon Ceramic Studio.

Five architects have been named to the newly created Washington State Board of Registration for Architects: G. Stacey Bennett, Olympia, five-year term; Arnold Gangnes, Seattle, four; Richard Eddy, Spokane, three; Albert Funk, Spokane, two; and Kenneth Branch, Bremerton, one.

Lyle Swedberg, Tacoma architect, has been named to the City Planning Commission, succeeding another architect, Charles Pearson, who resigned to allow his firm—Lea, Pearson & Richards—to enter into a city contract for preliminary design of the downtown escalators.

**awards**

Oregon Chapter of Artists Equity has made citations for outstanding contribution in the use of art in architecture to Burns, Bear, McNeil & Schneider, architects, for their use of a Louis Bunce mural (long the center of a civic controversy) at the Portland International Airport Terminal; and to Thomas K. Welch, contractor, for his use of sculptures by Michele Russo and Manuel Izquierdo in apartment houses.




# AGC chapters discuss stand on labor

Unity is imperative in these days of attacks on the contract method and the construction industry.

This became very evident during the second annual Western Chapters Conference of the Associated General Contractors of America held April 23 in Monterey and the two-day meeting of the Northern and Central California Chapter which followed.

The dangers confronting contractors and the construction industry are stemming from certain governmental agencies, vicious competition among contractors and, as one delegate put it, "out-of-this-world demands from unions during current and coming contract negotiations."

The main attack on the contract method appears to be coming from some local government agencies, such as cities and counties, and some federal agencies, such as the Bureau of Reclamation, that are constantly increasing the amount of construction done with day labor, said James D. Marshall, executive director of the national AGC. He declared that accurate estimates place a $2 billion figure on construction lost to the contract method through this practice.

Another loss to the contract method is coming from industry which seems increasingly inclined to use its own employees for certain construction jobs, rather than to ask for bids. But this segment of business actually affords contractors an opportunity to get additional work he said, as it seems that industry could be convinced that even maintenance work should be handled through the contract method.

Another danger to contractors is coming from pressures being put by Congress on the Small Business Administration, reported William E. Dunn, associate executive director of the national AGC. Dunn told how Congress is forcefully asking the SBA to grant more and more loans to small businesses, even though the business man applying might have poor credit ratings.

This can affect the construction industry by opening the way for persons with no background in construction to enter the field, Dunn continued.

Another service offered by the SBA, technical assistance, would also make it easy for an uninitiated person to begin general contracting, he said.

But both of these things are still new and have not had much of an affect as yet. However, the SBA has had great success in their set-aside program, he pointed out. The SBA has already met with success with the Corps of Engineers and the Defense Department. Under this program government agencies limit bidding on certain projects to contractors who meet the present qualifications of being a small business.

Dunn's main objection to the set-aside program was that the qualifications for smallness are poorly thought out and that the program in some cases is unfair to established contractors, both large and small.

National AGC president James W. Cawdrey of Seattle told the delegates that many things are being done to protect the contract method and the general contractor's interests.

He said that a recent executive committee meeting held in Washington, D.C. and a joint industry conference where management and labor discussed problems of the construction industry came up with good objectives that should be supported by individual members. These, he said, are:

- Promote the construction industry.
- Protect the contract method.
- Strive for better performance by both contractors and workers.
- Provide a forum where contractors and workers could discuss mutual problems.

An impassioned plea for unity and support came from delegates during the afternoon sessions when contract negotiations were discussed. As various reports were given from the different chapters represented, it became evident that contractors were swinging toward a tough stand against union demands in coming contract negotiations.

One delegate who is a member of a negotiating committee said his committee was advising the contractors they represent that the committee was not planning to give in easily to union demands this year. He said they were asking those they represent to back their stand up to and through a strike.

Western Chapters president George B. Seebeck of Spokane summed up the general feeling of the afternoon sessions when he said that it looked like something was finally going to be done in certain touchy areas. "California is the cradle of all the ills that beset us in our labor relations," he said, "and I'm glad that California now seems about to take the most forward steps to right these ills."



• **Reynolds Aluminum Supply Co. of Los Angeles,** an affiliate of Reynolds Metals Co., recently broke ground for a warehouse and office building in the central manufacturing district at 6446 E. Washington Blvd., Los Angeles. The 100,000 sq. ft. warehouse section will serve not only the Greater Los Angeles metropolitan area but also as a central distributing point for 11 western states.

• **Radford Supply Co.,** Burbank, Calif., has changed its name to Radco Products, Inc.

• **Fibreboard Paper Products Corp.,** San Francisco, has elected three executives to vice presidencies: Mel R. Baruh, George W. Burgess and Jack H. Grady.

• **Hexcel Products Inc.** has completed manufacturing facilities in Berkeley, Calif., for the mass production of structural paper honeycomb core materials.

• **Hawaiian Cement Corp.,** a new company formed by both local and mainland interests, will build a $12 million plant at Barber's Point on Oahu. President of the firm is Robert D. Fisher, who also is vice president and a director of Cyprus Mines Corp., Los Angeles.

• **In-Sink-Erator Manufacturing Co.** has expanded western division activities with the appointment of two new district managers, Raymond Mounts of Los Angeles and N. K. White of Pasadena.

• **Plastic Lume, Inc.,** Sausalito, Calif., has appointed Robert E. Harvey Jr. as general sales manager. He formerly was director, general manager and chief executive officer of Sunshine Curtains, Inc., of San Francisco and Los Angeles.

• **Bethlehem Pacific Coast Steel Corp.** observed completion of a $25 million expansion and modernization program at its Seattle plant during an open house attended by industrial development officials last month. New production facilities include 1) two electric arc steelmaking furnaces which will boost the plant's annual capacity to 420,000 ingot tons; 2) a battery of eight soaking pits where ingots are heated prior to rolling; 3) a 32-in. blooming mill for reducing ingots down to sizes suitable for the finishing mills; and 4) a 12-in. merchant bar mill that is capable of producing a wide range of rolled products at high speed.



**EXAMINING MODEL** of Bethlehem Pacific's new Seattle office building are W. J. Bolton, local general manager; John G. White, district sales manager; H. Dewayne Kreager, director of Washington State Department of Commerce and Economic Development; and H. H. Fuller, president. Designed by Bindon & Wright, project is expected to get underway in July.

• **W. P. Fuller & Co.** has made a number of personnel shifts. C. R. Millikan becomes manager of the Spokane District. H. T. Joslin, formerly in


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charge of dealer sales in southern California, moves to San Francisco to succeed Millikan as consumer sales manager for the paint marketing division. A. A. Kroske becomes glass manager at Portland; Wayne De Arment of San Jose succeeds him as glass manager in Sacramento; and Major Chance of Oakland becomes glass manager in San Jose.

• **Keasbey & Mattison Co.** has named Republic Supply Co. of Los Angeles as a sales agent for the company's complete pipe line in southern California and Arizona. Republic has established a new waterworks supplies department headed by Robert Muse to handle the line.

• **Soule' Steel Co.** of San Francisco has named Richard Lee Swan, formerly with Formica Corp., as product manager in charge of developing a program for a new decorative material for various applications in the commercial and residential building field.

• **Gladding, McBean & Co.** has named Charles J. Daugherty to the post of southern California area sales manager for the pipe products division.

• **Chrysler Airtemp** has appointed Corwin-Hall Distributing Co. of Los Angeles as wholesale distributor of room air conditioners in 10 southern California counties.

• **Capri Sales, Inc.,** has appointed Ivar Oerman Jr. as direct factory representative in Washington and British Columbia.

• **The Siegler Corp.** and **Rheem Manufacturing Co.** have concluded a joint manufacturing arrangement which provides for manufacture of Siegler's line of general water heaters at the Rheem plant in South Gate, Calif., and production of certain lines of Rheem heating equipment at the Holly-General Division plant of Siegler in Pasadena. Only actual manufacturing is involved in the agreement. At the same time Siegler has announced the appointment of Lee D. Nutter, formerly of General Electric Co., as vice president in charge of marketing for Holly-General.

• **Ready Hung Door Corp.** has awarded a franchise license to Builders' Products, Inc., a new Seattle firm, to manufacture and distribute the Ready Hung door in the Pacific Northwest.

• **Inland Steel Products Co.** has picked Charles G. Harris to be Los Angeles regional manager for the engineered products division, succeeding the late Paul R. Dunn.

• **Dek Industries, Inc.,** has been formed for the production of aluminum home building products such as siding, awnings, carports, screen enclosures, etc. Subsidiaries in Los Angeles, Pennsylvania and Ohio will manufacture and distribute the products. President is R. Carter Dye; executive vice president, Fred H. Edgar; and vice president for sales, Walter E. Kemmerer. All three formerly served in key posts for Olin Mathieson Chemical Corp. and Reynolds Metals Co.

• **Benjamin Metals Co.** has moved its Los Angeles warehouse and general offices to new and expanded facilities at 1829 El Segundo Blvd., Compton.

• **Omark Industries, Inc.,** Portland, industrial equipment and saw chain manufacturing firm, has purchased controlling interest in Graham Manufacturing Corp., producer of stored-energy welding equipment in Boston.

• **Santiam Lumber Co.** has completed a plywood plant at Sweethome, Ore., for the production of both interior and exterior fir sheathing. President C. H. Wheeler announces that plant manager will be Sam Wheeler, with sales

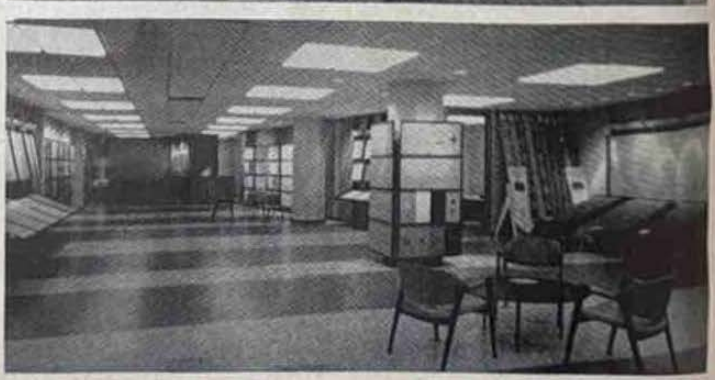





**FLOOR DIVISION SHOWROOMS**

of Armstrong Cork Co. in San Francisco's Western Merchandise Mart feature product display planned for maximum adaptability. Facilities were designed by Milton T. Pflueger, local architect, in conjunction with firm's bureau of interior decoration.



handled by Merwin Speer under the supervision of the firm's general sales manager, Richard Davis.

• **The Payne Co.**, La Puente, Calif., has selected Joseph H. Hoff as factory district manager to help coordinate the air conditioning equipment sales program.

• **Ideal Cement Co.** has begun construction of a $1,682,000 cement distribution center at Vancouver, Wash., which will include six 129-ft. high bulk cement silos, a building for sacking cement and a structure straddling the railroad tracks for loading into rail cars.

• **Douglas Fir Plywood Association** has added three new members to the field promotion staff in the West. They are Paul J. Marsh, to be based in Seattle; Harlow T. Richardson, Los Angeles; and Harold J. Tejes, Sacramento.

• **National Association of Architectural Metal Manufacturers** reports that the new president of the Tablet and Letter Division for 1959-60 is E. P. Benson, manager of the bronze and aluminum division of A. J. Bayer Co., Los Angeles. Among new directors for the Store Front and Entrance Division are T. Hallett Rebele, president of Rebco, Inc., Los Angeles; and Thomas A. Beyrle, vice president of Acme Metal Molding Co., Los Angeles. New director for the Iron and Steel Division is William G. Zimmerman, owner of the firm bearing his name in Denver.

## New eyes for old (Cont'd from p. 26)

good times and bad, storm and stress, neither race nor language, nor anything short of an upheaval of nature or the coming of the invader can obscure the beauty of those ageless qualities of the native landforms.—"without which life, soul and thought are inconceivable."

* * *

In review, these manifestations of cultural development, spread so variously over the map, might seem to hold the key to human destiny; but through the millenium no way has been discovered of holding onto the fleeting success of the momentary culture on its own landscape. Someone always appears with a bulldozer. From Harpers to Life, Look and the Ladies Home Journal, we have month by month the running complaint that we are culturally only partly solvent as earth's dominant species—"but little lower than the angels." All the arts and faiths, the institutions and the political systems have so far fallen short of giving man the knack of stabilizing his own culture. Perhaps the new crop of planners who now carry the torch can light the way. And who knows but the magical formula may be found in the very soil of the landscape at last. This is the challenge to the landscape architect. And it is the burden we call landscape architecture.

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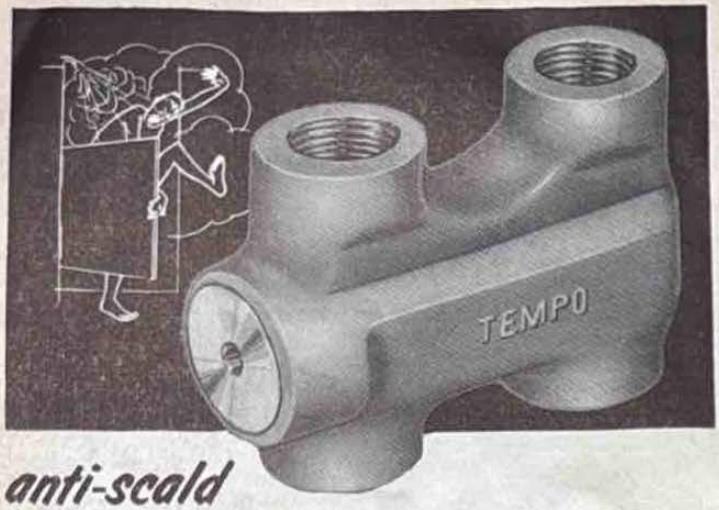
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### on deck at pa&b

Because of a change in publication date, the July issue will be in the mail shortly after this one has arrived. Two of its highlights: the initial PA&B profile spotlighting the work of John Carl Warnecke of San Francisco and the first of eight installments on "Preparing the Building Estimate," a feature being rerun because of its popularity.

### way down yonder

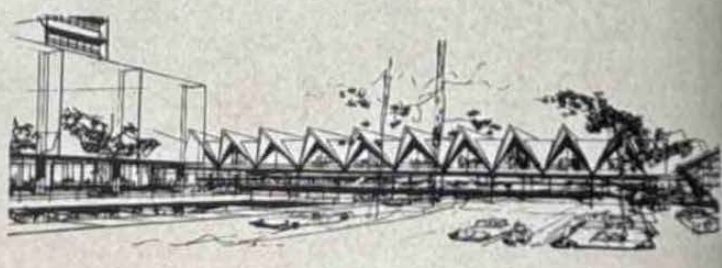
As the June issue of PA&B goes to press, architects are converging on New Orleans—and undoubtedly finding their way to Bourbon Street—for the annual AIA convention. There has been so much preliminary talk about human rights and segregation that the professional program has almost become completely lost in the shuffle. We'll be getting a first-hand report from our consulting editor, A. O. Bumgardner, who also is an official delegate of the Washington State Chapter. Upon returning from a vacation in his native state (Illinois, class of '49), he will begin working drawings on the headquarters building which PA&B will share with its publisher, Pacific Builder and Engineer, Inc., and Pacific Printing Co. (Photos of model appeared in March.)

### hi ho (hum) come to the fair

As guests of the Oregon Centennial Exposition at a press preview (public opening: June 10), perhaps we are being unhospitable to candidly state that we found the whole affair lived up to what we had expected—"a carnival gayway at a county fair or a Friday surprise at a shopping center," as one Portland architect so aptly put it. We hasten to add that we do not point the finger of guilt at the architectural profession since it was assigned, at best, a Johnny-come-lately role by management (see PA&B for Feb.). And we will admit that we toured the Pacific International Livestock Building site and environs on a miserably rainy, chilly day when considerable portions of the exhibition were not yet finished. But we think we are on firm ground when we say that, in the final analysis, it is a design jungle and that the structure most worthy of note is the Forest Products Pavilion. We'll present a capsule photographic tour next month so that you can judge for yourself.

### it should have been in red

We regret that the name of the architects, Richard Dorman & Associates, was inadvertently omitted from our "Job of the Month" in the May issue. The article, which described the expansion program of the Electronics Research Center in Santa Monica, Calif., carried the line drawing shown below in blue. R.E.K.



AUG 5 1959

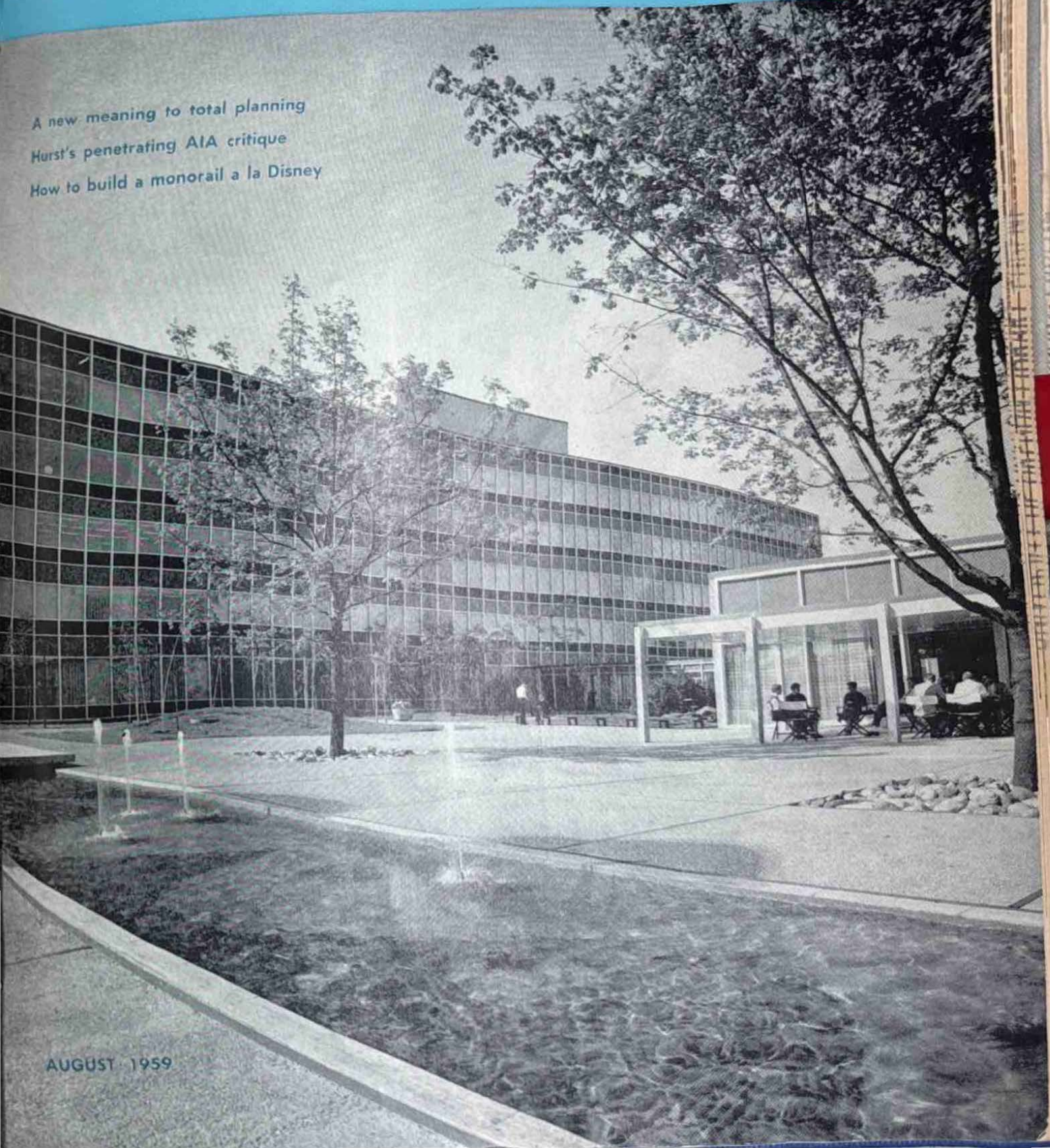
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# pacific architect and builder

A new meaning to total planning

Hurst's penetrating AIA critique

How to build a monorail a la Disney



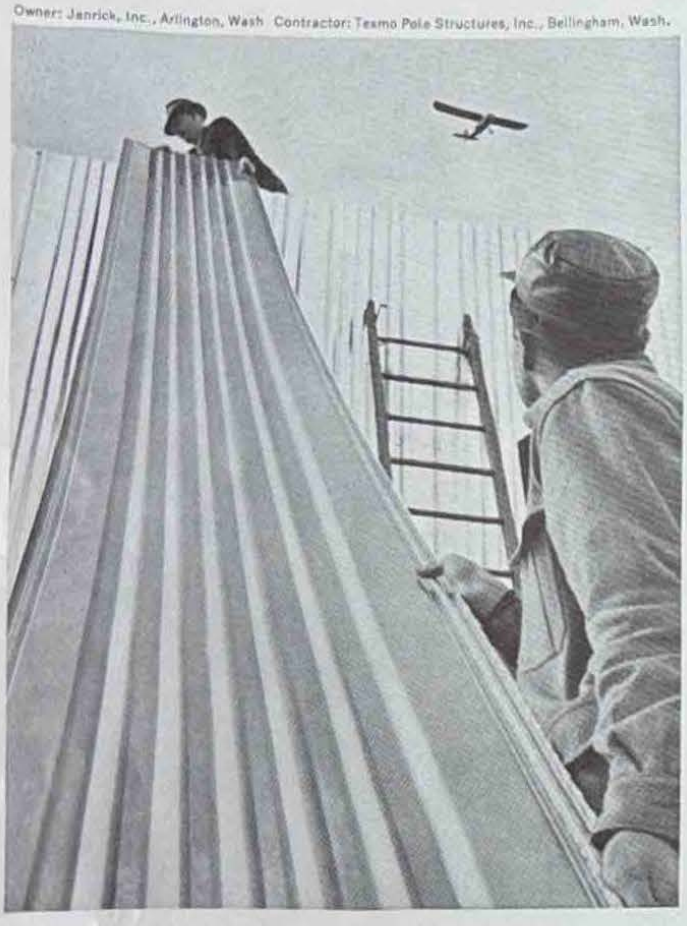
AUGUST 1959

Steel

Lightens your work
Brightens your leisure
Widens your world

# Westerners like these new ideas in USS steel

Owner: Janrick, Inc., Arlington, Wash. Contractor: Texmo Pole Structures, Inc., Bellingham, Wash.



**New Ground Cover for Aircraft.** When storm warnings fly in northern Washington, all planes are secure in weather-proof steel hangers at Arlington Airport. These structures were built to last from USS Galvanized Sheets, formed into special long length panels by Western Aluminum Corp., Seattle. This new application of USS Sheets provides extra strength and saves money, through faster erection time and easier handling.

Owner/Builder: Lindsay M. Waddingham, Lancaster, Calif.



**New Design for Furniture Sales.** Lindsay's Interiors, Lancaster, California—a new approach in store design, by Calcor Corp., Huntington Park. Structurals, wall panels and roof decking are formed from USS Steel. Post-free, clear spans provide maximum use of interior display space. Features like these make steel a fast-growing favorite of architects and builders throughout the West.

Contractor: Leiser Construction Co., Denver.
Steel Windows: Colorado Metal Products Co., Denver.



**New Dash for Dwellings.** Strong, light-weight framing of USS Steel, by Sterling Steel & Supply gives the Melbro Apartments, Denver, Colorado, rigid, lasting beauty.

Curtain walls: Fentron Industries, Inc. Architects: Mallis & DeHart. Contractor: H. Halvorson, Inc., Seattle, Wash.



**New Class for School Buildings.** Steel is making a major contribution toward solving the West's critical school shortage. Shoreline High School, Seattle, Washington, a case in point, is finished in style with porcelain-enameled panels of USS Steel for maximum service and minimum maintenance.

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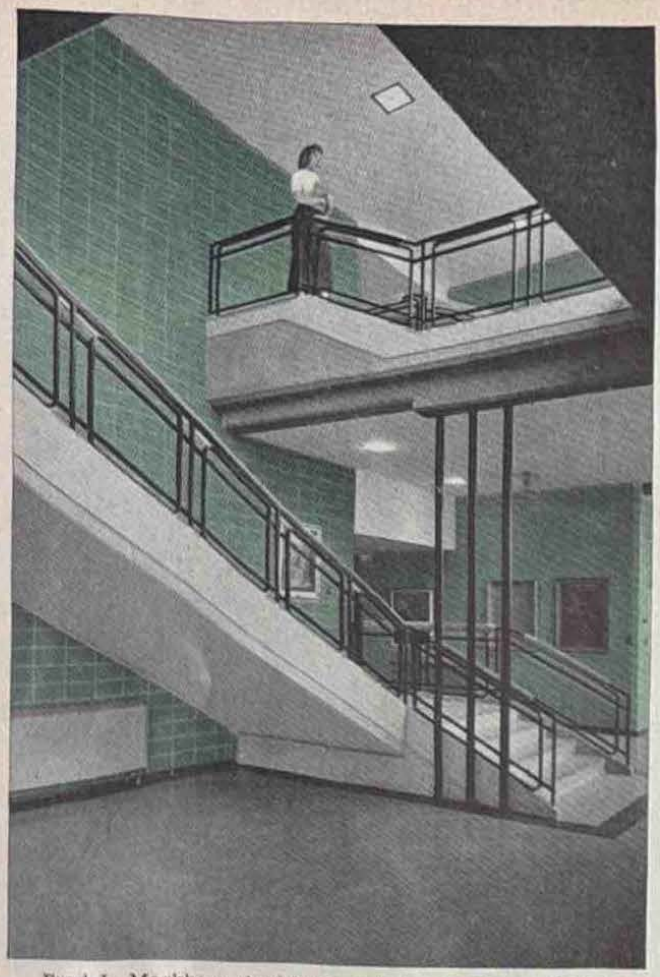
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COVER: Washington Water Power Co. Central Service Facility, Spokane (p. 13): Kenneth W. Brooks and Bruce M. Walker, Architects; Morley Baer photo.

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Fred L. Markham, Architect, selected Kraftone Color Glazes No. 423 Cream and Ocular Green No. 222 for corridor walls in the Provo High School to harmonize with light green stairs and balcony.

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# June shows $75.8 million gain in 13-state West

Bolstered by strong activity in the major metropolitan centers, building permit figures for the West draw a booming picture. In PA&B's first survey that covers the entire 13-state area, 156 key agencies report an impressive $349,649,675 dollar volume for June, $75.8 million higher than the total for that month in 1958. What's more, the gains are widespread. State totals in California, Washington, Idaho, Montana, Colorado, Utah, Nevada, Arizona and New Mexico are all higher than last June; in Oregon, Alaska and Wyoming the decreases are slight.

Most of the major metropolitan areas report substantial increases for june. San Diego is up $7.7 million; Seattle, $5.9 million; Honolulu, $5.7 million; San Diego County, $5.3 million; Los Angeles County, $4.5 million; Sacramento, $4.2 million; Tuscon, $4 million; King County, $3.3 million; Los Angeles, $2.4 million; Billings, $1.3 million; Reno, $1.2 million; Phoenix, $1 million; Ogden, $884,000; Albuquerque, $631,00; and Boise, $503,000. Larger centers reporting decreases include Portland, $2.3 million; Multnomah County, $1.2 million; Denver, $445,000; and Anchorage, $442,000.

### Top 15 agencies

Nine of the top 15 agencies for June are in California; two in Washington; one each in Arizona, Colorado, New Mexico and Hawaii. They are:

| | June 1959 | June 1958 |
|---|---|---|
| 1. Los Angeles | $54,791,353 | $52,433,125 |
| 2. San Diego | 22,033,577 | 14,322,547 |
| 3. Los Angeles County | 21,880,782 | 17,409,421 |
| 4. Honolulu | 17,899,594 | 12,246,628 |
| 5. San Jose | 13,808,539 | 6,457,476 |
| 6. Sacramento County | 12,848,461 | 8,600,962 |
| 7. San Diego County | 12,533,500 | 7,196,200 |
| 8. Seattle | 11,831,832 | 5,953,462 |
| 9. King County | 10,559,600 | 7,298,470 |
| 10. San Francisco | 10,165,143 | 10,758,030 |
| 11. Long Beach | 8,229,460 | 3,280,845 |
| 12. Denver | 7,019,530 | 7,464,690 |
| 13. Phoenix | 6,284,000 | 5,298,760 |
| 14. San Bernardino County | 6,008,104 | 6,100,131 |
| 15. Albuquerque | 5,618,661 | 4,987,230 |

### Housing: a question mark

Meanwhile, the optimism brought about by the healthy permit volume in the West for the first six months of 1959 was dimmed somewhat when President Eisenhower vetoed the omnibus housing bill early in July. In San Francisco to attend their first Pacific Coast conference, some 2,000 home builders from 11 western states heard Carl T. Mitnick, NAHB head, call the action "a severe blow." He said that there is a "distinct possibility that this veto could result in the FHA not receiving permission to continue its insured loan program" and that it could mean the loss of as many as 400,000 units in planned home construction nationally during the next year.

President Eisenhower reportedly vetoed the bill because of its public housing aspect, "excessive urban renewal" and a provision which would provide $50 million in direct loans for housing the elderly. One urban renewal coordinator, Seattle's Talbot Wegg, says he isn't worried about $2 million needed for a project in his city, having been told by a Washington state legislator that Congress will pass a housing bill this session which will have in it funds for the program.

# Building Permit Totals for 156 Western Agencies for June

| CALIFORNIA | June 1959 | June 1958 |
|---|---|---|
| Alameda County | $ 1,369,225 | $ 2,335,900 |
| Anaheim | 4,410,517 | 2,967,507 |
| Bakersfield | 1,642,735 | 541,880 |
| Burbank | 829,298 | 801,972 |
| Contra Costa County | 4,673,309 | 2,702,807 |
| Fresno | 1,108,471 | 1,344,689 |
| Fullerton | 3,104,911 | 1,079,759 |
| Glendale | 2,122,122 | 2,126,916 |
| Inglewood | 714,000 | 1,838,357 |
| Long Beach | 8,229,460 | 3,280,845 |
| Los Angeles | 54,791,353 | 52,433,125 |
| Los Angeles County | 21,880,782 | 17,409,421 |
| Oakland | 4,464,647 | 3,275,755 |
| Ontario | 268,247 | 314,147 |
| Orange County | 4,603,836 | 3,489,245 |
| Palo Alto | 841,031 | 654,533 |
| Pasadena | 1,950,884 | 2,347,096 |
| Pomona | 861,342 | 1,230,843 |
| Richmond | 1,754,721 | 730,769 |
| Riverside | 2,674,694 | 1,323,456 |
| Sacramento | 4,525,786 | 2,430,610 |
| Sacramento County | 12,848,461 | 8,600,962 |
| San Bernardino | 1,665,190 | 1,999,977 |
| San Bernardino County | 6,008,104 | 6,100,131 |
| San Diego | 22,033,577 | 14,322,547 |
| San Diego County | 12,533,560 | 7,196,200 |
| San Francisco | 10,165,143 | 10,758,030 |
| San Jose | 13,808,539 | 6,457,476 |
| San Mateo | 1,453,350 | 550,399 |
| San Mateo County | 2,281,689 | 2,612,502 |
| Santa Ana | 4,102,484 | 3,784,977 |
| Santa Monica | 1,022,428 | 1,363,721 |
| Stockton | 1,507,920 | 1,204,073 |
| Sunnyvale | 3,528,746 | 7,511,490 |
| Torrance | 4,199,800 | 1,169,717 |
| West Covina | 474,065 | 694,588 |
| TOTAL | $224,454,347 | $178,986,422 |

| OREGON | June 1959 | June 1958 |
|---|---|---|
| Albany | $ 215,783 | $ 40,600 |
| Astoria | 58,412 | 8,352 |
| Baker | 83,000 | 56,390 |
| Bend | 108,500 | 70,744 |
| Coos Bay | 94,655 | 87,887 |
| Corvallis | 2,589,625 | 2,189,506 |
| Eugene | 1,013,139 | 1,531,943 |
| Grants Pass | 109,850 | 33,200 |
| Gresham | 64,600 | 38,300 |
| Hillsboro | 142,000 | 154,025 |
| Klamath Falls | 138,715 | 194,490 |
| La Grande | 153,863 | 21,126 |
| Lane County | 1,433,361 | 841,013 |
| Medford | 1,038,070 | 518,023 |
| Multnomah County | 2,921,342 | 4,082,610 |
| North Bend | 211,448 | 34,030 |
| Oregon City | 136,920 | 34,124 |
| Portland | 4,506,735 | 6,774,665 |
| Roseburg | 243,012 | 104,575 |
| Salem | 462,920 | 476,646 |
| Springfield | 98,793 | 76,344 |
| The Dalles | 162,829 | 160,949 |
| TOTAL | $ 15,987,572 | $ 17,529,541 |

| WASHINGTON | June 1959 | June 1958 |
|---|---|---|
| Aberdeen | $ 230,694 | $ 51,126 |
| Anacortes | 76,878 | 201,675 |
| Auburn | 422,300 | 62,400 |
| Bellingham | 562,313 | 193,652 |
| Bremerton | 265,295 | 200,255 |
| Centralia | 188,812 | 32,839 |
| Chehalis | 70,148 | 27,263 |
| Ellensburg | 126,628 | 47,766 |
| Ephrata | 166,890 | 18,925 |
| Everett | 207,472 | 177,397 |
| Kelso | 79,600 | 121,600 |
| Kennewick | 260,930 | 60,680 |
| King County | 10,559,600 | 7,298,470 |
| Kirkland | 69,195 | 150,100 |
| Longview | 304,264 | 694,816 |
| Moses Lake | 106,206 | 129,420 |
| Olympia | 371,995 | 177,610 |
| Pasco | 125,687 | 394,670 |
| Pierce County | 2,658,863 | 1,794,040 |
| Port Angeles | 68,750 | 30,075 |
| Puyallup | 180,147 | 198,375 |
| Seattle | 11,831,832 | 5,953,462 |
| Spokane | 1,401,154 | 1,635,191 |
| Spokane County | 1,559,529 | 1,183,678 |
| Tacoma | 2,156,127 | 1,434,214 |
| Vancouver | 574,758 | 419,557 |
| Walla Walla | 248,860 | 456,018 |
| Wenatchee | 418,175 | 116,334 |
| Yakima | 257,211 | 401,878 |
| TOTAL | $ 35,550,313 | $ 23,672,486 |

| ALASKA | June 1959 | June 1958 |
|---|---|---|
| Anchorage | $ 1,391,423 | $ 1,833,007 |
| Fairbanks | 468,367 | 472,325 |
| Juneau | 126,900 | 99,500 |
| Ketchikan | 7,200 | 16,300 |
| TOTAL | $ 1,993,890 | $ 2,421,132 |

| IDAHO | June 1959 | June 1958 |
|---|---|---|
| Boise | $ 1,135,927 | $ 632,619 |
| Caldwell | 238,120 | 88,113 |
| Coeur d'Alene | 49,800 | 32,600 |
| Idaho Falls | 828,669 | 699,945 |
| Jerome | 10,945 | 25,200 |
| Lewiston | 184,633 | 185,225 |
| Nampa | 122,665 | 119,080 |
| Payette | 28,500 | 49,100 |
| Pocatello | 142,557 | 431,368 |
| Sandpoint | 78,400 | 16,300 |
| St. Maries | 10,000 | 3,200 |
| Twin Falls | 102,495 | 208,200 |
| TOTAL | $ 2,932,711 | $ 2,490,950 |

| MONTANA | June 1959 | June 1958 |
|---|---|---|
| Billings | $ 1,494,800 | $ 168,100 |
| Bozeman | 128,050 | 39,500 |
| Butte | 279,524 | 190,490 |
| Glasgow | 289,000 | 54,250 |
| Glendive | 76,950 | 138,900 |
| Great Falls | 974,567 | 654,837 |
| Helena | 350,036 | 241,015 |
| Kalispell | 237,750 | 339,400 |
| Lewistown | 12,000 | 7,800 |
| Livingston | 49,700 | 105,283 |
| Miles City | 76,635 | 56,260 |
| Missoula | 285,267 | 48,050 |
| TOTAL | $ 4,254,279 | $ 2,043,885 |

| WYOMING | June 1959 | June 1958 |
|---|---|---|
| Casper | $ 706,710 | $ 933,904 |
| Cheyenne | 860,055 | 777,459 |
| Sheridan | 131,223 | 50,068 |
| TOTAL | $ 1,697,988 | $ 1,761,431 |

| COLORADO | June 1959 | June 1958 |
|---|---|---|
| Aurora | $ 1,245,042 | $ 1,027,129 |
| Boulder | 902,946 | |
| Denver | 7,019,530 | 7,464,690 |
| Englewood | 403,739 | 207,375 |
| Fort Collins | 960,105 | 460,768 |
| Grand Junction | 99,748 | 349,610 |
| Greeley | 415,241 | 391,298 |
| Pueblo | 884,496 | 1,221,562 |
| Trinidad | 48,140 | 23,110 |
| TOTAL | $ 11,978,987 | $ 11,145,542 |

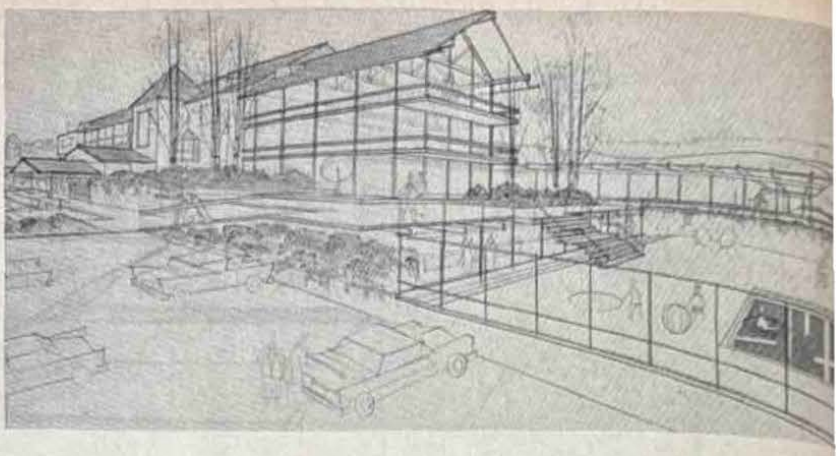
| UTAH | June 1959 | June 1958 |
|---|---|---|
| Logan | $ 406,716 | $ 319,350 |
| Murray | 365,575 | 1,337,165 |
| Ogden | 1,593,200 | 709,600 |
| Provo | 679,650 | 212,600 |
| Salt Lake City | 1,264,594 | |
| TOTAL | $ 4,309,735 | $ 2,578,715 |

| NEVADA | June 1959 | June 1958 |
|---|---|---|
| Elko | $ 41,800 | $ 58,818 |
| Las Vegas | 1,593,424 | 985,533 |
| Reno | 2,221,071 | 1,005,640 |
| Sparks | 72,536 | 410,695 |
| TOTAL | $ 3,928,831 | $ 2,460,686 |

| ARIZONA | June 1959 | June 1958 |
|---|---|---|
| Douglas | $ 168,548 | $ |
| Flagstaff | 462,293 | |
| Glendale | 43,150 | 85,100 |
| Mesa | 2,662,950 | 462,800 |
| Phoenix | 6,284,000 | 5,298,760 |
| Tucson | 4,878,430 | 863,393 |
| Yuma | 173,600 | 255,945 |
| TOTAL | $ 14,672,971 | $ 6,965,998 |

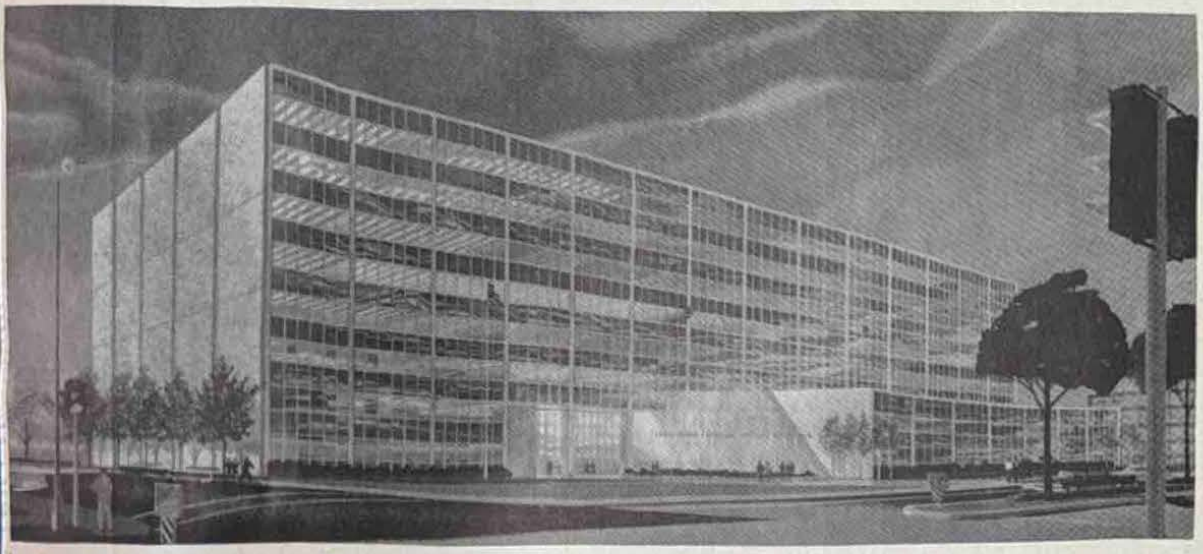
| NEW MEXICO | June 1959 | June 1958 |
|---|---|---|
| Albuquerque | $ 5,618,661 | $ 4,987,230 |
| Carlsbad | 281,316 | 316,980 |
| Clovis | 470,240 | 191,488 |
| Gallup | 124,407 | 423,555 |
| Hobbs | 289,890 | 360,400 |
| Las Cruces | 397,000 | 663,000 |
| Roswell | 624,622 | |
| Santa Fe | 583,021 | 263,633 |
| TOTAL | $ 8,389,157 | $ 7,206,286 |

| HAWAII | June 1959 | June 1958 |
|---|---|---|
| Hilo | $ 336,649 | $ 450,399 |
| Honolulu | 17,899,594 | 12,246,628 |
| Kailua-Lanikai | 837,559 | 1,315,927 |
| Wahiawa | 123,405 | 141,215 |
| Wailuku | 250,687 | 338,653 |
| TOTAL | $ 19,447,894 | $ 14,492,822 |
| GRAND TOTAL | $349,598,675 | $273,755,896 |



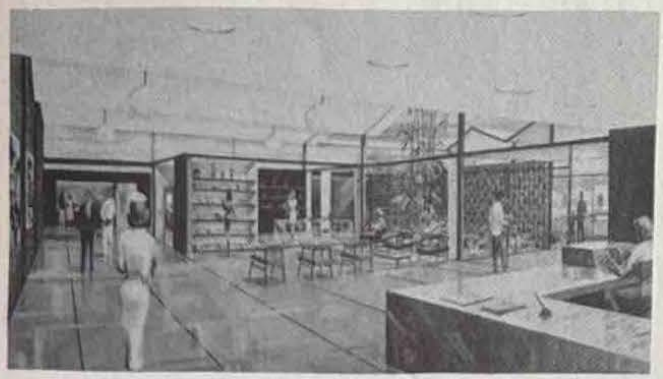
## GOLF AND COUNTRY CLUB

at Seattle's Sand Point is undergoing long-range $500,000 improvement program which includes adult swimming pool, adjoining wading pool for children and three-story north wing addition, whose glass walls will overlook greens and Lake Washington shoreline. Structure will house golfers' lounge and grill, enlarged women's locker rooms and lounge, country club lounge, pro shop and storage area. Ultimate plans call for new dining room addition. Architects: Bystrom & Greco; structural engineer, Charles Kitchin.



## U.S. COURTHOUSE AND FEDERAL OFFICE BUILDING

now underway in Sacramento will be first major structure to be built in redevelopment area of Capitol Mall. Of reinforced concrete construction, project will have eight stories and penthouse, costing $6.4 million. Exterior will consist of quartz aggregate facing in precast colored glass spandrels, marble trim and aluminum windows. Architects: Harry J. Devine, Herbert E. Goodpastor, Rickey & Brooks, Dreyfuss & Blackford and Raymond R. Franceschi.



## STUDENT UNION BUILDING

at UCLA will be integrated with its predecessor—existing Gothic styled structure seen at left of photo—through use of related materials, principally brick, rubble fieldstone and architectural concrete. Both buildings will be visually connected by rimming terrace and open courtyards and physically by overhead pedestrian bridge. Costing $5 million, new student center will have reinforced concrete grill stretching length of building and two levels high for sun control. Architects-engineers: Welton Becket & Associates.

## OVERLAKE MEMORIAL HOSPITAL

to serve Bellevue, Wash., will be simple frame structure with equally simple but pleasant lobby looking out on screened court. Hardwood casework will include built-in magazine stand. Architects: Jones, Lovegren, Helms & Jones.



# Hurst wins ovation in New Orleans

A personal report by A. O. BUMGARDNER, AIA, Consulting Editor

The 91st annual convention of the American Institute of Architects in New Orleans during the latter part of June concerned itself with DESIGN—from the total design philosophy outlined by Seattle's Paul Thiry to the individual formulas espoused by such high-powered architects as Minoru Yamasaki, Birmingham, Mich.; Charles E. Pratt, Vancouver, B.C.; William L. Pereira, Los Angeles; and moderator Philip C. Johnson, New York.

Thiry divided his subject, as it applies to architects and architecture, into four categories: education, creative forces, continuity and preservation. Yamasaki pinpointed his design ideology to the need for a building to have visual delight—yet so constructed that it would not have been built in an earlier generation. Pereira and Pratt spoke more introspectively. Pereira decried problem solving as an excuse for architecture and called for a return to the concept of total "image design." Pratt aligned himself to the side of Romanticism (dominated by the spirit) rather than Classicism (dominated by the intellect).

The melee' over attendance (total registration: 2,195; architects: 950) and segregation preceding the 1959 convention seemed to have spent its force in preseason storms; the business meetings proceeded as if in a becalmed atmosphere. Of the 14 resolutions brought to the floor, eight dealt with "thank you's" to the Gulf States, to the New Orleans Chapter, to their ladies and whomsoever else remotely concerned. Emily Post would have been pleased.

This was the first streamlined convention where professional sessions were divorced from dinners and social gatherings. Done as a device to avoid problems of segregation (Walter Gropius, in his Gold Medal address, spoke out against it at an architectural gathering, as did Yamasaki), the abbrevi-



**DEAN HURST** of Alabama Polytechnic Institute ends convention with his penetrating critique.



**GOLD MEDALIST** Walter Gropius is recipient of AIA's highest honor from President John Noble Richards. Latter was reelected, along with Philip Will Jr., first vice president; Henry L. Wright, second vice president; and Raymond S. Kastendieck, treasurer. New secretary is J. Roy Carroll Jr., Philadelphia.


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ated format functioned smoothly to eliminate unnecessary rituals.

The next most needed surgery: the business sessions themselves. There is little justification for their continuance. They are but a token of a much earlier day when the AIA was of such small size that it could conduct its business in a town meeting. Today such sessions are entirely too unwieldy to function; further, the attendance at the convention is not representative of the AIA geographically. It is reported that a complete study for overhaul of the AIA organization has been made and will be disseminated to the membership for examination in the next two years. Proposed regional and national legislative bodies would result in a more direct line of authority.

### The young dean speaks

It remained for Samuel T. Hurst, the young dean of Alabama Polytechnic Institute, to point out in his closing critique that the real success of any convention on design is dependent upon the "message" reaching those who are responsible for "the ordinary, undistinguished, unrecognized and unpublished work which constitutes the bulk of our practice and largely shapes the new face of our land, the no-face of the sprawling urban scene which demonstrates our enormous capacity to replace God's beauty with man's ugliness."

Hurst spelled out four facades behind which architects operate today:

1. Thin face of professionalism
2. Fat face of materialism
3. All-face of superficiality
4. No-face of conformity

The standing ovation given the dean testified as to the reality of his charges. (Digest of the complete text begins on p. 17.) Fortunately, there were some 120 students in the audience; unfortunately, many of those responsible for the face of our land were back home in their offices, bringing about these very changes. One can only hope that the principals of these offices in attendance were sufficiently moved to start the return to responsibility by the architects.

New Orleans is ever a gracious hostess. Not content to rest upon her reputation as an Old World City, she is very much alive and alert as a potent force in the 20th century. Mayor de-Lesseps Morrison presented a dynamic picture of the city—and of its dynamic mayor—in a 10-minute movie of postwar changes. Quite a body of contemporary architecture can be seen in and around New Orleans and it is representative of a number of offices.

We could all take a few lessons from the old houses of the Garden District. These residences, some almost 100 years old, are still treated with respect and dignity as they are changed to suit today's living patterns. As charming urban residences, they are in sharp contrast to the crude splattering of materials that characterizes so much renovating of older buildings in the heart of other cities.

•



**LOS ANGELES MEMORIAL SPORTS ARENA**

dedicated in July features longest unsupported roof on any commercial building in world—570x318 ft.—providing 18,000 theater type seats plus 800 box seats with unobstructed vision. Costing close to $6 million, arena will be used for all kinds of sporting events and will be scene of 1960 National Democratic Convention. Architects: Welton Becket & Associates; structural engineers: Brandow & Johnston; general contractor: L. E. Dixon Co. (same firm which built adjacent Los Angeles Memorial Coliseum).



**HONOR AWARD WINNERS** Kenneth W. Brooks (center) and Bruce M. Walker of Spokane receive plaudits of President Richards for their design of Washington Water Power Co. Central Service Facility (cover and p. 13).

•

## Portland's metro planning group to begin projects

Base mapping of the Portland metropolitan and urban areas will be one of the first projects of the newly staffed Metropolitan Planning Commission. Uniform scale maps of Multnomah, Washington and Clackamas counties are not available at present.

The commission was formed in January 1958 through an agreement signed by the three counties and the City of Portland. In November 1958 a grant of $34,150 was obtained through Section 701 of the Federal Housing Act of 1954. An equal amount of money was promised by the member bodies to carry the program over an 18-month period.

Robert E. Keith, a member of the Portland city planning staff for six years, was appointed planning director in March, and now has a staff of seven. Offices are in the newly remodeled City Hall Annex, 424 S.W. Main St.

In addition to mapping, the staff will complete the following projects: 1) gross population forecast, by age group, for the metropolitan area for the period 1960-75; 2) population distribution study; 3) industrial development study. They will begin preliminary plans for freeway arterials and transit facilities, and for school and parks.

Maps and publications will be published for the use of governing bodies and planning agencies in coordinated development of the "Standard Metropolitan Area," made up of the three counties, and as a framework for further local planning studies.

While Washington's Clark County is not included in the area for study, it will be taken into consideration.

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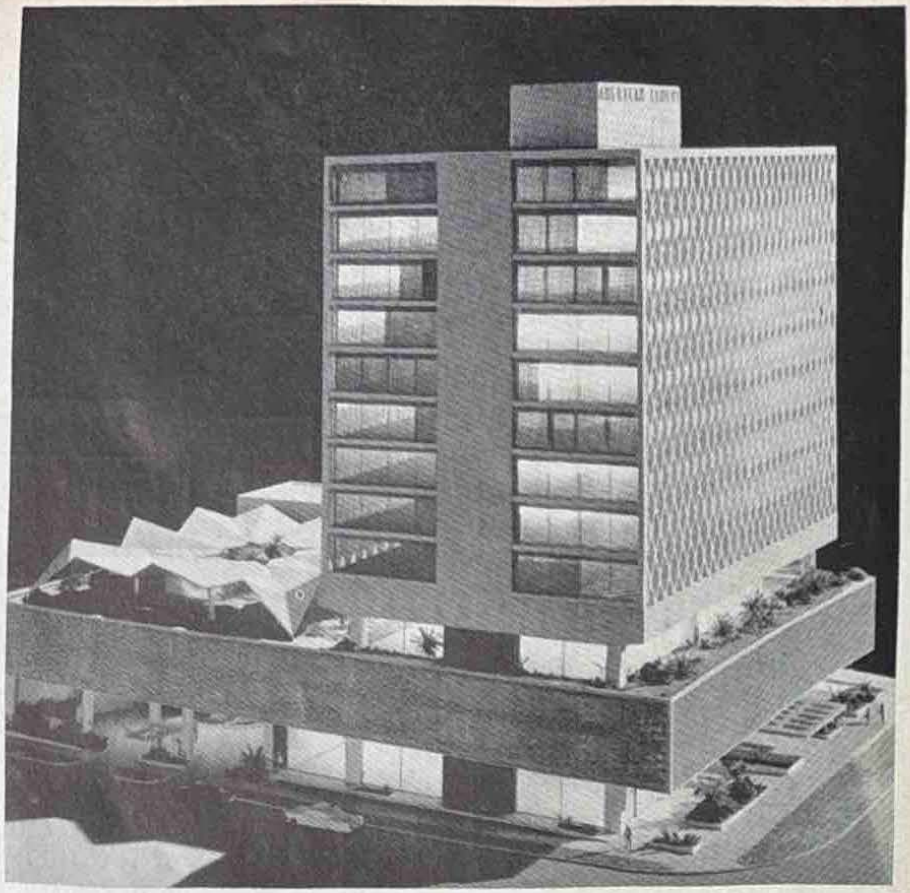
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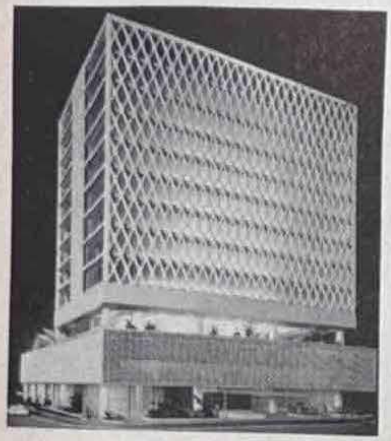
CITY_____ ZONE_____ STATE_____



**TOWER PORTION,** supported by only eight columns and broad footings extending below subterranean level, will rise out of fourth floor gardens, free of restrictive garage module requirements.

## JOB OF THE MONTH

### Sculpture in concrete: some practical, exciting new uses



**LOAD BEARING GRILL** of reinforced concrete on north and south elevations is based on previous work done in Paris by chief designer Stephen G. Oppenheim, refined into sculptural form by consultant Malcolm Leeland. South facade also has sun-fin inset.

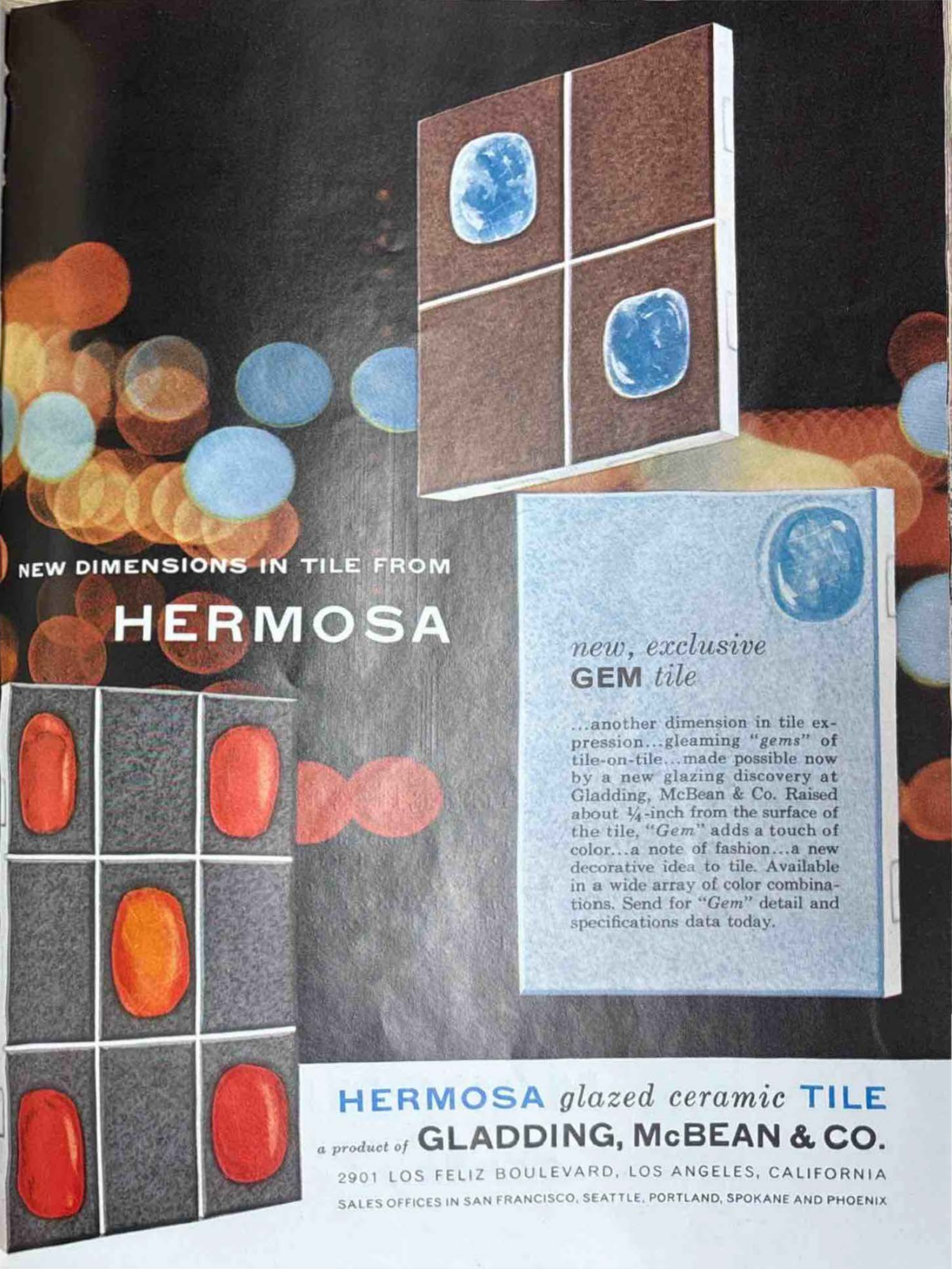
AMERICAN CEMENT CORP. HOME OFFICE BUILDING, LOS ANGELES: This 13-story structure quite naturally will be of reinforced concrete and its design exploits that material in a number of unusual and interesting ways. Overlooking MacArthur Park, the 240,000-sq. ft. building will accommodate 1,000 office personnel, retail stores and a restaurant off the main lobby and parking for 300 cars on subterranean, second and third levels.

A noteworthy innovation is the first known use of sculptural diagonal posts in the bearing walls, engineered to support the full lateral and vertical loads of 10 tower floors and particularly suited to absorb seismic stress. Core of the tower's structural system is an inverted "T," resting on eight 5x4-ft. columns, each five stories high, and containing elevator banks, utility services and mechanical equipment. This scheme provides completely column-free interior space with a separate, fixed sash glass curtain wall.

Reinforced concrete screens will surround the second and third parking levels, protecting that area from street view, permitting natural ventilation and appreciably decreasing construction costs. Traffic into both the subterranean and above-ground parking will be handled by two-way ramps.

The main lobby too will make dramatic use of concrete in the textured walls, in the ceiling made from plastic forms cast in structural shapes to reflect indirect lighting and in fixtures accented with stained glass, standing within interior reflecting pools.

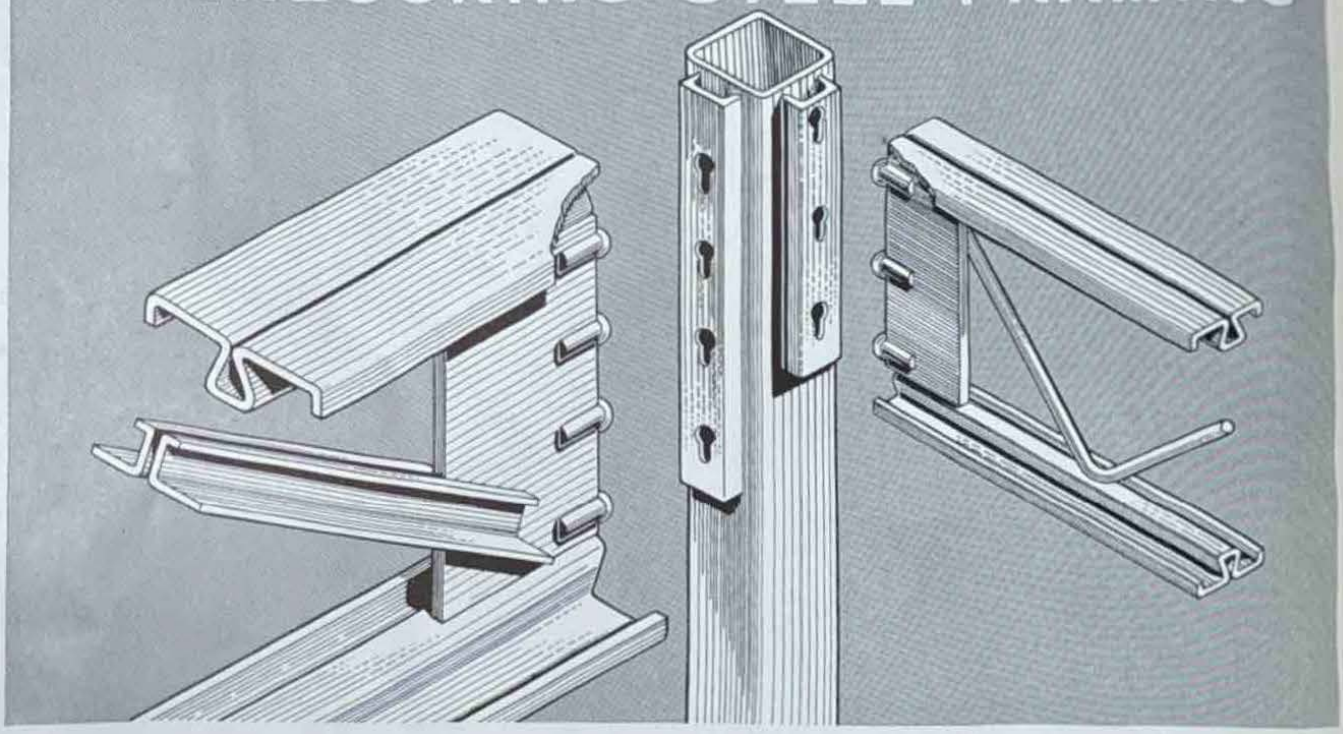
Executive offices of the client's largest division, Riverside Cement Co., will be housed in a separate structure on the fourth floor deck. The flower-form building with folded plate concrete roof will look out on a landscaped terrace. Architects-engineers: Daniel, Mann, Johnson & Mendenhall.


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# New meaning to the total planning concept

Washington Water Power Co.
Central Service Facility
Spokane, Washington

KENNETH W. BROOKS and BRUCE M. WALKER
Architects

EBASCO SERVICES, INC.
Facilities Analysis

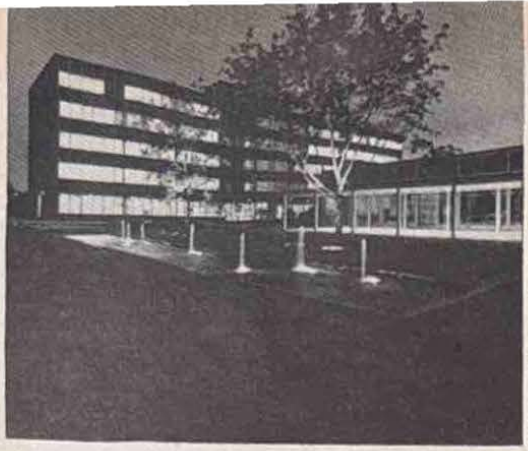
WILLIAM M. WILSON and JACK M. LYERLA
Structural Engineers

KENDALL M. WOOD ASSOCIATES
Mechanical Engineers

JOSEPH M. DOYLE
Electrical Engineer

LAWRENCE HALPRIN
Landscape Architect

JOHNSON-BUSBOOM-RAUH
General Contractors



Morley Baer photos

## WWP CENTRAL SERVICE FACILITY

*Upon selecting this project for an AIA First Honor Award in 1959, the jury commented: "A utilitarian building group dominated by an effective office structure of refreshingly simple form and faced with a well-proportioned and neatly detailed curtain wall. The beautiful effect of the structure is aided by a well-handled landscape treatment."*

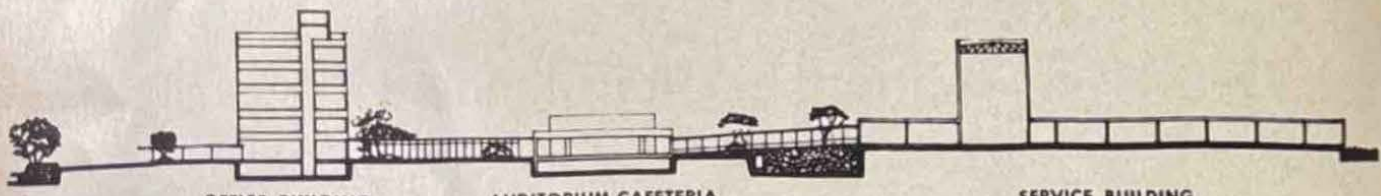
THE CLIENT, with shops, warehouses, storage yards and offices in 17 different locations throughout the city, asked the architects and their consultants to consolidate all of these facilities at a new site. Every square foot of the 28-acre project on the Spokane River was developed through continuing conferences between owner and planners. The result: a continuity of design and a unity of materials that produced a truly complete scheme—from a 40-ton crane to electric releases on executive doors; from landscape sprinkling with heat-pump discharge water to setting up planting schedules for annuals in flower beds and pots; from custom designed transformer pads to custom designed dining tables.

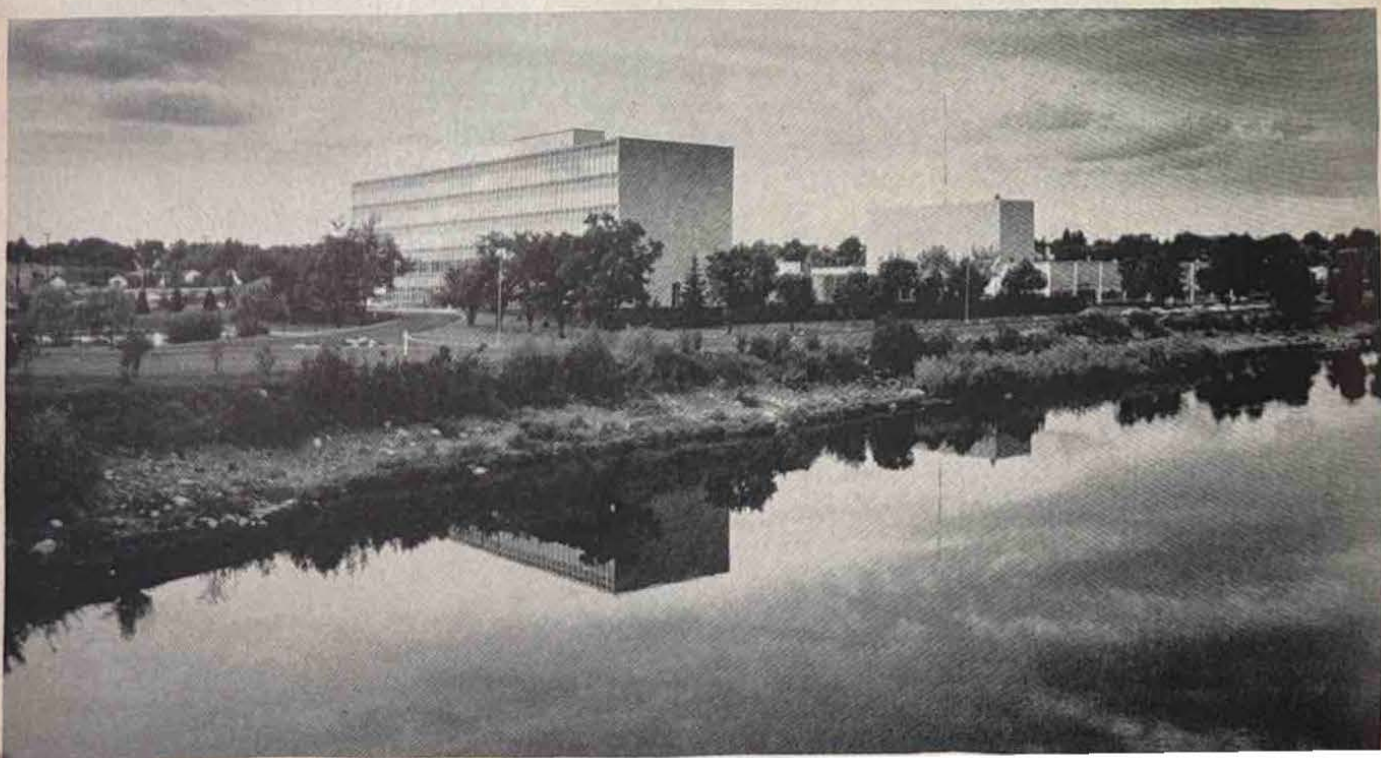
Terrific labor pains, of course, were involved in giving birth to this $7.6 million center. From 20 to 30 basic plot plans were proposed before finally arriving at a simple, yet logical, arrangement of the three major structures: office building to the front, auditorium-cafeteria in the center, service building beyond. The offspring is one of the Pacific Northwest's most significant projects of the last decade or two, not only in overall design and site development, but in its contribution to the general beautification of a community, particularly the impetus engendered to clean up Spokane's littered waterfront.

Four of the major turning points in reaching the finalized site planning concept—six months of deliberation by the entire team—are outlined by the architects:

"1. The apparently level site had sufficient drop in topography toward the river to seriously consider a two-level service building. A series of analyses compared the cost of utilizing the low side as an enclosed space versus backfilling and creating the entire structure on one level. The former solution won out.

"2. Location of a railroad spur taking off at the site proved to be a crossing hazard. The solution of



coming into the rear of the property eliminated a noise problem around the office building.

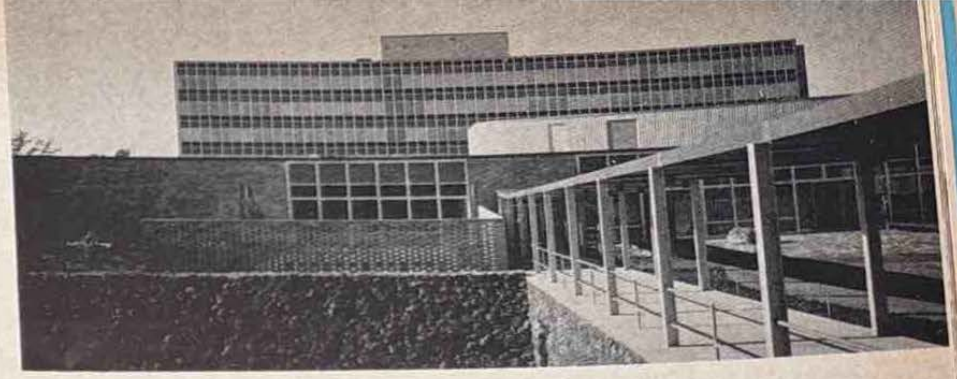
"3. When it was decided that the Spokane division offices should be moved to the site immediately, an attempt was made to incorporate these facilities into the service building. At this time the cafeteria also was a part of that structure—a typical industrial type of installation. Backed up by the client's original instructions, we scraped up enough courage to suggest that both the division offices and the cafeteria might better be located in an entirely separate building. Surely this would cost a little more but perhaps the environment would be greatly improved.

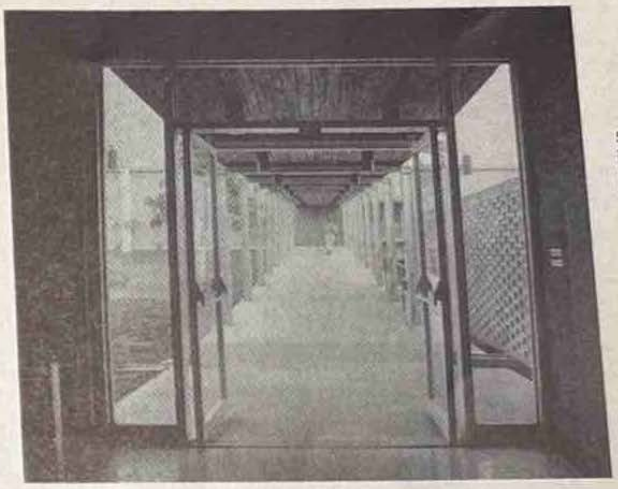
"4. After further consideration the owner decided that the only place for the Spokane division offices was an integrated part of the general office building. This left the cafeteria standing alone and following more study, the free-standing auditorium was brought into close relationship with the cafeteria."

The approach to the general offices is via a circular drive which encloses a concrete pool. A major landscaping element, it serves a functional purpose as an exhaust for the center's heat pump, the world's third largest installation (to be described in an early issue of PA&B), located in the service building. The structure's exterior combines traditional brick veneer on end walls with colorful aluminum and glass curtain walls set with insulated windows tinted on the south side to reduce glare and solar heat. Movable metal partitions in modular panels provide more than 120 offices and meeting rooms.

The office building is connected to the centrally located auditorium-cafeteria by a glass arcade. The cafeteria, which seats 248 diners, looks out across a fountain pool to the river. Two additional rooms accommodate 24 each. Sliding wall panels divide dining areas to provide spaces for special functions. The exterior consists of brick insulated cavity walls and double-pane insulated curtain walls. Sliding window walls offer easy access to the landscaped courts. Directly behind the cafeteria section is a 300-seat auditorium equipped with theater type seats, which the company makes available to the public.

Flanking the cafeteria on the eastern sector of the center grounds is the 300x210-ft. service building, occupying nearly 1½ acres. Built to conform to the sloping site, it has a full upper floor and a lower level with continuous glass panels which take advantage of the natural illumination on the side facing the river.





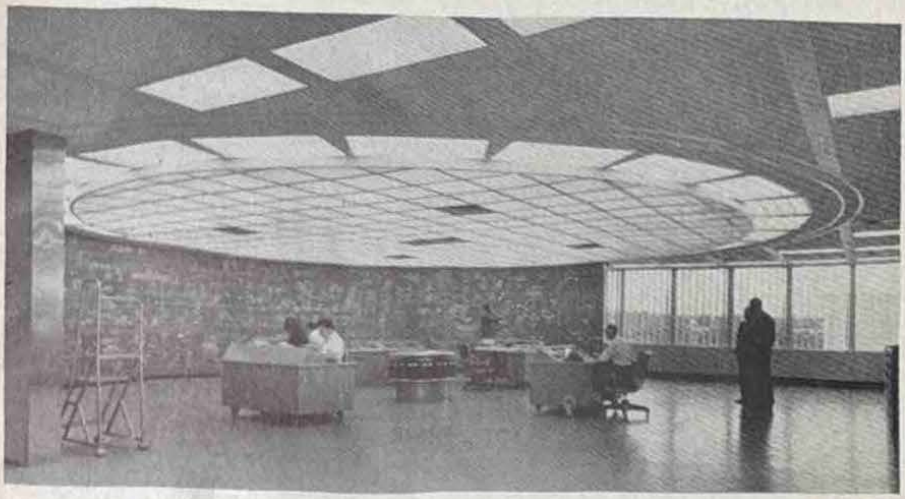
**SHELTERED WALKWAY** joins service building to auditorium-cafeteria. Utility tunnel under walkway and glass arcade (connecting auditorium-cafeteria to office building) provides space for foot traffic during bad weather.

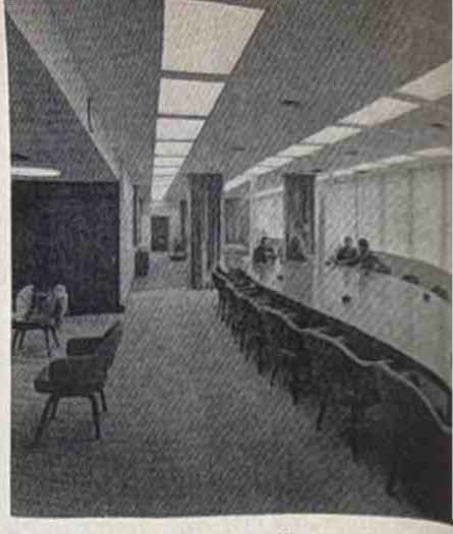


| Building | Sq. Ft. Area | Total Cost | Unit Cost |
|---|---|---|---|
| Office Building | 114,300 | $3,004,900 | $26.29 |
| Auditorium-Cafeteria | 21,100 | 636,800 | 30.18 |
| Service Building | 84,100 | 1,431,400 | 17.02 |
| Garage Building | 7,880 | 203,100 | 25.78 |
| Parking Canopies | 32,980 | 167,800 | 5.08 |
| Site Work (excludes area covered by bldg.) | 1,071,000 (24.6 acres) | 325,600 | .304 |
| Landscape Work | 1,071,000 | 347,000 | .324 |
| TOTAL | | $6,116,600 | |
| Other Costs: Basic utilities, site modifications, well, land costs, interest during construction, railroad spur. Owner, administration costs, furnishings, equipment, etc. | | 1,500,000 | |
| TOTAL COST | | $7,616,600 | |

## WWP CENTRAL SERVICE FACILITY

**ELECTRICAL NERVE CENTER** is 60-ft. system operations board on fourth floor, diagraming lines and substations throughout company's 26,000-sq. mi. service area. Operators are on duty in this key department around clock.





**BOARD ROOM,** executive offices and lunch-room (concealed by panels in background) are housed on top floor of office building.



**AUDITORIUM'S CONTROLLED ROOM SHAPE** with minimum of sound deadening material produces "brightness" of spoken word and music not usually found in conventional theaters. Stage is placed low to provide seminar atmosphere, ideal for cooking demonstrations, conferences, etc. Spacious lobby doubles as employee lounge during lunch hour at adjoining cafeteria.

**COVERED OUTDOOR TERRACE** is equipped with radiant electric heating panels made of new chemically impregnated paper in ceilings and coils embedded in floor.



In the closing critique* at the AIA convention in New Orleans, the dean of the School of Architecture and the Arts, Alabama Polytechnic Institute, directed his commentary to the 'ordinary, undistinguished, unrecognized and unpublished work which constitutes the bulk of our practice'

by SAMUEL T. HURST, AIA

# *DESIGN, DISCIPLINE and DOGMA*

HOW GOOD is our "planning of man's physical environment" in New Orleans, or any other city or town in the land? Humility becomes us as we answer this question and as we contemplate the architect's retreat from greatness and his equivocal status in our time, or as we measure our national architectural product as a whole against our vision of "the Mother of the Arts."

It is too easy for us to measure our production of architecture by the premiated published work which is systematically and attractively served up by the professional journals. To do so is self-deception.

Having passed the screen of the publishers, such work is dealt with in the most gentle manner. In the words of one of our able editors: "Let us resolve that constructive criticism is to be encouraged. If we are to pick up our avoidable option to do work with deeper meaning, then we must have a sharper sense of evaluation. The magazines are hamstrung in this respect because the architects whose work we publish will not allow critical presentations."

I applaud this resolve but I cannot accept this abdication of journalistic responsibility, nor the implication that architects are so thin skinned as to condone only the treatment of sweet accord. I should like to direct this commentary not toward the exceptional, recognized, published architecture of today, or the forward echelon of designers it represents, but rather to the ordinary, undistinguished, unrecognized and unpublished work which constitutes the bulk of our practice and largely shapes the new face of our land, the no-face of the sprawling urban scene which demonstrates our enormous capacity to replace God's beauty with man's ugliness.

No profession can, I submit, be justified by the exceptional performance of its ablest men. My concern is for the norm of ordinary practice and ordinary architects, and for the philosophy and method, or lack of it, which predestines so much of our effort to mediocrity. And my concern is with that body of sensitivities and disciplines which can produce a whole building and make architecture a reasonable art, available and useful to all men.

I shall not speak here of the principal movements, styles, schools or directions of Modern Architecture, with Purism or Primitivism, Sculptural Formalism or Structural Expressionism, with Ranch House Contemporary or Spinning Wheel Modern.

I am not concerned with style as a self-generating force, or with architectural symbols as such. I am not interested in an aristocracy of precious buildings or an elite of creative designers. Both will exist and serve well the cause of progress and critics more capable than I are available to evaluate the results. I am interested in a higher level of performance by a great many more architects producing projects which become progressively more distinguishable as useful art. I am concerned for a genuineness which can produce honest work. I am concerned for a wedding of philosophy and method which is comprehensible to the public and distinguishable from the hocus-pocus which surrounds the so-called creative process.

### Professionalism: hollow illusion

I believe that architecture is sufficiently mature to be characterized by a coherent body of ideas, principles and practices. I believe that a method may be taught by means of which philosophy can be put to work. Without philosophy and method clearly recognizable and broadly practiced, our professionalism is a hollow illusion. One can, I think, defend the contention that we are not yet a profession if the scope of our effectiveness is any measure; rather we are struggling to evolve a profession and the point at which we may say we have succeeded is that at which the public really entrusts to us the shaping of physical environment and with measurable distinction we discharge that trust.

I have spoken of the architect's retreat from greatness. Perhaps it is better to call it a retreat from responsibility.

I say that the architect's retreat from greatness is his failure to grow in relation to the job to be done. Our willingness to claim new prerogatives has exceeded our willingness to prepare for them. We have had to assume new areas of responsibility before we were ready to discharge them. We have in short, been too busy to be educated, too wise to need research, too arty to admit the engineer to our inner sanctum as a creative equal, too intuitive to submit to a systematic design procedure and too good at selling to feel it necessary to improve our product.

### Our work: aesthetically whimsical

As a consequence, the body of our work can still be in large part characterized as aesthetically whimsical and arbitrary as we chase off after each rising star of inspiration, technically inept and irrational as we disdain a respectable scientific method, and economically promiscuous, if not actually reckless, as we bask in ignorance of some of the facts of life.

These consequences, I believe, need not be. Creativity is not slave to whimsy; instead it is the concerted response to intuition and experience, sensory, emotional and intellectual, discipline by purpose, guided by intellect and justified by use. A systematic design procedure can exist, not guaranteeing our common genius, but increasing the chance for good work by ordinary men. Such a procedure has four stages: you may rename them, subdivide them, or rearrange them, but essentially they are adequate to the design process. These are interpretation, ideation, comprehensive analysis and finally dynamic synthesis, as each design element reacts to the other and they are put together in a satisfactory equilibrium of interests to form a whole. Philosophy is at work at every stage as values are assigned, principles invoked and discipline applied.

Where then does the profession stand in the evolution I have mentioned. There is much cause for optimism as we note the diversity of good work being done. But let me here play the cynic's role long enough

*Ed. note: This is a condensed version of Dean Hurst's address.

to look at some of the ugly faces of the professional image—faces which no amount of public relations makeup can substantially alter. They must be altered from within the profession by those sensitive enough to see, honest enough to recognize and strong enough to act. Without undue alliteration let me suggest at least four of these facades behind which we operate today.

### 1. Thin face of professionalism

It is clear that architects are busy, enjoying an expanding volume of work, demanding more graduates than the schools can supply. It is not, however, clear that this full employment represents any growth of professionalism. In fact, it represents an expanding national economy and a growing skill in salesmanship on the part of the architect, in large part due to effective public relations and a strong national and local organizational effort.

It does not, I think, represent any real growth in public understanding or appreciation for the art of architecture, which should be our unique contribution. This is true because we too often compromise the art quality of our work in order to build it and we compromise the truly professional quality of our service in order to keep the package dealer or the marginal professional from rendering it.

Thus, I submit, professionalism is imperiled from without and within. We cannot serve the cause of architecture by doing a better job than the package dealer in delivering the same product he is capable of delivering. Rather we serve that cause by delivering a superior work, recognizably art as well as building. Else we become as he and indistinguishable from him and architecture diffused and lost in building, save for the extraordinary work of a few men.

What are the essentials of professionalism to which we need give allegiance? Perhaps they are a coherent professed philosophy; and a dedication to service above reward, to integrity above expedience and to learning as continuing necessity. Our culture historically recognizes three "learned" professions: theology, medicine and law. Must we not become the fourth?

### 2. Fat face of materialism

The physical resources available to the designer today make it nearly inevitable that architecture reflect our great material wealth and development. But I am concerned that we not create enduring monuments to a materialist society at the expense of our social responsibility and in spite of our acknowledgment that man himself is the object of our efforts to shelter his body, release his spirit and nurture his development.

AIA President Richards has repeatedly reminded us that "Architecture must serve all strata of society." I may say this is true in New Orleans, in Little Rock, in Montgomery and Atlanta, as well as in Washington and Toledo.

Ours is an age in which the great potential of our technology is still too largely the servant of military preparedness on the one hand and capital concentration on the other. It is an age which produces the finest housing in the world for its machines, its merchants and its actuaries, but has not yet organized itself to adequately house its schools or its people. By volume of ideas, architects have made contributions to these fields; by volume of construction, it is slight

Therefore, we need to concentrate on the distribution of ideas and the in-fighting necessary to carry them through. For every monument of the masters there are a thousand modest buildings to be done and for every custom-built house a thousand humble homes that will not pay even a fractional fee. Out of these homes will come the clients of tomorrow's architecture. Who will do these houses which condition the character of the future? Will they be delivered by the architectural midwives as they are today, or will the profession really serve even if it is not so profitable?

### 3. All-face of superficiality

For 18 months I have watched construction proceed at snails pace on a small bank near my office. Somehow it sums up for me the recurrent superficiality of so much of our design. Three colors of marble and two colors of metal panel and much expensive aluminum trim are employed to sheath a brick and concrete block structure, tying openings together in panels of expressionless verticality. There is nothing genuine in it, nothing which reflects a purpose or will or dominant condition or idea.

Design is in search of genuineness. We may find it in regionalism of material or climate, in clear response to conditions of site, in technological expression, in distinguishable cultural patterns or forms. I believe the embassies done by American architects abroad are a clear statement of genuineness as they capture the spirit of the cultures in which they are built. Why is this so difficult at home? Are we in America so heterogeneous as to show no character? I am not willing to think so.

There are notable examples out of the past, nearby examples on the Mississippi Gulf Coast where one of America's distinctive regional styles existed. So responsive was it to climate, site, and manner of living that its constituent elements are still valid today, air conditioning notwithstanding. Serious designers have long protested facadism. The advent of modular wall panels and masonry and metal screens of intricate richness still does not grant us license to ignore what goes on behind those screens. Texture is only one element of design, even in the hands of master Ed Stone, and no matter how rich to the outside observer, it should remember inner space and purpose.

### 4. No-face of conformity

Powerful forces in our culture move us relentlessly in the direction of conformity. For brilliant commentary upon them, I refer you to Huxley's "Brave New World Revisited" and Galbraith's "Affluent Society." Strongly independent work is rare at best. However, the creative spirit withers and dies unless it can be operative within broad limits of acceptance and unless criticism, research and experimentation are a natural part of the process of expression. Let us search out the valid causes for diversity and nurture personal expression. The changing nature of the client, from individual to corporate or governmental, and the structure of office organization put a premium on standardization, organization and group performance. All of these things promote the primacy of the average except as personal responsibility and personal brilliance is protected within the group.

### The three D's

Let us come finally to the theme of this convention. Design is many things to many people and I think we might assume that in its comprehensive sense it is the heart of architecture for most of us. I want to speak of it here in triadic terms, terms which I think state the problem, the the triad of DISORDER, DISCIPLINE and DOGMA.

We operate within a precarious equilibrium between disorder on the

Continued on page 46

# Exposed steel, glass cage houses diners and birds

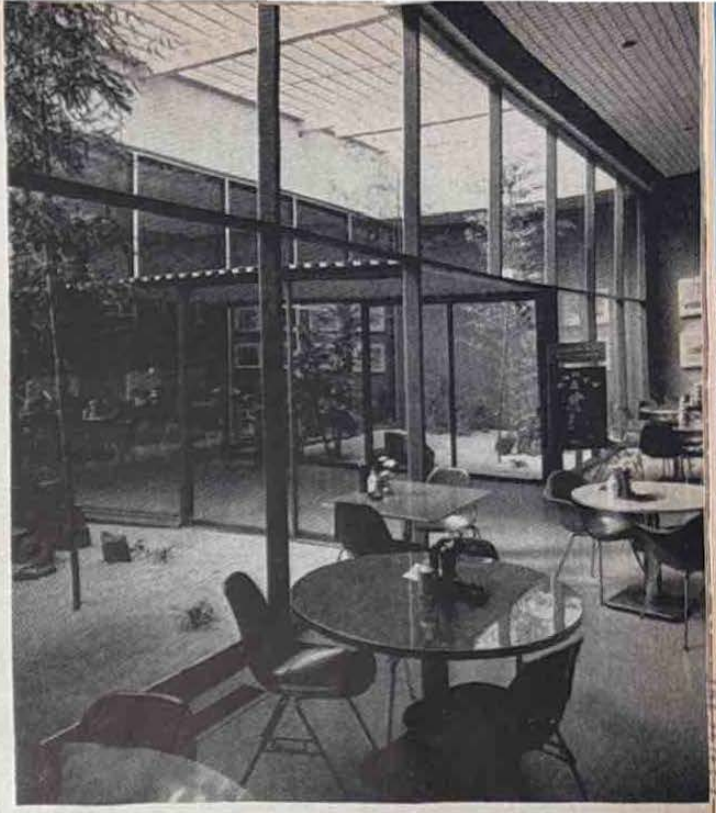
Nut Tree Restaurant
Vacaville, California

•

DREYFUSS & BLACKFORD
Architects

WALTER BUEHLER
Structural Engineer

CONTINENTAL CONSTRUCTION CO.
General Contractor

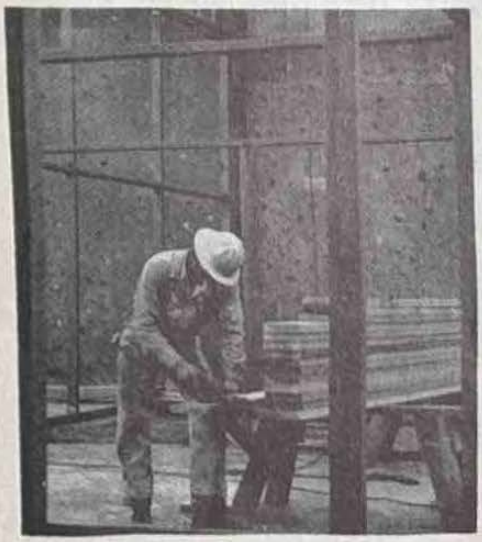


**OVERHEAD FLYWAY** allows colorful tanagers (not shown) access to any part of cage, running full length of dining area and visible from both sections of entry.

Bethlehem Pacific photos



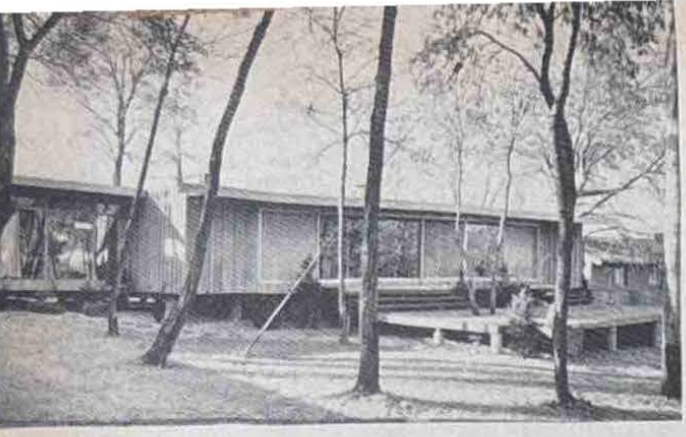
**TILT-UP CONCRETE PANELS** are tan in color, imbedded with native rock specimens.



STRUCTURAL SHELL for this remodeled restaurant, a famed landmark on Highway 40, utilizes an exposed steel frame with 6-in. thick concrete tilt-up sidewalls, while each of the end bays is closed by plate glass fixed between mullions of steel tubing. Framework consists of eight bents—14 wide flange columns and 16 wide flange beams—21 ft. high, offering an interior clear span of 47 ft. (Dining area's other dimension is 127 ft.)

A glass enclosed bird cage housing dozens of varicolored tanagers and covering a full bay at one end of the building is an integral part of the design. The open passageway, which connects the dining areas, is roofed with steel decking to form the floor of the flyway joining the two portions of the cage. Fluorescent and incandescent lighting fixtures are recessed in the restaurant's suspended ceiling of rough sawn Douglas fir. The wall facing the exposed tan aggregate tilt-up is finished between the columns in heavy cocoa matting.

Exposed steel also is featured in the canopy serving the entrance to the existing structure. Running 140 ft. with a 6-ft. overhang, it is composed of rigid welded frame bents from which the decking is hung. This in turn is coated with a reflective material which picks up light from fluorescent tubes placed in the depressions.



John N. Edman Residence
Ogden, Utah

•

STEPHEN L. MACDONALD
Architect

ARVIN G. SHRIEVE
Landscape Architect

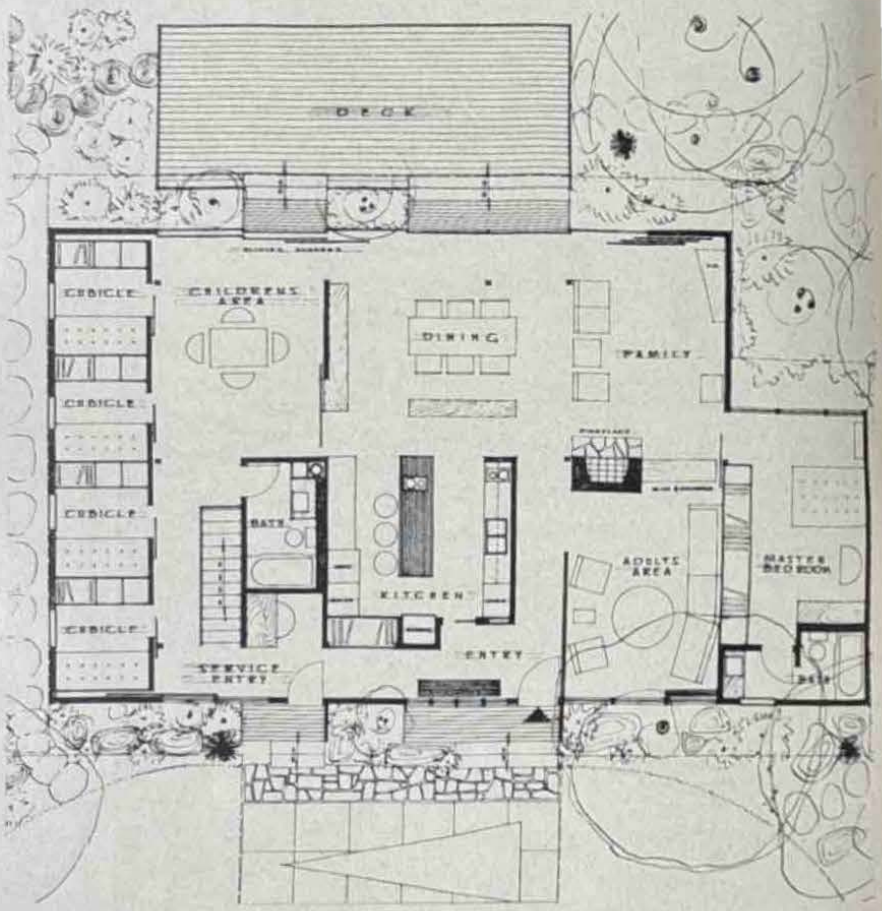
EDMAN & JOLLEY
CONSTRUCTION CO.
Contractor

# Successful separation of adult, child activity areas

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## OUTLINE SPECIFICATIONS

**Structure:** foundation: concrete; frame: wood posts and beams; floors: 2x10 joists.

**Exterior Finish:** rough sawn cedar.

**Roof Surfacing:** built-up with gravel.

**Doors:** flush hollow core and aluminum sliding.

**Floor Surfacing:** oak plank.

**Insulation:** rigid.

**Interior Finish:** ¼-in. mahogany plywood and ¾-in. redwood.

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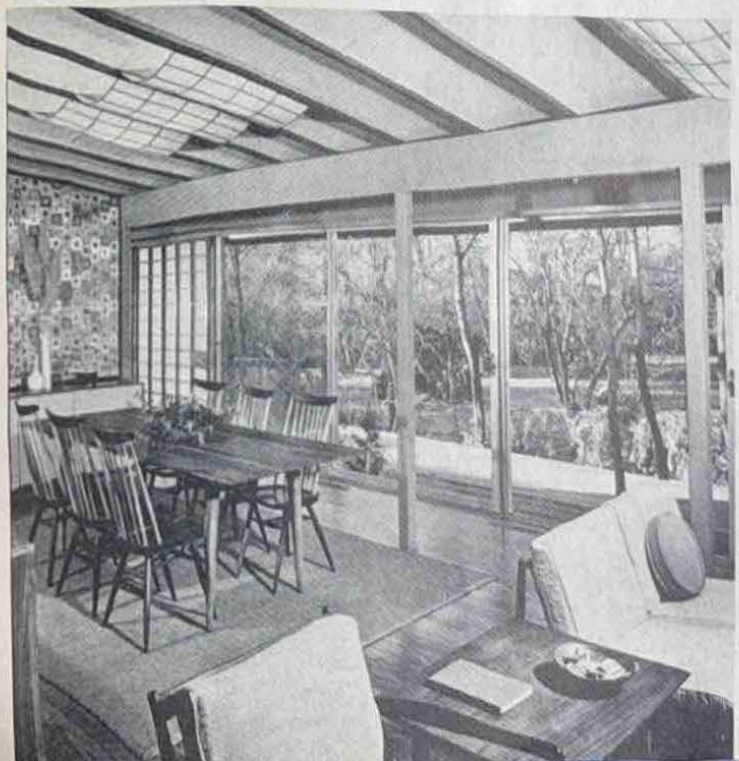
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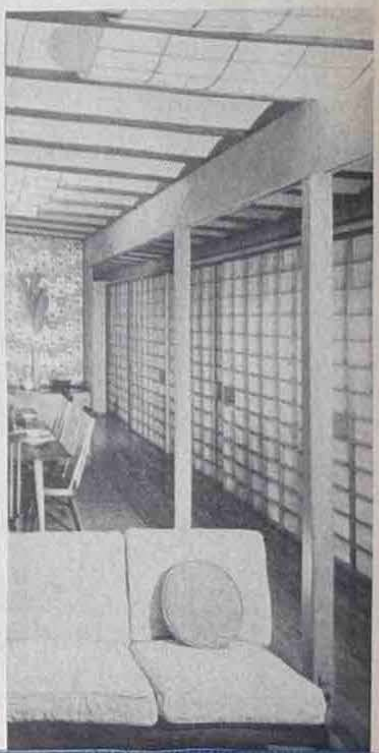
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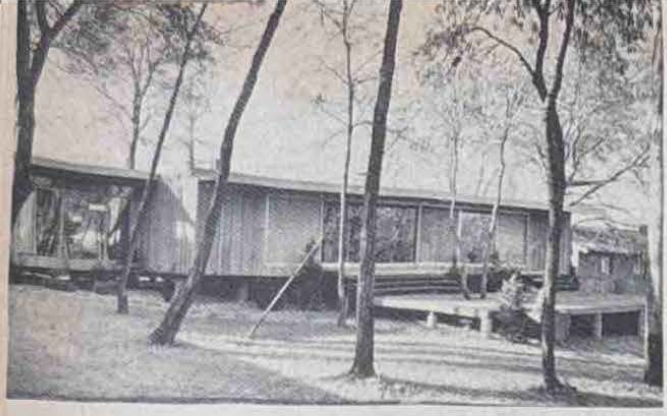
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**BUFFET AND DINING TABLE** are architect designed, built by owner; dining chairs by George Nakashima; mural executed in Japanese papers by Norma S. Macdonald.







John N. Edman Residence
Ogden, Utah

•

STEPHEN L. MACDONALD
Architect

ARVIN G. SHRIEVE
Landscape Architect

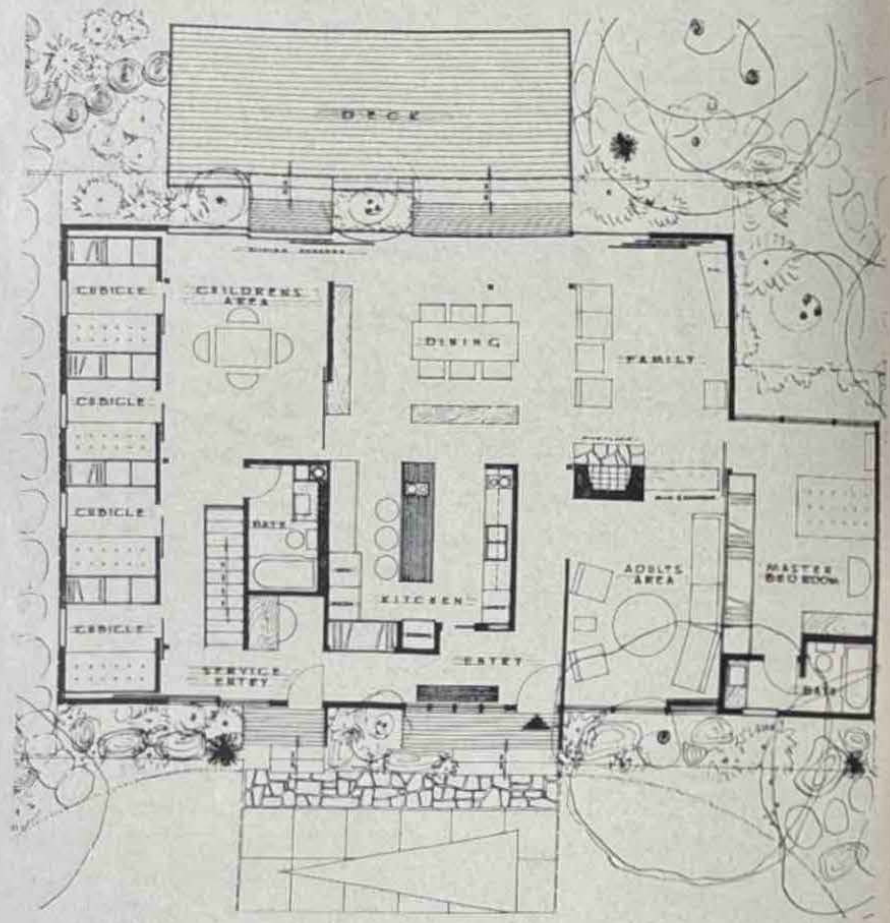
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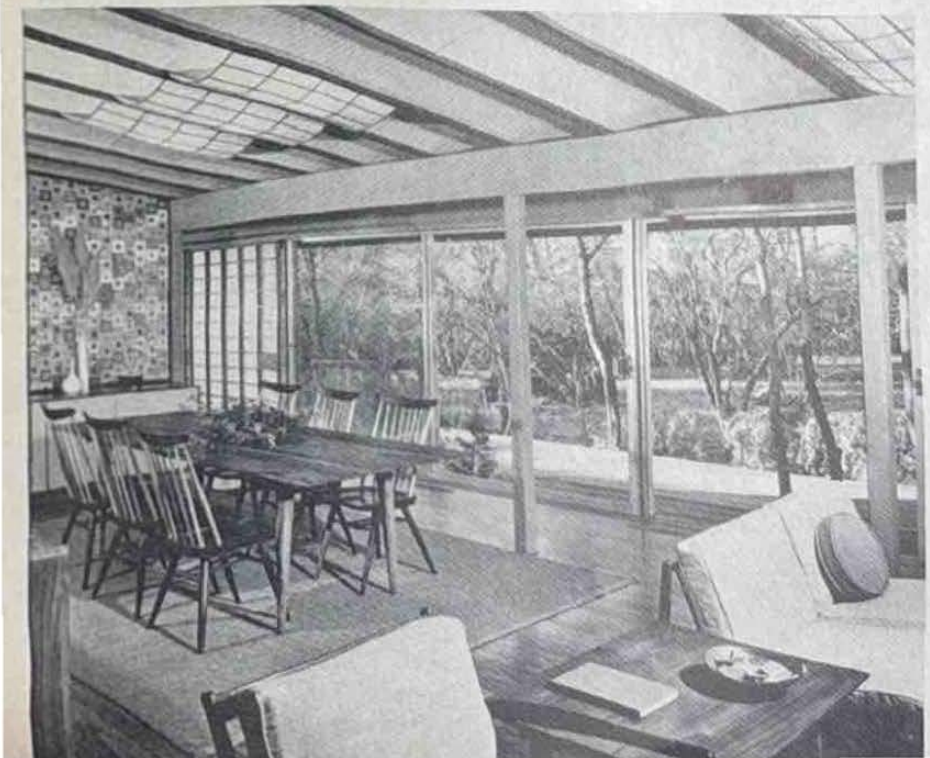
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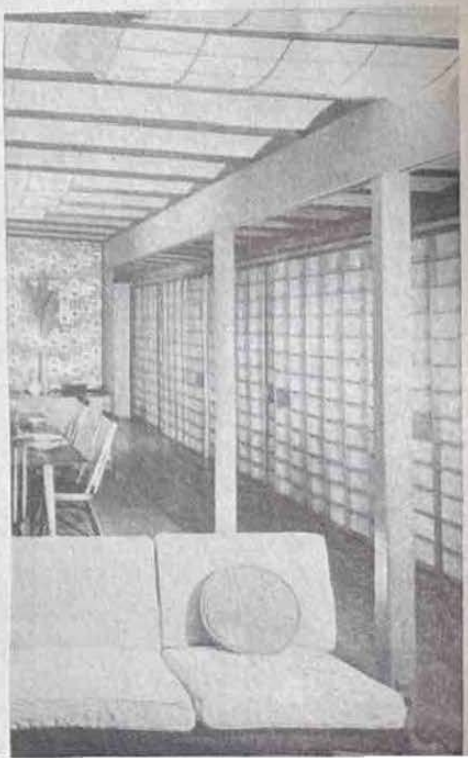
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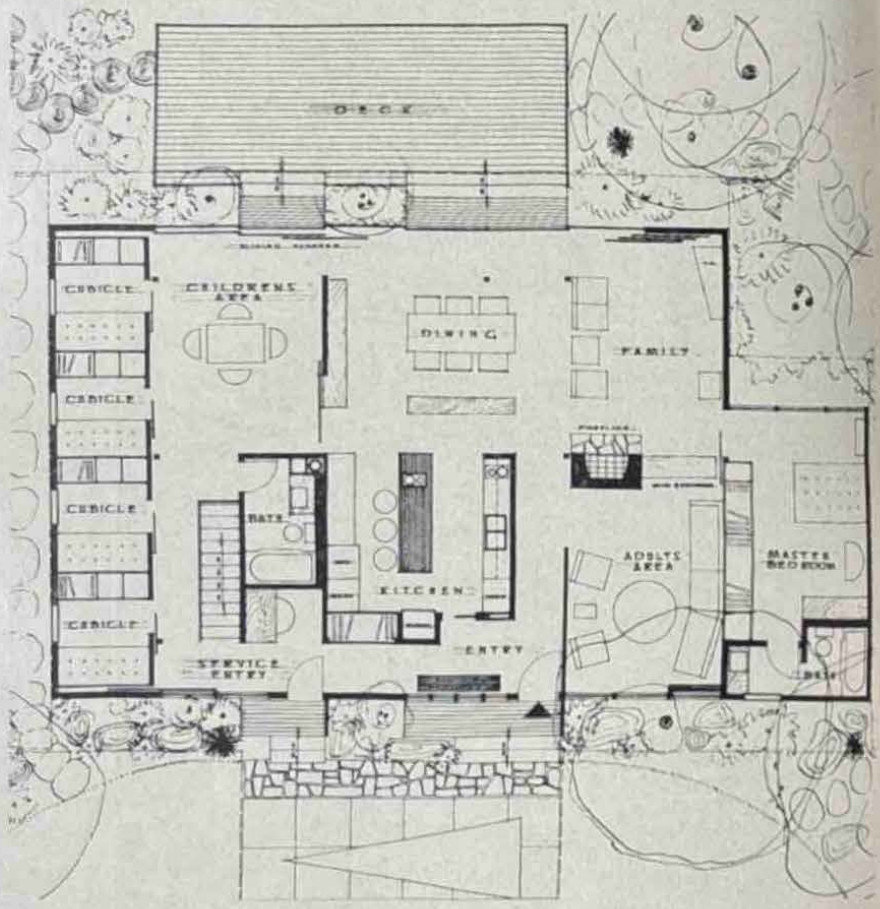
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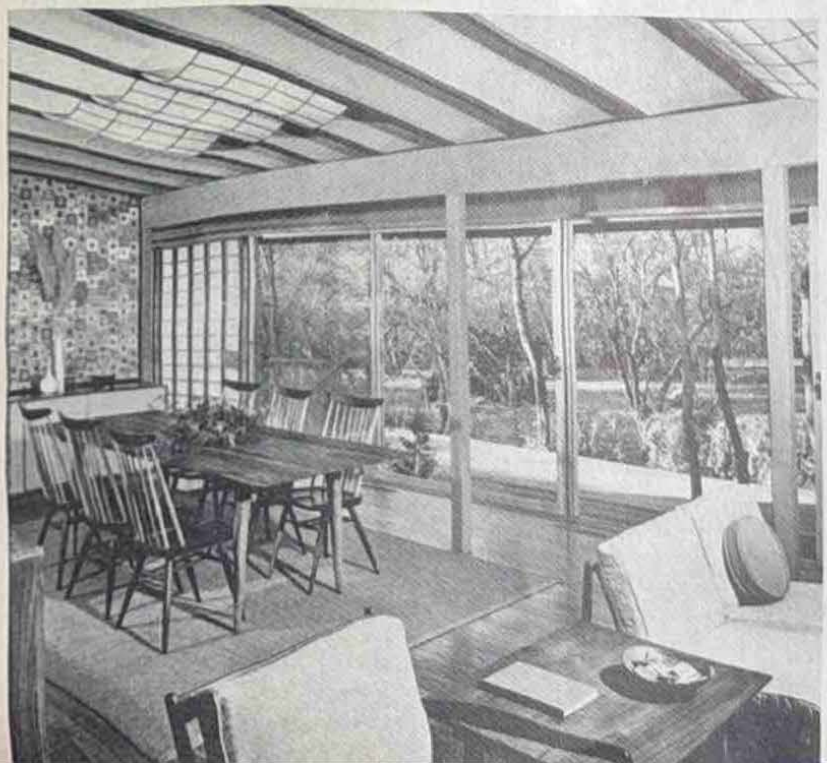
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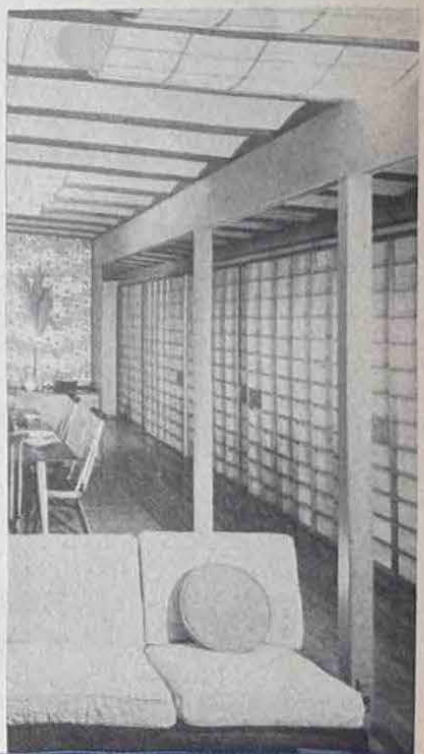
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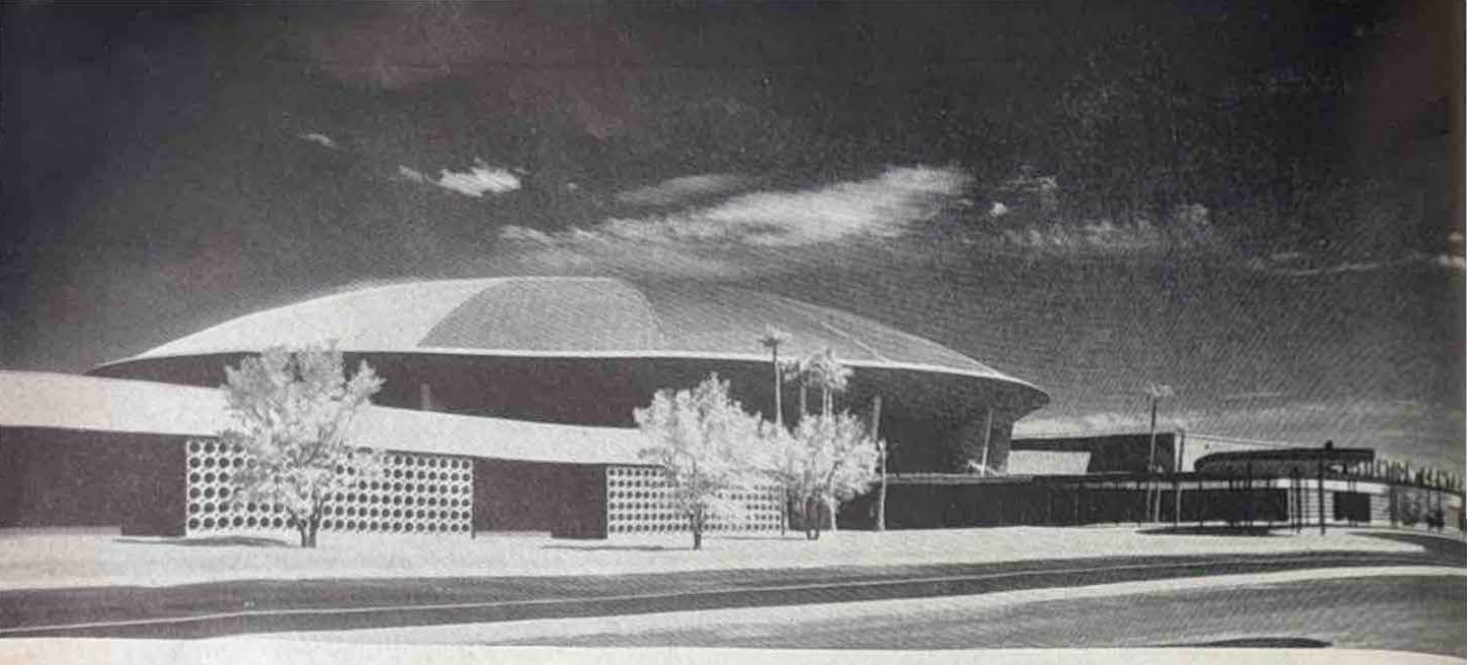
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Convention Center
Las Vegas, Nevada

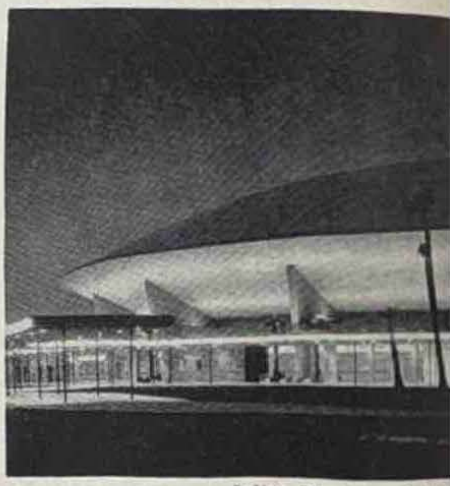
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ADRIAN WILSON & ASSOCIATES
Architects

J. S. HAMEL
Mechanical Engineer

DR. VERN O. KNUDSEN
Acoustical Consultant

LEMBKE CONSTRUCTION CO.
OF NEVADA, INC.
General Contractor



Julius Shulman photos



**CENTER'S FLEXIBILITY** is demonstrated in view from exhibit hall area through folding doors, past main lobby into circular auditorium at rear center. Folding doors can close off exhibit hall from lobby and/or auditorium.



**PERMANENT SEATING** totals 4,414, portables add 3,206. By extending latter seating into main lobby, this section will accommodate 8,750. Acoustically treated concave ceiling is suspended below roof for both sound and insulation purposes.

# Domed center develops plural personality

CROWNED by a giant aluminum dome roof that gleams in the Nevada desert, this $6 million convention facility is distinguished by its duality and plurality of use. Meetings of from 50 to 18,000 people can be handled singly or simultaneously in various combinations of groups. Seating in the main assembly hall can be extended up to 8,750 by using the main lobby. The main floor also can accommodate 1,500 banquet guests.

The principal exhibit hall has a portable seating capacity for such events as horse shows, ice hockey, etc., of 5,860 and can also seat up to 5,000 diners. A special floor system supports heavy loads for automotive, farm and mining equipment expositions.

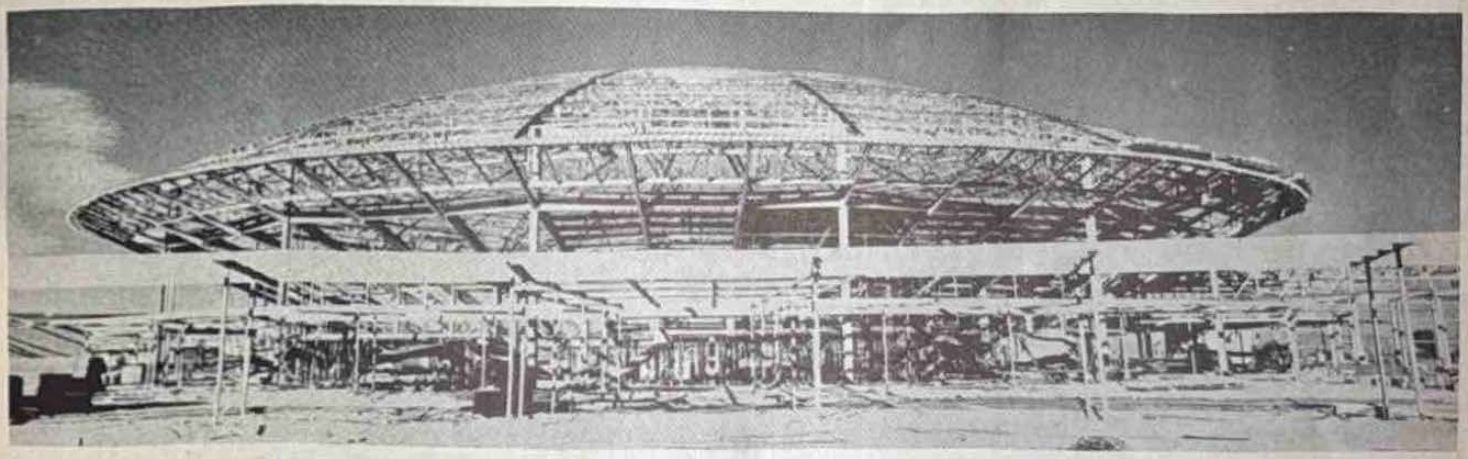
Partitioned rooms and halls employ automatic movable partitions of laminated hardwood for sound separation. All areas are air conditioned with separate cooling and heating system provided for each of the two large halls and individual units for the 20 meeting and conference rooms so that the main system will not require operation at the same time. There are also two catering kitchens and two portable stages.

A public address broadcasting system was integrated with the acoustical engineering and extends into secondary meeting and conference rooms. Provisions have been made for public broadcasts over radio and television and to permit closed circuit broadcasts within the building. Special theatrical illumination is provided for the assembly hall. Exterior of the building and surrounding grounds also have received particular attention, including lighting that will be attractive from the air as the site is beneath a heavily traveled intercontinental air route.

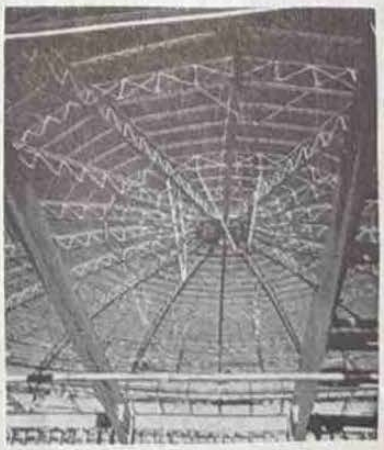
Dominating the center is the 312-ft. diameter dome which covers the circular assembly hall and an outer display concourse. Flanking the dome covered structure are wings housing the other halls and rooms. Entire ceiling under the domed assembly hall is suspended below the roof, a method which lowers the air conditioning operational cost and improves the acoustics. Attic space above has a circular balcony containing space for press boxes, television cameras and rigging platform, along with spotlight and film projection rooms.

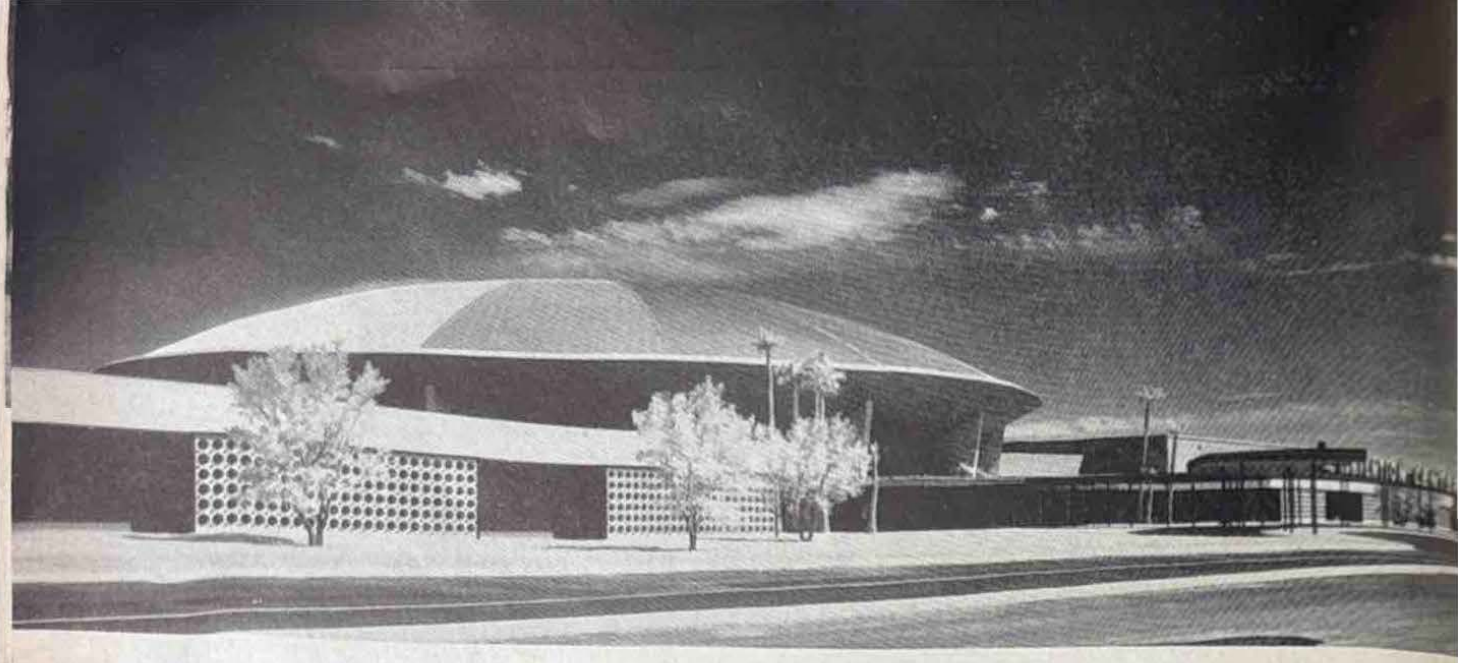
The building has a steel frame system with concrete balconies, steps and seat supports. Exterior finish is plaster, concrete block, masonry grill and porcelain enamel siding. Roofs are topped with 2½-in. insulation; ceilings are of acoustical plaster.

The Las Vegas Convention Center, constructed for the Clark County Fair and Recreation Board, is the first phase of a large civic program to develop the city as an important business community, as well as a resort attraction. Completion culminated nearly five years of planning.



**ALUMINUM DOME ROOF** 312 ft. in diameter is formed by 16 trusses, each 6 ft. deep and weighing nine tons. Trusses are held in compression principally by 13-ton, 20-ft. diameter compression ring in top center of dome. All of roof and sloped seating structure is supported on 14-in. H-columns. Aiding in dome design were Reynolds Metals Co. and Apex Steel Corp., Ltd., erector.





Convention Center
Las Vegas, Nevada

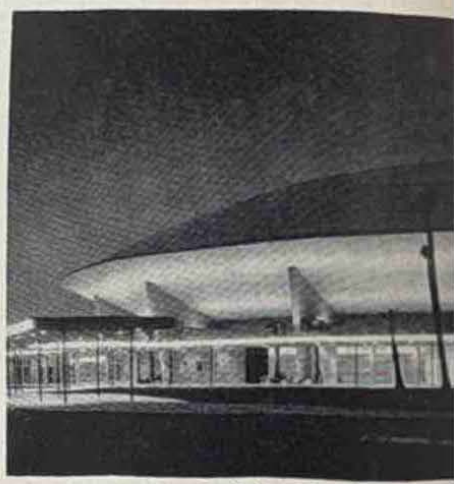
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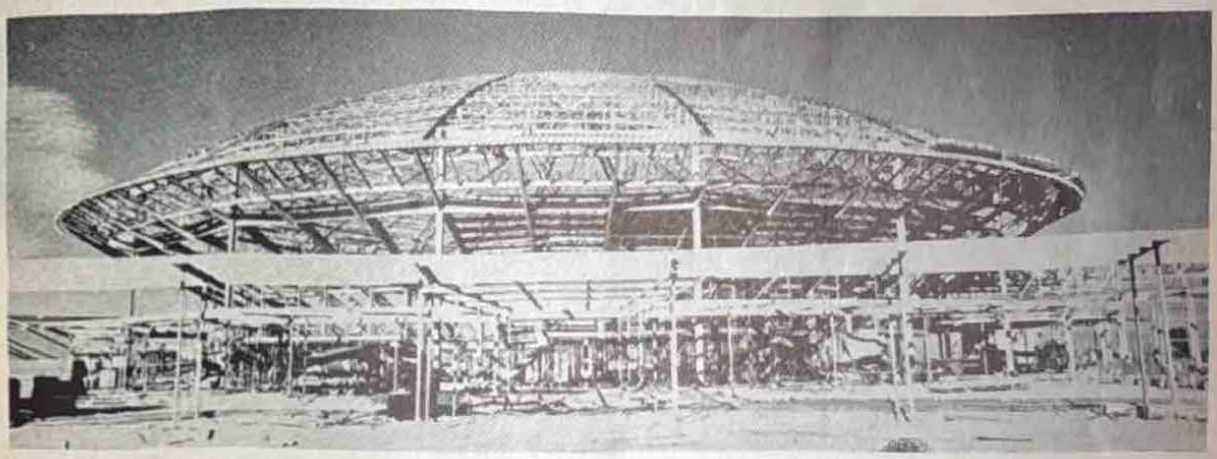
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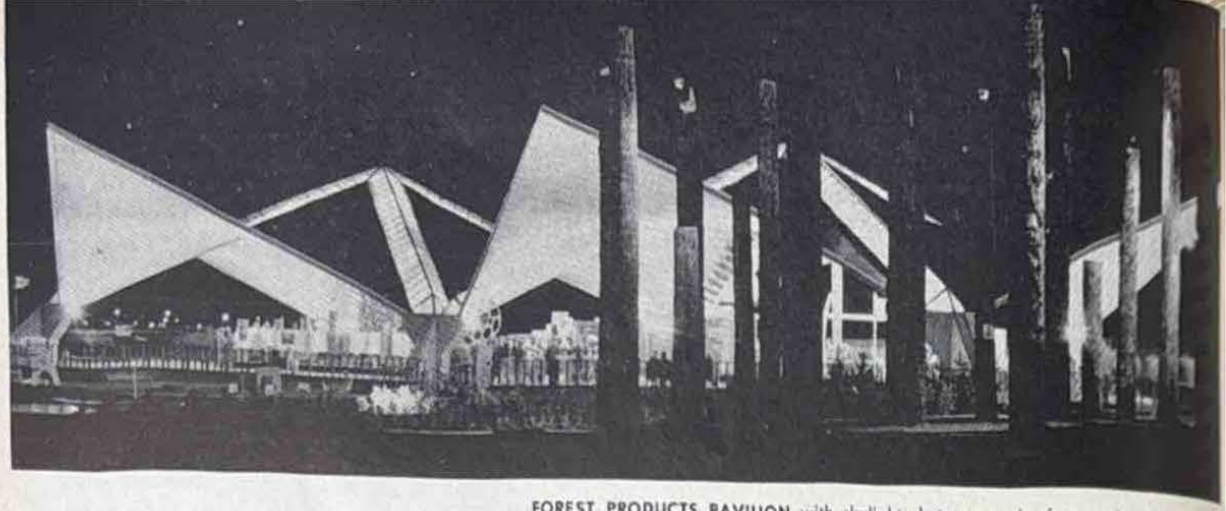
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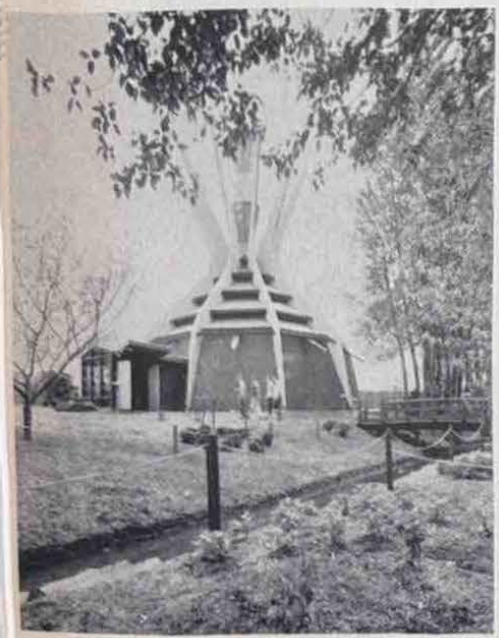




**ELECTRI-CITY** reflects character of power business. Donald Blair planned pavilion for Portland General Electric.

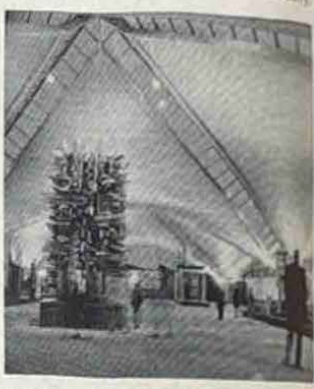


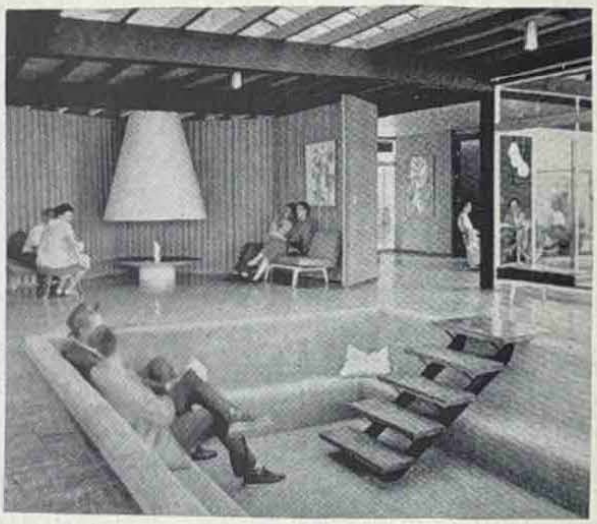
**HALL OF RELIGIOUS HISTORY,** designed by Stewart & Richardson, stands in International Garden of Tomorrow. Inside, nine murals (lower right) depict growth of religion in state.



**FOREST PRODUCTS PAVILION** with skylights between each of seven hyperbolic paraboloids. John Storrs was architect for project, financed by every segment of industry.







**CAMEO HOME OF IDEAS,** co-sponsored by Portland Home Builders Association and Northwest Natural Gas Co., features conservation well.

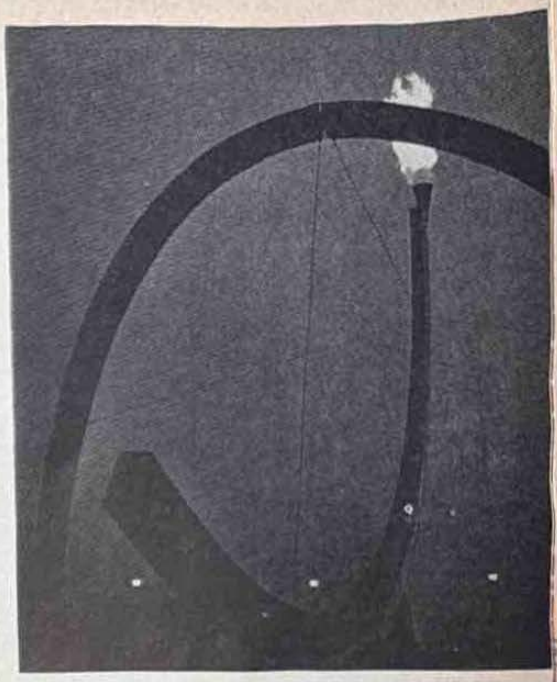


# PA&B pictorial report: Oregon's Centennial

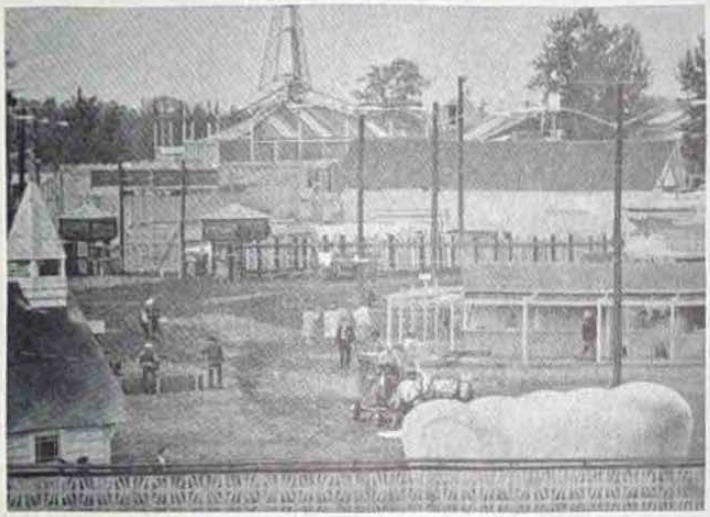
BECAUSE of proposed fairs in at least two western cities—Seattle is shaping up plans for its Century 21 Exposition in 1961 and Los Angeles hopes to have a World's Fair in 1963—Oregon's Centennial Exposition, which runs through September 17 on the outskirts of Portland, has evoked more than statewide interest. PA&B's informal reference in the June issue to the 100-day show as a "carnival gayway" prompted a reply from Donald J. Stewart of Stewart & Richardson, centennial architects. In asking for an "objective evaluation," he commented: "Certainly it was not intended to compete with the Brussels Fair or that which Washington is preparing for two years hence. For the amount of money that was expended, I believe that we have achieved some remarkable results."

It is true that the Centennial Exposition does have a couple of interesting structures, notably the Forest Products Pavilion, and some displays which are provocative and in good taste. But even the commendable aspects are infringed upon by the honky-tonk and the bizarre. This is not surprising since the centennial management put the cart before the horse and had completed a good deal of the "planning" before the design profession was brought into the picture, as typified in the scene below.

Through these photographs by Art Hupy, PA&B seeks to convey the spirit of the exposition without further editorial comment. R.E.K.

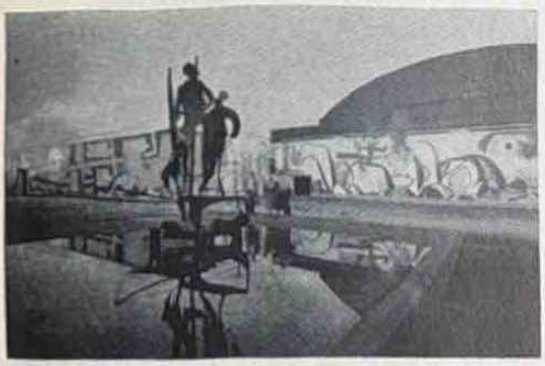


**FLAME SCULPTURE** of Northwest Natural Gas Co. shoots fire from 15 to 20 ft. in air at 15-minute intervals.





**GAYWAY** is important part of show.



**MODERN ART** adorns Pacific-International Livestock Building, revamped into main exhibit hall, for $500,000.



**ART EXHIBIT** is found in Horicultural Hall.



**FRONTIER VILLAGE**—live TV western!

# Where architects hang their hats

Al Waldis photo




JONES & EMMONS & ASSOCIATES
Los Angeles, California



**EXPANDED METAL SCREEN** along second floor glass wall acts in louver fashion to control west afternoon sun. Screen is painted blue. Clerestory windows provide cross ventilation. Steel channels of stairway leading to leased space are filled with aggregate concrete.

**ORIGINAL FRONT ENTRANCE** is on side street and new addition to front allows its use as secondary entry.



INITIAL UNIT, constructed several years ago, was planned to create pleasant working spaces closely related to gardens and an aesthetic setting for client conferences. The recently completed addition, anticipated in the original plans, adheres to these themes.

All ground floor working areas and offices relate to a garden. There is also garden space for dining of the entire staff. The presently leased second floor space opens to a north exposure with floor to ceiling glass and takes advantage of the view to the mountains which border the north side of the city. Sun problem has been solved with a transparent expanded metal screen.

Additional conference space, private individual offices for the principals and separate accounting, clerical and reception areas are included in the new addition. The two new offices for the principals are designed to permit small meetings that otherwise would tie up the conference room. A kitchenette acts as a connecting link between them. It is used to prepare lunches for staff meetings and occasional client conferences when they occur at a meal hour.

Cubical offices off the drafting room are occupied by designers, job captains and supervising personnel. Each has its own desk, drafting board and set of plan files.

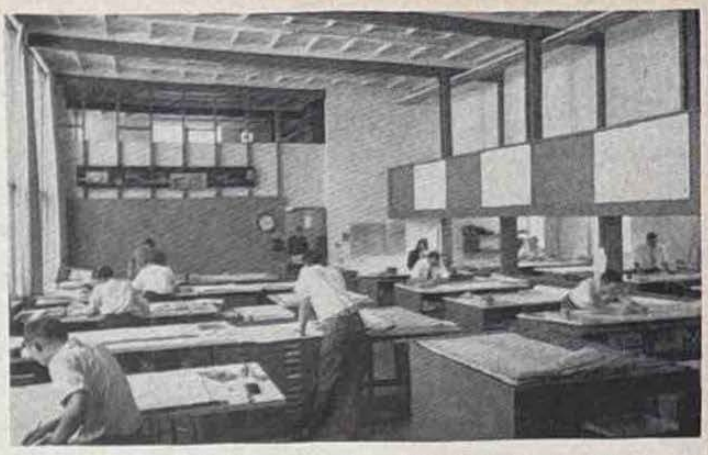
Space is provided for binding of brochures and specifications, as well as for reproductions of drawings. A photographic department with darkroom is on the mezzanine at the rear of the 16-ft. high drafting room.

The reception space, including garden, is intended to be used as constantly changing exhibit space for the firm's work. The plan space in the conference room includes a circular revolving disc on which is displayed a model of a current project.

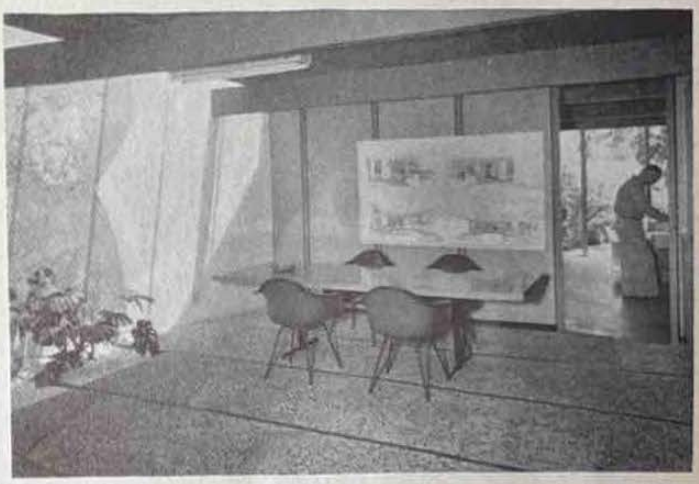
The building is radiant heated in five zones. The first floor is slab construction with studs, post and beam as the structural system. Access to garden is through sliding steel doors. Cement plastered surfaces have vertical galvanized iron expansion joists at approximately 3 ft. on center to eliminate cracking in plaster surfaces, a method used quite frequently by the architects.

Provisions have been made to add air conditioning, but so far it has not been found necessary. The location, within two miles of the ocean, is normally very cool and through-ventilation of the building has kept it quite comfortable in the warmest weather.

Speakers are provided in each working area for a music system controlled from one central unit. Furniture in the principals' offices was designed by the firm. Gattman & Mitchell were contractors for the original building; Ray V. Anderson for the new addition.



**DRAFTING ROOM,** looking toward printing department (behind rear wall). Cabinets which hang from ceiling along wall at the right house old job plan files. Current jobs are filed in stick rack in foreground and other metal drawers.

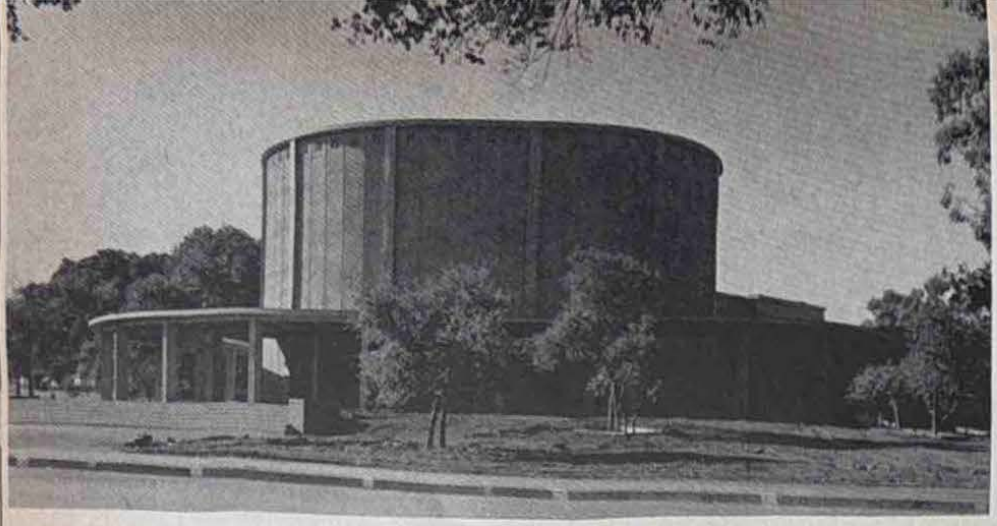


**CONFERENCE ROOM** and, through door, design section drafting room. Map on wall to left is polar projection of world. Floor is exposed aggregate concrete with redwood divider strips, also used in Jones' office (below) where he finds it a most practical working surface for his water color sketches.



**PRIVATE OFFICE** of A. Quincy Jones (behind desk), shown with other principal in firm, Frederick E. Emmons. Offices for both have U-shaped desk with long leg in middle of room, accommodating up to eight persons at one time and freeing conference room for other uses. Connecting garden is scene of occasional luncheon staff meetings.

# Three campus buildings



## For physics lectures: 300-seat auditorium in the round

PHYSICS LECTURE HALL, STANFORD UNIVERSITY, STANFORD, CALIF.: First structure and pivotal unit in what is to be developed as a science quad, this $440,000 building (including furnishings and landscaping) holds a 300-seat auditorium in the circular section with radial wings at the sides and rear, housing a 150-seat lecture room, three seminar rooms and office.

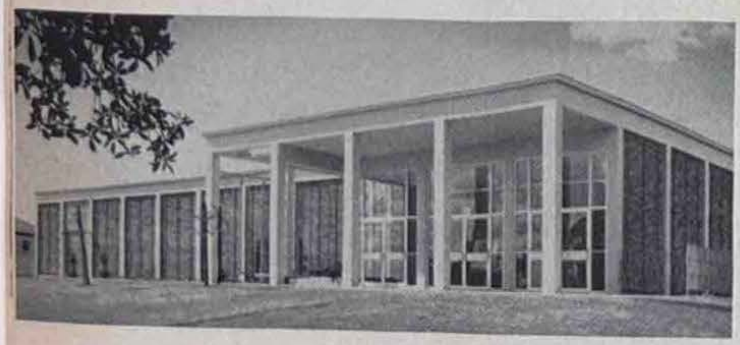
Circular shape of the auditorium was selected to enable all students to have a close and undistorted view of the demonstration table. A 1,900-sq. ft. room for preparation of experimental demonstrations joins the auditorium. Both halls are equipped with a beam at ceiling height for suspension of pendulum, impact and other experimental devices. The demonstrator works from a gallery reached by a circular staircase.

The building is constructed of concrete, painted to blend with the university's sandstone buildings constructed earlier. Other structures in the science group will be designed with the traditional red tile roofs in rectangular form and will retain the stone color. Terra cotta grills 20 in. sq., which provide an architectural link with the red tile roofs of eventual flanking structures, are set in at intervals around the upper edge of the circular building. They provide ventilation for the area enclosing the roof trusses. Architect; Gardner A. Dailey; contractor: Williams & Burrows.

## For big computer: efficient-looking structure

WESTERN DATA PROCESSING CENTER, UNIVERSITY OF CALIFORNIA AT LOS ANGELES, WESTWOOD: Built jointly by the university and International Business Machine Corp., this two-story structure houses a giant $3½ million digital computer system to be shared by the sponsors, along with 46 colleges and universities in 11 western states and Hawaii. Building has reinforced modular brick exterior walls, concrete floor slabs and concrete slab roof. Lower level is devoted to offices and a library and the upper to the 43 units of the IBM computer.

Raised flooring on upper level is composed of 2x4-ft. panels, all removable for maintenance or additions to wiring and air conditioning systems. Building is latest addition to UCLA's Graduate School of Business Administration. Architects: Risley & Gould; general contractor: M. J. Brock & Sons.

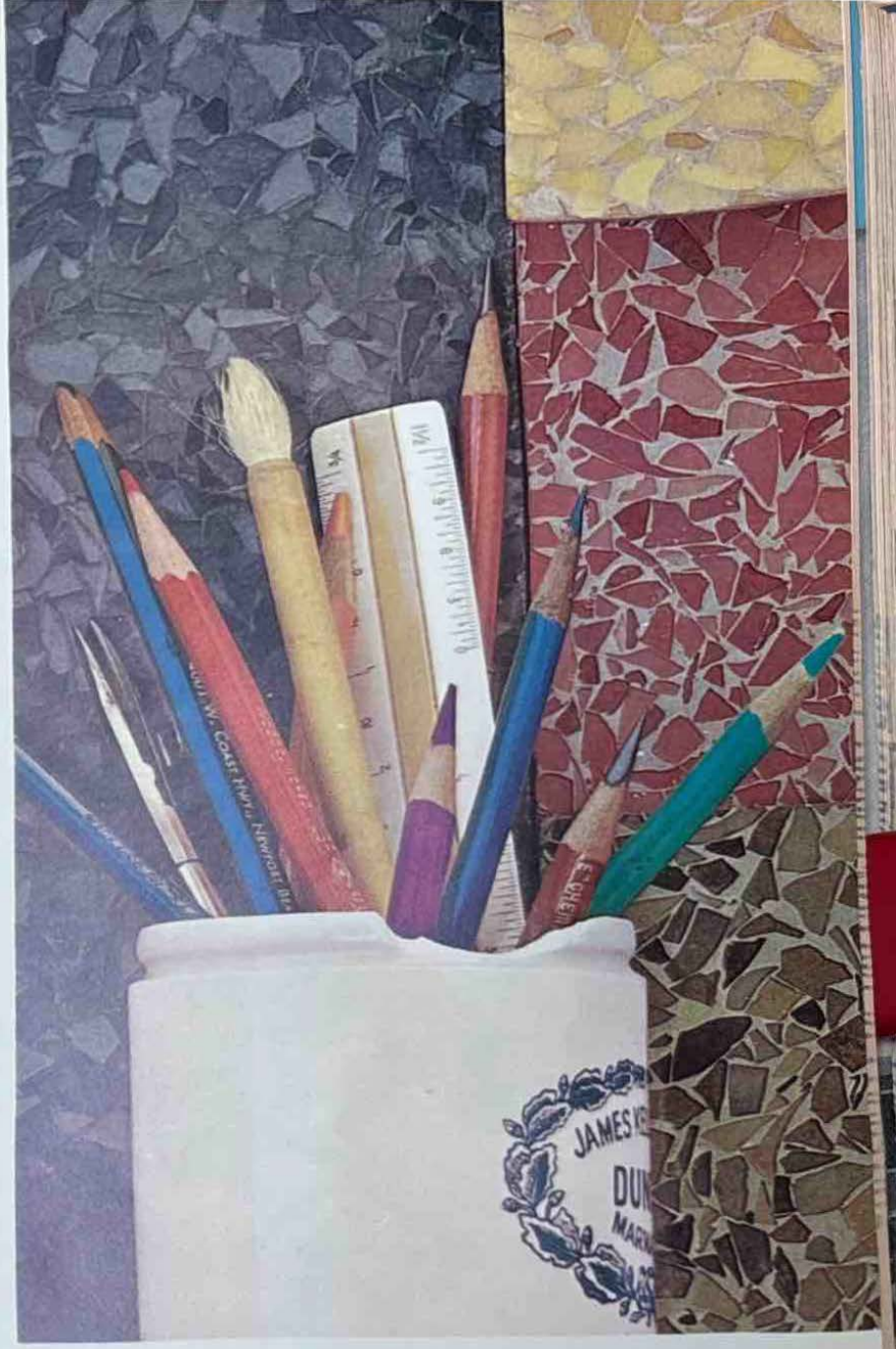




## For fellowship: a gay vaulted roof

CHRIS KNUTZEN FELLOWSHIP HALL, PACIFIC LUTHERAN COLLEGE, TACOMA: Cedar panel and fir beam construction highlights this 91x104-ft. annex to the College Union. In addition to providing eating space for 400 additional students, the annex is used for parties, receptions, dinner meetings and conferences. Eating area has two sets of folding doors so that it may be divided into three separate rooms for meetings. Fellowship hall also has coat checking room, a waiting lounge and a kitchenette to serve parties and teas. Architects: Johnson-Austin Associates; general contractor: Perry Construction Co.

MOSAICA



COLOR
PATTERN
TEXTURE

*Outside or Inside*

# MOSAICA ADDS BEAUTY AND COLOR FOREVER AT LOW COST

This is Mosaica* by Soulé Steel Company. An exciting, proven architectural medium composed of glass tesserae of random sizes and shapes set in an inorganic matrix and laminated to 3/16″ cement-asbestos board.

*TRADEMARK



The magnificence of Mosaica lies in its dramatic depth of intrinsic color, pattern and texture. Applied to curved or flat surfaces, Mosaica imparts an enduring finish completely compatible with wood, stone, glass, brick, concrete or metal. A true art form, Mosaica is now offered at production line economy for exterior facings, curtain and window wall panels and door surrounds. Interior uses, lobbies, walls, ceilings, wainscots and counter die-fronts.

*Intrinsic color that never varies,* that's Mosaica's promise to Western architects and designers. Mosaica's colors were created for architecture. They are balanced to work equally well in exterior or interior applications. Beautiful at close range, Mosaica maintains its definition even when viewed from a distance. Whether used in matte or facet finish, Mosaica is the most significant achievement in decorative architectural materials since clay tile!



# *MOSAICA DATA*



**Core:** Mosaica is backed to 3/16″ JM flexboard. This material bears the U. L. label as being non-combustible. It is further impervious to rot and moisture. Its back is primed with a vapor barrier to assure a balanced panel.

**Sizes:** Mosaica comes in *sheets*, not squares.

| *Widths* | *Lengths* | *Nominal Thickness* |
|---|---|---|
| 2′, 4′ | 4′, 5′, 8′, 10′ | 7/32″ |

**Weight:** Approximately 2 pounds per square foot.

**Apply to:** Wood or metal studs 16″ o.c., concrete, wood or non-wood sheathing. Flat or curved surfaces. Minimum longitudinal radius: 36″, minimum transverse radius: 54″.

**Color:** Strict process control assures highest fidelity. Available in 17 intrinsic colors. Values are not affected by changes in lighting. Aging produces a patina glow that enhances Mosaica's beauty.

**Finishes:** Facet—mixture of 50% gloss and matte tesserae. Matte—dull frosted tesserae only.

**Pattern:** Random tesserae ranging from 1/8″ to 3/4″.

**Texture:** Although smooth enough to write on, Mosaica's depth of color and pattern give the appearance of texture.

**Permanence:** Mosaica is weather and abrasion proof. Matrix seals in glass tesserae eliminating possibility of chipping or flaking.

**Maintenance:** Mosaica's inorganic matrix combines with smooth glass tesserae to form a surface that resists alcohol, acid and alkali stains and atmospheric contamination. Cleaning is simply a matter of wiping with a damp cloth.

**Cost:** Installed, Mosaica is highly competitive. Since carpenter trade can be used, labor is economical.

The beauty of Mosaica's color, pattern and texture combine with its practical utility and economy to offer an exclusive new decorative architectural medium.

*Call or write for name of representative in your area.*

MOSAICA

A division of Soulé Steel Company

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by GLENN M. CANADAY

Second in a series: Foundation Work, Concrete

# There's more to concrete than a cubic yard!

FOUNDATION WORK and Concrete, Divisions 3 and 4, account for a dominate percentage of the general contractor's direct labor costs in most buildings. Since these divisions include most of the general contractor's high-risk items, they deserve maximum consideration.

### 3. FOUNDATION WORK, PILING

**301. Dewatering.** Include all types of dewatering operations required to enable the contractor to perform the construction work.

a. Wellpoint systems
b. Temporary wells or excavated pits, trenches and ditches
c. Pumps and their operation and maintenance

Study site conditions, plans and proposed job schedules to determine the method or combination of methods to be used. If a wellpoint system is required you may subcontract the job for a lump-sum price or on a time and material basis; or you may rent or purchase the equipment and do the installation and operation work yourself. Include all costs of equipment, material, power, fuel and labor.

**302. Coffer Dams, Caissons.** Because of its specialized nature, many contractors subcontract this work. If you do the work yourself, list all equipment, material and labor costs in detail.

**303. Sheet Piling, Shoring, Bracing.** Include all costs of equipment, material and labor to install and remove. Classify according to types. Make lumber takeoff in board feet and apply a labor factor. Take off steel piling in square feet, steel bracing in tons.

**304. Underpinning Structures.** This item is often difficult to estimate with accuracy. Take time to investigate and analyze the job; then plan operations in detail. Include costs of excavation, cribbing, concrete, forms, steel, masonry, temporary support materials, jacks, gauges and other equipment, grouting, drilling and pinning, etc. Don't underevaluate the time-consuming nature of underpinning operation when estimating length of construction and supervision costs.

**305. Foundation Drilling and Grouting.** Include all costs of diamond and percussion drilling, installation of pipes, flushing and grouting operations. When required, include costs of chemical solidification treatment in this subdivision. List labor, material and equipment costs in detail.

**306. Piling.** Most building contractors subcontract their piling work. If you do the work yourself, list equipment rental, material and labor costs in detail. Include costs of piling (wood, pipe, H-pile, precast concrete), pile caps, points, concrete fill and labor and equipment costs for all handling, driving, splicing, cutting-off and filling operations. Allow for cut-off waste and broken or damaged piling. Costs of test piles and testing operations, including engineering services, should be included under this subdivision.

### 4. CONCRETE

Modern buildings use concrete in an almost endless variety of applications. From footing to coping, concrete has established its place in construction as an economical, versatile, durable material. Although the contractor finds no two jobs alike, he can nevertheless classify concrete operations so that he can compare costs intelligently.

A cubic yard of concrete is made up of many cost items. In Concrete, as in the other divisions, it is important to keep in mind the practical limitations of field labor record keeping. For example, although the forming of pilasters is far more costly than the adjacent wall forming, it is impossible to separate these costs. The same usually (but not always) applies to beam and slab forms. An estimating breakdown that cannot be cost checked is of doubtful value. On the other hand, the estimator must guard against lumping too many items together. Few contractors today go so far as to lump all costs of a cubic yard of concrete into one figure, although many use the price-per-yard as a check figure against the completed estimate.

Concrete work consists of sand, gravel, cement, additives, lumber, plywood, form oil, nails, ties, curing compounds, curing paper, hardeners, expansion joints, water stops, inserts, etc. Although reinforcing steel and mesh are actually concrete work, I have included these under Reinforcing (Division 6), for ease in closing up the estimate. Equipment for job-long concrete operations should be included under Equipment, Tools, Supplies (Division 31). Costs of short-time rental equipment, such as a crane used eight hours to hoist concrete to the roof, should be listed here.

Include in this division all concrete work except Precast and Tilt-up Concrete (Division 5) and curbs, gutters, sidewalks and other miscellaneous exterior concrete included under Sitework (Division 29). Concrete work may be broadly classified into:

a. Concrete materials, mixing and placing
b. Formwork
c. Finishing and curing

The following subdivisions expand these classifications.

**4.01. Concrete Materials and Mixing.** Separate concrete into classes and types: 3,000 lb., 2,500 lb., lightweight aggregate, etc. You may purchase your concrete from a readymix plant or mix your own, or you may have a choice. If you use readymix concrete, list the costs of mixes, by price classifications. Be sure to list additional costs for:

a. Air-entraining agents
b. Accelerators and retardants
c. Waterproofers
d. Heating
e. Overtime and mileage

If you plan to mix your own concrete, include costs of materials and mixing in this subdivision. List equipment costs under Equipment, Tools, Supplies (Division 31). This item deserves special attention. Costs of materials, length of concrete operations, sizes of pours, availability of equipment and contract specifications vary widely. Plan the operation carefully. Include under material the cost of:

a. Gravel
b. Sand
c. Cement
d. Air-entraining agents
e. Accelerators and retardants
f. Waterproofers
g. Fuel oil and gasoline

Labor will include the wages of:

a. Batcher and mixer operators
b. Cement handlers
c. Loader operator
d. Truck drivers

**402. Placing.** Classifications will vary from job to job. The following

breakdown is detailed enough for most building estimates:

a. Wall footings
b. Mass footings
c. Low walls and pilasters
d. High walls and pilasters
e. Columns and piers
f. Slabs on ground
g. Structural slabs, beams and joists
h. Stairs and landings
i. Copings, sills, thresholds
j. Equipment foundations

When concrete is poured on uneven ground or surfaces, allow for overrun. Include all labor costs for runways, hoisting, wheeling, spreading, vibrating and cleanup. "Spotchecks" on placing costs are often misleading. Get-ready and cleanup operations sometimes account for 50% or more of placing costs. In subdividing concrete placing, as with other classifications, group items of like or similar costs together. Make no more subdivisions that necessary for accurate estimating and cost accounting.

**4.03. Forms.** Usually account for the general contractor's largest single labor expenditure. On a large building, a single cent added to a square foot of forms can add thousands of dollars to the estimate. Study form requirements with thought for design and reuse. Forming methods will depend upon plan, design, specification requirements, forms on hand, availability of rental forms, local material costs, etc. Estimate forms according to square feet of net contact area. In the material column of the estimate, include all costs of plywood, lumber, nails, form oil, form ties, waler brackets, braces and scaffolding. Labor should include costs of fabricating, oiling, hoisting, erecting, aligning, stripping and repairing. Unusual jobs require special classifications. The following outline will be found suitable for most building work:

a. Wall footings
b. Mass footings
c. Walls, pilasters
d. Columns, piers
e. Slabs, beams
f. Pan and joist
g. Stairs, landings

Subclassify items as necessary. Wall forms that can be set from the ground are usually priced separately from those on the upper stories of a building. Pan and joist forms are often separated into its components: square feet of metal pans, linear feet of joist soffit and linear feet of bridging.

**4.04. Screeds.** Price by the square foot or linear foot. Linear pricing results in greater accuracy. Include all costs of purchasing and renting materials, and labor costs of setting, leveling, removal and cleaning. Costs vary according to the type supporting surface, distance to supporting surface, type of supports, amount of leveling and releveling required and the degree of accuracy demanded.

**4.05. Nailing Blocks, Strips, Chases.** Typical items are imbedded wood nailing strips for acoustical tile, chalkboard moldings, wainscot, materials, picture moldings and chair rail; and imbedded wood blocks to secure furring strips, door jambs, handrail, cabinetwork and moldings. Include chases required for mechanical and electrical piping. Material costs will include lumber, milling, treating and fasterners. Labor should include all layout, fabrication and installation costs.

**4.06. Rustications, Chamfers.** Often included with form costs. When requirements are unusual or extensive list as a separate item. Classify according to types, price by the linear foot.

**4.07. Imbedded Metal Items.** List all metal items imbedded in concrete. This will include reglets, inserts, anchors, anchor slots, bolts, leveling plates, grouting of base plates, etc. Material may be furnished by a supplier or subcontractor in another division; if not, list material costs here. Price by the piece. Anchor bolts may require a wood supporting structure and templates. Include labor costs for layout and installation.

**4.08. Water Stops.** Include material and labor costs for all types—vinyl, rubber, metal and mastic. Check specification requirements and notes on structural plans carefully. Water stops are often not shown on drawings.

**4.09. Construction, Contraction and Control Joints.** Classify according to type and size. Price by the linear foot. Include costs of forming, wood and metal strips or moldings, dowels, etc.

**4.10. Expansion Joints.** Separate into sizes and types; price by the linear foot. Include costs of expansion joint material, fasteners, oiled wood strips, sealer and compound fillers. Check specifications carefully for requirements not indicated on plans.

**4.11. Paper under Slabs and Footings.** Price by the square (100 sq. ft.). Include all paper and plastic material, laid over earth and gravel surfaces before concrete is placed. Include costs of cement and tape.

**4.12. Roof Fill, Crickets, Cants.** Include all material, mixing placing, finishing and curing for concrete roof fill, crickets and cants in this subdivision. Price by the square foot or linear foot as applicable.

**4.13. Topping.** Price by the square foot. Include all labor and material costs required to obtain a complete job, including cleaning of surfaces, bonding agents, screeds, concrete materials, finishing and covering.

**4.14. Cement Base.** Classify into types and price by linear foot. Include all labor and material costs for base screeds, lath, grounds, sand, cement, bonding agents, finishing and curing. Check the Plastering division for this item. Local union regulations and practices often determine who does this work.

**4.15. Finishing.** Classify finishing operations according to requirements of the job. Include costs of labor, material and special scaffolding or swing staging. The following will cover most jobs:

a. Trowel finish
b. Float finish
c. Patch finish
d. Rubbed finish
e. Stair finish

Price by the square foot for slab and wall areas; by the linear foot for curbs, copings, and stairs.

**4.16. Special Surface Treatments.** Include chemical hardeners, sealers, exposed aggregate treatment, etc. Price by the square foot.

**4.17. Curing.** Price by the square foot. Include all types of curing paper, membrane, water, burlap, sand, etc. Classify according to types and relative costs.

**4.18. Concrete Tests and Mix Design.** Check specifications for requirements. Many government agencies require the contractor to assume these costs. Include costs of taking field tests, curing facilities, equipment and supplies, packing boxes and freight.

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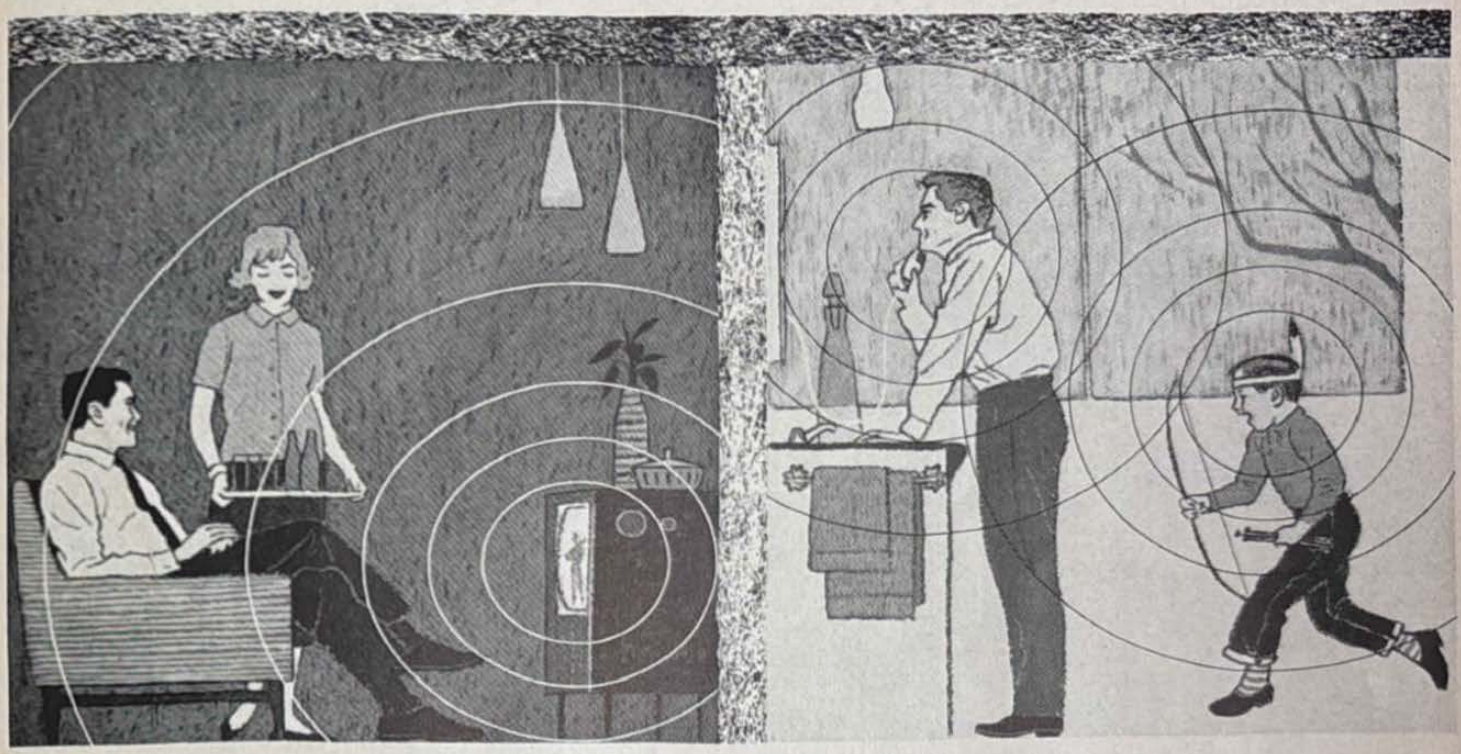
## Bidding guide available

With a broad application in the heavy construction field, a new bidding guide has been prepared jointly by the Associated General Contractors and the American Society of Civil Engineers. It is called, "A Recommended Guide to Bidding Procedure on Engineering Construction."

Vital areas specifically covered are preliminary investigation, plans, specifications, bidding, separate contracts and sub-contracts. The 12-page, 8½x11-in. brochure has marginal subheads. Clearly noted for ready reference are such subjects as local ordinances, royalties and patents, bases of payments, details of plans, contract documents and deposits.

Single copies are free. Quantity orders, two or more, are available at 25 cents each by writing to ASCE, 33 W. 39th St., New York 18, N.Y.

# *Versatile new building slabs provide soundproof Motel construction at lower cost!*



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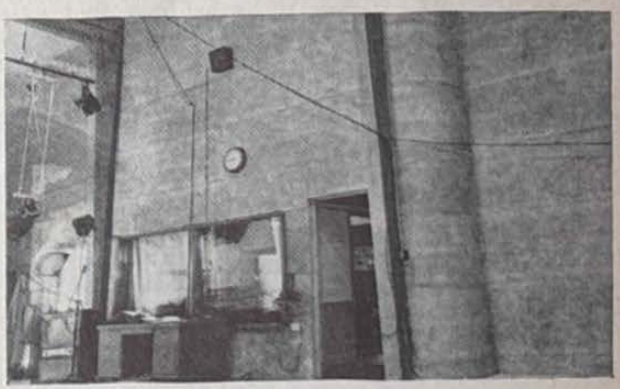
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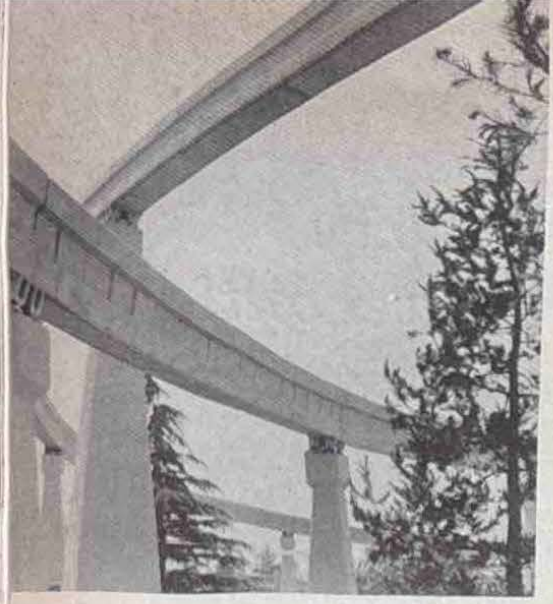
☐ Provide engineering consultation service without obligation.

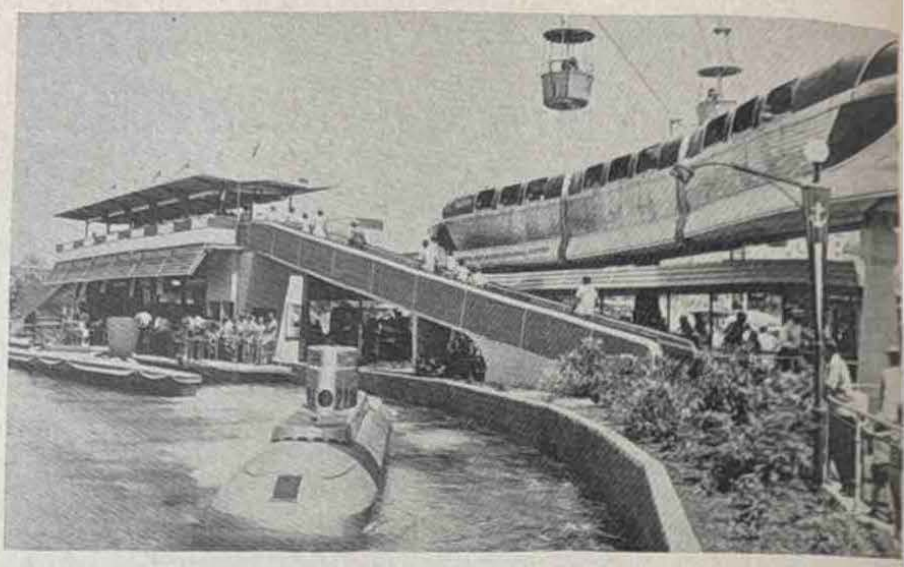
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**DETAIL** of monorail installation at Disneyland, prior to electrical hookup, shows degree of curves which necessitated exacting concrete precasting operation. Stephens-Adamson Speedramp conveyor system takes passengers to and from loading platform.

# How to build a monorail system a la Disney

While city officials pondered, studied and planned monorail systems, Walt Disney just up and built one in Disneyland.

The installation was part of a $5 million development recently completed at the super-deluxe amusement park near Los Angeles. Not only was it a first in the U.S., but the project entailed a most exacting large-scale concrete precasting operation done on a rush basis. Carbon Dubbs Co. plant in Stanton, Calif., took the contract on the basis of a set of working drawings in January and plans were still coming off the boards continuously throughout the casting, with a completion date of June 1 hanging over the firm's head.

The monorail consists of precast I-section girders which serve as track, carrying beam and guide rail, all supported by precast concrete columns resting on piles 25 ft. deep. With the exception of a few piers cast in place into the roof deck of a submarine ride cavern structure, all columns and beams were precast at the Carduco yard in Stanton.

The monorail was designed and built according to the principles of the Alweg System in Cologne, Germany. However, the twisting, banking course with grades up to 7% required somewhat different design criteria and created many of the precision necessities in designing and forming the concrete units.

The project involved manufacture of 240 precast concrete units, 120 beams and 120 columns. It entailed the casting of twisting, curving concrete beams 40 ft. long with a maximum surface tolerance of ⅛ in. and with end tolerances so close that when placed end to end atop the supporting columns, the beams form a continuous 3,830-ft. long track with no more than ⅜-in. separation between connecting sections. This small gap provides for expansion and contraction of the concrete.

Each of the 120 precast girders had to be calculated for camber or horizontal position, vertical position, superelevation and range or arc. The same held true for the precasting operation. Secret to this casting problem was the special forms designed and built by Leonard Zerlaut, owner of Leonard's Precision Products Co. of Santa Ana Calif. He devised an unique shell-like steel form that could be adjusted to produce curving, twisting concrete girders 35 to 40 ft. long, virtually no two of which were identical. He also perfected an instrument which set the girders in one operation to the proper camber, elevation, superelevation and radius.

Special concrete mix designed for 3500 psi. at 48 hours and 28-day strength of 5,500 psi. was used. A great amount of reinforcing steel was used in both the columns and beams, from 1,000 to 3,500 lb. so dense that micrometer precision was necessary in fabrication.

John C. Wise, chief engineer at Disneyland, designed the monorail system with structural engineers Wheeler & Gray as consultants. A team of Alweg engineers from Germany served in an advisory capacity. Contractor was James I. Barnes Construction Co.

*Ed. note: This is the first complete monorail system in daily operation, although several experimental lines have been constructed. One, for example, in Summit Beach Park, Akron, Ohio, is a plaything. Each car holds about six persons and the installation is simply a modified overhead rail system as used in factory assembly lines. Seattle's proposed $5 million monorail project (PA&B for May '59) will be the first ever tried to solve a city's mass transportation problem.

## Ceramic tile in sheets

A method of joining tiles by machine that makes it possible to set as much as 15 sq. ft. of ceramic tile all in one piece has been developed by the research center of the Tile Council of America.

The assembly process aligns and bonds the tiles edge to edge using a liquid epoxy resin. No backing is used. The resulting sheet can be sawed with a carborundum blade and drilled. It also eliminates filling spaces between the tiles.

While the procedure is not yet a commercial reality, ceramic tile sheets produced by the Tile Council method were installed several years ago in bathrooms of some homes at Levittown, Pa., and are still in good condition.

## Denver area schools save $25 per light fixture

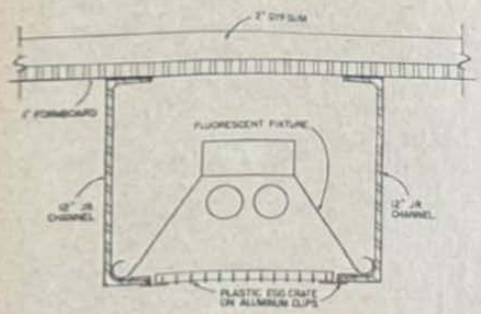
A saving of $25 per lighting fixture or about $375 per room in four Denver area schools by employing lightweight steel structurals to support the roof and to frame the fixtures has been estimated by architect Roland M. Johnson.

Boxed 12-in. Junior Channels made by Jones & Laughlin Steel Corp. are on 8-ft. centers and run uninterruptedly through the two wings which house the 24x32-ft. classrooms. Roofs are poured concrete and the ceilings are 1-in. formboard. Bulb tees are used as intermediate supports for the roof, whose design load is 60 psf.

The industrial type fluorescent fixtures (House of Lights) are set inside the channels, with a plastic eggcrate grid held in place below by aluminum clips. Five fixtures, each 4 ft. long, are in each channel, making a total of 15 for each classroom. The exposed channels are painted and all connections are hidden.

The floor is slab on grade. Vertical supports are of ¼-in. steel tubing, 2½-in. square. Two 12-in. square channels are joined with a bar welded to both bottom flanges. These are placed 4 ft. 1 in. apart. The channels which run at right angles and to which the vertical supports are connected are boxed only 6 in. apart.

Structural designing was done by Hale V. Davis Jr.; steel fabrication by United States Steel and Iron Works in Denver and erected by Mellwin Construction Co.






**DRAWING** and installation photo show how boxed 12-in. lightweight structurals are used to house fluorescent lighting fixures in four Adams County, Colo., schools.



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*...with* Realock Fence

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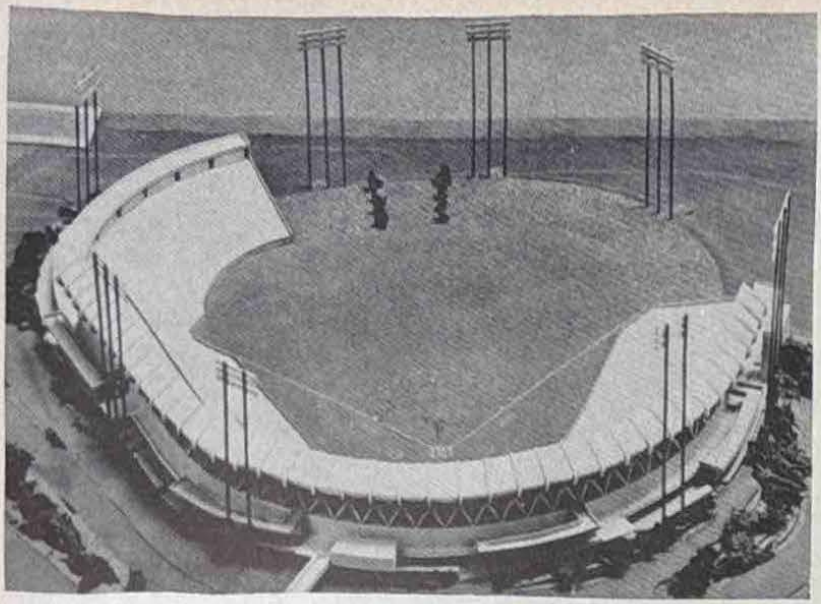
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**SPECTATORS** in this stadium for San Francisco Giants will be treated to unimpeded view, thanks to small number of supporting posts. Those in reserved seat section needn't bring blankets or other warming devices since they'll enjoy radiant heating system.

## Solid comfort will be offered San Francisco Giant fans

If anything could bring large numbers of spectators out of their comfortable living rooms and into the ball park, the new Giants' stadium in San Francisco should be just the ticket.

Architect John S. Bolles of San Francisco has designed a stadium for comfort: wider aisles and seats, with a minimum number of columns. And as a clincher, a radiant heating system is being installed in the 20,000-reserved seat section.

The heating system, which will make Candlestick Park the only heated, open air stadium in the world, was incorporated in the design because many of the Giants' games will be played at night when it is quite cool in San Francisco. It will also be used during the football season.

Planned by Eagleson Engineers of San Francisco, it calls for more than 35,000 ft. of ¾-in. diameter 4-D wrought iron pipe spaced on 18- to 48-in. centers and supported immediately below precast concrete seats. Headers for the combination grid and coil type system will be placed in the aisles. Circulating water is heated by a package type boiler, independent of the remainder of the stadium's heating plant.

The $15 million ball park will be built entirely of reinforced concrete. To keep visibility to a maximum, there are only 28 supporting posts in the park and each 10-in. wide support is 20 ft. from the back of the stadium. No seat is behind a column.

What is believed to be the world's tallest poles for floodlighting are being designed and constructed by Weld-Rite Co. of Oakland for the stadium. Placed outside to keep the field free and permit an unobstructed view of play, these poles are 195 ft. high. Along with others 130 and 135 ft. high, they will carry from 1125- to 1500-watt floodlights.

Park is designed at present for 40,000 spectators, but can be enlarged to handle 80,000. The umpire is expected to call "Play ball!" there for the first time in September.

General contractor is Charles Harney, Inc., of San Francisco. Harry Lee Plumbing and Heating Co. of Burlingame, Calif., is plumbing and heating contractor.

## When air conditioning pays determined by formula

What factors determine if installation of air conditioning in a plant or office will be a profitable investment?

Typhoon Air Conditioning Co. officials have developed a formula which tells how large an increase in worker efficiency is needed before the investment will pay off. The formula is based on the ratio between the cost of air conditioning and payroll cost and is believed to be sufficiently accurate for a preliminary decision.

Briefly, it includes such factors as base pay, fringe benefits, length of cooling season, cost of owning and operating equipment. Payroll costs, figured per square foot of area to be air conditioned, are divided into purchase and operating figures.

## Lighting systems fall short of requisites

More light is required for seeing tasks than currently is being installed, asserts Edward Balogh, chief lighting engineer for Sunbeam Lighting Co.

In a recent talk before the Salt Lake City Illuminating Engineering Society, Balogh pointed out that it has been proven that the 30 foot-candles of light, previously recommended as sufficient for schools falls far short of today's recommended standard of 70 footcandles.

He also discussed facts compiled by the Illuminating Engineering Research Institute and the Illuminating Engineering Society which indicate that indirect lighting is more desirable and more efficient per footcandle than lighting systems having a strong downward component achieved through louvered bottom diffusers. This is due to the fact that a certain degree of glare caused by lamp image reflection occurs even in a well shielded louvered bottom luminaire.

Balogh said the immediate problem and challenge now confronting the industry is for the engineers to develop practical methods for designing lighting systems which will meet the new recommended standards.

## Rack mounted water coolers help maintenance problem

Water coolers in the 28-story Murchison Tower Building, home of the First National Bank of Denver, are mounted on racks and suspended from the walls to allow ample clearance underneath for mopping and other cleanup operations.

Hung 9 in. off the floor, each cooler is supported from the wall by a heavy gauge steel rack made by Cordley & Hayes who also produce the coolers. The model used here stands 31 in. high and is raised to 40 in. by the rack-mounting method, putting its bubbler at normal height.

In their overall plan for cooler installation, architects Raymond Harry Ervin & Associates incorporated a space-saving idea. With the exception of the units on the first five floors, all coolers are hung inside 14-in. deep alcoves. Thus only an inch or two of the cabinet projects into traffic areas.

There will be 150 coolers in the building when it is fully occupied. Thirty-six are building owned; the remaining will be purchased by tenants, but they will also be rack mounted and wall hung.

## L. A. gets first building to exceed 13-story limit

The California Bank Building now under construction in downtown Los Angeles is the first structure exceeding 13 stories to be erected in that city since repeal of a height limit restriction in 1956.

Designed by Claud Beelman & Associates, the 18-story project will have opaque aluminum panels finished with charcoal gray porcelain enamel on all but the first three stories. These will be faced in crystal blue granite.

Window wall units are being fabricated by Metalframe, Inc., of Los Angeles, using a welding system which produces a weathertight rectangle of aluminum extrusions and aluminum sandwich panels.

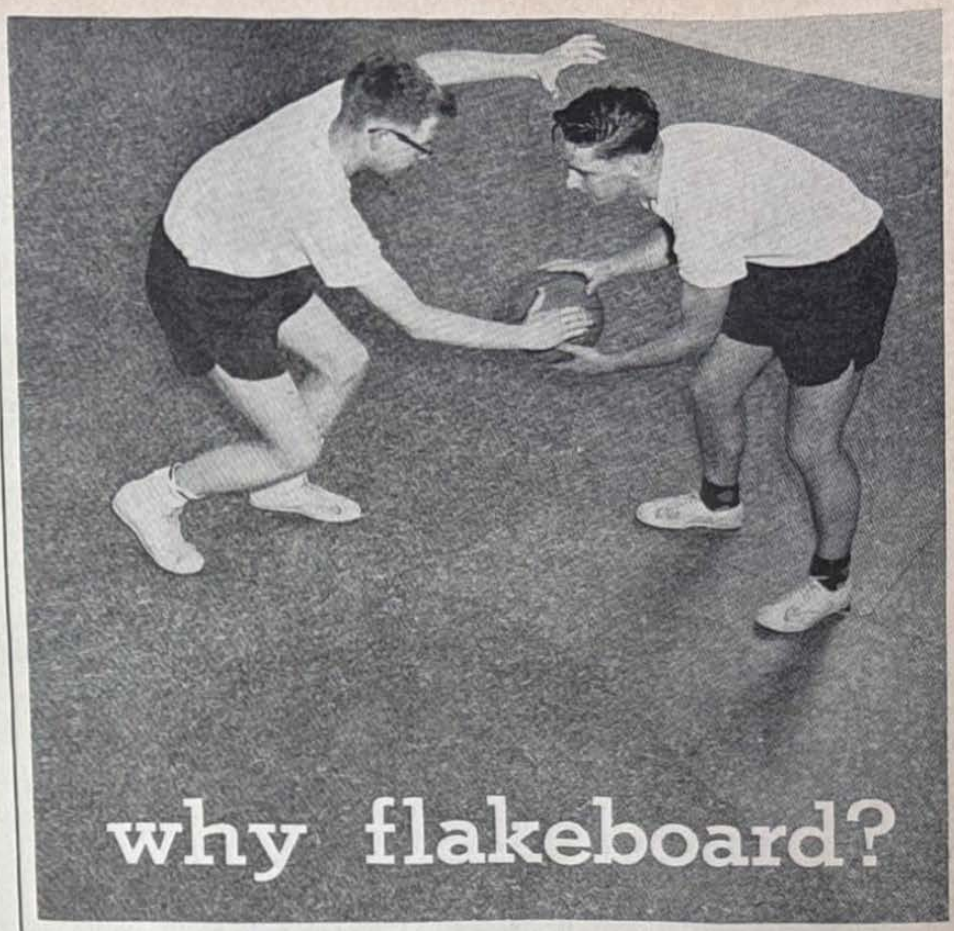
The panels will have an asbestos core and natural aluminum sheet on the interior. Aluminum extrusions, finished with matching porcelain enamel, will frame each panel.

Each of the more than 700 wall panels, measuring more than 4 ft. wide and 6 ft. high, will be fitted into the framed window unit. Separating the vertical rows of panels and windows will be contrasting limestone mullions.

Building will have a total gross area of 369,346 sq. ft. and an underground garage for 250 cars. Design of the interior areas is by Henry L. Eggers and Walter W. Wilkman, associate architects, and Henry Dreyfuss, industrial designer. General contractor is C. L. Peck Construction & Realty Co.



**OPAQUE ALUMINUM PANELS** finished with charcoal gray porcelain enamel form exterior of 18-story structure going up in downtown Los Angeles. Crystal blue granite is used for base facing.


**CEDAWOOD*** is 100% Flakeboard, no coarse chip center. It is a better panel because an all cross-laminated flake panel is over-all stronger, the same principle as in Plywood. Also:

1. **CEDAWOOD** is over one-half Hardwood**. It is tough (as abrasion resistant as Oak flooring).
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3. Higher physical properties are achieved with less resin by eliminating chip core in favor of cross-laminated flakes.
4. Solid flakeboard is less likely to give rise to starved glue lines along veneered edges since glue absorption is constant.
5. It is sound absorptive (¼" punched **CEDAWOOD** NRC with 1½" Fiberglass backing is .55***).
6. **CEDAWOOD** in any thickness is good always on two sides.

*Reg. T. M. for Columbia's Family of Flakeboards.
**Deciduous-Conifers CEDAWOOD blend patent applied for.
***Riverbank Acoustical Laboratories (as a comparison, ½" wood fiber ceiling tiles averages .55).

Columbia Hardbord Co., P. O. Box 1767, Seattle 11, Wash.



### flexible door frame

Door frame introduced by Sterling can be used for all popular wall pocket installations, accommodating doors 2 to 3 ft. wide, 6½ to 6⅔ ft. high and 1⅜ to 1¾ in. thick. Frame has all-steel universal header marked and slotted at 2-in. intervals for fast, precise cutting. Wood nailing strips also are marked at cutting points. Split jambs and studs can be nailed directly to the rough header through the use of a new type of mounting bracket. Interlocking floor brackets welded to the jambs at the factory also simplify installation. By plumbing one jamb and interlocking it with the other, the second jamb automatically sets in the correct place.—John Sterling Corp.

(Item No. 1)

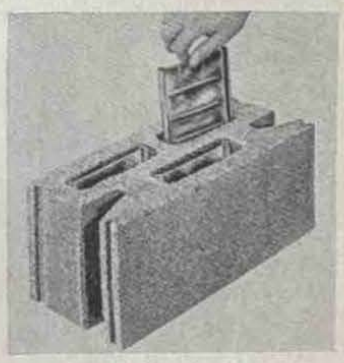
### noncombustible light panel

A louver diffuser panel molded of a new plastic compound for overall luminous ceilings will not burn or shrink when heat is applied. The panel, a joint development of Guth and Allied Chemical Corp., is nonelectrostatic, thereby repelling dust and dirt, and will not sag or buckle. NC Gratelite is 24 in. square with open-cubicle construction which permits free flow of air from the lighting fixtures above. It can be anchored by a patented suspension system, installed over an entire ceiling area, below the lighting source and the air conditioning system. Panel has received Underwriters' Laboratories approval with a listed flame-spread rating of 25 and also is approved for installation below sprinkler systems.—Edwin F. Guth Co.

(Item No. 2)

### insulated concrete blocks

Building and insulating are accomplished in one operation with a triple-wall building block that has staggered air cells and sealed-in aluminum foil insulation. Thermoflector block is said to stop all three means of heat loss—radiation, conduction and convection. Aluminum foil insulators reflect back up to 95% of the radiant heat rays trying to pass through the wall. Conducted heat is stopped by the staggered air cells.

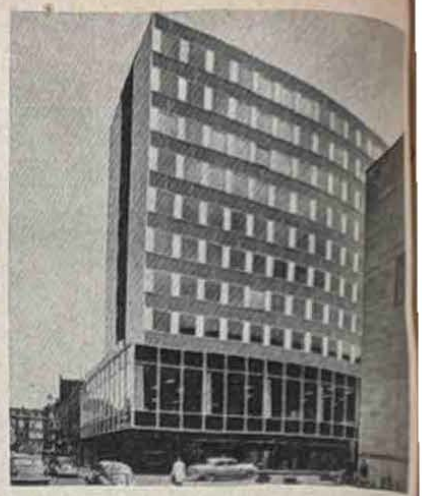


Convected heat is stopped by a cap placed over the air cells between each row of block. The building block also resists moisture and has good soundproofing characteristics. Thermoflectors are made in all units available in standard concrete blocks. The manufacturer is now in the process of franchising local producers throughout the country.—Thermoflector Associates, Inc.

(Item No. 3)

### asbestos reinforced panel

An asbestos panel manufactured in Belgium and used in building construction in Europe the past five years (shown above on a Holland department store) is now being marketed in this country by U.S. Plywood. Weldwood Glasweld is an inorganic asbestos reinforced panel with a mineral enameled surface designed for use as curtain wall and fascia panel components, soffits, canopy ceilings, partitions, wainscoting, plain or perforated ceilings, kitchen and bathroom walls and countertops. It is said to be completely incombustible. The product is being used in a New York school where it has resulted in savings on interior and exterior painting, eliminated furring, lathing and

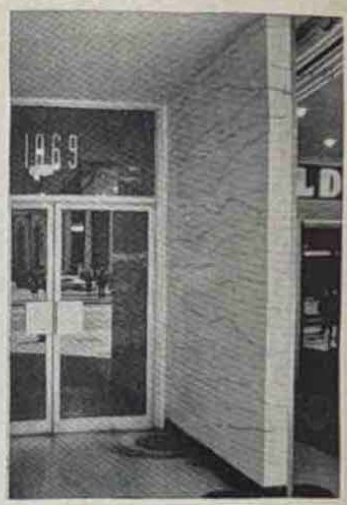


plastering over corridor lockers and in other areas and is expected to reduce future maintenance costs. Available in several thicknesses, it is stocked in 48x96-in. panels in a range of 10 colors and a number of patterns. It can be cut with a carborundum wheel on a portable power saw, scored and snapped and can be nailed without predrilling in ⅛-in. thickness or applied with mastic over a regular surface.—United States Plywood Corp.

(Item No. 4)

### colorful glass chip facing

Mosaica, a material made of glass chips, marks the entrance of Soule Steel Co. into an entirely new sector




of the building products field. Consisting of glass tessarae of random sizes and shapes set in an inorganic matrix and laminated to cement asbestos board, it has a nominal thickness of 7/32 in. The product can be applied to either curved or flat surfaces and is designed principally for such applications as exterior facings, curtain and window wall panels, door surrounds, lobbies and column enclosures. It is provided in sheets of convenient widths and lengths for easy installation. Cost installed is estimated at $2.25 sq. ft. Available in 17 different

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colors, Mosaica, which can be used with most any other building materials, will be marketed initially in the 13 western states, including Hawaii and Alaska, through a separate division set up by Soule' to handle the product.—Soule' Steel Co. **(Item No. 5)**

### fluorine attachment

A drinking water fountain attachment is now available which provides fluorinated drinking water. Called the Fluorspar, it consists of a tank and proportioning filter which can be mounted beneath or behind the fountain on the water supply line. Supply water is partially diverted through the tank, percolates through the mineral Fluorspar and is readmitted to the general supply lines in the proper proportions. Concentration can be adjusted as wished.—Haws Drinking Faucet Co. **(Item No. 6)**

### low cost sound system

A modular sound control system makes it possible to specify tailor-made public address and intercom installations at ready-made costs. The building block system employs four cabinet types and a wide selection of standard elements which are custom assembled, prewired with plug-in connections at the factory and shipped ready for installation. The design also permits ready expansion. Simplicity is featured. Operating switches and knobs have been reduced to a minimum. Intercom panel incorporates a combination monitoring loudspeaker and microphone unit for communications, thus eliminating need for separate desk microphone.—Radio Corporation of America. **(Item No. 7)**

### honeycomb steel door

Honeycomb construction has entered a new field—doors. By bonding a honeycomb core of resin impregnated kraft material to two layers of steel, Steelcraft has produced a seamless hollow metal door with high impact resistance and excellent sound-resistant characteristics. Tests show that the door combines the rugged dimensional stability of steel with the structural strength of the honeycomb material. Doors will be available in a variety of types, sizes and finishes, bonderized, in matched colors or in simulated wood grain finishes. A wide selection of hardware can be used with any of the doors.—Steelcraft Manufacturing Co. **(Item No. 8)**

### roof expansion joint

Dow Chemical has developed a weatherproof roof expansion joint design that depends upon flexible materials to allow for building movement. Products employed are flashing of Saraloy 400, a weatherable, flexible sheet, and polyethylene foam which provides flexible closed cell joint insulation. The foam is bent in an inverted "U" to form an insulated bridge over the joint. Ends of the "U" rest on each side of the joint between metal angles and cant strips. A strip of Saraloy 400, placed over the rounded joint, is bonded to the roofing on each side to form a waterproof, weatherable membrane. —Dow Chemical Co. **(Item No. 9)**

### built-in pool skimmer

A built-in skimmer helps builders of concrete or plastic lined swimming pools to considerably reduce the cost of construction, as well as simplify pool operation for the owner. Called the Combo skimmer, it uses just one line to handle all functions of main drain, vacuum and skimmer, eliminating the usual three-line piping. A flow regulator with equalizer cap fits into the skimmer body and provides adjustment and control from 0 to 100%—Modern Swimming Pool Co., Inc.

**(Item No. 10)**


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- *Harvey Aluminum*
- *Kaiser Aluminum and Chemical Corp.*
- *Lebanite Products Company*
- *L. A. Stamp & Stationery Co.*
- *Millrich Engineering Corporation*
- *New England Lead Burning Corp.*
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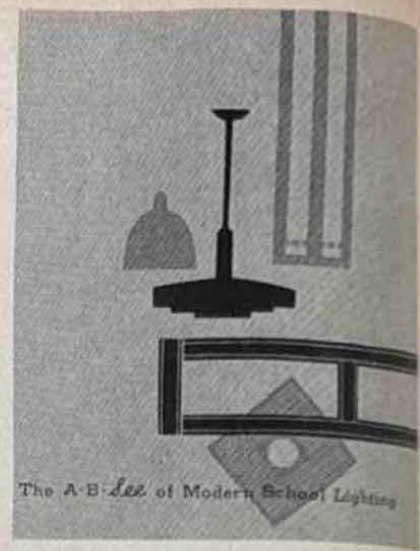
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**pa&b pick of the month**

"What started out to be a simple, commercial brochure on school lighting has ended up as a very worthwhile treatise on the subject, compiled by an engineer who knows his business," wrote the manufacturer's publicist. "A careful perusal will show that it is in no sense a piece of sales literature but an honest attempt to put down in understandable terms what is required to do a proper lighting job in a school." This 24-page booklet lives up to its advance billing. Smoot-Holman's Bill F. Jones was aided by the Illuminating Engineers Society and the State of California Bureau of School Planning in preparing "The A-B-See of Modern School Lighting," divided into two sections: classroom lighting and lighting other school areas. Particularly noteworthy are the illustrations of the various types of lighting fixtures with a complete chart on their performance. —Smoot-Holman Co., 321 N. Eucalyptus Ave., Inglewood, Calif.




**Lam Modulume Lighting** (AIA 31-F) introduces line of prefinished structural lighting which provides custom effects through combination of stock items; includes drawings of typical installations and specifications; 16 pp. —Lam Inc., 404 Main St., Wakefield, Mass.

**Kurtzon Standard Shallow Troffer** (AIA 31-F): gives comprehensive data on line of 4½-in. deep troffers designed for flush mounting in ceilings; with installation drawings; 20 pp.—Morris Kurtzon, Inc., 1430 S. Talman, Chicago 8, Ill.

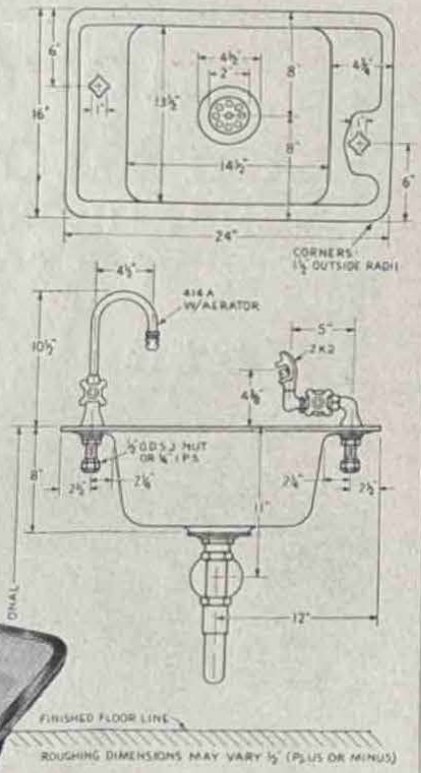
**Wing Gas-Fired Duct Heaters and Blower Assemblies:** charts ratings and performances of all models and lists specifications and dimensions; 4 pp.—L. J. Wing Manufacturing Co., Linden, N.J.

**How to Buy 20 Years of Roof Protection on the Installment Plan:** outlines installation and maintenance service offered with the Carey combination asphalt, asphalt felt and asbestos felt roof; 4 pp.—Philip Carey Manufacturing Co., Lockland, Cincinnati 15, Ohio.

**Garpoxy Diamond-Finish Enamel:** describes protective coating developed for corrosion problem floors, walls and machinery; 4 pp.—The Garland Co., 3748 E. 91 St., Cleveland 5, Ohio.

**Glidorama Custom Aluminum Window Wall:** includes detail drawings of suggested installations and large cutaway illustration of typical window wall section; 6 pp.—Glidorama Division, Whizzer Industries, Inc., 350 S. Sanford, Pontiac, Mich.


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### new offices, partnerships

Robert Boner, architect, a former partner in the firm of Mikles and Boner, has opened his own office at 628 S. "A" St., Oxnard, Calif.

Frank E. Blachly Jr. has opened an office for the practice of architecture at 1328 S.W. 14th Ave., Portland.

Joseph W. Pahl has opened an office for the practice of architecture at 1168 S. Sheridan Blvd., Denver.

Clark-Coleman & Associates, specializing in city planning, urban renewal and landscape architecture, have opened offices at 4519 University Way, Seattle, and at 2266 N.W. Lovejoy St., Portland. Principals are Robert S. Clark, former assistant director of Portland's Urban Renewal Agency, who has headquarters in Seattle, and James M. Coleman, landscape architect and planner, in Portland.

Keith T. Boyington has opened an office for the practice of architecture at 905 Buena Vista Drive, Spokane.

Calvin W. Goss and Allan K. Choy have formed an architectural partnership known as Goss & Choy, with offices at 920 Chester Ave., Bakersfield, Calif.

Donald C. Thomas and Cornelius Kolkman have formed a partnership to practice professional engineering under the name of Thomas Engineering Co. at 49 N. Second West St., Salt Lake City.

### firm changes

Richard W. Jackson and Richard G. Sharp have formed an architectural partnership to be known as Jackson & Sharp, with headquarters at 457 S. Third East St., Salt Lake City. The firm of Jackson & Jackson, architects - engineers, has been dissolved. Amos R. Jackson will carry on with Intermountain Engineers, formerly a subsidiary of Jackson & Jackson, as a separate firm. Sharp has dissolved his architectural firm of Richard G. Sharp & Associates.

Robert W. Fritsch is continuing the practice of architecture as successor to the firm of Whittier & Fritsch at the new address of 2311 N.W. Irving St., Portland; and George Whittier has joined the architectural firm of Edmundson & Kochendoerfer.

Tracey, Cook & Brunstrom, consulting engineers, have formed a partnership with Robert E. Dudley, architect, under the firm name of Tracey, Cook, Brunstrom & Dudley, continuing to maintain offices at 423-A Third Ave. W., Seattle.

Arthur Grix, Ben Plowgian and Thair H. Blackburn of Ogden, Utah, have formed a new partnership to practice architecture under the name of Grix, Plowgian & Blackburn, succeeding Grix, Plowgian & Gessel, at 3930 Riverdale Road.

### new addresses

Dean L. Gustavson, architects, to 15 N. West Temple St., Salt Lake City.

H. C. Chambers and Lester Hibbard, architects, to 1052 W. Sixth St., Los Angeles.

### honors

Southwest Oregon Chapter, AIA, at its seven annual craftsmanship dinner in Eugene May 22 honored these local men: Duane Marshall for millwork coordinations; Sidney Darnell for cement finishing; and Tom Burns Jr. with a special citation for his photography devoted to publicizing the architectural profession and allied arts. (His interpretation of "Oregon Impressions" appeared in PA&B for May.)


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## High rise construction gets a real lift in Bay area



**PASSENGER ELEVATOR** employed by Cahill Construction Co. on new John Hancock office building in San Francisco is installed in 201-ft., four post materials tower. Capacity: 3,000 lb.

With the spurt in construction of high rise buildings in the West, placing men and materials at increasing heights is becoming more vital. In many instances materials still ride up to a tall job while men walk. To help remedy this situation, Tubular Structures Corporation of America has introduced a passenger elevator under the trade name Mayco and adaptable to all four-post materials towers.

Two-speed operation is controlled from within the cage, with a hydraulic system powered by either gasoline engine or electric motor. No electrical connections to the cage are necessary. The entire power unit is self-contained and easily moved. Other features: "dead man" controls, automatic brake, top and bottom override limit safeties and broken or slack cable safety.

When not being used by passengers, the elevator can be employed as a material hoist operated from cage or winch unit. A contractor can own a Mayco elevator for less than it would usually cost to lease a permanent type for the construction period only, the manufacturer says.




**MY JOB FOLLOWS ME** . . . since I put my home on wheels!

This is the life! *Now* when I change jobs it's easy to change my home's location too. No more scrambling for a place to stay, worrying over how long it'll be before the wife and kids can follow along.

Where else and how else can a man keep his freedom to choose a job he likes, and still know the pleasures of home life? I've got roots, I'm as stable as any land—or job-bound citizen. And after a day sweating over a hot line or moving plenty of earth it's soul-satisfying to have my home close by to unwind in—a hot shower, a big easy chair to sink into, and seconds after I've got my feet propped up on the hassock, the wife's got a cold beer in my hand!

She's happy too, naturally. She's got as modern a kitchen as any we've ever seen, and as pretty decorated a house as she could wish for.

There's plenty of space for the kids (separate bedrooms!) and a living room large enough for partying. And we've saved so much since we've owned our mobile home that we've got a new car, plenty of insurance and a bank account that guarantees the kids a good education.

*Our park neighbors got their information from a local dealer—found him in the yellow pages. We wrote the Mobile Home Division of the Trailer Coach Association. Step inside some mobile homes—our bet is you'll buy one.*

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## Three AGC publications to guide contractors

THE AGC has released three new publications which will be of value to segments of the building industry to contractors in particular. They

- **A Recommended Guide to Bidding Procedure on Engineering Construction,** an up-to-date reference developed by the ASCE-AGC joint operative committee. It promotes the contract method of construction most federal agencies already have established bidding procedures close agreement with those set forth in this guide.
- **A Suggested Guide to Bidding Procedure on Building Construction** which basically established the recommended practices for use in competitive lump sum bidding for private work. It is also applicable on public work where requirements permit.
- **Insurance and Bond Check List** developed for general contractors provide them with a record for each project. The bond portion was organized in cooperation with the Surety Association of America.

Individual copies of these documents may be secured without charge from the AGC at 20th and E Street N.W., Washington 6, D.C.

## *Briefs*

- **James M. Cullen,** 49, building contractor of Merced, Calif., lost his life when a rubber raft capsized, tossing him and his two fishing companions who swam to shore, into the swirling waters of the Merced River. He was in business with his brother, Thomas J. under the firm name of Cullen & Cullen.

- **Samuel Mark Morris,** 82, prime mover in the building of Longview, Wash., died June 30 after a year's illness. Coming to the area in 1922 as general western manager of Long-Bell Lumber Co., he helped to plan and construct the new city proposed by R. A. Long, company chairman.

- **Emil J. Hetlinger,** 72, retired building contractor of Roseville, Calif., died July 5.

- **Willard Woodrow Construction Co.,** one of the country's best-known residential building firms and developers with offices in Los Angeles, Miami and Washington, D.C., has been purchased by H & B American Machine Co., Inc.

- **Solano Builders Exchange** has moved its offices to Sonoma Center, 1020 Sonoma Blvd., Vallejo, Calif.

• **Kaiser Industries Corp.** announces a number of top personnel changes that will in effect turn more of the direct, day-to-day management of four subsidiaries over to four veteran executives. Named president and chief executive officer of their respective companies are J. L. Ashby, Kaiser Steel Corp.; W. A. Marsh, Permanente Cement Co.; D. A. Rhoades, Kaiser Aluminum & Chemical Corp.; and S. A. Girard, Willys Motors, Inc. Each formerly served as vice president and general manager of those organizations.

Henry J. Kaiser Sr., who held the posts of chairman of the board and president of each, now assumes the title of founder-chairman. Edgar F. Kaiser, formerly vice president of Aluminum, Steel and Cement and president of Willys Motors, becomes chairman of the board of each organization. E. E. Trefethen Jr., formerly executive vice president of each company, becomes a vice-chairman of the boards. Henry Kaiser will continue active management of the parent firm, Kaiser Industries Corp., and other major Kaiser companies, as chairman of the board.

• **Johns-Manville Corp.** is utilizing what formerly was considered a useless weed tree to produce insulating board products at its new Klamath Falls, Ore., plant. This is believed to be one of the first major commercial uses of lodgepole pine, so named because the Indians used the trees as poles for their lodges. The plant consists of six general groups of buildings located on about 290 acres and constructed primarily with Johns-Manville building products. Architects were Skidmore, Owings & Merrill; general contractor, George A. Fuller Co. On hand at dedication ceremonies held late in June were a number of government officials, including Oregon governor Mark Hatfield, and company officials, led by A. R. Fisher, chairman and president. W. H. Graham is manager of the new plant.

• **The Tele-Jac Co.** has appointed The Sanderlin Co. of Portland, Seattle and Spokane as distributor of its antenna roof mounts, wall plates and accessories in Oregon, Washington, northern Idaho, Montana, Alaska and British Columbia.

• **Columbia Hardbord Sales Co.,** Seattle, will design flakeboard factories for Powell River Co., Ltd., in British Columbia and Atlantic Hardbord Ltd., in Newfoundland, both based on the manufacturer's Cedawood plant.

• **Gate City Steel, Inc.,** has appointed Ralph A. Templeton as sales representative in the Seattle area and Alaska.

### LIGHTING ENGINEERS PICK SAN FRANCISCO

The annual national technical conference of the Illuminating Engineering Society will be held September 7-11 at the Fairmont and Mark Hopkins hotels in San Francisco. Presiding at the sessions will be George J. Taylor, New York, president of the society and vice president for research and development for Day-Brite Lighting, Inc. Eleven technical sessions on new developments in lighting have been scheduled by the host committee chairmaned by J. S. Walsh of Pacific Gas and Electric Co., San Francisco.

## Design, discipline, dogma

(Cont'd from p. 18)

one hand and the superorder of dogma on the other. Maintaining our equilibrium and undergirding design in all its applications is that body of sensitivities and disciplines of thought and action which distinguish creative effort. I am speaking of discipline in the sense of control, self-determined control, gained by obedience to purpose, to principles and to order; discipline which serves to free the mind by ordering its processes and to accommodate intuition by channeling it into useful pursuits. I am not speaking of blind discipline or frozen discipline which becomes dogma. Nor am I speaking of discipline as a branch of knowledge or academic research. To be sure, the line between discipline and dogma is a narrow one and is drawn most often by each man for his own purpose. Without personal discipline the designer's field is a jungle of combat, where ideas devour each other as whimsy, bias, preconception and prejudgment are the only victors. Just as a free society is possible only as a responsible society, so is freedom of design pursuit possible only with a disciplined mind. I want now to


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identify some of the disciplines which seem to shape our development and over against these to point to the dogma which obstruct creative processes and distort the results. This, oversimplified, is a kind of good man —bad man situation with the good men becoming bad men as discipline proclaimed for narrow and partisan purpose, untested by reality or unwilling to acknowledge change becomes dogma.

1. The discipline of LEARNING and the dogma of the LEARNED. Learning is to the scholar and professional as breathing is to the infant child a natural life-giving, on-going essential process. It is impossible not to learn something in the course of living, but most difficult to learn much except as the process is encouraged by every available means. Nor is it very possible to stop learning, except to die on the vine of life. The dogma of the learned would let us believe that a plateau of knowledge exists upon which we might dwell with full assurance of accomplishment and no compulsion to go further. The body of knowledge expands far more rapidly than our ability to encompass it and today's learned man is too often tomorrow's intellectual fossil.

2. The discipline of EXPERIENCE and the dogma of TRADITION. Each of us brings to every new encounter with knowledge a background of experience, real, direct, describable and consciously or subconsciously the source of our ideas, our values and our judgments. This experience as discipline provides a yardstick by which to measure new knowledge and understand its impact. Thus it serves the creative process. However, this experience as tradition, accepted as dogma, accompanied by bias and loose emotional interpretation of its meaning, no longer serves our process but rather obstructs it and diverts the search for truth.

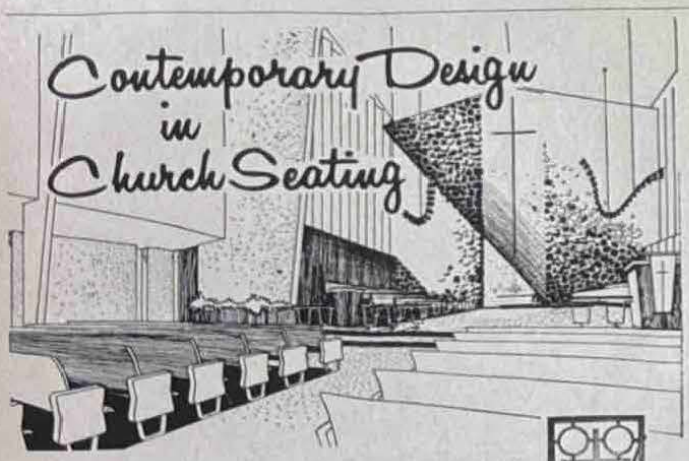
I ask a sophomore student to design a boy scout camp. The first thing which enters his mind is the boy scout camp he first attended at age 13 and the wonderful tradition of Camp Walekulama. His first impulse is to design after the fashion and within the limits of experience at that camp. Thus the creative process—architectural and intellectual—requires us to evaluate the meaning of our experience, yet escape the limitations of it, for Camp Walekulama may have not been designed at all, may have occupied a completely different terrain and may be an utterly inappropriate prototype.

3. The discipline of FORM and the dogma of FORMALISM. Form gives unity and beauty to life and makes it comprehensible to man, but form in itself is not an end. It is those e ments which are formed and the sulting structure which is useful achieve form, we establish syst System corrupted is then elevated a goal in itself becoming the dog of formalism.

4. The discipline of CONTINUI and the dogma of CONFORMITY. is continuity which relates pres to past and to future and event event in the chain of natural progr sion. Continuity allows room for gression and accepts evolution; it do not require the new to keep the fo of the old, but simply to respect old for what it is worth. Conform on the other hand makes no allo ance.

5. The discipline of COMMUNIC TION and the dogma of RECOG TION. The creative individual in field needs a degree of communi tion with his time and place. In useful arts it is especially so. T communication may be that of viol opposition, complete misunderst ing or passionate acclaim. Commu cation becomes the dogma of recog tion when he is so compelled by sire for agreement and acclaim his work shapes itself self-conscious toward those ends.

6. Finally, the discipline of A CEPTABILITY and the dogma SUCCESS. No honest man will c

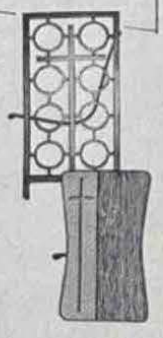




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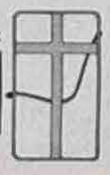


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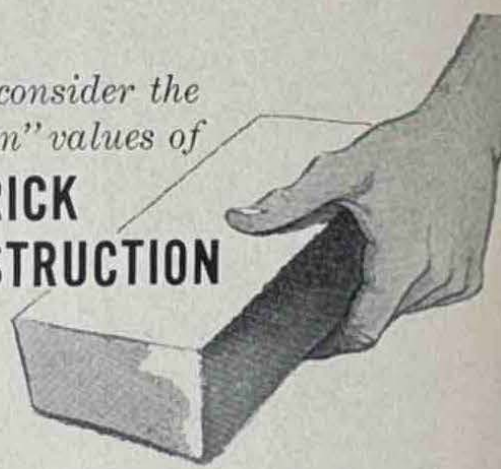
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tend that he does not seek the approbation of his fellows. Acceptability means reward for work done and the prospect of doing more. But the dogma of success subverts integrity to the purposes of the market place and the search for truth to the service of selling.

This of course has been an arbitrary alignment of good-man, bad-man ideas and perhaps needs apology to the words chosen to represent the bad. I have no real quarrel with these words. I have tried to say that good discipline becomes bad dogma only as we let it. Discipline is humble, honest, expansive in its effect, encouraging us to go out on a limb and perhaps to live there. Dogma is arrogant, restrictive, inhibiting in its effect, requiring us to be overly cautious, circumspect, often just average and above all secure.

We may yet justify our architectural world and give inheritance to the generation of our children. Ed Stone has asked us to be the prophets of the 20th century's Great Period of History. There is room for hope that it may be so. There is here the promise of the vigorous idealism of the students who came to enrich this convention; of the steady philosophy of Minoru Yamasaki and of Louis Kahn who do have a "personal theory of design"; of the rich experience of Walter Gropius who at 76 exemplifies a life still devoted to learning, to purpose and to the relentless search for truth. Not even the futility of Philip Johnson, now Mies-less, can dim this promise.

Let us then BE architects of the 20th century; let us BE a profession in the fullest sense of that noble word.

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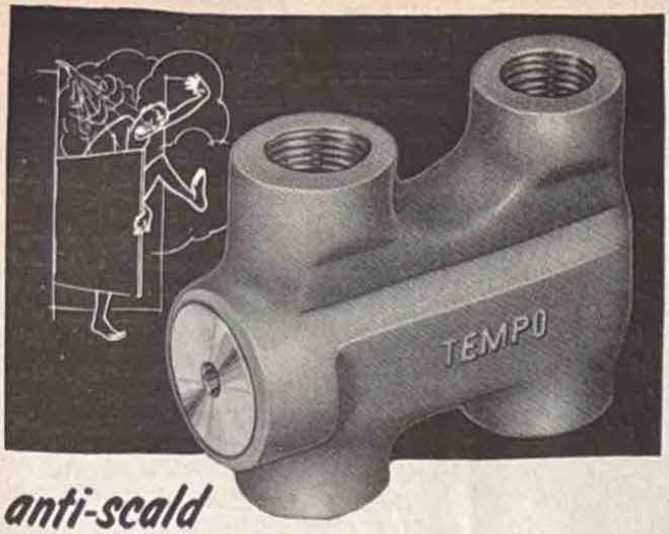
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### on deck at pa&b

Just as the August issue is coming off the press, we are attending one of the more important meetings scheduled this year for the West: the annual convention of the American Institute of Planners, being held for the first time in the Pacific Northwest. We'll report the highlights of the week-long sessions next month. A methods article will describe a playful shade pavilion in southern California; design features will cover a variety of buildings—a house, an elementary school, a chapel and a trucking firm's headquarters.

### who's w(right) in montana?

The article in PA&B for June which referred to the clinic building now under construction in Whitefish, Mont., a Frank Lloyd Wright's "only testimonial to the state" has prompted a reply from Billings architect Eugene Padanyi-Gulyas. He writes, in part:



"When I was a newcomer to Billings 10 years ago, I noticed a residence at 1110 N. 31st St. resembling his early style. After inquiring who built it and when, I was informed by Ernest J. Vogel, vice president of the Billings State Bank, that the owner, Louis Dousman, knew that the residence was originally designed by Frank Lloyd Wright for a member of the Astor family, pioneers in the fur business in Montana and the Rocky Mountain area. According to the story, Mrs. Astor was interested in the arts and she commissioned the—at the time—young and promising architect to design the residence.

"An old admirer of Wright, I wrote a letter to Taliesin in 1950 asking him to approve or disapprove this story. I have never received any answer. I assumed he was too busy and I completely forgot about the matter until the article reminded me and renewed the question: is this his work?

"I enclose a snapshot of the residence. It stands among the neighborhood houses, still in good shape, like a thoroughbred horse among a group of mules."

### design by machine

Trend-happy designers can be replaced—by the electronic computer yet! That was the warning that Henry Dreyfuss gave his British colleagues in London a while back. "Great regional design traditions, like those of Scandinavia and the Orient, suddenly become worldwide fashions," the New Yorker said. "The epidemic rapidly spreads to designers in a dozen countries turning out watered-down Danish furniture, Swedish stainless steel ware, Japanese interiors and Thai fabrics."

Dreyfuss admitted that the American influence shares part of the blame. "What of the fins that are beginning to sprout on European cars; what of the 'wicker' baskets the factories are stamping out of pink plastic"? R.E.K.

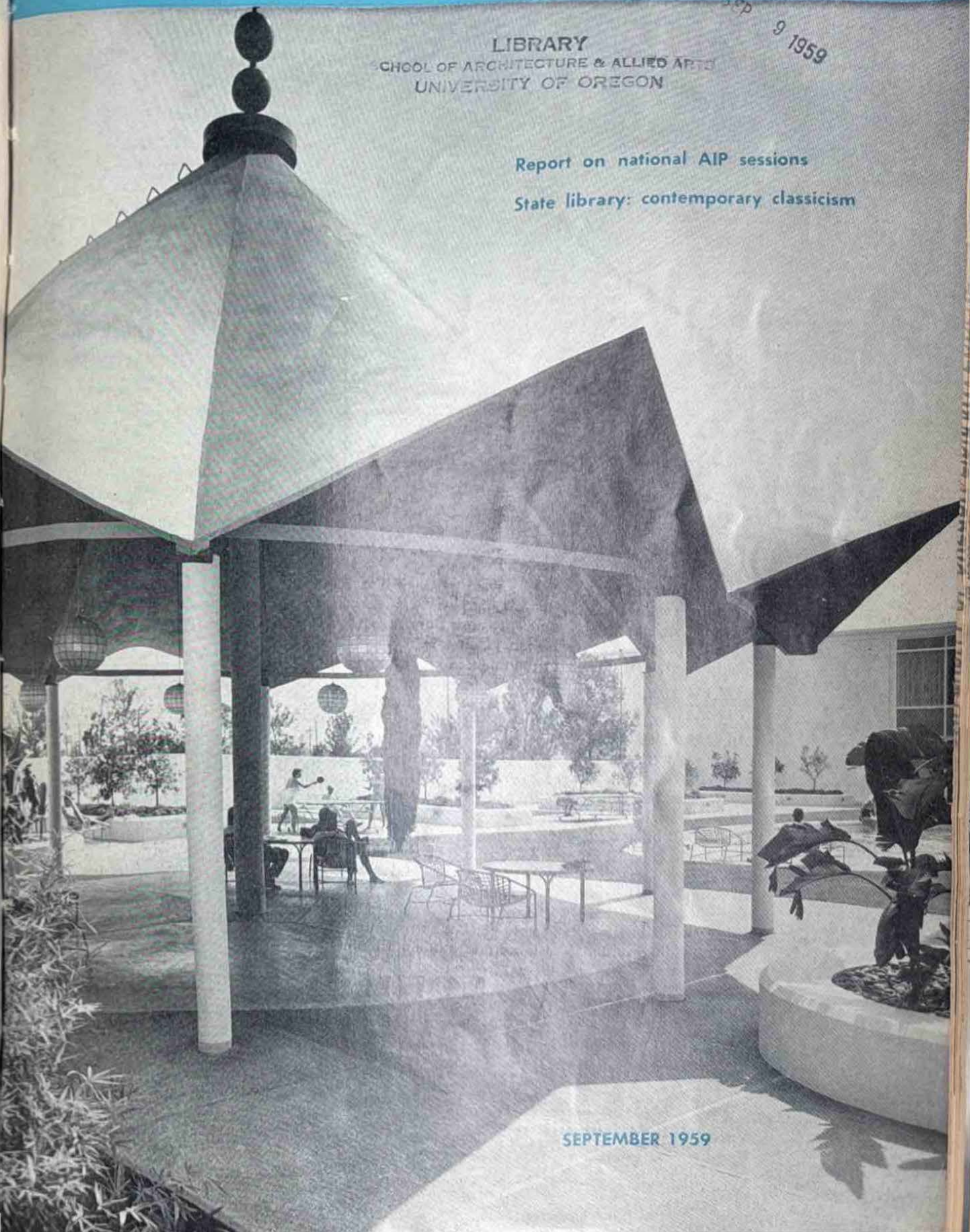
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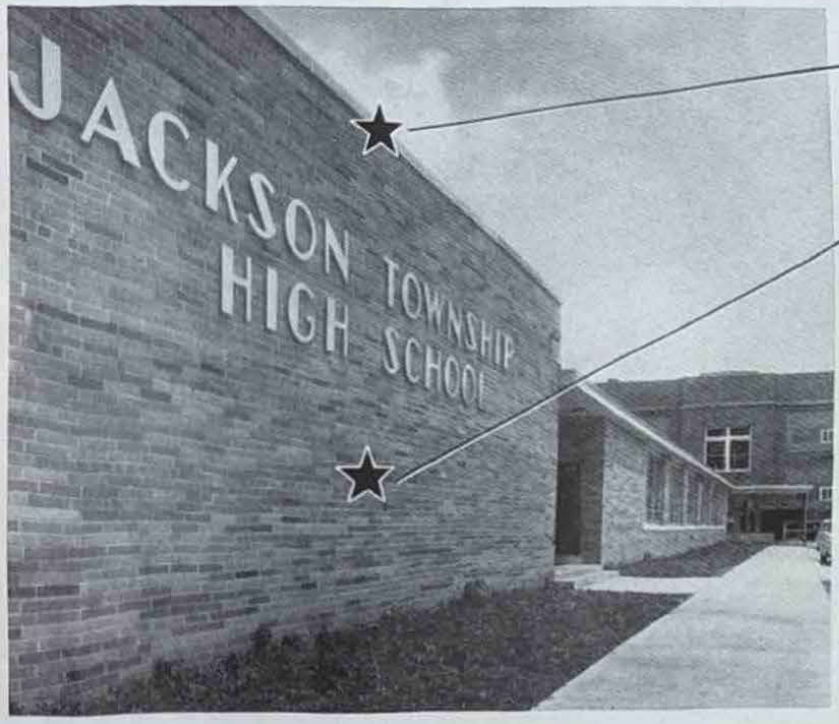
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# pacific architect & builder

september 1959

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26 Bayside Country Club, Eureka, Calif.: Cliff May, Designer; Richard R. Leitch, Associate Architect
27 Robert S. Grant Residence, Santa Barbara, Calif.: Robert S. Grant, Architect
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Full circulation and business data and advertisers' index on page 53

COVER: Stuart Co. Shade Pavilion, Pasadena, Calif. (p. 39); Edward Stone, Architect; Charis photo.




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# July adds $315.8 million to western building

Dollar volume reported by 154 key agencies in the 13 western states for July is $315,897,410, some $2 million below the total for the same period last year. The picture varies widely by states. Increases are recorded in Arizona, up $8.7 million; Washington, $7.5 million; Oregon, $6.8 million; Hawaii, $3.8 million; Montana, $3 million; Idaho, $2.1 million; and Utah $1.7 million. State volumes below 1958 totals are California, down $25.7 million; Colorado, $5.7 million; New Mexico, $2.8 million; Wyoming, $320,000; and Alaska, only $300,000 despite the carpenters' strike.

## Top 15 agencies

Seven of the top 15 agencies for July are in California; two in Washington; two in Arizona; one each in Hawaii, Colorado, Utah and Oregon. They are:

| | July 1959 | July 1958 |
|---|---|---|
| 1. Los Angeles | $48,725,250 | $79,751,578 |
| 2. Los Angeles County | 27,872,202 | 21,821,369 |
| 3. San Diego | 15,673,829 | 14,110,720 |
| 4. King County | 13,719,723 | 6,906,395 |
| 5. Sacramento County | 13,090,169 | 9,492,859 |
| 6. San Jose | 9,455,328 | 7,109,064 |
| 7. Seattle | 8,986,852 | 8,082,459 |
| 8. Honolulu* | 8,867,376 | 5,447,943 |
| 9. Denver | 8,221,005 | 14,180,561 |
| 10. Salt Lake City | 7,630,502 | 2,961,447 |
| 11. San Francisco | 6,741,722 | 5,062,419 |
| 12. San Bernardino County | 6,590,547 | 6,880,542 |
| 13. Phoenix | 6,540,209 | 2,850,111 |
| 14. Tucson | 5,933,184 | 1,750,982 |
| 15. Medford | 5,227,557 | 727,488 |

## July total lower than June

The July tabulation is also below the previous month by $32.7 million. Here the line-up changes slightly. Oregon, Idaho, Utah, Arizona, Montana, Alaska and Colorado all show increases over June. California, Wyoming, Washington, New Mexico and Hawaii drop in varying degrees from $1 million to $32.5 million.

Despite the lower July figures, many major city and county permit agencies expect to finish the year well ahead of 1958. A spot check of January through July figures shows Sacramento County running $34.6 million ahead at the end of the first seven months; King County, $28.2 million; Los Angeles County, $24.1 million; Orange County, $19.3 million; Honolulu, $8.9 million; Los Angeles, $4.1 million; and Denver, $1 million.

## Analysis of selected areas—July

| | Dwelling | Commercial & Industrial | Public |
|---|---|---|---|
| King County | $11,391,017 | $ 229,001 | $1,871,800 |
| Seattle | 4,252,796 | 1,636,486 | 2,840,000 |
| Tacoma | 902,440 | 249,515 | 22,000 |
| Los Angeles County | 17,822,932 | 6,348,675 | 2,533,942 |
| Orange County | 3,574,061 | 349,035 | 869,500 |
| Sacramento County | 9,248,832 | 1,332,223 | 2,245,274 |
| Honolulu | 5,666,197 | 1,776,055 | 1,296,009 |

*The Honolulu Building Department has jurisdiction over both the city and the county, covering all districts and towns on the island of Oahu.

# Building Permit Totals for 154 Western Agencies for July

| CALIFORNIA | July 1959 | July 1958 |
|---|---|---|
| Alameda County | $ 1,264,725 | $ 1,226,550 |
| Anaheim | 2,859,627 | 3,235,969 |
| Bakersfield | 772,838 | 1,458,269 |
| Burbank | 1,354,160 | 1,339,978 |
| Contra Costa County | 3,874,956 | 3,085,283 |
| Fresno | 3,934,598 | 1,482,342 |
| Fullerton | 2,658,383 | 1,411,073 |
| Glendale | 1,990,675 | 1,959,932 |
| Inglewood | 903,357 | 547,023 |
| Long Beach | 4,524,275 | 19,582,505 |
| Los Angeles | 48,725,250 | 79,751,578 |
| Los Angeles County | 27,872,202 | 21,821,369 |
| Oakland | 4,473,584 | 3,243,483 |
| Ontario | 309,562 | 356,612 |
| Orange County | 5,055,855 | 4,458,228 |
| Palo Alto | 2,843,998 | 1,503,434 |
| Pasadena | 1,097,506 | 1,325,864 |
| Pomona | 1,059,452 | 919,322 |
| Richmond | 971,521 | 799,653 |
| Riverside | 2,171,341 | 1,591,701 |
| Sacramento | 4,657,716 | 2,615,331 |
| Sacramento County | 13,090,169 | 9,492,859 |
| San Bernardino | 1,404,243 | 2,102,589 |
| San Bernardino County | 6,590,547 | 6,880,542 |
| San Diego | 15,673,829 | 14,110,720 |
| San Diego County | 8,627,100 | 5,561,600 |
| San Francisco | 6,741,722 | 5,062,419 |
| San Jose | 9,455,328 | 7,109,064 |
| San Mateo | 1,670,836 | 1,109,444 |
| San Mateo County | 1,145,851 | 2,066,814 |
| Santa Ana | 4,048,203 | 3,701,311 |
| Santa Monica | 1,127,952 | 1,916,585 |
| Stockton | 852,527 | 871,918 |
| Sunnyvale | 1,963,838 | 1,206,851 |
| Torrance | 2,796,990 | 1,864,466 |
| West Covina | 2,245,861 | 811,846 |
| TOTAL | $191,854,722 | $217,584,457 |

| OREGON | July 1959 | July 1958 |
|---|---|---|
| Albany | $ 342,318 | $ 214,050 |
| Astoria | 43,105 | 65,272 |
| Baker | 374,200 | 79,000 |
| Bend | 83,918 | 151,200 |
| Coos Bay | 104,724 | 116,505 |
| Corvallis | 1,268,548 | 319,530 |
| Eugene | 648,515 | 636,960 |
| Grants Pass | 116,700 | 115,550 |
| Gresham | 136,700 | 59,250 |
| Hillsboro | 434,196 | 70,217 |
| Klamath Falls | 429,200 | 199,949 |
| La Grande | 27,660 | 171,960 |
| Lane County | 1,214,565 | 829,732 |
| Medford | 5,277,557 | 727,488 |
| Multnomah County | 3,189,266 | 3,393,446 |
| North Bend | 98,669 | 64,226 |
| Oregon City | 81,950 | 9,680 |
| Portland | 4,707,510 | 4,186,225 |
| Roseburg | 102,660 | 50,165 |
| Salem | 453,569 | 734,550 |
| Springfield | 37,723 | 136,000 |
| The Dalles | 59,100 | 90,595 |
| TOTAL | $ 19,292,353 | $ 12,421,340 |

| WASHINGTON | July 1959 | July 1958 |
|---|---|---|
| Aberdeen | $ 92,250 | $ 1,240,497 |
| Anacortes | 52,830 | 56,139 |
| Auburn | 183,970 | 54,800 |
| Bellingham | 210,543 | 159,268 |
| Bremerton | 200,770 | 120,180 |
| Centralia | 47,584 | 112,837 |
| Chehalis | 289,401 | 43,796 |
| Ellensburg | 39,901 | 109,195 |
| Ephrata | 18,121 | 4,856 |
| Everett | 377,830 | 467,713 |
| Kelso | 160,200 | 60,200 |
| Kennewick | 191,725 | 65,370 |
| King County | 13,719,723 | 6,906,395 |
| Kirkland | 228,725 | 176 |
| Longview | 405,458 | 281,539 |
| Moses Lake | 73,286 | 209,653 |
| Olympia | 321,167 | 240,741 |
| Pasco | 315,220 | 204,365 |
| Pierce County | 2,385,685 | 2,216,980 |
| Port Angeles | 77,175 | 25,100 |
| Puyallup | 135,850 | 400,475 |
| Seattle | 8,986,852 | 8,082,459 |
| Spokane | 1,035,973 | 1,280,645 |
| Spokane County | 2,152,582 | 1,915,836 |
| Tacoma | 1,529,852 | 1,266,099 |
| Vancouver | 771,759 | 529,831 |
| Walla Walla | 124,315 | 231,009 |
| Wenatchee | 86,295 | 217,498 |
| Yakima | 270,040 | 402,876 |
| TOTAL | $ 34,487,082 | $ 26,906,528 |

| ALASKA | July 1959 | July 1958 |
|---|---|---|
| Anchorage | $ 2,023,564 | $ 2,977,948 |
| Fairbanks | 806,503 | 343,494 |
| Juneau | 202,250 | 8,200 |
| Ketchikan | 1,850 | 5,900 |
| TOTAL | $ 3,034,167 | $ 3,335,542 |

| IDAHO | July 1959 | July 1958 |
|---|---|---|
| Boise | $ 2,548,624 | $ 493,806 |
| Caldwell | 165,490 | 232,325 |
| Coeur d'Alene | 101,065 | 56,850 |
| Idaho Falls | 969,897 | 870,955 |
| Jerome | 43,050 | 5,050 |
| Lewiston | 113,500 | 347,878 |
| Nampa | 219,745 | 132,675 |
| Payette | 28,710 | 70,450 |
| Pocatello | 411,337 | 257,080 |
| Sandpoint | 52,600 | 10,575 |
| St. Maries | 7,500 | 3,000 |
| Twin Falls | 111,400 | 175,120 |
| TOTAL | $ 4,772,918 | $ 2,655,764 |

| MONTANA | July 1959 | July 1958 |
|---|---|---|
| Billings | $ 783,600 | $ 773,550 |
| Bozeman | 200,235 | 262,135 |
| Butte | 230,100 | 305,375 |
| Glasgow | 52,825 | 4,500 |
| Glendive | 60,200 | 20,800 |
| Great Falls | 3,258,007 | 865,129 |
| Helena | 575,290 | 282,360 |
| Kalispell | 62,350 | 144,600 |
| Lewistown | 144,753 | 24,800 |
| Livingston | 43,375 | 6,475 |
| Miles City | 103,660 | 67,565 |
| Missoula | 397,369 | 77,040 |
| TOTAL | $ 5,911,766 | $ 2,834,329 |

| WYOMING | July 1959 | July 1958 |
|---|---|---|
| Casper | $ 322,979 | $ 698,478 |
| Cheyenne | 669,747 | 541,069 |
| Sheridan | 27,427 | 131,890 |
| TOTAL | $ 1,050,153 | $ 1,371,437 |

| COLORADO | July 1959 | July 1958 |
|---|---|---|
| Aurora | $ 662,949 | $ 1,679,321 |
| Boulder | 893,610 | 784,763 |
| Denver | 8,221,005 | 14,180,561 |
| Englewood | 584,348 | 148,915 |
| Fort Collins | 536,851 | 771,432 |
| Grand Junction | 159,245 | 349,610 |
| Greeley | 775,319 | 431,194 |
| Pueblo | 1,641,116 | 967,828 |
| Trinidad | 54,780 | 15,797 |
| TOTAL | $ 13,529,823 | $ 19,329,421 |

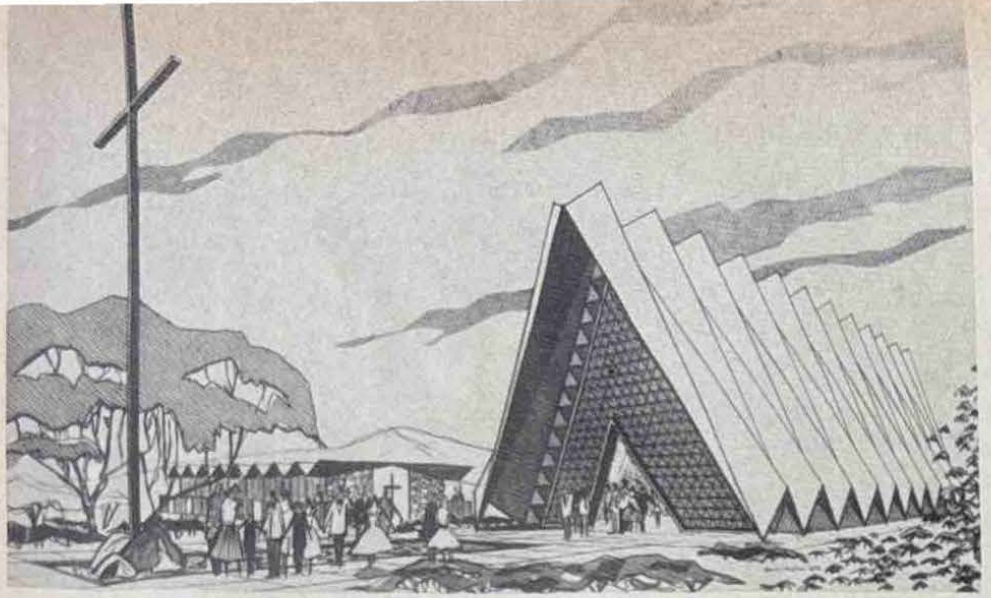
| UTAH | July 1959 | July 1958 |
|---|---|---|
| Logan | $ 154,550 | $ 132,950 |
| Murray | 245,950 | 638,590 |
| Ogden | 749,900 | 1,384,200 |
| Provo | 178,100 | 1,423,480 |
| Salt Lake City | 7,630,502 | 2,961,447 |
| TOTAL | $ 8,959,002 | $ 7,160,667 |

| NEVADA | July 1959 | July 1958 |
|---|---|---|
| Elko | $ 105,440 | $ 55,111 |
| Las Vegas | 1,500,850 | 1,137,420 |
| Reno | 782,174 | 2,279,157 |
| Sparks | 635,444 | 460,623 |
| TOTAL | $ 3,023,908 | $ 3,932,311 |

| ARIZONA | July 1959 | July 1958 |
|---|---|---|
| Douglas | $ 50,776 | $ 174,400 |
| Flagstaff | 1,123,258 | 432,057 |
| Glendale | 265,150 | 85,385 |
| Mesa | 745,908 | 588,378 |
| Phoenix | 6,540,209 | 2,850,111 |
| Tucson | 5,933,184 | 1,750,982 |
| Yuma | 176,319 | 158,850 |
| TOTAL | $ 14,784,028 | $ 6,040,163 |

| NEW MEXICO | July 1959 | July 1958 |
|---|---|---|
| Albuquerque | $ 3,461,574 | $ 5,476,549 |
| Carlsbad | 142,262 | 72,750 |
| Clovis | 263,159 | 233,412 |
| Gallup | 197,754 | 341,195 |
| Hobbs | 167,990 | 537,845 |
| Las Cruces | 620,000 | 1,424,000 |
| Roswell | 381,475 | |
| Santa Fe | 231,117 | 277,642 |
| TOTAL | $ 5,465,331 | $ 8,363,393 |

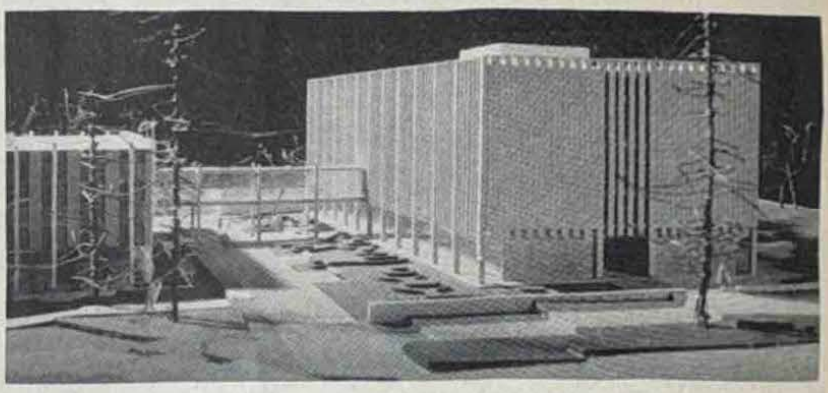
| HAWAII | July 1959 | July 1958 |
|---|---|---|
| Hawaii County | $ 487,972 | $ 402,237 |
| Honolulu (city-county) | 8,867,376 | 5,447,943 |
| Maui County | 378,659 | 63,039 |
| TOTAL | $ 9,734,007 | $ 5,913,219 |
| GRAND TOTAL | $315,899,260 | $317,848,871 |



**HAWAIIAN BAPTIST CHURCH**

now being built at Kailua will be precast concrete structure, its end screen walls of triangular concrete blocks individually glazed with cathedral glass. Tapering folds of side walls not only have spiritual symbolism but suggest form of deeply eroded cliffs of windward Oahu. Baptisms will be performed at base of cross in reflecting pool. Architects: Wimberly & Cook and George V. Whisenand, associate.

## PROJECT PREVIEW



**BUSINESS ADMINISTRATION BUILDING'S**

second unit on University of Washington campus in Seattle will connect to first via covered walkway at second floor level. Of concrete frame construction, four-story unit will have exterior of cast stone, ceramic tile and aluminum sash. It will contain 33 classrooms, library, study and seminar rooms and office areas for teaching assistants. Architects: Decker & Christenson and Paul Hayden Kirk.



**MAJOR RESEARCH CENTER**

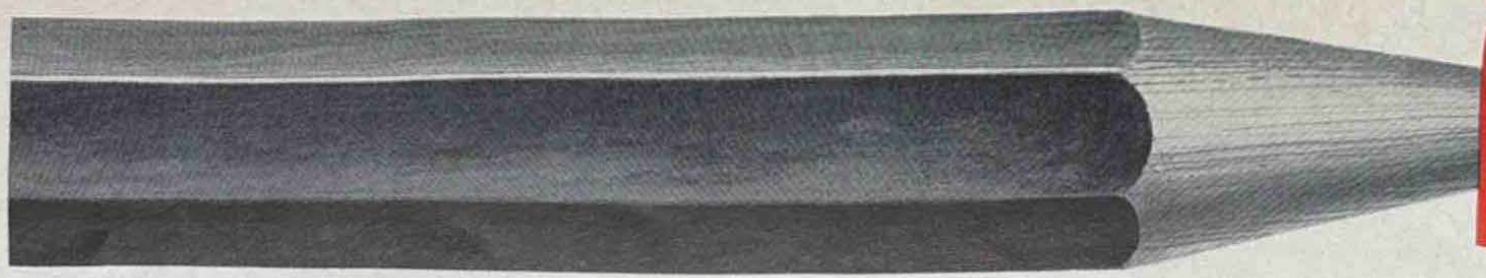
for Magnavox Co. will get underway this fall in Torrance, Calif., with $1.5 million building. Plans call for facility at least four times size of initial structure at cost exceeding $5 million on 10-acre site. Employing 50-ft. module, structural steel frame project is designed to resist seismic forces without reliance on typical shear walls which would inhibit proposed expansion. Exterior walls will consist of both removable, insulated steel panels coated with porcelain enamel and tilt-up concrete. Architects: Risley & Gould.

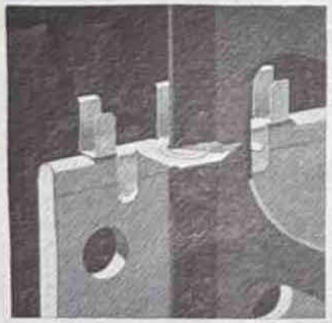


**100-BED ADDITION**

scheduled to start early in 1960 as second phase of Valley Presbyterian Hospital in Van Nuys, Calif., will be four-story circular section shown in center. Present three-story unit is at left (PA&B for April '58) and matching unit to be built later at right. Besides expanding bed capacity, new $1.8 million project will add such facilities as two more surgeries, recovering and labor rooms, nursery, etc. Architects: Charles Luckman Associates.

# Two FIRE and SOUND Resistant Partition Systems





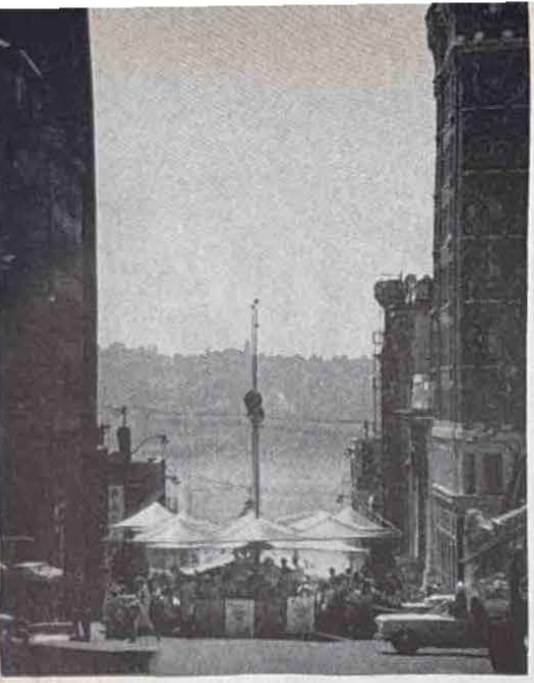
Kaiser offers Western architects two proven interior partition systems (wallboard or lath and plaster) to meet any job requirement. Both feature incombustible framing and Kaiser Spee-Dee Clips. The lath and plaster system has a one hour fire rating, the laminated wallboard system, 1 or 2 hour fire ratings.



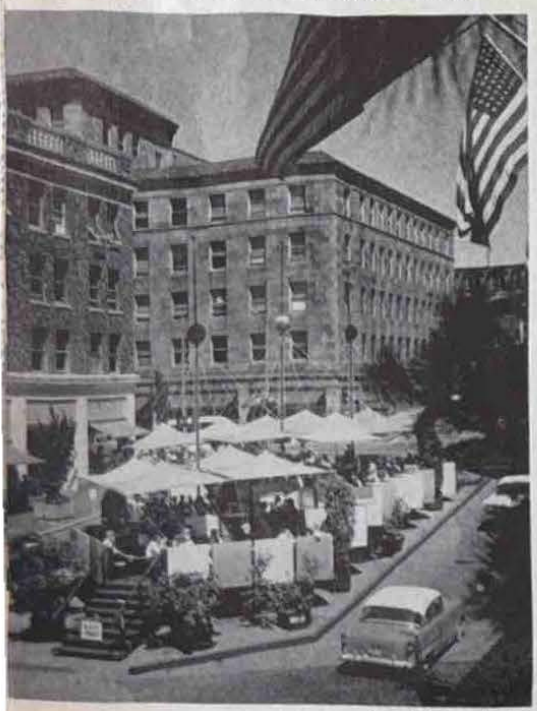
Average sound transmission performance: Plaster system (Spee-Dee Clip), 44 decibels; Wallboard (Perma Wall), 45 decibels. Call your nearest Kaiser Gypsum office for information and technical bulletins.

KAISER GYPSUM

**KAISER GYPSUM COMPANY, INC.** Kaiser Building–1924 Broadway, Oakland, California



**PLAZA CAFE** on University Street between Fourth and Fifth avenues in downtown Seattle faces drive-in entrance of Olympic Hotel, where planners headquartered during national convention. Patrons dine under multicolored canvas awnings from 10 a.m. to 6 p.m. daily. Co-sponsored by several restaurateurs, cafe has proved so successful in its first-season run that it may become permanent addition. Architects: Jones, Lovegren, Helms & Jones.



Art Hupy photos



**TREE PLANTINGS** on Third, Fourth and Fifth avenues are another indication of Seattle's attempt to beautify and revitalize its downtown. A private citizen raised $10,000 for project, while City Council matched gift with $30,000 for installation.

# AIP looks at human side of planning

The more than 600 registrants who attended the first annual convention of the American Institute of Planners ever to be held in the Pacific Northwest covered a lot of ground during the latter part of July.

They heard several major addresses and participated in spirited panel sessions and workshops for three days, one of which was shared with local architects to discuss Seattle in particular and downtown planning in general; they presented Distinguished Service Awards to Gordon S. Whitnall, Los Angeles planning consultant, and to Robert B. Mitchell, professor of city planning at the University of Pennsylvania; and they expressed regret over President Eisenhower's veto of the housing bill.

An unusually large number of planners had brought their entire family and stayed on for two additional days of organized events which exploited the scenic and recreational attractions of Puget Sound.

If there was a unifying theme to the convention, it was the human approach to planning, a point emphasized by the keynoter, the Rt. Rev. Stephen F. Bayne Jr., bishop of the Episcopal Diocese of Olympia. He told the planners that they cannot accomplish their goals by selling; instead they are faced with the task of educating so that the public really wants a better way of life.

Charles A. Blessing, AIP president and director of planning in Detroit, said that "planners should not only be technicians, not only the artists and scientists of planning, but the urban humanists as well. We cannot find the image of the urban humanist on the drafting board or in the slide rule or in the computer, important as these tools are. We must seek him as the whole man, the planner turned philosopher—and humanist."

### Downtown planning: six myths

Philip Hammer of Atlanta, whose luncheon remarks highlighted the "Seattle Day" phase of the convention, declared that America's major cities are suffering from "heart trouble" because too few people realize that the heart is worth saving. In his talk, "Up Ahead for Downtown," he listed six myths concerning revitalization:

1. **Basically, downtown districts are all alike.**
2. **Downtown redevelopment is so costly that it can be undertaken in only a few of the cities.**
3. **There are easy, pat solutions to every downtown problem (i.e., use of the pedestrian mall).**
4. **Outlying areas are correcting the problems of downtown.**
5. **Motorists can be persuaded to do what is in the public interest.**
6. **Transit systems can work effectively without subsidy.**

While Hammer, who heads a planning firm, warned against generalizations, he mentioned three principles which must be employed if any downtown plan is to work — motivation must come from groups who have a critical self-interest; major improvements must be made in terms of concrete and specific projects (He advocated a total approach for planners but not for practitioners.); no program can materialize without maximum participation of both government and private interests.

### Area planning: the Columbia

"The method and process of planning for a great region like the Columbia Valley is not so different from those used in city and metropolitan planning," explained panel moderator Charles W. Eliot of Harvard University. "It is the differences in subject matter, in emphasis and in scale which distinguishes what we might call area planning from urban planning.

"The subject matter in both urban and area planning is the use of resources for the greatest good of the greatest number. In urban planning we are chiefly concerned with man-made resources of housing, factories and business buildings; with transportation and community facilities; with urban land uses. In regional or area planning we are still concerned with those same resources, but in a larger context where natural resources and forces take on much greater significance."

The professor continued: "The emphasis in regional planning is working with nature for the conservation, wise use and development of resources. We are as much concerned with forest practices, reclamation and irrigation policies, agriculture, fisheries and mining as we are with transportation facilities, power lines, ports, factories and housing.

"The scale shifts from hundreds of



1



2



3



4



5

**AT AIP SESSIONS:** 1. Paul Seibert, executive vice president, Central Association of Seattle, with downtown plan. 2. Panelists Henry Moore, City Planning Commission, Cincinnati, and Sydney Williams, Pacific Planning and Research-Ebasco, Palo Alto, Calif. 3. Moderator Talbot Wegg, urban renewal director, Seattle. 4. Panelist Garrett Eckbo, landscape architect, South Pasadena, Calif. 5. Just for fun, a kibitzer.

square miles to thousands of square miles. In regional planning we are involved in the coordination of plans and programs of states and nations instead of struggling to relate plans of multitudinous municipalities in a metropolitan area.

"In both urban and area planning we are seeking to establish objectives and to formulate plans and programs for comprehensive, integrated development of resources. We plan in both cases for the area or function with which we are concerned in the larger context of which our problem is only a part.

"Water planning of a valley region like the Columbia means multipurpose planning for the whole drainage basin and all its sub-basins—whether it lies in one or five states or within one or more national boundaries. You cannot plan for the main stem of the Columbia and omit the Snake, or plan for just the Willamette because it lies all in one state."

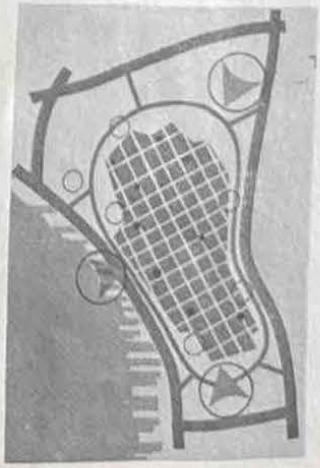
## Seattle's vision: a cooperative venture to plan future for downtown

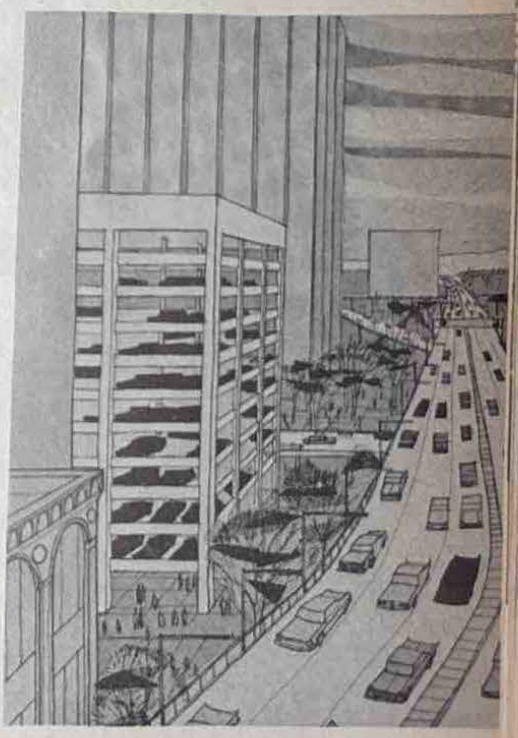
When the nation's planners convened in Seattle in July, they spent a considerable amount of time learning about—and discussing the merits of—a comprehensive plan for downtown. Target date for completion: next winter. The project is co-sponsored by the Central Association of Seattle and the city, headed by planning director John Spaeth.

The preliminary report, eight months in preparation, gives major emphasis to improved central area transportation. A "ring road" freeway completely circling downtown Seattle would provide unrestricted access to any point in that district. Multistory parking facilities between the freeway and the core area would be encouraged and the plan anticipates a rapid mass transit system operating on unrestricted rights-of-way, carrying commuters between the central area and suburban communities. Other points:

- **Help for pedestrians.** Proposes that certain streets be converted to walking malls as has already been urged for Westlake Avenue. In other cases, elevated pedestrian-ways would be provided.
- **Importance of compactness.** Permits short walking distances between various downtown activities, encourages the development of centralized transportation facilities and will speed the day when rapid transit can be financed for the Seattle metropolitan area.
- **Coordinated transportation.** Recommends a regional system of routes —highways, transit, ferries, etc.— converging on the central area.
- **More parking.** Calls for a limitation of parking within the areas of high pedestrian concentration downtown. Great bulk of needs would be met with parking garages immediately adjacent to the retail and office building cores; all-day parking would be located on the outer edge of the business district.
- **Peripheral development.** Stresses need for improved transportation between the apartment and institutional areas and downtown and urges that better waterfront use be fully explored in cooperation with the Port of Seattle, Washington State Ferry System and private interests.
- **Urban Renewal.** Seeks return of blighted commercial areas on the fringe of the central district to full economic use through available techniques.
- **"Personality" for downtown.** Envisions creation of small parks, landscaped areas, pedestrian malls and public plazas to provide points of interest and areas for downtown relaxation and to develop "a personality for downtown Seattle which would reflect the growing culture and maturity of the Northwest."

**DOWNTOWN PLAN** calls for "ring road" freeway completely circling central area. Large dots with triangles indicate consolidated transportation terminals; smaller circles and dots, multistory parking facilities to be located between freeway and major buildings (sketch at right). Freeway traffic would move on ramps into business district. Delineation: Young, Richardson & Carleton, architects-engineers.





# Central Valley AIA sponso



Phil Fein

**MANSION INN,** Sacramento: Dreyfuss & Blackford, architects; Robert B. Deering, landscape architect; Raymond C. Corum, contractor.

*"An unusual concept in motor hotel design—a category in which good design is sorely needed. Appropriately clustering sleeping units around a central garden court away from noisy thoroughfares and motors, including those of customers themselves. Simplicity of its plan and superb detailing results in great beauty and repose and presumably reflects great economy, low maintenance and added profits to the owners."*—Jury comment.

In its first annual Honor Awards program, the Central Valley Chapter, American Institute of Architects, cited eight buildings, presenting one Honor Award (left), four Awards of Merit (below) and three Interest Citations (across page). Architects and owners were recognized at a dinner in Sacramento July 31. The jury, all Bay area architects, consisted of chairman Worley Wong (the evening's principal speaker), Nathaniel A. Owings and William W. Wurster, dean of the College of Architecture, University of California. Excerpts from their general report follow:

"After the first viewing, the jury was deeply impressed with the extremely high quality of design of all the projects—a premiation of 25% of the entries is evidence of this high standard. The jury was delighted and stimulated by many fresh ideas.

"There were surprisingly few houses submitted, leading us to wonder if the architects were shy or if the rumor was true that good contemporary houses were not being well received in this region and if so, also to wonder why?

"The jurors admired the simplicity of many of the projects and secretly delighted themselves to find a dearth of grills and butterfly screens. There was one folded roof but it was appropriately used and well conceived and received our blessings. It is not that grills and folded roofs are ill regarded but only that they could not possibly be the sole answers to all varieties of problems.

"School projects showed the architects' respect for

Mel Gagnon



**JOHN JACOBS RESIDENCE,** Marysville, Calif.: Robert S. Oliver & Associates, architects; Litwin & Lee Construction Co., contractor.

Sirlin Studios



**HIGHLANDS HIGH SCHOOL,** Sacramento: Starks, Jozens & Nacht, architects; Erickson Construction Co. and Campbell Construction Co., contractors.

Phil Fein



**VOGEL CHEVROLET CO.,** Sacramento: Dreyfuss & Blackford, architects; Guth & Schmidt, contractors.



**STARR KING ELEMENTARY SCHOOL,** Carmichael, Calif.: Dreyfuss & Blackford, architects; Campbell Construction Co., contractor.

children's capabilities of emotional reactions. This is evidenced by the thoughtful planning for spatial qualities and vistas, both horizontal and overhead, good scale and great success in coping with the deadly monotony of the module.

"It may be fair to mention that several projects attracted the jury's eye by parts of its whole, by its concept, its plan or site plans, but were not able to reach the jury's collective heart. These were given a special Interest Citation for a 'good try.'

"One might sum up this jury's feelings for this day of judgment: that it set up no collective prejudgment criteria, but each member individually searched for and applauded simplicity and appropriateness of plan, structure and form."

In his own personal remarks, Wong declared that "these times of search for new expression and forms are exciting ones in architecture today. A multitude of textures, undulating plastic lines and multifaced forms are emerging into the American scene—many times in great sense and beauty, but many more times overexploited under the guise of providing man with richness through visual stimulation when it really is creating embellished chaos.

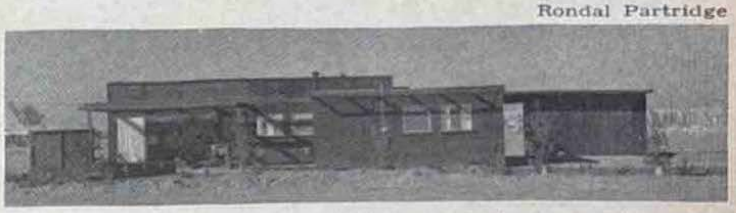
"This idea of visual delight," Wong continued, "is sometimes attributed to Far East concepts. If so, in these cases, seemingly lost are the accompanying lessons of restraint and appropriateness, of truth and simplicity. Certainly to be new, to be different, to be original, to be spectacular is not necessarily the criteria of good architecture."

Sirlin Studios



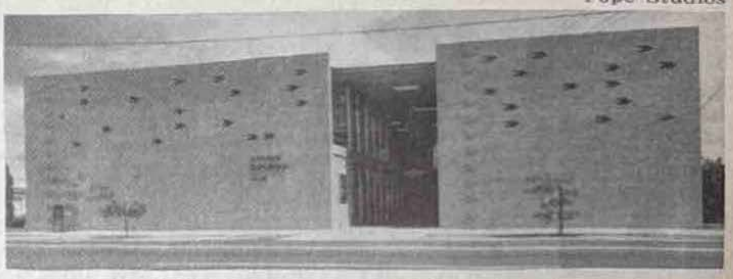
**ORANGEVALE ELEMENTARY SCHOOL,** Northridge, Calif.: Barovetto & Thomas, architects.

Rondal Partridge



**PACIFICA HOUSE,** Sacramento: Herbert E. Goodpastor, architect.

Pope Studios



**STRAINE BUILDING,** Sacramento: Grant Caywood, architect.


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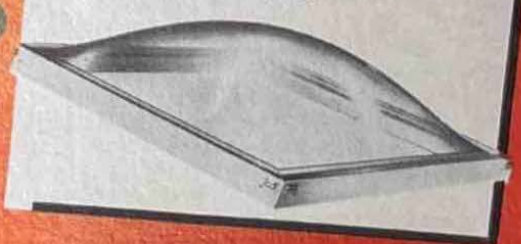
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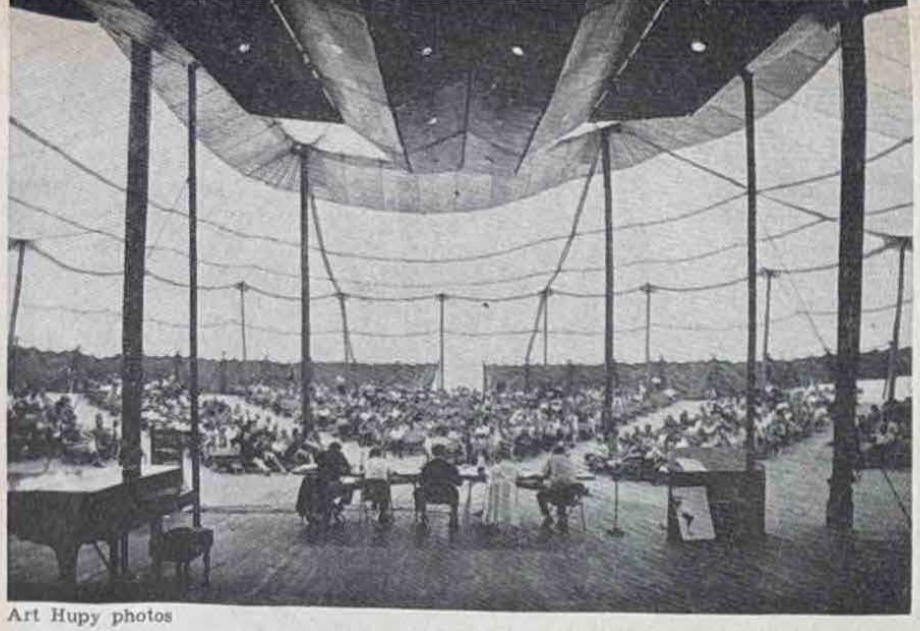
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Art Hupy photos



**FILM CYCLE MODERATOR** Saul Bass, Los Angeles designer, best known to public for his work in motion picture industry, notably epilogue for "Around the World in Eighty Days" and his designs for "Man with the Golden Arm."

# Under the big bright tent at Aspen

The ninth annual edition of the always stimulating International Design Conference drew more delegates than ever before—500 plus—to the tent on Aspen's meadows where they probed the theme, "Communication: the Image Speaks." The June 21-26 program in the Colorado mountain valley was organized into the traditional three cycles, each consisting of one general session and seminar meetings. (Panelists write short essays on the cycle subject which are distributed in advance.)

Of particular interest this year was the comprehensive study and evaluation of the film, preceded by a cycle which related generally to the historical and intellectual background of communication and another which concentrated on the ramifications of printed communication today, primarily as it affects and is affected by design and designers.

Amplifying the day-long cycle on the film was the nightly program of examples—65 in all—covering every aspect and approach to the art: documentary, abstract, drama, comedy and experimental. In the words of Chicago designer Morton Goldsholl, 1959 chairman, the conference "was actually tantamount to a film festival."

As for the speakers themselves, it was the presence of keynoter Bruce MacKenzie, editor of the IBM Journal of Research and Development, that elicited a special response, not only from the audience but from the other panelists as well. Drawing upon his close relationship to and personification of the machine, he said:

"The Industrial Revolution with its accompanying drastic social and economic upheaval has, without doubt, introduced far more human problems than it has solved. Businessmen, scientists, philosophers, artists and educators all grossly underestimated the impact of the machine on man. Until much too late they ignored the obvious menace of smog-filled skies, antlike manufacturing colonies and the gaunt apathy of man subordinated to the machine."

Exploring the question, where does the designer stand today, MacKenzie declared: "An age of the Specialized Specialist is upon us and the generalist, the philosopher, the artist and the designer should take heed. It may be that the one century from 1860 to 1960 will be the only period in history when the designer existed as a unique, professional entity.

"He is floating in fantastically accelerated currents of scientific and intellectual activity. He can never for a moment shut his mind to the revolutionary and constantly exploding results of research into the inner and outer universes."

The role of the designer should be and will be much more vital in all spheres of human activity, MacKenzie continued. "I see him in the future as a bridge firmly anchored on one side in art, aesthetics, philosophy and the humanities and on the other equally attached to the even more powerful tools, physical and intellectual, that science and technology are devising. Travelers from each of the areas should find their way to these and other activities eased by the designer, whether he designs films or textbooks, computers or can openers, buildings or boats. Man and the machine, man and his other creations, man and man will all speak in more and more complex, divergent, specialized terms, even in new languages. The old, the unchanging truths will often seem new or false without the creative intervention of those who are routed in aesthetics but able to perceive ideas through their constantly changing forms. The designer of the future will contribute to man's growth and joy in exact proportion to his own curiosity about and interest in the frontiers of knowledge.



**PANELISTS** Lancelot Law Whyte, British scientist, author and philosopher of science, now on traveling fellowship at Harvard University, and James Real, Pasadena, Calif., designer and currently consultant to Fund for the Republic.

"The new fact, the fresh data and experiments are left floating in the wind to fall by chance on fertile ground. Here represents perhaps the greatest challenge of all to the designer: the design of all forms of information generation, transmission, storage and retrieval.

"It is of crucial importance that the designer retain his identity as a generalist with specific interpretive and intuitive artistic talents, but it is also essential that he become closely associated and familiar with the specific fields for which he wishes to design. In science and industry this means a real apprenticeship in the specific disciplines as well as a familiarity with the basic products of this area."

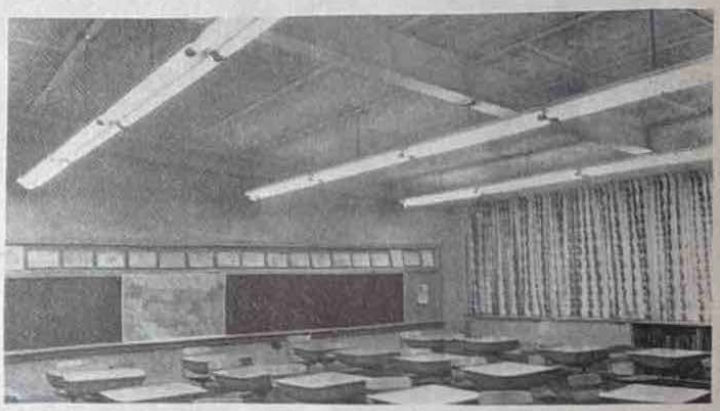



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Ward Lindbeck

# Maybeck's venerable Palace and a $2 million gift

The Palace of Fine Arts in San Francisco's Marina section long has been a hotly debated issue among Bay area citizens and architects in particular. Many have felt that the classic structure should be torn down and replaced by a contemporary building; others have felt as strongly that the Palace should be left alone to crumble slowly away; and still others have thought about and fought for the idea of rehabilitation. These discussions now are only academic.

In 1957 the California state legislature passed the Weinberger Bill which appropriated $2 million of available state park funds so that the Palace of Fine Arts "shall be repaired and rehabilitated as close to its original form as possible."

Proponents of restoration had an uneasy time earlier this year when a $3.6 million bond issue failed to pass, just a few votes shy of the necessary two-thirds majority. And in the Weinberger Bill there was a provision setting September 1959 as the deadline for the city to match state funds.

But late in May multimillionaire Walter S. Johnson said that if no one else would save the plaster monument, he would and donated $2 million to cover San Francisco's share in the project. Now the only thing remaining to be done before reconstruction begins are some negotiations with the state to determine how its funds shall be put into action—and some engineering.

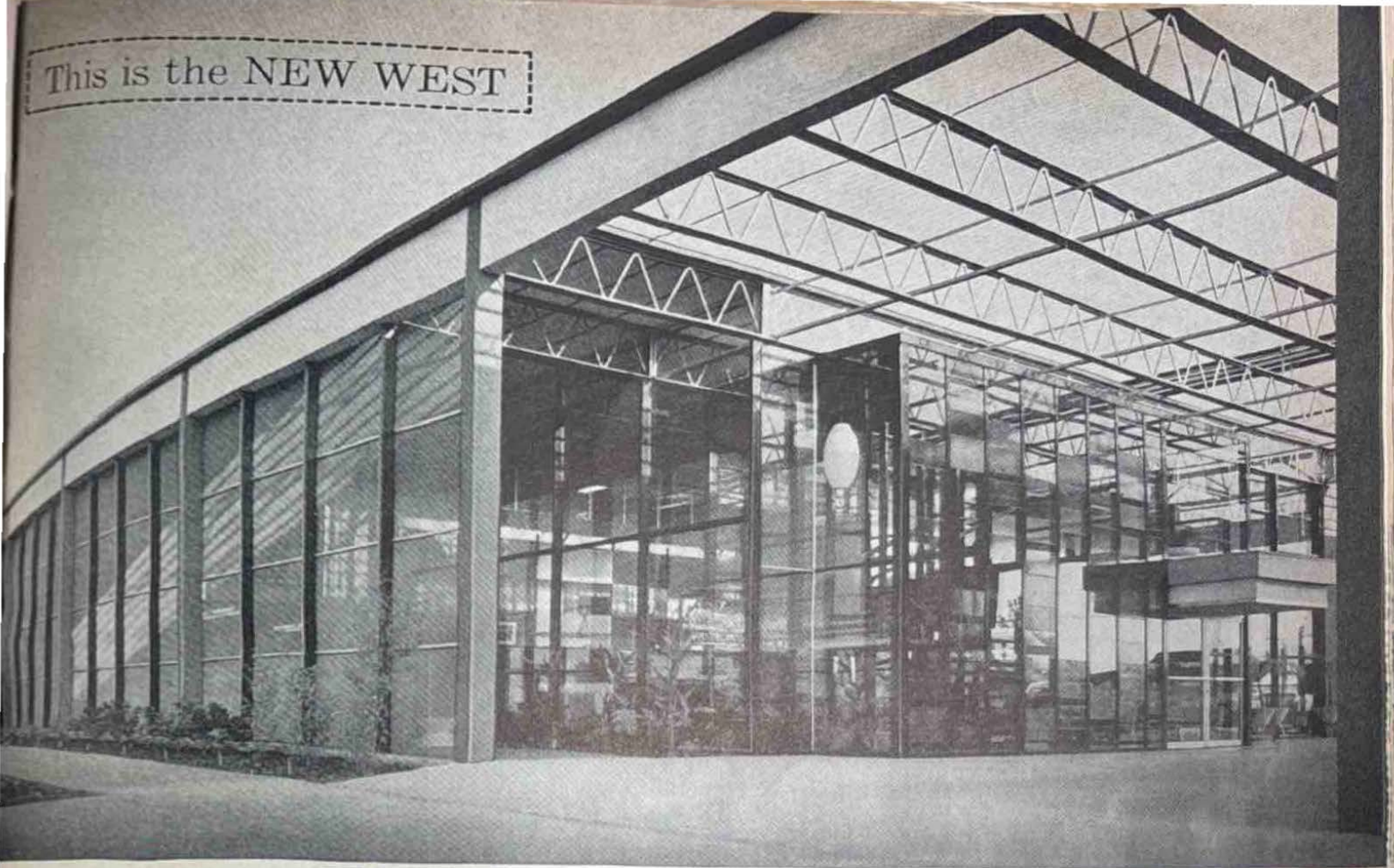
Bernard R. Maybeck designed the Palace as a temporary structure for the Panama-Pacific Exposition in 1915. Other buildings erected for the affair were torn down but the Palace immediately won recognition as one of the finest examples of classical designs of the 20th century and was allowed to stand.

With the minimum monies needed for restoration now available, the Palace—or more accurately a facsimile—will remain as one of San Francisco's landmarks. But the total amount is barely enough for reconstruction of what is standing and allows no surplus for additional work inside. Many different uses have been proposed for the building but the one that has received semiofficial sanction comes from the Palace of Fine Arts League, a volunteer group composed of persons dedicated to preservation of the building. The league's plan would provide convention, exhibit and cultural facilities.

Available usable space is contained in the semicircular area which backs up the rotunda. Of the 118,000 sq. ft., about 54,000 would be used for convention exhibits. Also proposed are a music hall seating 1,500 persons, a theater seating 500, a large restaurant and lounge, television and radio production facilities, many small meeting rooms and office space.

The proposal is virtually sure of adoption and Mayor George Christopher is presently appointing a citizen's committee to work with the league in finalizing plans and preparing for another bond election. The latter could be the stumbling block. Fairly accurate estimates have placed the cost of the inner remodeling at about $1.6 million. Studies seem to indicate that the building could produce sufficient revenues to pay interest and the balance of a bond issue of even larger amounts, but this will not insure passage of the issue by voters this fall.

Whatever finally happens to the Palace, lively discussions are bound to flourish as the entire situation surrounding the project brings out several basic points of disagreement. Proponents will rejoice in the fact that one of the greatest works of one of the country's greatest architects—"a building with a soul"—will be preserved. Their opponents will be relentless in arguing that it is "stage set" architecture; that since the structure will have to be completely rebuilt, a new design should be used in the reconstruction; and that assigning the building a new function violates sound architectural principles.




Architects Smith and Williams utilized U.S.G. materials in the Union Service Center, Los Angeles, California. Their design won an A.I.A. Award of Merit for 1958.

*"The art of building or architecture is the beginning of all the arts..."*

HAVELOCK ELLIS



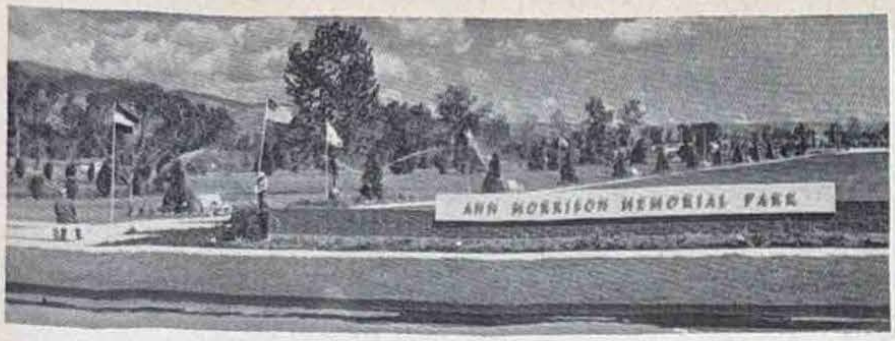
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**RECLAIMED** from land along south bank of Boise River, Ann Morrison Memorial Park now graces Idaho's capital city. Main memorial feature is reflecting pool, behind which site has been set aside for proposed coliseum, whose bond issue went down in defeat.

## Boise voters fail to pass coliseum bond issue

The 15-acre site reserved in Ann Morrison Memorial Park for Boise's proposed civic auditorium can well be put to other uses, at least for the time being. Voters failed to pass a bond issue in July which would finance construction of an arena type coliseum.

Following a pattern that is becoming the rule rather than the exception, this bond issue was bogged down with controversy from the outset. Organized opposition called it an "impossible giant" that would not be suitable for operettas, community concerts or any other stage presentations. Supporters maintained that Boise needs a better and larger entertainment center.

The bond issue was in no way a part of the memorial park, developed on 153 acres of undesirable land purchased by the Harry W. Morrison Family Foundation, Inc., and dedicated in June. (It will revert to city ownership upon completion.) During the campaign Morrison himself made it clear that he believed the park offers a desirable site for such a facility but that he is not to provide the structure and that he would accept the wishes of the taxpayers in good grace.

Mrs. Morrison was the constant companion of the president of Morrison-Knudsen Co., Inc., traveling with him all over the world.

**PROPOSED CIVIC AUDITORIUM** designed by Boise architectural firms known collectively as Associated Architects: Dropping, Kelley & Finch; Hummel, Hummel & Jones; Wayland & Cline; Nat J. Adams & Associates.



## Los Angeles architects design West's tallest building

The tallest building ever to be constructed west of the Mississippi River will bring together under one roof the 3,300 home office employees of Humble Oil & Refining Co. in downtown Houston. Welton Becket & Associates of Los Angeles are expected to complete working drawings for the 44-story structure and adjoining garage by January 1960. Golemon & Rolfe, George Pierce and Abel B. Pierce, all of Houston, are consulting architects; Murray Erick & Associates of Los Angeles, structural engineers.

Planned as a simple rectangular tower, about 225x115 ft., the building will rise some 600 ft. above the block square base, enhanced by a landscaped plaza with reflecting pool and fountains. It will be of steel frame construction with floors of light aggregate concrete on metal pans. Employing a grid 4 ft. 8 in. square, each module is a self-contained unit.

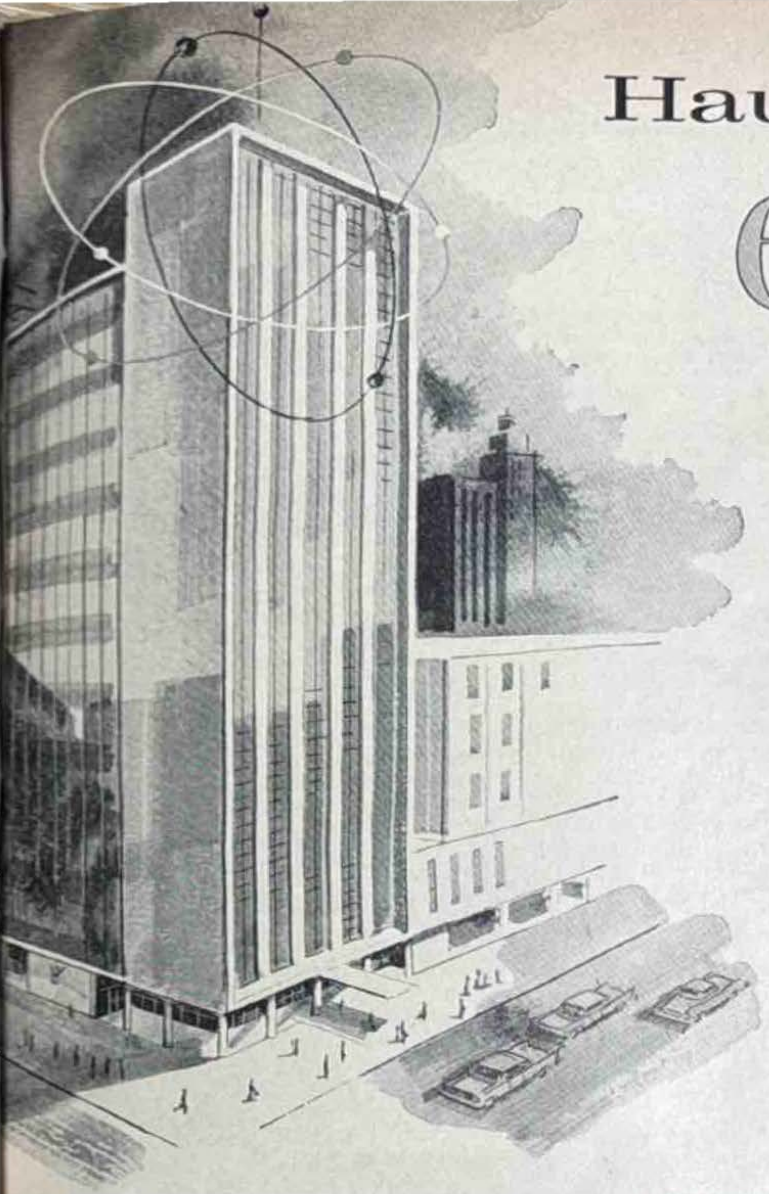


**FIXED HORIZONTAL SUNSHADES** of aluminum and porcelain will filter light.

## Big Hawaiian hotel program

Spurred on by statehood and the resultant increase in tourism, Sheraton Hawaii Corp. is undertaking a 38-project development, including six hotels in the preliminary planning stage. Most of the balance are shops, restaurants, lounges and additions or alterations to the existing Royal Hawaiian, Princess Kaiulani, SurfRider and Moana hotels.

Architects for the overall program, reported to be the largest ever planned for Hawaii, are Wimberly & Cook, with George V. Whisenand, associate. Hass & Hynie of San Francisco are general contractors. No estimate of the total cost has been made.



# Haughton elevonics

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Elevonics . . . the application of electronic devices for the betterment of elevator design and performance.

It is in this special field of science that Haughton Engineers are opening new doors to progress in elevator technology. For example: Haughton Elevators that *think for themselves* are now operational in buildings coast-to-coast. They combine the economy and efficiency of true automated (operatorless) control with new swiftness, comfort and safety.

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Stephens T. Mason Building, Lansing, Michigan; Smith, Hinchman & Grylls, Architects and Engineers



National Bank of Detroit, Detroit, Michigan; Albert Kahn & Associates, Architects



Libbey-Owens-Ford Building, Toledo, Ohio; Skidmore, Owings and Merrill, Architects



Universal Building, Washington, D. C.; LeRoy Werner, Architect

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**PENTHOUSE COURTYARD** will occupy top four floors. Rooms in this area will be furnished in resort-like decor, with floor-to-ceiling sliding glass doors leading to garden and swimming pool.

## Hotel in the heart of downtown with parking on seven floors

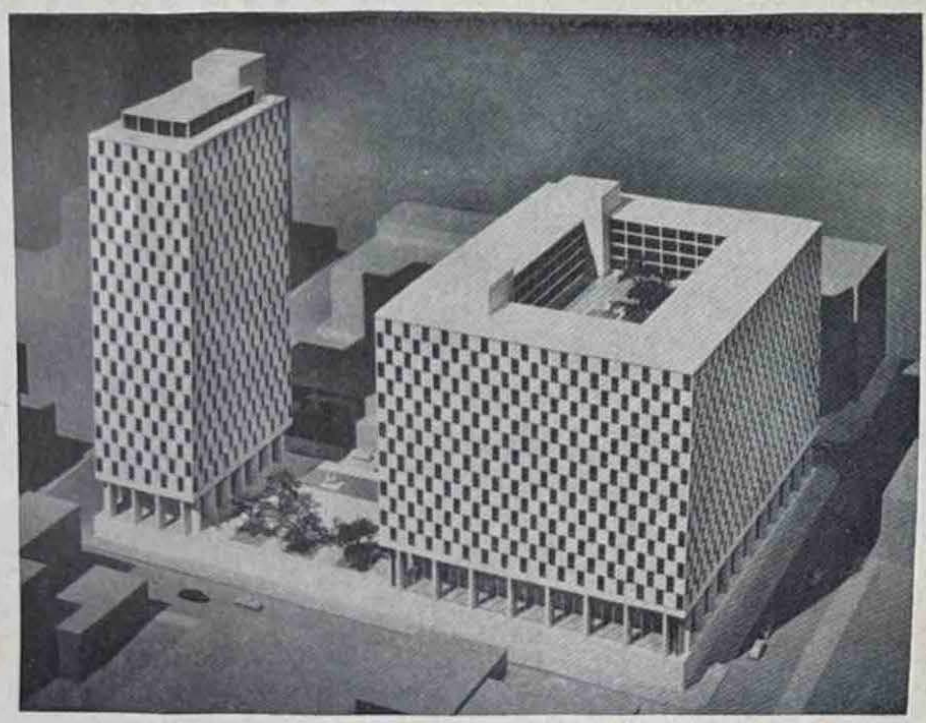
HILTON HOTEL, SAN FRANCISCO: Most unusual feature of this 18-story hotel will be parking facilities for 400 cars on floors four through ten. Guests will be able to drive up ramps in the center core of the reinforced concrete structure and park on the same floors where their rooms are located. An automobile lobby entrance will provide access to the parking ramps and to the three-level basement garage which will accommodate another 300 cars.

With construction expected to begin this fall, the $25 million hotel (including land and furnishings) will share a block with the new airport bus terminal, conveniently located to the business, shopping and entertainment sections of the city. It is estimated that it will take two years to build and furnish the project. A 22-story office building is being considered as part of the development.

Exterior surface will be concrete, the color to be selected later. A lattice screen effect will be produced by alternating windows on each floor. Floor-to-ceiling windows will highlight each of the 1,200 rooms, all outside, located on 15 floors. The top four floors will be built around a landscaped court. Each room will have individual heating and air conditioning controls. Automatic dial type telephones will permit guests to make calls—local, long distance and service department — without going through the hotel switchboard. Bathrooms will utilize recessed shelves for linens and toilet articles.

The mezzanine ballroom will be one of the largest anywhere in the world, seating 3,000 persons for a meeting and 2,500 for dining. Entirely without columns, it will be planned for division into any number of rooms up to nine by the use of soundproof, sliding partitions.

On the floor directly above the ballroom will be nine private dining rooms, most of which will handle up to 50 persons. Some of them will be interconnecting to form larger areas as required. The lobby floor will have a main dining room opening out onto a garden, a cocktail lounge, a coffee house and two specialty restaurants. The latter will be adjacent to each other and relatively small for intimate dining, taking their theme from local history. Architect: William Tabler; interiors: David T. Williams.



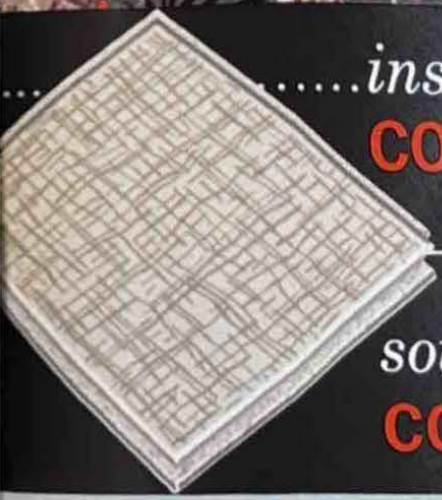
**CENTER CORE** of 18-story hotel will incorporate parking areas on seven floors. Office building, 22 stories high, at left, may be constructed as part of project.

# Color

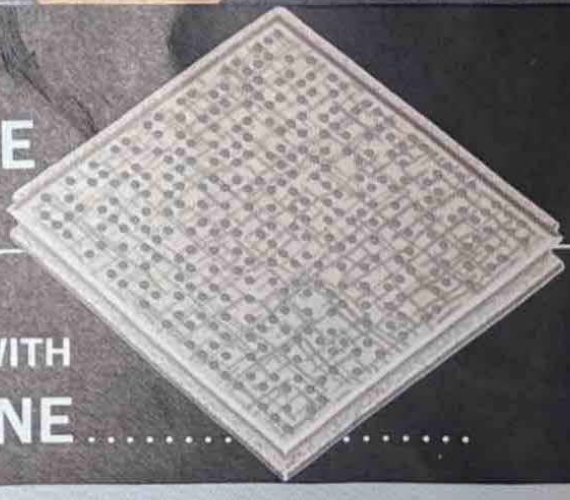
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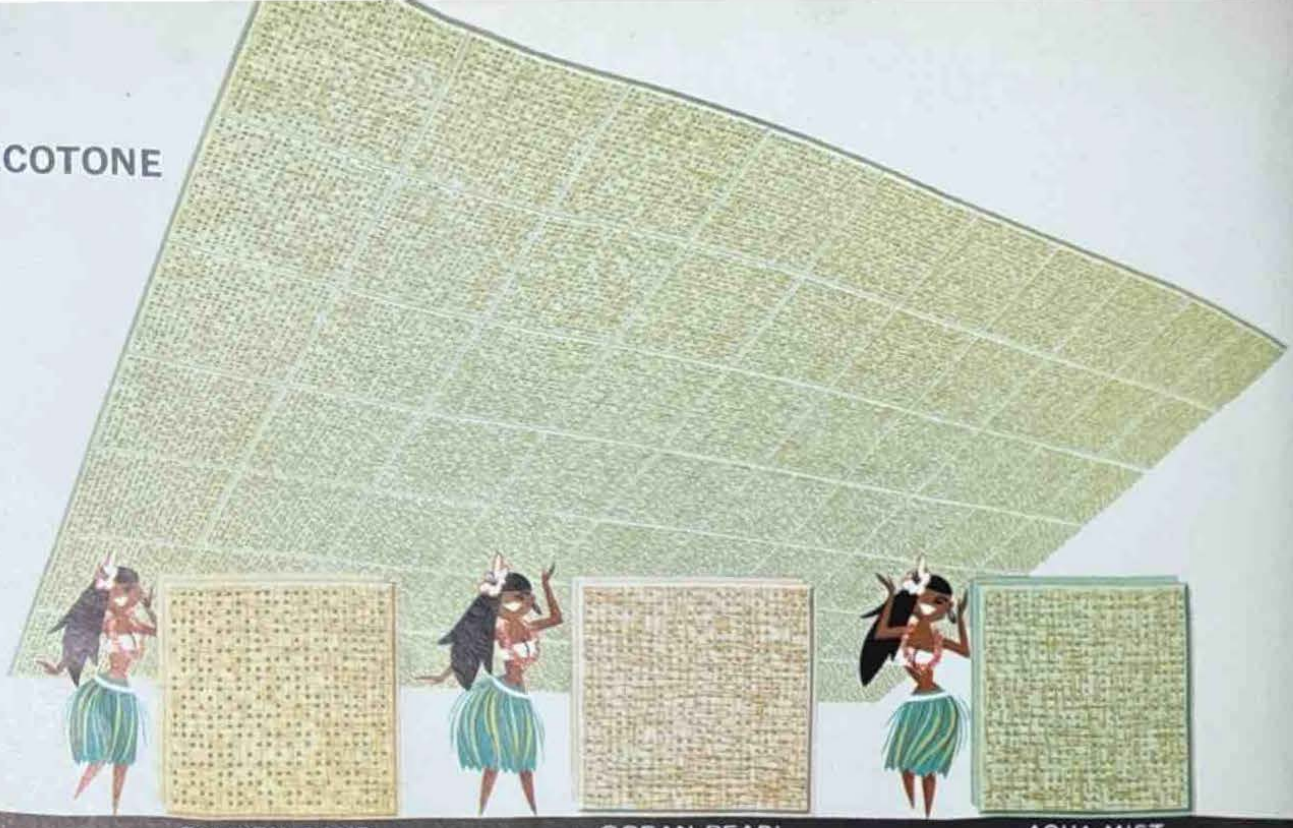
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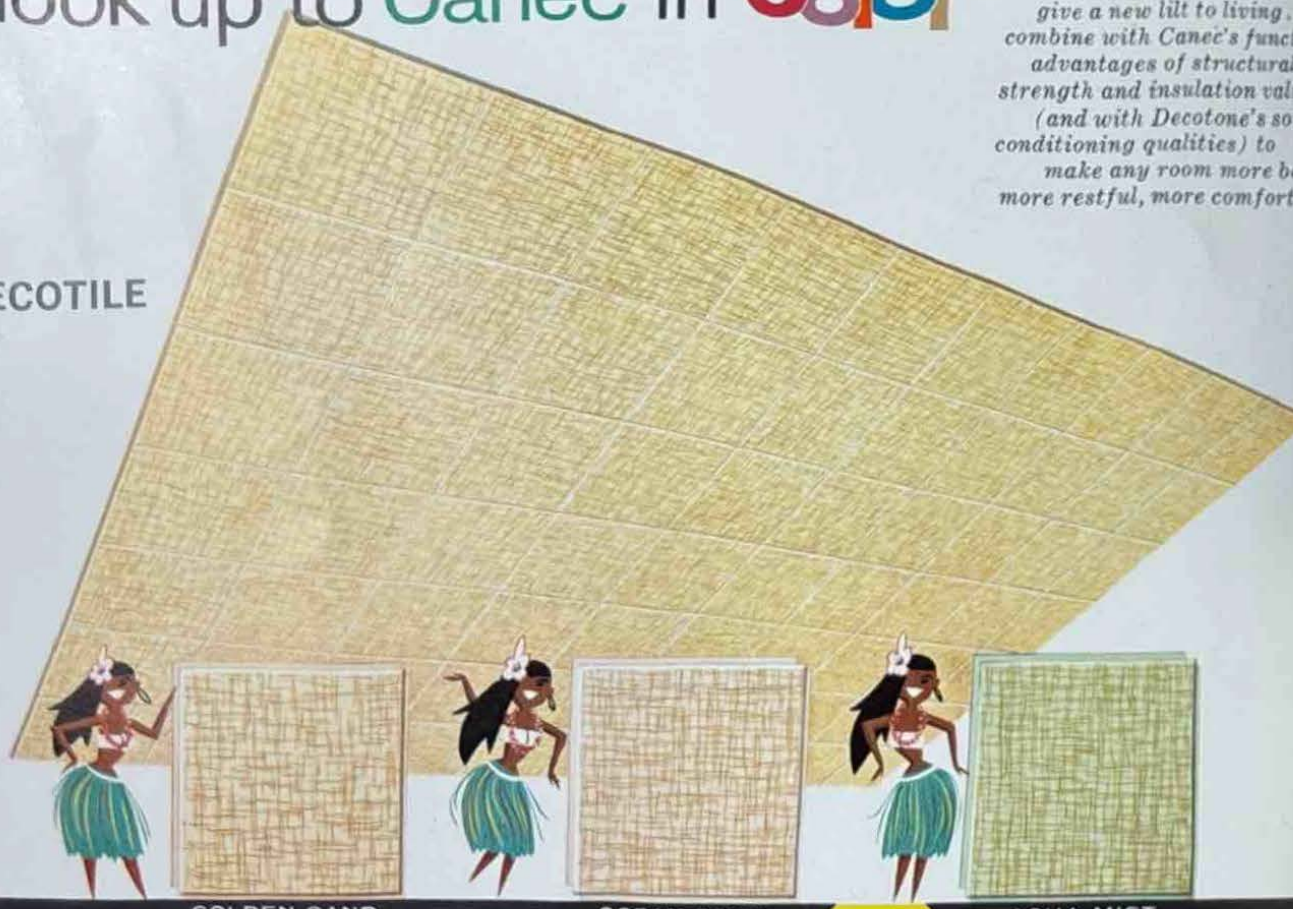


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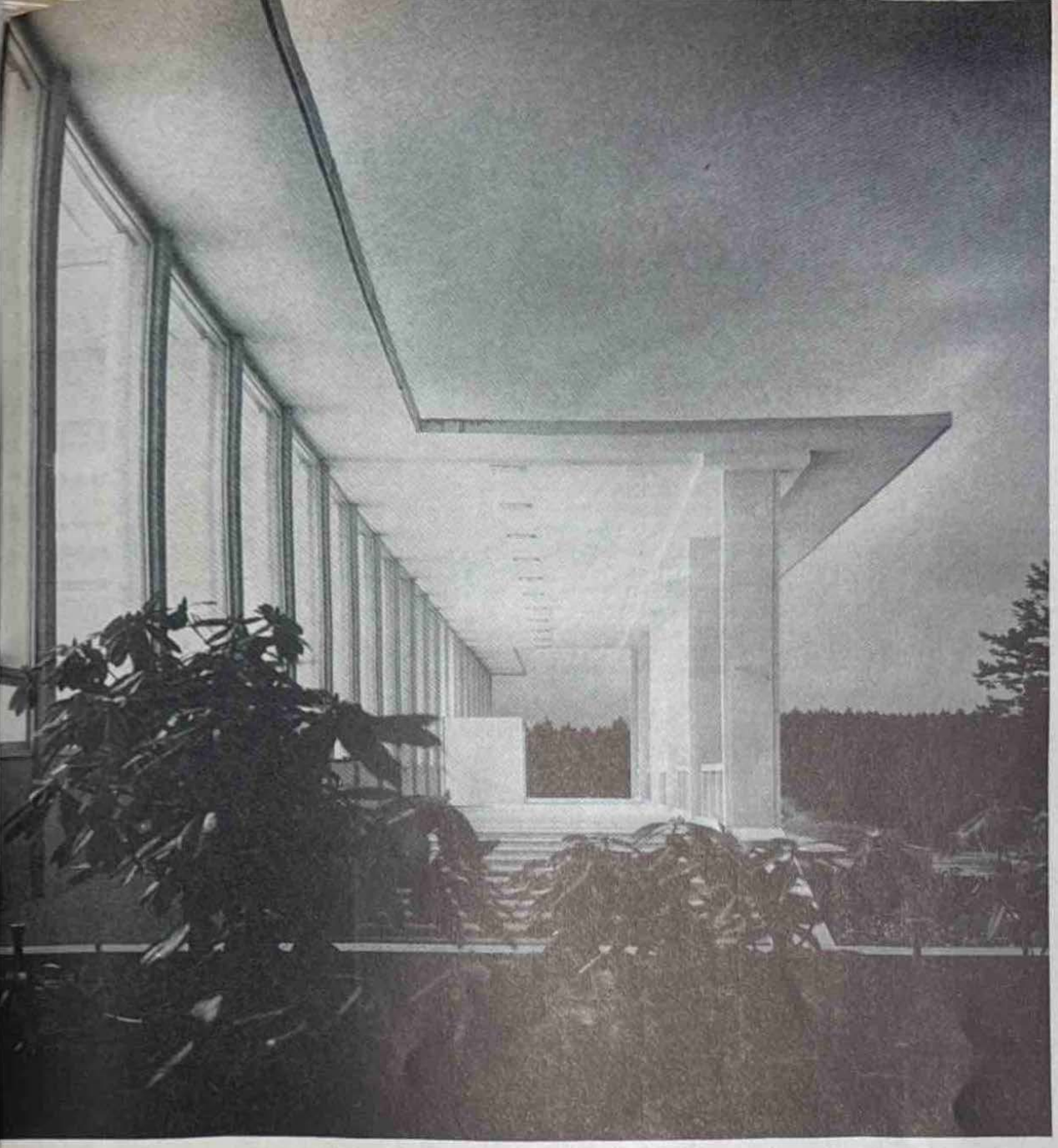
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# A contemporary interpretation of classicism

Washington State Library
Olympia, Washington

•

PAUL THIRY
Architect

PETER HOSTMARK
Structural Engineer

JOHNSON-MORRISON-KNUDSEN CO.
General Contractor

BASIC DESIGN APPROACH used in executing this out-of-the-ordinary commission is summarized by the architect: "Siting of the structure was of prime consideration and the position between the Transportation and Public Lands & Social Security buildings was selected because of its proximity to the Legislative Building, more commonly called the Capitol. The library relates to it in a similar manner as does the Judicial Building on the north.

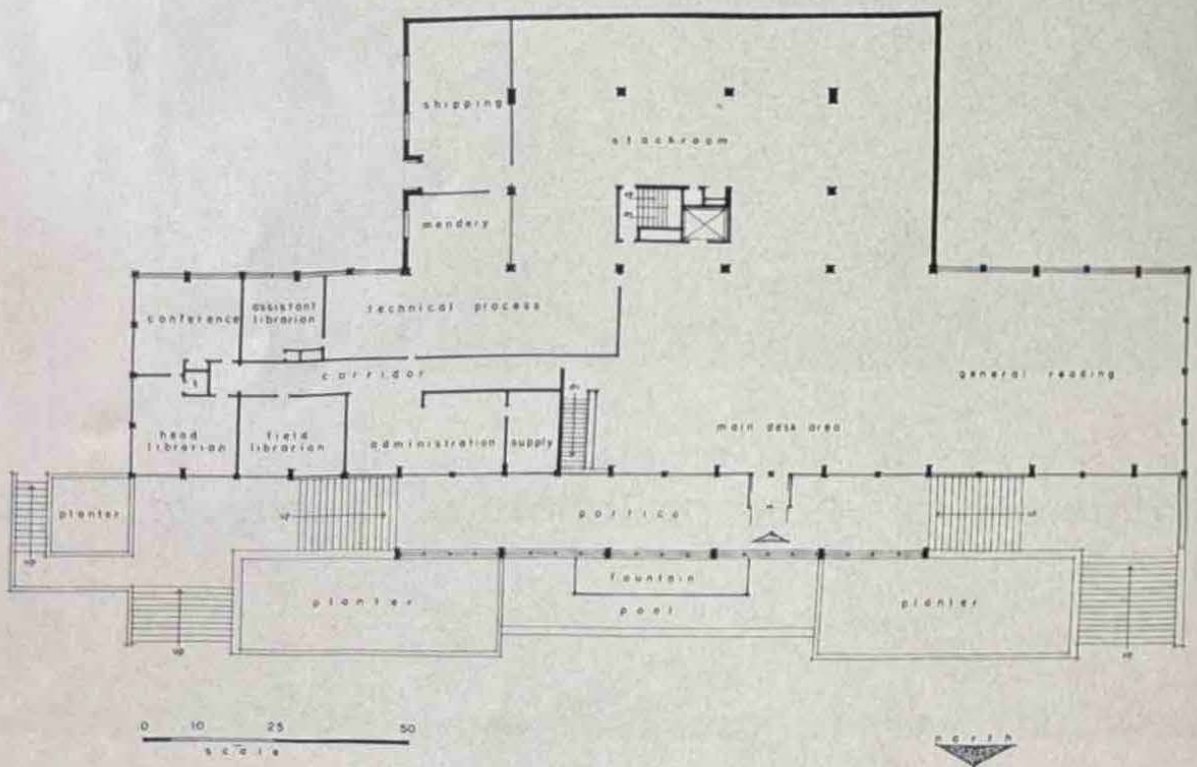
"All buildings were originally conceived as a whole with relation to the Legislative Building, the dome of which appears to rise not only from its own base but from the entire group. The library, a functioning arm of the legislative, executive and judiciary branches of government, was also designed to conform in height, etc., to the balance of the buildings.

"Due consideration was given to the classic design of the existing buildings. The library, while completely functional in its planning and design, is symmetrical in its form and classic in its proportions. The exterior is faced with Wilkeson stone to match the others in the group and complete the grounds development in the area in which it is constructed.

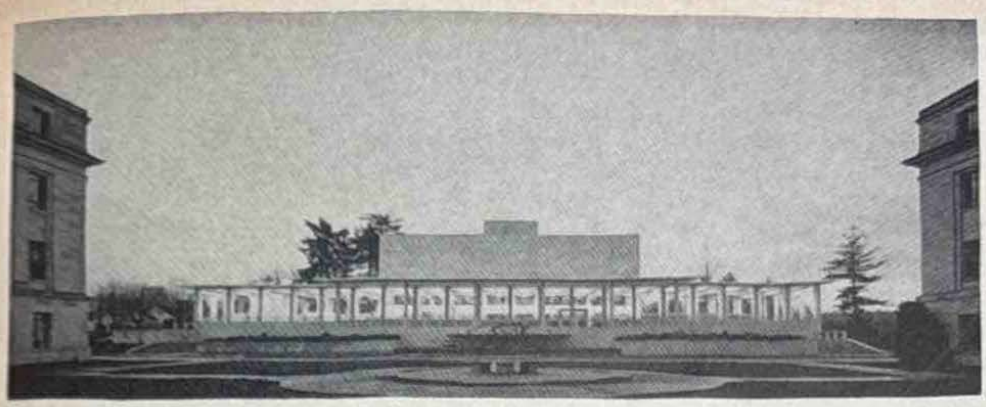
"The building and its design recognize the collaboration of the arts and the necessity for embellishments found throughout the history of architecture but too often neglected in today's construction. The project is one of total design, where not only the building itself but furnishings and landscaping as well come under the direction of the architect."

A monolithic reinforced concrete, waffle slab structure, its two principal levels and seven-story stack area (to which the public is not allowed unescorted access) contain 60,000 sq. ft. built for $1,275,000, including state sales tax and architect's fee. Walkways, steps, fountain shelf and basin are terrazzo; window frames, flashings and fascias, extruded aluminum; interior wall finish, plastics or plaster; floors, vinyl or rubber tile; bookstacks, doors and frames, metal. Omission of windows was requested for all areas other than administrative and reading in order to insure uniform lighting and ventilation. A combination convector-mechanical ventilation system is employed and the main floor is air conditioned.

James B. Notkin & Associates were mechanical engineers; Beverly A. Travis & Associates, electrical engineers: Otto Holmdahl, landscape architect; and William Teeter, interior consultant.



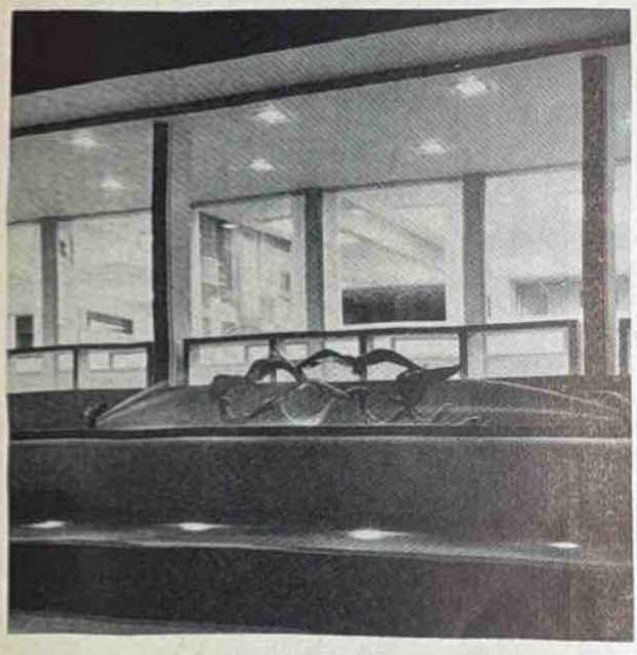

MAIN FLOOR



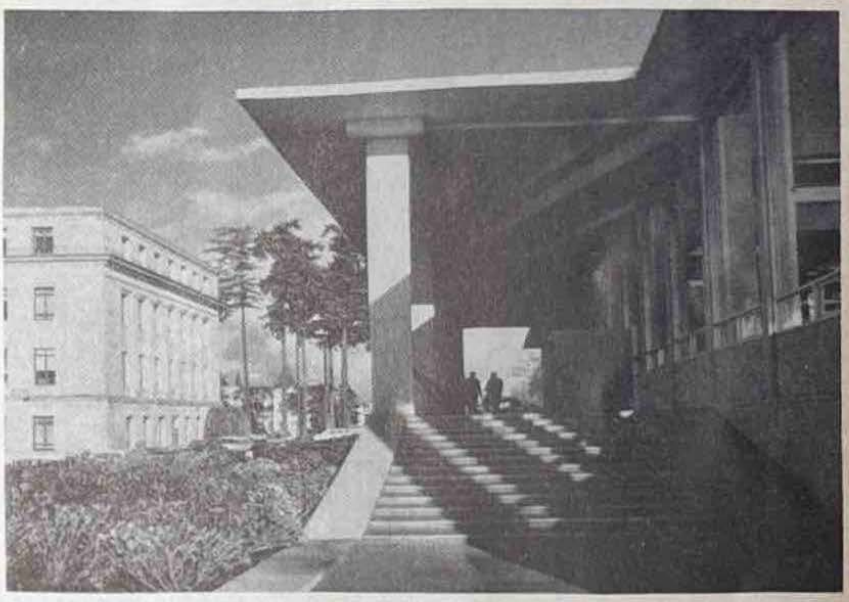
**STATE LIBRARY** is sited on axis with Legislative Building and designed to be compatible with classic facades of existing Capitol group without yielding on principles of modern library planning and current construction techniques. It is reinforced concrete, waffle slab structure.



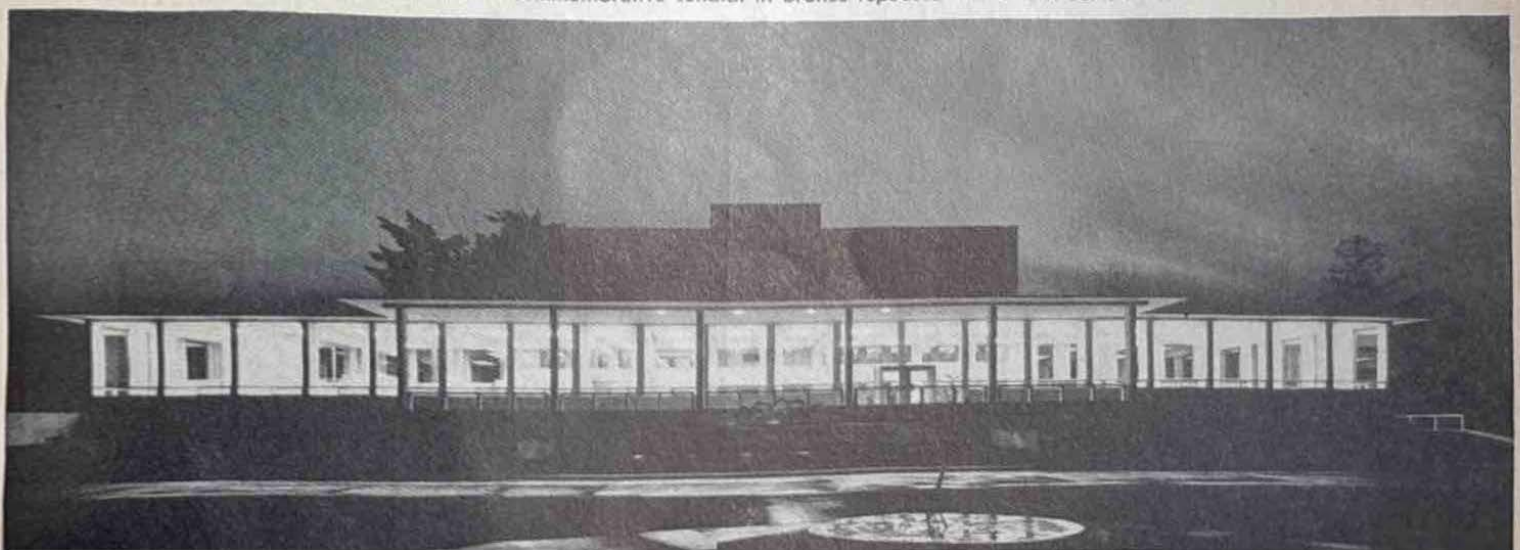
Art Hupy photos



**FOUNTAIN AND BRONZE SCULPTURE** by Everett DuPen enhance portico, approached by monumental steps of terrazzo, repeated in fountain shelf and basin.



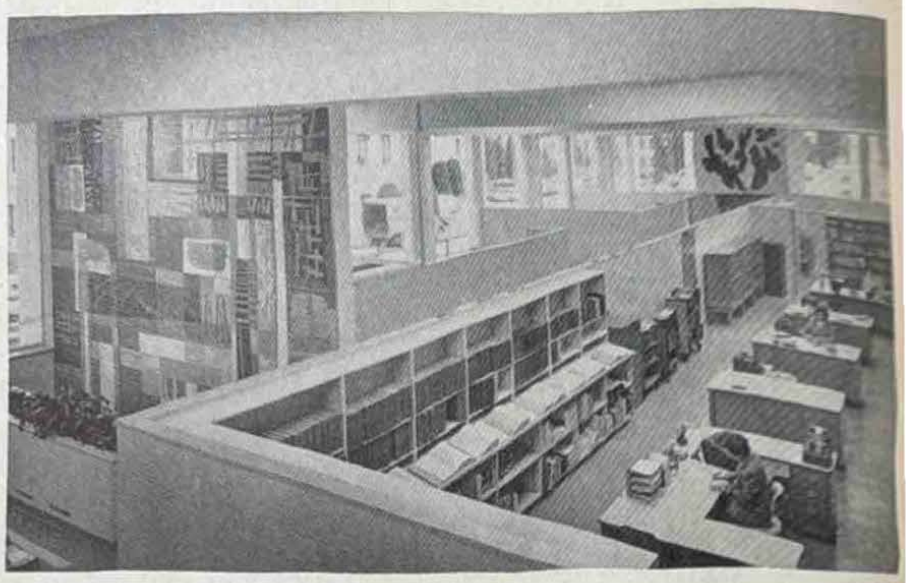
**EVENING VIEW** exhibits lighting (cold cathode) developed for 75 footcandles at work surfaces. Commemorative sundial in bronze repousse' is work of John Elliott.

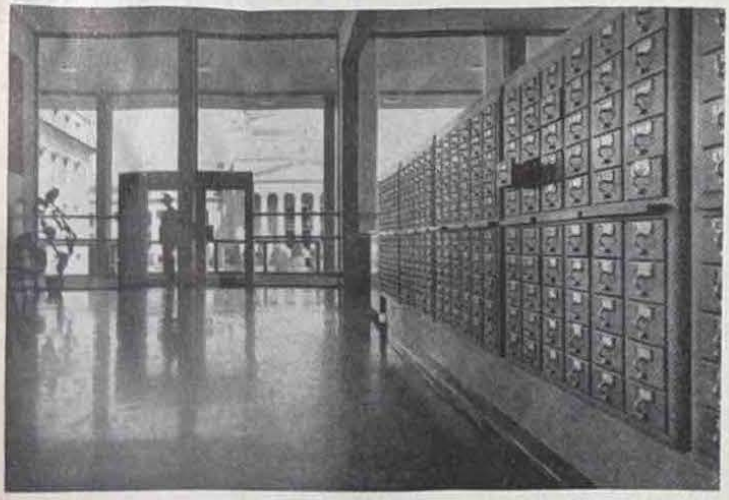


## WASHINGTON STATE LIBRARY

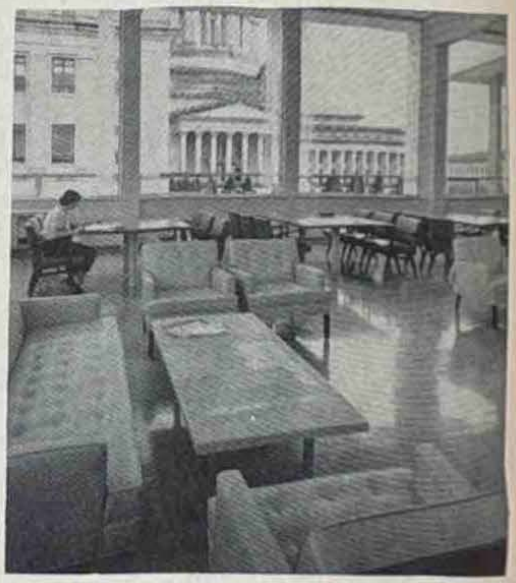


**MARK TOBEY** supervises installaton of his mural, seen at right, along with James FitzGerald's mosaic, from main floor balcony. Library's processing area is in foreground.

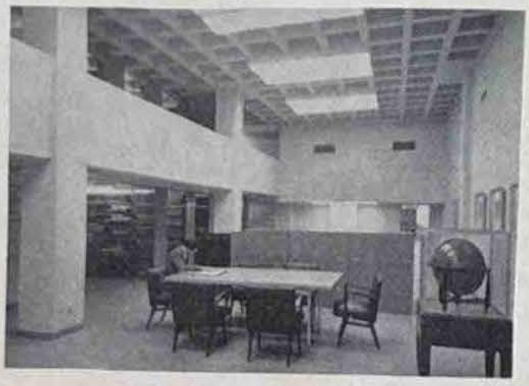




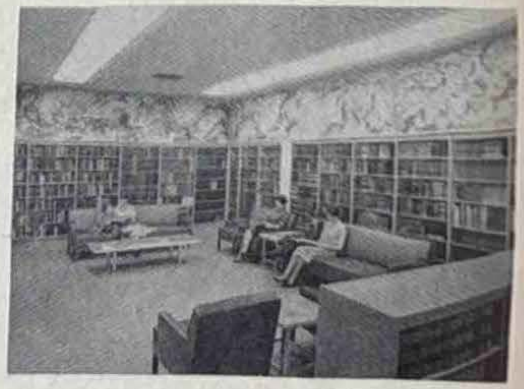
**CATALOG FILE** is at left of main entrance, general reading area (adjoining photo) at right. Latter was located to overlook Deschutes Basin and to face Legislative Building, has mosaic tables by James FitzGerald.



**MAP REFERENCE ROOM** on lower level reveals waffle slab construction on ceiling. Stack areas, to which public must be escorted, rise seven stories in height at left, are windowless to insure uniform lighting, ventilation.



**EPIC MURAL** based on incidents from state's past by Kenneth Callahan surrounds lower level Washington Room above bookcases. This is storehouse of sources on state's history and authors, including first editions.



# TWO BUILDINGS SAN FRANCISCO 1959

*San Francisco Museum of Art*
*August 21-September 20*

*Portland Art Museum*
*October 6-November 1*

THIS EXHIBITION explores the changing character of downtown San Francisco through two notable structures now nearing completion in the financial district: the Crown Zellerbach Building designed by Hertzka & Knowles and Skidmore, Owings and Merrill, associated architects; and the John Hancock Building by SOM.

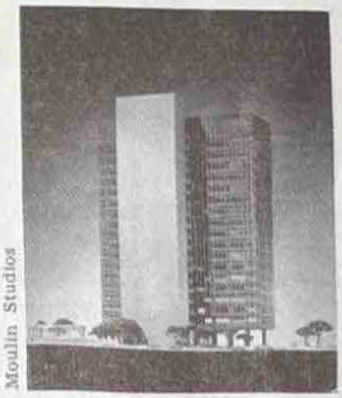
Photographs by Morley Baer and Ansel Adams are supplemented by building models, working drawings, structural and landscaping materials in a study of architectural and cityscape design, urban land use, art and gardens. The exhibition, in emphasizing contrasting solutions to the problem of the building placed in a city center, plays the design of glass planes against solid masses of bearing walls.

The entire load of the Crown Zellerbach office tower is concentrated on 18 steel columns exposed at the base, with the utility core completing the overall plan in the form of a T. Thus the space beneath the office tower is freed to become part of a landscaped plaza which uses a generous two-thirds of the triangular site, creating a parklike setting for the structure and a downtown oasis. Also under construction in the plaza is a round glass pavilion to house a branch office of American Trust Co.

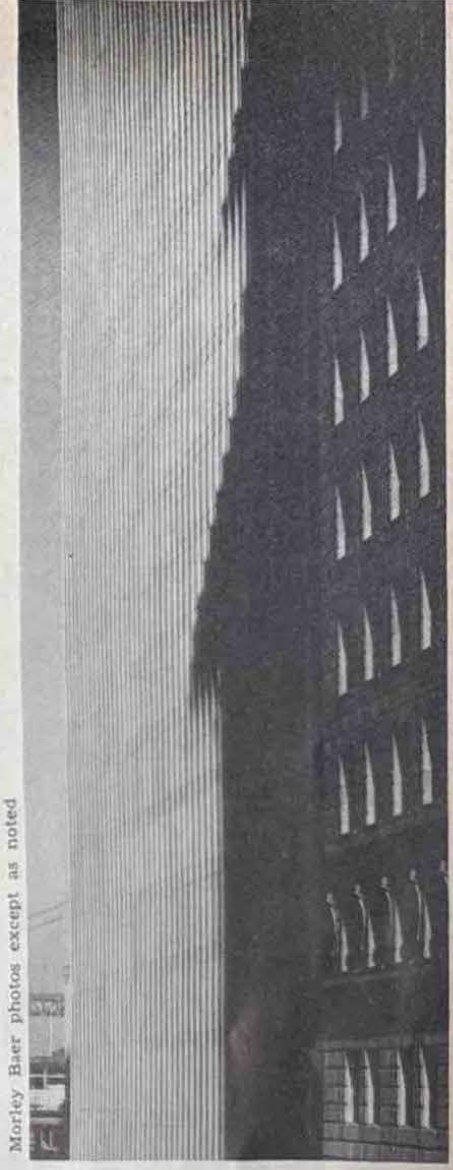
The John Hancock project utilizes a square plan with interior service core. With granite faced exterior walls, the structure rests on a two-story base of reinforced concrete sculptural arches and covers the entire site at ground level on the corner section of a crowded block. A balcony terrace garden surrounds the arches above the first story.

Both buildings will be embellished with works of art, original models of which are shown in the exhibition. The Crown Zellerbach plaza will have a bronze fountain in abstract design by David Tolerton as a center of interest. In the glass walled lobby, visible from the street and the plaza, will stand a 12-ft. bronze statue of a woman by Italian sculptor Mercello Mascherini. A curved interior wall on the second floor, which houses cafeteria and meeting facilities, will be highlighted by a Mark Adams mural —9x44 ft. in a colorful abstract motif. A 5-ft. wooden sculpture of a horse by Emile Norman will be placed in the 18th floor executive offices.

Major decorative feature of the Hancock interior public lobbies will be a relief sand sculpture of American historical scenes, designed by Margaret Wentworth and executed by Gordon Newell.



Moulin Studios

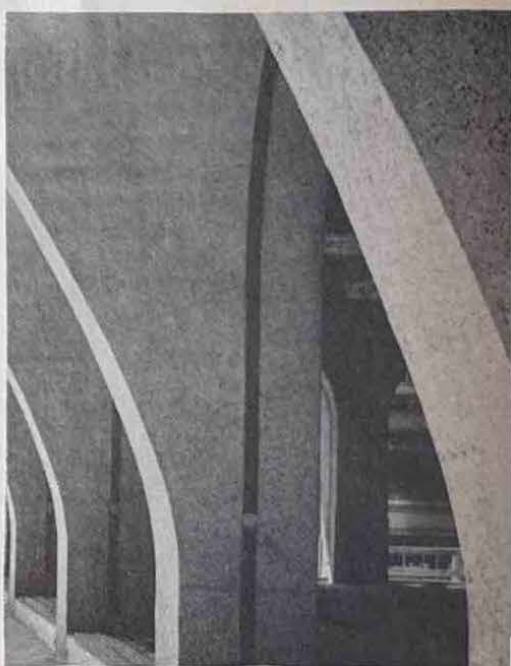


Morley Baer photos except as noted

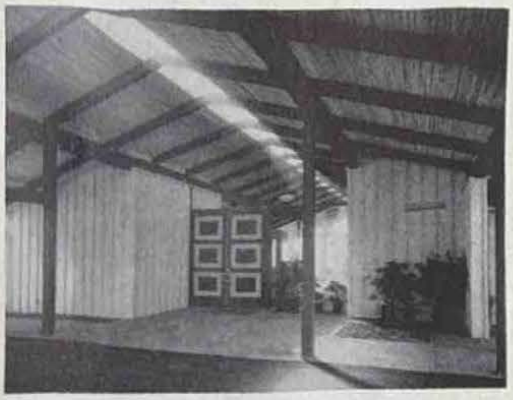
**STUDY IN CONTRASTS:** 8-ft. high mural of Crown Zellerbach's sheer glass curtains and adjacent Standard Oil Building.



**STUDY IN CONCRETE:** John Hancock's steel reinforced sculptural arches.

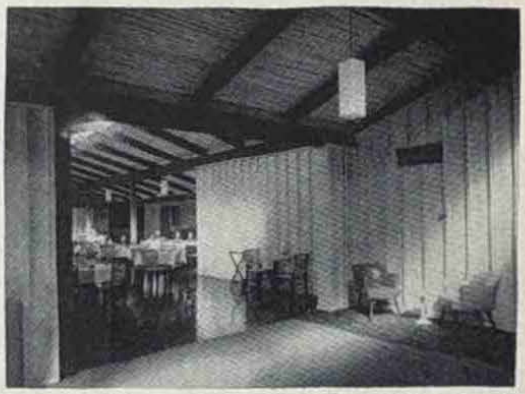






**PORTE COCHERE** with its redwood board and batten and skylight sets stage for warm, informal interior.

Phil Palmer photos



**DINING ROOM** angles off main lounge. Handsplit batts are used for ceilings.

# Friendly neighbor right at home among the redwoods

Bayside Country Club
Eureka, California

•

CLIFF MAY
Designer

RICHARD R. LEITCH
Associate Architect

BAYSIDE CONSTRUCTION CO.
General Contractor

INFORMALITY is the keynote for this country club which serves a golf course rambling in and out among the redwoods and which appropriately draws most of its materials from the trees surrounding it: handsplit sheathing for exterior siding, interior paneling and ceilings. The redwood is set off by a judicious use of stone, including a huge white rock fireplace which becomes a focal point of the spacious main lounge. The winged building affords a view of the course from all rooms. The warmth inside is further enhanced by extensive use of skylights. Archibald Taylor designed the interiors; Robert Babcock was the landscape architect.

# Low budget house gives lilt to young family living

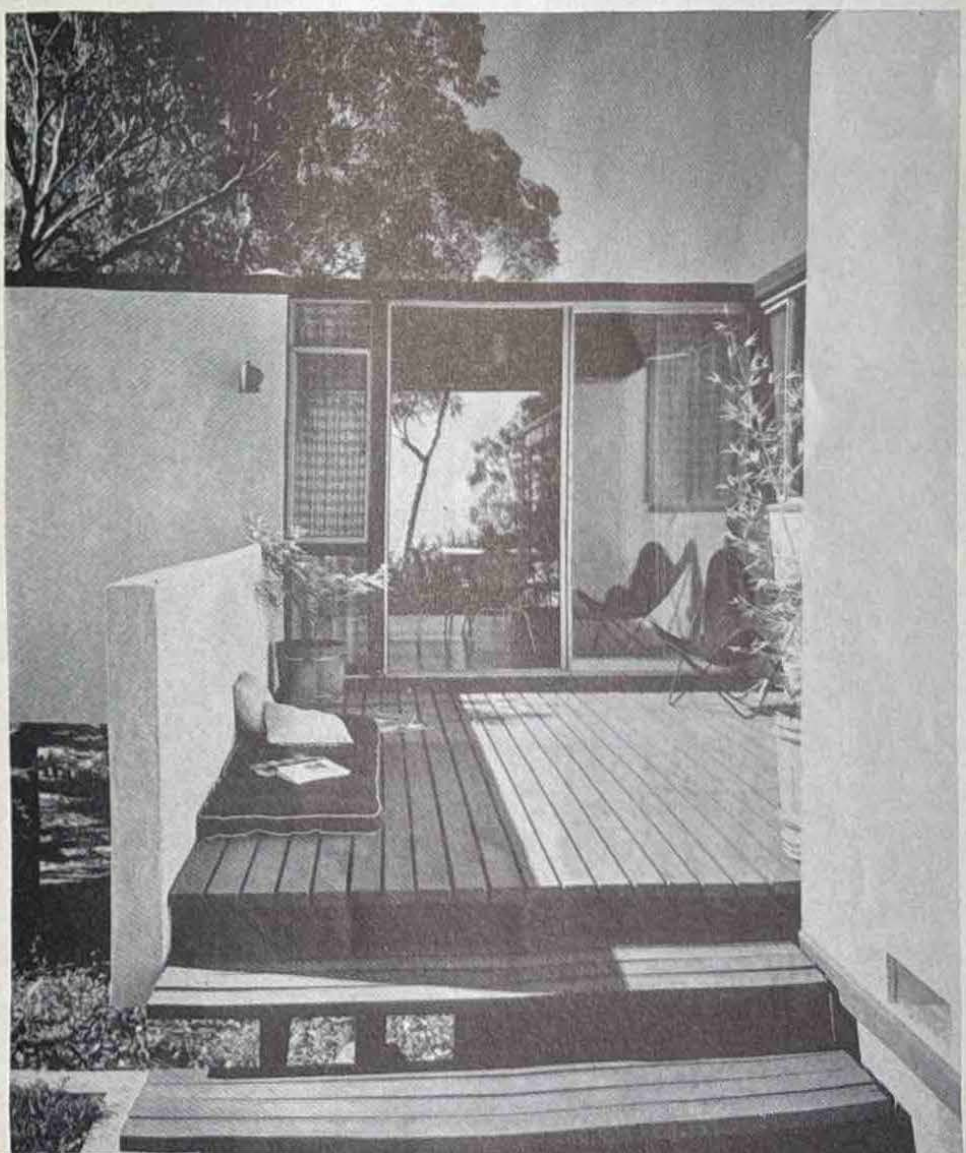
Robert S. Grant Residence
Santa Barbara, California

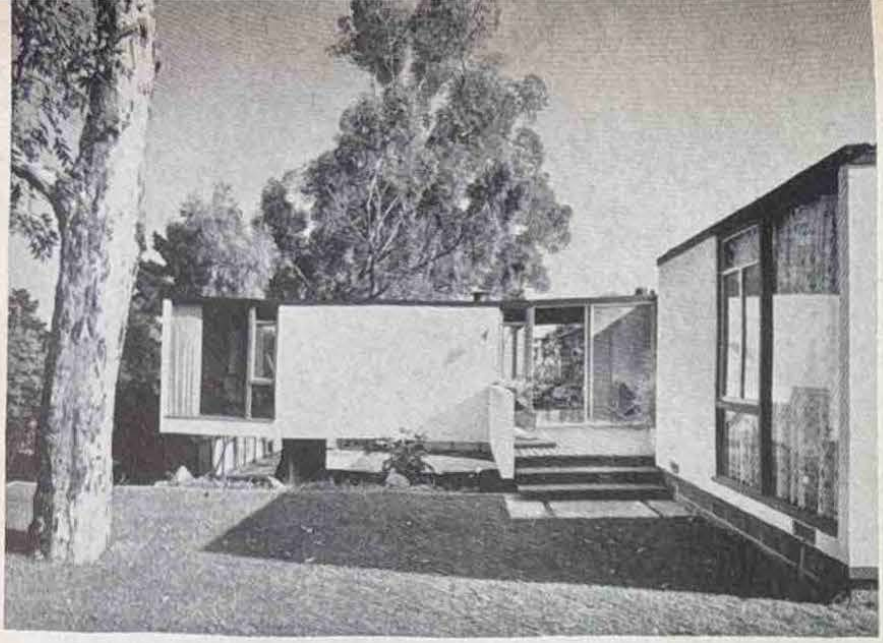
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ROBERT S. GRANT
Architect-Builder

TO MEET the changing needs of his own young family with children ages one, three and five, the architect designed a low budget, modular post and beam structure. The plan in large part was dictated by the desire to make the kitchen the hub of the house and to separate the children's areas from living room and master bedroom. In so doing, four basic outdoor areas are related to indoor spaces: carport and street front to entry; play terrace to activity room, children's bedrooms, bath and kitchen; dining deck and lawn to dining room and kitchen; lower circular terrace to kitchen, living and dining rooms—visually in this case since there is no through circulation because of an 8-ft. grade differential.

The site is a moderately sloping lot covered with eucalyptus and pepper trees, overlooking Santa Barbara and encompassing a view of the ocean and the Channel Islands. The house, trim with its flat roof, white stucco walls and exposed wood frame stained dark brown, appears low from the street side, but the ground drops away under the living room, which is supported on stilts and open underneath. Wide roof overhangs protect glass areas on the south.

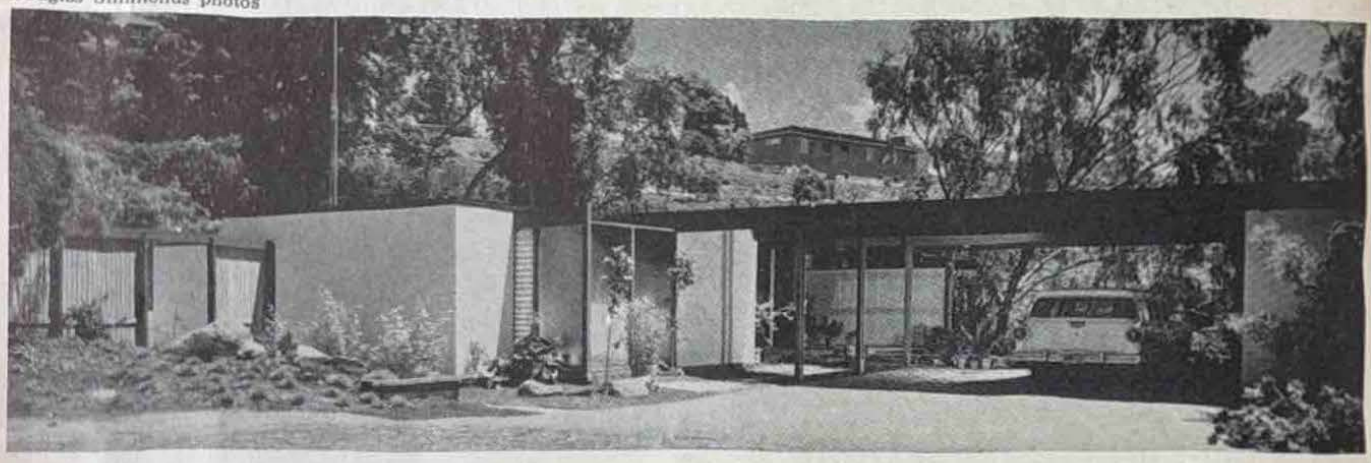


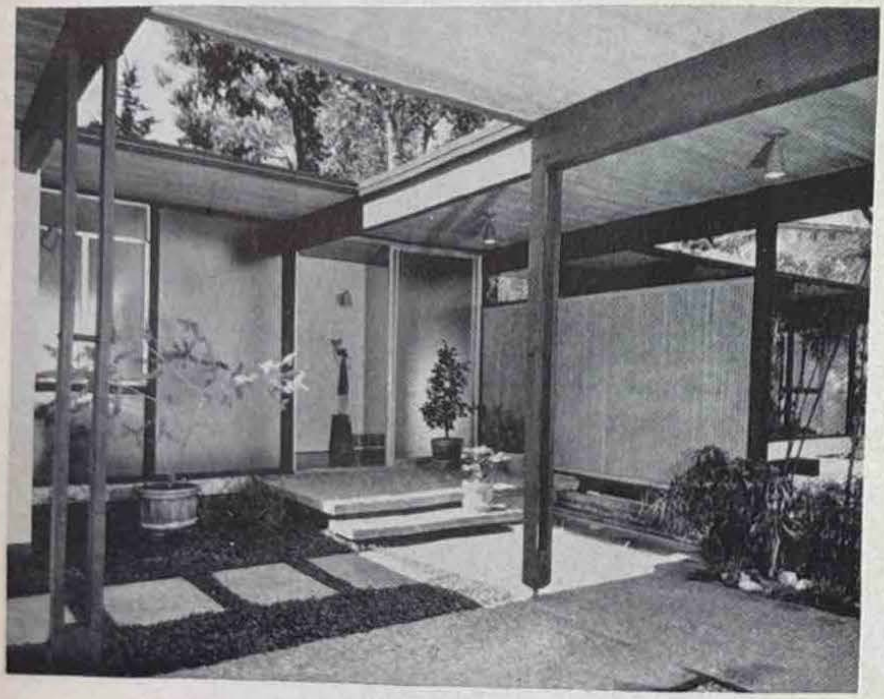


## ROBERT S. GRANT RESIDENCE

**REAR ELEVATION** shows living room supported on wood stilts. Overhangs of t&g roof deck protect glass on south. Lower circular patio (see plan) beyond carport lures children and wheel toys off street, is always under visual supervision from kitchen, dining and living areas.

Douglas Simmonds photos





### OUTLINE SPECIFICATIONS

**Structure**: foundation: concrete block; frame: wood; roof: 2x6 t&g planking; floors: ¾" Douglas fir plywood on wood joists and girders.

**Exterior Finish**: 1-in. cement plaster, integral white; dark brown stained trim.

**Roof Surfacing**: built-up composition.

**Windows**: aluminum casement—Soule' Steel Co.

**Doors**: exterior: sliding aluminum; interior: hollow core beech; sliding wardrobe—(Glide-all) Woodall Industries.

**Floor Surfacing**: cork tile and linoleum—Armstrong Cork Co.; carpeting in living room.

**Insulation**: 1-in. asphalt saturated fiberboard in roof—Celotex Corp.

**Partitions**: gypsum lath and plaster on 2x4 wood studs.

**Ceilings**: painted plaster; exposed t&g planking, stained—(Rez) Monsanto Chemical Co.

**Lighting Fixtures**: incandescent—Prescolite Manufacturing Co., Marvin Electric Manufacturing Co.

**Heating**: forced warm air perimeter system—Lennox Industries, Inc.

**Plumbing and Sanitary**: American Standard.

**Total Area**: 2,252 sq. ft. (house, 1,848 sq. ft.; carport and storage at one-half, 404 sq. ft.).

**Total Cost**: $24,500.

**Cost per Square Foot**: $10.80.

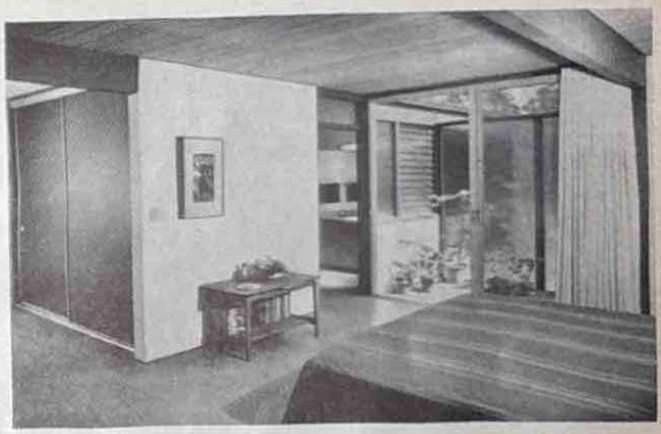
**Date of Completion**: September 1956.

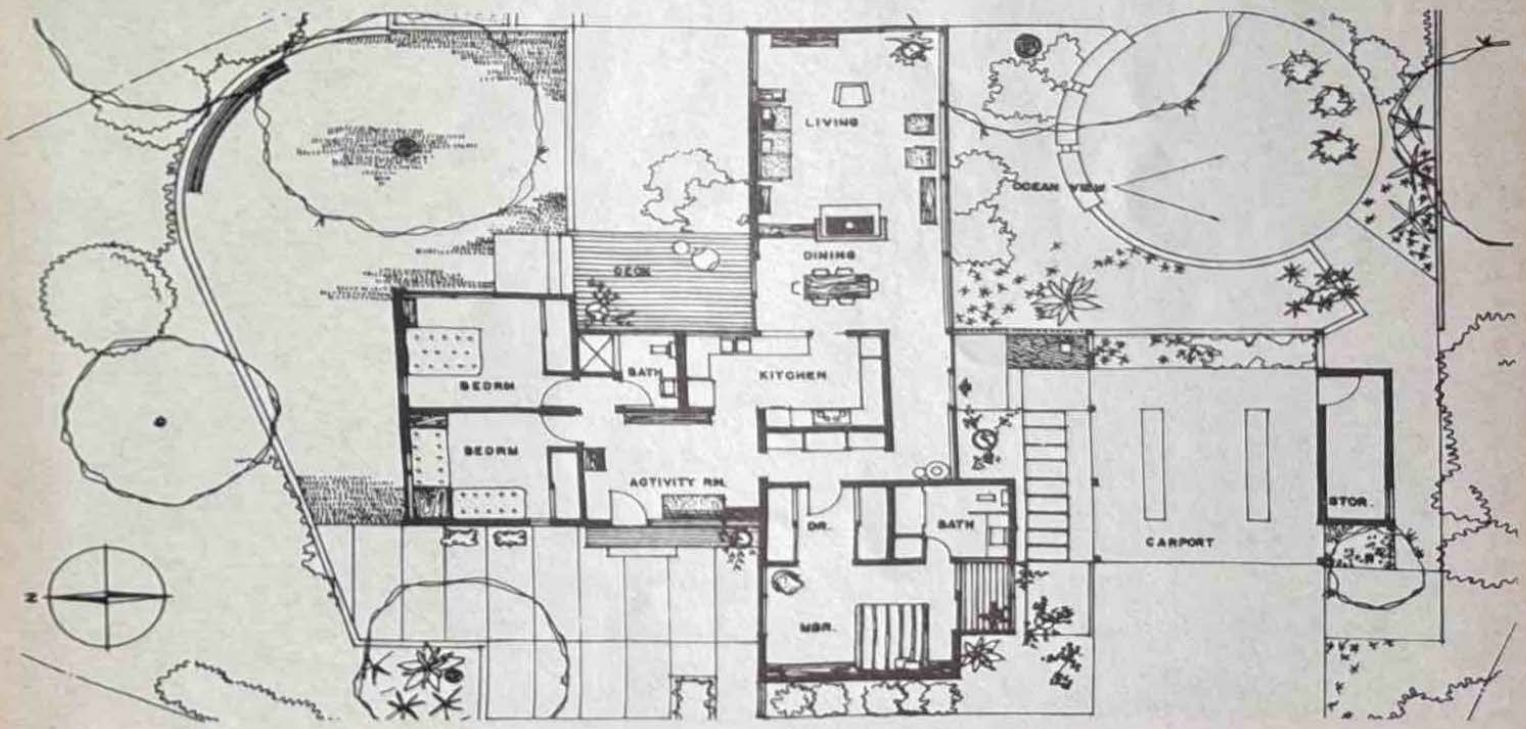
**DINING AREA** is visually part of living room, separated only by prefabricated metal fireplace in quarry tile lined plaster enclosure and low hi-fi speaker cabinet. Lightweight furniture is easily moved onto adjacent deck for year-around barbecues.





**OBSCURE GLASS SOLARIUM** permits sunlight to flood master bedroom and view of sky and treetops, while maintaining complete privacy from street.







Art Hupy photos

Office and Terminal Facilities
Denver-Chicago Trucking Co., Inc.
Denver, Colorado

•

TOLL & MILAN
Architects

HENRY J. BOLAND
Structural Engineer

GERALD H. PHIPPS, INC.
General Contractor

**ALUMINUM FRAMES** have orange-yellow porcelain enamel panels in lower lights (client's colors are orange and green) to create some artificial sunshine since principal exposure is in shade.



# Rhythm in concrete for a large, utilitarian complex

THIS COMPLEX consists of three structures—office building and loading dock (which are joined) and maintenance building—to form the client's national headquarters. The reinforced concrete framing system does more than meet building code regulations, large span requirements and fire-resistive qualities; it gives a unity and rhythmic character to an otherwise sprawling and unadorned project.

The structural system is based on what the architects refer to as "triangular dog houses," four of which are bolted to three intermediate supports to form a bay, raised and lower hydraulically, the supports remaining in place as shoring. The dock and maintenance building are based on a repetitive 22x85-ft. bay. The former is one bay wide and 16 bays long with a 15½-ft. cantilever on each end for a roof size of 116x361 ft.; the latter is two bays wide and 14 bays long with a 4½-ft. cantilever on each end for a roof size of 186x318 ft. Extensive form reuse was possible because of the repetition. The roof slab is 3½ in. thick with 5 lb. of reinforcing steel per square foot and 3,750-lb. concrete. The rise in the 22-ft. bay width is 8 ft. 3 in.

The office building has three floors, the lowest partially below grade. The two lower floors are based on a 22x22-ft. bay of flat slab concrete; the upper floor is roofed with the same folded plate system on a 22x66-ft. bay with a 4½-ft. overhang on each end for a roof size of 100x143 ft.

Behind porcelain enamel panels are convector units circulating hot or chilled water with local fan control of air. An island in the middle of each floor contains toilets and mechanical equipment, walled with structural glazed and unglazed tile. All other partitions were omitted from the contract and furnished by the owner.

Harmon & Beckett were the mechanical engineers; Albert E. McKittrick, electrical engineer; and Shell Structures, Inc., placed the folded plate roof after caissons, grade beams, etc., had been provided.



## OUTLINE SPECIFICATIONS

**Structure:** foundation: concrete caissons; frame: reinforced concrete; roof: concrete folded plate; floors: concrete.

**Exterior Walls:** office building, glass curtain in aluminum frames with porcelain enamel in lower lights—Ceco Steel Products Corp.; dock and maintenance buildings, cinder block.

**Roof Surfacing:** tar and gravel.

**Doors:** office front, stainless steel; others, painted steel—Fenestra, Inc.; wood overhead—Barber-Colman Co.

**Floor Surfacing:** asphaltic tile—Armstrong Cork Co.

**Ceilings:** acoustical tile—Simpson Logging Co.

**Lighting Fixtures:** fluorescent—Electro Siv-A-King Corp., Electron Corp.

**Heating:** convectors with hot and chilled water—McQuay, Inc.; air handling units—American Blower Division; refrigeration unit—Westinghouse Electric Corp.

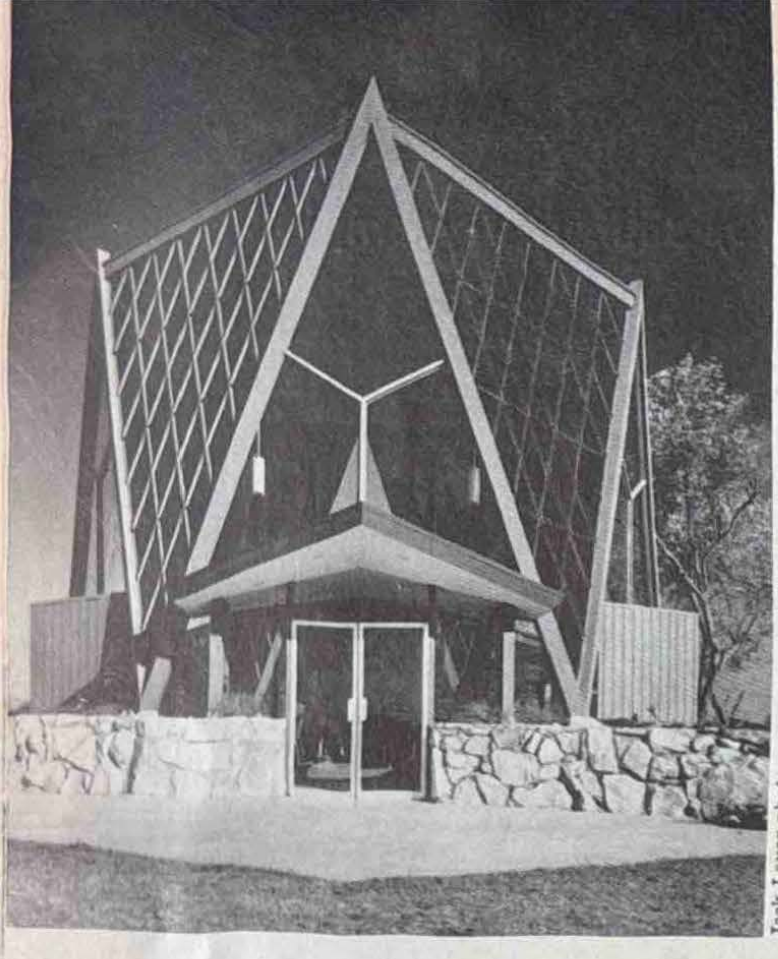
**Plumbing and Sanitary:** Crane Co.

**Total Area:** 126,000 sq. ft.

**Total Cost:** about $1,000,000.

**Cost per Square Foot:** $7.65.

**Date of Completion:** July 1957.



Jack Laxer photos

**CHAPEL DOORS** have no lock. Passersby at night see through glass to dark anodized aluminum cross suspended in front of stone chancel wall, illuminated from above by six outside floodlights shining through plastic roof. Motorists going to and from Los Angeles International Airport throughout evening and early morning often stop to meditate.

Star of Creation Chapel
La Tijera Methodist Church
Los Angeles, California

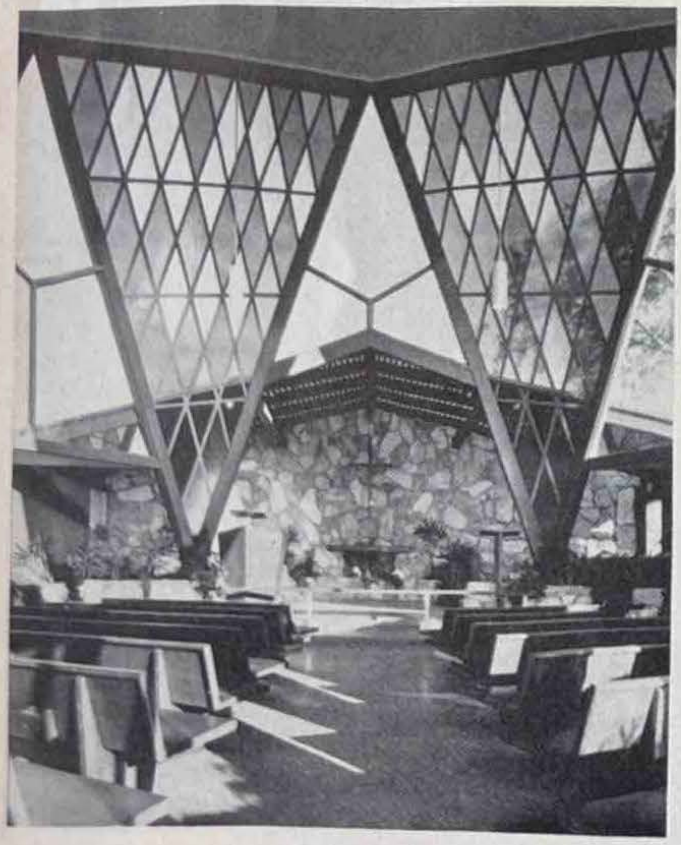
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HAL C. WHITTEMORE
& ASSOCIATES
Architects

ROBERT MARKS
Structural Engineer

AMES CONSTRUCTION CO.
General Contractor

# First unit of master plan extends welcome day and night



MOST CONTROVERSIAL of the dozen or so religious buildings toured in the Greater Los Angeles area during the national Church Architectural Conference last spring was this glass chapel, whose seating capacity is 120. It represents the architects' response to the minister and his building committee who insisted that this first unit be a "jewel"—a structure that would not suffer in comparison when the master plan is completed in all its phases on a 4½-acre site overlooking the San Diego Freeway route.

The chapel is hexagonal in its nave plan, with the chancel extended through one A-frame and the lounge located behind the Palos Verdes stone wall. Laminated wood V-frames support the nave ceiling, from which hang architect designed aluminum lighting fixtures. V-panels with steel T-frames are patterned in several shades of cathedral glass which does not admit the sun's rays. Additional olive trees will be planted about the chapel to enhance the grounds and provide further sun control. Exterior finish is rough sawn western cedar; roof, gray slag; ceilings, acoustical plaster; heating, perimeter warm air system.

A special foundation problem affects the design of each unit. (Christian Education unit is in the working drawing stage and the sanctuary, to seat up to 800, is expected to be built in 1964.) The entire site is composed of uncompacted fill ground, ranging in depths from 5 to 40 ft. Extensive test borings must be made in each case to determine the most economical foundation system. Obviously, the 40-ft. deep area will be devoted to parking and recreational use only. Mechanical engineers: Ira Tepper & Associates; civil engineer: Kirk B. Florance.

THE ARCHITECTS share office space with landscape architect William G. Teufel in a structure whose brick piers, split tile cornices and recessed store fronts characterize construction of the early '30s. The preceding occupant introduced the floor-to-ceiling glass windows and entrance door, while the original leaded panes are typical for all stores in the building.

When taken over by the present two firms, the interior was one large space, the only remaining element being an area of grass cloth on the north wall. An 8-ft. high gum plywood wainscoting in natural finish was applied to the south wall, from front to rear, to cover two existing door openings to the adjoining store.

To satisfy the needs of each firm, subdivision was accomplished by light plywood panel partitions, either painted pastel blue or covered with industrial cork, 6 ft. in height and 8 in. above the floors. They are suspended in an interlocking system of 1x2 and 1x4 members which are lapped and bolted together so that the entire assemblage is demountable for rearrangement or movement. All framing members are natural finish, vertical grain fir. A trellis of 1x1 members, stained walnut brown, is laid over the forward area to stabilize the partitions and to visually reduce the vertical scale. Principles used for the partitioning system are echoed in the detailing of desks, drafting and layout tables, all designed and built by the architects. A natural fiber rug is laid throughout the front section.



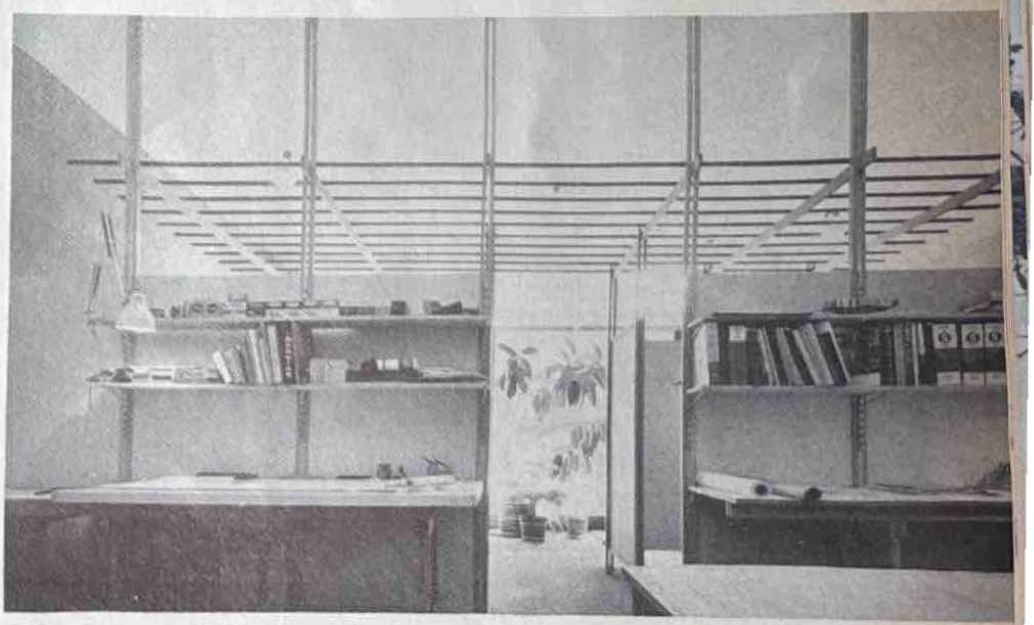
**SMALL SCREENED COURT** heavily planted with bamboo, rhododendrons and vine maple creates quiet intimate atmosphere, offers substantial shade from morning sun. Screen also expresses interior partitioning. Parking strip is paved, leaving three planting ports, each with flowering cherry tree.

# Where architects hang their hats

BYSTROM & GRECO
Seattle, Washington

Art Hupy photos





**ARCHITECTS** occupy larger proportion of space in rear; landscape architect has office overlooking garden entry. Both firms share reception area and adjoining conference room.

# SOME THINGS YOU SHOULD KNOW ABOUT

## Carey® ASBESTOS-CEMENT CURTAIN-WALLS

Almost 30 years of experience in the manufacture of asbestos-cement panels for building enclosures has proved the superiority of Carey curtain-wall materials.

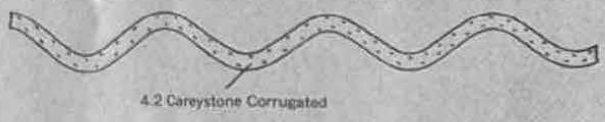
Architects specify these products because Carey asbestos-cement curtain-walls are so economical, so easy to install, and they are virtually maintenance-free. Furthermore, they are indestructible, being resistant to fire, hail, water, rust and rot.

There are three principal types of construction using Carey asbestos-cement curtain-wall products. Their advantages are illustrated in the detail sketches shown below.

Write for architectural, engineering and data manuals.

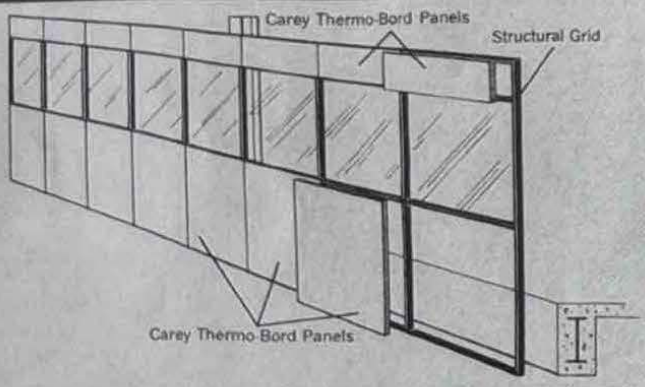



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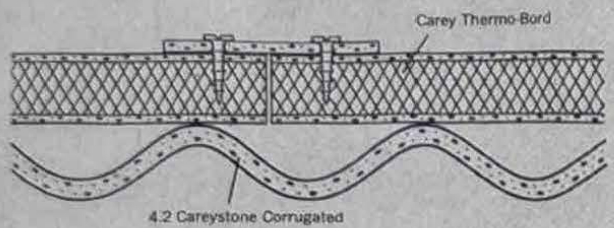

### CAREYSTONE CORRUGATED WALL CONSTRUCTION

- can be installed with overlap joints or with battens
- needs no preservative surface treatment but can be painted any color
- does not require heavy framing or foundations
- ideal for simple structures where insulation is not required
- resistant to practically all atmospheric conditions existing in industrial areas




### WINDOW-WALL CONSTRUCTION

- can be used with practically all types of window-wall designs
- used for schools, office buildings, commercial and industrial construction
- high insulation value
- deadens sound transmission through walls
- needs no surface finish but can be painted any color




### THERMO-WALL CONSTRUCTION

- combines exterior and interior wall surfaces all in one
- has high insulating efficiency
- is quickly erected, requires no finishing
- can be used on all types of industrial buildings

by GLENN M. CANADAY

Third in a series: Precast & Tilt-up Concrete, Reinforcing, Structural Steel, Miscellaneous Iron & Metal

# Prefab components assume major importance

CONSTRUCTION TIME is a significant factor in today's building planning. Since most structures are built solely for economic reasons, the owner must carefully analyze all factors that make up the cost. The period between start and completion of construction is unproductive from the owner's viewpoint. He continues to pay taxes on his land and interest on the construction money; the first part of the building begins to depreciate before the last is finished. Obsolescence begins to take its toll. Every day that the building stands unusable is a thorn in his side.

As a result of the pressure brought to bear upon architects and builders, modern-day construction schedules are considerably shorter than they were 10 years ago. This is largely being achieved by using design and construction techniques that provide for much of the labor to be done away from the actual construction site. Just as the automobile industry manufactures subassemblies and then brings them together in one final assembly plant, the construction industry is prefabricating components to reduce costs and speed up construction time. The increased use of precast and tilt-up concrete is largely a result of this trend.

### 5. PRECAST & TILT-UP CONCRETE

Precast Concrete covers a wide variety of items. Precast joists and roof slab units have been used for years in the East. Items such as these can not usually be made economically on the job, so their use is limited to large centers of population that can support a manufacturing plant. As their use has widened, precast concrete products have become more easily available to the building industry in all sections of the country. They include columns, beams, purlins, roof panels, joists, etc.

Tilt-up Concrete, which is also a type of precast concrete work, is usually confined to building walls and panels. These may be poured on the floor slab and actually tilted into place, or they may be cast on a casting bed and hauled to the building site.

Estimating and job requirements will vary widely for this division, depending upon specifications and plans, the quantity of work, the area of the country and the exact job location. The following subdivisions will serve as a guide.

**5.01. Beams and Columns.** Price by the piece. If you purchase these from a manufacturer, include the costs of hauling, unloadng, setting and aligning, temporary shoring and bracing, grouting and patching. Check on the inserts, reglets, nailers and miscellaneous imbedded iron. The manufacturer may include these in his bid or he may include only installation.

If you plan to manufacture the beams and columns yourself, include costs of casting beds, forms, lifting devices, mild steel reinforcing, stressing steel and accessories, concrete curing, grouting and grouting equipment, finishing, rental of stressing jacks and gauges, stressing labor, engineering supervision and recording. Erection costs will include stockpiling and distribution, setting and aligning, temporary shoring and welding, and grouting and patching. Prorate the costs of casting beds and costs of special rigging required.

Forming costs deserve intensive study; prorate carefully. The number of forms required is governed by design, quantity, and construction schedule requirements. Form costs can often be held to a minimum by scheduling to start precast work as one of your first construction operations.

**5.02. Roof and Deck Slabs.** Price by piece or by the square foot. Much of what has been said about beams and columns in Subdivision 5.01 applies to this section. Since there is usually a large quantity of identical roof slab units, production methods often can be employed in their manufacture. Investigate the use of steel forms and steam curing if you consider making the units yourself. Erection costs include distribution, setting, temporary shoring, welding, grouting and patching. Price grouting of joists by the linear foot.

**5.03. Precast and Tilt-up Wall Panels.** Now used extensively in warehouse and industrial type buildings. The panels are commonly cast on the completed floor of the building and then lifted into place by crane, although they are sometimes cast on specially prepared bed nearby and hauled to the job. The method used is governed by circumstances. List costs as follows:

a. Concrete. Price by the cubic yard. Include costs of materials and placing.

b. Forms. Price by the linear foot. Include costs of materials, make-up, oiling, setting and bracing and removal.

c. Reinforced Steel. Price bars by the ton or pound, mesh by the square foot.

d. Lifting Devices, Hardware, Miscellaneous iron. List in detail. Separate material and labor costs.

e. Bond-breaking agent. Price by the square foot.

f. Finishing. Price by the square foot or panel. Include all labor costs of rodding and troweling.

g. Curing. Price by the square foot. Include costs of curing compounds, paper, etc. List material and labor costs separately.

h. Setting, shoring aligning. Price by the panel. Include costs of crane rental, braces, rigging, welding materials and all labor costs.

i. Grouting. Price by the linear foot.

j. Patching. Price by the square foot or panel. Include costs of patching broken corners, flaws filling bolt holes, etc.

**5.04. Copings and Sills.** Price by the linear foot or piece. Include costs of materials, unloading, setting and pointing. If you cast these on the job, include all costs of forms, reinforcing, concrete, anchors and lifting devices, finishing, setting and pointing. Investigate the use of metal forms to eliminate much of the finishing costs. Check masonry specifications and masonry bids. Coping and sills are usually set and sometimes furnished by the masonry contractor.

**5.05. Structural and Architectural Facing Panels.** Usually purchased from a manufacturer. The crafts involved in erection will be determined by the construction details and the prevailing local practices. Price erection by the panel. Include costs of hauling, unloading, hoisting and setting, grouting, pointing, caulking and cleaning. Hoisting and setting costs should include crane rental, special rigging, scaffolding, welding and mortar materials and all labor involved.

**5.06. Lift Slab and Slip Form Construction.** These construction techniques are used only occasionally in standard building construction, the

reason being one of economics. Latitude of design is extremely restrictive and only rarely can an engineer design for them economically. The contractor will normally procure the assistance of a firm specializing in this work. This includes technical advice and the furnishing and operation of the required specialized equipment. List all costs in detail. Include special insurance, costs of overtime labor and lighting, in addition to normal concrete cost items.

**5.07. Gunite Applications.** The gunite process is used occasionally in building construction for fireproofing beams and columns, patching existing foundations, applying a stabilizing covering over excavated surfaces, as a protective covering over waterproofing, concreting roof domes, patching eroded concrete, etc. You will probably subcontract this work. If you do, clarify responsibility for side forms and screeds, furnishing and placing reinforcing, finishing and curing, and cleanup. If you do the work yourself, include rental of equipment, costs of concrete materials, fuel, edge forms and screeds, reinforcing, finishing, cleanup and curing.

## 6. REINFORCING

Reinforcing is separated from concrete for ease in closing the estimate. Classify into subdivisions as follows:

**6.01. Bars.** You will probably use a bid for the reinforcing bars themselves. Price labor and accessories by the ton. Check the structural drawings for bar sizes and details. Small bars cost more to place than larger sizes; walls require more man-hours per ton than slabs. Read the specifications and check notes on the plans for bar support information. If there are unusual support conditions, take off and price chairs, etc. in detail; otherwise, price accessories by the ton. Include the costs of:

a. Bars
b. Hauling & yarding
c. Hoisting
d. Placing
e. Accessories (chairs, clips, tie wire).
f. Welding

Check specifications and plans for welding requirements. Bars are sometimes welded to provide grounding. This increases placing costs considerably. Price welding by the ton or by the weld. If you subcontract the placing, clarify unloading, hoisting and accessories.

**6.02. Mesh.** Make the take-off in squares (100 sq. ft.); add for lap. When small quantities are involved a percentage (usually 10%) is added for lap and waste. Large quantities warrant a more systematic approach. Make a mesh layout and figure quantities exact. Separate into sizes for accurate pricing. Price both labor and material by the square. Check for support accessories. Don't overlook bar support which may or may not be included in the bar bid. Consider the amount of mesh in a roll when totaling quantities.

**6.03. Fireproofing.** Price mesh by the square foot, Reed clips and other patented devices by the linear foot. Check specifications and structural drawing notes carefully. Allow for both side and end lap.

## 7. STRUCTURAL STEEL

You may subcontract this division in its entirety, purchase the materials and subcontract the erection, or use a material bid and erect the steel yourself. The estimator, if he is to adequately evaluate the steel bids, must be thoroughly familiar with the plans and specifications for all the metal items—structural steel, miscellaneous metal, sheet metal and metal specialties.

Subcontractor's bids often contain duplications and omissions. Without a check list of all metal items for the particular job, it may be extremely difficult to properly evaluate the bids. There is often no clear-cut distinction between structural steel and miscellaneous iron. A particular item may be included in both bids or omitted from both. The multiplicity of fabricated metal items used in today's construction also adds to the confusion. The only solution: a complete check list and a careful comparison of subcontractor's bids.

**7.01. Structural Steel.** Include costs of:

a. Fabricated steel
b. Freight and drayage
c. Bolts, rivets
d. Anchor bolts, leveling plates

Note delivery date. Suppliers sometimes quote a delivery date that will not allow the general contractor to meet his construction schedule.

**7.02. Structural Steel Erection.** Include the following:

a. Setting anchor bolts. Price by the bolt. Include costs of supports and all layout and setting labor.
b. Setting leveling plates and base plates. Price by the unit. Include costs of equipment rental when required, metal shims and labor.
c. Steel erection. Price by the ton. Include costs of:
   1. Unloading and yarding
   2. Equipment rental
   3. Special rigging
   4. Power tools
   5. Hand tools and supplies
   6. Welding materials
   7. Power and fuel
   8. Scaffolding, planks, nets
   9. Erection labor
d. Grouting base plates. Price by the unit. Include costs of grout, edge forms, labor.
e. Inspection fees
f. Painting. Include costs of field touchup and field painting. Check the painting specifications for coverage of this item.

If you subcontract steel erection, clarify erection schedules, working conditions and inclusion of erection items and inspection fees.

**7.03. Joists.** Check your supplier's quotation for inclusion of headers, extension bridging, wall anchors, anchor bolts and drilling or punching of any required holes.

**7.04. Joist Erection.** Price by the ton or piece. Include cost of equipment rental, welding materials, labor.

## 8. MISCELLANEOUS IRON & METAL

Items included in this division cover a seemingly endless variety of fabricated and manufactured metal items. The estimator will find them scattered throughout the plans and specifications. It is most important that he classify these items and make a complete listing. The following subdivisions will aid in keeping your estimate in some semblance of order. The importance of a complete quantity survey (from both plans and specifications) for this division cannot be stressed too strongly.

**8.01. Miscellaneous Iron.** Include iron and galvanized iron items such as channel door frames, angle sills and guards, stairs, handrail, ladders, shelf angles, closure angles, edging angles, clip angles, lintels, angle frames, bench legs, equipment platforms, wall opening frames and subframes, pipe sleeves and sockets, anchor bolts, etc. Price labor by the pound, ton or item. Itemized pricing is preferable.

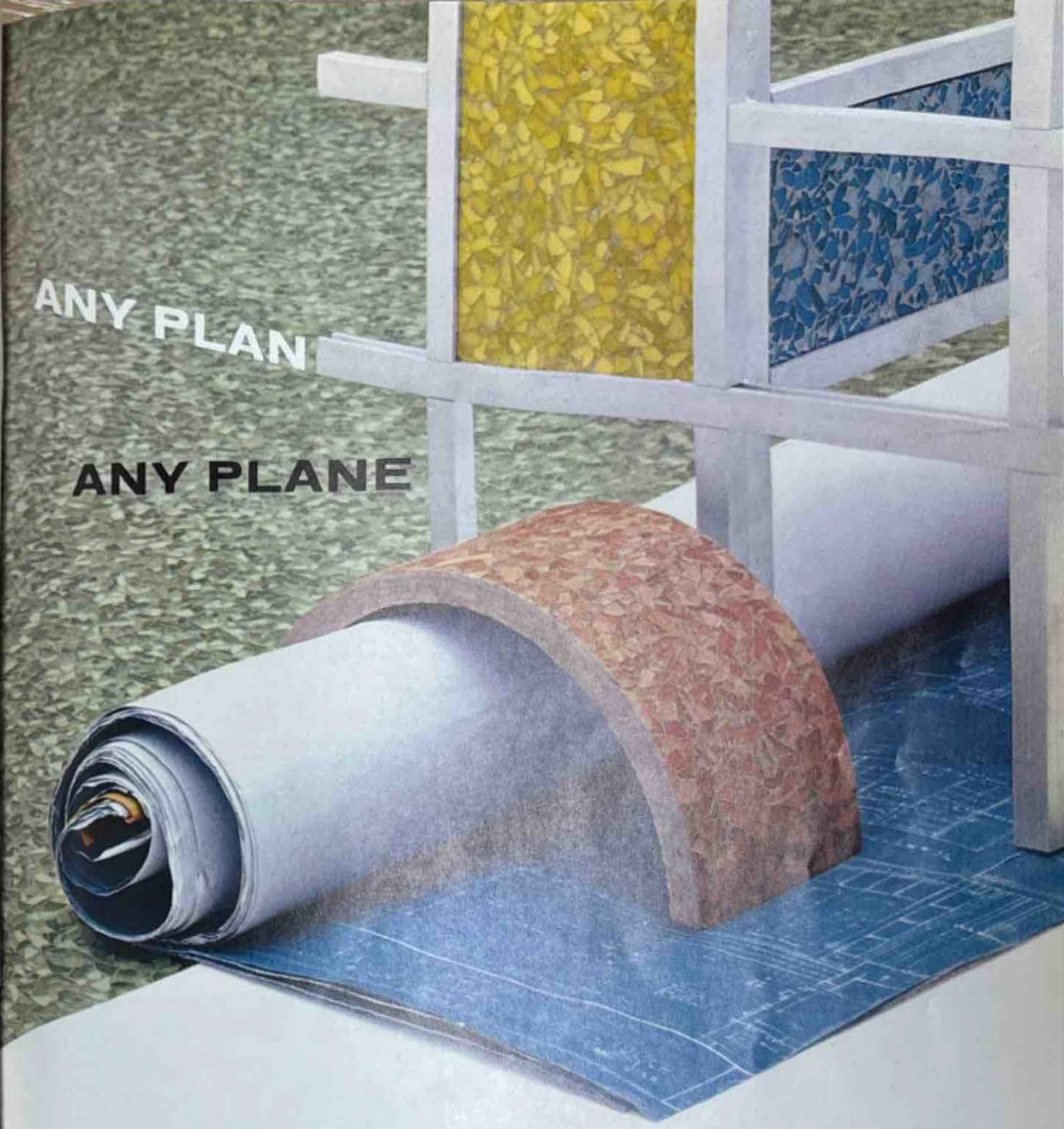
**8.02. Aluminum and Bronze.** Include fabricated nonferrous metal items in classification similar to items listed under Miscellaneous Iron (8.01). These will consist principally of stair handrailing, frames, plates and closure angles. Price labor by the piece.

**8.03. Wire Mesh Partitions.** Include wire mesh partitions and doors. Price labor by the foot.

**8.04. Thresholds and Nosings.** Price installation labor by the piece. Include costs of anchors and mastic.

**8.05. Grating.** Include cost of grating and grating treads. Price labor by the square foot or ton. Include welding materials.

**8.06. Cast Iron.** Include trench grating, drain and sump covers, etc. Price by the unit. Check mechanical specifications and plans to avoid duplication.




**Outside or inside,** on curved or flat surfaces, Mosaica imparts an enduring finish with intrinsic color, pattern and texture. Design Mosaica into window and curtain wall panels, facings, door surrounds, wainscots and ceilings, in solid areas or as decorative accents. Composed of random size and shape glass tesserae set in an inorganic matrix, laminated to 3/16" cement-asbestos board, Mosaica is scratch proof and impervious to stain. Carpenters install Mosaica in sheets up to 4' by 10', with 100 sq. ft. of Mosaica going up in just 1 1/2 hours! Contact Soulé for the name of the representative near you.

MOSAICA

a division of Soulé Steel Company

SAN FRANCISCO · LOS ANGELES · SAN DIEGO · PORTLAND · SEATTLE · SPOKANE · PHOENIX · SALT LAKE CITY · DALLAS



One of 4 schools in the Ontario School District, Cal. for which Rilco supplied laminated pitched and tapered beams. Architect: Jay Dewey Harnish; Contractor: Hoefer Construction Company.

# Schools with RILCO are Beautiful Fire Safe Economical

One of the schools shown here was built for $7.75 per sq. ft., one cost $10.24, another $7.30, that's economy. The beauty of Rilco laminated wood members is a plus — a beauty only wood can offer. There is no institutional chill — warmth of wood that mellows with age makes youngsters feel at home.

Rilco arches, beams and trusses help reduce erection time and costs — delivered carefully wrapped for protection—drilled for furnished hardware, they go up *fast* with regular job-site labor. Maintenance free — laminated wood is not subject to chemical change, rust, corrosion, splitting or warping.

Fire resistant Rilco laminated wood, arches, beams and Rilco Deck are slow to burn, won't collapse under high temperatures — allow time to save structure and contents.

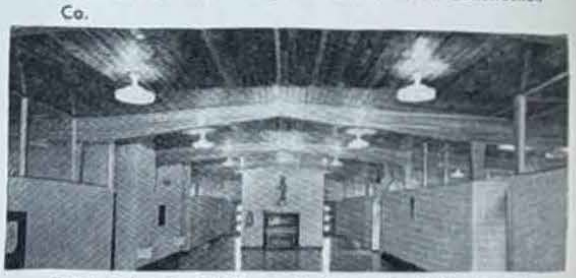
Rilco laminated wood members bring all three *Beauty*, *Fire Safety*, *Economy* to any school. For more information on building *bigger* and *better* for *less* contact your closest Rilco office.

RILCO
*works wonders with wood*

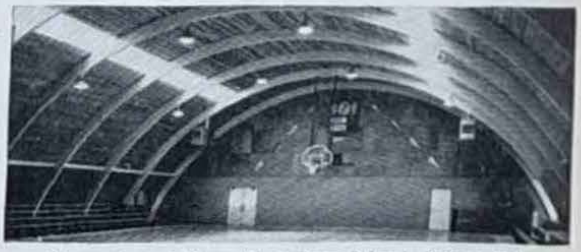
**RILCO LAMINATED PRODUCTS, INC.**
**236 TACOMA BUILDING, TACOMA, WASHINGTON**



Banner County High School, Harrisburg, Nebraska was built for $10.24 sq. ft. including all fixed equipment. Architect: Robert Ditzen; Contractor: Fullen Construction Co.



Total cost was $7.75 sq. ft. to construct St. Joseph's School, McPherson, Kansas. Architect: Robert E. Marr; General Contractor: Frank Jackson.



Gymnasium of Kiowa Elementary School, Kiowa, Colorado. School was built at a cost of $7.30 sq. ft. Architect: Robert W. Ditzen; Contractor: Broadway Construction Co.

# Parasol in plywood for $3 per sq. ft.

Economies dictated specification of fir plywood for this pagoda-like pavilion which graces a swimming pool for employees at the new $3 million headquarters and laboratory of the Stuart Co. in Pasadena, Calif. Final cost—$3 per square foot—covered jig, material, labor, transportation and erection of the 10 hyperbolic paraboloids on a steel frame similar to the rib structure of a parasol. Edward Stone was the architect; Pregnoff & Matheu, structural engineers.

The fir plywood outbid three other competitive materials. Engineers of the fabricator, Berkeley Plywood Co., feel that in larger structures of the same type and in cases where paraboloids don't require that pieces be bent to such tight radii, the in-place cost could be as low as $1 per square foot.

Each paraboloid unit is made up of four layers of exterior type fir plywood. The outside layers are one-side resin overlaid panels with the overlay exposed—a medium density resin-fiber surface cured under heat and pressure. Maximum length of each segment from roof peak to the extremity of the overhang is 30 ft.; maximum width is 15 ft. along the surface. The long edges are reinforced by 4x8 wood members and 8-in. steel tees, but overhanging edges are not reinforced. Total roof surface is 1,970 sq. ft.

Segments were bolted together and supported by 10 8-in. columns on the circumference of a 36-ft. diameter circle. Columns are spaced on 12-ft. centers; a 12-in. steel pipe is the center support.

Construction steps at the fabricator's shop in Oakland were these:

1. Two-by-sixes were fastened in a paraboloid shaped jig with nails and framing anchors, forming a rigid base that would not alter as plywood was molded and fastened to it.

2. Cardboard templates were cut to the approximate shape that plywood would be able to assume and plywood templates were made from the cardboard ones.

3. The first layer of overlaid plywood was cut from the templates with a router and fastened to the jig frame with spotnails. Where the radius approximated 6 ft. near the apex, a large number of nails was required to hold the shape and pieces had to be cut small.

4. Templates for the second skin were made by laying cardboard on the first skin. Plywood templates were then made for plywood pieces which were fastened to the first skin with resorcinal glue—with spotnails to develop the glue pressure. The third and fourth skins were similarly constructed.

5. After the unit was cured for 24 hours, it was removed from the frame. Ends of the spotnails were clipped off and the ceiling face was sanded lightly. The unit was tested by fastening the tapered end to a beam and supporting the two lower points on blocks. For testing, 100-lb. weights were suspended on 2-ft. centers, giving a uniform load of about 25 psf. Deflection was negligible.

6. Ten units identical to the prototype were constructed and sent to the building site where they were installed by crane on a steel framework and topped with reinforced fiberglass.



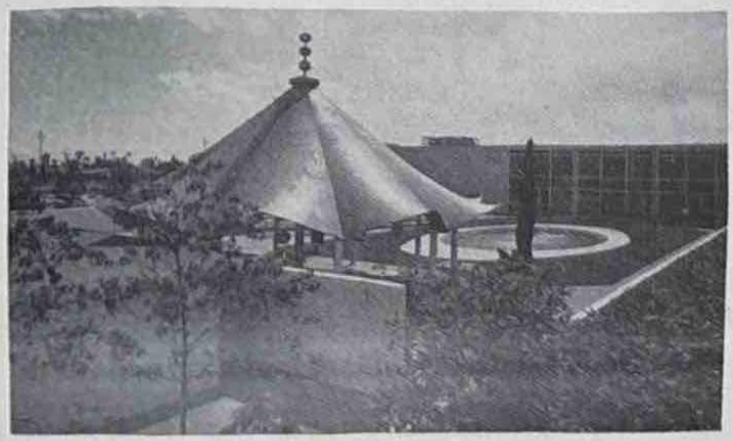
**EACH UNIT** is made up of four layers of exterior type plywood and sent to building site.

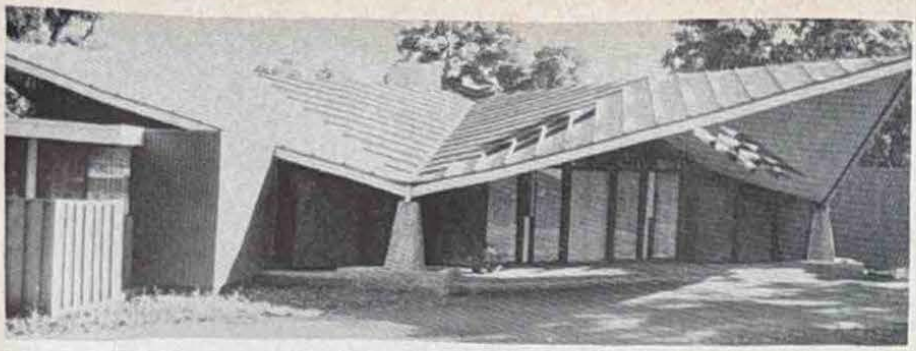


**SEGMENTS** are bolted together and supported by 10 8-in. columns on circumference of 36-ft. diameter circle. Columns are spaced on 12-ft. centers, with 12-in. steel pipe center support.



**TEN PARABOLOIDS** are installed by crane on steel framework. Maximum length of each segment from roof peak to extremity of overhang is 30 ft.; maximum width is 15 ft. along surface.



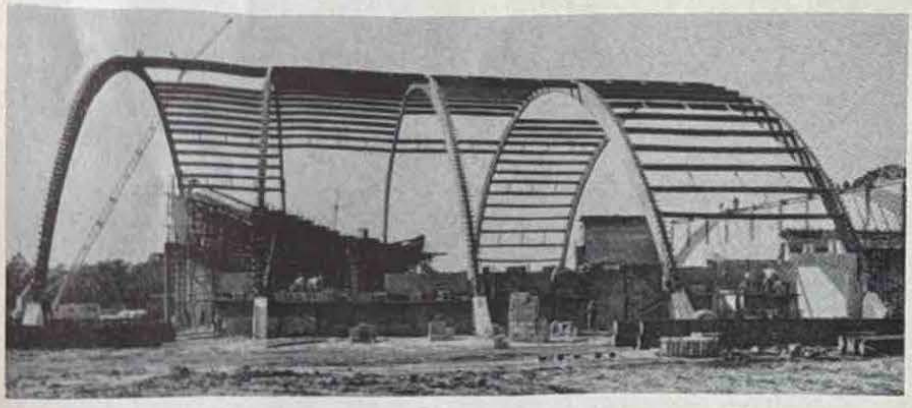


**DRAMATIC EFFECTS** are created with use of terne roofing, as shown in this residence of Elmer P. Gavello in Sunnyvale, Calif., designed by Anshen & Allen. Architects used 30-gauge, 40-lb. terne over 2x2 battens and ½-in. plywood sheathing. Terne also was specified by Frank Lloyd Wright for Wedding Chapel at Berkeley's Claremont Hotel.

## Old terne roofing comes in colorful new dress

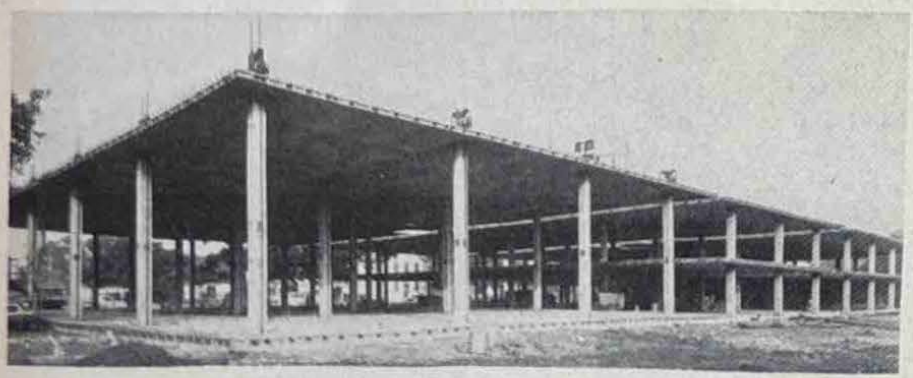
Seamless Terne, an old, old metal in a new dress has been gaining popularity as an imaginative, colorful, roofing material. An alloy of lead and tin on a base of sheet steel, it was originally developed in Wales in the mid-18th century and enjoyed great vogue in the U.S. during the 1900s.

Follansbee Steel Corp. has refined and improved terne to give the architect and builder a roofing metal that becomes a significant and integral part of the structural design. Adaptable in both form and color, the material creates ridges and elevations for unusual effects.



**DOUGLAS FIR ARCHES SPAN 252 FT.**

at this jai alai arena constructed at Volusia, Fla., with structural timber framing supplied by American Fabricators, Inc., of Bellingham, Wash. Arena, which will seat 3,500, has roof area of 50,000 sq. ft. supported by five arches spaced on 40-ft. centers. Arches are glued laminated timbers 11 in. wide, varying in depth from 36 in. at abutment to 66 in.



**WORLD'S FOUR LARGEST PRECAST LIFT SLAB PANELS**

which roof new headquarters for U. S. Geological Survey in Menlo Park, Calif., each covers about 13,000 sq. ft. and weighs 700 tons, as do each of four second floor panels. Louis C. Dunn Construction Co., general contractor, used Thompson's Water Seal as curing agent and bond breaker on all eight panels and "had no trouble in parting and obtained an excellent finish." Architects: Loubet & Glynn.

## Water problems faced by coast builders

Tract housing with its need for large, usually undeveloped areas, has created a side problem for builders, forcing many into the water utility business.

In a survey by the Cast Iron Pipe Research Association, three out of four builders responding said they had to provide water mains for projects they built during the past year. And almost half said they expected their water supply problems to increase during the next three to five years.

More than 33% of the builders anticipating continuing water problems said that lack of mains was the most serious difficulty they faced. The water problem is most acute on both coasts where 80% of the respondents had to provide their own water systems. The greatest percentage of those who expected more problems in the future was on the West Coast, 48.9%.

To solve their water problems, many builders have been able to tie in with distribution mains of the city or village in which their tract was located, although more than 20% of those replying said they sunk their own wells or ran mains to a nearby lake or river and also had to build pumping stations and treatment plants. Some organized private water companies.

## Lighting costs cut 45%

A recent conversion to outdoor fluorescent luminaires has increased outdoor work and security illumination more than five times, while cutting power costs almost in half at the San Diego Plant No. 2 of Convair. Designed by company engineers, the system has cut operating costs by 45%, cut relamping costs by 80% and increased footcandles from two to more than eight at a level of 48 in. above grade, the company reports.

Standard outdoor incandescent fixtures were converted to 178 fluorescent luminaires. The 8-ft. long luminaires consist of aluminum and plexiglass encasements mounted either singly or in V-shaped pairs and contain two 96-in. General Electric Power-Groove lamps in each arm. They are designed and manufactured by the Steber Division of The Pyle-National Co.

With the new system, yard areas formerly not usable for working space at night can now be activated for around-the-clock schedules. The luminaires also provide better light distribution, increased eye comfort and reduction of ground shadows.



# 120 feet of rugged STRENGTH!

Macomber high-strength ALLSPANS framed this 30-lane Bowling Alley economically without excessive weight. For full details on how ALLSPANS can serve you on roof or floor spans out to 120 feet, check your local Macomber representative or send for the new ALLSPAN Design Manual.

**NEW DESIGN MANUAL**
Full details on ALLSPANS . . . the complete story of exclusive structural and economical advantages . . .




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**MACOMBER**

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## Shoring system gives clear working space below

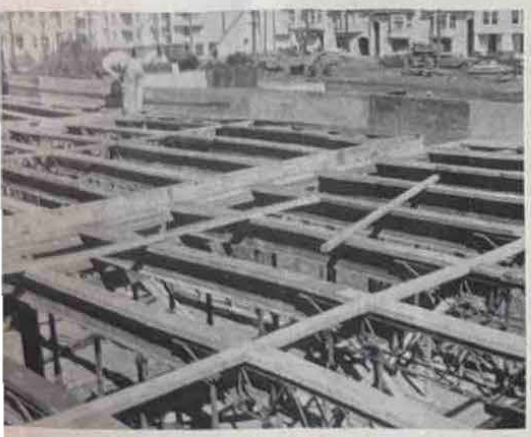
A fast construction schedule was one of the requirements on the recently completed Safeway store project at Cabrillo and Seventh Avenue in San Francisco. To meet the challenge, MacDonald, Young & Nelson, Inc., employed a comparatively new horizontal shoring system which permits the crew to shore deck and floor areas so that work underneath is not impeded while the concrete is setting overhead.

Called Spannall, the system consists essentially of two basic structural steel members—lattice and plate—both available in three sizes. Sections are assembled to desired span lengths by combining one or more plate members with lattice members. (Uninterrupted spans from less than 7 ft. to more than 34 ft. between vertical bearing surfaces are possible, the manufacturer points out.)

In addition to eliminating sometimes cumbersome vertical shoring and freeing work areas on the floor below the forms, the contractor found that the Spannall members could be set in place quickly with a minimum of equipment and could be removed quickly, once the concrete had set, to be used on other parts of the job. In this case, the system was used for the mezzanine floor which extends over the rear 25% of the building.

The store, which comprises 18,000 sq. ft. of floor area, was started in mid-February and completed in mid-June. Architects were Wurster, Bernardi & Emmons.

**BELOW SLAB,** shoring leaves elbow room for workers during pouring and setting period. Beam combines lattice and plate members.





## Utility rewiring proposed at western convention

An entirely new approach to home wiring has been proposed by James H. Goss, head of the consumer products group for General Electric Co.

"The telephone companies own everything from the switchboard to the handset inside the house," he commented. "Why can't the electric utility own everything up to and including the branch circuit panel in the home? Since this is a major portion of the cost to modernize customers' wiring, why not follow this course to eliminate this problem and encourage higher electrical consumption?"

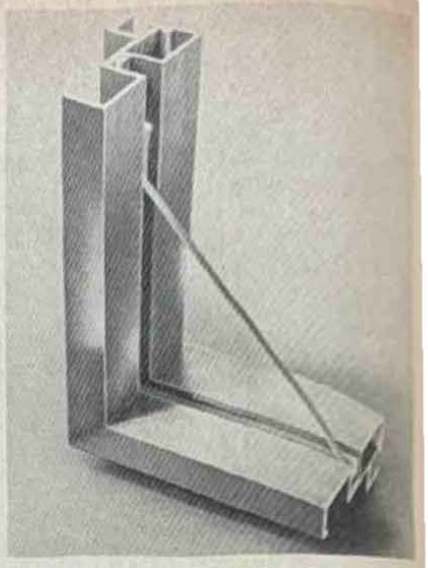
Goss, who spoke before a convention of the Pacific Coast Electrical Association, predicted that continually rising construction costs would force builders to use prefabricated sections. Instead of 40,000 or more parts, the house of tomorrow could have all its components noted onto one specification sheet, he said.

## Aluminum homes pushed

Two major aluminum producers are concentrating sales efforts to introduce the public to the advantages of extensive use of that material in home construction.

Reynolds Metals Co. is working with builders in major cities to produce its "House of Ease" which includes 20 to 30 aluminum building products. One of the first on the West Coast has gone up in the Great Seattle area in the Newport Hills development near Bellevue. Others are scheduled for Portland, San Francisco and Salt Lake City. The Newport Hills project is in the $16,000 to $21,500 price range.

Kaiser Aluminum & Chemical Corp. has launched a national marketing program which will include introduction of builder models in several housing centers during National Home Week in September. San Diego is one of six U.S. cities selected to show the house, utilizing 21 aluminum products.



**BRONZE WINDOW SECTION**
for John Hancock Building, now under construction in San Francisco, shows interlocking feature of glass stop which allows glass to be removed from inside window. Windows will be independently hung to steel reinforced concrete bearing wall, as will polished granite surfacing wall. Extrusions are being supplied by Chase Brass & Copper Co., fabricated in Oakland by C. E. Toland & Sons. Architects: Skidmore, Owings & Merrill.

## Unusual sandwich construction used on Hawaiian project

A combination of two types of aluminum sheet and a filling of insulation have been used in the new cafetorium



of Kailua Second High School on Hawaii's Oahu. Working on a low budget, architects McAuliffe, Young & Associates used Alcoa V-beam sheet in a single slope for the exterior roof and walls of the single-story structure which doubles as cafeteria and auditorium. Beneath the V-beam is a layer of insulation and an inside surfacing of perforated aluminum sheet.

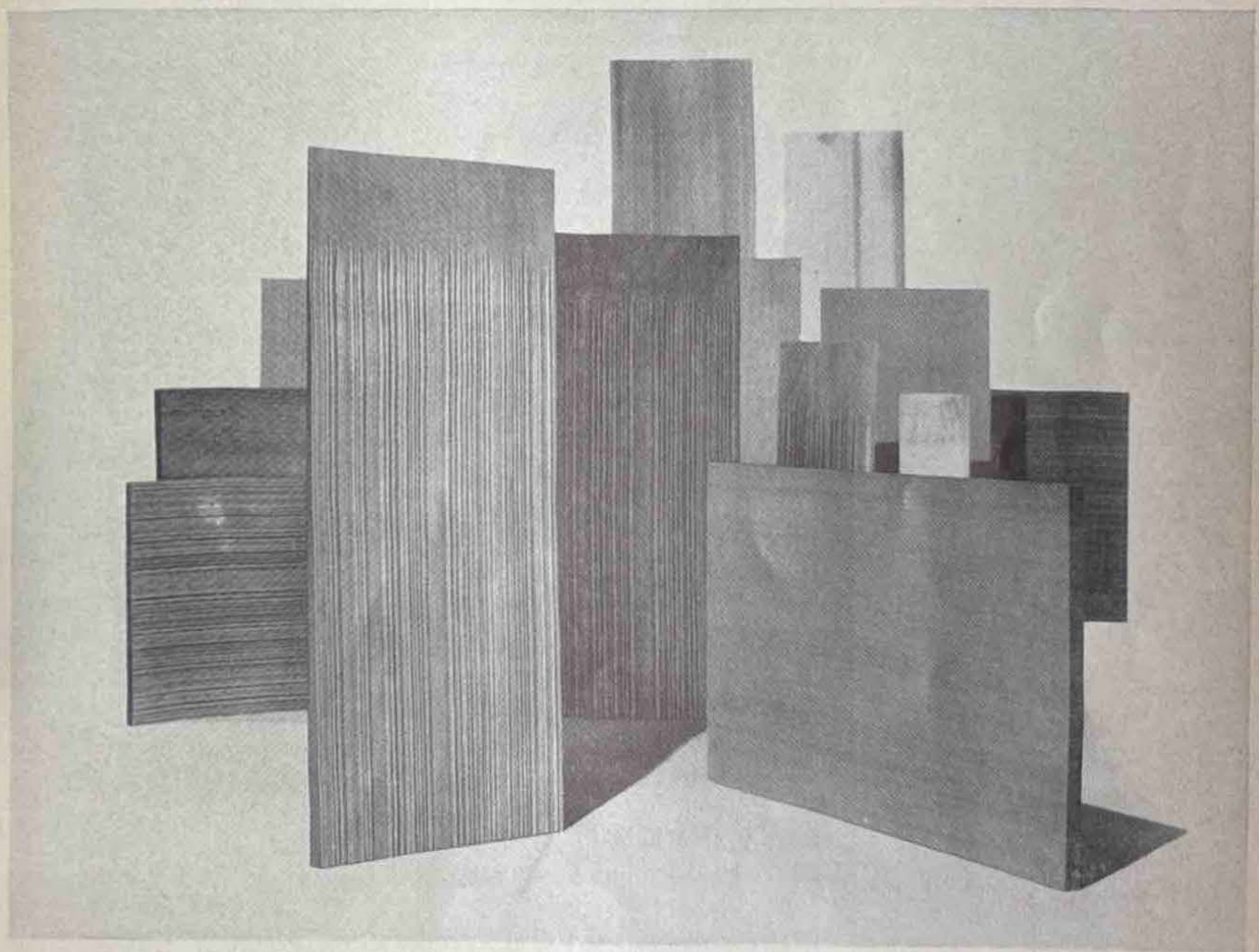
Of rigid frame construction, the wood structural system features purlins of 3½-ft. centers. The allowable live load of the roof can exceed 40 psf. The perforated sheet and insulation provide good acoustics; vertical jalousie slots of varying length provide ventilation.

# the three dimensions of cedar

Cedar gives you thickness that tells prospects your homes are built to last. It gives you texture that dramatically shows your awareness of good taste in exterior finishing. And, it gives you visible quality that is unmistakable.

Whether featured on roofs, on walls, or in tasteful combination... red cedar shingles and machine-grooved cedar shakes provide a range of design possibilities unmatched by other exterior materials.

Let the thickness, the texture, the natural quality of cedar shingles and shakes add new dimension to your home-selling program.



For application details, see your current Sweet's File...or write...

**RED CEDAR SHINGLE BUREAU**

5510 White Building, Seattle 1, Washington

550 Burrard Street, Vancouver 1, B. C.






### rib type metal panel

Improved design of a rib type metal panel keeps metal buildings absolutely dry. Panel eliminates threat of water invasion at the sidelap by interrupting the capillary channels. Also featured is a special bend at the side edge of the rib eliminating unsightly gaps where the panels join together. A narrower crown ensures automatically perfect alignment on the shoulder bolts.—Pascoe Steel Corp. (Item No. 1)

### cigaret-resistant vinyl

A special production process makes the latest addition to the Bolta-Top resistant to cigaret burns. The vinyl surfacing material is also impervious to abrasion, permanent stains and other destructive or defacing action. Patterns were designed for conventional countertop and special wall applications as well as for furnishings. Eleven colors are available in two patterns.—The General Tire & Rubber Co. (Item No. 2)

### built-in vacuum cleaner

Built-in vacuum cleaning systems, heretofore confined primarily to commercial installations or large clubs, are now beginning to filter into the home market. Latest is the Electro Clean-O-Matic which is furnished complete with a heavy duty vacuum unit, inlet valves, tubes and fittings, cleaning tools and hose. Cleaner is operated by simply fitting the hose into the room outlet. No cords are necessary.—Better Living Specialties, Inc. (Item No. 3)

### rubber control joint

Caulking is not necessary in standard concrete block construction when using the Rapid rubber control joint. Neoprene compound wide flanges expand and contract with the joint, keeping it sealed at all times, in all kinds of weather. Concave edge allows easy compression. Application is simple and fast.—Dur-O-Wal Division, Cedar Rapids Block Co. (Item No. 4)

### steel stoop prefab form

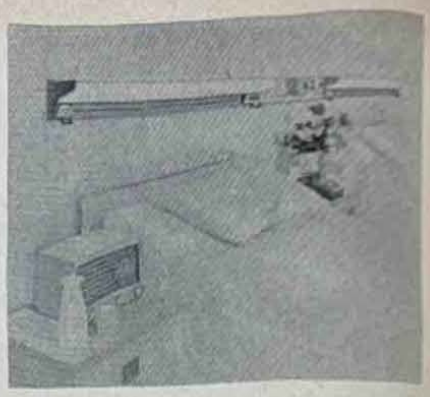
For residential and industrial construction where a wing wall is required, Symons is offering a steel wing wall or stoop prefab form. Triangular in shape, it will form a concrete bracket 4 ft. deep, extending 4 ft. from the wall at the top. Thickness of the bracket is 8 in. at the wall, going down to 6 in. at its outer extremity. Stoop forms are available for either wood- or steel-ply forms.—Symons Clamp & Mfg. Co. (Item No. 5)

### metallic countertops

Five gold metallics and one all-copper style have been added to Goodyear's economy all-vinyl Evergleam counter topping line. Metallics are on beige, aqua, gray, black or pink in either 36- or 45-in. width rolls. Terrazzo styled pink and white on charcoal in tile or roll also has been added to the No-Scrub all-vinyl flooring line.—Goodyear Tire & Rubber Co. (Item No. 6)

### security area light fixture

For maximum security areas, such as prison cells, psychopathic wards, shelters for delinquent children and other areas especially subject to vandalism, McPhilben has developed a lighting fixture with a rugged, non-removable 10-gauge perforated steel protective guard. Fixture fits snugly between wall and ceiling, preventing concealment of tools or weapons. Access hole in rear permits relamping from outside cell.—McPhilben Lighting, Inc. (Item No. 7)



### patient service system

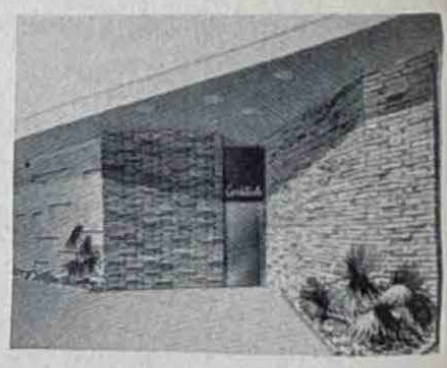
Centron-10, an integrated hospital room console type service unit, provides in one package a general illumination unit, shielded reading light, color-corrected examination light, night lights, convenience outlets, provision of nurse-call system, N.G.C. oxygen and vacuum systems, television lead-ins, phone outlets and accessory intravenous apparatus support arm. The streamlined, prewired console presents an uncluttered, built-in appearance. One unit can service four beds in two adjoining rooms.—Sunbeam Lighting Co. (Item No. 8)

### self-aligning wall plates

Sectional wall places simplify arrangement of any desired combination of switches, outlets, Despard wiring devices or telephone jacks. Plates are self-aligning with a lug and slot which locks the sections securely to provide a complete, matching installation.—Pass and Seymour, Inc. (Item No. 9)

### economy size stone veneer

Large size of the Viking stone reduces material and labor costs as much as one-third below that of its companion, Flagcrete. Since Viking is not molded, texture of each block is different, thereby producing custom effects. Range of 10 colors—gold, soft bronze, apricot, rose, terra cotta, fawn, cocoa, putty and tawny—is offered.—General Concrete Products, Inc. (Item No. 10)



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**Please send without obligation the data about the products listed on these pages.**

**Circle item number you wish:**

SEPTEMBER 1959

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### free-standing tub

Free-standing, recessed design of the Beautyware Medallion bathtub eliminates need for added supports. H-framework at bottom and light weight (125 lb.) also lowers installation costs. Seam-free, one-piece construction has straight edges at base, simplifying installation of floor covering or wall panels. A leakproof flange extends upward behind the wall surface on all three sides; corners of the flange are drawn together for protection against wall seepage. Full-width seat extends almost entire length.—Briggs Manufacturing Co. **(Item No. 11)**

### noncorrosive aluminum doors

Sun Valley aluminum sliding glass doors are now being manufactured with the Recodizing process that protects the finish from pitting and corrosion. Recodized extrusions on the doors are unaffected by solvents, mild alkalies and acids and retain their beauty even in areas with extreme temperature changes. Process also makes the aluminum more resistant to scratching and abrasions. — Sun Valley Industries, Inc. **(Item No. 12)**

### aluminum windows

A line of aluminum projected and casement type windows known as Ariston Series 5000W has been introduced by Michel & Pfeffer. Constructed to meet specifications of the Western Architectural Metal Manufacturers organization, the windows have solid sections minimum ⅛-in. thick with 1½-in minimum depth of sections, adjustable friction shoes and adjustable arm assembly. — Michel & Pfeffer Iron Works, Inc. **(Item No. 13)**

### colored stainless steel

Exterior color possibilities get better all the time. Now a coating system for stainless steel has been developed jointly by Washington Steel and American Marietta. First application of the ColorRold line will be in an insurance building in Pittsburgh where gray stainless steel panel sections are to be used. The system consists of a one-mil coating of colored acrylic resin which is then baked. It is said to be less expensive than other colored metals and much more flexible, as the colored stainless can be roll formed, bent and drawn without damage to the coating. If coated sheets or panels are damaged in shipment, fabrication or construction, they can be field repaired.—Washington Steel Corp. **(Item No. 14)**




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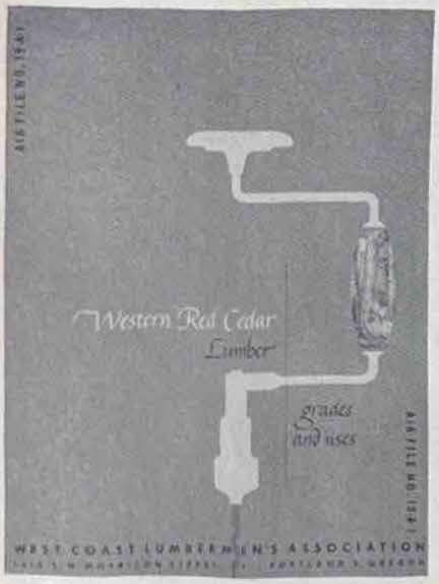
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**pa&b pick of the month**

"Western Red Cedar Lumber Grades and Uses" (AIA 19-A-1) covers such topics as insulating qualities, dimensional stability and gluing properties, durability and weathering characteristics in its 36 pages. Perhaps the most useful aspect of the booklet are the close-up black and white reproductions of select merchantable, construction, standard and utility grade "examples" of both lumber and panels. It also provides conversion tables for bevel siding, finish grades, flooring and decking, boards and dimension lumber; diagrams for nailing, application and decking patterns; and photos of the use of cedar in fencing, patios, exteriors and interiors.—West Coast Lumbermen's Association, 1410 S.W. Morrison St., Portland 5, Ore.

**Outdoor Weatherproof Lighting Fixtures for Spot and Reflector Lamps:** carries charts, tables and graphs designed to help architects and electrical engineers in their selection of fixtures for homes, hotels, institutions, etc.; has miniature Moldcast bullets made of same metal and polished and sprayed in all seven finishes; 24 pp.—Moldcast Manufacturing Co., 236 South St., Newark 5, N.J.

**Permanent Low-Cost Commercial-Industrial Buildings:** illustrates flexibility, fast erection and other features of pressure treated, pole type construction; 20 pp.—Wood Preserving Division, Koppers Bldg., Koppers Co., Inc., Pittsburgh 19, Pa.

**Comprehensive Storage System:** portrays variety of arrangements possible with 22 basic storage and working units designed by George Nelson; 4 pp.—Herman Miller Furniture Co., Zeeland, Mich.

**Barcol Cam Action Overdoors** (AIA 16-D): describes and illustrates complete line of residential, commercial and industrial overhead doors and electric door controls; with installation drawings; 16 pp.—Barber-Colman Co., Rockford, Ill.

**Thinlite Curtain Wall** (AIA 3-B, 4 and 7): uses color photos to depict design possibilities, plus drawings of standard 4- and 5-ft. module panels, component parts and typical details; 12 pp. Owens-Illinois Glass Co., 14th and Adams, Toledo 1, Ohio.

**Diamond Span-R Beam** (AIA 13-G): introduces lightweight, low cost joist for clear spans up to 90 ft. and featuring diamond openings that accommodate ductwork; 6 pp.—Elizabeth Iron Works, Inc., Box 360, Elizabeth, N.J.

**Conduflor Underfloor Distribution Systems:** describes this Headerduct system for flexible power, communication and signal distribution in cellular steel floors and gives general assembly details; 8 pp.—Conduflor Corp., Box 2748, Cleveland 11, Ohio.

**Concrete and Masonry Treatments** (AIA 3-B, 4 and 7): gathers together brochures covering 14 products, including concrete surface treatments, concrete integral mixtures and waterproofing and dampproofing compounds; performance data and methods of application given for each; 32 pp.—Tretol, Inc., 6531 W. 63rd St., Chicago 38, Ill.

**Look up to Beauty:** shows with large full-color illustrations how acoustical ceiling tiles can be used to advantage throughout the home; 16 pp.—Insulite, 500 Investors Bldg., Minneapolis 2, Minn.

**Prewiring for Television with Tele-Jac** (AIA 31-I-6): illustrates antenna roof mounts, wall plates and accessories, including attic installation for use in metropolitan prime reception areas; in punched folder of eight individual sheets.—The Tele-Jac Co., 2200 N. Tyler Ave., El Monte, Calif.

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### new offices, partnerships

Lawson Butt Jr. has opened an office for the practice of architecture in Suite 1, Leilani Bldg., Honolulu.

Fowler & Peterson is a new architectural firm organized in Salt Lake City, with offices in the Continental Bank Building. Principals are Robert A. Fowler, who has practiced locally for several years, and Charles D. Peterson, former faculty member at Washington State University, Pullman.

Paul S. Pierson and Hilary M. Johnson have formed an architectural partnership under the name of Pierson & Johnson at 285 University Blvd., Denver.

Paul L. LeMoine and George S. Nicolatus have organized a new firm, LeMoine-Nicolatus, Architect & Associate, at 205 Dixon Bldg., Salt Lake City.

A Hawaiian office has been opened in Honolulu's Aloha Tower by Daniel, Mann, Johnson & Mendenhall, Los Angeles architects-engineers, with Michael C. A. Henderson in charge. Before becoming president of Islands Welding and Supply Co., steel fabrication and construction materials organization, in 1956, the architect was a partner in the firm of Benedict, Beckler, Kocher & Henderson, with offices in Los Angeles and San Francisco.

### firm changes

The San Francisco architectural firm of John Lyon Reid & Partners is now known as Reid, Rockwell, Barnwell & Tarics, incorporating the names of the partners in the original firm.

The architectural firm of Scott & Beecher, which has practiced for 12 years in Salt Lake City, has been dissolved but it will continue to expedite projects now in progress. Two new firms have been organized, both with offices in the Dooly Building: Scott & Louie, with C. Walter Scott, William W. Louie and K. D. Eisenhard as principals; and Harold K. Beecher & Associates.

### new addresses

Seyranian & Associates to 256 Sutter St., San Francisco.

Robert Guy Biddle, architect, to 414 San Mateo Blvd. N.E., Albuquerque.

Donald R. Wilkinson & Ralph M. Crosby, architects, to 704 S. Spring St., Los Angeles.

Dalton & Dalton, consulting structural engineers, to 384 First St., Jack London Square, Oakland.

Evanoff, Kabush & Waldowski, architects, to 309 Sherwood Bldg., Spokane.

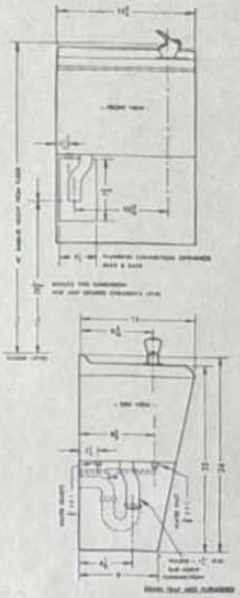
Riener C. Nielsen & Gene E. Moffatt, architects, to 4336 Leimert Blvd., Los Angeles.

Howard Frank, architect, to 190 N. Canon Drive, Beverly Hills, Calif.

### deaths

George J. Adams, Los Angeles architect, died June 22.

Chet A. Kershaw, 45, Portland mechanical engineer and founding father of the Consulting Engineers Association of Oregon three years ago, died July 18. A graduate of the Uni-

Haws Model HWT-13



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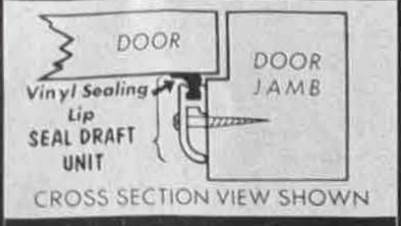
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versity of Minnesota, his work was largely with heat transfer equipment and he designed lines of boilers for three Pacific Northwest manufacturers.

### new associates

Architect Jack Russell Rummell and engineer James J. Kesler have been elected associates in the Los Angeles architectural - engineering firm of Daniel, Mann, Johnson & Mendenhall.

Carl Arras, Robert L. Hart and Neill Smith have been named associates by San Francisco architect John Carl Warnecke, whose firm is now known as John Carl Warnecke & Associates.

### appointments, elections

J. Dulet has returned to the state of Washington to assume duties in Walla Walla as chief architect for the Corps of Engineers' review board for military design projects, having completed his assignment as chief architect and structural engineer for U.S. Navy Air Stations in Hawaii.

San Francisco architect Nathaniel A. Owings has been named a trustee of the Committee for Economic Development.

Charles E. Woodward will leave his post as assistant planning head in Oakland to become director of the Portland Planning Commission September 15. Succeeding Lloyd Keefe, who is now executive director of the newly organized Downtown Portland, Inc., Woodward holds degrees from the University of California and the University of Colorado.

Ted B. Adsit has been named assistant director of planning for Welton Becket & Associates, Los Angeles architects-engineers. Urban planner and administrator, he most recently has been a lecturer at the University of Pittsburgh and director of its Institute on Organization, Management and Methods.

J. Lloyd Conrich, architect, has been appointed to San Francisco's Housing Appeals Board.

Los Angeles architect Edward H. Fickett has been named to the jury for the AIA-NAHB Award of Honor. Chairman of the AIA committee on Home Building Industry, he will serve with architects Victor Lundy of Sarasota, Fla., and Arthur H. Keyes Jr. of Washington, D. C., and three jurors to be named by the NAHB.

Robert S. Kitchen, San Francisco architect, has been named to the Berkeley Art Commission.

Puget Sound Chapter, Construction Specifications Institute, has named these officers: Donald E. Paine of the architectural firm of Wohleb & Wohleb, president; Robert H. Killian of the Army Engineers, vice president and Walter Bishop of the General Services Administration, secretary-treasurer.

Two westerners have been elected to high posts in the Consulting Engineer's Council, a 24-state group formed three years ago. New first vice president is Orley O. Phillips, partner in the Denver structural engineering firm of Phillips-Carter-Osborn, Inc.; and second vice president, Thomas R. Miles, industrial and mechanical engineer, who has practiced in Beaverton, Ore., for the past 11 years. Miles also is editor of the "Manual of Practice of Consulting Engineers," now being prepared by the council.

As president of the National Association of Student Chapters of the AIA, Charles E. Jones Jr. of the University of Arizona will direct the planning of the Student Forum to be held in Washington, D. C., this fall.

### resignations

Orland E. Buckius, building official for the City of Stockton, Calif., for almost seven years, has resigned to engage in private engineering consultant work in the Stockton and Sacramento areas.

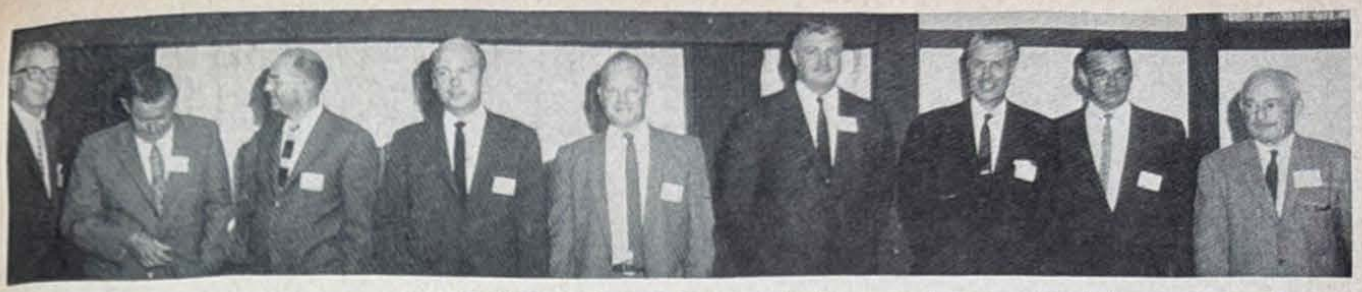
### honors

Richard A. Campbell, an employee of Skidmore, Owings & Merrill in Portland, has been awarded the $2,000 Ion Lewis Travelling Fellowship in Architecture for 1959. He plans to leave in the fall for Europe, where he will concentrate on contemporary work and construction techniques and costs. His itinerary includes Sweden, England, Germany, France, Spain, Italy and perhaps Greece.

### architectural tours

The annual Mexican architectural seminar tour, a 13-day trip with special visits to homes and architects' offices, will begin September 13. For further details write T. H. Hewitt, 2413 Driscoll St., Houston 13, Texas.

The 1959 architects' trek to Europe departed from New York August 25, headed by Henry L. Wright, Los Angeles architect and national AIA second vice president.



IN PALO ALTO: Floyd Rible, Los Angeles, regional director, AIA; Melton Ferris, San Francisco, executive director, CCAIA; Lee Kline, Pasadena, president, CCAIA; Walter Burde, Carmel, president, Monterey Bay Chapter; E. N. (Ted) Chamberlain, San Jose, president, Central Valleys Chapter; D. J. (Jud) Callaghan, San Francisco, vice president and director of industrial development, Bay Area Council; Donald Powers Smith, San Francisco, president, Northern California Chapter; George Kern, Oakland, president, East Bay Chapter; Michael Goodman, Berkeley, chairman, Northern California Chapter's area planning committee.

## Four Bay area AIA chapters join forces to hear planner

Architects from four AIA chapters located around the San Francisco Bay area heard predictions at a joint meeting late in July that the percentage of home construction will swing away from standard models toward custom designed homes. And the change will come at a faster pace than just that which might be expected from population growth.

Meeting at Rickey's Studio Inn in Palo Alto, members of the Monterey Bay, Coast Valleys, East Bay and Northern California chapters heard D. J. (Jud) Callaghan, vice president of the San Francisco Bay Area Council, state the need for planning on an areawide basis at this time.

Because of immigration and the steadily rising birth rate, the population of the Bay area will double between 1980 and 1990, Callaghan said. But the seven million who will live there at that time are only the beginning. By 2020 the area's population will have reached 17 million persons.

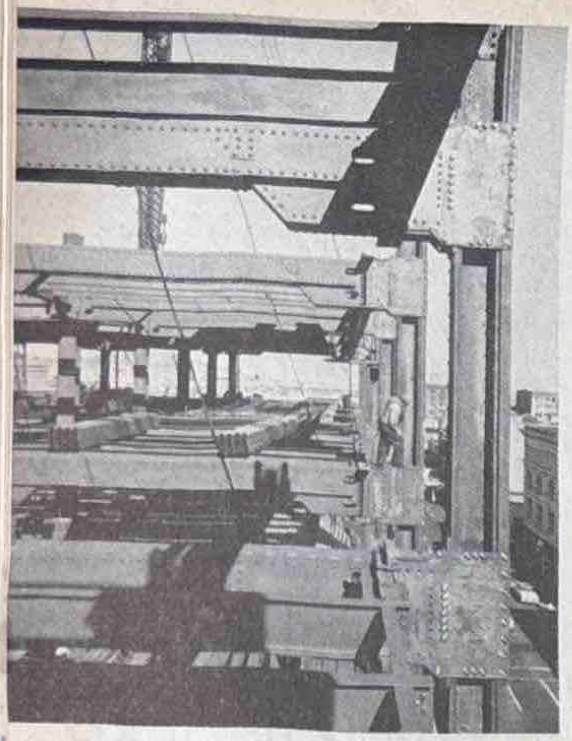
At the same time available flat land for subdividing is rapidly vanishing and the real income of inhabitants is increasing. These two factors will make people "take to the hills" and this movement will increase the need for architecture and structural building materials.

Callaghan's main plea was for the support of architects and other "thinking" persons in bringing about new concepts in planning. He said the Golden Gate Authority, which would take over control of all Bay bridges, airports and shipping facilities, would be a step in the right direction.

## In Los Angeles: redevelopment

The Southern California Chapter, AIA, devoted its July meeting in the Building Center, Los Angeles, to redevelopment. Speakers were Donn Emmons, who gave a slide presentation on the Sacramento urban redevelopment program, and Joseph Bill, executive director, Community Redevelopment Agency of the City of Los Angeles.



**ALL COLUMN OBSTRUCTIONS**
are eliminated from outside perimeter of Bethlehem Pacific Steel Corp.'s new general offices in downtown San Francisco. Free-standing steel shafts composed of heavy wide flange sections covered with reinforcing plates and stiffening channels are located several inches from exterior walls. When building is completed in late 1959 by Swinerton & Walberg, general contractors, steel shafts will be covered with white marble. Architects: Welton Becket & Associates; structural engineers: Hayes & Little and John A. Blume & Associates: mechanical-electrical engineers: Dudley Dean & Associates.

• **Pacific Tile and Porcelain Co.**, Paramount, Calif., has promoted James W. Tetrault to the post of vice president, manufacturing. He has been plant manager since 1953.

• **Aeroquip Corp.** has launched a $2.4 million construction program that will include new production facilities at the western division in Burbank, Calif., and a new engineering center for the Marman division in Los Angeles.

• **The General Tire & Rubber Co.** has appointed Anthony B. Van Himbergen to the post of southern California division manager of building materials.

• **In-Sink-Erator Manufacturing Co.** has picked Peter L. O'Brien of Renton, Wash., to manage a district comprising Washington, Oregon, northwest Idaho and Vancouver, B.C. O'Brien formerly was sales representative for a manufacturer of plumbing equipment.

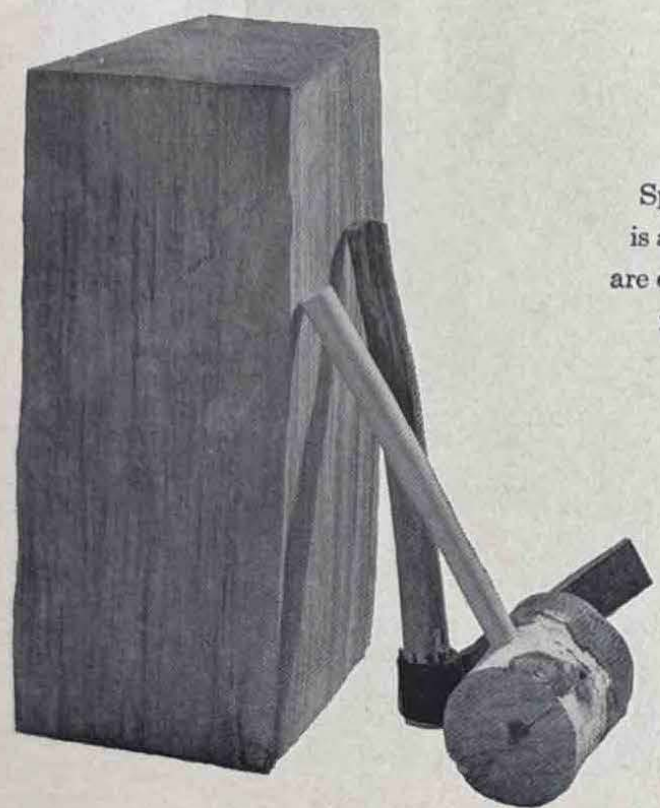
• **Simpson Timber Co.**, Seattle, has promoted A. R. Green from treasurer to vice president and Robert B. Hutchinson from comptroller to treasurer. Green has been associated with Simpson financial and tax affairs since 1925.

• **Michael Flynn Manufacturing Co.** has completed a plant for fabrication of Lupton aluminum building products at City of Industry, a suburb of Los Angeles. A Lupton curtain wall with self-contained air conditioning, heating and ventilating facilities was used in construction of the plant office.

• **Pioneer-Flintkote**, Los Angeles, has promoted Wendell L. Garrett from southwest district manager to general sales manager of building materials and moved Joe A. Askins, previously assistant to the building materials sales manager, into Garrett's former position.

• **Graystone, Inc.**, Seattle, has acquired C. S. Barlow & Sons, a concrete readymix plant and masonry sales company based in Tacoma. Russell C. Barlow, president and chairman of the board will retire. His son, Robert C. Barlow, has been named vice president and manager of the Tacoma operations.

• **Pomona Tile Manufacturing Co.**, Los Angeles, has elected Richard L. Scherbacher, vice president in charge of sales, to the company's board of

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Splitting those big, thick, heavily-textured cedar shakes is a craft. Because they *are* made by hand, no two shakes are ever exactly alike. That is part of their beauty. It also makes *quality inspection* a necessity, because so much depends upon individual care. You can be sure of *full count, full coverage* and *No. 1 quality*, throughout when you specify shakes bearing the Certi-Split label. Always look for, always insist on, *Certi-Split* —under the bandstick of every bundle!

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directors. He fills a vacancy created by the recent death of Claire Wilson, who had supervised the northern California distribution system the past 30 years.

• **A. C. Horn Companies** report the completion of two building projects: one in Denver, the other at the Los Angeles branch. In Denver a new sales office and warehouse facility is located at 2050 W. Seventh Ave. In charge is Clyde Pooser, who has been transferred from the Los Angeles office. At the Bell Gardens site in Los Angeles, Horn has completed the fourth addition in the past two years. This one will house the southern California sales administrative staff which also serves Arizona.

• **Bethlehem Steel Co.** announces the steel division of Bethlehem Pacific Coast Steel Corp. will now be called Bethlehem Steel Co., Pacific Coast Division. Officers, with headquarters in San Francisco, are H. R. Fuller, vice president; W. J. McClung, general manager of operations; S. S. Cort, general manager of sales; and S. L. Crary, treasurer.

• **A. M. Byers Co.** has appointed Gerald L. Jensen as field service engineer for the Pacific Northwest. Byers, who previously was associated with Crane Co., will headquarter at 574 Dexter Horton Bldg., Seattle.

• **Robinson Brick and Tile Co.** of Denver has named W. W. Robinson to fill the newly created post of executive vice president. A. Curt Jackson, vice president of production, becomes vice president; James E. Harris, tile plant superintendent, moves up to vice president of production; William London fills Harris' former spot; and Kenneth Bradford, former special projects engineer, moves into the brick plant superintendent's post formerly held by London.

• **Fibreboard Paper Products Corp.** has appointed Howard R. West as manager of advertising and sales promotion and Frank Wilson as Pabco brand advertising manager. Both will headquarter at the San Francisco executive offices.

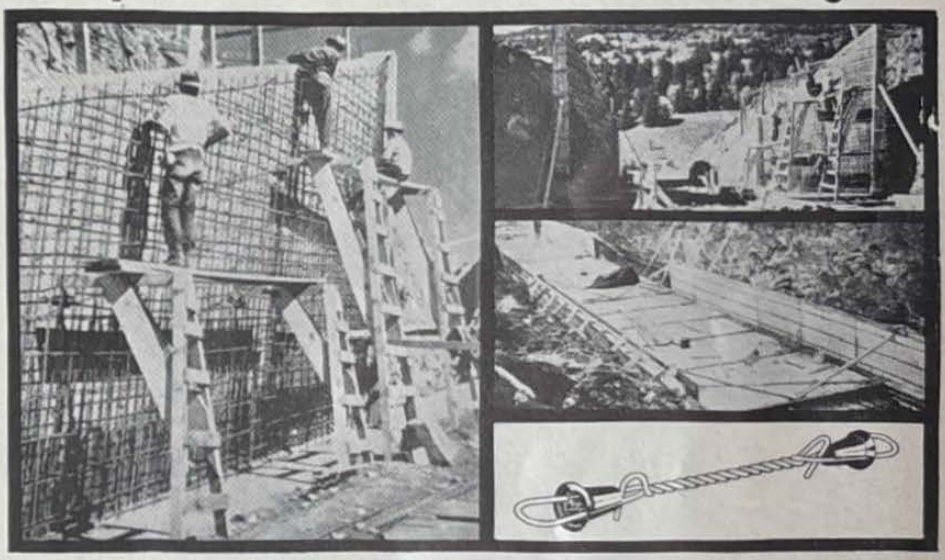
• **Alaska Brick Co.**, Anchorage, has installed a concrete block plant. Equipment, physical arrangement and floor plan has been designed for both eventual complete automation and future expansion. The plant was purchased from Columbia Machine in Vancouver, Wash., as a complete unit and shipped to Alaska.

• **Ceco Steel Products Corp.** as part of a nationwide caravan recently held demonstrations in Los Angeles, San Francisco and Sacramento. Architects and structural engineers were shown a new method of threading electrical wires through the floor structure, cutting the usual cost in half. An electrochannel steel joist serves as both a floor member and a raceway for wires for electricity, telephone and intercommunication systems. Also demonstrated was a new type of reinforced concrete joist construction, resulting in a waffle patterned ceiling which allows long-span areas. Other products: a hollow steel door "package."



**IN LOS ANGELES:** Herman Boisclair, president, Southern California Chapter, Construction Specifications Institute; Bill Norton, Ceco regional manager; architects Stewart Kerr, Thor Gulbrand and Robert Alexander; and Marvin Parks, manager of steel joist department, Chicago. (Southwest Builder and Contractor photo.)


# Dam Spillway Walls Battered And Tapered With Forms Set At An Angle



Recreational dam and spillway for Colorado State Game and Fish Department, Pagosa Springs, Colorado
Contractor: Hopkins Construction Company, Denver

PROBLEM: Specifications required that the main sidewalls of the spillway taper from 20'0" to 4'0" in height, within a distance of several hundred feet. As the height diminished, the thickness of these battered walls reduced at the bottom from 18" to 8". Wall thickness at the top was 8" throughout.

SOLUTION: Working with the contractor, Gates engineers adapted the standard Gates Commercial Forming System so that both panels and form ties were run parallel to the top of the wall and cut at an angle to the footing.

Special forms were designed for the inlet and stilling basins, while the main run of the spillway was formed with Gates Horizontal Rod System with no special adaptations necessary. The new PlastiCone* ties with a 1-inch break-back were used exclusively.

RESULTS: The forms were erected quickly and economically and the quality of the finished concrete was excellent.

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*TRADEMARK

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E. 3003 Courtland Avenue — Spokane, Washington

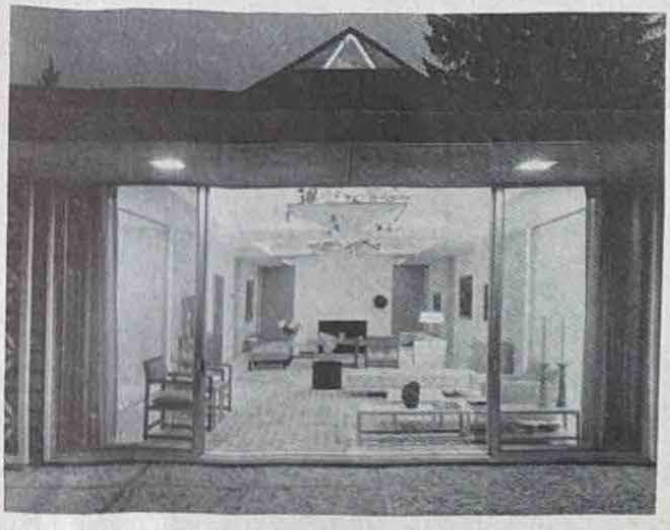
PAB—9/59



**TWELVE PYRAMIDS,** each capped by transparent glass skylight, dramatize house. Roof and walls are surfaced with stained gray cedar shingles. Two structures—main house at right, garage and music room at left—are tied together by roof overhang and wood latticework.



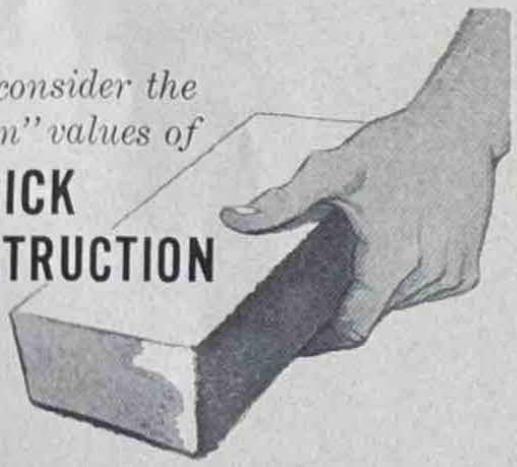
**REAR TERRACE** faces east morning sun. Opening in grillwork at left is huge window of sliding glass doors which forms end of living room. Another section of grillwork slides open on concealed track to permit access to terrace from covered breezeway.



**LIVING ROOM** is seen from back terrace, with 50-ft. span from glass window wall to far wall of atrium (in background behind fireplace). Rug of acetate rayon in foreground borrows theme from American Indian basketry.


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## Stone's 'Celanese House': showcase de luxe

Popularity of the promotional house which merchandises products of its sponsors—manufacturers, suppliers, associations—seems to be ever on the march and one of the finest thus far is a newcomer to the parade. For its New Canaan, Conn., project (to reach full term this month when W. and J. Sloane re-create the house in their New York store), Celanese Corporation of America retained architect Edward Stone, builder Theodore deF. Hobbs, interior coordinators John and Earline Brice and landscape designer James Fanning.

The result is a house which veils its facade and garden from the street by grillwork and opens its roof to the sky in a series of glass capped pyramids—an imaginative showcase in which to exploit not only the sponsor's fabrics and floor coverings but also a host of structural materials and household furnishings employing Celanese chemicals and plastics in their makeup.

Front door of the house, the only break in the facade, lets directly into the atrium with its sunken pool. Guest closets are located at either side. Living room, dining room and study form one great T-shaped open area when sliding doors are recessed in wall pockets. Each room, save the entrance foyer, opens directly onto a terrace or screened garden area. Music room is separated from the main house by a covered breezeway and is incorporated in the garage structure. In the 2,500 sq. ft. of floor area in the main house, less than 100 sq. ft. are given to hallways.

The sliding glass door installations deserve special mention. Each consists of four layers: the outermost is double insulating glass; a second is screening; a third of translucent plastic serves to diffuse the light and affords a measure of privacy; the fourth and innermost layer is treated decoratively with stretched fabrics in the panels—and also completely opaque.

### Plastics, plastics everywhere

Celanese plastics are found in such a variety of uses as housings for small appliances, lamp shades, telephone housings and handset, swimming pool covers, corrugated and flat translucent sheetings, water based vinyl and acrylic paints; its chemicals in exterior and interior plywoods, vinyl tiles, electrical parts and urethane foams.

Furniture throughout the house is the work of Edward Wormley for Dunbar Furniture Co. and Paul McCobb designed the kitchen storage units for Mutschler Brothers. Other major contributors: Rheem Manufacturing Co., three-zone forced air heating system; Rheem's Richmond Plumbing Division, fixtures which equip the four baths; American Biltrite Rubber Co., vinyl tile; American Air Filter Co., electronic filter devices; Arcadia Metal Products, sliding glass doors; St. Regis Paper Co., bathroom wall finishing (Panelyte); Alsynite Corp., translucent roof paneling.

# pacific architect & builder

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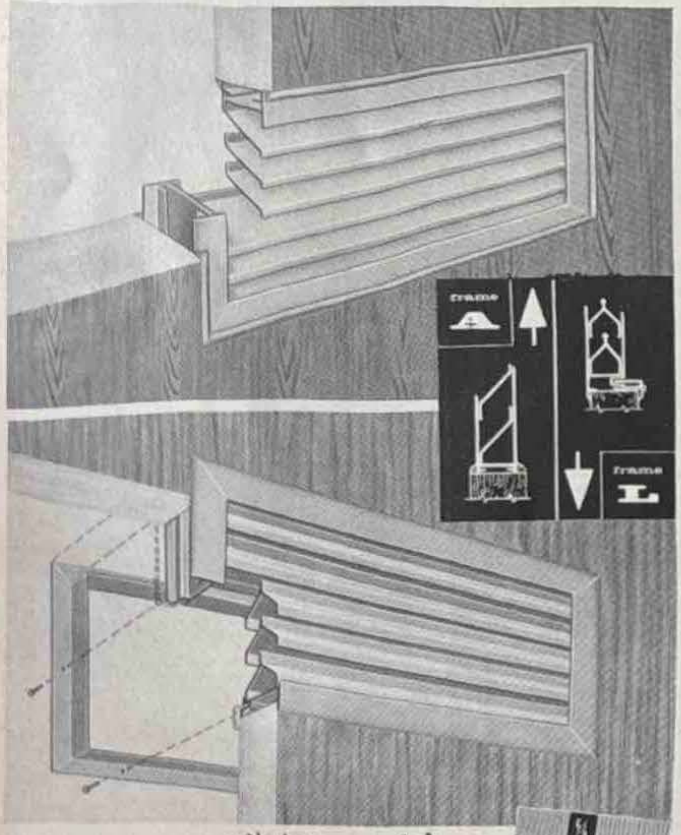
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**on deck at pa**

Undoubtedly a good many delegates to the annual convention of the American Institute of Planners in Seattle (see p. 8) were a bit skeptical when they discovered that a high-ranking clergyman was to be the keynoter. But the Rt. Rev. Stephen F. Bayne Jr., bishop of the Episcopal Diocese of Olympia, delivered an extemporaneous message that provided lobby and coffee talk long after he had left the podium. A transcript of his remarks was not available up to press time but it is hoped that a digest can be readied for October.

Design articles will show work from California, Oregon, Washington and Colorado; a methods feature will describe the world's third largest heat pump installation; and the fourth installment of "Preparing the Building Estimate" will mark the half-way point in that series.

Looking back to August momentarily, we regret that we failed to credit Douglas Simmonds with the photographs of the John N. Edman Residence in Ogden, Utah, and several readers accused us of trying to outdo the architects when we referred to the "conservation" well in the Oregon Centennial's "Cameo Home of Ideas."

**we applaud . . .**

Armstrong Cork Co. for scheduling the opening moments of its October 14 "Circle Theatre" presentation in a television tribute to the architectural profession. Citing the architect designed buildings that are "changing the face of every city and town in our land," the salute will emphasize the role of the architect in every phase of building development "from the initial ideas and the drawing of the plans through all phases of construction."

**sign of the time**

There's been a lot of talk about the architect's status in our society—in the last year or two psychiatrists and sociologists have been called upon to discuss the matter during at least one state and one regional AIA conference in the West—but apparently things are looking up. It must mean something when a New York columnist, substituting for Hal Boyle, introduced Edward Durrell Stone as a "Poor Man's Philosopher." The architect, whose shade pavilion is on this month's cover, was interviewed on a variety of aspects of the American scene. A couple of pertinent comments:

Cities—"Politicians always say that if the opposition candidate is elected to office, grass will grow on Main Street. Of course, this is exactly what should happen."

Modernism—"Don't be modern. Being modern simply consists of closing your mind to 2,500 years of Western culture and remaining content to copy the next-door neighbor's glass building, house, chair, drapery and poodle. I have two tests by which you can readily determine whether you are modern. If you prefer a bent chrome chair to a rocker, or a high-powered car to a horse-drawn carriage, you need therapy."

Highways—"All highways should be free of billboards and hamburger joints. All should be tree lined. Recently a high official of the automotive industry recommended that all trees should be cut down along the highways as a menace to motorists. Perhaps the industry could eliminate four feet of vulgarity from the length of the car and better spend the money creating destinations for motorists."

R.E.K.

OCT 9 1959
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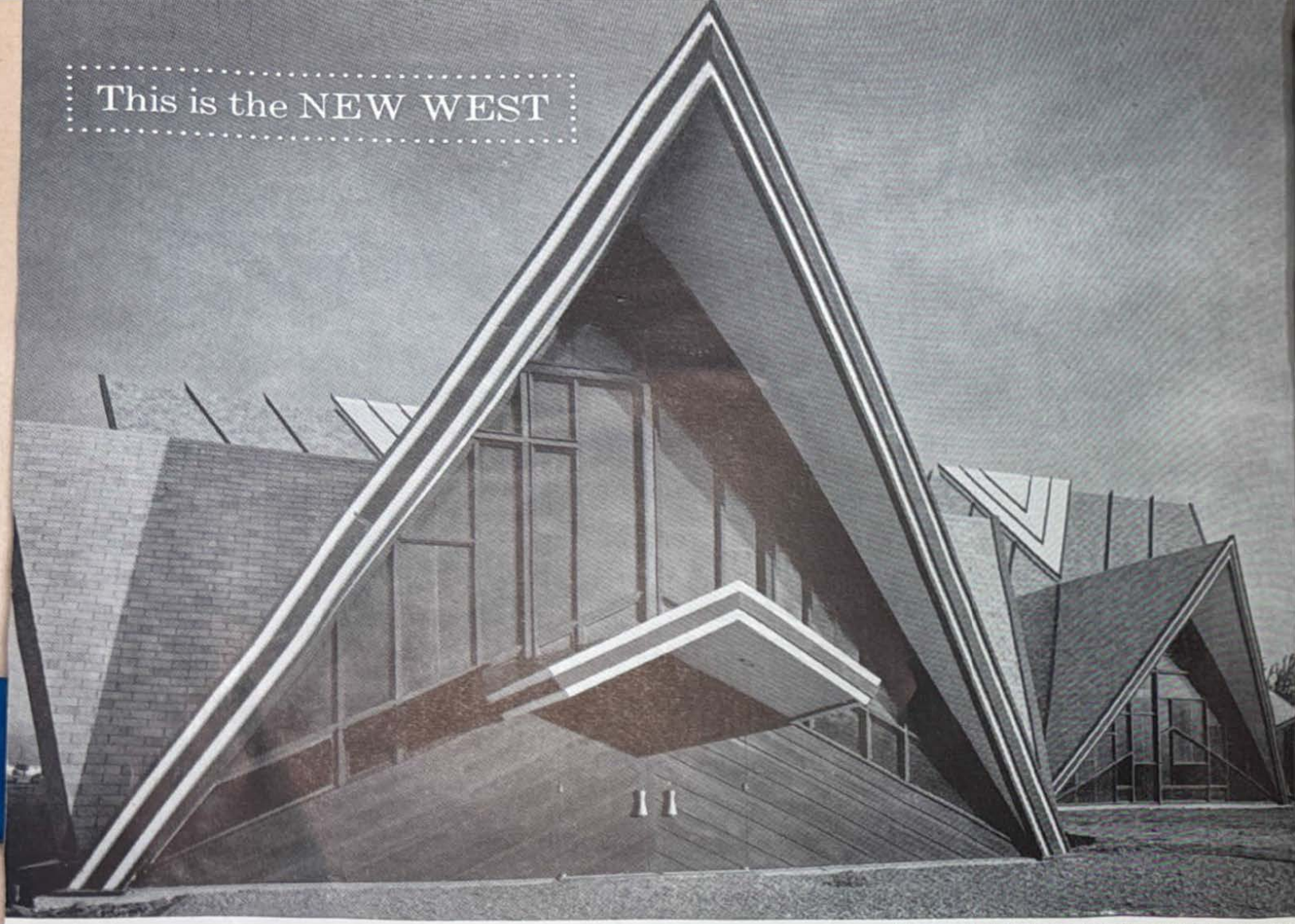
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october 1959

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**design**

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16 Westgate Elementary School, Edmonds, Wash.: Dan F. Miller & Earl D. Morris, Architects

19 Brown Palace Hotel, Denver: William B. Tabler, Architect

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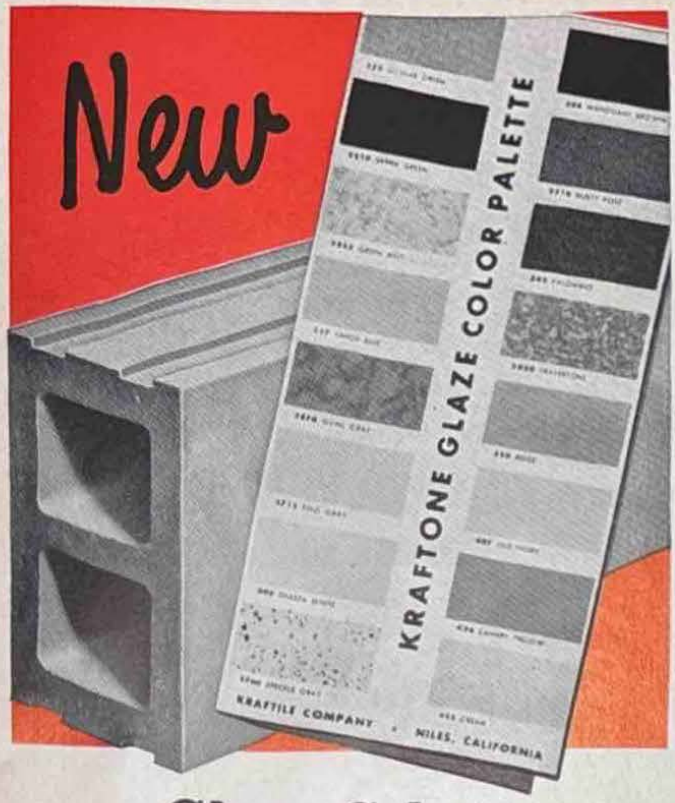
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COVER: Chapel, Miramar Naval Air Station, La Jolla, Calif. (p. 13): Neutra & Alexander, Architects; Julius Shulman photo.




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# $326 million for August is gain over last year

Dollar volume reported by 155 key agencies in the 13 western states for August is $326,030,686, an increase of $19.7 million over the same period last year. By states California shows the greatest gain, $12.8 million. Eight other states share in the increase: Utah, up $3.3 million; Oregon $2.7 million; Nevada, $2.7 million; Hawaii, $2.5 million; Washington, $1.9 million; Montana, $1.2 million; Wyoming, $600,000; and Alaska, $400,000. Colorado is down $3.6 million; Arizona, $2.3 million; New Mexico, $2.4 million; and Idaho, $400,000.

The Oregon increase reflects in part a particularly high volume in Roseburg, Ore., where a large portion of the downtown business district was leveled in August as the aftermath of a fire which ignited a parked truck loaded with explosives. In addition to permits valued at $849,400, Bruce A. Mellis, building inspector, reports that there are approximately 50 permits for repairs to damaged buildings on a cost-plus basis not included in the total.

### Top 15 agencies

Eight of the top 15 agencies for August are in California; two in Washington; two in Arizona; one each in New Mexico, Hawaii and Colorado. The $17.2 million total for San Jose which placed it in third place for the month was the highest monthly volume on record for that city. Greatest share, $13.8 million, was for new construction of single-family residences. The top 15:

| | August 1959 | August 1958 |
|---|---|---|
| 1. Los Angeles | $52,329,175 | $42,969,513 |
| 2. Los Angeles County | 28,379,947 | 31,388,085 |
| 3. San Jose | 17,251,219 | 15,597,285 |
| 4. San Diego | 15,069,575 | 11,172,677 |
| 5. San Diego County | 11,691,700 | 7,156,200 |
| 6. King County | 11,662,506 | 9,846,150 |
| 7. Maricopa County | 11,563,399 | 14,559,652 |
| 8. Sacramento County | 10,880,940 | 8,124,657 |
| 9. Phoenix | 9,265,091 | 10,038,152 |
| 10. Orange County | 9,003,052 | 8,385,512 |
| 11. Denver | 8,543,499 | 11,499,039 |
| 12. Seattle | 8,408,914 | 10,932,919 |
| 13. San Francisco | 7,299,549 | 6,219,468 |
| 14. Honolulu | 7,052,965 | 4,650,135 |
| 15. Albuquerque | 5,448,865 | 7,407,068 |

### August total slightly higher than July

The August tabulation is $10.1 million higher than July figures, although most states report decreases from the previous month. Only Wyoming, Colorado, Nevada, Arizona and New Mexico show increases, ranging from $400,000 to $11.2 million in Arizona. All other states report decreases, the largest in Oregon, $2.7 million.

### Analysis of selected areas — August

| | Dwelling | Commercial & Industrial | Public |
|---|---|---|---|
| Los Angeles County | $14,886,151 | $3,221,275 | *$2,663,240 |
| Orange County | 8,563,786 | 31,668 | |
| Sacramento County | 9,635,251 | 795,520 | 247,534 |
| Las Vegas | 1,736,865 | 188,225 | |
| Seattle | 3,796,124 | 894,000 | 1,675,582 |
| King County | 9,080,701 | 1,102,020 | 950,500 |

*This does not include $6,501,987 for public schools which do not require building permits.

# Building Permit Totals for 155 Western Agencies for August

| CALIFORNIA | Aug. 1959 | Aug. 1958 |
|---|---|---|
| Alameda County | $ 1,393,950 | $ 2,559,650 |
| Anaheim | 4,071,972 | 4,664,248 |
| Bakersfield | 754,486 | 673,101 |
| Burbank | 892,911 | 571,755 |
| Contra Costa County | 4,117,536 | 3,204,949 |
| Fresno | 2,113,649 | 1,364,177 |
| Fullerton | 748,166 | 683,856 |
| Glendale | 1,203,132 | 3,669,356 |
| Inglewood | 653,570 | 1,060,897 |
| Long Beach | 3,476,450 | 3,605,175 |
| Los Angeles | 52,329,175 | 42,969,513 |
| Los Angeles County | 28,379,947 | 31,388,085 |
| Oakland | 3,361,182 | 6,596,793 |
| Ontario | 929,186 | 555,651 |
| Orange County | 9,003,052 | 8,385,512 |
| Palo Alto | 1,641,784 | 492,964 |
| Pasadena | 2,293,553 | 1,450,636 |
| Pomona | 846,065 | 631,889 |
| Richmond | 756,674 | 673,163 |
| Riverside | 804,946 | 2,082,214 |
| Sacramento | 2,986,509 | 2,651,281 |
| Sacramento County | 10,880,940 | 8,124,657 |
| San Bernardino | 1,556,945 | 1,133,395 |
| San Bernardino County | 5,442,905 | 4,772,851 |
| San Diego | 15,069,575 | 11,172,677 |
| San Diego County | 11,691,700 | 7,156,200 |
| San Francisco | 7,299,549 | 6,219,468 |
| San Jose | 17,251,219 | 15,597,285 |
| San Mateo | 1,422,603 | 1,197,087 |
| San Mateo County | 1,187,501 | 1,548,907 |
| Santa Ana | 2,612,540 | 730,439 |
| Santa Monica | 1,318,217 | 784,960 |
| Stockton | 715,312 | 888,118 |
| Sunnyvale | 2,799,610 | 2,326,195 |
| Torrance | 4,491,164 | 2,664,053 |
| West Covina | 1,213,640 | 1,580,597 |
| TOTAL | $198,708,263 | $185,831,754 |

| OREGON | Aug. 1959 | Aug. 1958 |
|---|---|---|
| Albany | $ 209,036 | $ 185,500 |
| Astoria | 26,463 | 15,174 |
| Baker | 141,600 | 37,960 |
| Bend | 89,032 | 81,365 |
| Coos Bay | 35,935 | 193,890 |
| Corvallis | 300,020 | 537,595 |
| Eugene | 651,052 | 829,609 |
| Grants Pass | 146,485 | 189,630 |
| Gresham | 81,300 | 57,974 |
| Hillsboro | 793,784 | 68,674 |
| Klamath Falls | 140,500 | 86,615 |
| La Grande | 127,570 | 6,930 |
| Lane County | 1,665,230 | 1,127,183 |
| Medford | 258,145 | 189,295 |
| Multnomah County | 2,395,123 | 2,619,723 |
| North Bend | 180,168 | 83,269 |
| Oregon City | 33,255 | 15,608 |
| Portland | 4,545,445 | 6,777,070 |
| Roseburg | 849,400 | 58,425 |
| Salem | 3,722,784 | 392,830 |
| Springfield | 100,329 | 176,655 |
| The Dalles | 58,600 | 65,362 |
| TOTAL | $ 16,551,256 | $ 13,796,276 |

| WASHINGTON | Aug. 1959 | Aug. 1958 |
|---|---|---|
| Aberdeen | $ 95,647 | $ 132,687 |
| Anacortes | 80,601 | 196,580 |
| Auburn | 139,120 | 143,500 |
| Bellingham | 390,295 | 97,160 |
| Bremerton | 413,610 | 153,480 |
| Centralia | 70,664 | 62,554 |
| Chehalis | 25,912 | 43,129 |
| Ellensburg | 48,450 | 74,023 |
| Ephrata | 5,190 | 53,475 |
| Everett | 254,330 | 189,500 |
| Kelso | 36,100 | 247,300 |
| Kennewick | 115,550 | 221,996 |
| King County | 11,662,506 | 9,846,150 |
| Kirkland | 68,000 | 41,300 |
| Longview | 630,650 | 168,335 |
| Moses Lake | 58,400 | 94,447 |
| Olympia | 327,426 | 115,353 |
| Pasco | 108,292 | 65,610 |
| Pierce County | 1,570,404 | 1,767,312 |
| Port Angeles | 109,650 | 75,125 |
| Puyallup | 108,075 | 87,195 |
| Seattle | 8,408,914 | 10,932,919 |
| Spokane | 2,734,676 | 1,406,320 |
| Spokane County | 1,783,630 | 1,167,372 |
| Tacoma | 2,192,520 | 1,899,131 |
| Vancouver | 614,850 | 421,424 |
| Walla Walla | 87,051 | 222,552 |
| Wenatchee | 131,772 | 493,249 |
| Yakima | 431,990 | 144,445 |
| TOTAL | $ 32,704,275 | $ 30,741,093 |

| ALASKA | Aug. 1959 | Aug. 1958 |
|---|---|---|
| Anchorage | $ 1,393,515 | $ 762,015 |
| Fairbanks | | |
| Juneau | 23,750 | 207,870 |
| Ketchikan | 6,300 | 12,900 |
| TOTAL | $ 1,423,565 | $ 982,785 |

| IDAHO | Aug. 1959 | Aug. 1958 |
|---|---|---|
| Boise | $ 290,947 | $ 472,611 |
| Caldwell | 201,545 | 342,010 |
| Coeur d'Alene | 35,300 | 86,359 |
| Idaho Falls | 1,161,520 | 1,343,219 |
| Jerome | 15,800 | 17,050 |
| Lewiston | 103,083 | 359,953 |
| Nampa | 199,878 | 123,385 |
| Payette | 32,050 | 26,660 |
| Pocatello | 400,323 | 192,595 |
| Sandpoint | 30,100 | 15,750 |
| St. Maries | 9,000 | 1,000 |
| Twin Falls | 274,200 | 140,600 |
| TOTAL | $ 2,653,746 | $ 3,121,192 |

| MONTANA | Aug. 1959 | Aug. 1958 |
|---|---|---|
| Billings | $ 2,027,250 | $ 1,375,275 |
| Bozeman | 1,451,240 | 1,543,550 |
| Butte | 30,500 | 58,200 |
| Glasgow | 63,500 | 42,300 |
| Glendive | 776,900 | 17,300 |
| Great Falls | 632,514 | 906,979 |
| Helena | 515,305 | 275,110 |
| Kalispell | 65,250 | 103,050 |
| Lewistown | 66,700 | 24,000 |
| Livingston | 29,500 | 51,415 |
| Miles City | 99,837 | 125,830 |
| Missoula | 115,795 | 66,450 |
| TOTAL | $ 5,874,341 | $ 4,589,459 |

| WYOMING | Aug. 1959 | Aug. 1958 |
|---|---|---|
| Casper | $ 1,332,020 | $ 974,667 |
| Cheyenne | 847,153 | 506,321 |
| Sheridan | 80,026 | 160,832 |
| TOTAL | $ 2,259,199 | $ 1,641,820 |

| COLORADO | Aug. 1959 | Aug. 1958 |
|---|---|---|
| Aurora | $ 957,639 | $ 600,587 |
| Boulder | 736,787 | 806,247 |
| Denver | 8,543,499 | 11,499,039 |
| Englewood | 395,644 | 1,657,450 |
| Fort Collins | 621,637 | 595,523 |
| Grand Junction | 254,850 | 118,430 |
| Greeley | 447,575 | 625,975 |
| Pueblo | 1,967,125 | 1,669,206 |
| Trinidad | 26,348 | 8,777 |
| TOTAL | $ 13,971,104 | $ 17,581,234 |

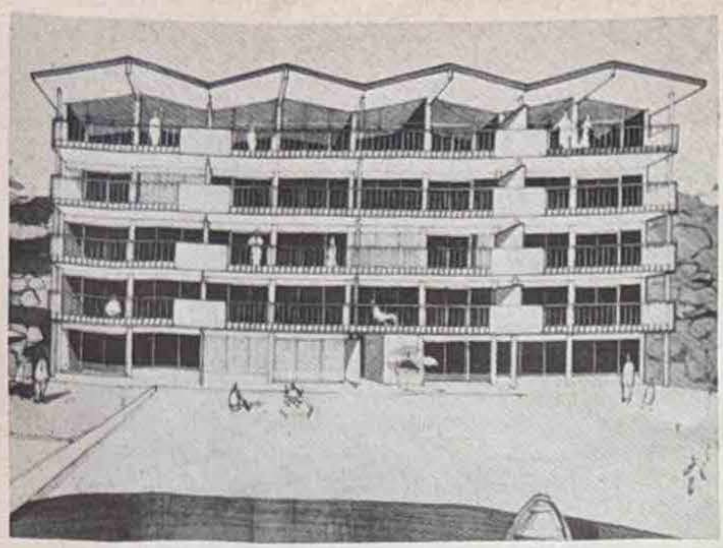
| UTAH | Aug. 1959 | Aug. 1958 |
|---|---|---|
| Logan | $ 269,300 | $ 585,750 |
| Murray | 129,100 | 262,775 |
| Ogden | 1,026,600 | 614,400 |
| Provo | 2,766,150 | 436,450 |
| Salt Lake City | 2,234,013 | 1,156,265 |
| TOTAL | $ 6,425,163 | $ 3,055,640 |

| NEVADA | Aug. 1959 | Aug. 1958 |
|---|---|---|
| Elko | $ 57,600 | $ 44,965 |
| Las Vegas | 1,949,990 | 343,990 |
| Reno | 1,888,071 | 1,114,570 |
| Sparks | 601,907 | 241,635 |
| TOTAL | $ 4,497,568 | $ 1,745,160 |

| ARIZONA | Aug. 1959 | Aug. 1958 |
|---|---|---|
| Douglas | $ 16,188 | $ 105,800 |
| Flagstaff | 200,264 | 421,712 |
| Glendale | 169,050 | 264,450 |
| Maricopa County | 11,563,399 | 14,559,652 |
| Mesa | 1,024,578 | 820,080 |
| Phoenix | 9,265,091 | 10,038,152 |
| Tucson | 2,739,625 | 1,005,638 |
| Yuma | 38,550 | 125,250 |
| TOTAL | $ 25,016,745 | $ 27,340,734 |

| NEW MEXICO | Aug. 1959 | Aug. 1958 |
|---|---|---|
| Albuquerque | $ 5,448,865 | $ 7,407,068 |
| Carlsbad | 247,400 | 60,015 |
| Clovis | 473,990 | 1,043,724 |
| Gallup | 904,530 | 405,854 |
| Hobbs | 208,990 | 780,176 |
| Las Cruces | 263,000 | 659,000 |
| Roswell | 557,750 | |
| Santa Fe | 181,590 | 408,340 |
| TOTAL | $ 8,286,115 | $ 10,764,177 |

| HAWAII | Aug. 1959 | Aug. 1958 |
|---|---|---|
| Hawaii County | $ 492,540 | $ 340,781 |
| Honolulu (city-county) | 7,052,965 | 4,650,135 |
| Maui County | 113,841 | 116,816 |
| TOTAL | $ 7,659,346 | $ 5,107,732 |
| GRAND TOTAL | $326,030,686 | $306,299,056 |



**APARTMENT BUILDING**

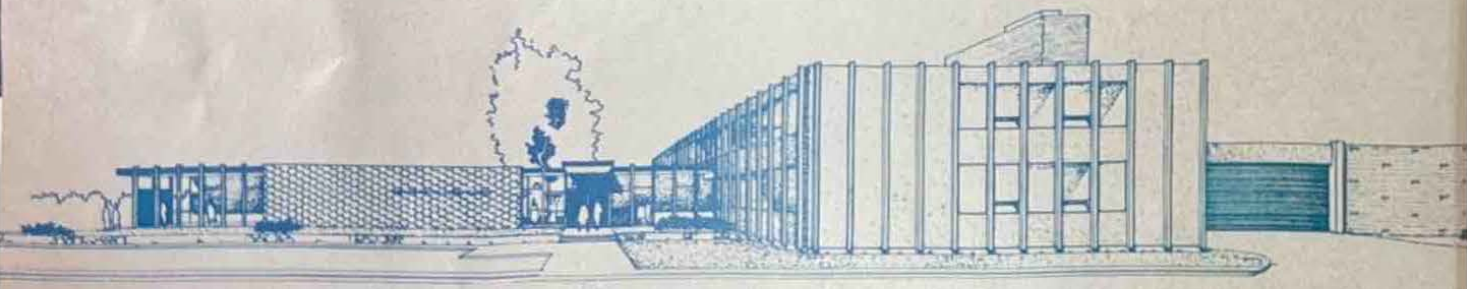
to be located at Tacoma Country and Golf Club on shore of American Lake will have 14 units ranging from one to three bedrooms. Five-story structure will be situated on split-level site with entrance from parking area at fourth floor. Elevators will provide service from lobby to all apartments and to beach where wharf facilities for boats and seaplanes will be available. Architects-engineers: Worthen, Wing, Seifert & Forbes.

## PROJECT PREVIEW

**ENGINEERING CENTER**

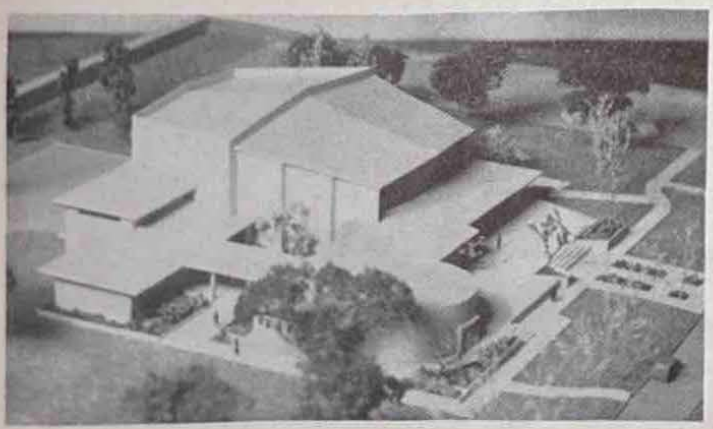
for University of Utah in Salt Lake City will consist of two steel framed structures with glass-aluminum curtain wall; three-story laboratory building of 240,000 sq. ft. (80,000 sq. ft. now completed) and six-story classroom building of 80,000 sq. ft. Entire project, estimated to cost $4.5 million, will be constructed in three or four phases. Second phase, to be bid in October, will be $750,000 continuation of laboratory building. Architects: Dean L. Gustavson Associates.





**PUBLIC SAFETY BUILDING**

estimated to cost $1.4 million will be part of bond issue on which Anchorage citizens will vote in October. Municipal court and two-story police station will share interior courtyard, while fire station is at far right. Not shown is jail running across rear. Architects: Edwin Crittenden & Associates.



**SPEECH-ARTS BUILDING**

at California's Stockton College will be $440,000 multilevel structure dominated by giant assembly hall. Classroom-in-the-round (lower right) will be used for drama instruction and small productions. Architects: Clowdsley & Whipple.

## New lighting developments bared at San Francisco

More than 650 lighting engineers and designers, architects and other related professionals from throughout the U.S. and Canada who attended the annual conference of the Illuminating Engineering Society in San Francisco September 7-10 learned of several important developments in the field. Two of the most significant: a new type of electric light reflector which uses curved glass wedges and a new use for iodine.

Two Cleveland lighting engineers—Q. D. Dobras and D. R. Phillips—reported that a newly designed glass reflector reduces glare while allowing the level of light to remain high. The curved glass wedge is louvered to deflect discomforting rays from the line of vision without materially reducing the amount of light available for easy seeing.

The engineers subjected several reflector systems to a standard set of tests which showed how much light each system sacrificed in providing a comfortably low level of brightness. "The data obtained indicate that of the systems tested, the only ones that combine good lighting efficiency and low luminaire brightness are those utilizing the parabolic wedge louver design," they said.

Two other Cleveland engineers—E. G. Zubler and F. A. Mosby—have developed a lamp, still in experimental form, that uses iodine to aid its light output. A deposit of concentrated iodine salts is dusted at the base of the filament of an incandescent light bulb. The bulb then burns without blacking and delivers an undiminished amount of white light during its entire life. Ordinary incandescent bulbs, not using iodine, lose some of their light output because of the thin black deposit of burned tungsten.

The iodine, according to the engineers, removes burned tungsten from the glass sides of the bulb and redeposits it on the filament where it is again "burned" for lighting purposes. The filament thus renews itself until, eventually, it develops a weak spot in a thin filament wire and burns out. The life of an incandescent tungsten-filament lamp is about 1,000 hours.

The experimental lamp is only ⅜ in. in diameter and is about the length of a lead pencil. Laboratory specimens develop 500 and 1,500 watts of light—up to 15 times more than is used in an average household fixture. These models are effective for floodlighting outdoor areas, for television, movie making and store displays. Smaller sizes are being developed for airport landing strips.

# AIA conferences in October spotlight

Travel arrangements are concerning a good many western architects and their wives this month as they finalize plans to attend one of three conferences being sponsored by regions of the American Institute of Architects in widely separated places. California Council members will fly or sail to Honolulu; the Northwest District will gather in Spokane and the Western Mountain District will meet in Albuquerque.

**In Honolulu:** Planned as the first Pacific Rim Conference, the October 7-14 Hawaiian program will incorporate California's first regional AIA convention as an independent district and the 14th annual meeting of the Women's Architectural League. The Hawaii Chapter and its companion WAL are assisting in coordinating the conference.

While an elaborate schedule of events has been booked to make the most of the islands' sunshine and hospitality, four morning professional sessions have been set, tuned to the theme "Wellsprings of Design." Among the international figures who will participate are Sir Leslie Munro of New Zealand; Carlos Contreras, Mexican architect; Robin Boyd, Australian architect; and Dr. Wendell Bell, UCLA anthropologist and sociologist (PA&B, June '59). John Walter Kruse of San Francisco is conference chairman.

Two architectural tours—one of major structures in Honolulu and the other of unique homes—have been planned.

**In Spokane:** The Northwest District will explore "Architecture in Action" during its October 8-11 sessions in the Davenport Hotel. Members of the Washington Arts and Crafts Association have been invited to join in the program and to contribute to an exhibit.

Headlining the guest speakers will be Charles Eames, Los Angeles designer, who will address the banquet; Roger Allen, Grand Rapids, Mich., architect; and Joseph Watterson, editor of the AIA Journal. Chairman Keith T. Boyington says that "we are trying to incorporate a degree of showmanship into this conference to make it more fun and informative."

**In Albuquerque:** "Science in Architecture" will keynote the eighth annual conference of the Western Mountain District, to be held October 8-10 in the Western Skies Hotel.

The list of speakers invited to address the group includes Gov. John Burroughs; Dr. Clayton S. White, director of research for the Lovelace Foundation; Dr. Herman Von Spoomo, scientist; Herbert H. Swinburne, Philadelphia architect; Dr. E. J. Workman, president of the New Mexico Institute of Mining and Technology at Socorro; and C. H. Topping, senior architectural and civil consultant of the design division, E. I. du Pont de Nemours & Co., Inc. James F. Liberty is chairman.

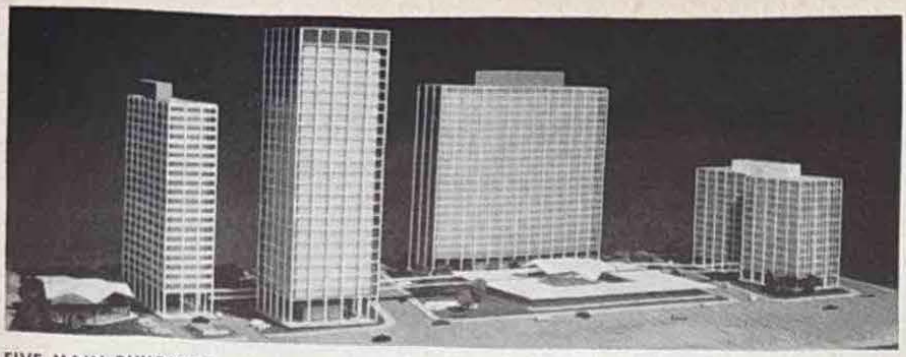
Winning architects in the Western Home Awards program, co-sponsored biennially by the AIA districts and Sunset Magazine, will be honored at their respective conferences.

## Landscape architects pick Yosemite for convention

"Park and Recreational Design" will be the theme of the fifth annual convention of the California Council of Landscape Architects to be held in Yosemite National Park November 5-7.

Among the participants: Elmer Aldrich, executive officer, California Public Outdoor Recreation Plan Committee; Kenneth Anderson, recreation planning consultant; Mrs. Rollin Brown, chairman, California State Recreation Commission; John Collier, western representative, National Recreation Association; Grady Clay, associate editor, Landscape Architecture; C. Carson Conrad, chief, Bureau of Health Education, Physical Education and Recreation, State Department of Education; Elisa Uppman Knoll, garden editor, Sunset; Corwin Mocine, director of planning, Oakland; William Penn Mott Jr., superintendent of parks, Oakland; and Elisabeth Kendall Thompson, western editor, Architectural Record.

One session will be devoted to a discussion of these current park planning projects: Moffett Field Golf Course, Robert M. Graves, landscape architect, San Francisco; Joseph R. Knowland State Arboretum and Park Zoo Development, Norris Gaddis, architect, Oakland; Hanson Dam Recreational Area, Pacoima, Calif., Arthur G. Barton, landscape architect, Glendale; Pleasure Island, Wakefield, Mass., Magic Mountain, Denver, and Freedomland, The Bronx, Joseph H. Linesch, landscape architect, Los Angeles; and Storyland, San Francisco, Prentiss French, landscape architect, San Francisco.



**FIVE MAIN BUILDINGS** proposed for Los Angeles development are 16-story hotel, 22-story office building, one-story commercial area backed by 22-story rental apartment house and 12-story cooperative apartment—all connected by pedestrian bridges.

## Los Angeles to get another huge development on Wilshire

What its investors describe as "the world's first complete city within a city" is tentatively scheduled to rise early in 1960 on a three-square block along Los Angeles' Wilshire Boulevard. Plans call for five main buildings to be completed two years after the start of construction.

Designed by Charles Luckman & Associates, the $30 million project will include a 16-story, 340-room hotel with specialty dining rooms and restaurants in an adjoining concrete folded plate structure; a 22-story, 240,000-sq. ft. office building; two apartment buildings (a 22-story rental and a 12-story cooperative); and a single-story building containing all commercial enterprises in the center of the complex.

Exterior columns will appear on all buildings with subtle changes in the window walls, depending upon usage and occupancy. Pedestrian bridges will span the two streets in the area and tie all units together. All public entrances to the below-level parking for 3,400 cars will be from the streets within the development.

"The Wilshire Boulevard project will be the first of its kind in the world on this scale combining such fine office, commercial and residential structures in a planned community," says New Yorker George W. Warnecke, who heads the group of investors. "The buildings will be widely spaced, occupying only 26% of the land area to permit the inclusion of parks, swimming pools and other recreation facilities such as tennis courts within the development."

The investors have signed a long-term lease for the land owned by the Roman Catholic Archdiocese of Los Angeles, which had once planned the erection of a large cathedral.

## Housing for aged wins design award for Seattle architect

Only western architect to be honored in a recent design competition for retirement projects was Edward Mahlum of Seattle, whose Norse Home was among 11 buildings cited by the University of Michigan's 12th annual Conference on Aging held in Ann Arbor.

Fifty-four entries were submitted in three categories: row housing, high rise apartments and institutional buildings. The jury consisted of E. Everett Ashely 3rd, chief, housing economics branch, HHFA; Bo Boustedt, Swedish architect; Robert C. Metcalf and William Muschenheim, both of Michigan's architectural faculty; and Edna E. Nicholson, executive director, Central Services for the Chronically Ill, Institute of Medicine, Chicago.

Constructed for $1.4 million with furnishings, the Norse Home is a nonsectarian residence housing 175 senior citizens 60 years of age and over.

The six-story reinforced concrete structure with daylight basement contains 100,000 sq. ft. While the 157 units are large enough to accommodate two residents each, the majority are occupied by one. Rooms on the west side have a view of the Olympic Mountains and Puget Sound; those on the east overlook Mount Baker and Woodland Park. Every floor has two lounges, a kitchenette and a laundry. A social room doubles as a chapel.



**CITED** for "straightforward, efficient design" in institutional category of housing for elderly competition, Seattle's Norse Home is first of its kind to receive FHA assistance.

## Oregon engineers establish group to handle disasters

The Consulting Engineers Association of Oregon is setting up a public disaster committee to cope with any emergencies arising out of disasters. President Guy H. Taylor of Portland says the organization was decided upon because of the dire need for emergency consulting engineering advice which resulted from a disastrous explosion in downtown Roseburg, Ore., August 7.

On that date a lumber yard fire ignited an exposive-laden truck parked nearby and wrecked several blocks; 13 persons were killed. There was immediate need for advice as to what partly damaged buildings could be continued to be occupied.

Details of the committee and work to be volunteered will be formulated soon, according to Taylor. "We expect to have an organization which can furnish consulting engineers on a moment's notice to any community or area hit by a disaster," he points out. "This, we believe, will help avoid confusion and lead to quick decisions regarding the immediate reuse of damaged properties."

H. John Warburton, Roseburg city manager, praised the services of consulting engineers who volunteered within hours after the explosion. He referred, for example, to Mercy Hospital, which was partly damaged. Shortly after the explosion, James Poirot, a former native of Roseburg, hurried to the stricken city from Corvallis where he is employed by the firm of Cornell, Howland, Hayes & Merryfield, consulting engineers. Later he was joined by three more engineers from the same firm—Al Jarvi, Harry Mejdell and Gordon Wallace.

## Westerners to address PCI in Miami Beach

Four speakers from the 13-state West are scheduled to address the fifth annual convention of the Prestressed Concrete Institute in Miami Beach next month. They are Ben C. Gerwick Jr., president of Ben C. Gerwick, Inc., San Francisco; Prof. T. Y. Lin, department of civil engineering, University of California; Alfred A. Yee, architect, Honolulu; and David M. Goodall, chief of the western bridge design section, Bureau of Public Roads.

Professional sessions will run from November 1-5, with a post-convention field trip to Havana, Cuba, set for the following day. About 30 exhibitors will participate in one of the most comprehensive displays of prestressed concrete equipment, supplies and services ever assembled in one place.

## Briefs

• Dean William W. Wurster of the University of California's College of Architecture has been appointed to a similar position in the newly organized College of Environmental Design, incorporating architecture, city and regional planning and landscape architecture. Wurster went to the Berkeley campus in 1950 from Massachusetts Institute of Technology where he was dean of the School of Architecture and Planning.

• With a congressional appropriation of $9 million to boost its financial standing, Century 21 Exposition, scheduled to open in Seattle in the spring of 1961, shows promise of becoming more than a regional fair, as its proponents have envisioned all along. Construction of the federal science pavilion and the state financed coliseum (PA&B, July '59) will begin next year.

• Plastics research at the University of Arizona got a shot in the arm last month when it received an $11,200 grant from the Arizona Research Foundation, Inc. The money will enable the Applied Research Laboratory on the Tucson campus to purchase equipment and to demonstrate a model plastics fabrication facility to residents and potential manufacturers.

• The Bay Area Rapid Transit District has engaged Ebasco Services, Inc., under a $50,000 contract to "analyze the economic consequences of having—or not having—a modern system of public transportation." Comprised of San Francisco, Marin, Alameda, Contra Costa and San Mateo counties, the district is preparing to submit a bond issue for construction of a 123-mile transit system (PA&B, May '59) to voters in November 1960.

• A referendum intended to eliminate part of a 1959 law permitting corporations to practice engineering in Washington has failed to win a place on the 1960 election ballot. Valid signatures totaled 1,124 less than the required 45,160. Sponsor of the referendum attempt was the Professional Engineers' legislative committee of Seattle.

• State building projects will cost California more than $112 million, almost evenly split between the northern and southern parts, during the current fiscal year. Most dollars will go to education, says state architect Anson Boyd, but buildings for the Department of Corrections will receive increased emphasis under Gov. Edmund G. Brown's program for effective occupational use of state prisoners.


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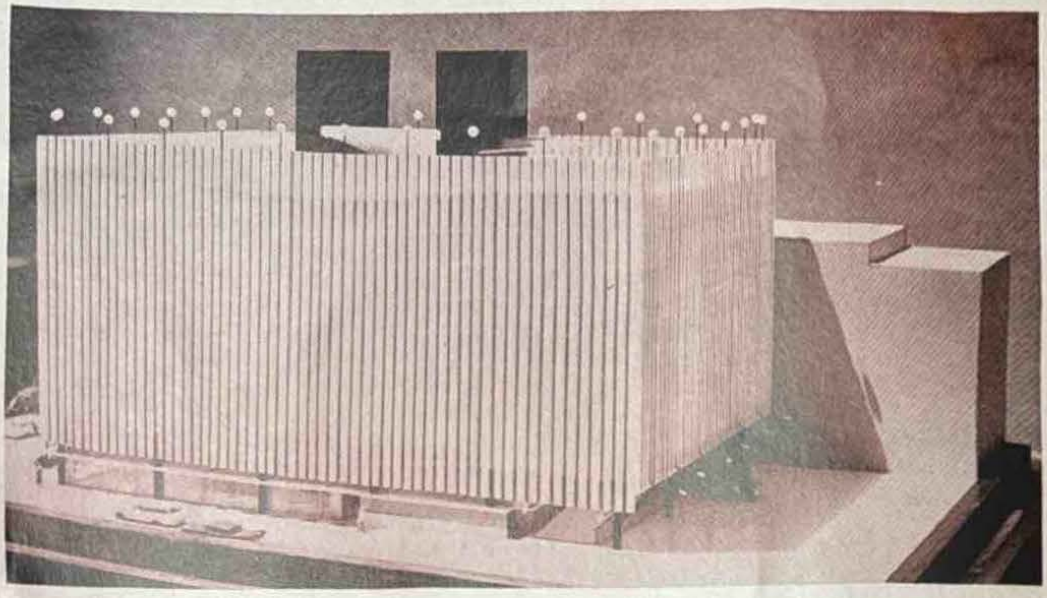
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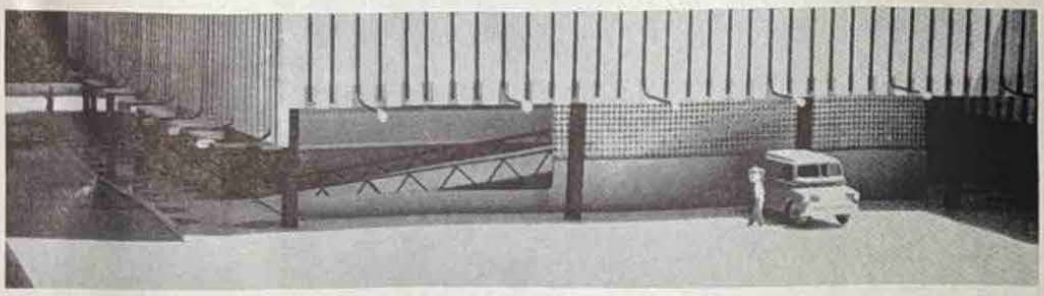
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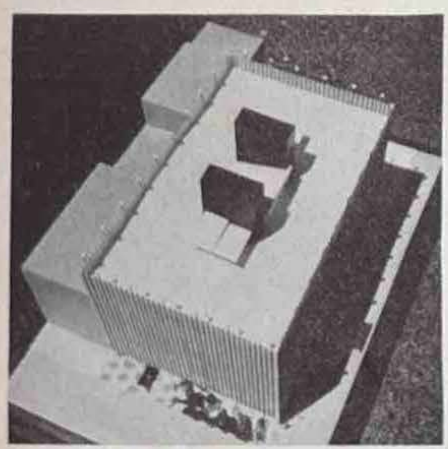
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**HALF OF STREET FLOOR** will be devoted to landscaped plaza with variety of concessions.

## Intermountain's parking terrace to accommodate 500 cars

WALKER CENTER, SALT LAKE CITY: Billed as the "largest parking building in the Intermountain area," this $1.5 million, 500-car project gives every indication of becoming one of the handsomest too. The 10-level structure will provide eight parking levels and approximately 200,000 sq. ft. of finished building space on two lower floors, to be leased to commercial interests. Complete auto service facilities will be available on the first level of the parking ramp.

Of reinforced concrete construction, the earthquake-resistant and fireproof building will have white precast slabs and steel columns for facing. Top of the parking area has been designed for auto shows and other exhibits.

The center will connect directly with the third and fifth floors of the adjacent Walker Bank Building, but the new facility will offer validated parking for customers of all businesses in the downtown area, being close to stores, restaurants and theaters in the financial heart of the city and its busiest traffic center. A turnover of about 30,000 cars a month is predicted.

Three buildings are being removed to make way for the project, whose completion is expected in the summer of 1960. Planners-architects-engineers: Laurence Farrant Associates.

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Builder Bill Roth, of Belmont. Architects are Johnson & Hawley; structural engineers are Warren & Siebert. Both are Palo Alto firms.

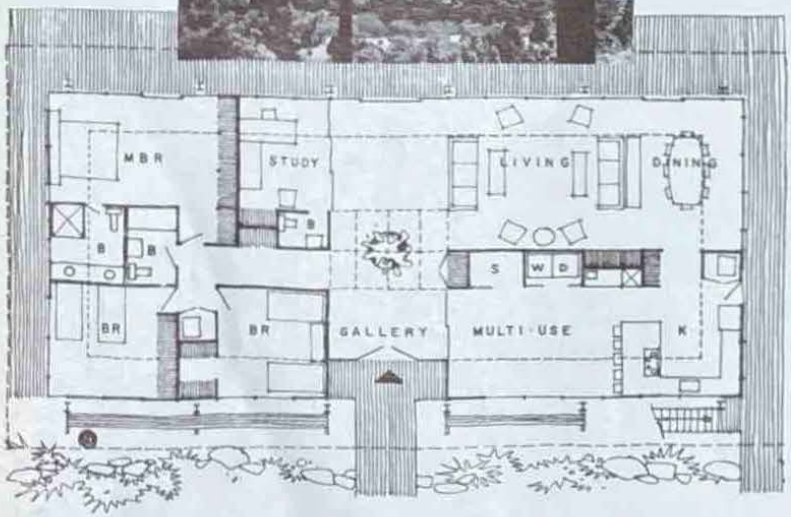
# Bill Roth's "House of the Year"

There's a remarkable model house in the Los Altos Hill of Santa Clara County, California.

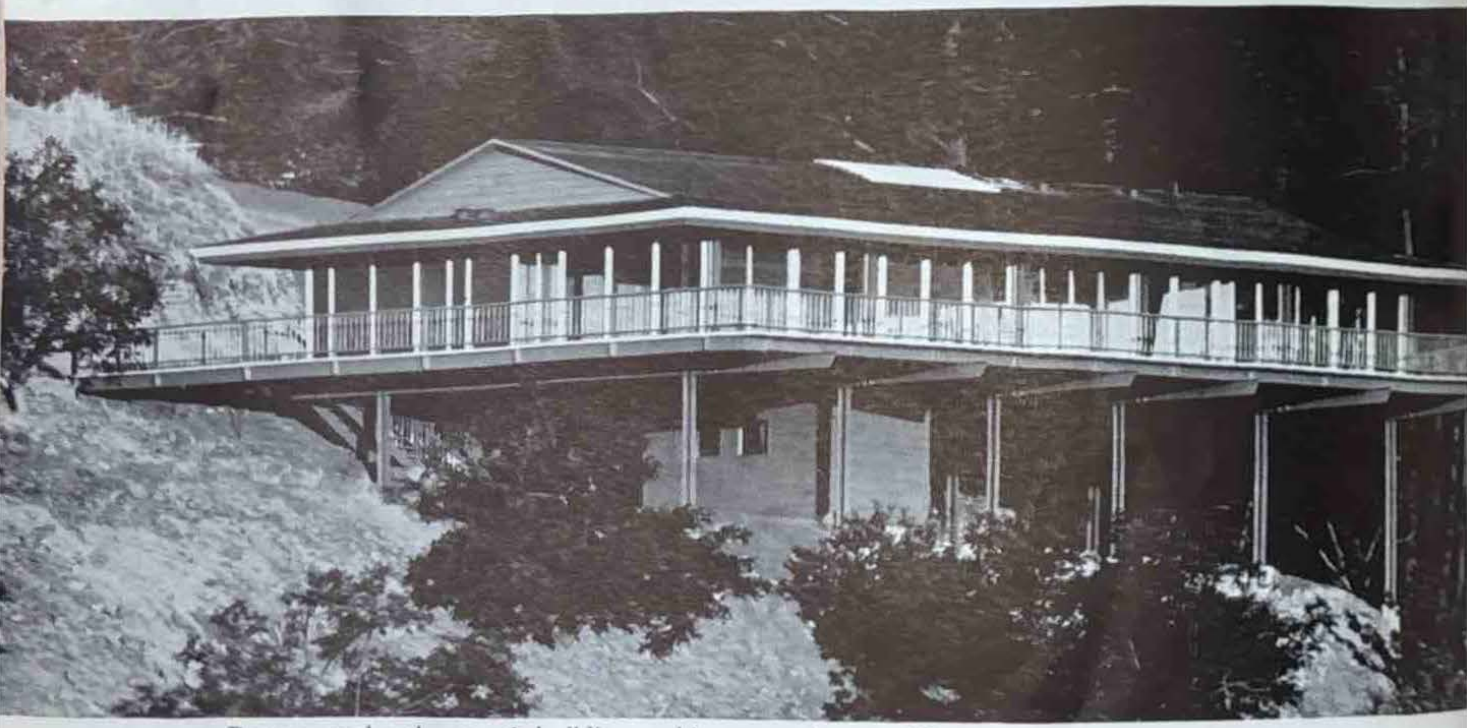
Visit it if you possibly can. Drive out Conception Avenu toward the Fremont Hills Subdivision. Pause at Viscain Avenue. Glance eastward. There it is, fairly leaping from th steep hillside on slender steel stilts.

Then drive up the hill. Go inside. Stand on that ope deck and you'll see miles of countryside spread out beneat you. And you'll feel the airy spaciousness within the hous because *there are no walls* in the conventional sense. Th entire structure is carried over the slope by just twelve ste columns, while projecting steel beams support the ope deck areas and the roof overhang. The exterior walls are effect, no more than weather screens, just as those ins are really only partitions separating the various living are

Would *you* like to have a house like this? It's possible with steel.




Floor plan of the 2600-sq-ft home. The steel framework, fabricated by Golden Gate Iron Works, was completely erected in only two days.

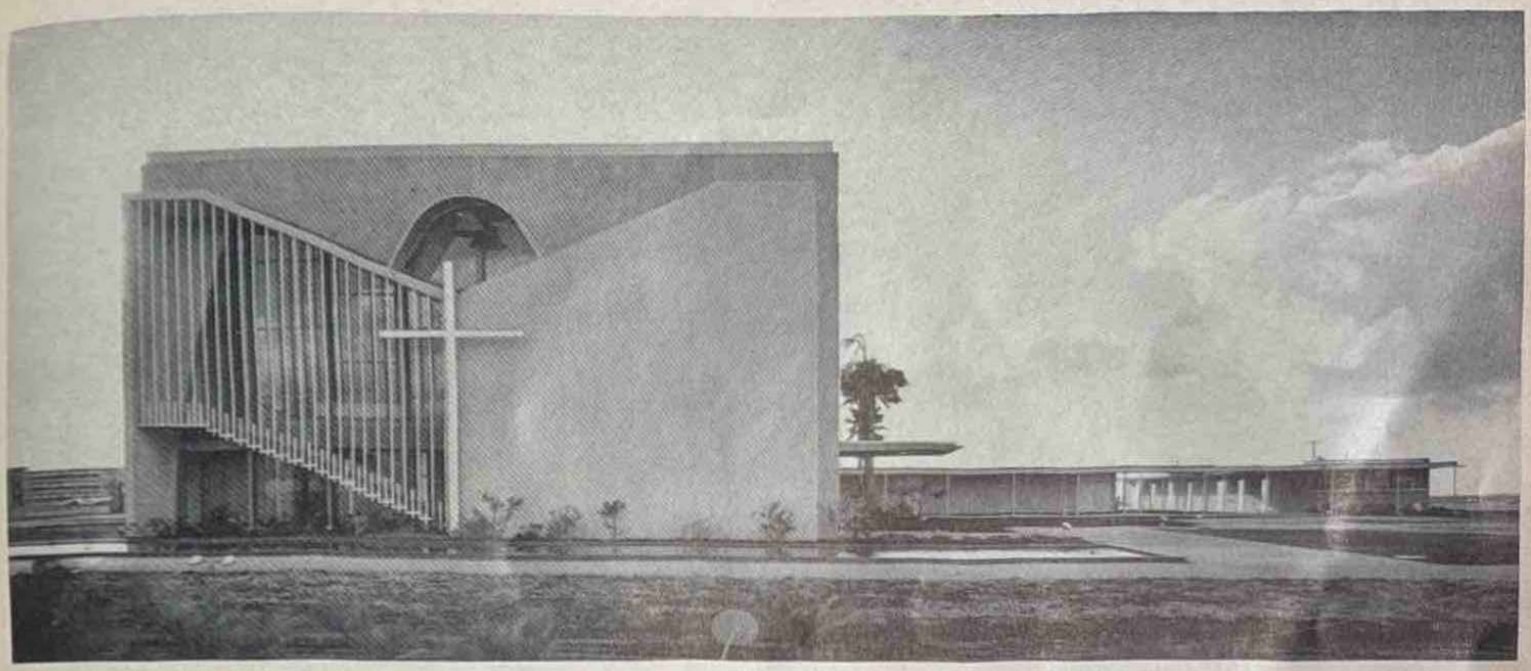


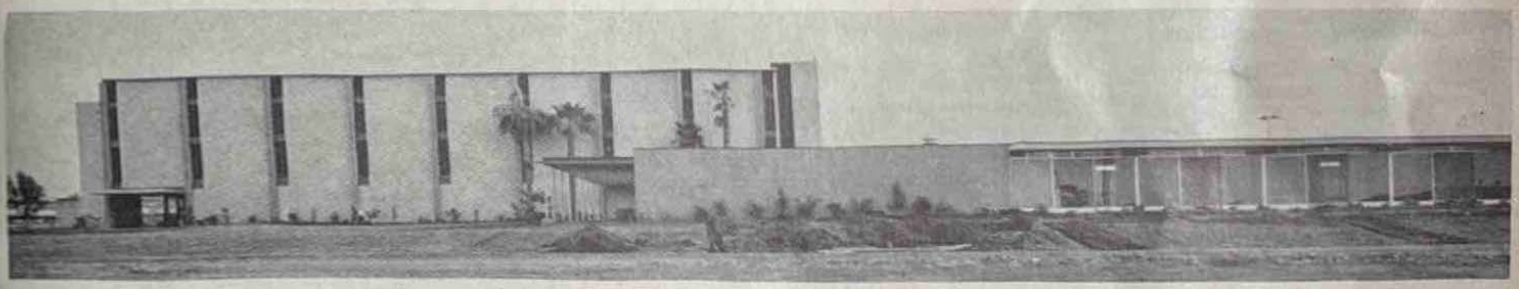
Because steel makes tough building problems easy, because it's so adaptable for contemporary design . . . architects, builders, and home-owners are turning more and more to steel framing for homes.

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# Fresh adaptation of an austere program

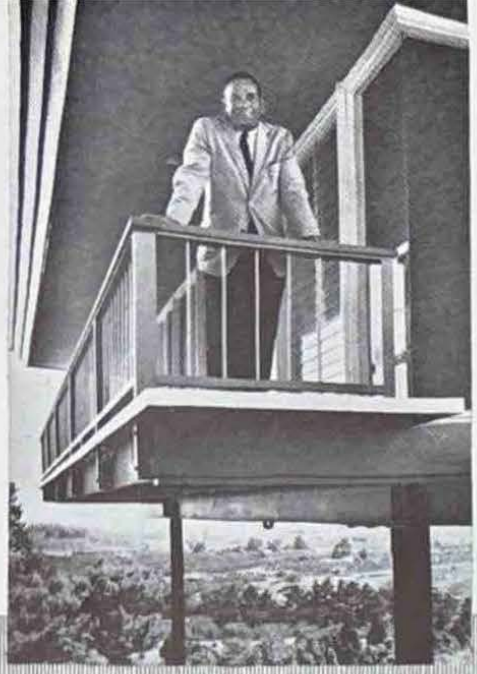
Chapel, Miramar Naval Air Station
La Jolla, California

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NEUTRA & ALEXANDER
Architects

PARKER, ZEHNDER & ASSOCIATES
Structural Engineers

ALAN ROGERS
General Contractor



Builder Bill Roth, of Belmont. Architects are Johnson & Hawley; structural engineers are Warren & Siebert. Both are Palo Alto firms.

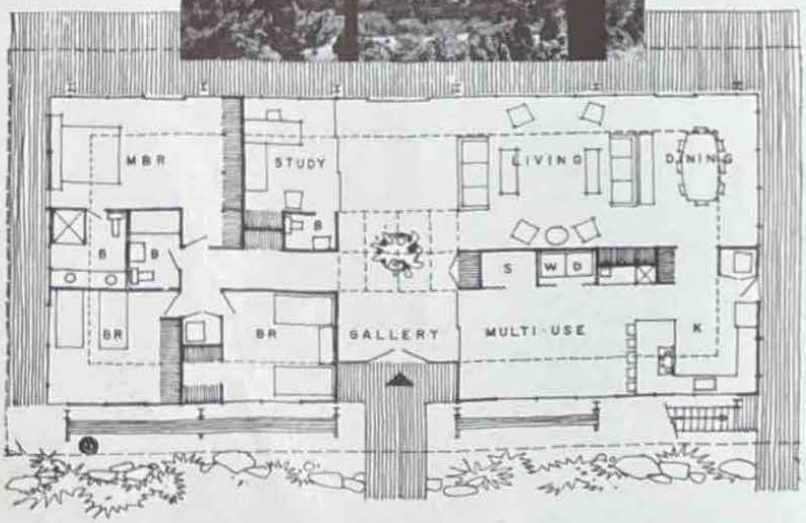
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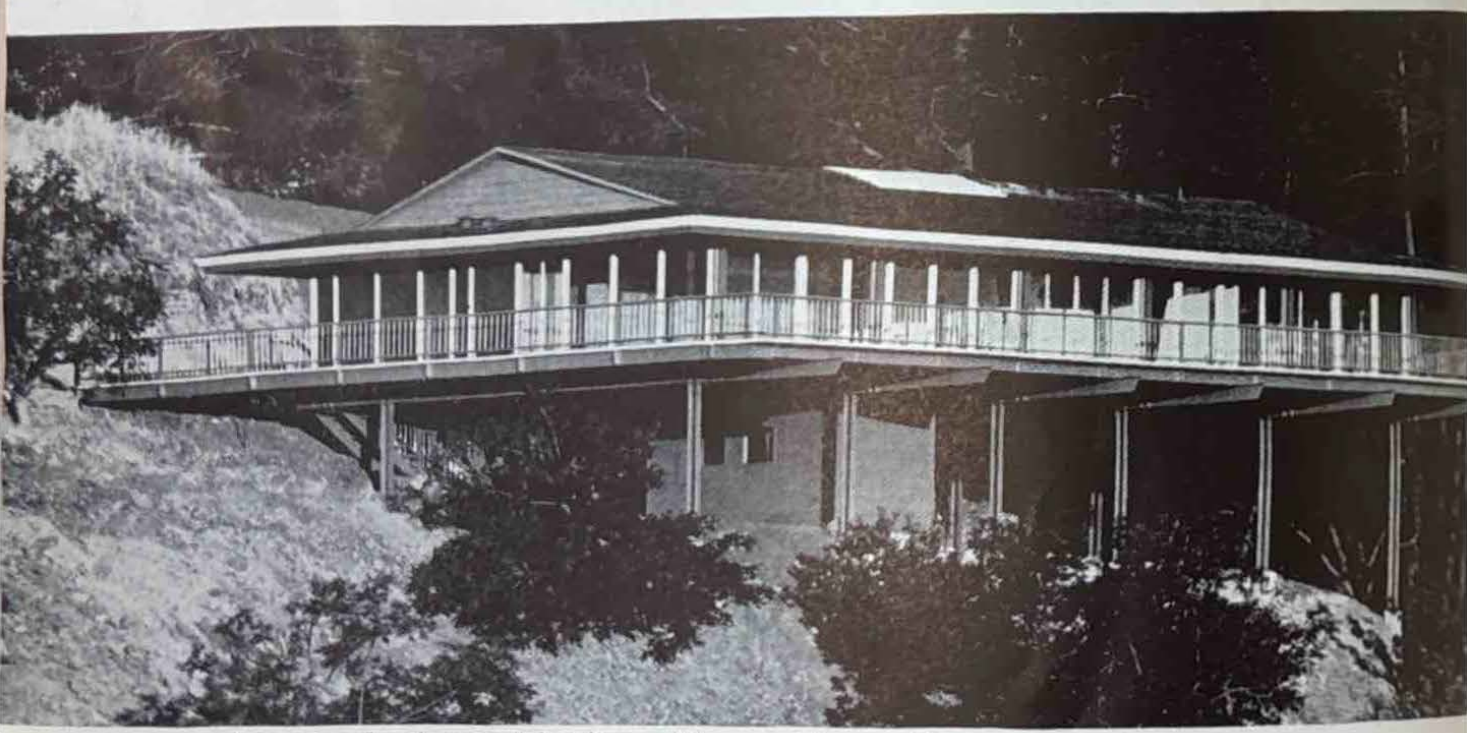
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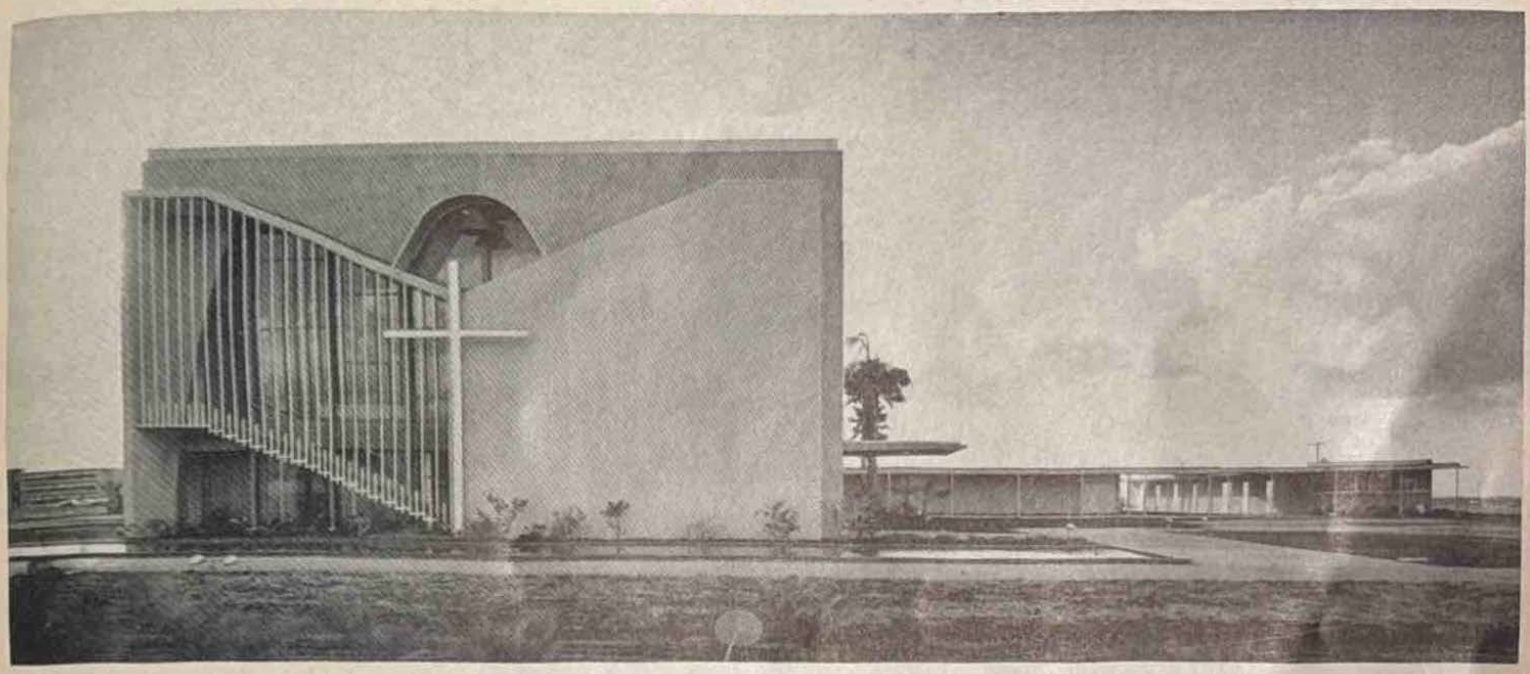


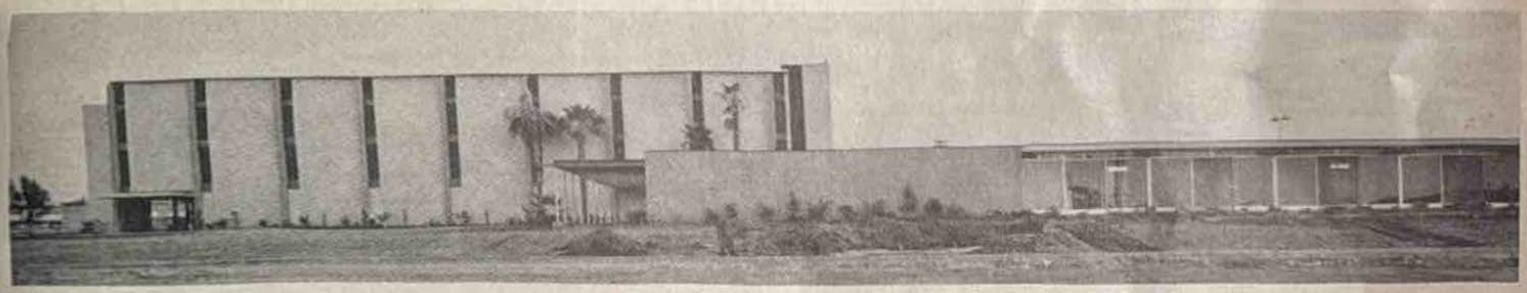
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# Fresh adaptation of an austere program

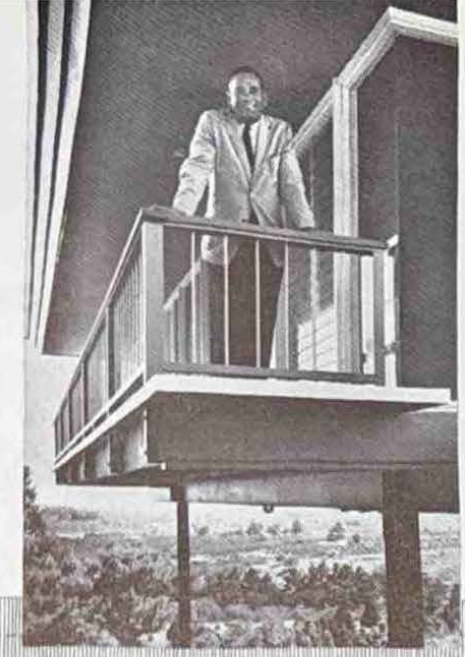
Chapel, Miramar Naval Air Station
La Jolla, California

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NEUTRA & ALEXANDER
Architects

PARKER, ZEHNDER & ASSOCIATES
Structural Engineers

ALAN ROGERS
General Contractor



Builder Bill Roth, of Belmont. Architects are Johnson & Hawley; structural engineers are Warren & Siebert. Both are Palo Alto firms.

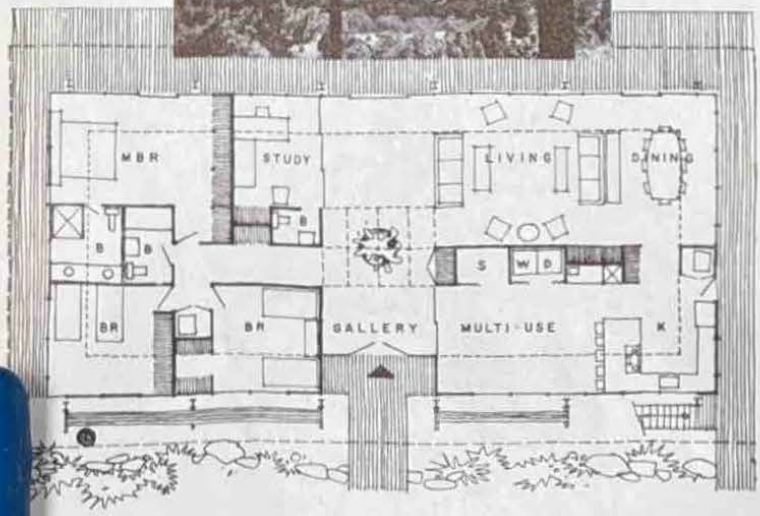
# Bill Roth's "House of the Year"

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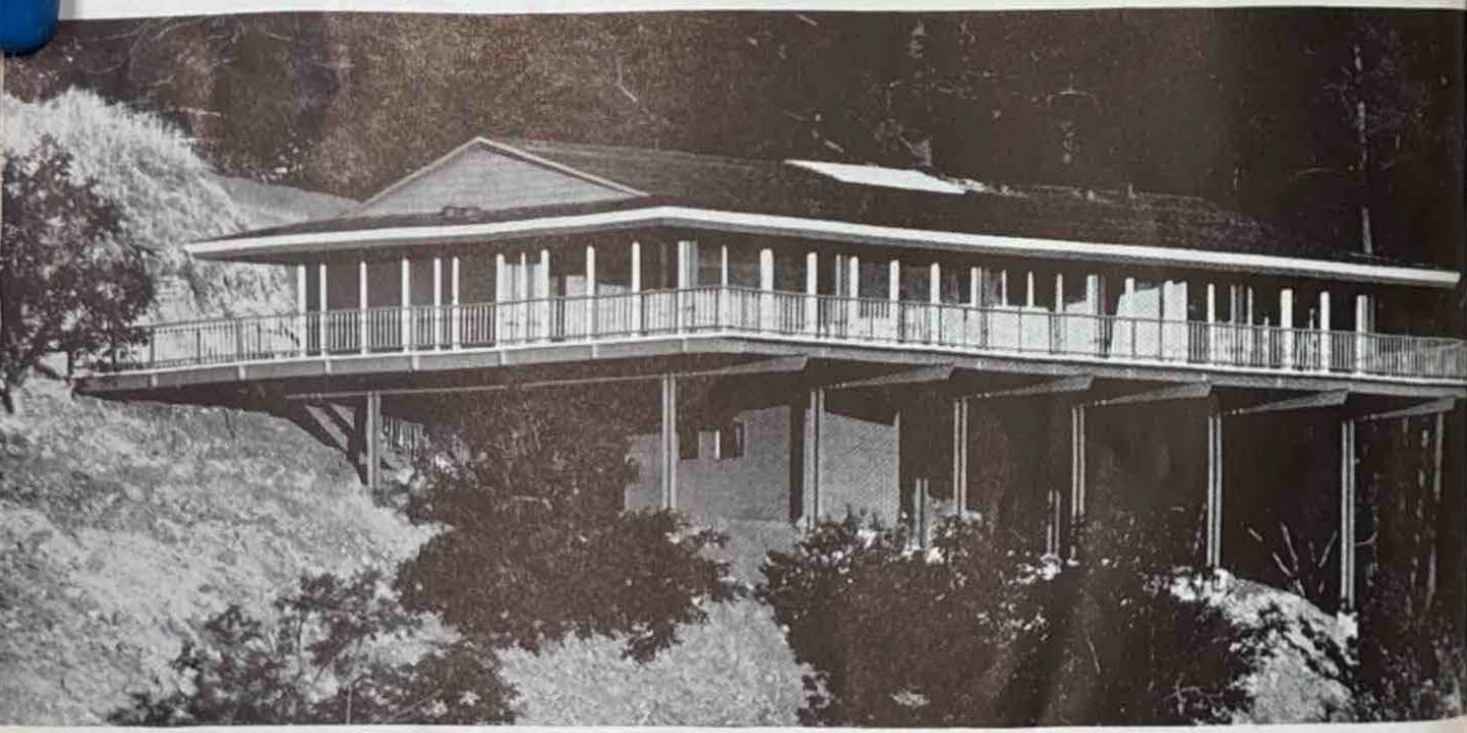
Visit it if you possibly can. Drive out Conception Avenue toward the Fremont Hills Subdivision. Pause at Viscaino Avenue. Glance eastward. There it is, fairly leaping from the steep hillside on slender steel stilts.

Then drive up the hill. Go inside. Stand on that open deck and you'll see miles of countryside spread out beneath you. And you'll feel the airy spaciousness within the house, because *there are no walls* in the conventional sense. The entire structure is carried over the slope by just twelve steel columns, while projecting steel beams support the open deck areas and the roof overhang. The exterior walls are in effect, no more than weather screens, just as those inside are really only partitions separating the various living areas.

Would *you* like to have a house like this? It's possible—with steel.




Floor plan of the 2600-sq-ft home. The steel framework, fabricated by Golden Gate Iron Works, was completely erected in only two days.

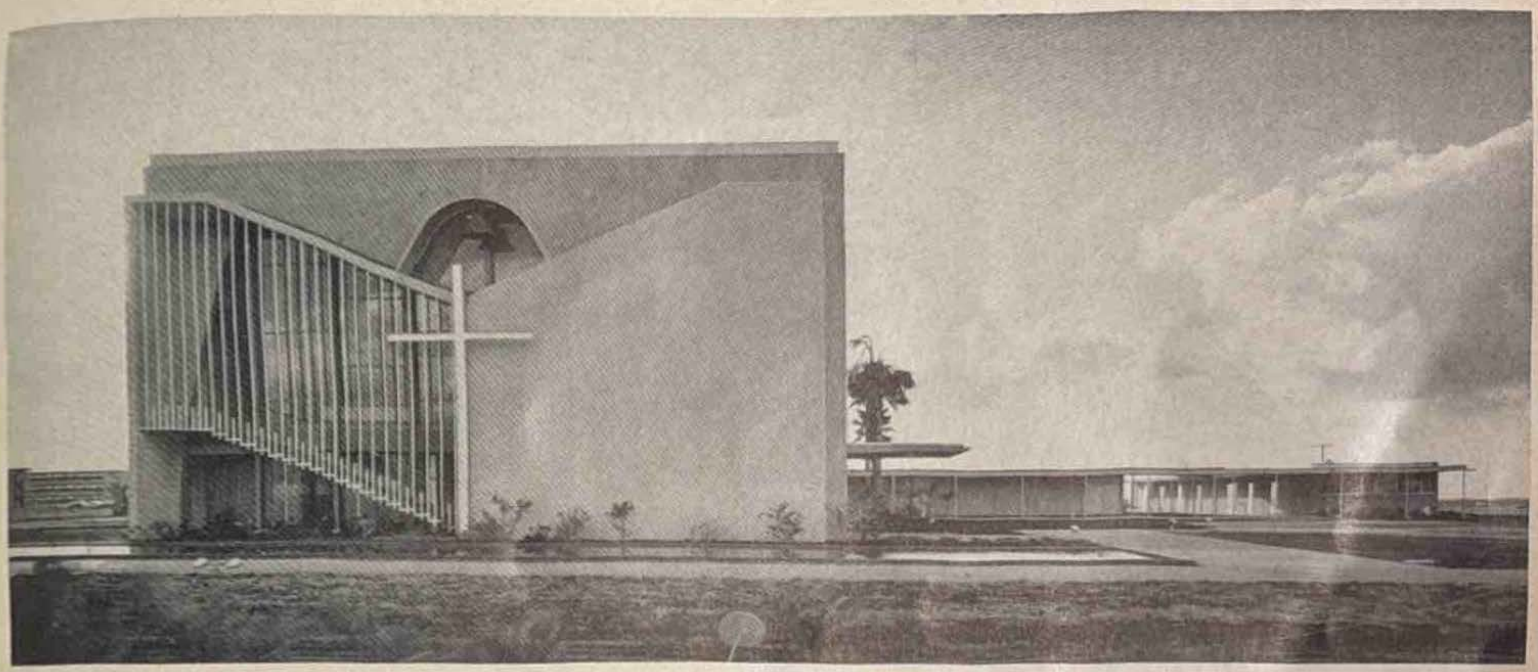


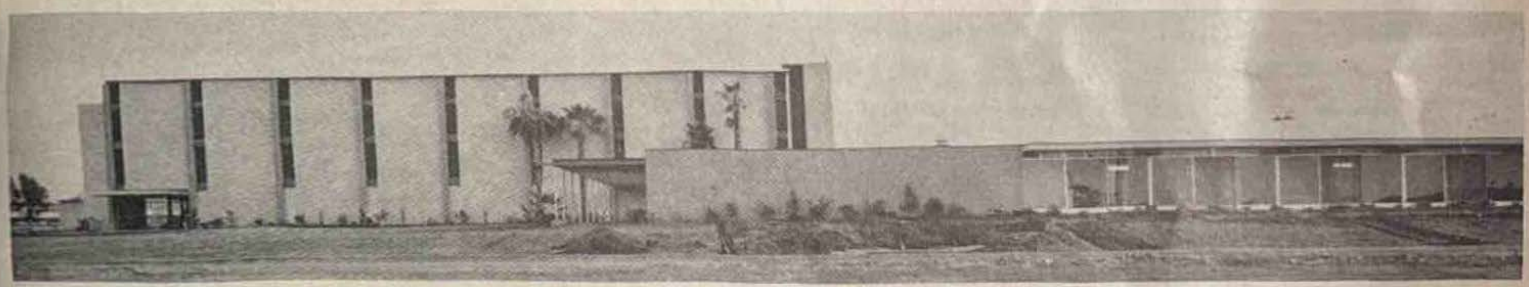
Because steel makes tough building problems easy, because it's so adaptable for contemporary design . . . architects, builders, and home-owners are turning more and more to steel framing for homes.

BETHLEHEM STEEL
Pacific Coast Division
General Offices: San Francisco

**BETHLEHEM STEEL**

BETHLEHEM STEEL





# Fresh adaptation of an austere program

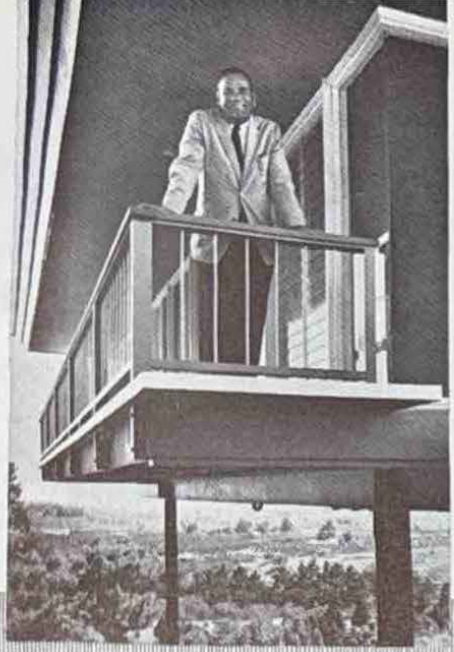
Chapel, Miramar Naval Air Station
La Jolla, California

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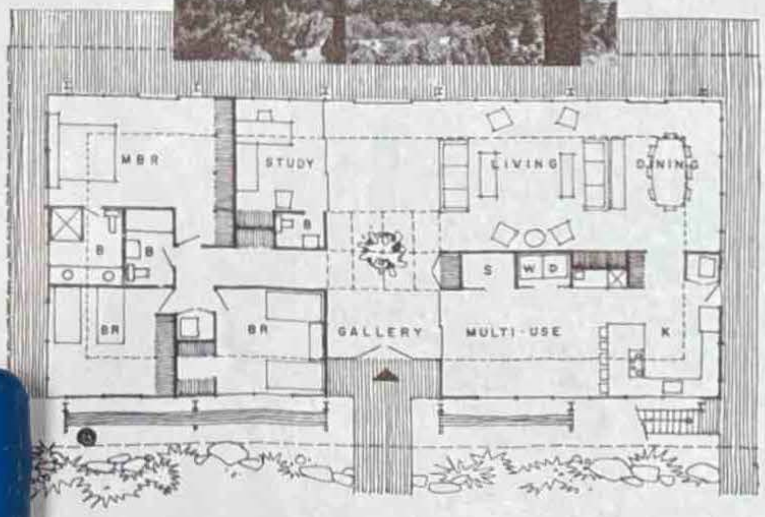
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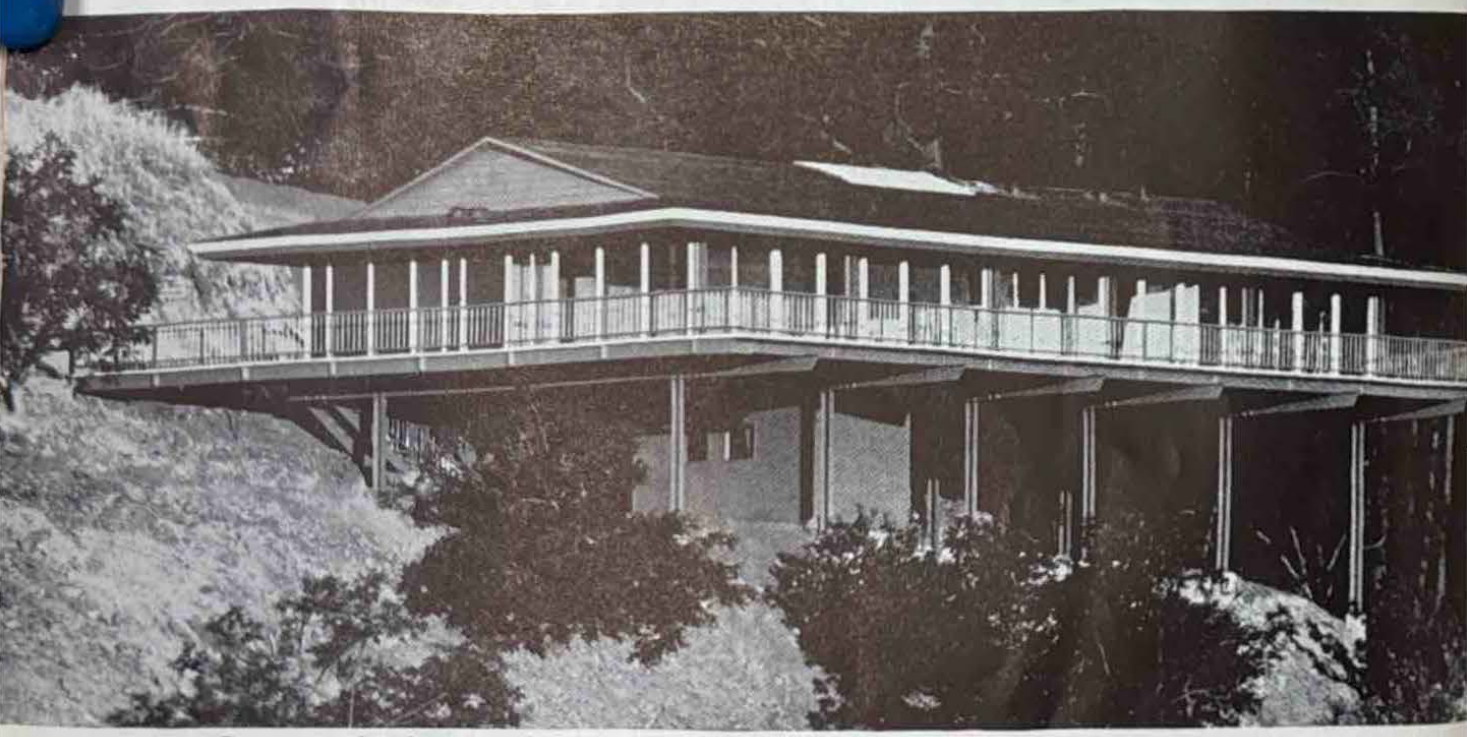
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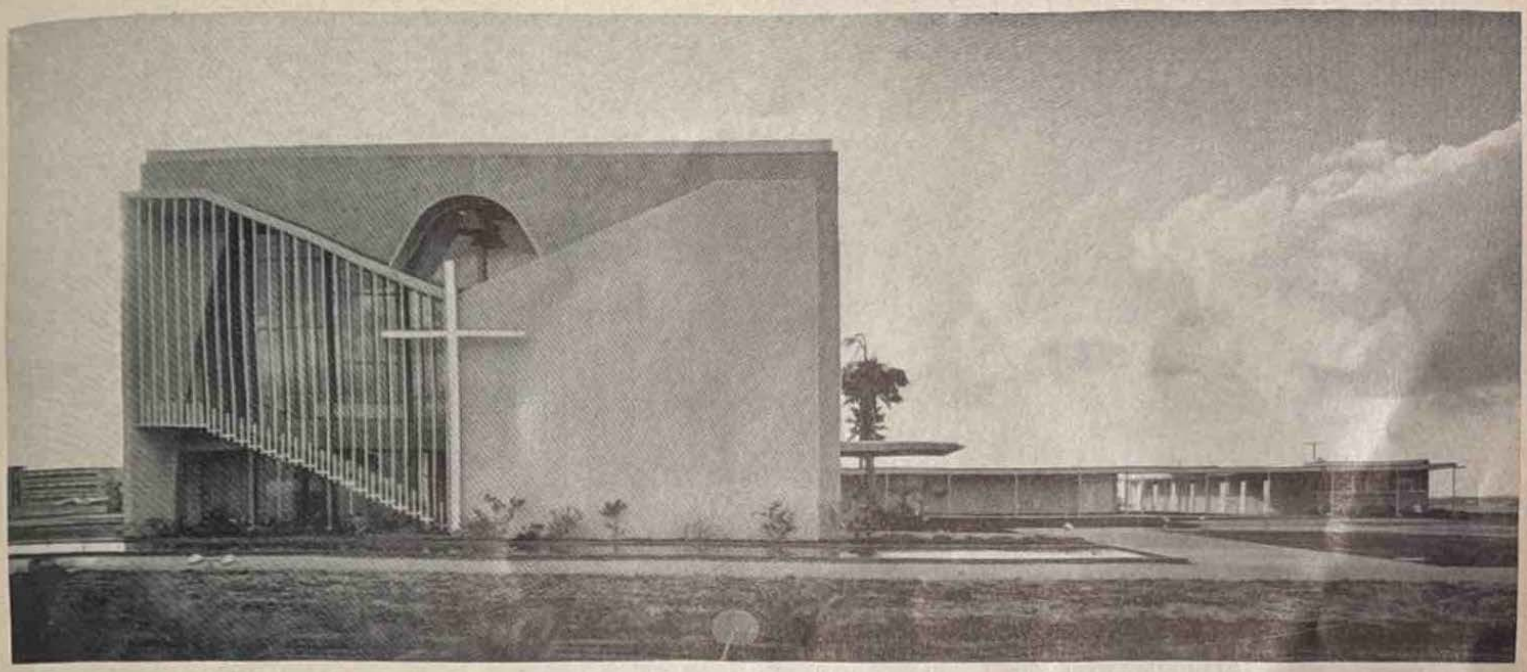


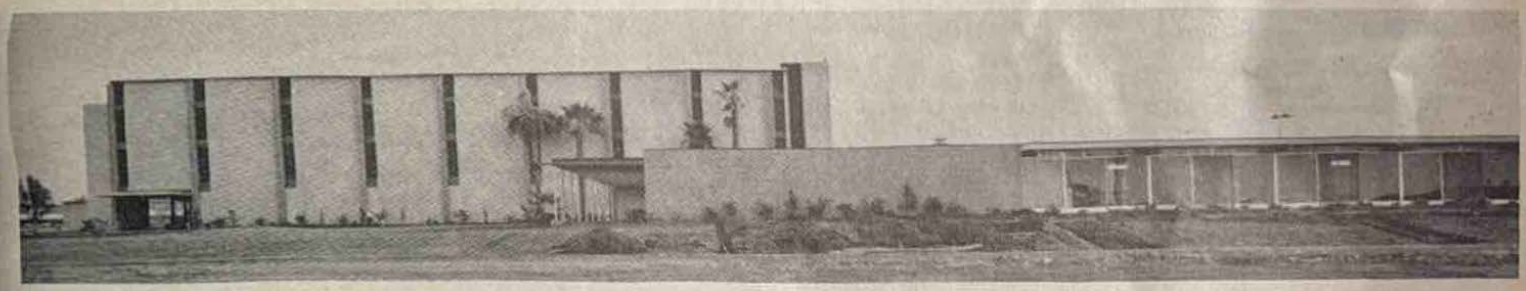
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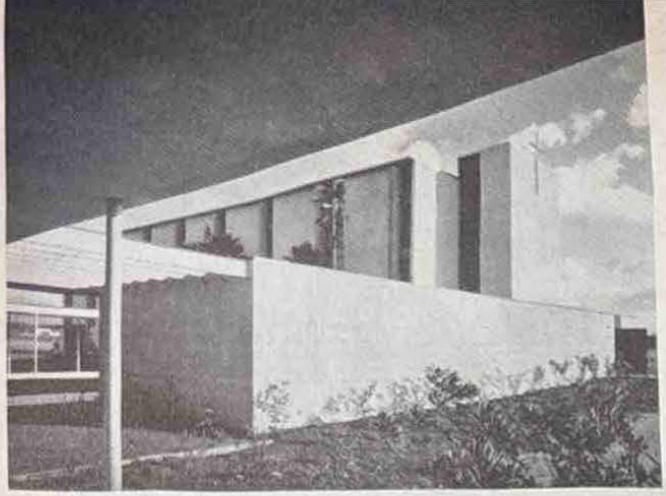
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## NAVY INTERDENOMINATIONAL CHAPEL

**MORNING CHAPEL** and parking lot are in foreground, classrooms and chaplains' offices in wing at left.

RATHER than simply site-adapt a standard 600-seat interdenominational chapel for navy airmen near San Diego, the architects modified and improved the plan in evolving their solution. The problem became somewhat complicated when the $350,000 advance estimate was arbitrarily reduced below $300,000 without change in program. Later, however, the client added such expensive features as running hundreds of feet of underground steam line to serve the building and the final construction cost was boosted above the budgeted figure by $60,000.

The architects have prepared the following description of the project: "The design of this all-faith chapel makes it quite different, in a dignified way, from other structures on the station. We feel that the western religions have in common the need to express a dynamic moving forward toward the altar or focus of worship, which should be located at the end of the main isle. In addition to this natural forward move horizontally, there should also be expressed an upward tendency—a feeling that should make itself known to the visitor the moment he enters the church and preferably he should be aware of it even before.

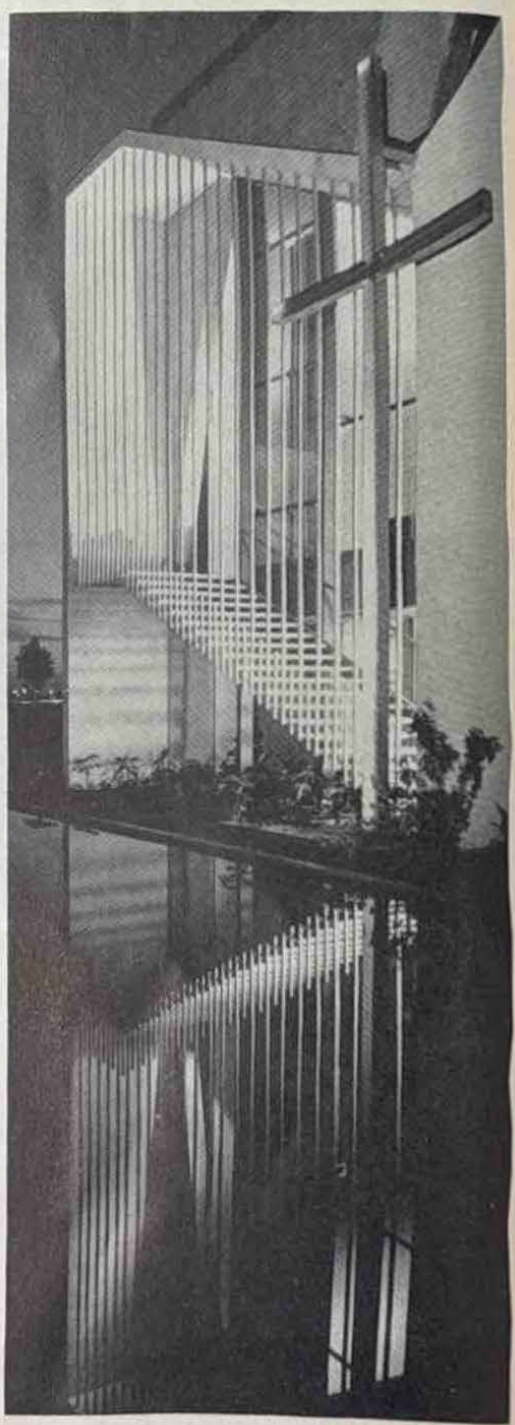
"The concept of this house of worship creates this feeling in a way which will be retained in the memory of the onlooker. Starting with the exterior, we see a symbolic bell, as has been used for convocation through many centuries and not strange to a navy man. The bell is silhouetted against a translucent opening illuminated at night, seen over the valley formed by the inverted V—an expressive shape—of the ceiling as extended to the outside. From one side of the ridge is supported a hanging stair which, by its upward slant, symbolizes spiritual ascent. A glass screen is all that separates the interior and exterior so as to make this entry as inviting as possible.

"The main entrance is approached through an open archway below the balcony into a covered vestibule. One immediately senses the impression of the upsurge, mostly through the shape of the massive concrete frames on both sides which arch over and disappear behind the ceiling, high above. The only natural light sources occur, concealed, forward on each frame. Being thus shielded, they spill light toward the altar and not toward the worshipper.

"Vestment and sacristy rooms are grouped behind the chancel and altar, with convenient access for services to the main chapel and the more intimate morning chapel.

"The main court is formed by the long wall of the chapel on the south, the cloister of the morning chapel on the west and the principal pedestrian approach walk on the east. Motorists approach the chapel from an ample parking lot on the west and then past Sunday school classrooms, opening onto their own landscaped patios, the chaplains' offices and the courtyard, following an early California pattern."

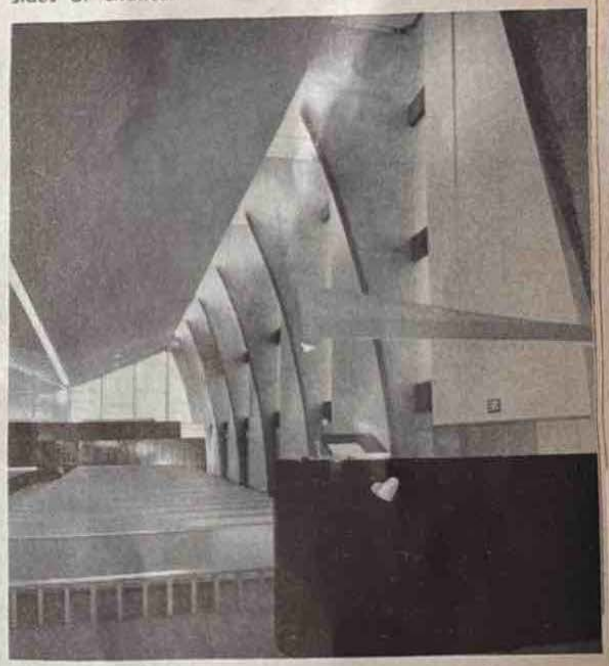
Mechanical engineer: Boris Lemos; electrical engineer: Earl Holmberg; acoustical engineer: Donald J. Sykes Free.





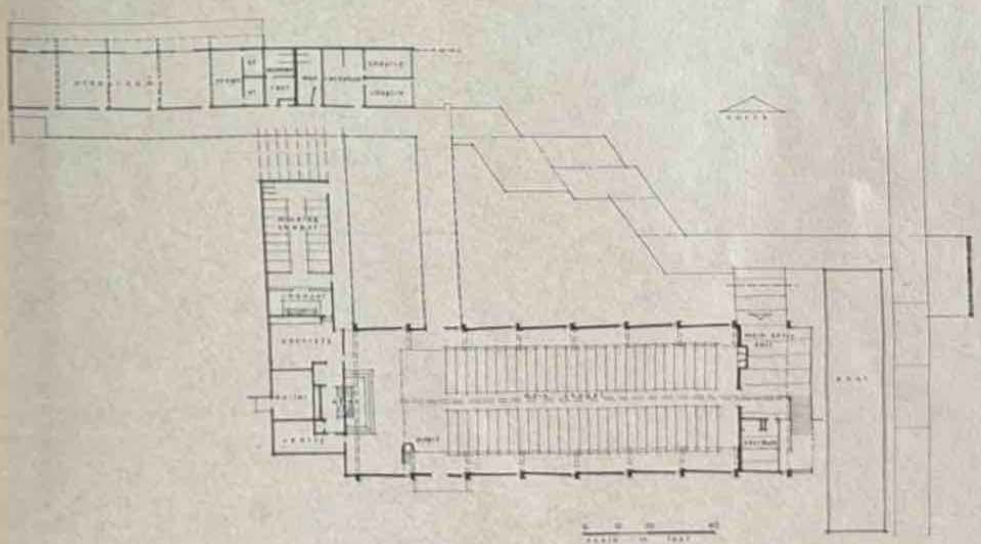
Julius Shulman photos

**FLOATING CEILING**, higher at edges than at center, seems to soar upward; its ridge, when lighted, directs eye forward. Altar is illuminated by inconspicuous, continuous toplight across entire width of nave, returning down sides of chancel.



## OUTLINE SPECIFICATIONS

**Structure**: foundation: concrete; frame: precast concrete and block; roof: poured gypsum and wood; floors: concrete slab on grade.
**Exterior Finish**: sprayed stucco and paint.
**Roof Surfacing**: tar and slag.
**Windows**: aluminum and steel sash.
**Doors**: exterior: solid core wood; interior: hollow core wood.
**Floor Surfacing**: cork and asphalt tile.
**Insulation**: aluminum foil.
**Interior Finish**: plaster and wood paneling.
**Ceilings**: acoustical plaster.
**Lighting Fixtures**: recessed.
**Heating**: forced air.
**Total Area**: 20,000 sq. ft.
**Total Cost**: $360,000.
**Cost per Square Foot**: $18.
**Date of Completion**: 1957.





# Gay design translates school board's philosophy

"A SCHOOL BUILDING can only set the climate for learning. If successful it will create the functional atmosphere in which to teach, learn and play—a place children want to be." Thus Edmonds School District No. 15 describes the philosophy behind its construction program. To translate this thinking into concrete and chalk boards, the architects designed a bright, colorful, child-sized series of structures clustered around the administrative unit and tied together with covered walkways.

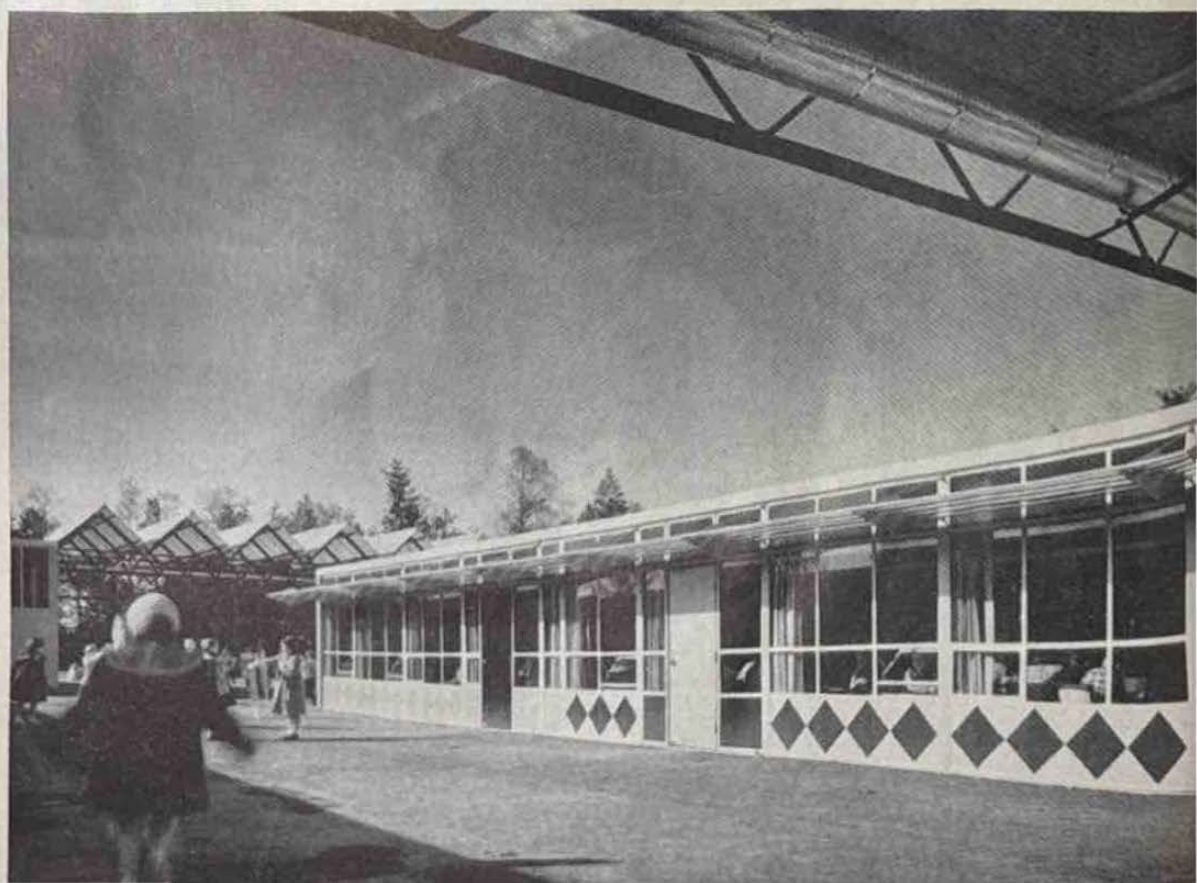
Selection of the site was governed by the district's long-range plans to locate each elementary school in the center of an area so that eventually, at saturation point, all pupils (capacity: 600) will be within walking distance. In the meantime, they are transported by bus. The site in this case was a partially cleared 8½ acres laying on a slight knoll with the center portion flat and the southwest corner sloping into a wooded depression. Shape of the property was a rough "Z" with residences located on opposite corners of the rectangle.

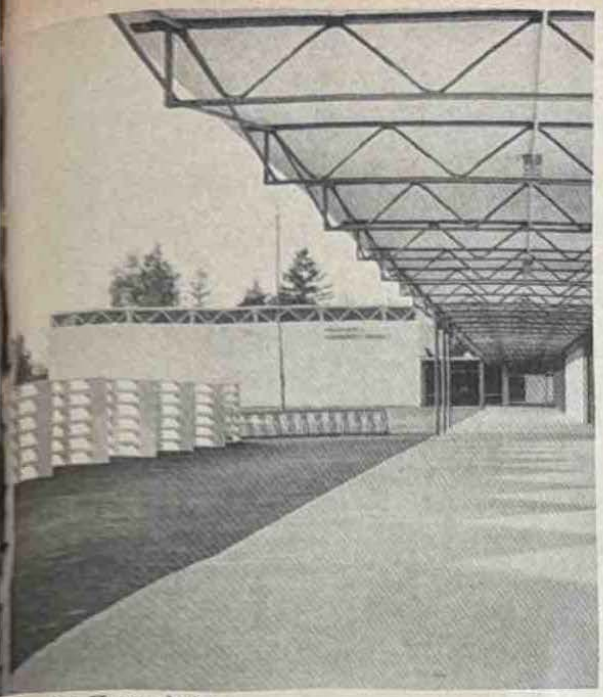
The building program called for 20 self-contained classrooms housing kindergarten through sixth grade, a library and administration unit at the center, located to serve all units equally yet readily accessible to visitors; site, playfield and multipurpose facilities to be developed for use by the community as well as by students; classroom feeding lunch system; use of materials that give the highest fire rating economically feasible—within the maximum for state matching funds of $13.84 a square foot.

The architects selected a semicampus type development with classrooms divided on either side of the administration and library unit into six separate buildings according to grade level; five units of three classrooms each and one unit of five classrooms. The larger grouping houses the first grade and kindergarten.

To keep direct sunlight out of as many classroom windows as possible the school is oriented about 39 deg east of north along its long axis. The angle was arrived at by computing

**COLOR** sparingly used but bright is important part of design. Exterior walls are neutral gray; window panels and doors are red, yellow and blue interchanged for each classroom. Pattern is repeated in trim of multipurpose building





Art Hupy photos

Westgate Elementary School
Edmonds, Washington

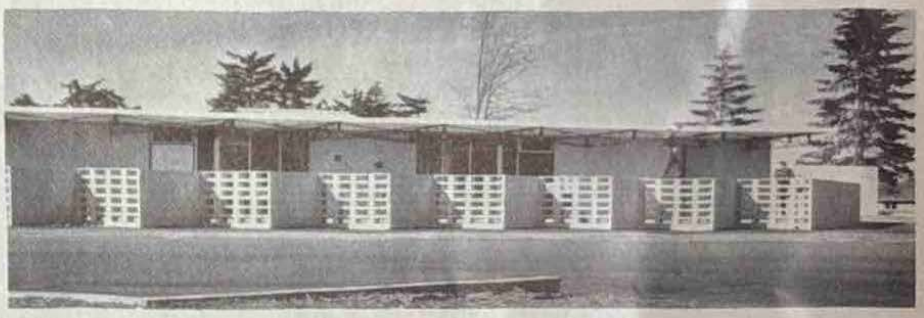
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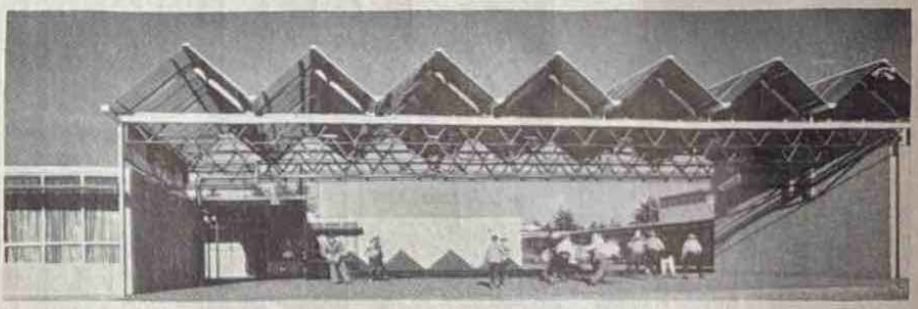
DAN F. MILLER & EARL D. MORRIS
Architects

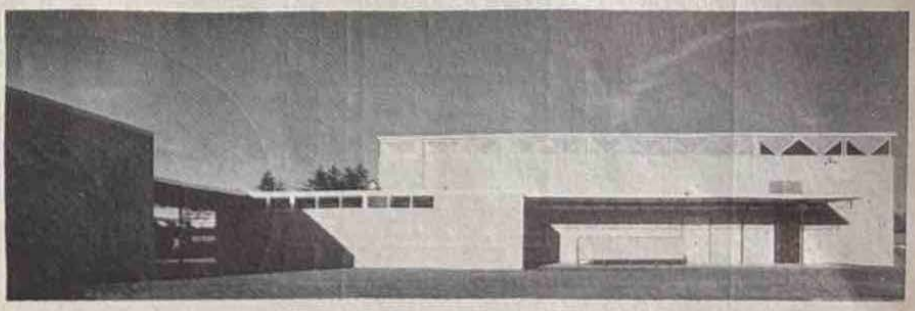
ANDERSEN, BJORNSTAD & KANE
Structural Engineers

GLACIER CONSTRUCTION CO.
General Contractor

**ROOF PROJECTIONS** form walkway cover connecting separate units and provide outdoor play space in addition to two covered courts for inclement weather. Still other play areas for different age groups are adjacent to school plant.







the hours of school and the length of the school year in this area. Windows which receive direct sunlight are provided with aluminum sunshades and sections above these are glazed with glare-reducing, heat-absorbing glass. Each classroom has one full window wall and a large window on the adjacent wall. Entry corridors are skylighted and subsequent relights into the inside corner of each classroom give light from the opposite side.

A central corridor for each unit serves as storage and working space for teachers outside the classrooms and also is used as parking space for the hot food cart while the children are being served lunch.

Heating is by a central, hot water, oil fired package boiler with the water distributed to each mechanical room serving three classrooms by means of overhead piping under the covered walkways. The warm air is distributed through underfloor ductwork to perimeter registers. Each classroom has separate controls and a continual air exchange giving constant ventilation summer or winter. Outside air is introduced through modulating dampers into the system controlled by outside thermostats. Kane & Ervin were the mechanical engineers; John Chaffer, electrical engineer.



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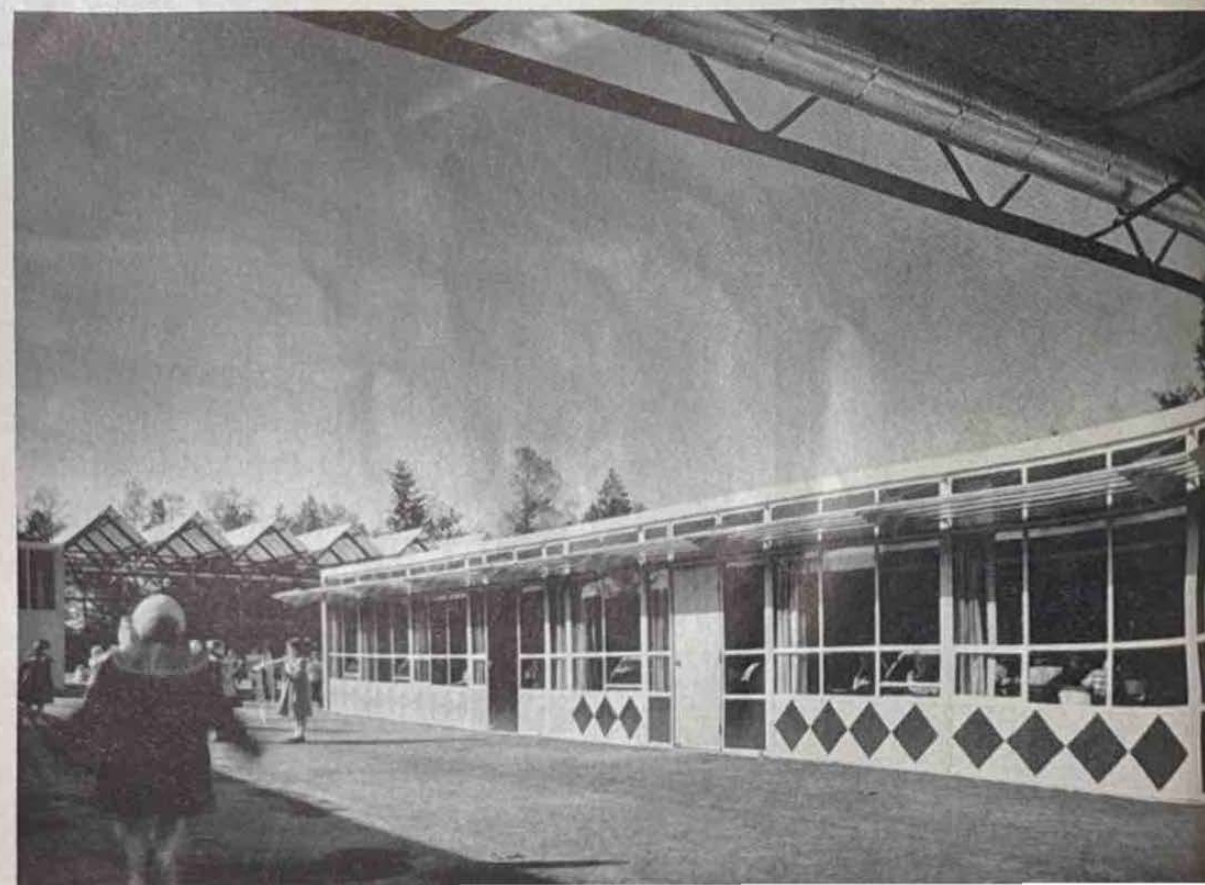
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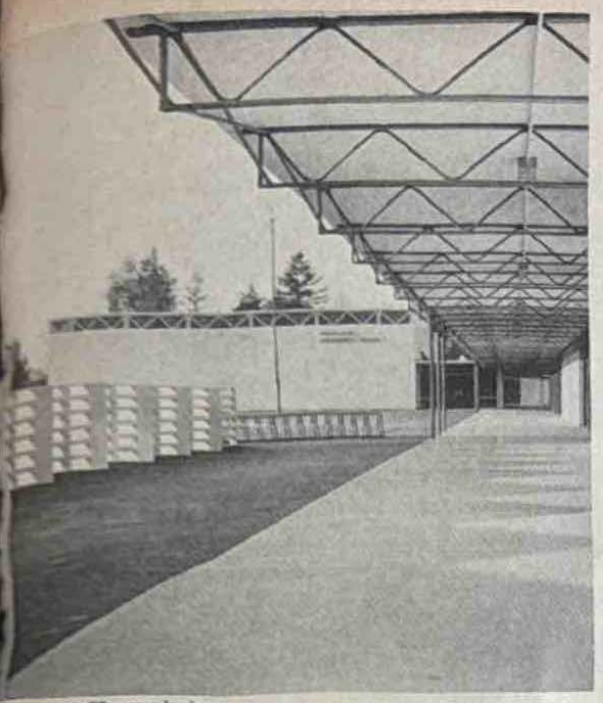
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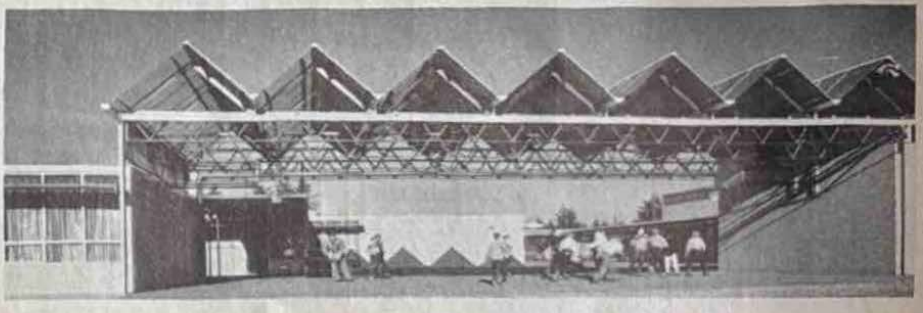
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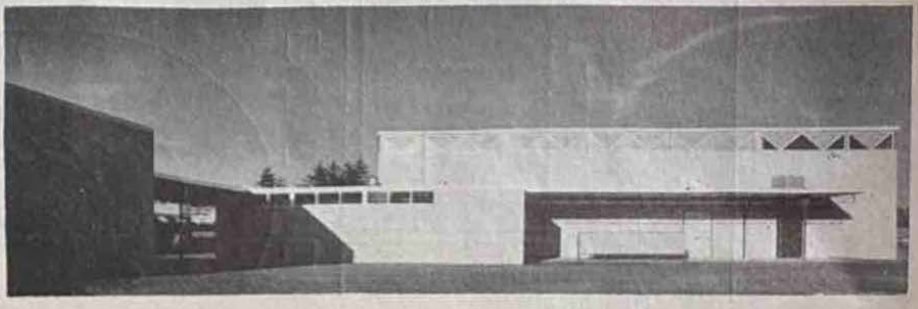
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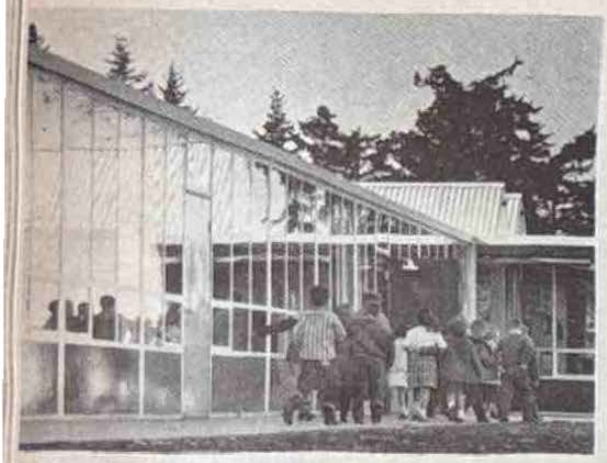


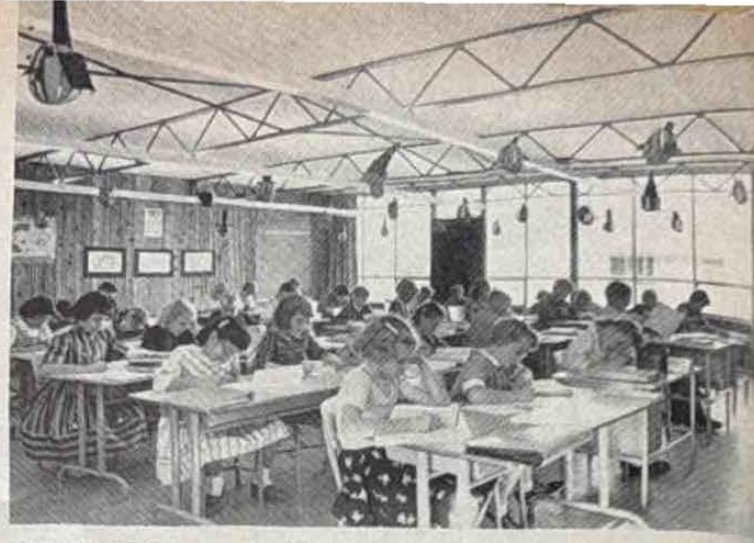
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## WESTGATE ELEMENTARY SCHOOL





**CHALKBOARDS** in powder blue and grooved rough cedar tack boards in natural finish are used as floor-to-ceiling wall finishes. Ceilings are white, structural steel, gun metal blue.

### OUTLINE SPECIFICATIONS

**Structure**: foundation: concrete; frame: steel columns; roof: open web steel joists with acoustical decking of 2-in. wood fiber formplank—Tectum Corp.; floors: concrete.

**Exterior Walls**: pumice block, some patterned block—(Shadowal) Layrite Concrete Products Co.

**Window Wall System**: aluminum sash with cement-asbestos sandwich panel—Fentron Industries, Inc.

**Doors**: exterior: hollow metal—United Steel Fabricators; interior: wood birch.

**Insulation**: rigid fiberboard on roof deck.

**Floor Surfacing**: asphalt tile; quarry tile in kitchen; ceramic tile in toilets.

**Interior Finish**: natural cedar channel siding for tackboard; floor-to-ceiling chalkboard; some plasterboard; ceramic tile in toilets.

**Ceilings**: exposed, prefinished decking—Tectum Corp.

**Lighting Fixtures**: daylight type, semi-indirect fluorescent—Smoot-Holman Co.

**Skylights**: corrugated transite and plastic.

**Heating**: oil fired hot water converted to warm air in each building.

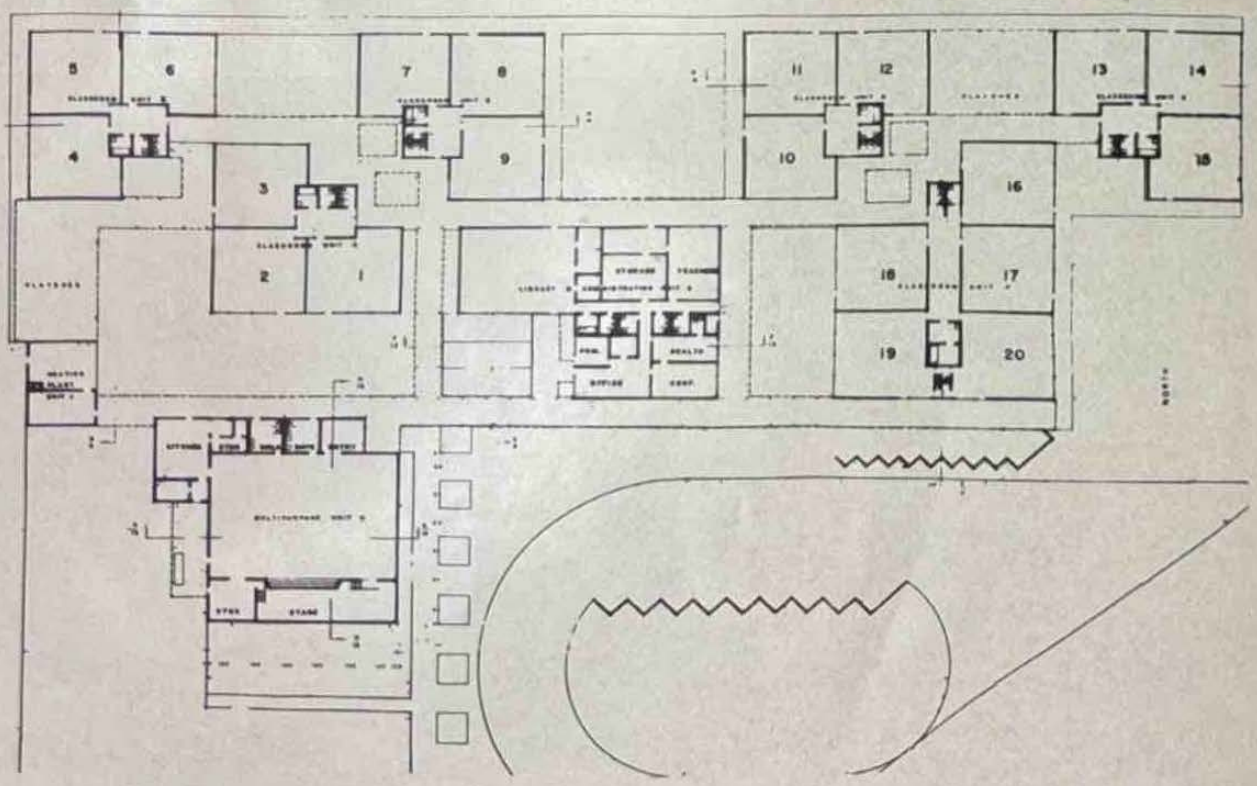
**Plumbing and Sanitary**: American Standard.

**Total Area**: 38,878 sq. ft.

**Total Cost**: $517,177.

**Cost per Square Foot**: $13.30.

**Date of Completion**: October 1958.



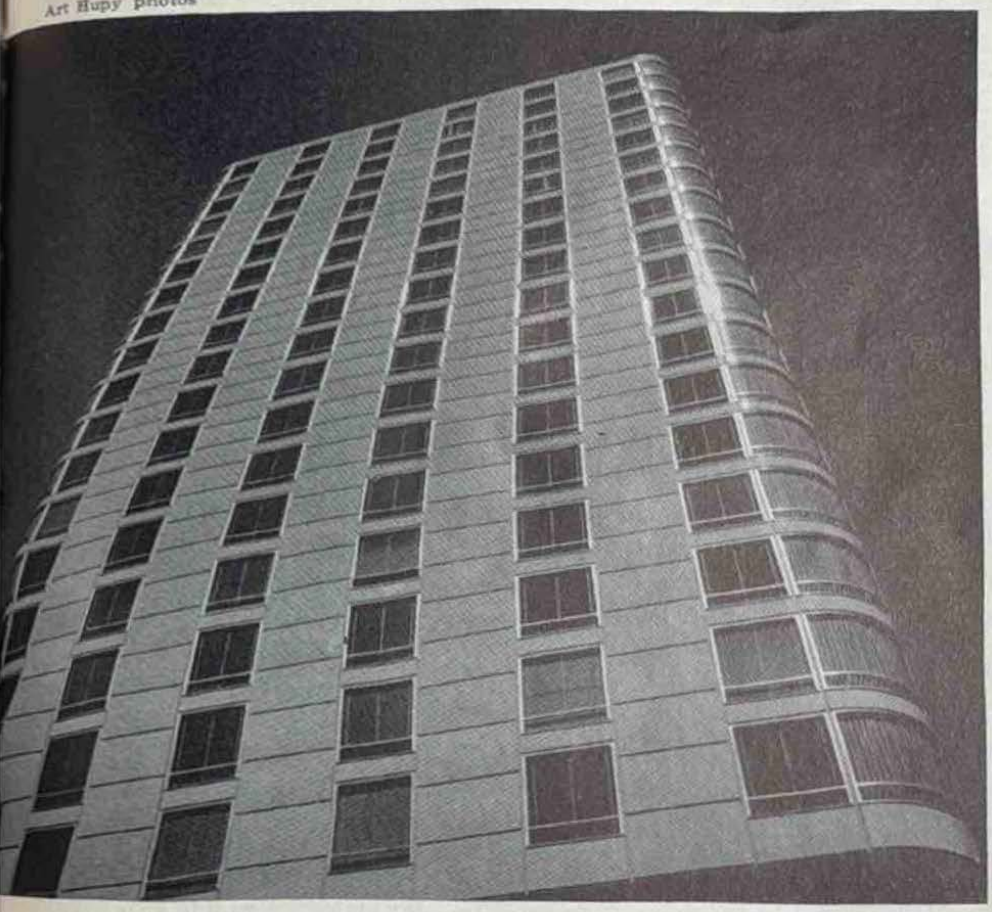
Brown Palace Tower
Denver, Colorado

WILLIAM B. TABLER
Architect

SEELYE, STEVENSON, VALUE & KNECHT
Structural Engineers

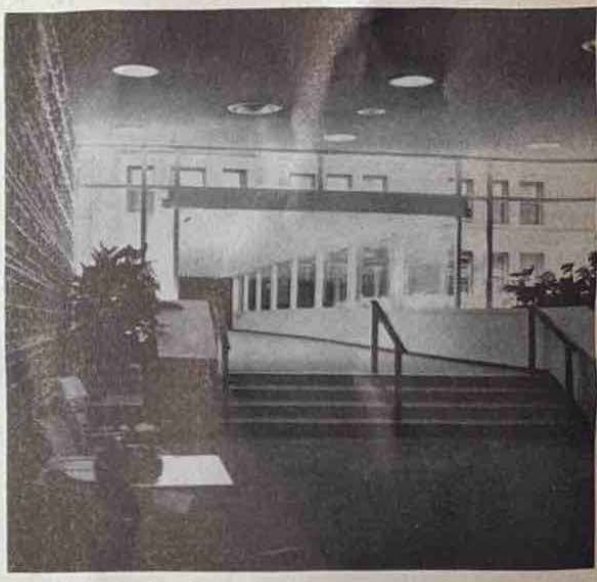
N. G. PETRY CONSTRUCTION CO.
General Contractor

Art Hupy photos





**BRIDGE** spans 25 ft. over Tremont Street, connecting parent sandstone hotel and spanking new 22-story annex. Compatible companion with its rounded corners and brown porcelain enamel panels, $3.3 million tower has 288 guest rooms (16 per floor), ballroom and two-level garage for 80 cars. Mezzanine lounge is seen below.



# Bridging the old and the new in downtown Denver

PHYSICAL TIE between the old and new Brown Palace Hotel projects produced several interesting developments. While the architect for the new tower also designed the bridge, another architectural firm—Fisher & Davis—was responsible for receiving the ramp in the existing hotel and remodeling its basement, first and second floors.

Carried by two steel trusses which form side walls up to the sills, the bridge lands about 2½ ft. below the second floor of the old structure and slopes 5 in. upward to 3 ft. above the second floor of its new counterpart. Main problems encountered were 1) cutting a large enough hole in the sandstone face to accept the wide bridge, and 2) setting the heavy load onto the old building. To achieve the former, it was necessary to cut away 8 in. out of each pier which flanks the Tremont Street entrance—a ticklish proposition because of the nature of sandstone.

Next, trusses were continued into the building and carried on new steel columns, which run down into the basement onto new concrete footings set between the stepped, stone footings of the existing piers. This too became quite a task as the new footing design was changed on the job to accommodate conditions as they were uncovered. After the trusses were set, the work was routine.

General contractor for the annex and ramp also did the remodeling. Slocum & Fuller were mechanical engineers; William C. Meagher Jr., architect's representative in Denver.





Municipal Swimming Pool
North Bend, Oregon

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STEVENS & THOMPSON
Consulting Engineers

GORDON E. TRAPP
Architect
(with Stevens & Thompson)

A. T. FOX
General Contractor

# Year-around pool lets sunshine in, keeps weather out

INDOOR-OUTDOOR DESIGN and multipurpose features of three swimming sections give this city of 8,000 population in effect two pools for the price of one. Requirements dictated a structure providing outdoor recreational swimming in the summer, with indoor facilities for physical education classes and swimming meets, all within the limited financial means of a small community.

A high degree of cooperation by city and school officials and the planning team met these needs with a proposal that won overwhelming voter approval of nine to one in a $325,000 bond election and its consequent selection as the best-designed public swimming pool in 1958. Judges for Swimming Pool Age called it an "outstanding, versatile plan. Most modern approach for year-around swimming activities."

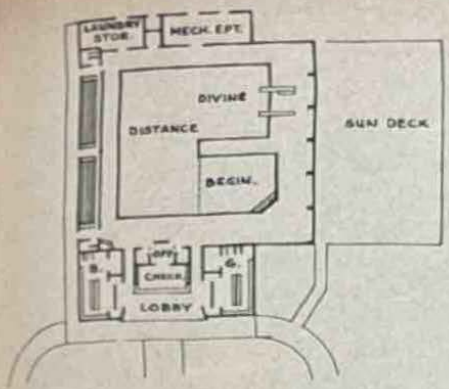
Key feature is the south wall, made up entirely of six high sloping glass bays, four of which can be raised half way on glazed aluminum overhead doors to let in the out-of-doors or lowered to guard against the weather. Warm air is blown past the windows by means of continuous floor grills to keep the large expanse of glass free of condensation. Flanking this window wall is a 60x120-ft. concrete sundeck with accommodations for volley ball, badminton, shuffleboard and the like.

To most effectively serve all the functional needs, the designers came up with a U-shaped pool. A shallow area with sides about 30 ft. apart for beginning swimmers and instruction purposes constitutes one leg; main swimming lanes, 42 ft. wide and 25 meters long, make up the base of the U; and a separate diving area, 42 ft. wide and 12 ft. deep at the lowest point, fills in the other leg, which can be converted into swimming lanes.

Deck between the diving and shallow areas allows economical roof support carried to the foundation without interference. It has also been found to make an excellent instructor and life guard observation spot and staging area for water shows and can accommodate overflow seating when public bleachers opposite the main swimming lanes are full.

Pool is an overflow gutter type with lip approximately 1 ft. below the deck. Continuous aluminum grating just back of the cast stone coping at deck level makes it possible to raise the pool for racing events by simple valve manipulation.

Operated by the North Bend School District, which donated the property, the pool is open to the public throughout the summer and on evenings and weekends during the school year. Dressing rooms are designed to accommodate a class of 30 at one time. Bleacher area will seat 260 and has separate access and restroom facilities




## OUTLINE SPECIFICATIONS

**Structure**: foundation: reinforced concrete; frame: waterproof glued laminated beams—Timber Structures, Inc.; reinforced concrete and steel pipe columns; roof: 2x6 treated t&g; floors: reinforced concrete.

**Exterior Walls**: glazed structural tile—Kraftile Co.; expanded shale concrete block.

**Roof Surfacing**: composition—Johns-Manville Corp.

**Windows**: aluminum—William Bayley Co.

**Doors**: aluminum entrance—Kawneer Co.; aluminum overhead to sundeck—Overhead Door Co.; interior—hollow metal.

**Insulation**: rigid treated fiber on roof.

**Interior Finish**: glazed structural tile at swimming pool, dressing rooms, showers and toilets—Kraftile Co.; painted block at service areas; painted smooth formed reinforced concrete above glazed tile wainscoting of main swimming pool enclosure; ceramic tile—Mosaic Tile Co.

**Heating**: low pressure steam boiler with heat exchangers to pool and forced air system; radiant with floor pipes in all deck areas of pool, dressing rooms and lobby.

**Lighting Fixtures**: incandescent overhead and underwater pool.

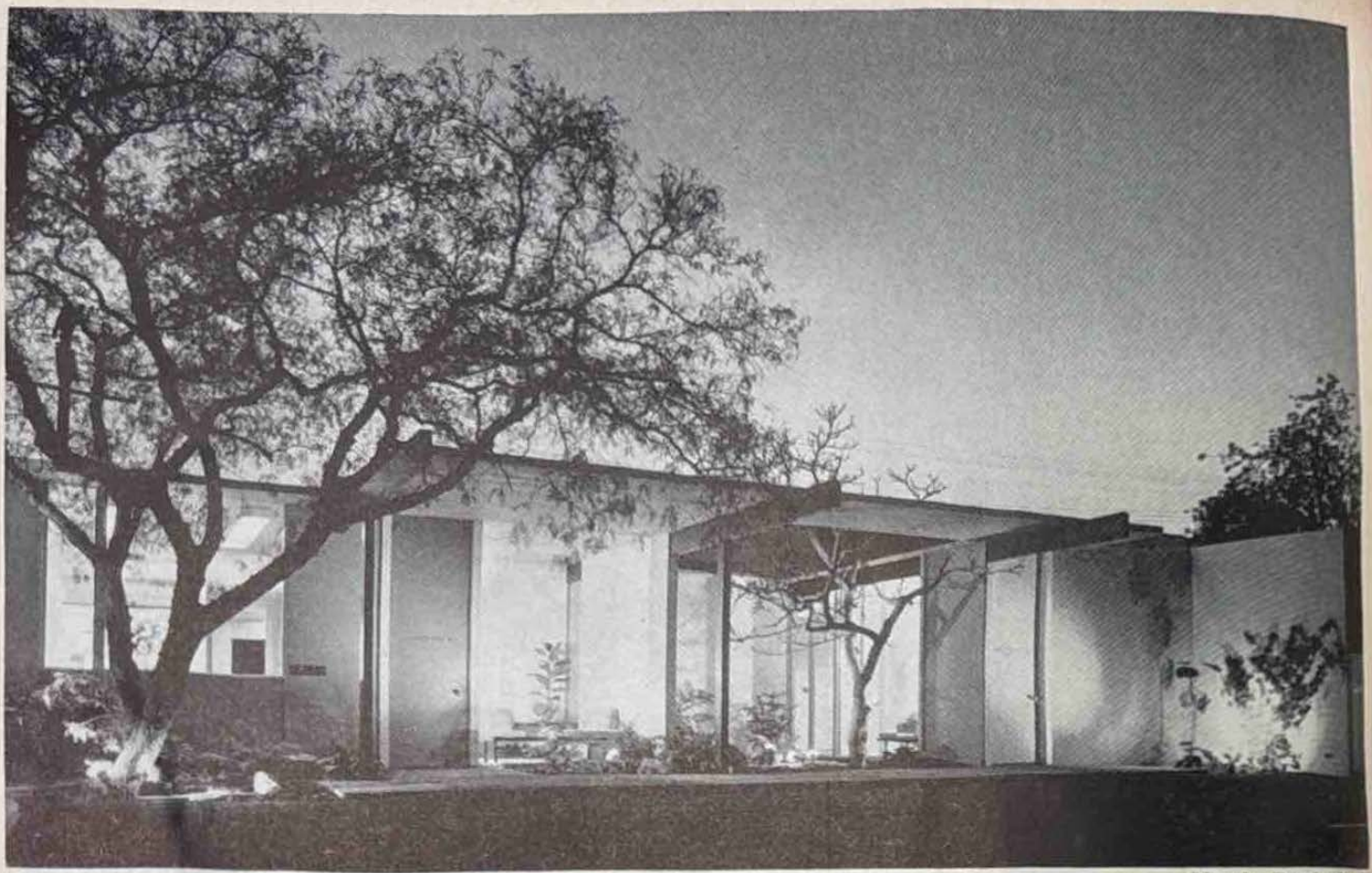
**Total Area**: 16,880 sq. ft.; main pool enclosure: 110x112 ft.

**Total Cost**: $325,000 (including some furnishings and fittings but excluding professional fees).

**Date of Completion**: October 1957.

**LOOKING** through movable windows onto play court. In foreground is diving section of pool with custom made concrete diving stands. At rear is shallow, beginner's section. Except for glazed ceramic tile at overflow gutter, pool is finished with white silica sand cement plaster.





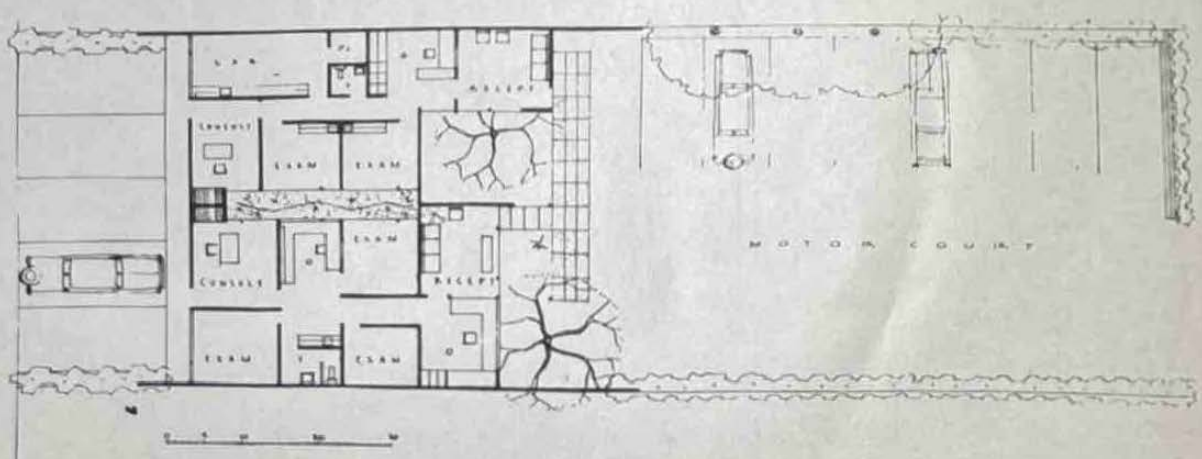
Marvin Rand photo

Office Building for
Dr. Jackson S. Mense
Long Beach, California

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KILLINGSWORTH, BRADY & SMITH
Architects

RUSSELL S. BEST
General Contractor

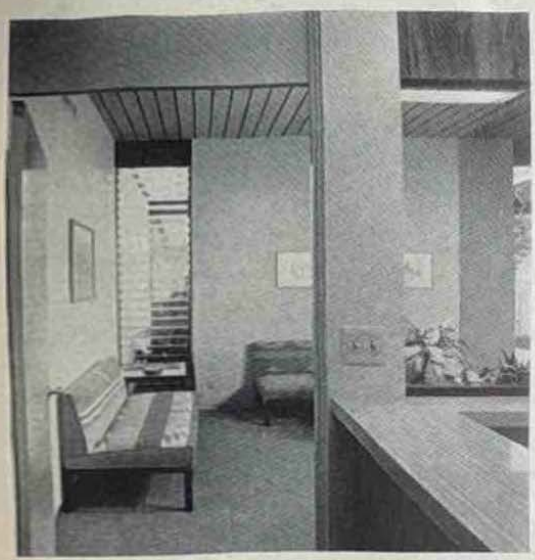


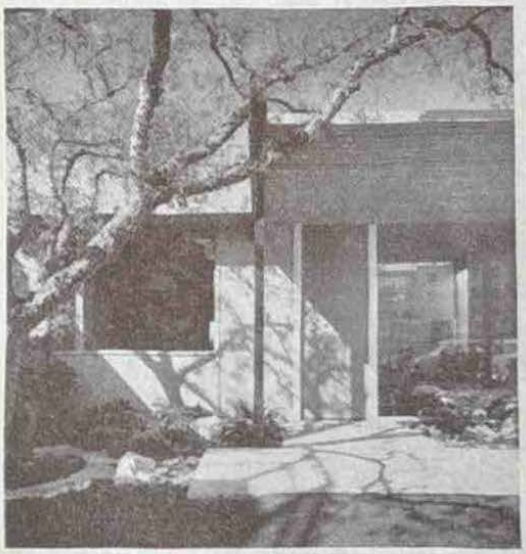
THE AUTOMOBILE became a major factor in the design of this 2,000-sq. ft. medical building, sited on a 50x150-ft. lot immediately adjacent to a large hospital. A motor court on the street side provides patients with nine spaces, while an area at the rear with access to an alley accommodates five doctors and nurses. To assure staff parking, this separation was deemed necessary.

Developed around two existing trees which relate to the principal reception rooms as a decorative element, the post and beam structure has 10-ft. ceilings and 3x6-in. t&g channel joint sheathing. The serpentine wall of a small garden at the central core affords adequate light for the two suites and permits privacy for the examination and consultation rooms. Color scheme of sand and white with lavender brown beams is accented by pale yellow and clear blue at the two main entrances. Landscape architect: Edward Lovell.



# Small structure designed around parking





## OUTLINE SPECIFICATIONS

**Structure:** foundation: concrete footings; frame: wood; roof: Douglas fir rafters and beams; floors: concrete slab.

**Exterior Walls:** plaster.

**Roof Surfacing:** three-layer fiberglass plysheet with flood coats of asphalt and 400-lb. white vitreous topping.

**Windows:** fixed ¼-in. polished plate and louver, ⅛-in. sheet and steel casement.

**Doors:** exterior: solid core; interior: hollow core.

**Floor Surfacing:** greaseproof asphalt tile and carpeting.

**Interior Finish:** plaster and walnut paneling.

**Insulation:** 1-in. fiberglass sheet and 3-in. fiberglass batts.

**Ceilings:** wood decking, plaster, acoustical tile.

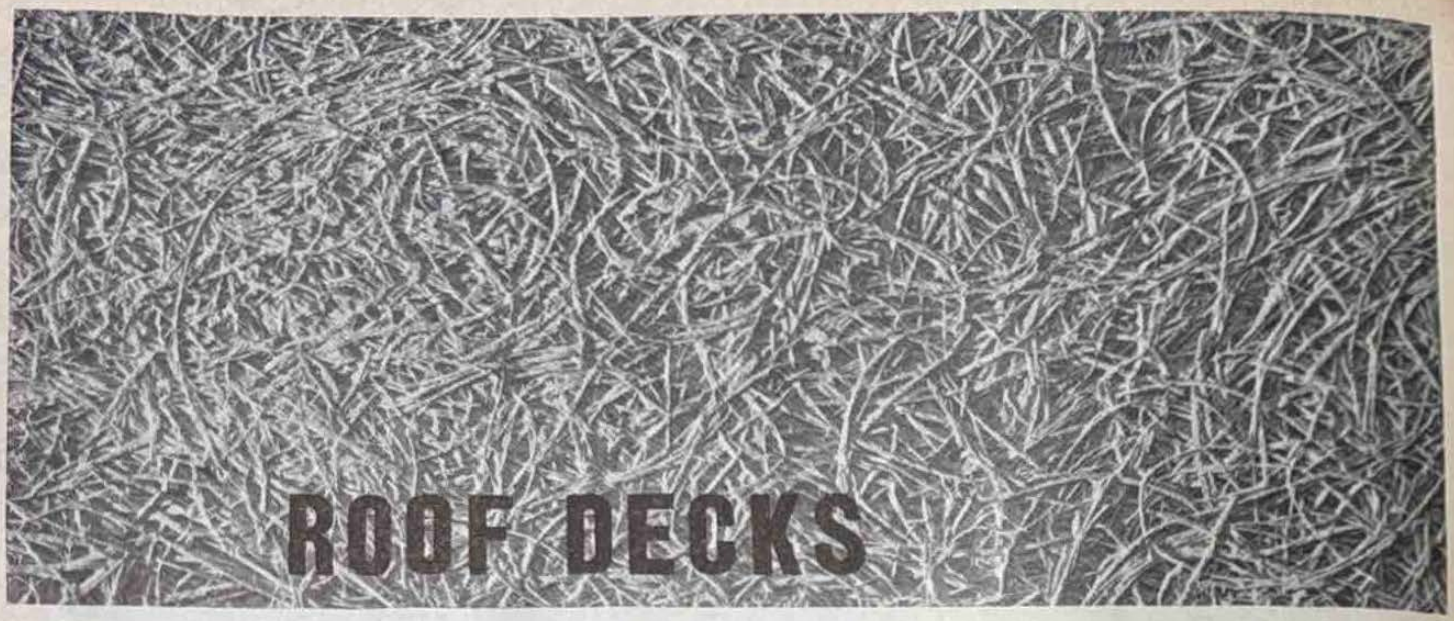
**Lighting Fixtures:** recessed incandescent—Pryne & Co., Inc.; surface mounted and recessed slimline—Sunbeam Lighting Co.; wall mounted—Litecraft Mfg. Corp.

**Heating and Air Conditioning:** two 3-hp. heat pumps—Lennox Industries, Inc.

**Total Area:** 2,227 sq. ft.

**Cost per Square Foot:** $14.40.

**Date of Completion:** December 1958.




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# *A theory of design*

**The Los Angeles architect contributed some of the most provocative comments in the highly popular design seminar at the New Orleans AIA convention**

by WILLIAM L. PEREIRA

WHEN AN ARCHITECT starts to talk about design you'll notice that he starts to squirm in his seat and finger his collar and, in general, acts like a father who's been asked by his child to explain the facts of life. In a word, he's embarrassed—embarrassed by a subject on which, by all indications, he should be something of an authority. And so he takes evasive action. The father starts talking about the birds and the bees and the flowers; and the architect starts talking about problems.

Certainly one of the primary responsibilities of our profession is to meet and solve the specific problems—of space, of function, of economics—implicit in an architectural assignment. But just as surely architecture is something more than the solution, however inspired, of these problems. Design must be something more than the answer to a giant crossword puzzle.

Yet in fear or indolence we have chosen to become problem solvers rather than accept the greater and infinitely more difficult challenge of creating design in which these problems would be naturally resolved. We are so afraid of being labeled artists that we are in danger of becoming only artisans. We have traded the white tower for the white collar, the divining rod for the slide rule. If we aren't careful we'll soon be replaced by considerably more efficient devices ourselves.

This isn't as far-fetched as it sounds. It is quite possible to program a modern computer — an electronic brain—so that it can interpret the most complex engineering requirements, for a bridge, let's say, and produce the optimum solution. In fact, there are output devices that can even translate these final figures into quite respectable working drawings! Obviously the day of automated architecture is not far off, especially if we continue to talk and act like articulate IBM machines rather than men.

What is this "problem syndrome" that seems to affect our entire profession today? When Michelangelo was confronted with the "problem" of painting the ceiling of the Sistine Chapel he did not let the forced perspective determine the subject matter of his frescoes. When Shakespeare wrote his sonnets he did not start with the "problem" of meter and rhyme scheme and contrive his poetry to fit; if he had, it would not be poetry. And when an architect lets the mechanical requirements of a job determine his design it is not, I contend, architecture.

It all begins early. As an architect who has spent many years teaching, I find that students if not carefully supervised can develop an exaggerated dependence on the problem-solution discipline of most schools. Without such restrictions to provide direction for their thinking they become confused. Give them an assignment to design a fountain, for instance, and they are lost—there are no problems to guide them; later in professional practice they will continue to design not buildings but solutions. They will quickly become conditioned to architectural problem solving as a substitute for the lonely and agonizing process of creation.

### Self-expression calls for discretion

This is not meant to suggest that an architect can neglect or ignore the basic responsibilities of his profession and his obligations to his client in order to "express himself." On the contrary, self-expression is in architecture an ingredient that must be used sparingly and with great discretion. In this respect the architect is an interpretive as well as creative artist: his primary duty is to express not only himself but the image of his client through the agency of his own taste and talent and knowledge.

In this sense we might compare the architect not just to the painter but more specifically to the portraitist. Without compromising his personal and highly individual style he has an obligation to communicate a valid image of his client. And in architecture as in the fine arts, his ability to do this is generally in direct ratio to his talent. When Holbein or Rembrandt or Goya painted a portrait his artistic concern was to present the subject as truly as he was able, not simply to display his own virtuosity. The result was almost always not only an arresting likeness but a magnificent work of art.

Thus it is with the designer of a building. The more he concerns himself with interpreting the needs of his client the more genuine his artistic accomplishment is likely to be. When he turns the mirror on himself—when the architectural portrait becomes a self-portrait—the result is generally disastrous.

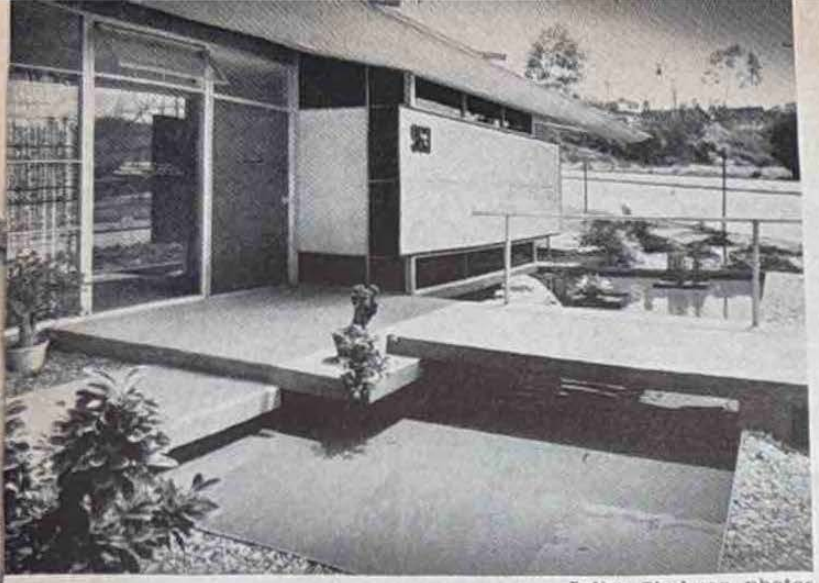
For the practice of architecture is the practice of service. Unlike the other fine arts it cannot exist for its own sake only. Yet the fact that it performs a service does not make it less "artistic." The creative process is always the same: it must originate within the artist (or architect) and not outside him. The inspiration or revelation or whatever other word you prefer to describe the act of creative conception cannot be determined by exterior circumstance.

Once conception takes place, however, the embryonic image must be developed to fulfill its ultimate function as a serviceable building. Now the architect is primarily concerned with problems and their solutions, now he must exercise not only his talents but, to its fullest, his professional craft. He must consider the legal aspects: the codes and ordinances by which society protects itself from ignorance, carelessness and dishonesty. He must exercise his knowledge of economics. He must practice the discipline of constantly checking and rechecking his own work and that of others. Meanwhile the design is growing and changing, as it is expressed in a sequence of protean forms. It appears as words of specifications, drawings of construction details, score of materials, thousands of dimensions, innumerable conferences, continual inspections and, finally, into the movement of earth, the discipline of steel, the scale and texture of walls. But even now the design has not been delivered. It is only when the people for whom it was conceived are at last living and working in the building that it can be said to have been born.

In summary, I feel that as architects we must return to the concept of "image design" rather than "problem design." We must not be afraid to entertain visions. We must stop thinking of ourselves as so many little black boxes into which, at one end, problems are fed and, at the other, solutions are ground out. We must recognize the fact that design is not the sum of many parts, gift wrapped in glass and steel, but a total inevitable image.

# Where architects hang their hats

LEE B. KLINE
Los Angeles, California



Julius Shulman photos

THIS NEW FACILITY was planned to be unlike the fellow professional buildings already in the area to avoid competition and comparison of design. The architect developed what he refers to as a garden type of architecture, explaining:

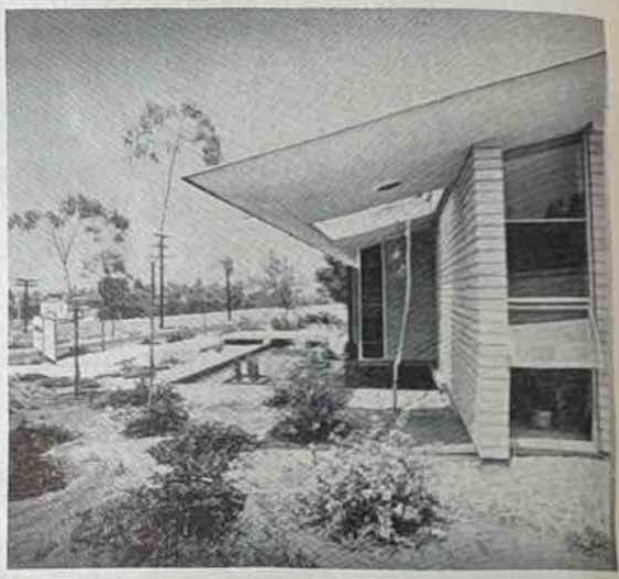
"It has always been the theory of our office that the exterior design of a building should be tied into the surroundings with as much grace as possible. Our cities would be much nicer places to live in if we had landscaping throughout the downtown areas. Consequently, we have carried through this idea in our own scheme, feeling fortunate that the right-of-way to the east will always allow for a parklike area. Accordingly, some of this land has been leased for landscaping purposes and in the ravine below the office, a horseshoe pitching spot ties in with our outdoor patio."

The principal's office faces out on a court that looks into trees, some 50 years old, and a view of Eagle Rock. This room is equipped with residential furniture to allow conversation around a coffee table and also contains a conference table seating eight persons and a concealed drafting board.

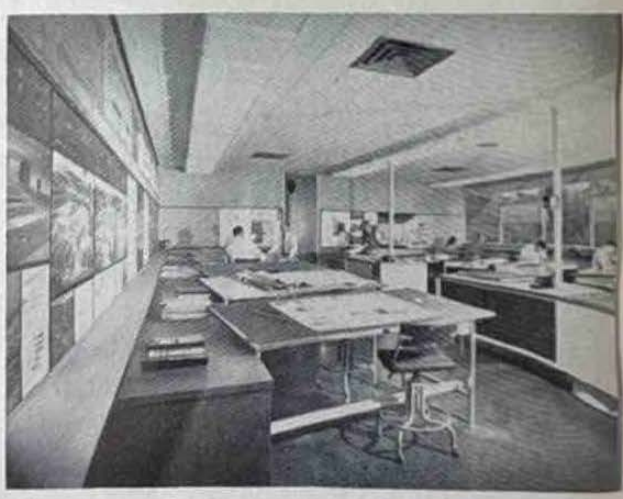
The air conditioned structure is sited on about 15 ft. of fill, with caissons under the reinforced concrete floor. The gravel of the roof is repeated in some of the landscape areas; metal battens help to break up the surface and add interest. Exterior walls are concrete block and soffits are pneumatically applied plaster. Roof framing and interior walls are wood, the finishes varying from stucco to cork, walnut and birch. Other materials include vinyl floor surfacing in the office section; tile in the toilet rooms and the outside pool; fluorescent lighting with a luminous ceiling in the reception and sales conference area.

The property was master planned to permit later expansion of the parking area and of the drafting room and the possibility of constructing another building on the corner of the lot, to be used for rental purposes or for further enlargement of the firm's quarters. Consultants on the project: Hillman & Nowell, structural engineers; J. E. Kiskis, mechanical engineer; Edward C. Sylvanus, electrical engineer; Owen Peters, landscape architect; and Rex Goode, interior and graphic design.

**SLOPING ROOF** gives relief to dominant flat style. Pool and bridge set building apart from its professional counterparts in vicinity, help establish identity in minds of actual and potential clients.







**CUSTOM MADE FURNITURE** in drafting room contributes to efficient operation. Other office features: piped-in hi-fi, kitchen and refrigerator unit.

by GLENN M. CANADAY

Fourth in a series: Carpentry & Millwork

# Orderly takeoff imperative in these divisions

ALTHOUGH carpentry and millwork are becoming less important in most modern buildings, these divisions may account for a large portion of the work in smaller structures and certain types of military installations.

### 9. CARPENTRY

To simplify the estimate, it often is desirable to lump items of like cost. Two things must be considered when doing this: the comparative cost of material and the comparative cost of the labor involved. If both material and labor costs of different items are approximately the same, they may be figured together; if not, they should be separated. Although the assignment of construction items to the subdivisions must sometimes be done arbitrarily, the estimator should develop habits of always including certain items in the same subdivisions. The importance of this cannot be overemphasized. Only by making the takeoff in a concise, orderly manner can a high degree of accuracy be achieved. The estimator must guard against making the estimate too ponderous; he must also guard against lumping so many items together that his prices become unrepresentative. The following subdivisions will serve the purpose of most building contractors.

**9.01 Bolted Nailers, Plates and Bucks.** Make the takeoff in board feet; separate into size classifications. Include all costs of material and labor to install. Check your miscellaneous iron bid for inclusion of bolts. Often the cost of bolts is greater than the cost of the lumber.

**9.02 Furrings and Grounds.** Make the takeoff in linear feet; include the cost of fasteners. Separate into classifications, such as:

a. Furring on concrete and masonry
b. Furring on wood
c. Plaster grounds

**9.03 Framing.** Separate according to sizes, location in the building and installation labor involved. The estimator must never lose sight of field cost accounting problems. His divisions must not be so complex that cost accounting becomes impossible or impractical. Consequently, he finds that he sometimes has to group items that have vastly different labor factors into one group. As an example, joists, headers and trimmers are usually placed in one operation. Therefore, he should list the material for joists, headers and trimmers as one item. The following subclassifications will serve as a guide:

a. Posts, columns and beams. Make the takeoff in board feet. Labor includes cutting, boring, grouting, nailing, bolting and bracing.

b. Joists, headers, trimmers and solid blocking. Make a detailed takeoff and then convert to board feet. Separate according to sizes and material costs. Labor costs vary considerably on this item according to location, sizes, and quantities, moisture content, length, amount of cutting necessary, nailing requirements, etc. Check the possible use of end cutoffs for solid blocking; sometimes there is enough waste to take care of this item.

c. Studs, plates, blocking and headers. Include both interior and exterior walls. The most accurate method in estimating this item is to make a detailed takeoff piece by piece. This, however, is very tedious and is not usually necessary except for the most complex framing. A method suitable for most jobs is to list the walls and partitions of various thicknesses and heights by linear feet and multiply by the board feet per linear foot. Both the size of the framing material and the height of the walls are factors affecting the labor rate. Make enough separate listings to assure accurate pricing of both material and labor.

d. Let in bracing and ledgers. This division covers diagonal gained in braces and ledgers usually 1x4s or 1x6s. Make the takeoff in linear feet.

e. X-bridging. Figure by the linear foot or board foot according to preference.

f. Dwarf partitions, hung ceilings and miscellaneous framing. Make the takeoff in board feet according to classification. Work of this type is often very expensive. Detailing on plans is often vague, so make the takeoff carefully for this item.

g. Rafters and roof joists. Make a detailed takeoff and then convert to board feet; make separate listings according to sizes and material costs. Consider the pitch of the roof when pricing labor. A half-pitch roof costs considerably more per thousand board feet than a flat roof.

h. Lookouts and jumpers. These require considerable labor for the amount of material involved. Include costs of labor and material. Make takeoff in detail and convert to board feet for pricing.

i. Rough fascia and trimmers. Takeoff in linear feet. Separate the various sizes and convert to board feet.

j. Collar beams, ridge boards, bracing. Make a detailed takeoff; price by the board foot.

k. Crickets and saddles. Price by the board foot.

l. Stairway and landing framing. Include all framing materials. Price material by the board foot. Price labor by the board foot. This is too often a guess item in the estimate but it need not necessarily be one. Make a detailed takeoff of the material and keep accurate job labor cost records and you will soon be able to accurately price this item.

m. Marquees and entries. Make the takeoff in board feet.

n. Walks and walkway framing. Classify for accurate pricing.

**9.04 Trusses and Glued Laminated Beams.**

a. Job built trusses. Include here the cost of fabricating, assembling, erecting and bracing wood trusses. List costs of material and equipment in the material column. Cutting and assembly can be adequately estimated by the board foot. Erection is usually estimated by the truss. Include all costs of lumber, bolts, fasteners, washers, labor and crane rental.

b. Factory built trusses. These are usually quoted knocked-down jobsite with all hardware included or completely erected. The contractor will usually find that the truss company specialists can erect the trusses as cheaply as he can.

c. Glued laminated beams and arches. These are often bid completely erected. If you accept a bid of this type, do not overlook the removal of wrappings and cleanup after the roof is installed. If you plan to do the erection yourself, list separately according to type and size of pieces.

d. Purlins. Purlins may be timber purlins or glued laminated purlins. Timber purlins are often listed in board feet for convenience in pricing the material. Price per board foot or by the piece according to preference. Price glued laminated purlins by the piece.

**9.05 Sheathing.** Include all sheathing materials. Separate according to size and type.

a. Sheathing boards. Include all boards on exterior and interior vertical surfaces. Check the specifications for material and installation requirements. Give adequate consideration to conditions affecting labor production. Sheathing applied diagonally on second floor exterior walls costs much more than horizontal sheeting on low walls. Sheathing cut between studs to form backup for tile is also a high labor cost item. Price by the board foot.

b. Subfloor and roof boards. Include all sheathing placed on horizontal surfaces. Make the takeoff in square feet and multiply by the correct factor to convert to board feet. In estimating labor, give proper consideration to the many conditions that affect cost: size of the area, accessibility, lumber species, grade, pattern and size, method of laying, and types and size of nails specified. Subdivisions should accurately reflect diverse labor and material costs.

c. Plywood sheathing. Separate according to thicknesses. Make the takeoff in square feet. Keep in mind sizes available, waste and reuse of cutoff pieces.

d. Plywood subfloor and roof coverings. Price by the square foot. Separate according to sizes.

**9.06 Insulation, Paper and Vapor Barrier Materials.** These items are usually priced by the square foot. Include all costs of material, fasteners and labor to apply. Subdivide as required. Include:

a. Blanket insulation
b. Fiberboard insulation (except roof insulation which is applied by the roofer)
c. Asphalt felts under sheathing
d. Plastic vapor barriers on walls, ceilings, and under floors

**9.07 Wall Finish Materials.**

a. Gypsum board. Make the takeoff by the square foot. Include costs of perfataping which is often bid by the painter as a separate item. Drywall work is subcontracted in many areas. Usually a drywall specialty contractor will subcontract this work for less than a general contractor can do the work with carpenters—another indication of increased efficiency by specialization.

b. Cement-asbestos board. Because sheet sizes are limited, it is best to make the takeoff in sheets and convert to square feet for pricing. Check the specifications for thickness and type of material. Make some allowance for breakage when figuring cement-asbestos materials. Adhesives are often a large cost item in this subdivision. Make the takeoff in gallons. Also make separate takeoffs for moldings required. Price moldings by the linear foot.

c. Hardboards and fiberboards. These are used in great variety. List according to types and sizes. Include costs of cement. Take off moldings by the linear foot and price as a separate item. Price hardboards by the square foot. When piecing is not permitted, make the takeoff by sheets. Waste can be a large factor in certain installations.

**9.08 Finish Flooring.** Make the takeoff in square feet and convert to board feet. Be sure to use the correct multiplying factor for the width and thickness of flooring specified. Include the cost of nails and deadening felt when required. Check the specifications for lumber species, grade, grain, length, end matching, width, thickness and allowable moisture content. Many contractors subcontract their floor laying jobs to firms who are specialists in this work. Get a bid on this item and compare with your own figures. If you subcontract only the laying you may still have to figure the labor to unload cars and distribute to rooms. Clarify this with your subcontractor. Separate flooring according to type and size.

a. Soft wood flooring
b. Hardwood flooring
c. Wood block flooring

Include cost of adhesives and nails. When figuring wood block flooring, take into consideration the size of the room. It takes several times as long to place a block that requires cutting and fitting as it does to lay one in the middle of the room. Include sanding and finishing costs in this division.

**9.09 Rough Hardware.** Include all nalis, bolts, fasteners and miscellaneous hardware required to install carpentry items. The amount of nails required per one thousand board feet of material varies greatly according to the use. Review this carefully. Price special fasteners and joist hangers by the unit.

## 10. MILLWORK

The millwork material itself is a subcontract item with most general contractors. List the millwork quotation on the material side of the estimate. Don't overlook the cost of materials to be furnished by the general contractor. Make a detailed check of your millwork bid against actual requirements. List all material costs for items not furnished. Many contractors use a percentage figure for millwork installation. Unless you have a similar job to compare with, this is a very haphazard approach to millwork labor costs. The only systematic method is to price labor in detail. List linear trim by the foot, paneling by the square foot, doors, frames and trim per unit, and cabinets by the unit. The following check list will serve as a guide:

a. Stair treads, risers, nosings. Make the takeoff in linear feet of tread and riser. Price either by the linear foot or by the tread.

b. Stairway skirt boards and stairwell trim. Take off in linear feet. List and price by types.

c. Stair handrails and caps. Take off in linear feet. When handrails or caps have returns for finials, include the labor here.

d. Cornices, fascias, frieze boards, etc. Take off in linear feet. List and price each item individually. Don't overlook scaffolding cost on this item which can be considerable.

e. Soffits. Include all materials—plywood, hardboard, cement, asbestos board and lumber. Make the takeoff in linear feet. Price by either the linear foot or by the square foot; use whichever method is more accurate for the particular application involved.

### CONSTRUCTION VOLUME TO ZOOM UPWARD

Total volume of construction in the U.S., estimated at about $73 billion for 1959, is expected to exceed $107 billion in 1970, in terms of this year's dollars, according to a long-range study made by the Associated General Contractors of America and published in the July issue of The Constructor, its official organ. This will represent an increase of about 48% over the next 11 years in the amount of work in place by the nation's largest industry. Construction activity now accounts for approximately 15% of the gross national product and for a similar percentage of total expenditures, directly and indirectly.

f. Exterior moldings. Include all exterior moldings, except for doors and windows—cover, crown, quarter round, cove, corner boards, etc. Take off and price in linear feet.

g. Louvers, vents. Include installation and material.

h. Scuttles, access doors, skylights.

i. Ladders.

j. Service doors—overhead and sliding. Include complete costs of frame or jamb, stop, threshold, trim, doors and all labor. If this is a subcontract item, or if part of the materials are in other subcontract bids, include here only the applicable items.

k. Entrances. Take off and estimate each entrance as a unit. An entrance may consist of only a door, frame, and trim; or it may be an intricate assembly with several doors, sidelights and transoms. Include costs of frames and jambs, thresholds, trim, stop, miscellaneous moldings, panels, doors, transom and sidelight sash. Include the costs of fitting and hanging doors and sash but do not include costs of installing any other hardware. This is listed under Finish Hardware.

l. Interior wood doors. Figure complete installation except finish hardware. Include jambs, trim and doors. Make a detailed takeoff of doors. Separate according to sizes and types to insure accurate pricing.

m. Relights. Separate listing should be made of relights of different sizes. Include frames, stop, trim, sash, etc.

n. Wood windows. Make a detailed takeoff. Separate different types and sizes. Include frame, balances, stop trim, sash.

o. Window stool, apron and trim for show windows and multiple metal sash installation. Include stool, apron and moldings. Take off and price by the linear foot. Group members together for added speed in estimating.

p. Wood window screens.

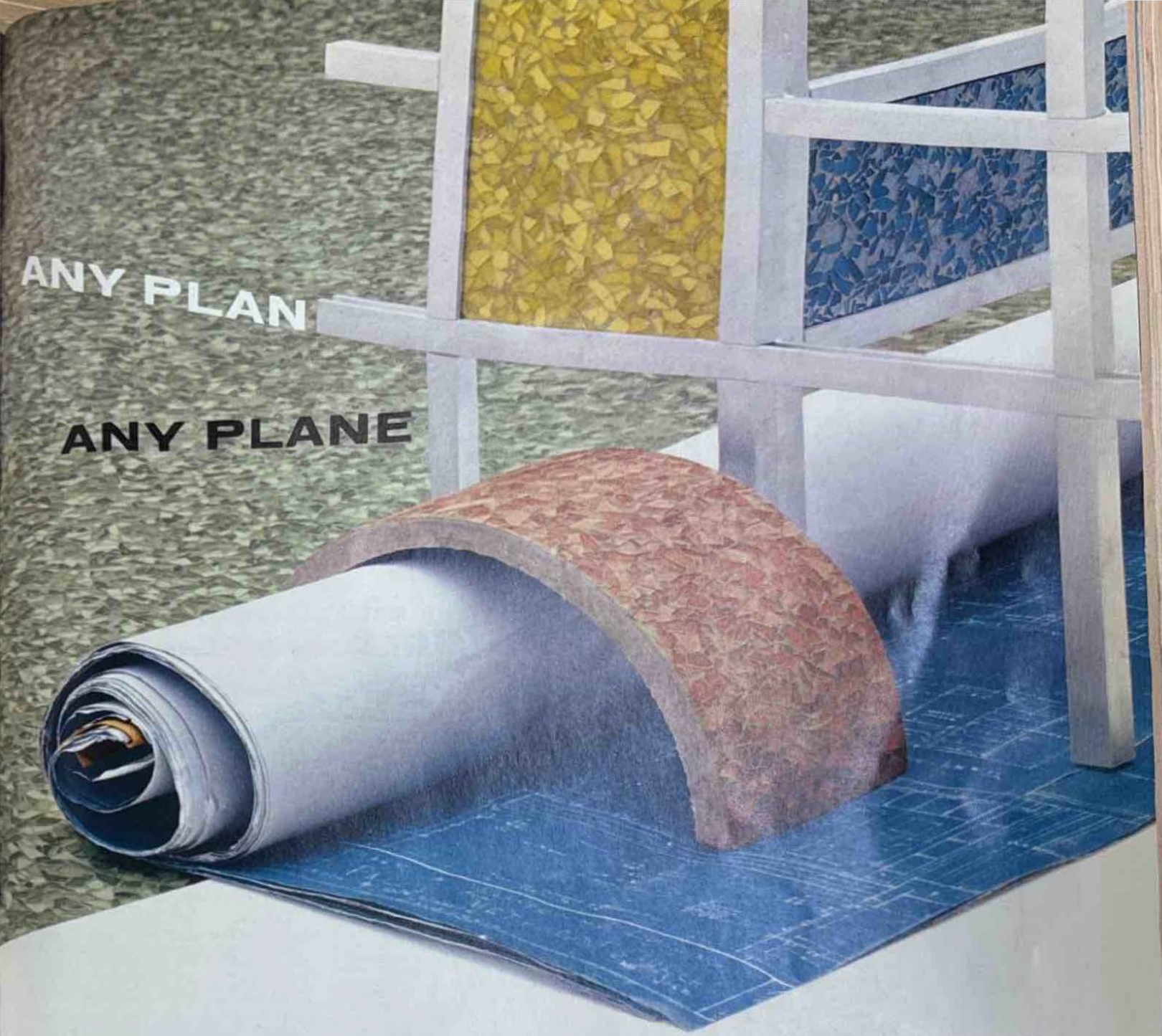
q. Wood door screens.

r. Base and shoe. Separate into sizes; price per linear foot.

s. Miscellaneous interior trim. Include cove, picture, cap, cover, cornice, chair, fascia, etc. Price by the linear foot.

t. Chalkboard and tackboard, moldings. Separate the various moldings according to size for accurate pricing. I suggest making the takeoff of blocking and plaster grounds with the moldings. Take off and price by the linear foot.

u. Cabinets, fixtures, cases, shelving, hanging rods, hook strips, miscellaneous millwork. Items in this classification can best be priced by the unit. List in detail. Check the floor plan, specifications, and millwork details. Read your millwork bid to see whether units are assembled, assembled in sections or knocked down. If you have previously dealt with your supplier, you will have a good idea of how the millwork will be furnished. Most millwork suppliers assemble as much as is practicable. Estimate for each item the man-hours required to handle, assemble, set, scribe, fit and install hardware. List in the material column the costs of any materials that must be furnished by the general contractor: base framing, finish hardware, bolts and lags, nails and screws, metal hanging rods, etc. No labor rate can be applied arbitrarily to a unit of construction. Pricing labor is much more than a clerical operation. It requires knowledge, experience and judgment. When estimating millwork installation, take the following into consideration: quality of the millwork, quality of the work required, species of wood used, sizes and patterns of moldings and trim, quantity of the item under consideration, accessibility of the particular work item, lengths of individual pieces and, of course, the general conditions and situations that affect any labor production classification.




**Outside or inside,** on curved or flat surfaces, Mosaica imparts an enduring finish with intrinsic color, pattern and texture. Design Mosaica into window and curtain wall panels, facings, door surrounds, wainscots and ceilings, in solid areas or as decorative accents. Composed of random size and shape glass tesserae set in an inorganic matrix, laminated to 3/16" cement-asbestos board, Mosaica is scratch proof and impervious to stain. Carpenters install Mosaica in sheets up to 4' by 10', with 100 sq. ft. of Mosaica going up in just 1 1/2 hours! Contact Soulé for the name of the representative near you.

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IMPORTANT NEWS
for Architects
and Specifiers

# UNDERWRITERS' LABORATORIES *Test and Accept* LEXSUCO

## ROOF CONSTRUCTION MATERIALS







Underwriters' Labels will now identify the Lexsuco Vapor Barrier and Lexsuco Adhesive R907T. These products are the only ones of their kind to bear this well known label.

## Noncombustible Standard met by Lexsuco Vapor Barrier and Lexsuco Adhesive R907T. Underwriters' Label granted.

● Underwriters' Laboratories, for the first time, has tested and accepted a roof vapor barrier and adhesive. Extensive tests proved that the Lexsuco Vapor Barrier and Lexsuco Adhesive R907T meet the noncombustible standards established by the National Fire Protection Association and the National Board of Fire Underwriters.

### COMPARE THESE TIME- AND MONEY-SAVING ADVANTAGES:



**Get a fire-retardent roof fast!** Lexsuco mechanical applicator performs three operations on one pass—applies noncumbustible Lexsuco Adhesive R907T to underside of Lexsuco Vapor Barrier and puts ribbons of adhesive on top of the vapor barrier to secure the insulation.

**Assured Fire Protection.** With or without a vapor barrier, the Lexsuco system completely eliminates combustible asphaltic materials between the roof deck and roof insulation. When you specify Lexsuco Adhesive R907T with the Lexsuco Vapor Barrier, or the adhesive only, over metal roof deck, you get assured building fire protection.

**More for Your Roofing Dollar.** Lexsuco products give you far more value for the money you invest. When you put Lexsuco products in your base specifications, subject to competitive bidding, you pay little or *no* more for the extra protection and value of these noncombustible materials than you would for combustible materials.

**Lower Insurance Premiums.** With Lexsuco roof constructions you may receive lower insurance rates, and this is a *permanent* saving, repeated year after year. Both Underwriters' and Factory Mutual have tested and accepted the Lexsuco materials. Lexsuco Roof Constructions are also recognized by Factory Insurance Association and many State Rating and Inspection Bureaus. Investigate possible insurance savings on all your projects.

**Engineered Application.** By removing much of the human element the Lexsuco system of engineered mechanical application assures a more thorough, uniform application and more dependable construction.

**Better Roof Construction.** On *all* roof decks—metal, poured, precast or wood—you get economical and dependable securement with Lexsuco Adhesive R907T. Where it is necessary to protect the insulated, built-up roof from moisture migration from within the building, you get proven protection with the Lexsuco Vapor Barrier.

*Contact your distributor or Lexsuco representative for information and the Underwriters' Report, or write to us direct. Ask about THE NEW LEXSUCO PVC WATERSTOPS.*

# LEXSUCO INC

BOX 326 • SOLON, OHIO

*Noncombustible Roof Constructions and Waterstops*

*Distributed in Canada by* Bishop Products Limited, Box 30, Toronto 14, Ont., and Sidney Roofing & Paper Co., Ltd., 500 Wiggins Street, Burnaby 3, B. C.

# 815 tons of refrigeration per day

*The clue to a layman's understanding — and in the case of the heat pump this includes just about everybody — is that in any compressor system, both heat and cold are produced. It is possible to utilize either or both products.*

Heart of the heating and air conditioning system for Washington Water Power Co.'s Central Service Facility in Spokane (PA&B, Aug. '59) is the heat pump room. Here the world's third largest installation extracts heat from well water during the cool months and distributes it to air handling units throughout the four principal structures of the complex: office building, auditorium-cafeteria, service building and maintenance garage.

During the warmer months, the equipment supplies cool, filtered air by means of the same strategically located units in all departments. An unusual feature of this custom designed heat pump system is that heating and cooling may be supplied simultaneously according to zone requirements; and for maximum efficiency, it is teamed with a combination gas-oil fired boiler for extreme winter weather.

Company officials agreed that in the interest of good labor relations and efficient operation, the entire project should be air conditioned even though the local climate is quite mild and the hot weather is normally of only short duration. (Summer design temperature is 95 deg.; winter, minus 15 deg.) Since this was to be the headquarters for an electric utility, the promotion of the economic use of electrical energy was a prime consideration in selecting a specific system.

### water supply

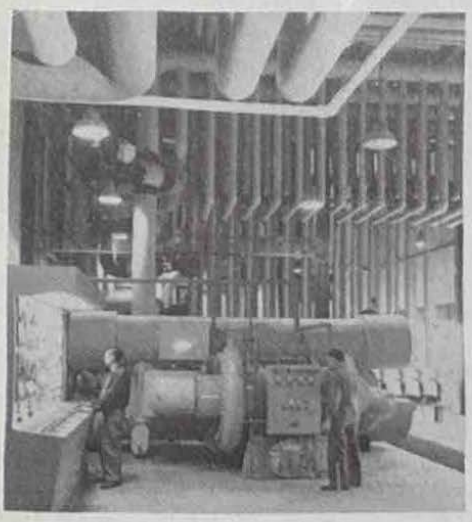
Spokane is blessed with an abundant water supply from surface and underground rivers, both sources available at the Washington Water Power site. With the underground river supplying constant temperature water as a source and with the proximity of the Spokane River for the disposal of waste water, the use of a heat pump was certainly feasible. A well, drilled 60 ft. deep and lined with 14-in. casing, furnishes 1,600 gpm. at temperatures ranging from 49 to 52 deg.

The basic heat pump unit consists of two hermetically sealed Trane centrifugal compressors which supply the buildings with 815 tons of refrigeration in a 24-hour period or nine million Btu. of heat per hour. One CenTraVac has a rating of 285 tons with 275 hp.; the other, 530 tons with 440 hp. Both compressors are full modulating and operate in sequence at higher loads. Due to design simplicity and completely automatic controls, they will run unattended, with the exception of routine inspections.

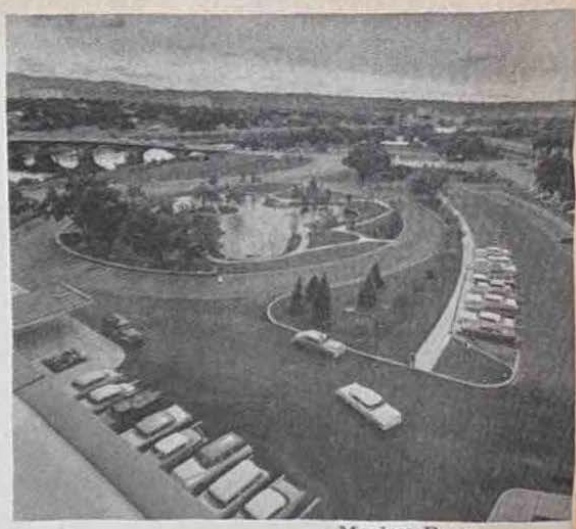
### heating-cooling changeover

The heat pump is frequently and incorrectly referred to as a reverse cycle system. In reality the heating cycle works in the same manner as the cooling, differing only in the sense that the heating effect is attained by using heat from the centrifugal's condenser rather than using the cooling effect of the unit's evaporator.

A manual and automatic changeover switch determines the cycle under which the entire heat pump system operates. On the heating position, it runs to provide heating, while any cooling required is accomplished by means of low temperature well water. On the cooling position, it runs primarily as a cooling unit. Hot water, however, is available for building zones requiring heat during certain seasons. When the switch is set on automatic, a changeover thermostat adjusts the heat pump system from a heating to cooling cycle and conversely, as required.



**ONE OF TWO** hermetically sealed refrigeration units comprising main equipment for 815-ton capacity system which heats and cools four-building complex sited on Spokane River.



Morley Baer

**CONCRETE POOL** serves double role as exhaust for heat pump and important element in landscaping of approach to general offices.

### operation

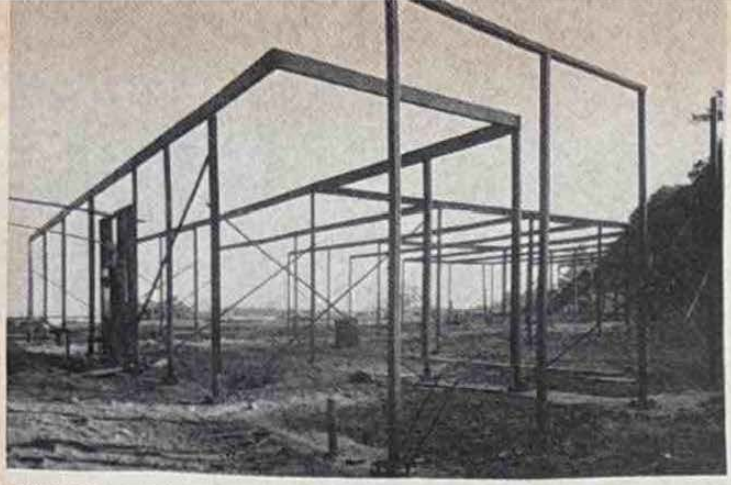
The water for heating and cooling is pumped through the condensers and evaporators, then circulated through heating and cooling headers. From these two headers it moves through three-way mixing valves controlled by thermostats in the individual zones being conditioned. The arrangement makes it possible to provide heating in one zone and cooling in another, at the same time allowing the system to transfer excess heat from one part of the building to another requiring it.

In the office building—basement and five floors—a high pressure dual duct air distribution system is employed to provide zone flexibility and keep duct space requirements at a minimum. Maximum fan chamber pressure is 6 in. of water and high pressure velocity in the ducts is 4,500 fpm. as compared to standard air distribution systems with maximums of about 2 in. and 1,500 fpm.

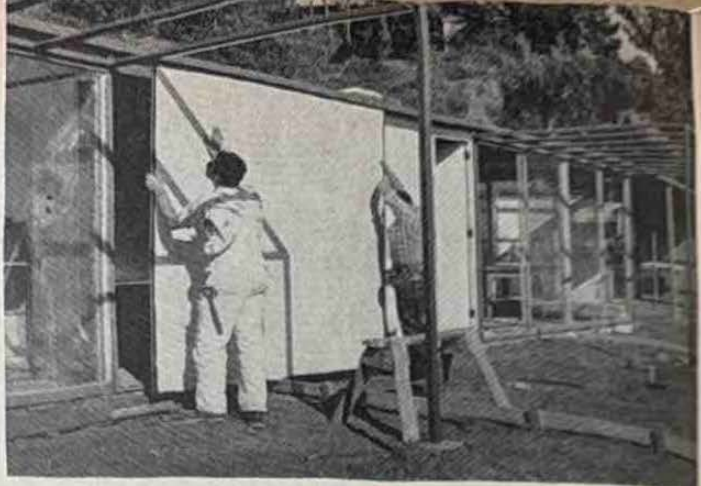
Since the south face of this building is exposed to sun for the greatest part of the day, the zones in this area are small and more air is available for cooling purposes. Special attention also has been given to conference rooms where varying high occupancy loads were to be expected. These rooms for the most part have exhaust fans to eliminate cigaret smoke.

A positive return air system is pro-

Continued on page 33



**STEEL SKELETON** is field welded into rigid cage unit. Tubular columns are fastened to simple grade footings with leveling plate and bolts, then slab floor is poured to incorporate entire structure.



**PREFABRICATED WALL PANELS** composed of ¼-in. plywood, sandwiching insulation wool, are inserted between modular steel framing, fastened with flat mullion which screws directly to columns and beams.

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The key to mass produced houses, one designer believes, is in development of a modular structural frame to carry all the loads, greatly simplifying the structure as well at its connections. To demonstrate his thinking, Craig Ellwood employed hollow steel tubing composed of ¼-in. thick sheets in an experimental house in Los Angeles, the sections being 2-in. square columns and 2x5x5½-in. hollow square rectangles for beams. Mackintosh & Mackintosh were the structural engineers.

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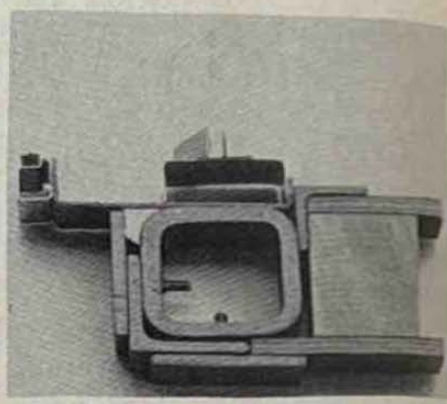
The tubular columns were shop equipped with 6x6½-in. leveling plates and attached to concrete grade footing with leveling bolts. Once the steel cage was welded into a rigid unit, a slab floor was poured, covering the leveling plate and giving further rigidity to the structure.

So systematized was this method that the designer could frame premanufactured exterior and interior wall panels, sliding glass door units and fixed glass panels and jalousies directly to the steel frame. The contractor, P. E. Philbrick Co., was able to cover the house within a matter of days. Construction was eased by using door components from floor-to-ceiling height. There was no necessity of framing around the exposed beams or columns.

Main fastening component was a 2½x$\frac{3}{16}$-in. steel flat. This was punched to receive a threaded flat head stove bolt and the columns were tapped to receive the threaded end, a method particularly adaptable to fixed glass panels. Door jambs and jalousies were fastened directly to the columns and the wall panels were specially designed by Ellwood to fit this system. Mastic and rubber gaskets were used to insure tight weatherproof seals.

Since the land was primarily fill, steel piling was decided upon as the most suitable support for the slab foundation and house. Eight-inch wide flange sections, weighing 32 lb. to the foot, were power driven to a 30-ton bearing capacity on a grid of 16-ft. centers.

"The segregation of structure from walls provides a design flexibility not otherwise possible and sets no limitations as to the selection of wall panel material," Ellwood explains. "Metal, wood, plastic or glass panels may be used, each with equal ease.



**CROSS SECTION** of detail for connecting components to tubular columns. Jamb for sliding steel doors is fastened directly to column using threaded stove bolts. Jalousie is attached in same manner with fixed screen frame, the plate is bolted to frame over rubber gasket and mastic used to provide weatherproof seal.

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Marvin Rand photos



## Heat pump (Cont'd from p. 31)

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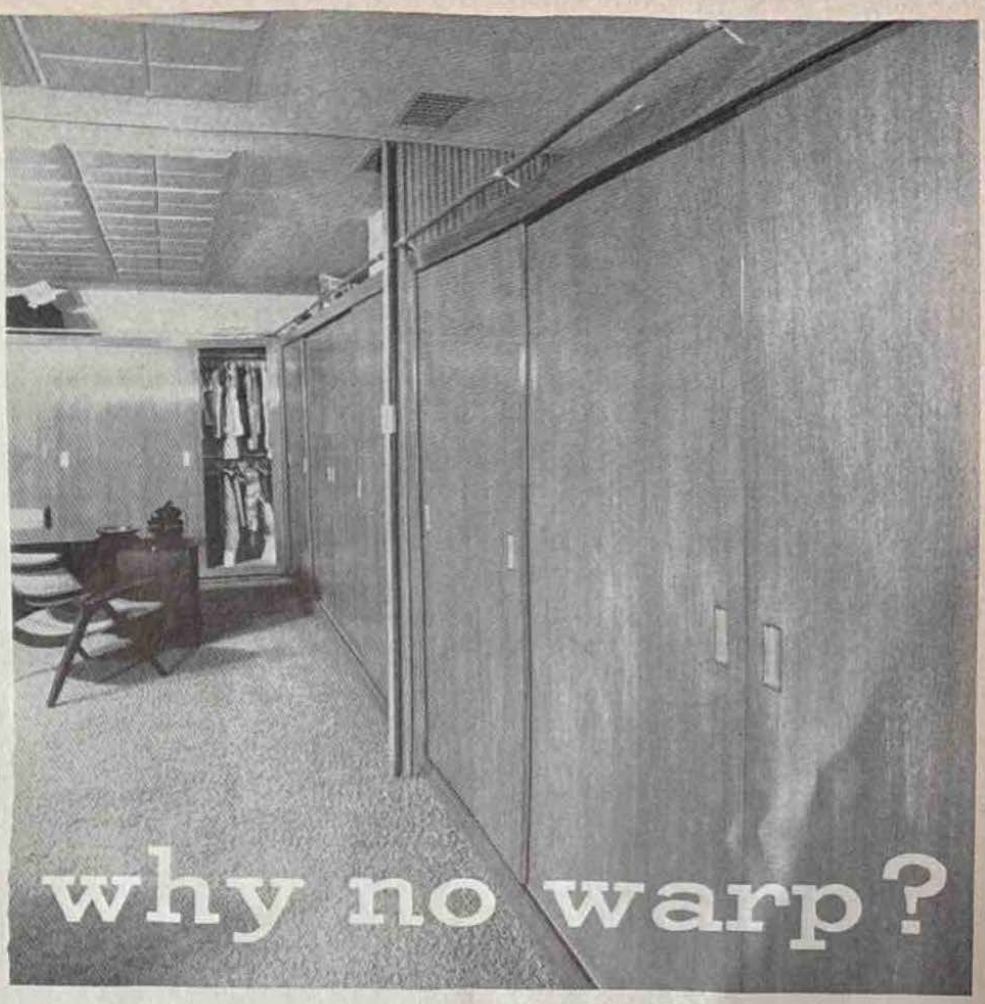
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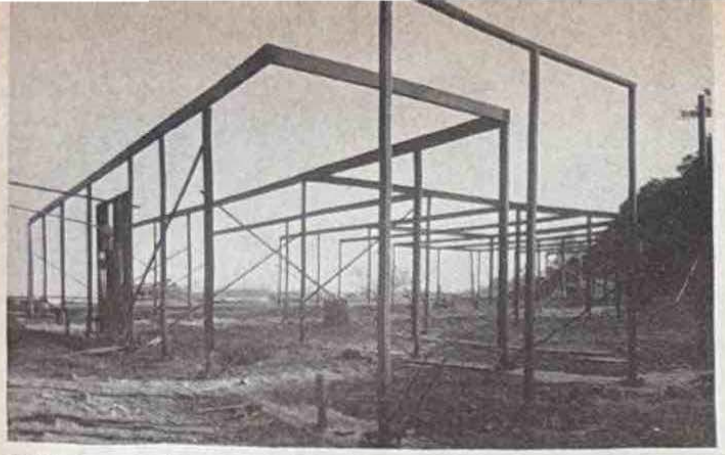
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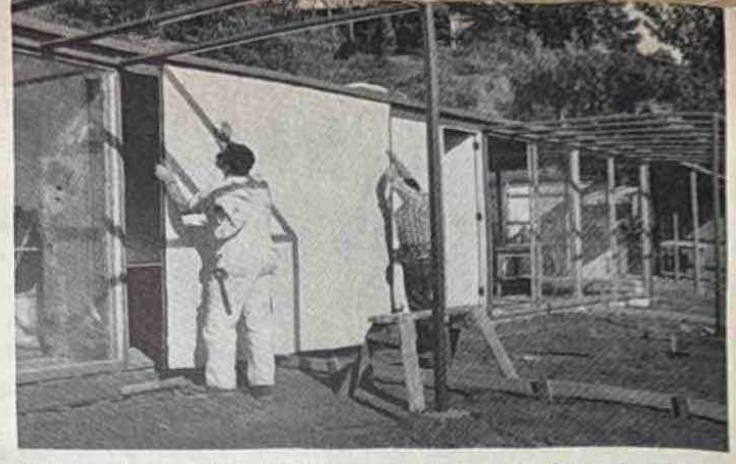
*Reg. T. M. for Columbia's Family of Flakeboards.

Columbia Plywood Co., P. O. Box 1767, Seattle 11, Wash.

cedawood



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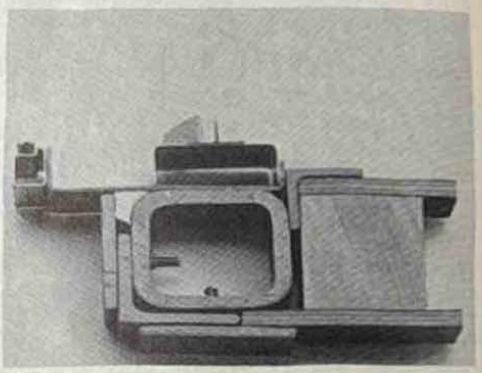
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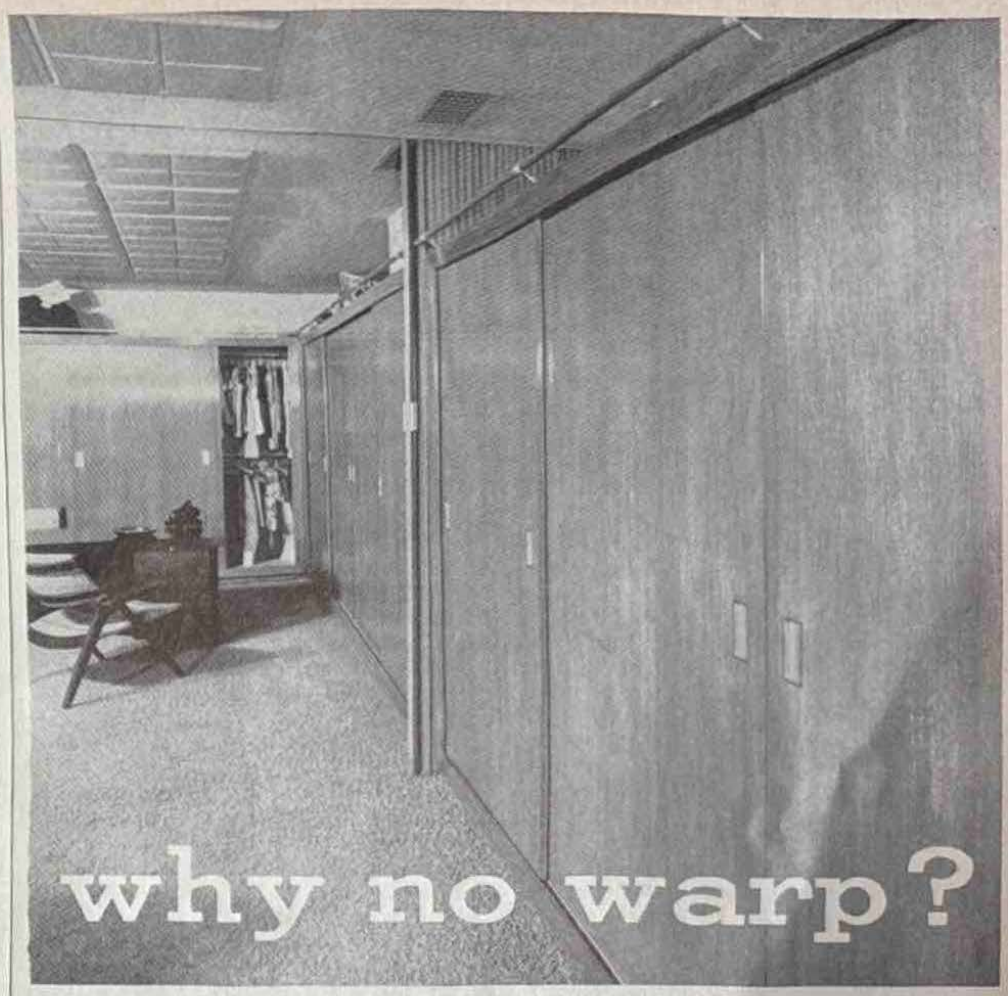
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cedawood

### open web structurals

Open web floor and roof framing members offering an exceptionally high load-carrying capacity per pound of steel have been developed by Macomber. The cold-roll formed chords of the Allspan framing members have a guaranteed minimum yield strength of 47,000 psi. Available for spans to 120 ft. designed to one specification, they offer short, intermediate and long span framing members which can be chosen from a single table of allowable loads. Framing members have available top and bottom chords. —Macomber, Inc. (Item No. 1)

### curtain wall tape

A synthetic rubber sealing tape reinforced with nylon fibers speeds up curtain wall installation by eliminating use of screws. In a field test at an eastern school where porcelain exterior panels were being installed, workers put lengths of the tape on the aluminum beads which snapped into place on each side of the panels for permanent installation. Tape is resistant to oxidizing and hardening; remains flexible at minus 76 deg., and stable at high temperatures; will adhere to a variety of surfaces, including glass, aluminum and brass. It is available in black or gray in a wide variety of widths and thicknesses.—United States Rubber Co. (Item No. 2)



### versatile window walls

To provide a competitive priced window wall for smaller buildings, Ador has designed a flexible all-aluminum system permitting use of swinging doors, sliding doors and projected or casement windows. Called Ador-Wall it can be used in one-, two- and three-story buildings of wood frame, steel, concrete or masonry construction. Horizontal windows and vents are free of obstructions, maintaining clean, flush surfaces. Basic 2x4-in. mullion system is used throughout. Units are designed for custom fitting and sizing to individual building specifications and can utilize any type panel ranging from ⅛ in. to 3 in. in thickness with single, dual and triple glazing.—Ador Corp. (Item No. 3)

### glass fiber asphalt shingles

The West Coast is the first to try out Fiberglas reinforced asphalt shingles which have been awarded the Class B fire-safety rating by Underwriters' Laboratories, Inc. Product uses layers of bonded glass fibers as reinforcement for stabilized coating grade asphalt. Glass fibers needed to adequately reinforce the asphalt weigh considerably less than paper-felt usually used with the result that there is a substantial increase in the asphalt content. Shingles are being manufactured in standard three-tab strip in four solid colors—black, red, green and gray—and six blends.—Owens-Corning Fiberglas Corp. (Item No. 4)

### fire-resistant paint

Paint that snuffs out flame and smoke is being marketed under the trade name Fire-Poof. Product also prevents rust and corrosion when applied to metal surfaces and eliminates sweating on pipes. It is available in a number of colors in both exterior and interior finish.—Nor-Chem Products. (Item No. 5)

### weatherstripping clip

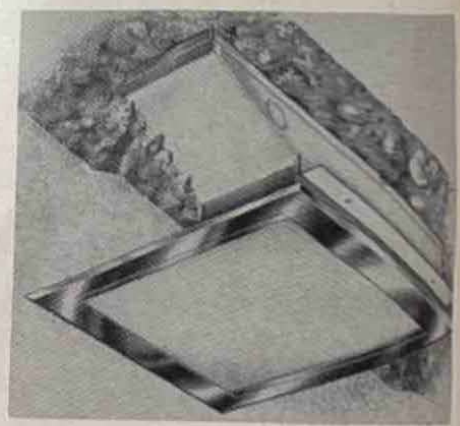
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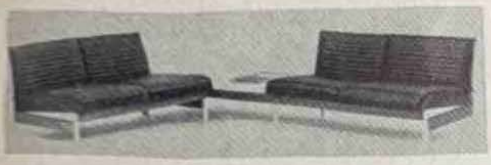
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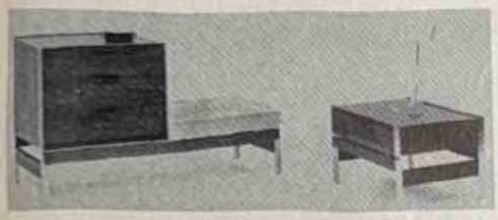
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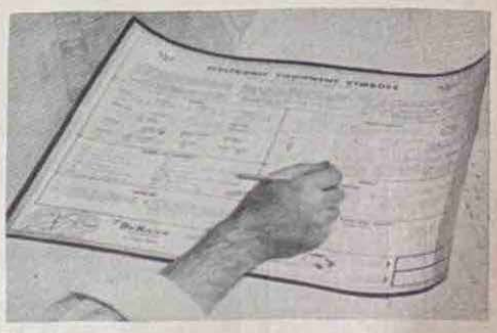
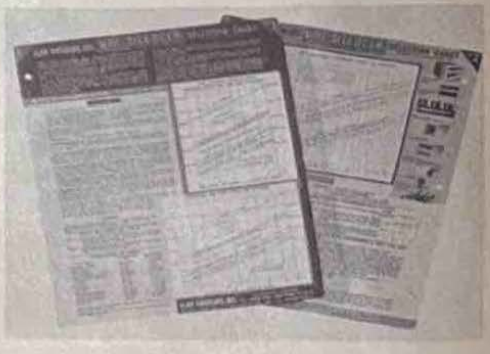


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### open web structurals

Open web floor and roof framing members offering an exceptionally high load-carrying capacity per pound of steel have been developed by Macomber. The cold-roll formed chords of the Allspan framing members have a guaranteed minimum yield strength of 47,000 psi. Available for spans to 120 ft. designed to one specification, they offer short, intermediate and long span framing members which can be chosen from a single table of allowable loads. Framing members have available top and bottom chords. —Macomber, Inc. **(Item No. 1)**

### curtain wall tape

A synthetic rubber sealing tape reinforced with nylon fibers speeds up curtain wall installation by eliminating use of screws. In a field test at an eastern school where porcelain exterior panels were being installed, workers put lengths of the tape on the aluminum beads which snapped into place on each side of the panels for permanent installation. Tape is resistant to oxidizing and hardening; remains flexible at minus 76 deg., and stable at high temperatures; will adhere to a variety of surfaces, including glass, aluminum and brass. It is available in black or gray in a wide variety of widths and thicknesses.—United States Rubber Co. **(Item No. 2)**



### versatile window walls

To provide a competitive priced window wall for smaller buildings, Ador has designed a flexible all-aluminum system permitting use of swinging doors, sliding doors and projected or casement windows. Called Ador-Wall it can be used in one-, two- and three-story buildings of wood frame, steel, concrete or masonry construction. Horizontal windows and vents are free of obstructions, maintaining clean, flush surfaces. Basic 2x4-in. mullion system is used throughout. Units are designed for custom fitting and sizing to individual building specifications and can utilize any type panel ranging from $\frac{7}{8}$ in. to 3 in. in thickness with single, dual and triple glazing.—Ador Corp. **(Item No. 3)**

### glass fiber asphalt shingles

The West Coast is the first to try out Fiberglas reinforced asphalt shingles which have been awarded the Class B fire-safety rating by Underwriters' Laboratories, Inc. Product uses layers of bonded glass fibers as reinforcement for stabilized coating grade asphalt. Glass fibers needed to adequately reinforce the asphalt weigh considerably less than paper-felt usually used with the result that there is a substantial increase in the asphalt content. Shingles are being manufactured in standard three-tab strip in four solid colors—black, red, green and gray—and six blends.—Owens-Corning Fiberglas Corp. **(Item No. 4)**

### fire-resistant paint

Paint that snuffs out flame and smoke is being marketed under the trade name Fire-Poof. Product also prevents rust and corrosion when applied to metal surfaces and eliminates sweating on pipes. It is available in a number of colors in both exterior and interior finish.—Nor-Chem Products. **(Item No. 5)**

### weatherstripping clip

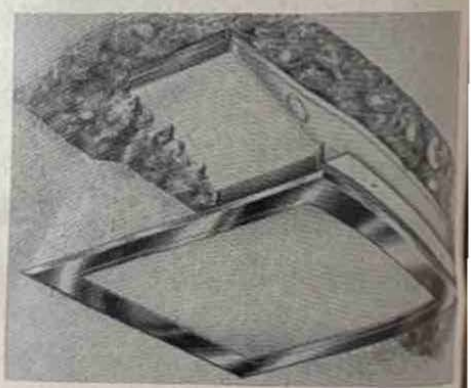
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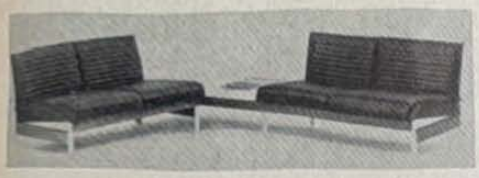
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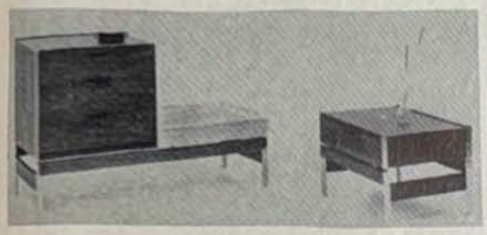
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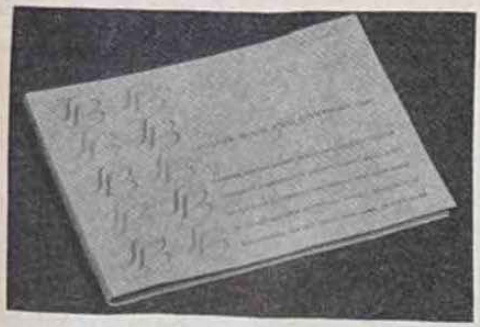
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**pa&b pick of the month**

Blum catalogs its rapidly expanding stock of architectural metals in a clear and attractive presentation (AIA 15): 138 pages divided into six major sections, each identified by a different color for quick reference. A color coded table of contents, an individual subject index for each section and a general numerical index further facilitate location of the hundreds of items. Each subject is covered with scaled engineering drawings of products, technical data, illustrations of use, fabrication and installation instructions.—Julius Blum & Co., Inc., Carlstadt, N.J.

**Guide to Advanced Light for Living; Minimum Light for Living Standards:** former gives specific recommendations room by room for installations in better homes; latter has basic and general requirements and includes check list as aid to planning; 4 pp. each.—American Home Lighting Institute, Inc., 360 N. Michigan Ave., Chicago 1, Ill.

**Light Steel Framing** (AIA 13-G): offers ideas for light-occupancy structures through use of photographs, floor plans and design and construction details of a bank, library, office building and two homes on West Coast; 12 pp.—Bethlehem Steel Co., Pacific Coast Division 20th & Illinois Sts., San Francisco 19, Calif.

**Weatherstripping** (AIA 35-P-6): includes design and installation detail drawings for all types of weatherstripping for institutions, commercial buildings and homes; 24 pp.—Zero Weatherstripping Co., Inc., 451-455 E. 136th St., New York 54, N. Y.

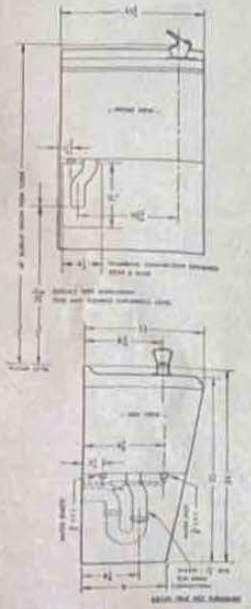
**Be Your Own Scaffolding Expert:** gives detailed instructions for planning scaffolding needs for all types of jobs; well-illustrated with drawings; 26 pp.—Tubular Structures Corp. of America, 2960 Marsh St., Los Angeles 39, Calif.

**Installing Metal Tiles:** covers such data as wall preparation and mechanics of laying out the job in a series of illustrated steps and offers pattern suggestions; 8 pp.—Vikon Tile Corp., Washington, N. J.

**Seven Modern Ways to Pinpoint Your Insulating Needs:** covers specific insulation problems connected with furred masonry, crawl spaces, etc., and shows how Alfol is installed to meet each need.—Reflectal Corp., 200 S. Michigan Ave., Chicago 4, Ill.

**Hot Weather Concreting Guide** though rather late for this season, is an excellent nine-step guide designed for posting at jobsites.—Master Builders Co., Cleveland 3, Ohio.

**Headerduct Systems:** introduces two new systems for cellular steel floor electrification offering 20.294- and 9.5 sq. in. duct capacity; 4 pp.—National Electric Division, H. K. Porter Co., Inc., Porter Bldg., Pittsburgh, Pa.

Haws Model HWT-13



CLEAN

*from every angle...*



HAWS brilliant new wall mounted electric water coolers are a *clean break* with tradition! Compact design hugs the wall – leaving floor area clear! Crisp, *clean styling* is crowned by gleaming stainless steel – with plumbing and electrical unit completely enclosed. HAWS "clears the deck" for uncluttered maintenance ease and shining *clean floors*. This innovation in water cooler concept and design scores a *clean sweep* for HAWS – leader in the field since 1909! Find out about HAWS' complete line of drinking facilities. See HAWS Catalog in Sweet's Architectural File or write for your copy today.

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## FILMS

**History of Modern Architecture.** United States Steel Corp., 71 Broadway, New York 6, N.Y. Sound, 16mm, 30 min.

Traces the development of curtain wall construction from its inception in 1883 to its culmination in today's modern skyscrapers with emphasis on the contributions of the "Chicago school of architecture." Narration is by George Edson Danforth, chairman of the department of architecture, Western Reserve University. Film was originally prepared as an educational television program for the Chicago area. Prints are being presented to 75 schools of architecture throughout the country.

**Plan for Learning.** United States Steel Corp., 525 William Penn Place, Pittsburgh 30, Pa. Sound, color, 16mm, 27 min.

Follows construction of a modern school building from the first discussions of need, through the architectural planning and on to instruction in the new classrooms in the fictional town of Elmsville. In the process the roles of the superintendent and architect are emphasized, as well as the value to the children of a cheerful, bright structure which invites rather than repels interest. The film was specifically designed as an aid to school administrators and architects in promoting needed building programs.

**Design for Fire Protection.** Bestwall Gypsum Co., 120 E. Lancaster Ave., Ardmore, Pa. Sound, color, 16mm, 15 min.

Shows how the company's poured-in-place gypsum roof deck is formed to a rigid monolithic unit which can be tailored to meet the architect's requirements.

**Insulating With Plastic.** Armstrong Cork Co., Insulation Division, Lancaster, Pa. Sound, color, 35mm strip film, 18 min.

Depicts with the aid of some 45 case histories application techniques and possible uses of flexible, foamed plastic insulation in wide variety of building types.

**On Deck.** Metal Roof Deck Technical Institute, 53 W. Jackson Blvd., Chicago 4, Ill. Sound, color, 16mm, 15 min.

Shows how metal roof deck is designed and tested and how it is applied in various kinds of new construction.

**Brick Is Modern.** Brick Institute, 553 S. Western Ave., Los Angeles, Calif. Sound, color, 16mm, 11½ min.

Illustrates how the product is made and used through the reinforced grouted brick masonry process.




6690-A

*The CF&I image protects your property*

*... with a* Realock Fence

This giant steelman is a symbol of dependability for CF&I steel products. Here, his strength and reliance is reflected in REALOCK FENCE — the safe, sure way to protect schools and other municipal buildings from vandals, arson and prowlers.

The tough, strong fabric of a Realock Fence will withstand decades of rough weather conditions. That's because the full-weight steel is heavily galvanized *after* weaving to make it corrosion-resistant. And the sturdy posts are set in concrete for extra-long, durable service.

Realock's neat, chain-link construction adds beauty and dignity to the area it protects. Available in a variety of types — with or without barbed wire tops, in heavy steel construction. Realock erection service is available for fast, professional installation.

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THE COLORADO FUEL AND IRON CORPORATION

### new offices, partnerships

Lewis Crutcher has opened an office for the practice of architecture at 1423 S.W. Columbia St., Portland. Prescott W. Coleman is associate architect in the office.

Donald W. Bogard has opened an office for the general practice of architecture at 208 W. Gowe St., Kent, Wash. A 1953 graduate of the University of Washington, he formerly was employed by a Renton architectural firm.

L. Don Frandsen, architect, after five years of practice in Las Vegas and Pasadena, has returned to Ogden, Utah, to open an office, temporarily at 1226 27th St.

Fred Kruse and Dale A. Fitch have formed an architectural partnership known as Kruse & Fitch, with temporary quarters in Room 200, Scoville Bldg., Coos Bay, Ore. The partners are 1950 University of Oregon graduates and had been associates in the office of James L. Payne in Salem since 1955.

Rockwin Prestressed Concrete Corp. of Santa Fe Springs, Calif., has formed an engineering consulting group under the name of Rockwin Engineers, headed by Steven Galezewski. Restricting itself to prestressed concrete, the new firm's services will be available only to architects and engineers.

### firm changes

Kenneth D. Garrison has become associated with the Bremerton, Wash., architectural firm of Branch & Branch, now known as Branch, Branch & Garrison.

### new addresses

Robert Muncaster, architect, to 2564 Via Tejon, Palos Verdes Estates, Calif.

Brainard J. Gannett, architect, to 4533 N.E. Alameda, Portland.

Irving Coryell, architect, to 7321 Calle La Vega, Tucson.

Graham Latta, architect, to 3444 W. First St., Los Angeles.

Van Evera Bailey, architect, to 1850 S.W. Midvale Road, Portland.

Henry L. Eggers and Walter W. Wilkman, architects, to 600 S. Lafayette Park Place, Los Angeles.

Millard Sheets, designer, and S. David Underwood, architect, to 655 E. Foothill Blvd., Claremont, Calif.

Herbert L. Rodde, architect, to 13745 S.W. 121st St., Tigard, Ore.

Lee Roline, architect, to 1328½ E. First St., Port Angeles, Wash.

James H. Mitchell, architect, to 468 Jackson Square, San Francisco.

William H. Seibert, architect, to 77 Century Bldg., Medford, Ore.

William Rosser, architect, to 3993 Goldfinch St., San Diego.

Roy Y. Maru, architect, to 2409 Telegraph Ave., Berkeley.

Don McKee, architect, to Room 209, Burton Bldg., Anacortes, Wash.

Wilfred E. Blessing, architect-landscape architect, to 3593 Stevens Creek Blvd., Santa Clara, Calif.

McCool, Morgan & Associates, architects, to 401 Elliott Ave. W., Seattle.

R. Leon Edgar, architect, to 14011 Ventura Blvd., Sherman Oaks, Calif.

Clifford B. Dobson, architect, to 3525 Stone Way, Seattle.

Robert K. Grubb, designer, to 2065 N.W. Flanders St., Portland, where he is specializing in interior and food service design for architectural offices.

Irwin M. Johnson, architect, to 503 49th St., Oakland.

### FOREIGN STUDY

Young American architects and graduate students of architecture will have a chance to study in any of 45 foreign countries during 1960-61 under the International Educational Exchange Program of the Department of State. Grants are made under both the Fulbright Act and the Inter-American Cultural Convention program. Requests for application forms must be postmarked before October 15; completed forms must be submitted by November 1. Correspondence may be addressed to the regional offices of the Institute of International Education at 291 Geary St., San Francisco 2, Calif., or 1605 Pennsylvania St., Denver 5, Colo.



**REAL SHIRTSLEEVE SESSIONS** at school conference held on Washington State campus in Pullman (see next page): architects William H. Carleton, Seattle; Charles Pearson, Tacoma; and Carroll Martell, Spokane.

Arnold Jensen, architect, to 3701 Sixth St., Tacoma.

### deaths

Murray Erick of Murray Erick Associates, Los Angeles consulting engineers, died August 1.

### appointments, elections

East Bay Chapter, AIA, has appointed Mrs. Joyce Rasmussen as executive secretary with an office in Oakland. She succeeds Marjorie Montgomery who resigned because of illness in her family and has returned to Wichita, Kan. The new secretary studied architectural design at Drury College in Springfield, Mo., and has worked in the advertising department of various drug companies previous to joining the chapter.

Northern California Chapter, AIA, has elected these officers: Richard S. Banwell, president; George T. Rockwise, vice president; Clement A. Mullins, secretary; Alton S. Lee, treasurer; and Cabell Gwathmey and William Mooser 2nd, directors.

John D. Erickson, formerly with the San Francisco architectural firm of Wurster, Bernardi & Emmons, has joined the City Planning Department of Fremont, Calif., as head of its advanced planning and architecture division.

Ray E. Baker is the new executive director of the Seattle Urban Renewal Enterprise and has been succeeded by Y. Philip Hayasaka as executive secretary of the Jackson Street Community Council.

The California State Board of Architectural Examiners is now operating with the required five members, the newest appointments being Joseph L. Johnson of Los Angeles and Howard A. Friedman of San Francisco.

Welton D. Becket, Los Angeles architect, has been named to the 1959-60 Building Research Advisory Board.

## Caudill calls for 'dynamic inspiration' in school design

"The school buildings themselves must teach, rather than merely provide adequate shelter. . . . Plus qualities must evoke the desired emotional response in education for changing times". Thus Texas architect William W. Caudill outlined his philosophy at the annual A. A. Cleveland Conference held in July at the Washington State University campus in Pullman.



CAUDILL

Caudill was joined by a panel of fellow architects and educators in exploring the theme "Problems of School Architecture" before an audience of some 150 school superintendents and other administrators for the Northwest, along with nearly 50 architects and representatives of businesses engaged in the school building materials field. This was the first time in its history that the conference has turned to school construction for its theme.

A partner in the firm of Caudill, Rowlett, Scott & Associates, with offices in Houston, Oklahoma and Corning, N.Y., Caudill warned architects going into school design to be braced for planning any of five highly differing types of structures:

1. The traditional school departmentalized according to subject matter.
2. The large school divided into smaller units all on the same site.
3. The school divided into levels with the various levels in different wings or separate buildings.
4. The school which breaks down the wall between itself and its community and establishes bases or even classrooms in the courthouse, churches and business establishments.
5. The school in which a pupil spends 40% of his time in classes of more than 100, 20% in classes of about 15 to 20 pupils and 40% in individual study (Trump plan).

Predicting yet another variation, Caudill declared: "It won't be long until we will be building schools without classrooms. I wonder if any of us are prepared for this?"

The guest speaker stressed the total view, cautioning "the real need is not just what the teachers want." Heart of the matter is getting at the root of each school's program. "Without the school structure being built around its program, the Readers Digest might be right in this business of 'school palaces' which the magazine has talked about."

Costs must be considered "or you bankrupt your community," the architect cautioned, at the same time criticizing "stressing costs until you count nails."

Caudill defined the "great school plant formula" as a combination of the superintendent and educators working with the architect and his imagination. The end result, if they use key factors, "program, design and cost," will be "dynamic inspiration." He urged architects and educators to take up the pioneering spirit and promote these dynamic inspirations, for "students are the ones to be considered, even more than taxpayers who may be disturbed with new buildings."

Caudill demonstrated some dynamic inspirations with slides at the conference banquet, depicting schools without windows, schools built with classrooms in the hall, others built like homes and one with classrooms in a series, each visible to the others, separated only by glass partitions.

Participants in the panel discussions agreed that one of the biggest problems was getting together all the interested factions in the building program to assure complete harmony and acceptance of the school design.


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• **Kaiser Gypsum Co.** plans to build a multimillion dollar plant at Rosario, between Albuquerque and Santa Fe. Initial production at the plant is expected to be underway by next June to meet peak construction season demand. Rated productive capacity will be 120 million sq. ft. of gypsum board annually. At the same time the company announced formation of a new Southwest sales division with headquarters in Albuquerque. Sales manager will be Galen M. Thomas, formerly insulating products manager for the southern division at Long Beach.

Other appointments at Kaiser Gypsum: Colin C. Campbell, general sales manager, moves up to manager of the newly formed merchandising department. J. J. Hague, southern division sales manager, takes over Campbell's former post. Joseph M. Angelo, central division sales manager, becomes assistant manager of sales; Sidney J. Smith, gypsum products manager in the central division, moves into Angelo's old job.

• **Spanall of the Americas, Inc.,** a subsidiary of Universal Builders Supply Co., Inc., has been purchased by Chain Belt Co. which will now take over all distribution and manufacturing rights in the Western Hemisphere of the German-made structural steel girders and vertical shores. The purchase will not change ownership or management of Spanall of the Pacific, Inc., according to G. K. MacDonald.

• **Weyerhaeuser Timber Co.** has dropped the word "timber" from its firm name because it "is not descriptive of the full scope of our business." Also, effective October 1, the Weyerhaeuser Sales Co. name will be dropped and the operations of this subsidiary will become a part of the lumber and plywood division. A new trademark, an abstract tree within a triangle, has been adopted for all company operations and products.

**SALESMEN'S INSTITUTE SET FOR COLORADO**

As part of a national program to help salesmen learn how to sell architects, the Producers' Council will sponsor an Architectural Sales Representative Institute on the University of Colorado campus in Boulder from Wednesday, October 28, through Friday noon, October 30. The Denver chapter and the department of architecture will assist in planning the concentrated 2½-day course, (morning, afternoon and evening sessions) which will be conducted by leading architects, sales executives and university staff members.

• **R. C. Mahon Co.** has opened two new West Coast offices, one in the Pacific Building in San Francisco under the management of Dave Parker; and the other at 2303 Jefferson St., Torrance, Calif., under management of J. G. Ingels. Both offices will operate closely with the new western division plant now under construction at Torrance.

• **Trimview Metal Products,** Covina, Calif., metal fabricating division of W. P. Fuller & Co., has appointed Charles E. Lawrence as sales manager. Lawrence formerly was West-Northwest district manager for Miami Window Corp.

• **Plywall Products Co., Inc.,** announces two new distributors: Wood-Tex Corp., Eugene, Ore., and Lumber Yard Supply Co., Great Falls, Mont.



**NEW SALES AND OFFICE BUILDING**

for Soule' Steel Co. in Portland is steel frame structure with aluminum windows and wall panels of Mosaico, composed of random size and shape tesserae which firm recently introduced. Architects: Scott & Payne; general contractor: Norman Builders.

• **Westinghouse Electric Corp.** has moved the Oregon headquarters office for the apparatus division to a new building in Portland's Lloyd Center. Sales, engineering and service departments are in the new building, while manufacturing and repair and the elevator division will remain at 614 N. Tillamook St. Architects for the single-story 5,000-sq. ft. building were Wolff & Zimmer.

• **The Flintkote Co.** and **Calaveras Cement Co.** will be merged under a proposal on which stockholders were to vote late in September. Calaveras operates a plant at San Andreas, Calif., with a rated annual production capacity of 4,300,000 barrels.

• **Zolatone Process, Inc.,** has established a factory sales office and warehouse at 1230 Howard St. in San Francisco. The new branch will serve as a district office and warehouse for the complete line manufactured by Zolatone and its Paramount Paint & Lacquer division. Manager will be Jay J. Wimberly, formerly sales engineer in the Los Angeles headquarters plant.

• **Sea-Chrome, Inc.,** Los Angeles, has appointed Ted G. Pollock of Tucson as manufacturers' agent in Arizona.

• **Inland Steel Products Co.** has purchased all physical assets of the T-Steel Corp. in Kirkland, Wash., and will move production equipment for the long span roof deck to Inland's Hayward, Calif., plant.

• **Crawford Door Co.** has appointed Valley Asbestos Co., Modesto, Calif., as distributor of the firm's garage doors in Stanislaus, Toulumne, Merced, Mariposa, Calaveras and San Joaquin counties.

• **Pascoe Steel Corp.,** Pomona, Calif., has appointed E. A. (Ed) Prosser as sales manager for the Greater Los Angeles area. Prosser has been Denver area manager for a national steel building producer for the past eight years.

• **ExitAire Co.** has moved into new, expanded facilities at Pacoima, Calif., for the manufacture of roof and wall exhaust and relief vent equipment.

• **Fibreboard Paper Products Corp.** has appointed Howard R. West as manager, advertising and sales promotion. He will move to San Francisco from Minneapolis where he was senior account executive with Camp-

bell-Mithun Agency. Frank Wilson, formerly with Wyman Co., has been named Pabco brand advertising manager.

• **Republic Supply Co. of California** has purchased Tubesupply, Inc., Seattle. The firm will continue to operate under the same name with expanded inventory which will include products now carried by Perry Kilsby, Inc., Los Angeles, another recently acquired Republic division. John DeYoung, president of Tubesupply, Robert C. Brinkley and James A. Baxter, all founders, will continue actively with the firm, along with Walter Hargesheimer, formerly Kilsby Seattle manager. DeYoung will manage the new division.

• **Permanente Cement Co.** has picked Edward H. Kendall for the new post of general sales manager. Kendall has been serving as Pacific Northwest division sales manager since 1946. He will be succeeded by his assistant, Gordon K. Wilson.

• **Utility Appliance Corp.**, Los Angeles, has promoted H. C. (Si) Siler from western division sales manager to general sales manager.

• **Simpson Redwood Co.**, Arcata, Calif., has promoted Gilbert L. Oswald from assistant to general manager. He will assume complete responsibility for management of the firm's northern California properties and facilities. Gordon J. Manary will continue as vice president and as an advisor to the California operations until his retirement.

• **Vicrtex Sales Corp.** has opened a wall coverings showroom at 305 Market St., San Francisco, to serve the northern California and Pacific Northwest areas.

• **Armstrong Cork Co.** has assigned J. M. Salsbury Jr. to the Los Angeles office as a specialist in architectural acoustical and roof insulation materials.

• **United States Plywood Corp.** has elected Marshall R. Leeper of Eugene to a vice presidency in the firm. Leeper is general manager of the company's Oregon division.

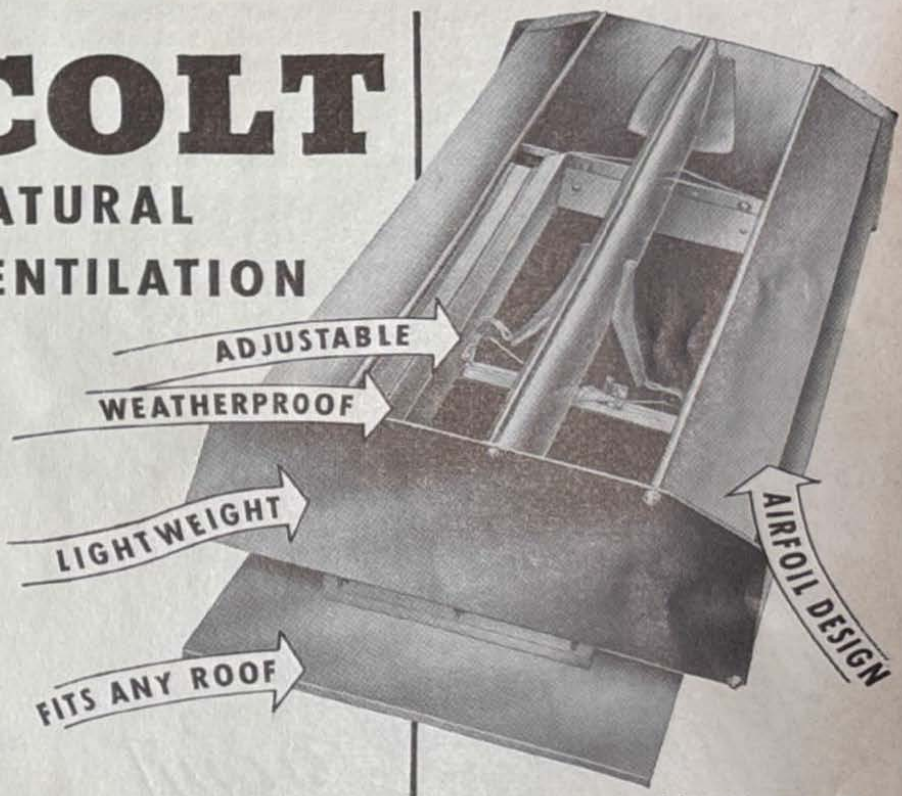
• **Bestwall Gypsum Co.** plant at Sigurd, Utah, has been cited by the National Safety Council for the best safety record in the gypsum industry. This plant's perfect safety record dates back to Sept. 12, 1950, or a total of almost three million man-hours without a single lost-time injury up to January 1, 1959. The program at Bestwall includes an active safety committee, regular safety talks and first aid courses and publication of a monthly safety news bulletin mailed to each employee.

• **Certain-teed Products Corp.** plant at Tacoma recently was cited by the National Safety Council for a perfect safety record during 1958. The plant, as of January 1, 1959, has been accident-free since Sept. 18, 1956, chalking up a record of 266,567 man-hours without a lost-time injury. Program at Certain-Teed plants include monthly meetings of a safety committee, weekly safety talks, monthly safety inspections and first aid courses.

• **Triangle Steel & Supply Co.**, has completed a new warehouse and distribution facility at Central and Lugo streets in San Bernardino, Calif. The plant will serve the industrial area of San Bernardino, Colton, Riverside and Fontana.

• **Yuba Consolidated Industries, Inc.**, San Francisco, has acquired the Arrow


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Industrial Manufacturing Co. and will operate the Tulsa firm and its subsidiaries, Airoflow Fintube Corp. and F-5 Air Conditioning Corp., as a subsidiary to be known as Aimco Products Corp.

• **Concrete Thermal Casings, Inc.,** Seattle, has now licensed 13 specialty contractors throughout the country to install the three customized CTC systems of underground pipe insulation. Certified CTC contractors include Vermiculite Contractors, Inc., Seattle, Spokane and Portland; Utah Pioneer Corp., Salt Lake City; and Western Asbestos Co., San Francisco.

• **Gate City Steel** has appointed Ralph A. Templeton of Bellevue, Wash., as sales representative for the Seattle and Alaska area. He previously represented the Leckenby Structural Steel Co. of Seattle. Ralph R. Tuttle, salesman at the Boise plant, has been transferred to Twin Falls, where he will handle the central and southeastern Idaho territory.

• **Architectural Plastics Corp.,** Eugene, Ore., firm specializing in wholesale distribution of plastic building materials on the West Coast, will soon extend its services throughout the eastern U.S.

• **Reynolds Aluminum Sales Co.** has appointed Flair Aviation Corp. as distributor for commercial aluminum windows, headed by H. M. Van Noorden in El Monte, Calif.

## ASSOCIATIONS

• **Southern California Plastering Institute** has awarded four $1,200 one-year scholarships to students at the school of architecture of the University of Southern California. Awards, based on academic achievement and professional promise, went to Miss Ena Dubnoff, Norman Lacayo, Tom Pagliuso and Gary Call. Members of the selection committee were architects Maynard Lyndon, Los Angeles; Edward D. Davies, Pasadena; and Ray W. Johnson, Whittier.

• **Portland Cement Association** has appointed Laurence C. Mathews to represent the association in central Washington from headquarters in Yakima. He has been public works commissioner for the City of Yakima for the past three years.

• **Gypsum Association** reports that Henry J. Schweim, manager of its western office, recently was presented the Award of Merit by the American Society for Testing Materials for "having rendered distinguished service to the society, especially along technical lines." Schweim was honored for his work and contributions in the gypsum field, as well as his aid in furthering the general activities of the society.

• **Vermiculite Institute** at its 18th annual meeting in Boca Raton, Fla., elected a Seattleite as president. W. V. Culver, vice president - Manager of Vermiculite - Northwest, Inc. A 1949 civil engineering graduate of the University of California, he joined the distributing firm in 1955. Branches are maintained in Spokane and Portland. Vermiculite-Northwest is a licensee of Zonolite Co., which reported on new uses of vermiculite in water-repellent masonry insulation, texture finish for ceilings and fireproofing material for steel floors at the Florida meeting.



CULVER

• **Brick Institute of California** has enlarged its offices at 553 S. Western Ave., Los Angeles, in order to provide increased services to architects and engineers in the area. The full-time technical staff is headed by Norman W. Kelch, AIA.

• **Forest Products Research Society** has picked Raymond H. Berry of Scott Lumber Co., Inc., Burney, Calif., as the new president-elect. He will take office next summer, succeeding E. S. Harrar, dean of the School of Forestry at Duke University, who was installed at the annual convention in San Francisco last month. A record 80 technical papers and panel discussions were presented during the five-day conference attended by an estimated 700 wood products research and technical experts. Next year's session, to be held at Montreal, will be the first called for outside the U.S.

• **Douglas Fir Plywood Association** has elected C. H. Bacon Jr., executive vice president of Simpson Timber Co., Seattle, as president for 1959-60. Other officers named at the annual meeting in June at Gearhart, Ore., are John Martinson, Puget Sound Plywood, Inc., Tacoma, vice president; A. P. Stinch-


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field, Menasha Plywood Corp., North Bend, Ore., secretary; and Corydon Wagner Jr., St. Paul & Tacoma Lumber Co., Tacoma, treasurer. Trustees elected are T. L. Bentley, Anacortes, Wash.; V. K. Wright, McMinnville, Ore.; and J. Smith, Everett, Wash. More than 300 representatives of fir plywood manufacturers from Oregon, Washington and California attended the convention.

• **Acoustical Materials Association** has named these western men as directors or committee members: W. J. Marshall, Kaiser Gypsum Co., Oakland; S. M. Lewis, Pioneer-Flintkote, Los Angeles; D. K. Meissner and E. Reichman, Simpson Logging Co., Shelton, Wash.

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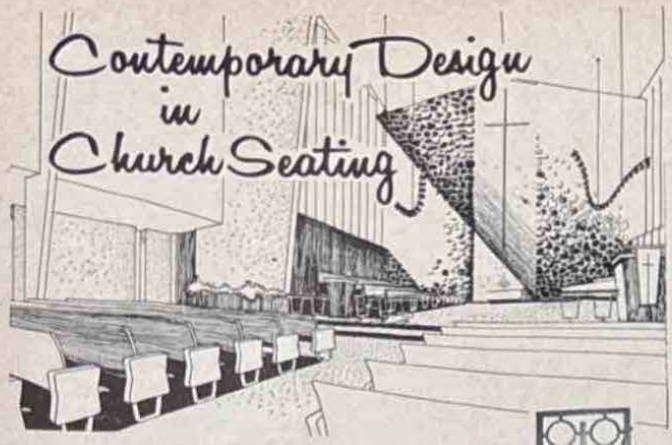
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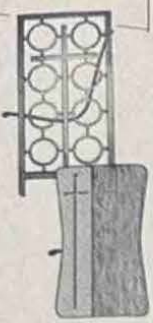

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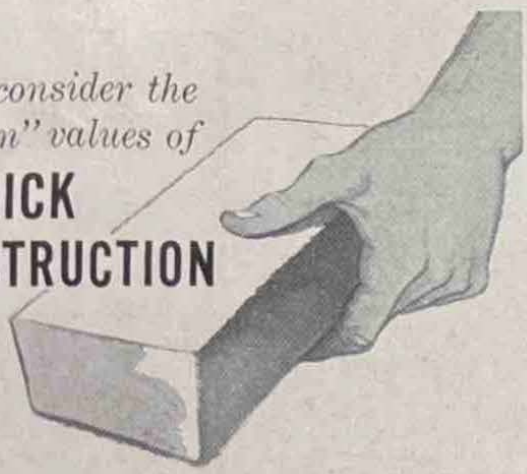
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The apartment house boom throughout the West shows no signs of letting up as one project after another springs up on the fringes of downtown and in suburbia too—and the majority of them, like Topsy, look as though they "just growed." It is a real delight then to come across a structure that, while offering its tenants some design amenities, is a straightforward architectural statement. In November we will show a couple of small apartment houses that fall in that category. Our major methods article will describe a new building technique which has been developed by a California architectural firm.

**behind the iron curtain: concrete**

Khrushchev's visit to the U.S. brings to mind an excellent report issued earlier this year on an American delegation of concrete specialists who visited the Moscow and Leningrad areas in 1958 at the invitation of the Soviet Academy of Construction and Architecture. The six men, including four westerners—T. Y. Lin and Boris Bresler of the University of California, Ben C. Gerwick Jr. of San Francisco and Walter H. Price of Denver—spent 10 days studying recent Soviet development in the field of precast and prestressed concrete engineering.

The 86-page booklet has seven chapters devoted to general observations, research, design and materials, production, construction, meetings and conferences, and education plus an appendix of Russian publications. Copies are available through the Portland Cement Association, 33 W. Grand Ave., Chicago 10, Ill.

**art for who's sake?**

The fight for inclusion of art in public buildings—and generally speaking it is just that—is bound to produce another round with irate taxpayers who do not understand what the artist is trying to say. A noteworthy example is the Mark Tobey mural which hangs in the Washington State Library (featured last month) on the Capitol grounds in Olympia. Among those who have come forward to publicly defend the $8,200 abstract work is Cecil C. Clark, a state legislator and a member of the minority party.

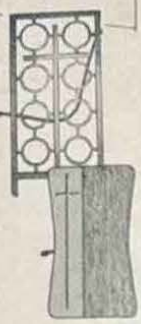
"Frankly, I do not like modern art nor the particular picture involved," the Wapato representative wrote in a letter to the daily press. "I will, though, defend Tobey's right to paint as he pleases and the right of others to enjoy this sort of art. To do otherwise would be to subscribe to restriction of free speech and of expression in writing. No one person or group should ever attempt to dictate the thinking or expression of any other."

Representative Clark continued: "A state library without art decoration would be a barren place and not in keeping with tradition or propriety. Five of the leading artists of the state were employed . . . A fitting contributor is Mark Tobey and he shouldn't be told what to paint. He will have to accept full responsibility and the acclaim or ridicule of posterity. In the meantime, it's entirely proper for it to be in our library and improper for individuals to gripe about it and criticize the choice."

Another contributor to the Washington State Library, painter James FitzGerald, lost many art objects when fire gutted his home this past summer. Among the new pieces burned were a metal and glass screen for the Seattle Public Library and a mural for Western Washington College of Education. REK




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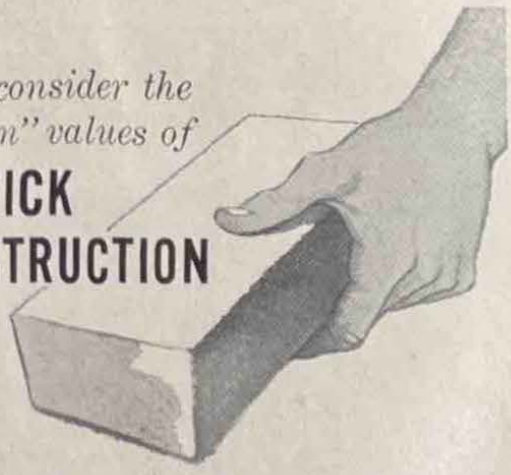
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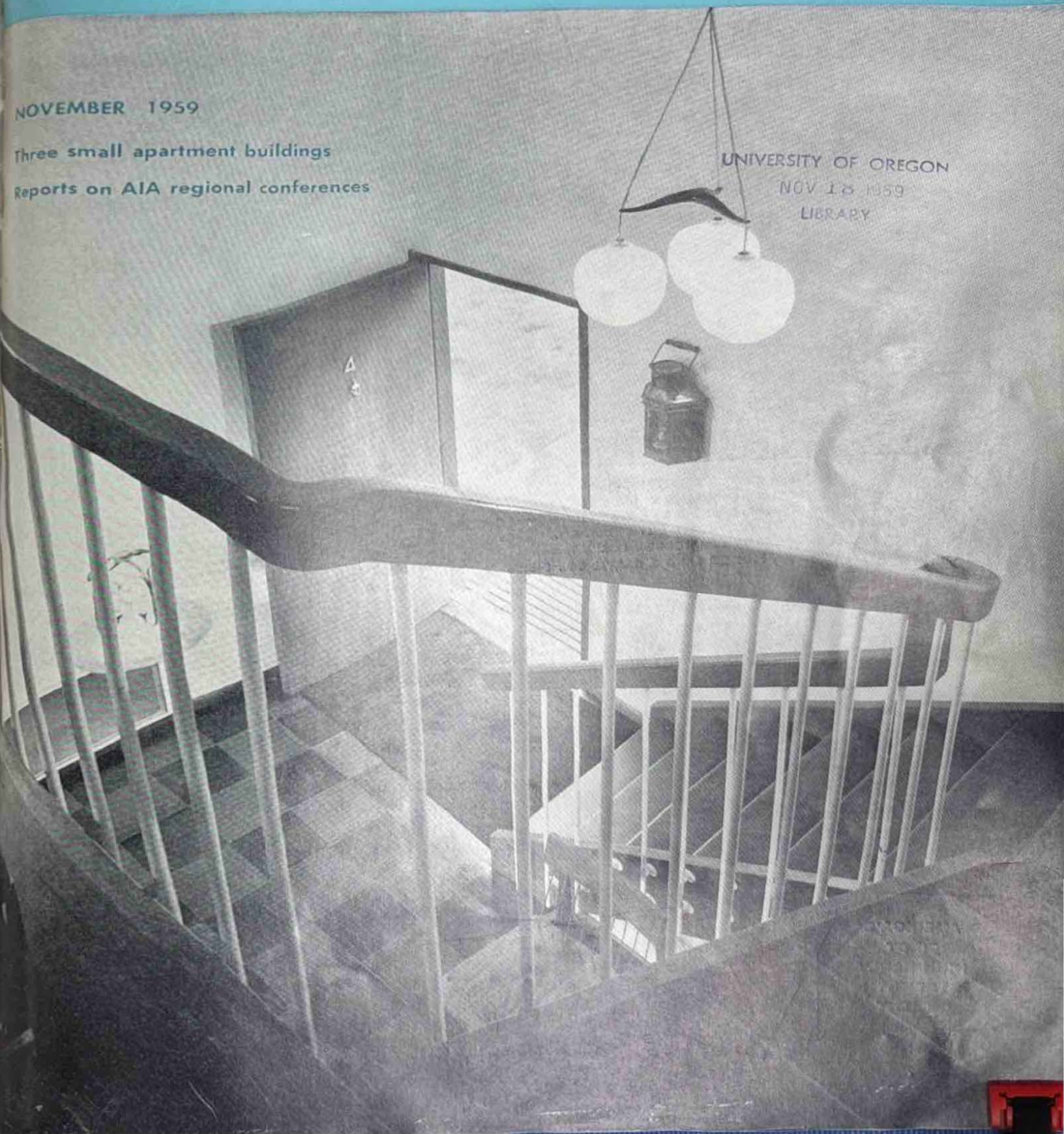
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NOVEMBER 1959

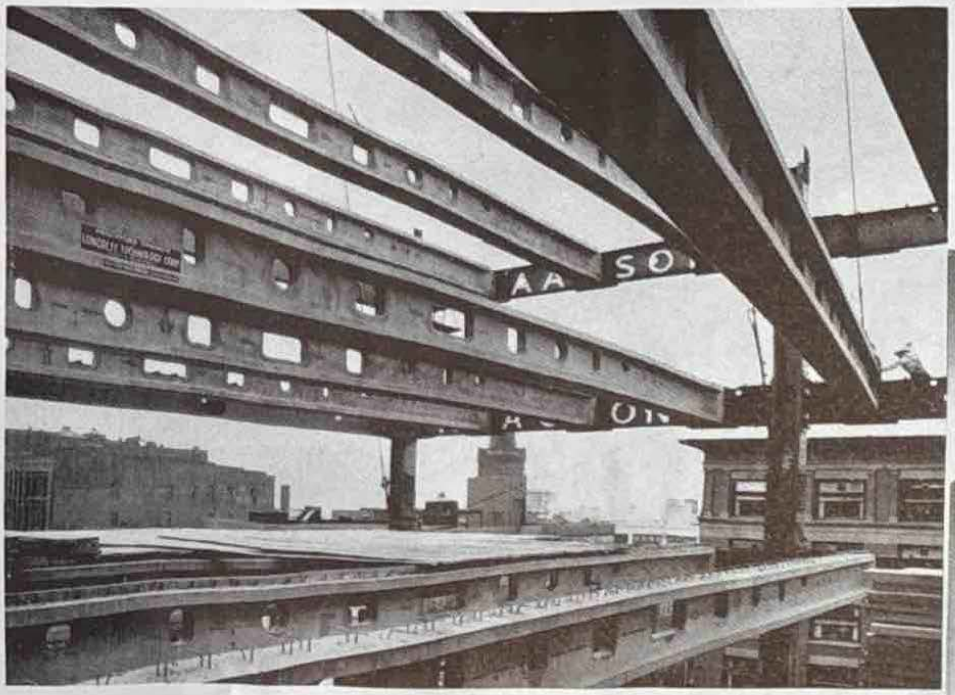
Three small apartment buildings

Reports on AIA regional conferences

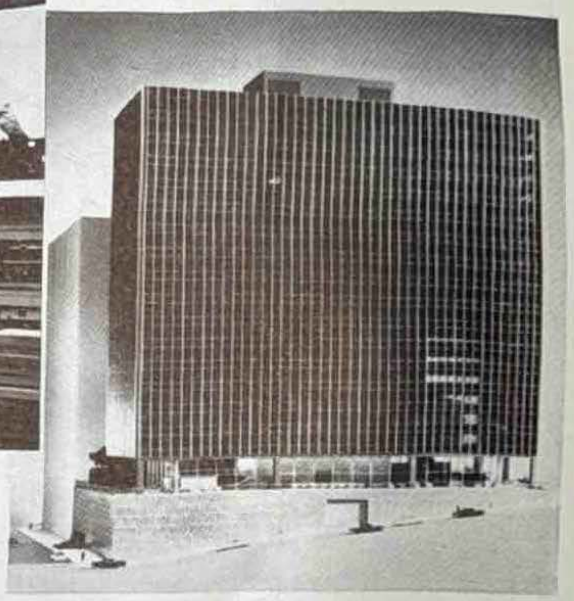
UNIVERSITY OF OREGON
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# New Heights for P/S Concrete



## Growing Seattle Gets Unique New Skyscraper



Architects: **BINDON & WRIGHT,** Seattle
Consultants: **ANDERSON, BIRKELAND & ANDERSON,** Tacoma
**SKIDMORE, OWINGS & MERRILL,** San Francisco; **T. Y. LIN,** University of California
General Contractor: **HOWARD S. WRIGHT CONST. CO.,** Seattle
P/S Beams: **CONCRETE TECHNOLOGY CORP.,** Tacoma
Ready-Mix Concrete: **PIONEER SAND & GRAVEL CO.,** Seattle

● Prestressed concrete, virtually unknown a decade ago, has attained new heights in Seattle's 21-story Norton Building, the first U. S. structure over six floors to utilize P/S. The unique design uses 238 P/S beams in combination with a steel perimeter frame to support column-free floors in the 17-story tower. The use of P/S beams with lightweight concrete floors cut the building's dead load 20%.

Each 15-ton beam spans 70', and is only 37" deep. Apertures in the web accommodate utilities and ducts. Prestressing was done with pretensioned strands along the bottom flange, and with post-tensioned draped tendons. Designed for 30-ton loading, the beams were tested to 135 tons with only a 9" deflection.

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* * *

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# pacific architect & builder

november 1959

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design

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COVER: Sodergren Apartments, Seattle (p. 22); Ralph D. Anderson, Architect; Charles R. Pearson photo.




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# September's $360 million tops '58 by $66 million

Dollar volume of building permits reported by 155 key agencies in the 13 western states for September is $350,581,243, a $66.4 million increase over the same period last year. Gains are fairly widespread throughout the area. In California, a $75.9 million total for Los Angeles alone boosted the state volume to a $49.5 million rise over September 1958.

Increases also are recorded in Arizona, up $7.6 million; Colorado, $7.2 million; Montana, $2.7 million; Hawaii, $2.6 million; Alaska, $2.3 million; Wyoming, $1.7 million; Nevada, $1.6 million; and Utah, $1 million. Decreases are recorded in Washington, down $10 million; Oregon, $728,786; Idaho, $411,256; and New Mexico, $21,614.

### Top 15 agencies

Eight of the top 15 agencies for September are in California; two in Washington; two in Arizona; one each in New Mexico, Colorado and Hawaii. Following are the top 15:

| | September 1959 | September 1958 |
|---|---|---|
| 1. Los Angeles | $75,987,718 | $35,714,232 |
| 2. Los Angeles County | 17,948,073 | 14,923,872 |
| 3. San Diego | 17,099,241 | 9,723,534 |
| 4. Honolulu | 15,937,473 | 14,267,015 |
| 5. Denver | 12,536,729 | 7,639,665 |
| 6. San Diego County | 12,199,700 | 7,581,200 |
| 7. Seattle | 11,002,574 | 19,049,348 |
| 8. San Jose | 10,250,827 | 16,684,570 |
| 9. Sacramento County | 10,135,620 | 11,886,893 |
| 10. King County, Wash. | 9,656,877 | 10,718,495 |
| 11. Phoenix | 9,521,347 | 3,843,338 |
| 12. San Francisco | 9,133,723 | 10,887,842 |
| 13. Maricopa County, Ariz. | 8,310,657 | 11,573,961 |
| 14. Albuquerque | 5,308,188 | 5,376,766 |
| 15. San Mateo | 5,141,782 | 1,379,787 |

### Third-quarter volume high

Figures for the July-through-September quarter show widespread and consistent gains. The three-month total for the 13 states is $992,511,189, some $80 million higher than the third quarter in 1958. On a statewide basis all but two report increases. Following are the quarterly figures with dollar volume of gain or loss: California, $603,066,811, up $36.6 million; Oregon, $49,536,296, up $8.8 million; Washington, $104,936,344, up $4.5 million; Alaska, $7,772,263, up $2.5 million; Idaho, $9,651,677, up $1.2 million; Montana, $16,668,135, up $7.1 million; Wyoming, $6,318,167, up $2 million; Utah, $17,988,332, up $6.2 million; Nevada, $11,891,358, up $3.4 million; Arizona, $65,323,955, up $14 million; Hawaii, $35,014,984, up $9 million; Colorado, $46,585,330, down $2.1 million; and New Mexico, $21,757,537, down $5.3 million.

### Analysis of selected areas—September

| | Dwelling | Commercial & Industrial | Public |
|---|---|---|---|
| Los Angeles County | $11,462,524 | $2,922,987 | *$3,018,368 |
| Orange County | 2,944,901 | 581,485 | 138,125 |
| Sacramento County | 7,434,879 | 1,065,883 | 1,528,024 |
| Las Vegas | 2,328,288 | 157,100 | |
| Seattle | 4,448,700 | 6,244,619 | 150,000 |
| King County | 7,636,447 | 901,530 | 1,000,420 |
| Portland | 1,590,135 | 435,150 | 62,000 |
| Honolulu | 9,348,619 | 4,272,466 | 2,237,254 |

*Does not include $1,113,183 for tax-supported school construction.

# Building Permit Totals for 155 Western Agencies for September

| CALIFORNIA | Sept. 1959 | Sept. 1958 |
|---|---|---|
| Alameda County | $ 706,450 | $ 1,284,075 |
| Anaheim | 4,910,964 | 4,022,031 |
| Bakersfield | 1,349,951 | 1,041,324 |
| Burbank | 674,097 | 872,961 |
| Contra Costa County | 2,792,350 | 4,154,629 |
| Fresno | 941,179 | 1,363,068 |
| Fullerton | 1,670,518 | 1,587,453 |
| Glendale | 1,531,050 | 1,649,501 |
| Inglewood | 620,483 | 762,950 |
| Long Beach | 3,443,330 | 4,300,565 |
| Los Angeles | 75,987,718 | 35,714,232 |
| Los Angeles County | 17,948,073 | 14,923,872 |
| Oakland | 3,052,111 | 2,960,632 |
| Ontario | 1,006,866 | 1,048,935 |
| Orange County | 3,942,900 | 4,969,641 |
| Palo Alto | 1,627,761 | 1,753,122 |
| Pasadena | 902,608 | 1,817,051 |
| Pomona | 1,296,447 | 821,420 |
| Richmond | 605,691 | 559,914 |
| Riverside | 794,546 | 2,289,716 |
| Sacramento | 4,238,598 | 2,846,090 |
| Sacramento County | 10,135,620 | 11,886,893 |
| San Bernardino | 1,729,434 | 775,721 |
| San Bernardino County | 5,033,056 | 4,892,095 |
| San Diego | 17,099,241 | 9,723,534 |
| San Diego County | 12,199,700 | 7,581,200 |
| San Francisco | 9,133,723 | 10,887,842 |
| San Jose | 10,250,827 | 16,684,570 |
| San Mateo | 5,141,782 | 1,379,787 |
| San Mateo County | 2,010,672 | 2,597,230 |
| Santa Ana | 1,875,418 | 1,490,293 |
| Santa Monica | 1,479,065 | 1,206,897 |
| Stockton | 827,287 | 754,967 |
| Sunnyvale | 934,050 | 1,087,010 |
| Torrance | 3,387,178 | 871,634 |
| West Covina | 1,223,082 | 432,990 |
| TOTAL | $212,503,826 | $162,995,845 |

| OREGON | Sept. 1959 | Sept. 1958 |
|---|---|---|
| Albany | $ 260,075 | $ 135,500 |
| Astoria | 11,949 | 24,957 |
| Baker | 98,920 | 233,100 |
| Bend | 109,740 | 68,900 |
| Coos Bay | 95,484 | 24,045 |
| Corvallis | 735,325 | 464,085 |
| Eugene | 1,196,778 | 610,296 |
| Grants Pass | 99,225 | 116,250 |
| Gresham | 149,450 | 115,000 |
| Hillsboro | 245,905 | 107,589 |
| Klamath Falls | 190,440 | 149,126 |
| LaGrande | 95,159 | 146,542 |
| Lane County | 1,113,997 | 1,002,609 |
| Medford | 290,568 | 296,657 |
| Multnomah County | 4,012,903 | 6,860,407 |
| North Bend | 74,540 | 116,470 |
| Oregon City | 46,175 | 190,850 |
| Portland | 3,341,960 | 2,978,015 |
| Roseburg | 352,695 | 97,310 |
| Salem | 567,584 | 475,023 |
| Springfield | 545,571 | 118,311 |
| The Dalles | 58,244 | 90,431 |
| TOTAL | $ 13,692,687 | $ 14,421,473 |

| WASHINGTON | Sept. 1959 | Sept. 1958 |
|---|---|---|
| Aberdeen | $ 135,936 | $ 78,767 |
| Anacortes | 49,135 | 189,585 |
| Auburn | 159,060 | 335,195 |
| Bellingham | 248,129 | 658,600 |
| Bremerton | 504,850 | 139,040 |
| Centralia | 138,672 | 126,870 |
| Chehalis | 33,179 | 15,705 |
| Ellensburg | 38,400 | 51,532 |
| Ephrata | 349,696 | 42,867 |
| Everett | 135,200 | 355,644 |
| Kelso | 375,600 | 39,900 |
| Kennewick | 435,525 | 131,420 |
| King County | 9,656,877 | 10,718,495 |
| Kirkland | 46,850 | 213,850 |
| Longview | 279,778 | 220,475 |
| Moses Lake | 60,250 | 131,374 |
| Olympia | 204,903 | 156,561 |
| Pasco | 180,181 | 129,890 |
| Pierce County | 1,785,375 | 1,398,240 |
| Port Angeles | 20,250 | 49,000 |
| Puyallup | 190,850 | 123,600 |
| Seattle | 11,002,574 | 19,049,348 |
| Spokane | 1,509,216 | 3,147,789 |
| Spokane County | 2,357,714 | 2,552,560 |
| Tacoma | 1,854,924 | 1,140,532 |
| Vancouver | 463,652 | 404,463 |
| Walla Walla | 170,426 | 237,039 |
| Wenatchee | 110,760 | 676,819 |
| Yakima | 1,227,020 | 249,243 |
| TOTAL | $ 33,744,987 | $ 42,764,903 |

| ALASKA | Sept. 1959 | Sept. 1958 |
|---|---|---|
| Anchorage | $ 1,790,054 | $ 486,623 |
| Fairbanks | 1,503,427 | 292,850 |
| Juneau | 3,350 | 25,600 |
| Ketchikan | 17,700 | 112,900 |
| TOTAL | $ 3,314,531 | $ 917,973 |

| IDAHO | Sept. 1959 | Sept. 1958 |
|---|---|---|
| Boise | $ 411,402 | $ 474,145 |
| Caldwell | 54,090 | 65,500 |
| Coeur d'Alene | 263,562 | 46,900 |
| Idaho Falls | 561,675 | 836,218 |
| Jerome | 45,000 | 318,950 |
| Lewiston | 188,514 | 60,740 |
| Nampa | 100,471 | 196,246 |
| Payette | 72,162 | 26,650 |
| Pocatello | 271,437 | 391,470 |
| Sandpoint | 101,300 | 30,100 |
| St. Maries | 6,500 | 51,900 |
| Twin Falls | 148,900 | 137,450 |
| TOTAL | $ 2,225,013 | $ 2,636,269 |

| MONTANA | Sept. 1959 | Sept. 1958 |
|---|---|---|
| Billings | $ 2,896,550 | $ 248,150 |
| Bozeman | 978,000 | 66,150 |
| Butte | 3,855 | 26,150 |
| Glasgow | 12,800 | 267,900 |
| Glendive | 19,300 | 78,850 |
| Great Falls | 351,478 | 744,425 |
| Helena | 156,459 | 234,913 |
| Kalispell | 50,600 | 28,500 |
| Lewistown | 63,300 | 51,700 |
| Livingston | 26,220 | 127,950 |
| Miles City | 103,209 | 62,610 |
| Missoula | 220,257 | 204,050 |
| TOTAL | $ 4,882,028 | $ 2,141,348 |

| WYOMING | Sept. 1959 | Sept. 1958 |
|---|---|---|
| Casper | $ 698,638 | $ 694,655 |
| Cheyenne | 2,198,948 | 509,212 |
| Sheridan | 111,229 | 90,883 |
| TOTAL | $ 3,008,815 | $ 1,294,750 |

| COLORADO | Sept. 1959 | Sept. 1958 |
|---|---|---|
| Aurora | $ 800,743 | $ 1,322,471 |
| Boulder | 650,852 | 477,435 |
| Denver | 12,536,729 | 7,639,665 |
| Englewood | 357,399 | 403,158 |
| Fort Collins | 1,086,381 | 406,365 |
| Grand Junction | 114,124 | 207,850 |
| Greeley | 711,192 | 256,468 |
| Pueblo | 2,309,183 | 1,116,229 |
| Trinidad | 17,800 | 12,630 |
| TOTAL | $ 19,084,403 | $ 11,842,271 |

| UTAH | Sept. 1959 | Sept. 1958 |
|---|---|---|
| Logan | $ 212,450 | $ 74,550 |
| Murray | 201,675 | 163,361 |
| Ogden | 830,500 | 630,100 |
| Provo | | |
| Salt Lake City | 1,359,542 | 1,256,910 |
| TOTAL | $ 2,604,167 | $ 1,524,921 |

| NEVADA | Sept. 1959 | Sept. 1958 |
|---|---|---|
| Elko | $ 28,998 | $ 368,295 |
| Las Vegas | 2,485,988 | 574,208 |
| Reno | 1,574,346 | 952,495 |
| Sparks | 279,550 | 820,484 |
| TOTAL | $ 4,369,882 | $ 2,715,482 |

| ARIZONA | Sept. 1959 | Sept. 1958 |
|---|---|---|
| Douglas | $ 365,120 | $ 57,625 |
| Flagstaff | 1,169,553 | 135,899 |
| Glendale | 118,980 | 74,410 |
| Maricopa County | 8,310,657 | 11,573,961 |
| Mesa | 799,181 | 558,237 |
| Phoenix | 9,521,347 | 3,843,338 |
| Tucson | 4,918,871 | 1,293,590 |
| Yuma | 319,473 | 375,520 |
| TOTAL | $ 25,523,182 | $ 17,912,580 |

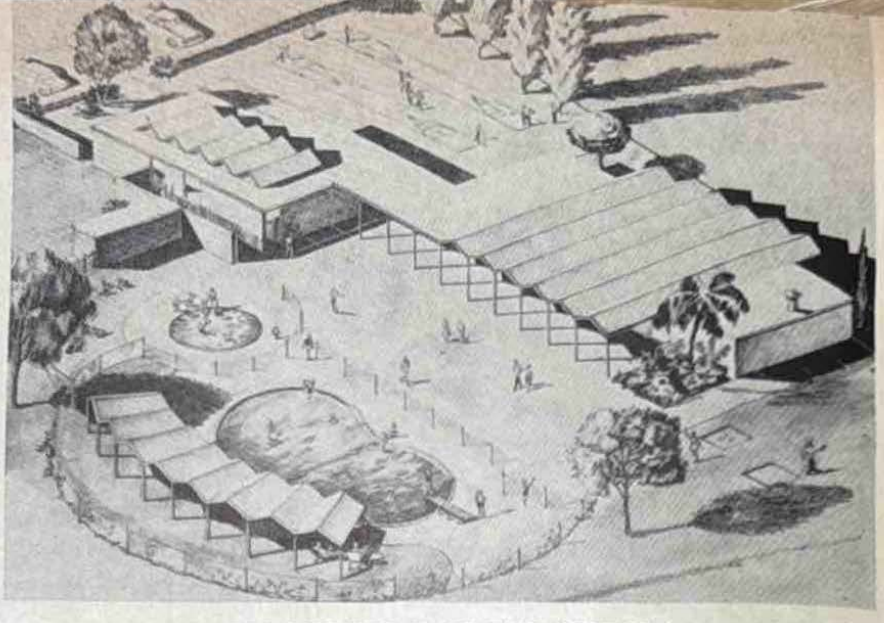
| NEW MEXICO | Sept. 1959 | Sept. 1958 |
|---|---|---|
| Albuquerque | $ 5,308,188 | $ 5,376,766 |
| Carlsbad | 106,310 | 254,205 |
| Clovis | 145,084 | 186,089 |
| Gallup | 148,224 | 314,272 |
| Hobbs | 198,775 | 332,940 |
| Las Cruces | 937,000 | 722,000 |
| Roswell | 917,850 | 638,119 |
| Santa Fe | 244,660 | 203,214 |
| TOTAL | $ 8,006,091 | $ 8,027,705 |

| HAWAII | Sept. 1959 | Sept. 1958 |
|---|---|---|
| Hawaii County | $ 1,408,548 | $ 562,535 |
| Honolulu (city-county) | 15,937,473 | 14,267,015 |
| Maui County | 275,610 | 134,178 |
| TOTAL | $ 17,621,631 | $ 14,963,728 |
| GRAND TOTAL | $350,581,243 | $284,159,248 |

## OREGON'S TALLEST BUILDING

will be distinction of Hilton Hotel, scheduled for opening in about two years in downtown Portland, following anticipated construction start next February. Reinforced concrete tower, 21 stories high, will have exposed precast concrete columns and spandrels, aluminum window frames. It will rise above four-story base housing grand ballroom, main dining room, restaurant, shops, etc. Architects: Skidmore, Owings & Merrill.

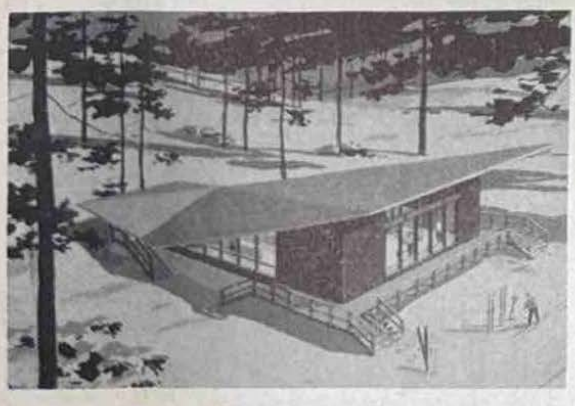




## COMMUNITY FACILITIES SECTION

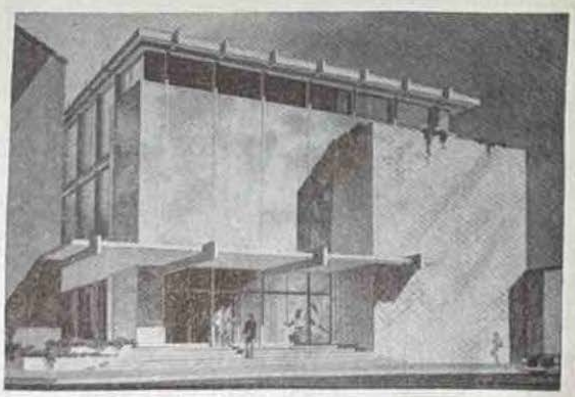
of Aloha Village Mobile Home Park in Albuquerque will provide lounge, recreation hall, kitchen and toilets shown at right and bathhouse, coin operated laundry facilities and mechanical space at left, along with swimming and wading pools, shuffleboard and horseshoe courts. Total project, representing $1 million investment, will encompass some 400 lots averaging 3,500 sq. ft. each; paved streets, curbs and gutters; paved carports and patios; and landscaping throughout 47 acres, including 20-ft. buffer zones on perimeter for privacy. Architects-engineers: Brittelle-Ginner & Dekker.

# PROJECT PREVIEW



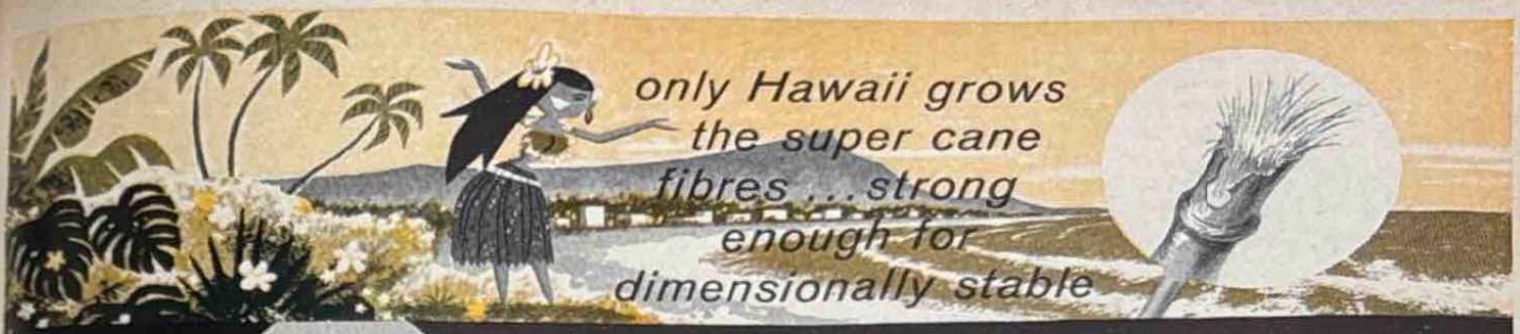
## DATA PROCESSING CENTER

will have large glazed wall areas surrounded by porch to allow spectators to observe operation of IBM electronic computer as it calculates scores, prints results and prepares teletype tapes on second-to-second basis during Olympic Winter Games in Squaw Valley, Calif. Exterior will be redwood. Associated architects: Corlett & Spackman, Kitchen & Hunt, in collaboration with Eliot Noyes & Associates.



## FRATERNAL HEADQUARTERS

for Elks Ventura (Calif.) Lodge No. 1430 will be precast concrete, four-story structure, costing about $500,000. Main floor will be devoted to banquet room, with eight-lane bowling alley below; top floors will house professional offices. Balcony at rear will have outdoor barbecue facilities for large gatherings. City lot behind building will provide parking. Architect: Fred Hummel.




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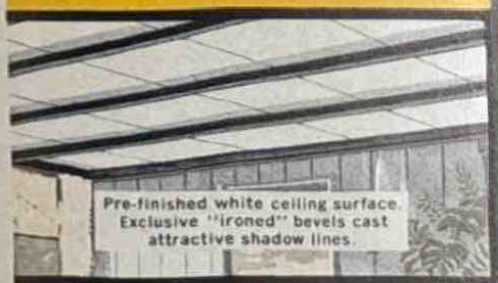
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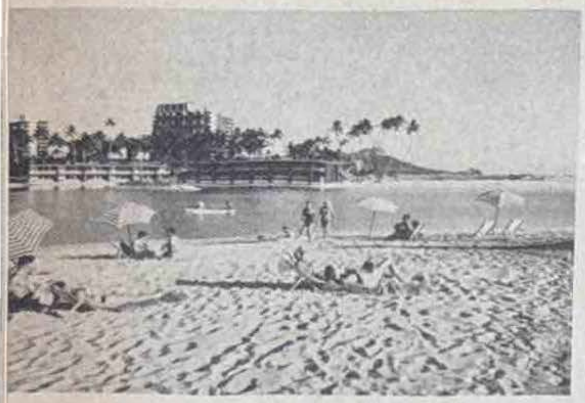
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**The case for the regional meeting was vividly demonstrated last month as the California, Northwest and Western Mountain districts of the American Institute of Architects all staged unusually successful conferences, each personally reported by a staff member of Pacific Architect & Builder**

# Three AIA



**ON WAIKIKI BEACH** with Hawaiian Village complex across lagoon.

## WELLSPRINGS OF DESIGN:

The first Pacific Rim Conference drew its theme from the "Wellsprings of Design" and tapped a very rich source indeed in the six speakers who analyzed the physical, social and cultural factors which influence architecture. The October 7-14 meeting served as the annual convention of the California Council and its companion Women's Architectural League.

Close to 400 Californians, including exhibitors and guests, were joined by the host Hawaiian delegation and a handful of representatives from several other states, British Columbia, Japan and Australia. The temptation to play hooky from the four morning professional sessions was intensified by Waikiki Beach weather that would make even travel agents drool, but the architects chalked up a respectable attendance record.

The program was noteworthy for its continuity, as was the case in last year's meeting in Monterey, and for its balance of architectural and non-architectural speakers. On occasion several of the participants became so involved with semantics that the audience was brought back momen-



**ACTION** in Davenport Hotel lobby as Bill Holm of Seattle carves totem pole.

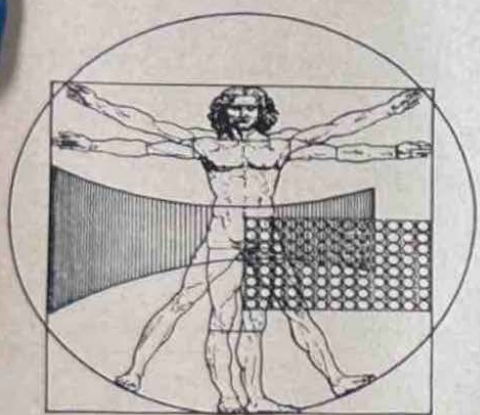
## ARCHITECTURE IN ACTION:

Theme of the eighth annual regional conference of the Northwest District held in Spokane's Davenport Hotel October 8-11 was "Architecture in Action"—and action was the motive as exemplified in the many-faceted events occurring during this stimulating deviation from previous AIA gatherings.

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Adding to the success of this final session was panel moderator and summation speaker John A. Kouwenhoven, professor of English at Barnard College, Columbia University, who jolted his audience a bit when he declared: "Architecture finds less inspiration in the physical, social and

Continued on page 12



**HAWAIIAN CEREMONY** opens first Pacific Rim Conference in Kaiser Dome.

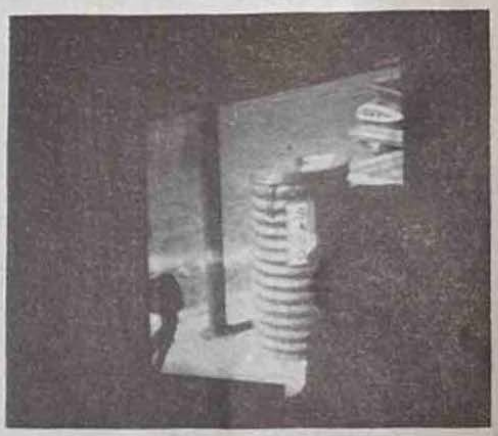
## Spokane

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Continued on page 13



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Continued on page 18



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**The case for the regional meeting was vividly demonstrated last month as the California, Northwest and Western Mountain districts of the American Institute of Architects all staged unusually successful conferences, each personally reported by a staff member of Pacific Architect & Builder**

# Three AIA



**ON WAIKIKI BEACH** with Hawaiian Village complex across lagoon.

## WELLSPRINGS OF DESIGN:

The first Pacific Rim Conference drew its theme from the "Wellsprings of Design" and tapped a very rich source indeed in the six speakers who analyzed the physical, social and cultural factors which influence architecture. The October 7-14 meeting served as the annual convention of the California Council and its companion Women's Architectural League.

Close to 400 Californians, including exhibitors and guests, were joined by the host Hawaiian delegation and a handful of representatives from several other states, British Columbia, Japan and Australia. The temptation to play hooky from the four morning professional sessions was intensified by Waikiki Beach weather that would make even travel agents drool, but the architects chalked up a respectable attendance record.

The program was noteworthy for its continuity, as was the case in last year's meeting in Monterey, and for its balance of architectural and non-architectural speakers. On occasion several of the participants became so involved with semantics that the audience was brought back momen-



**ACTION** in Davenport Hotel lobby as Bill Holm of Seattle carves totem pole.

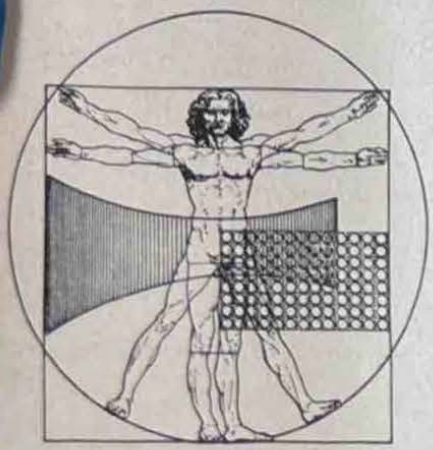
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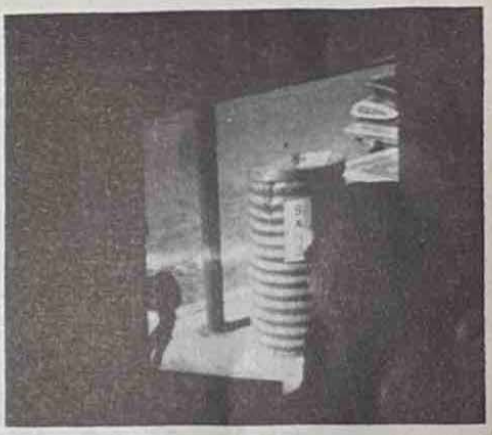
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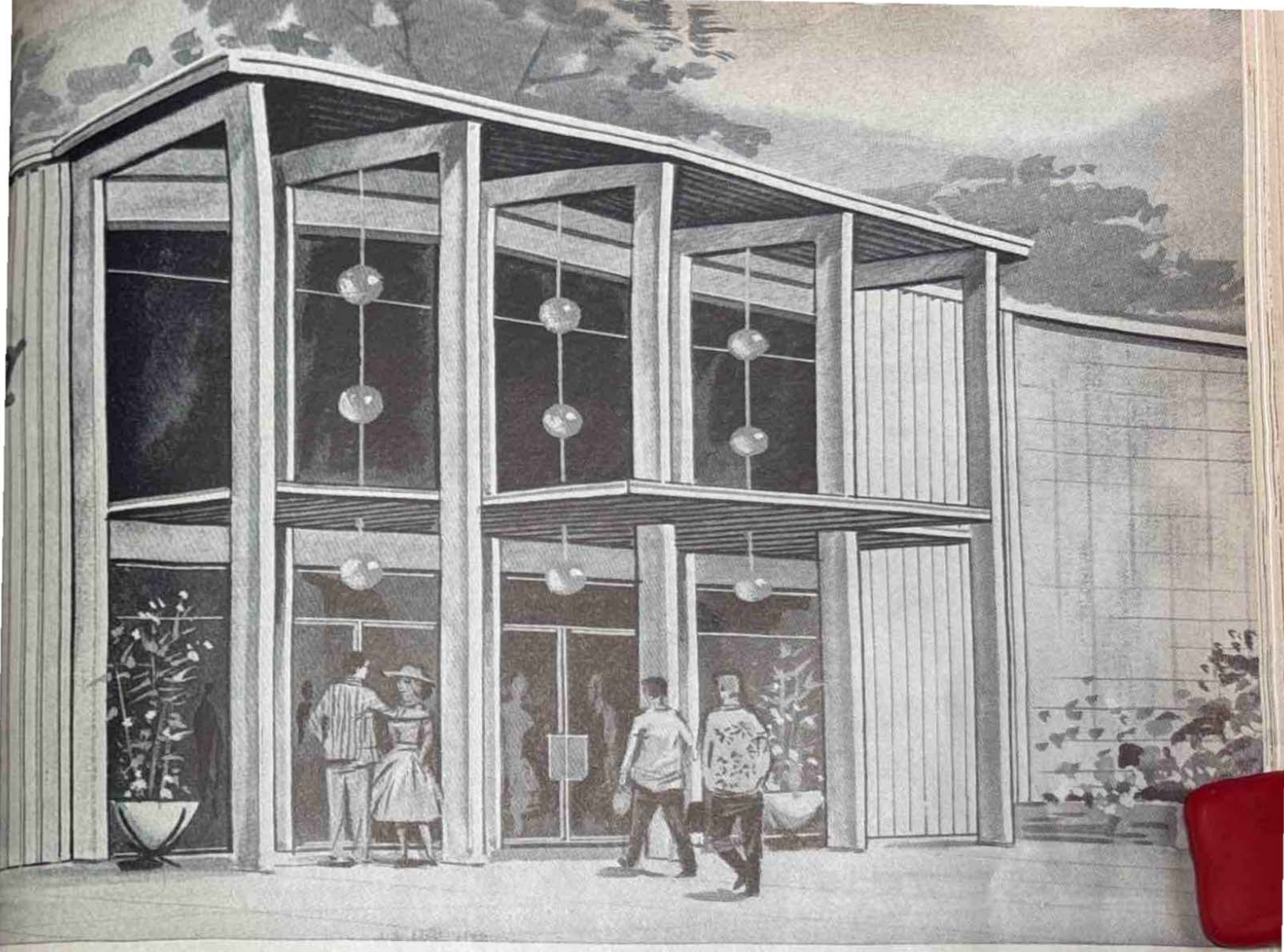
**FOR MORE INFORMATION:** Write for your free copy of "*Steel for Commercial and Industrial Buildings*". This booklet provides steel application ideas, specification data, and advice on the maintenance and painting of steel. Write: Dept. PAN United States Steel Corporation, Columbia-Geneva Division, 120 Montgomery Street, San Francisco 6, Calif.

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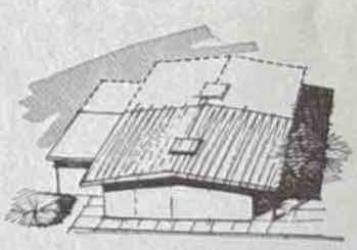
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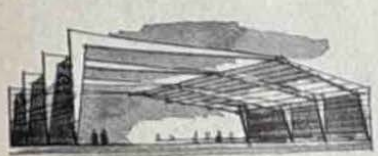
## GREATER SAVINGS

It takes less manpower, less time to erect steel buildings. Pre-engineered structural systems and panels of steel enclose buildings faster—cost less than other construction methods. And when the building is completed, you'll enjoy additional saving on maintenance costs as well!



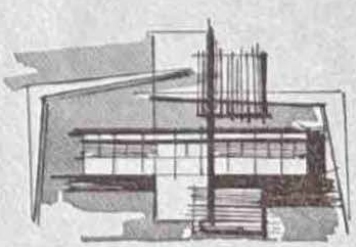
## EASY EXPANSION

Adding more area to your existing plant is easy and economical. Precision-made steel components fit perfectly, and cut remodeling time in the bargain. Existing walls can be repositioned with no loss of material and expansion potential is limited only by your property lines.



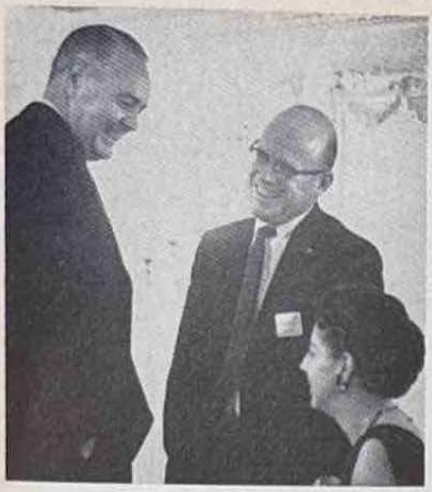
## BONUS SPACE

Post-free clear spans provide maximum overhead clearance and complete flexibility in planning—100% utilization of interior space! In industrial buildings chain hoists may be mounted directly to roof beams, while uncluttered floor area below allows free movement of equipment.



## LIFETIME BEAUTY

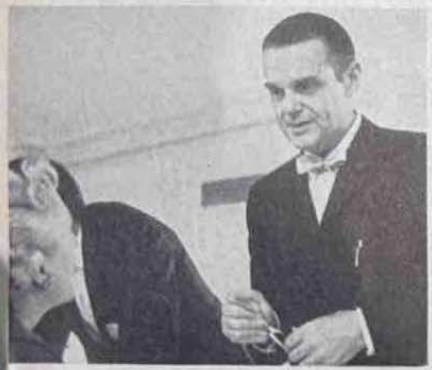
Architects are opening new design frontiers with steel, using versatile, pre-engineered structual systems—shapes, plates, bars and sheets of USS steel. Handsome buildings may be created in steel—or in tasteful combination with the contrasting textures of other building materials.



**CONFERENCE CHAIRMAN** Keith Boyington (center) of Spokane enjoys chuckle with local Mayor and Mrs. F. Gaines Sutherlin.



**SCHOLARLY** Albert Bush-Brown of MIT and Kenneth W. Brooks, host chapter president.



**CONTROVERSIAL** Charles Eames, California designer, and Nancy Davidson of Sunset.



**REGIONAL DIRECTOR** Harry C. Weller (at podium) of Washington State University and Joseph Watterson of AIA Journal.

## Architecture in action: Spokane (Cont'd from p. 9)

best known for his furniture, whose rare and often controversial patterns of thought stimulated albeit at times frustrated his listeners. An authority on arts and crafts, Gervais Reed, director of the Henry Art Gallery in Seattle, did double duty as speaker on one occasion and as panel moderator at another, developing the recurring "Art in Architecture" theme. Joseph Watterson, editor of the AIA Journal, discussed the influence of words on architecture.

### 'Fractured' buildings

The importance of social planning, of composition and continuity, of adherence to the three architectural forms—space, planes and masses—was stressed by Bush-Brown. The bulk of his address consisted of a critical analysis which accompanied the slide showing of worldwide buildings.

"Are we starting too soon with form instead of social structure?" questioned the speaker. "The architect must serve the needs of his client as well as create a design that will follow an overall pattern to fit into the social structure. Architectural form comes after social planning has been completed."

Bush-Brown did not hold back biting criticism of some of the modern "fractured" buildings designed by the profession. He showed boxlike structures of glass and metal that attract unwanted heat and glare; wall extensions that go no place; roofs that offend the eye as well as the purpose for which they are intended; corners that destroy beauty and neglect the precept of right angles. "Too many structures," he declared, "fail to obey the architectural form of space. There are no rhythmical cadences in planes and masses; no continuity, no composition, no beauty, no 'delight,' as Yamasaki puts it."

For too long a time, he continued, the principles of coherence, balance, scale, consonance, rhythm, transition and texture have been neglected.

### Craftsmen and architects

"Essentially, craftsmanship is not original and its problems are not new," said Eames. The craftsman stands out by the skill with which he solves his difficulties. He is called upon to carry the ball by developing the culture of society. The art of the crafts is sorely needed and its present place in the community has come only soon enough.

Architecture began, Eames continued, when man had concern for the next larger and the next smaller thing, for architecture deals with problems relating to our needs. "The architect must involve himself in real things; he must trust himself; he must have values, a sense of controlled quality and identity with the government and community."

Eames startled his audience when he stated that Russia has "leapfrogged" over American architecture, explaining that the stage in which the latter finds itself today was skipped by the Soviets. They have gone beyond us in that they plan for future programs of the government and community.

Eames chided the architects for their lack of self-expression and originality and for their concern for the unessential. First things should be seen first, he added.



**SPEAKER AND MODERATOR** Gervais Reed of Seattle's Henry Art Gallery.

### Artist comes out of museum

Reed's talk on the arts and crafts illustrated the tie between WACA's exhibits and the conference theme. He pointed out that "the current art boom has brought the artist out of the museum and into public cognizance."

The governmental tendency to exclude art is offset by private capital's increasing use of sculpture, murals, fountains and other art forms, as an integral part of the planning, he said. "Self-confidence is being expressed today; we can afford to seek beauty."

### Words, words, words

From the early days when a newly captured bride in the caves of northern Spain or southern France told her husband to modernize this "dismal hole in the rocks," on to the era of Rome where words provoked the building of temples, and from there up to the present time, the written and spoken thought has prompted the deed, said Watterson.

Still alluding to words, he maintained that architectural information should be passed on. "A problem is solved, a difficulty is encountered, a successful new method is discovered—these should be shared by architects, these should be published so that all can benefit. True progress is by group coordination, by the pooling of resources."

Three seminars provided additional ideas for discussion and later consideration. "The Client in Action" was moderated by Spokane architect Carroll Martell, with panelists W. L.



**AUCTIONEER** Harold Balazs, Spokane artist, does his stuff as displayed arts and crafts go to highest bidders on Saturday night.

Thraikill, vice president of Washington Water Power Co.; Arnold C. Tjomsland, director, school plant facilities, State of Washington; and Proctor H. Barnett, general manager of investments, Prudential Insurance Co. Taking the part of a mythical corporation contemplating a building project, the group covered the selection of an architect, the architect-client relationship and procedures in awarding a construction contract.

Participants in "How to Purchase Art in Architecture," conducted by Reed, were C. Bagley Wright and Norman Warsinske, Seattle artists; Harold Balazs, Spokane artist; and Royal McClure, Spokane architect. They discussed how the artist and the architect can make contact and what methods can be used in blending ideas.

The final seminar was devoted to a "Critique of Conferences," moderated by Watterson, with a panel of magazine editors.

A series of slide sessions on Northwest architecture featured critical comments by T. J. Pritchard, head of the department of architecture, University of Idaho; Walter Gordon, dean of the School of Architecture and Allied Arts, University of Oregon; Paul Kirk, Seattle; and H. C. Whitehouse, Spokane, both newly elected fellows; Bruce Walker, Spokane; and Crutcher.

Elected to serve on the Northwest judiciary committee were Philip E. Keene of Pullman for the three-year term and Kenneth L. Morin of Eugene for the one-year term.

The Idaho Chapter will host next year's conference at Sun Valley October 1-5 under the chairmanship of Glen E. Cline of Boise. Its temporary title: "Having a Good Time with Architecture."

—Dorothy F. McCormick

## Wellsprings of design: Honolulu (Cont'd from p. 9)

cultural wellsprings than in the work of other architects, living and dead."

### Physical wellsprings

The effects of the natural elements on Pacific Rim architecture were considered by Dr. Paul A. Siple, explorer, geographer and climatologist, best known for his work in the Polar areas, and by Harry Seckel, architect who moved his practice from New York to Honolulu in 1950.

Dr. Siple emphasized the points that man's struggle to control his environment developed civilization and that the physical environment, particularly weather extremes, has had a tremendous influence on design. In his quest to control this environment, man has retreated to artificial solutions (i.e., the box), or attempted to build structures which respond to climatic conditions. He warned, however, that "when a design is transplanted to a wrong environment, it is not beauty."

The space age, Dr. Siple continued, brings with it a complete new set of physical factors which impose new design demands, including zero gravity; artificial atmosphere; conservation and reuse of water; minimum space; lethal radiation and solar glare; movement and positioning; high gravity acceleration and impact.

"Man's response to physical factors was undoubtedly the fountainhead or artesian well of design of all arts and ethnic cultures in the primitive stages of humanity," Dr. Siple said in his concluding remarks. "As civilization matured and travel and communications caused intermingling of cultural ideas and social concepts, the contribution of physical factors to the development design became a basic reservoir. Furthermore, as new materials, tools and processes, along with artificial environments, could be synthesized, design no longer needed to fully reveal its direct response to each and every natural environment. Nevertheless, the impact of physical factors is still and always will be a major unwelling source of new design ideas."

Seckel began his probing observations on environmental architecture by making the obvious comment that Hawaii's setting calls for a special type of design. "But if we consider the total picture, the buildings do not respond to the environment."

The most important reason for this, according to Seckel, is the absence of compelling pressures of climate. He also cited the fact that the Islands' social-cultural pattern stems from colder climates or what he referred to as "harsh-weather living."

The architect called upon his Hawaii colleagues to assume leadership in this matter even though many factors are working against an "open"—and appropriate—architecture. Clients are not opposed in principle to this type of design, he explained, "but the advantages can be visualized only in terms of your own experience."

Before leaving the podium, Seckel made it clear that his indictment of the inappropriateness of architecture in Hawaii also applied to California and that the latter's contribution to



**PRESIDENTS ALL:** Douglas Freeth of Honolulu, Hawaii Chapter; John Noble Richards of Toledo, national AIA; and Lee B. Kline of Los Angeles, California Council.



**KEYNOTER** Sir Leslie Munro, New Zealand's permanent representative to UN, gets traditional Hawaiian welcome.



**AT GOVERNOR'S RECEPTION:** Hawaii's William F. Quinn is flanked by Mr. and Mrs. Robert H. Skinner of Beverly Hills.



**REGIONAL DIRECTOR** Ulysses F. Rible of Los Angeles.



**HAPPY FOURSOME:** Mrs. With, speaker Dr. Karl With of UCLA, national AIA President Richards and conference chairman John W. Kruse of San Francisco.





**PROGRAM PARTICIPANTS:** (above) explorer Dr. Siple, Robert E. Alexander (moderator) of Los Angeles, educator John A. Kouwenhoven, Mexican architect Carlos Contreras, George Vernon Russell (moderator) of Los Angeles and Honolulu architect Harry W. Seckel; (left, above) Australian architect Robin Boyd and (below) Dr. Wendell Bell of UCLA.

environmental living is only "a modest beginning."

### Social wellsprings

Dr. Wendell Bell, associate professor of sociology and anthropology at the University of California, Los Angeles, and Carlos Contreras, Mexican architect, in examining the second aspect of the overall theme presented the case of the human being: the influences of man's nature and his social relationships on design.

After opening with what amounted to a review of "Introduction to Sociology"—an outline of social needs, tools of action, analysis of social organizations, etc.—, Dr. Bell posed these two questions:

1. Have we addressed ourselves to the particular problems and hopes of the masses, the common people, in the underdeveloped countries (In this context he used the term "relative deprivation.")
2. To what extent have architects concerned themselves with design for the lower classes?

In reference to the latter question, Dr. Bell pointed out that early buildings were controlled by the top social classes and that the "social wellsprings of design consisted of a small segment of the total population." He acknowledged the fact that this situation is changing although not quickly enough. He cited the corporation project, for example, in which the "blue collar" workers are vitally involved, but whose decisions count least; and as for private residences, "most people live in houses not meant for them."

Summarizing his thesis, Dr. Bell declared: "It appears that those deep social wellsprings of design are not always manifest in the architecture of the modern world, that many challenging social needs are seldom considered. These may be found among the aspiring people of the underdeveloped countries of the world and among the striving, lower classes of the urban-industrial societies."

That many of his listeners challenged his line of thought was evident at the summation seminar when Dr. Bell reported on what he called his "participant-observation findings" which he had gathered during the course of the conference. Among the ideas expressed by some of the architects: they are attempting to meet the needs of the lower social classes; they can be selective in their clients; they can persuade and influence their clients; they can assume leadership roles in public affairs; if they do exert more power, there is the accompanying danger of increased responsibility.

Contreras, an honorary fellow of the AIA whose distinguished career is international in scope, looked at the architectural manifestations of sociological factors. His slide presentation was the subtle but penetrating kind of exposition that virtually transcends translation to the written page. He is a man who openly admits his love for his people—"sturdy and humble, resisting the forces of nature; . . . craftsmen who blow their soul into their glass."

The architect maintained that the design profession in Mexico today looks at architecture as either 1) "a science based on statistics" or 2) "an art or at least a science technically applied to art." He spelled out the significant impact that architects are exerting on the public scene, even on the political level, explaining that they have become imbued with wanting a part in meeting the social problems of the people. Nevertheless, "the individual and collective needs of two-thirds of the Mexican population are the same as several centuries ago and are not being satisfied today."

In pausing to consider the University of Mexico, he referred to one building that "functionally doesn't function"; to the library which he feels is one of the most successful projects on the campus; and to another structure so long that students can scarcely get from one end to the other between classes.

Contreras expressed concern over the "mass production" methods at the university where architectural students are housed in eight schools because of the huge enrollment. "We have to find ways to seek discipline," he admonished, adding that he hoped that the small percentage of students who complete their training "will give Mexico a new 20th century Baroque."

### Cultural wellsprings

The third and final aspect of the conference theme was covered by Dr. Karl With, professor of art history at UCLA, and by Robin Boyd, Australian architect who is also well known as an author and speaker.

"Man himself is a wellspring of design," said Dr. With who, through his high-level definitions of terms and ideas, often lost contact with his audience. Exploring the misconceptions which surround culture and design or art, he touched on the "pseudo-problems" or conflicts between the 1) finer and minor arts, 2) functional and beautiful, 3) utilitarian and non-utilitarian, 4) producer and consumer (artist and society).

But there is "no distinction between culture and art," Dr. With declared, outlining the functions of usefulness, of appeal, of symbolism, of expression. "Art is a gigantic record of mankind, a deep well of visual delight, . . . a

### THREE CITATIONS

The California Council presented its highest honor, the Distinguished Service Citation to:

- L. F. Richards, Santa Clara, "for devoted service to the architectural profession as president of the California Council, AIA, throughout 1958."
- Laurence W. Lane, Menlo Park, who "as publisher of Sunset magazine has made significant contribution to the public's general understanding of the role of the architectural profession in providing the best in residential design for the western United States."
- John D. Entenza, Los Angeles, "for outstanding service to the architectural profession in California as editor of Arts & Architecture magazine."

# KAISER STRUCTURAL GYPSUM ROOF DECK

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Here's dramatic proof of the flexibility of Kaiser Structural Gypsum roof deck systems. Curved, sloped or flat surfaces are finished faster, thanks to the time-saving techniques used in Kaiser's poured gypsum roof decks. You gain materially increased erection speed, plus lower initial costs. In addition, Kaiser Gypsum poured roof deck imparts fire resistance, and low maintenance costs to commercial and industrial roofs. Contact your nearest Kaiser Gypsum office for design and engineering assistance on your next gypsum roof deck job. Erection phase, lunch shelter, Costa Mesa High School.

Architects: Lind, Pleger, Bluerock and Hougan.
Applicating Contractor: Alta-Fraser-Edwards Co.

KAISER GYPSUM



**KAISER GYPSUM COMPANY, INC.** Kaiser Building–1924 Broadway, Oakland, Calif.



**NIGHT IN ORIENT BANQUET,** one of several gala affairs on social program.

two-headed thing embracing the past and the present." He referred to "modern" as "the creative moment between yesterday and tomorrow."

Boyd, who writes a weekly column to interpret architecture to Australian laymen, began his cultural analysis by asking this question: what is the nature of the continuing essence of good building; what is architecture? And he concluded by saying that the "search for reality is the most vital wellspring of design."

He commented that "international architecture is in a mess or to use a more popular term, in a state of flux or crisis" and that "the Pacific is a wellspring of technology rather than philosophy . . . not an incubator but a chicken already hatched."

Architecture is the art of order—"total order in the coherent pattern of mankind," Boyd continued, but the profession lacks order today. This prompted another question: can we define order? There is never any consistency in the appreciation of architecture, but the various "schools can meet under one roof if the eaves are wide enough." He added this note of caution: "Architecture will remain esoteric as long as its canons are not implicitly stated."

Boyd's address was punctuated with a number of provocative statements. Among them:

- Visual delight is the third leg of the architectural tripod and the pleasing effect of the whole is the keynote.
- Today's architect is having fun with proportional ratios, such as the hyperbolic paraboloid which entertains the armchair engineer in all of us.
- Architectural envelopes (i.e., bubbles and domes) can be true to themselves; the architect's aim is to accept the naked truth even when droll.
- Reality is denied when you deny regional differences and thus the fine art of architecture should accept differences and express regionalism.
- Giftwrappings to reality may be demanded by the client.
- To deny reality for a moment is to start down the slippery road of ridicule of architecture.

### Summation

"It is architecture itself which inspires architecture," said Kouwenhoven, author of the widely discussed "Made in America," as the concluding speaker. "Artists respond to other art rather than to life."

Kouwenhoven related how in his college days he composed a romantic piece of poetry which he thought was inspired by his new love. Upon coming across the poem in later years, he became aware that the inspiration had sprung not from the girl at all but from Keats. This episode, he cautioned, has a moral for architects.

Somewhere along the line there has to be a first building, a first solution, he admitted, but "once the formal solution is found, it will be repeated and the better the solution, the more it will be repeated."

The former associate editor of Harper's Magazine referred to a "new epic" in architecture which destroys traditions of the past—an era of destruction. "No art can survive whose artists do not respond to new environments," he declared. "The architect who ignores the vernacular runs a grave risk."

Finally, he suggested that a good deal of architecture is due to the architectural critics—and he included the publications here—rather than to the architects themselves.

### Keynoter: liberty or bread

Sir Leslie Munro, New Zealand's permanent representative to the United Nations, in his keynote address said: "Not only is the world divided between two philosophies; it is divided between the developed and undeveloped countries. The disparity between these two categories is increasing—to the peril of the West.

"The Communists are using the golden opportunity afforded them of offering aid to the undeveloped countries and of fanning the dissensions which afflict many of them. The West, the United States in particular, is granting generous aid to the undeveloped countries of Africa and Asia. But much more remains to be done if we are to save these countries from the lures and subversions of Communism. If there is a choice between liberty and bread, they are apt to choose bread. The misery and poverty in countries like India has to be seen to be believed."

### Octagon: old refrain

Principal speaker for the Institute, J. Roy Carroll Jr. of Philadelphia, newly elected secretary, departed from the traditional Octagon address, by saying: "The AIA is not, in my opinion, oversensitive to criticism.

"However, in these past few months it has seemed to me that an inordinate amount of space has been devoted in the press to sometimes beautifully expressed but grossly inaccurate statements regarding the gentlemen of the AIA by at least one teacher of architectural history; in stated editorial policy of at least one professional magazine; and in buckshot criticism of our Institute in the spasmodic publications of a small group of registered architects, at least one of whom implies in these articles that the group is an organization of some kind. The eternal question seems to be, what is the AIA doing for its members?"

Carroll then played the same old record which has been heard at every regional conference in which national AIA officers or staff members have participated.

The California Council will return to Yosemite National Park for its 15th annual convention next year. Headquarters will be Yosemite Lodge and registrants will be housed there, at Ahwahnee Hotel and Camp Curry.

—Robert E. Koehler



**AT SUNSET-AIA AWARDS LUNCHEON:** Raphael S. Soriano, Tiburon; Proctor Mellquist, editor, and William L. Lane of Sunset; L. Harold Whitaker and Frank Slavsky, Honolulu; Roger Lee, Berkeley; Richard N. Dennis, Honolulu; Albert Aronson, representing Wurster, Bernardi & Emmons, San Francisco; Jules E. Brady and Edward A. Killingsworth, Long Beach; Benson Eschenbach, Richmond; Pierre Koenig, Los Angeles; Robert H. Skinner, Beverly Hills; and Worley Wong, San Francisco. Winners in each district were honored at their respective conference.

The news builders have been waiting for!

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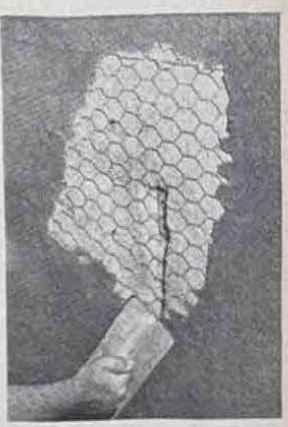
Tilt-up wall construction technique for fast wall assembly with only two men.



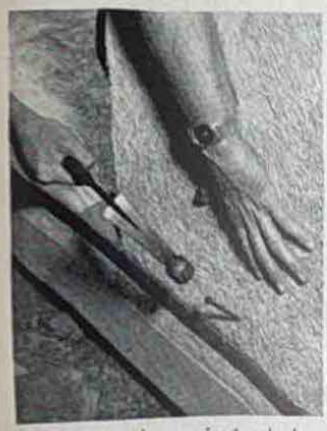
Double bead of Miracle mastic gives joint that is stronger than the Cemex itself.



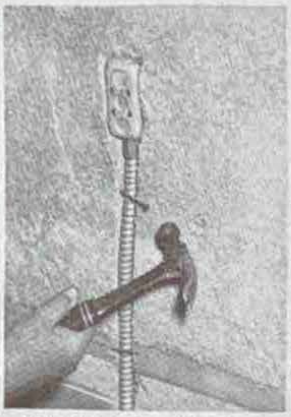
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**KEYNOTER** Dr. Clayton S. White (center) of Lovelace Foundation with W. Miles Brittelle, New Mexico Chapter president, and William E. Burk Jr., convention program and speaker committee chairman, both of Albuquerque.



**DINING COMPANIONS** John Meem of Santa Fe; Earl Reed of Chicago, chairman of AIA committee on preservation of historical buildings; and Maria Martinez, winner of national Craftsmanship Medal in 1954 for her work in pottery.



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## Science in Architecture: Albuquerque (Cont'd from p. 9)

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The first of the three phases dealt with the immediate and desperate needs of man. These are things that can be spelled out, documented, planned and constructed within a three- to five-year period. The only hurdle to accomplishing this goal is financing.

Swinburne's second phase was concerned with the known and foreseeable needs of man and treated the next 15 years. These can be analyzed, projected and planned for, based on correct interpretation of facts and data now available. The hurdles in the way of completing this phase are the need for profound investigation, perservance and conviction of analyses.

The third phase covered the unknown, but probable, needs of man over the next 40 years—to 1999. This program is based on a "rationale of vigorous imagination, shrewd appraisals and conviction of the true value of well-defined objectives." Main hurdles to be overcome are understanding, wisdom and a willingness to stand up under criticism.

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### Architecture and research

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C. H. Topping, senior architectural and civil advisor to E. I. du Pont de Nemours & Co., Inc., pointed out that while great inventions have come in the fields of manufacturing and science, the field of building has lagged behind. Yet, the latter is one of the most important in the country.

Other speakers at the conference spoke in more specific terms on the general theme of relating architecture more to the needs of man in all respects from bomb shelters to psychological effects.

The conference next year will be held in Tucson.

—Ward Lindbeck



IN THE BENJAMIN FRANKLIN SCHOOL, Vancouver, Wash.
Architect: COBURN ACKLEY wisely made use of Gladding, McBean & Co.'s dry press SCR brick in corridors with faces also exposed in class rooms. Partitions also serve as bearing walls.
General Contractor: LARRY O. COLLINS, INC.
Masonry Contractor: PAUL D. PARKER.



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In partition walls, with both sides exposed, Gladding, McBean's SCR dry press brick presents true, unmarred surfaces. No kiln markings on one face as sometimes found on brick made by the stiff mud porcess.

## ENDURING BEAUTY WITH STRENGTH

In addition to their warm, softly glowing colors, capable of a wide variety of attractive shadings, Gladding, McBean's SCR dry press brick has exceptional sturdiness. Interior partitions can support roof beams.

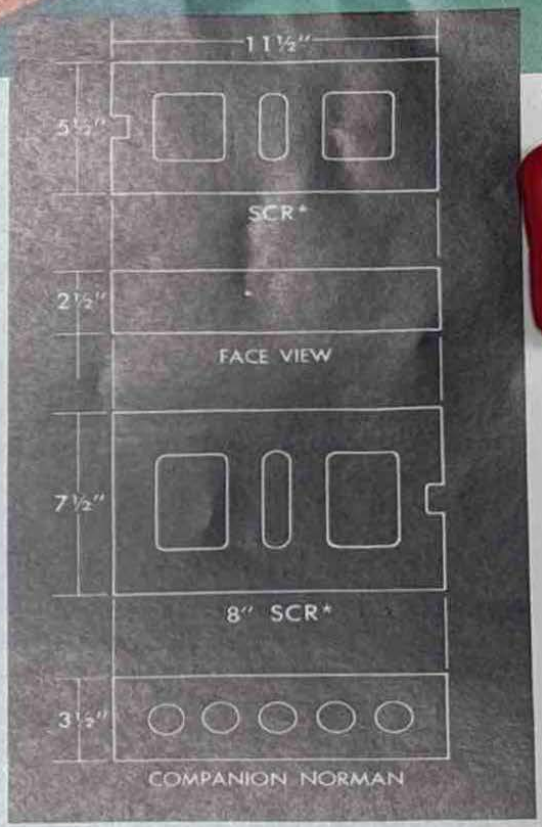
## EASE OF INSTALLATION

Installation is convenience itself. Units are cored with 5 holes, large enough for ⅝ inch reinforcing rods, and electrical conduits. Voids around reinforcing steel are slushed full with grout.

## LOW COST AND MAINTENANCE

For example, total cost of the Benjamin Franklin School job, shown here, was $9.60 per sq. ft. of floor area. The use of Gladding, McBean's SCR dry press brick compares favorably in cost to non-masonry construction — and SCR brick requires little maintenance — no repainting or replastering.

* SCR BRICK T.M. Reg. U.S. Patent Office




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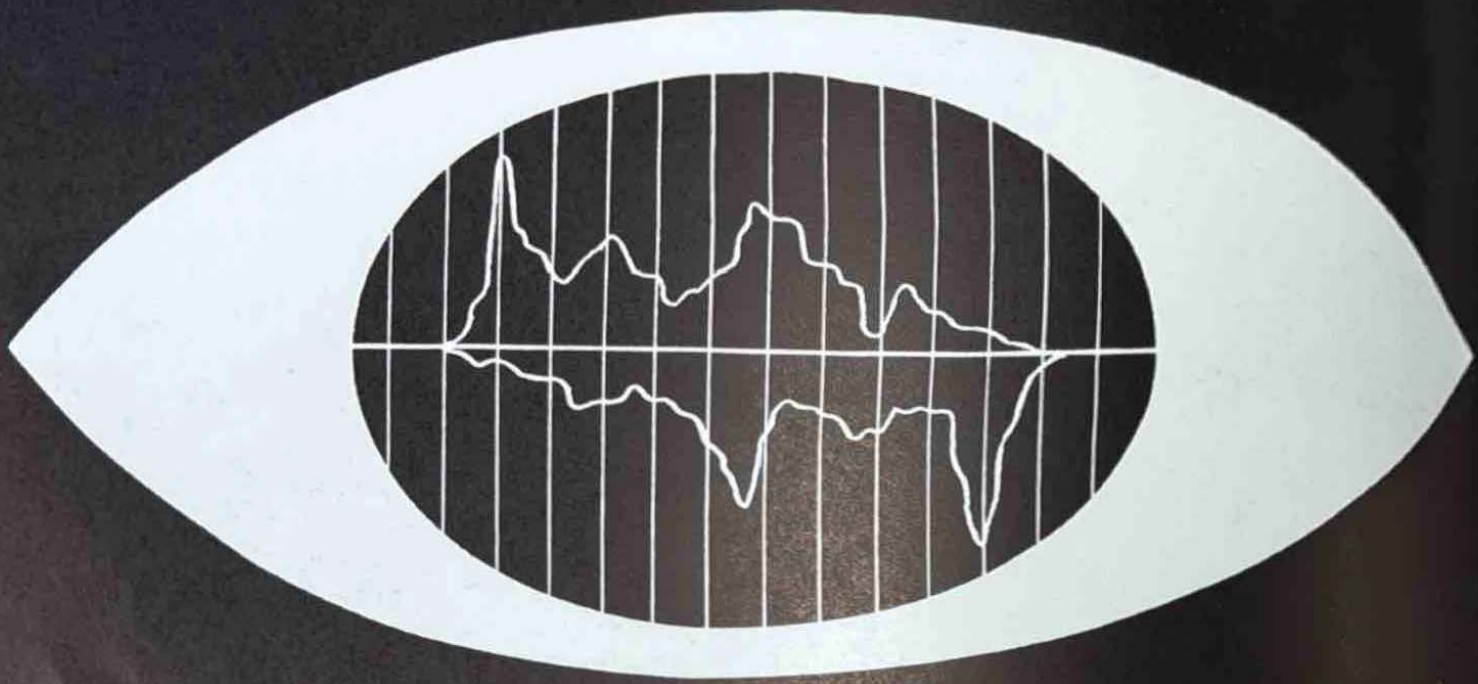
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# Check Up On Elevator Performance...



## Through The Eyes Of HAUGHTON elevonics*

*Haughton's advanced program in elevator systems research and engineering, with specific emphasis on the creative application of electronic devices and instrumentation for betterment of systems design and performance.

Now—elevator performance in any building can be precisely measured under *all* traffic conditions for any predetermined time period. Through our development work in Elevonics*, new instrumentation has been created that "sees" every move an elevator makes . . . and automatically charts a continuous visual record of starts, stops and waiting time.

This information is of incalculable value to evaluate the quality of elevator service. And it provides, for the first time, a truly uncontestable basis for sound corrective action.

This is but one of many ways that Haughton skills and experience are shaping the new technology in vertical transportation . . . and creating superior new standards for design, modernization, maintenance.

Swift, smooth, dependable elevator service is an unfailing source of satisfaction for building occupants, visitors and owners. Be certain *your* elevators are doing the best possible job. Ask your Haughton representative to let you see them in action—through the eyes of Haughton Elevonics.




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FACTORY BRANCHES TO SERVE YOU COAST TO COAST



1

Charles R. Pearson

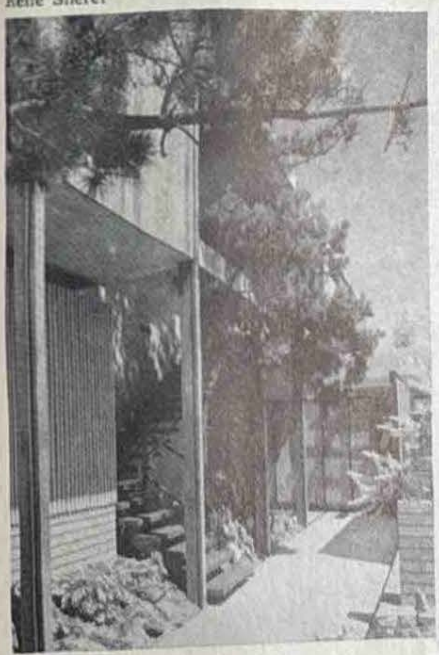
Art Hupy



2

# Three small apartment houses: three honest statements

Rene Sheret



3

LIVING IN AN URBAN ENVIRONMENT can be pleasant and rewarding. Essential to achieving these satisfactions is privacy within the individual units extending to and including the out-of-door areas.

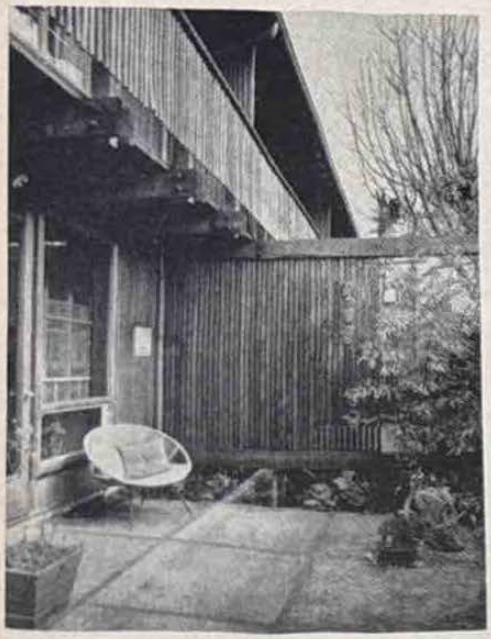
This month, three examples of apartment projects—in Seattle, Portland and Culver City, Calif.—are shown. And all three recognize the basic requisites for good urban environment:

- They provide a bit of garden terrace or balcony that the tenant can call his own;
- They provide a modulation of interior living space from one area to another. (No. 1 has a vertical play of space; in Nos. 2 and 3 it flows horizontally.)

Such examples are particularly outstanding when contrasted with the thousands of "rabbit warren" units being erected in our cities today.

*—A. O. Bumgardner*

1. Seattle, Washington

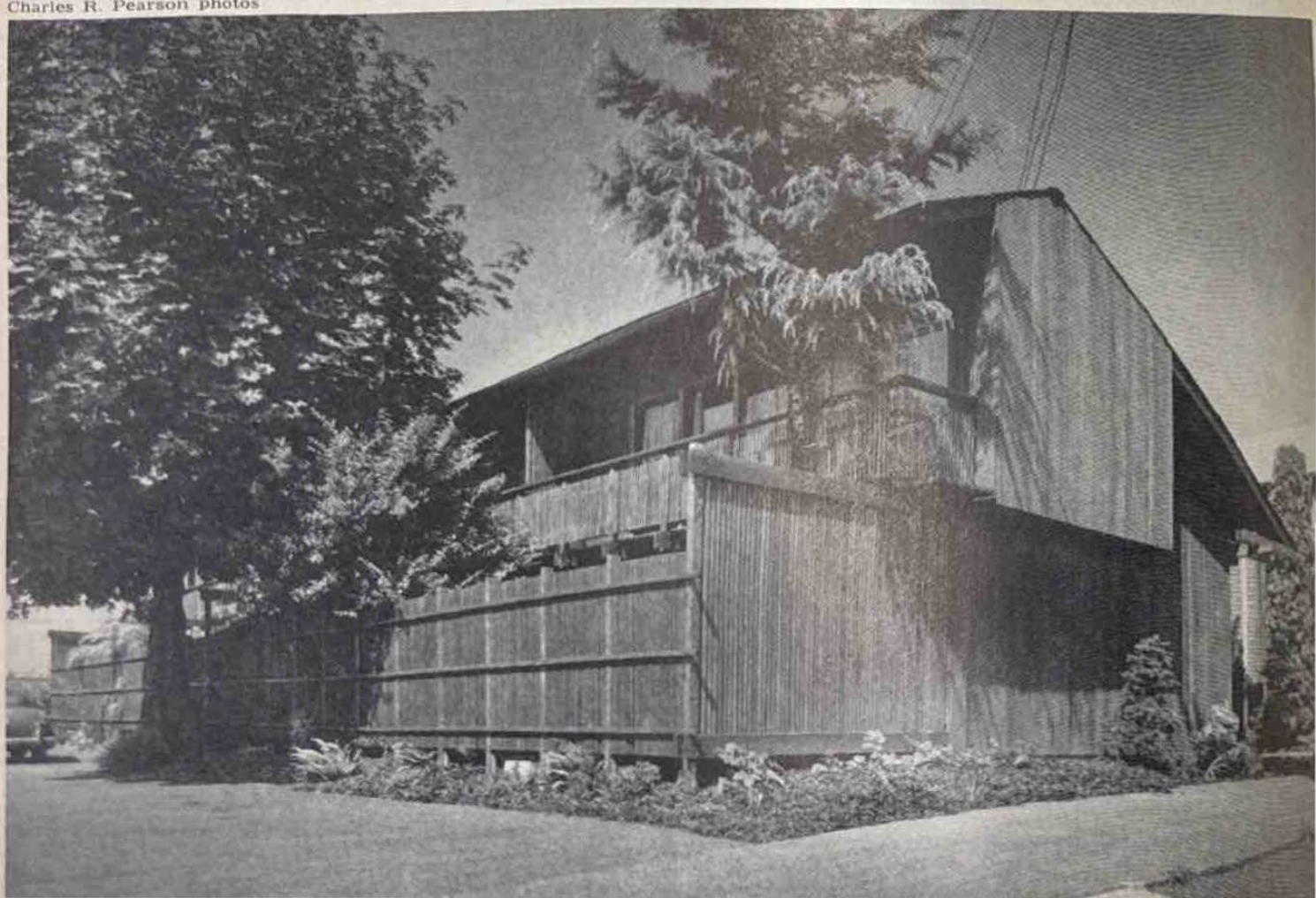


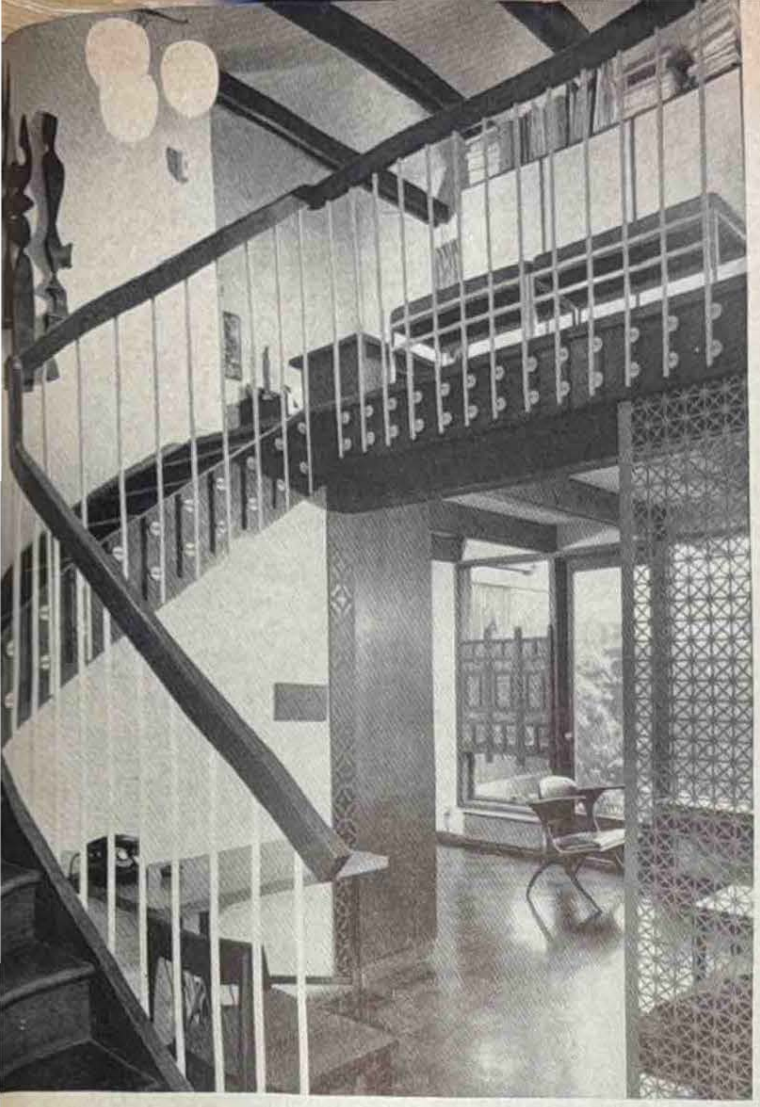
RALPH D. ANDERSON
Architect

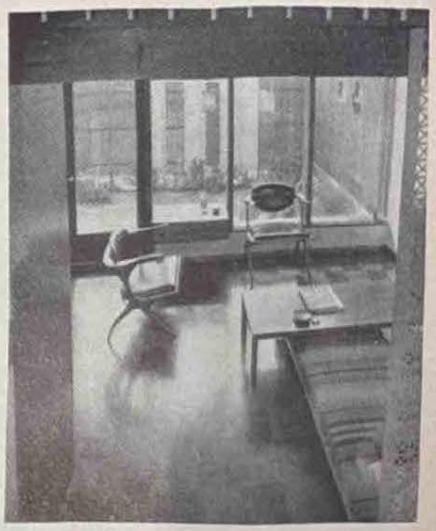
EVERT V. SODERGREN
General Contractor

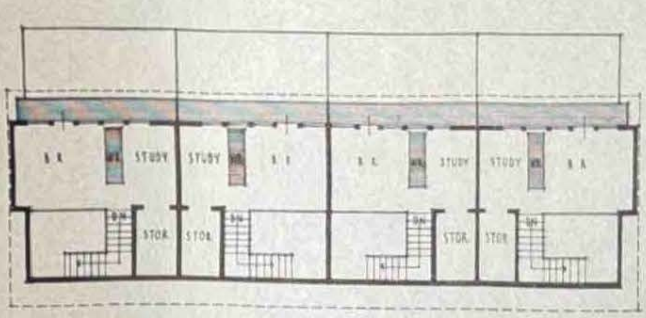
TO OFFSET a problem-sized site allowing only a 25-ft. wide building, the architect designed two-story units with kitchen, living room and bath on first floor and bedroom, study and storage above. Feeling of spaciousness, despite confinements of lot, was created by an open design and the addition of small private patios for each unit from the lower level and balconies off the bedrooms on the upper level. The site has good sun exposure but not a very pleasant outlook, requiring that the interest be achieved in the courts themselves. Fencing and landscaping afford sun protection. A considerable share of the success of these apartments is due to the owner-builder, whose craftsmanship is seen in the fine detailing of the handrails (across page and on cover) executed in apitong and in the mahogany cabinetwork.

Charles R. Pearson photos

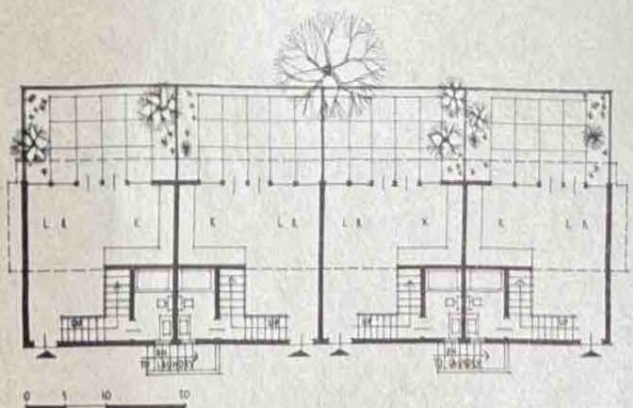









UPPER FLOOR



GROUND FLOOR

## OUTLINE SPECIFICATIONS

**Structure:** foundation: concrete; frame: 2x4 fir; floors: concrete and wood.

**Exterior Finish:** cedar.

**Roof Surfacing:** red shingles.

**Windows:** custom designed wood.

**Doors:** slab mahogany.

**Floor Surfacing:** asphalt tile—Armstrong Cork Co.

**Insulation:** rigid—Owens-Corning Fiberglas Corp.

**Interior Finish:** painted plasterboard—Kaiser Gypsum Co.

**Ceilings:** plasterboard—Kaiser Gypsum Co.

**Lighting Fixtures:** custom designed incandescent.

**Heating:** electric.

**Plumbing and Sanitary:** American-Standard.

**Total Area:** 2,266 sq. ft.

**Total Cost:** $28,000.

**Cost per Square Foot:** $13 (including patio, fences and balcony).

**Date of Completion:** February 1953.



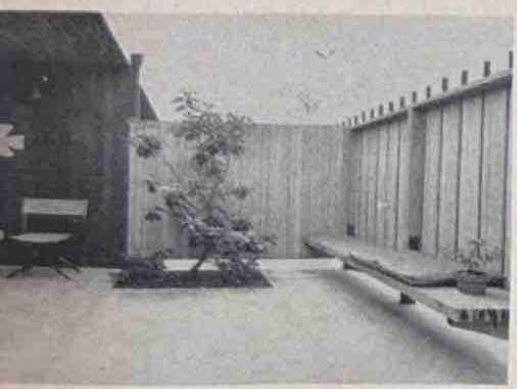
Art Hupy photos

2. Portland, Oregon

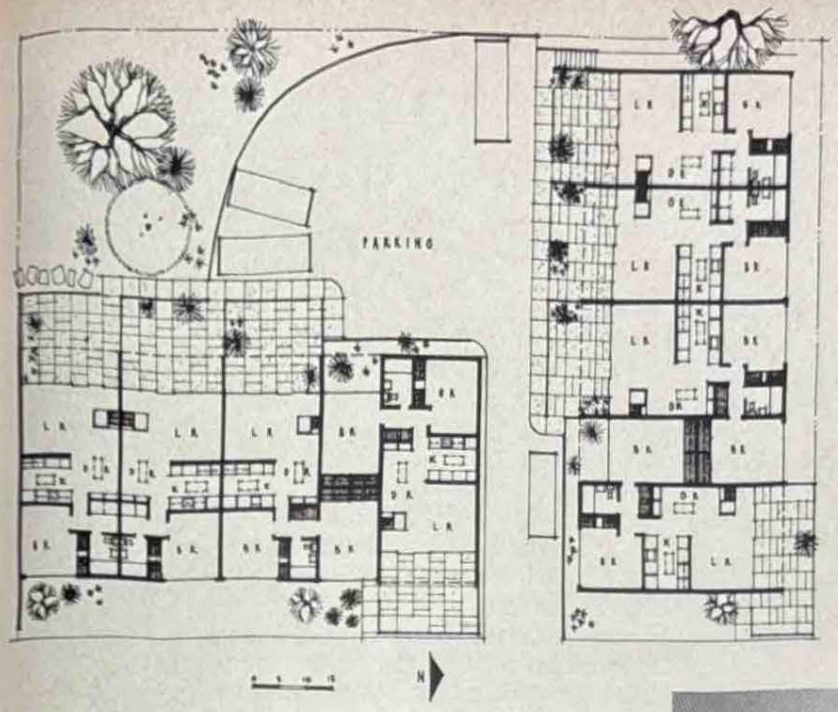
•

JOHN W. REESE, DONALD BLAIR
and SAUL ZAIK
Architects

T. K. WELCH
General Contractor



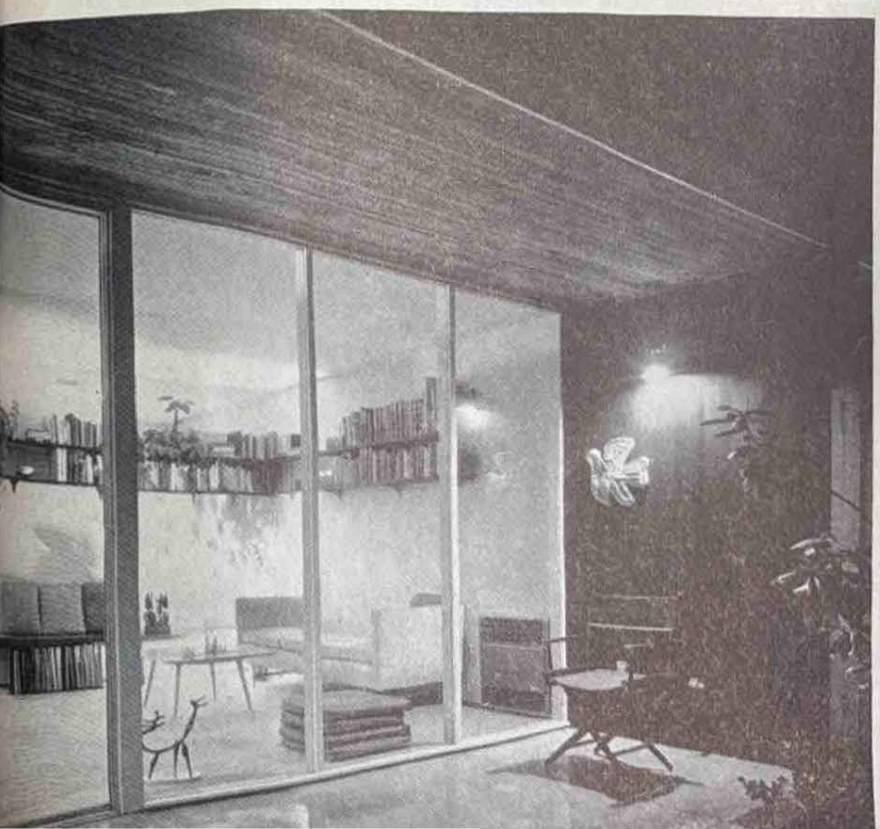
ACHIEVING a good living environment in an undesirable industrial area, selected primarily for economic reasons, was the main problem in planning these companion four-plex apartment buildings, both with an equal number of one- and two-bedroom units. This was solved by emphasizing the interior design and creating the desired views within each court. To hold costs down to $8,000 per unit, a simple structural form and inexpensive materials were utilized. Rooms were so arranged that a core of two bedrooms could be placed between two basic one-bedroom units (one of which is reversed), thus expanding each to two bedrooms. Sculptural work executed by Manuel Isquerdo enriches the plain surfaces and suggests the buildings' use. Owner George T. Dussin now is adding another 10 units to the west, along with a swimming pool.




## OUTLINE SPECIFICATIONS

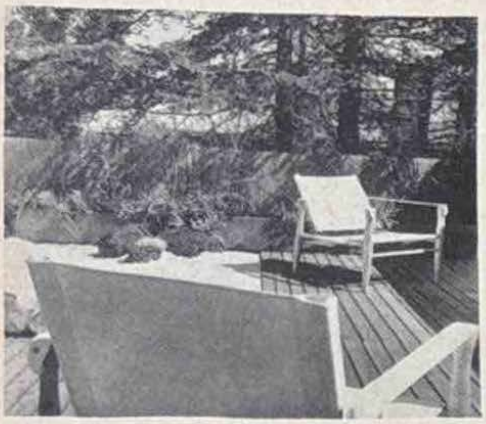
**Structure:** foundation: concrete pier; walls: poured concrete; floors: wood.
**Exterior Finish:** 1x4 t&g cedar and vertical grain fir.
**Windows:** wood and aluminum.
**Floor Surfacing:** hardwood oak.
**Interior Finish:** gypsum board and 1x4 t&g cedar.
**Cabinets:** vertical grain fir.
**Ceilings:** drywall.
**Insulation:** batts in ceiling and sound walls.
**Heating System:** electric.
**Total Area:** 3,268 sq. ft. each building.
**Total Cost:** $64,000 (including fencing and patios).
**Cost per Square Foot:** $11.35.
**Date of Completion:** June 1958.





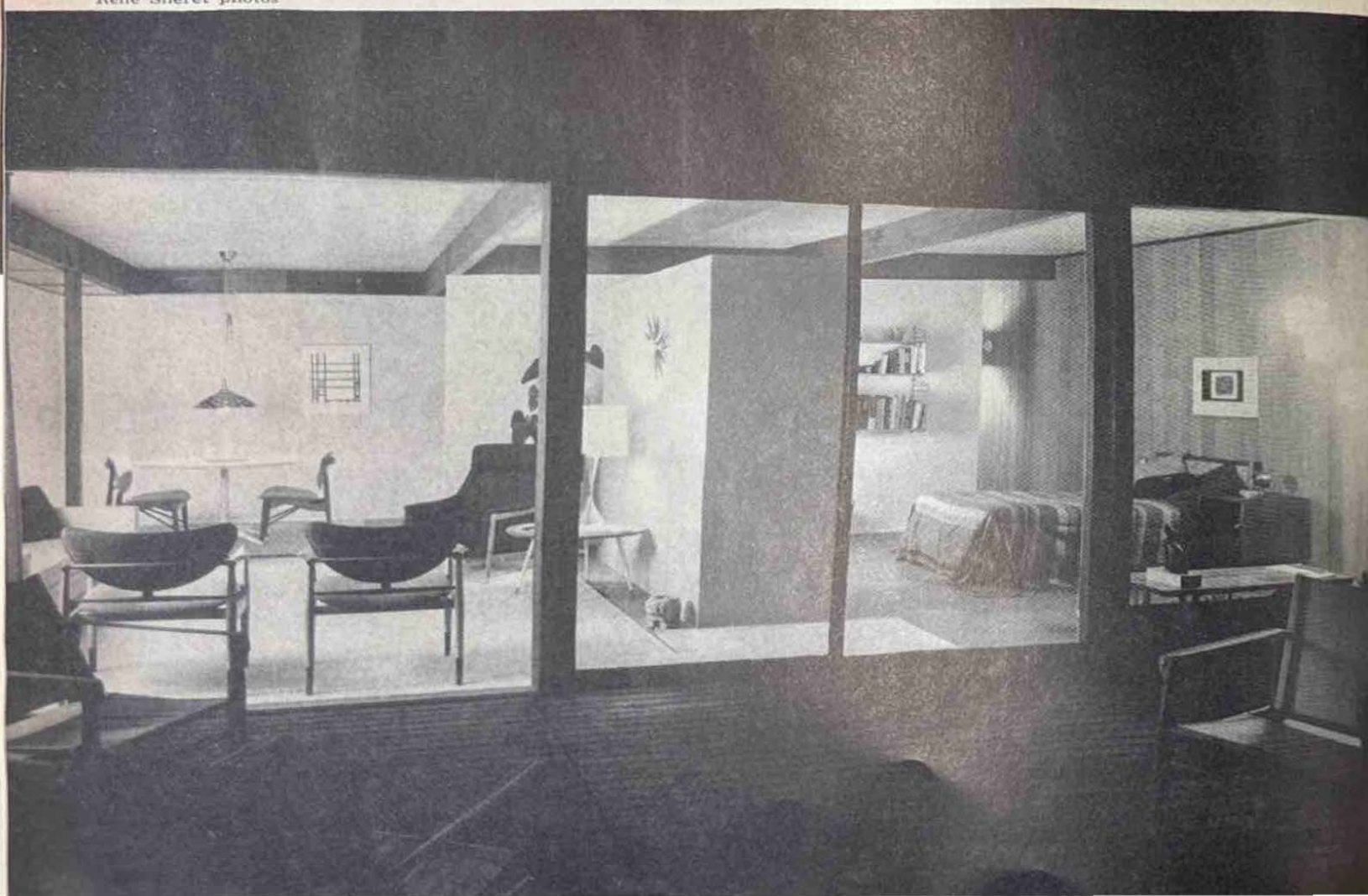
## 3. Culver City, California

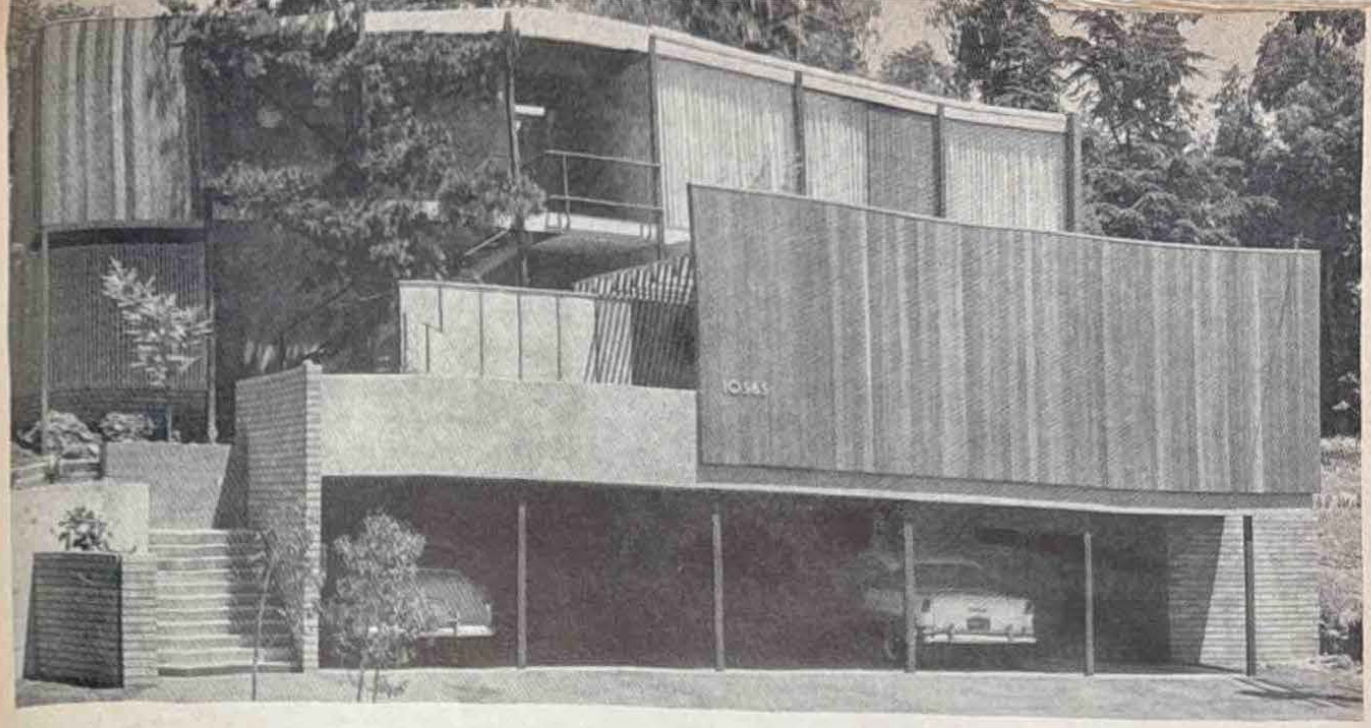
RAYMOND KAPPE
Architect-Builder



THIS SIX-UNIT PROJECT designed for Mrs. Betty Friedlander is located on a hillside lot, the apartments changing level with site conditions and adding interest spatially. The two-story structure has outdoor terraces for the first floor tenants (the carport cover serves unit No. 1) and the lower level roofs become sun-decks for the second. In developing this scheme, the architect also was able to save the maximum number of existing trees. Rotation of a comparatively typical plan provides a more private and homelike atmosphere. The wardrobe between the living room and bedroom is movable in all units, allowing the occupant to use the space as he desires. Exterior materials are left natural except for small areas of plaster, which are painted. Roof decks are of duck boards laid on gravel, in pattern with planting boxes.

Rene Sheret photos





## OUTLINE SPECIFICATIONS

**Structure:** foundation: concrete; frame: wood, concrete block and steel; roof: 2-in. sheathing; floors: concrete slab and wood joists.

**Exterior Finish:** redwood, concrete block and plaster.

**Roof Surfacing:** three layers of felt and pea gravel.

**Windows:** sliding steel—Slide-View Door & Window Co.; louvers—Louver Leader, Inc.

**Doors:** exterior: solid core masonite; interior: hollow core masonite.

**Floor Surfacing:** asphalt tile—Mastic Tile Corporation of America; carpeting.

**Interior Finish:** plaster, redwood siding and plywood wardrobes.

**Ceilings:** plaster.

**Lighting Fixtures:** recessed incandescent—Pryne & Co., Inc.; wall and ceiling mounted—Litecraft Manufacturing Co.

**Heating:** electric wall heaters—Thermadore Electrical Manufacturing Co.

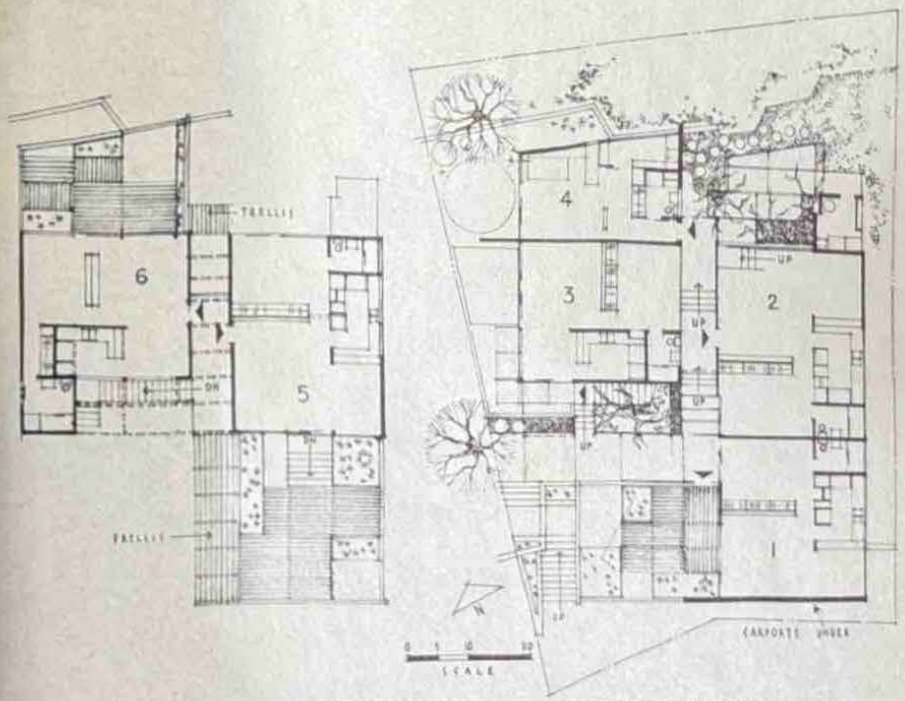
**Plumbing and Sanitary:** American-Standard.

**Total Area:** 4,622 sq. ft. (3,586 sq. ft. rentable plus carports, decks and walkways at one-half).

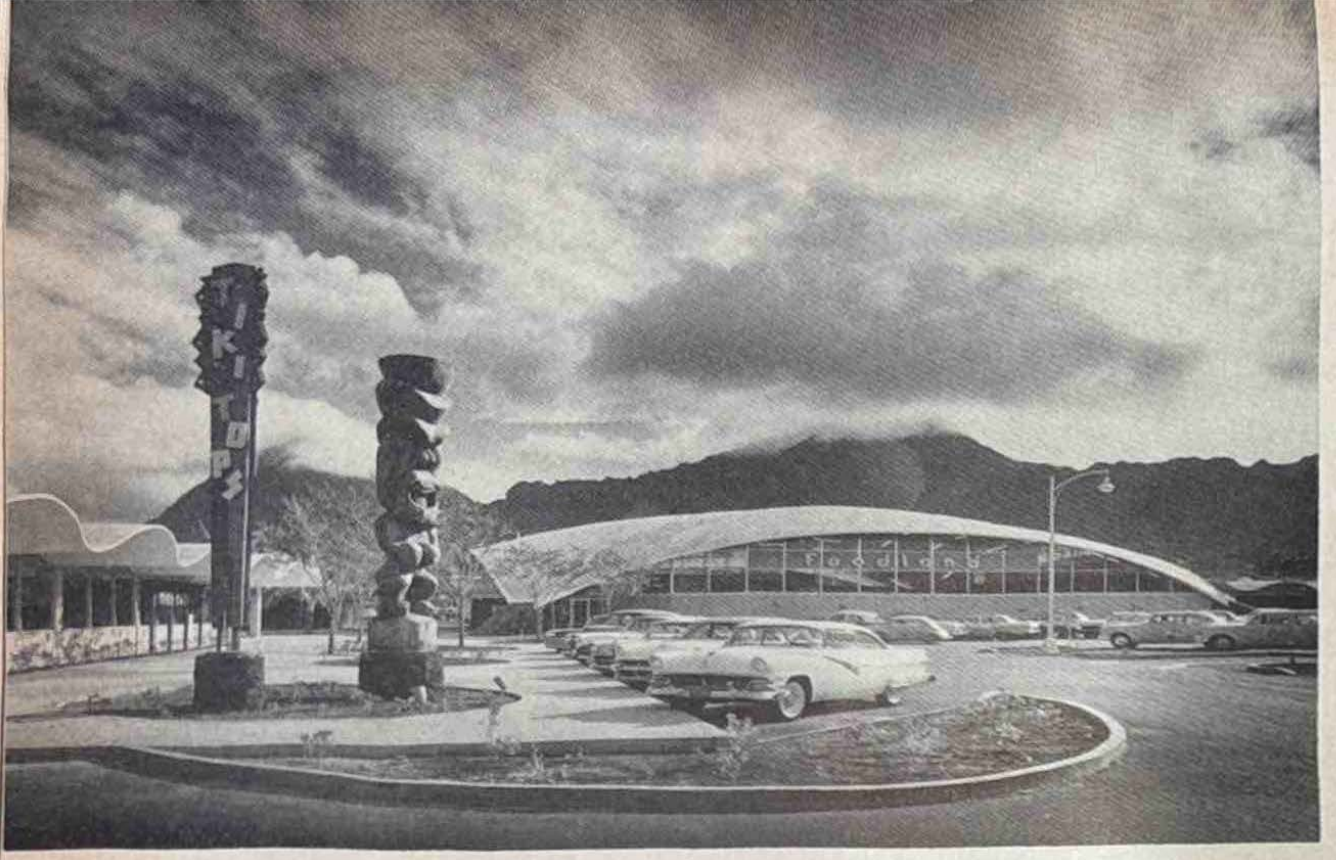
**Cost per Square Foot:** $9.

**Date of Completion:** June 1955.






UPPER FLOOR GROUND FLOOR




Windward City Shopping Center
Kaneohe, Oahu, Hawaii

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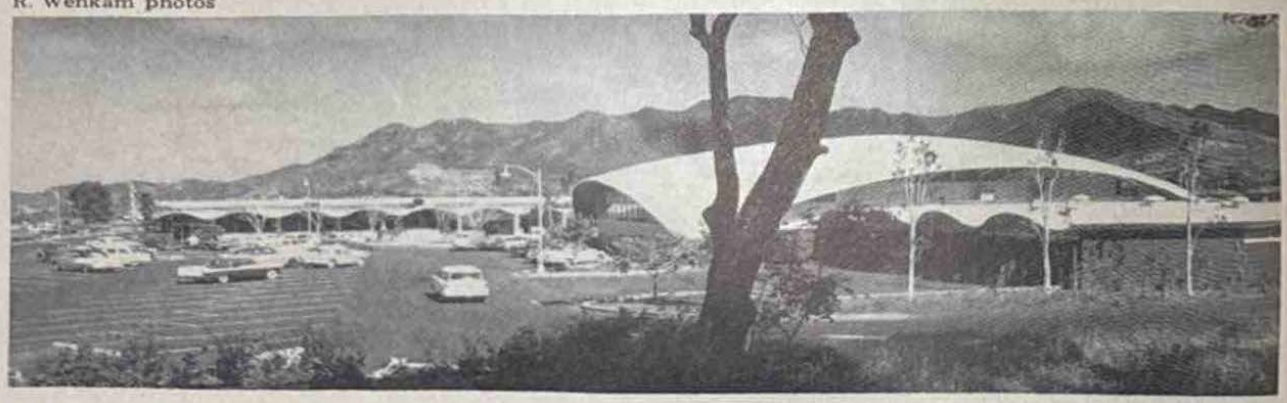
WIMBERLY & COOK
Architects

GEORGE V. WHISENAND
Associate Architect

RICHARD R. BRADSHAW
Structural Engineer

NORDIC CONSTRUCTION, LTD.
General Contractor

R. Wenkam photos



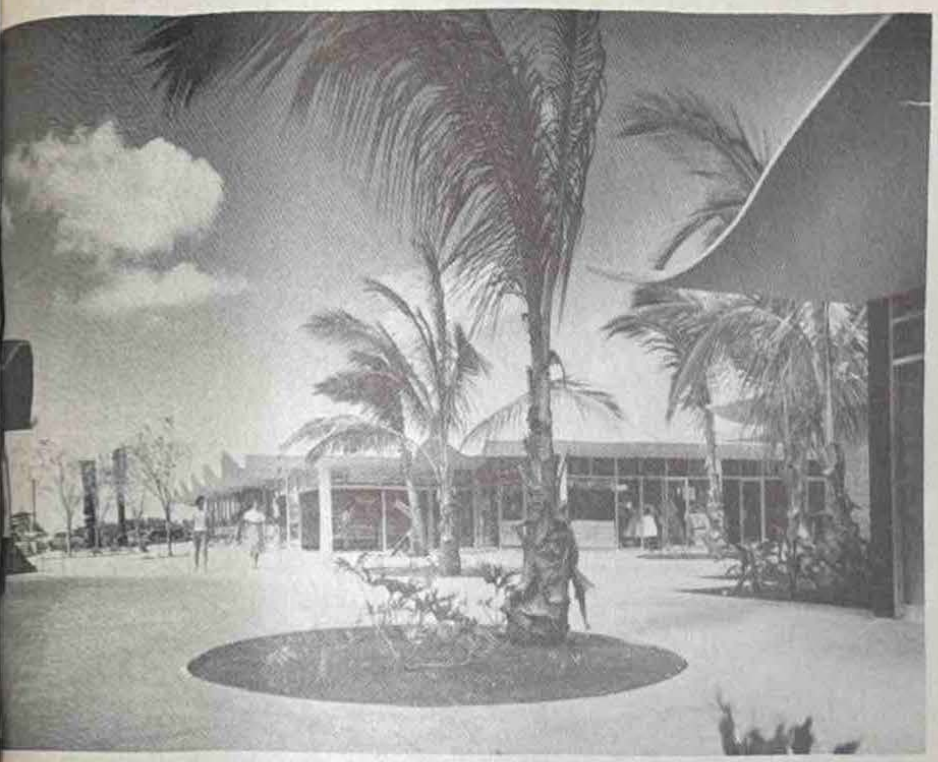
# Fanciful concrete thin shells add to shoppers' delight

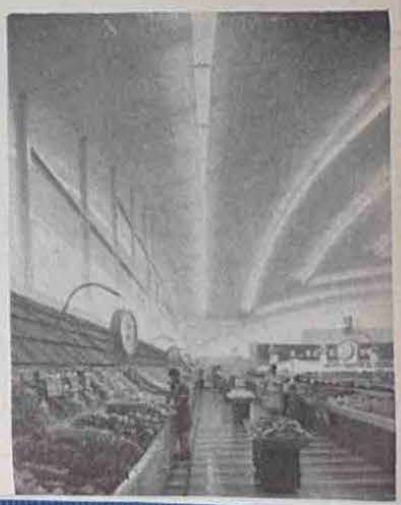
A VARIETY of reinforced concrete thin shells enhance the utilitarian aspects of this shopping center on the island of Oahu and produced construction economies too. A sweeping dome, wave forms and folded plates roof the $1.1 million project, which includes a supermarket, bank, restaurant, cocktail lounge and 11 other stores and services, on a 10½-acre site. Building area is 39,000 sq. ft.; parking capacity, 647 cars.

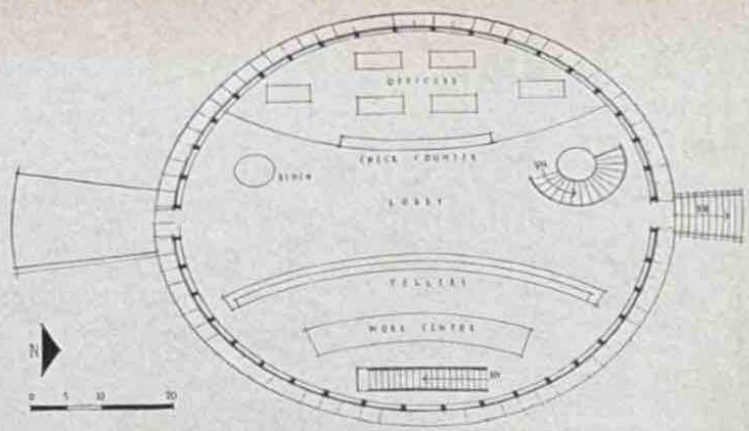
The supermarket is covered by a 22,000-sq. ft. dome—one of the largest of its kind in the United States—requiring a nine-hour continuous pour, using four cranes and buckets and some 60 men. Hovering over a 128-ft. square base, its shape is a double torus: segments of two toroid forms at right angles to each other. The dome is supported at four points only by means of buttresses at each corner. Lateral thrust on the buttresses is resisted by means of tie beams along each side from corner to corner. Thickness of the shell varies from 3 in. at the crown to 7 in. near the buttresses. Reinforcing over the central section is a single layer of ½-in. bars running radially and tangentially. Other sections have a double layer of reinforcing gradually increasing in size and density toward the buttresses.

Two buildings are 20-ft. square bays with wave form shells 2 in. thick and reinforced with ½-in. bars. End bays carry a 10-ft. cantilever. A fourth structure has a 3-in. thick folded plate roof with a 26-ft. cantilever. The concrete shells are waterproofed by spraying two coats of cottonseed gum and a finish of aluminum metal sheen.

Shop fronts are aluminum extrusion sections glazed with plate glass and some ¼-in. thick asbestos board panels. Exterior filler walls and interior partitions are non-bearing hollow concrete block. Landscape architect: George Walters.








# Garden pavilion for banking in downtown plaza

**PRECAST LIGHTWEIGHT CONCRETE SHELL ELEMENTS** are swung into place to form accordion pleated roof.



PLANTED in a sunken landscaped plaza with a circular glass wall of clear plate glass and an accordion pleated, copper sheathed roof, this bank more closely resembles a garden pavilion, inside and out. The architects have taken advantage of the triangular shaped 1½-acre site and the peaceful atmosphere of its surrounding garden by using a circular space frame 70 ft. in diameter with no interior supports. Roof structure rests on 40 slender steel columns placed on the perimeter of the concrete slab. Polished quarter-inch plate glass is set into the 40 bays, achieving a friendly, open effect as well as a handsome foil for the tall building above.

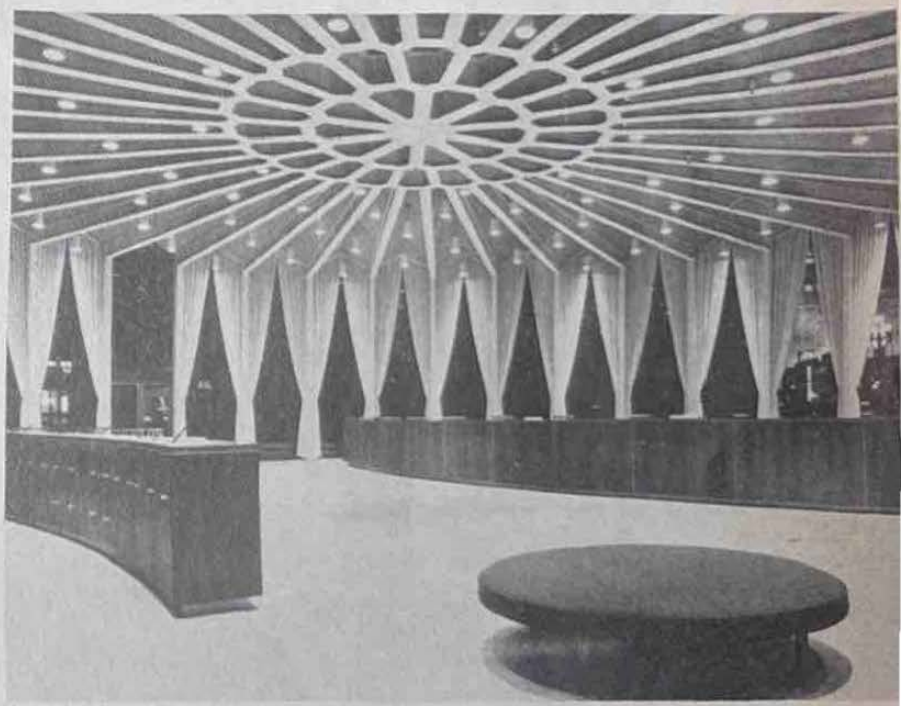
Joining with the supporting columns are 40 steel beams that radiate from a central hub in the form of a steel Gothic rose. On top of the roof beams are placed precast concrete shell elements that fan out from the center in a pleated manner. The roof is covered with sheet copper which will weather to green, an effect provided primarily for the benefit of tenants in surrounding office buildings. Seismic studies indicate that wind and earthquake loads will be resisted by the columns and roof beams acting together as a three-dimensional frame.

Inside, long, low custom designed counters replace teller cages. All machines are relegated to a curved work counter immediately behind the tellers, leaving the main counter as uncluttered as possible. Lighting comes from 110 custom designed ceiling fixtures, cylindrically shaped and arranged in concentric intersecting circles. All utilities are run inside the columns which were filled with lightweight concrete after utilities had been installed and tested.

Circular stairway with teak rail and white-painted balusters leads to the safe deposit department on the lower level. This floor also has a conference room, main vault, lounges and lunchroom with separate stairway leading to the staff facilities.



**BASIC CIRCULAR DESIGN** is carried out in curved teller, check writing and work counters, all framed in teak. Customer chairs are of same wood. Other materials: white open weave draperies and beige wool carpeting.

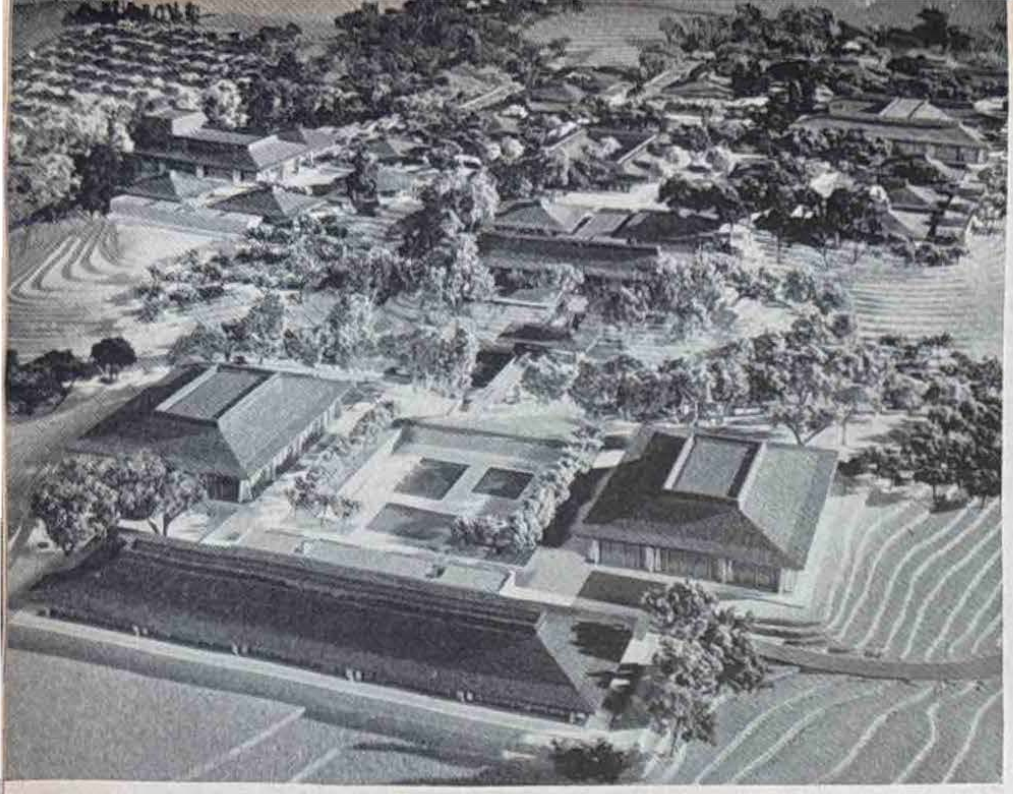


Crown Zellerbach Office
American Trust Co.
San Francisco, California

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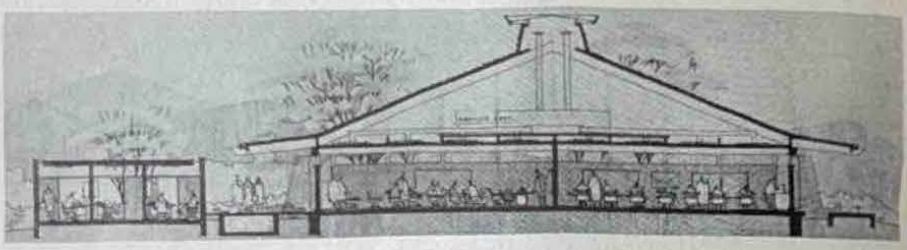
SKIDMORE, OWINGS & MERRILL
Architects

HAAS & HAYNIE
General Contractors



**AERIAL VIEW** of model looking toward southwest with Physical Education building group in foreground. Pedestrian bridge just beyond spans main entrance to campus, small structure in center housing stairway leading to road level. Section below shows how utilities are carried throughout campus in service tunnels (between academic and office buildings) and fed into service loft for distribution to any portion of interior space. Vents, etc., are shielded from view by shingled parapet rising out of hipped shake roof.

## Hipped shake roofs to set off junior college development



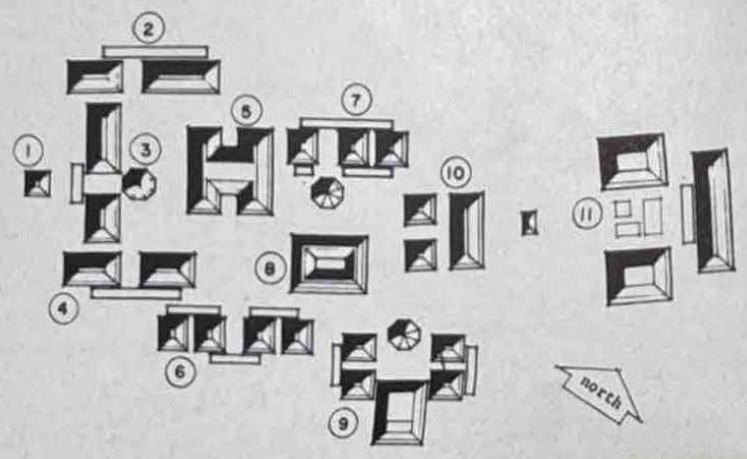
FOOTHILL COLLEGE, LOS ALTOS HILLS, CALIF.: A brand new junior college campus for 3,500 students will begin to spring up next year on 122 acres of rolling foothills, with 10 major building groups arranged according to curriculum. The architectural objectives: "to create a total academic environment of naturalness and quiet dignity; to provide for maximum internal flexibility facilitating low cost arrangement of interior spaces to accommodate future study course changes."

The solution calls for principal buildings of native woods—predominantly redwood and Douglas fir—consisting of one or more identical basic space modules. Structurally and mechanically self-sufficient, each 60x-68-ft. module is defined by four exposed aggregate concrete piers which take up lateral loads. Complete mechanical facilities for each unit are contained in the attic and can be fed to any existing or future room space of 8x8 ft.

Office spaces for academic and administrative personnel are housed in separate, low brick units related to each building group. The three lecture halls are octagonal in shape to express their unique function.

Landscape development accents the natural advantages of the site by saving trees and emphasizing existing land forms. Estimated construction cost of the total project, scheduled for completion by September 1961, is $8.2 million. Associated architects: Ernest J. Kump and Masten & Hurd; landscape architects: Sasaki, Walker & Associates.

1. Astronomy; 2. Engineering-Technical; 3. Physical Science; 4. Natural-Health Science; 5. Library; 6. Language Arts—Mass Communications; 7. Social Science—Business Education; 8. Administration; 9. Fine and Applied Arts; 10. Campus Center; 11. Physical Education.



by GLENN M. CANADAY

Fifth in a series: Hardware & Weatherstripping

# Subcontracts may exceed 50% of total price

THE GENERAL CONTRACTOR seldom finds it profitable to do all phases of the building construction job with his own forces. In this day of specialization an increasing proportion of construction is being done by specialty contractors. On most building jobs, this amounts to 50 to 70% of the total contract price. Work in Divisions 11 through 28 is usually subcontracted.

On many jobs the estimator will receive all the subcontract bids he may require with very little effort on his part. This is not always true, however, even on local jobs. The general contractor who fails to properly line up his subcontract bids may find himself with blank spaces in his estimate at bid opening time. A hasty and ill-considered guess may cost him a job or his profit.

Invitations to subcontractors should be sent out as soon as possible. Read the specifications and review the plans carefully, decide what work should be sublet, what special material quotations will be required. A few telephone calls may produce all the quotations required for small jobs. For large and complex jobs, an invitation card is convenient and effective. Fill in the necessary information and mail cards well in advance of bid opening. As the bid opening date draws near, the estimator should contact subcontractors who have not yet submitted bids. Receiving subcontractors' bids and material quotations in time to make use of them is essential to successful bidding. Failure to receive a low quotation may invalidate an otherwise successful estimate. It is not sound policy nor good ethics to ask for a bid unless you intend to consider using it. If you do receive a questionable bid, ask yourself:

a) Is the bidder a reputable and well-established contractor?
b) Does he have the necessary technical skill?
c) Does he have the equipment and personnel to do the job in the time allowed?
d) Is his bid reasonable in comparison with others?
e) Does he propose to do the work according to plans and specifications?
f) Are his finances and credit adequate?
g) Can he furnish bonds?

Proceed with caution if any answer is in doubt. Do some careful checking. The estimator should not lose sight of the fact that proposals and offers of subcontractors and material suppliers are difficult to enforce if the subcontractor should decide not to do the work or the material supplier decides not to deliver. A reputable firm will not renege on quotations or proposals, even if they are in error but it is almost impossible to enforce performance.

The general contractor assumes responsibility for his subcontractors' unpaid material and labor bills. If an irresponsible subcontractor collects his money and leaves these bills unpaid, the general contractor is obligated by law to make payment. Material suppliers unfortunately sometimes quote quantities of materials that do not meet the requirements of the job nor the quality demanded by the specifications. The estimator must never blindly assume that quantities and grades listed in the quotations are correct. He must verify both.

### 11. HARDWARE & WEATHERSTRIPPING

Finish hardware is usually a material bid item which must be installed by the general contractor. The practice of estimating labor varies from adding a percentage of the hardware quotation to detailing installation labor for each item. Detailed takeoff and pricing is much to be preferred. Only in this manner can the estimator check actual field costs and estimate installation labor within a reasonable tolerance. Most architects list hardware items in detail in the specification. In this case it is a simple matter for the estimator to count and list the various hardware items in categories. A typical breakdown might be as follows:

a) Exterior lock sets
b) Interior lock sets
c) Panic bolt sets
d) Mortise bolts
e) Flush bolts
f) Surface mounted door closers
g) Floor mounted door closers
h) Door stops
i) Push and pull plates
j) Kick plates
k) Coat and robe hooks
l) Thresholds

Installation time should include all the time involved in unpacking and installing each hardware item. Total number of hours should be multiplied by the average labor rate, taking into consideration the class of work involved, the type and quality of hardware, type of surface and material on which the hardware is to be mounted. Note particularly the quality and make of hardware to be installed.

If large quantities of the same hardware item are being installed, it is often possible to effect considerable savings with the use of routers, electric tapping machines, electric screw drivers and special installation tools. Although some architects like all finish hardware in one section, others may list part of the finish hardware in the millwork section, the hollow metal section, the glass and glazing section, etc. As in all parts of the estimate, the estimator must be fully familiar with the specifications to guard against missing or doubling up of items.

Weatherstripping is usually installed by subcontractors specializing in this field. If you must estimate your own, make a complete take-off of all material involved; estimate labor by the opening. Add the cost of special tools you must rent or purchase.


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Des Moines, Iowa

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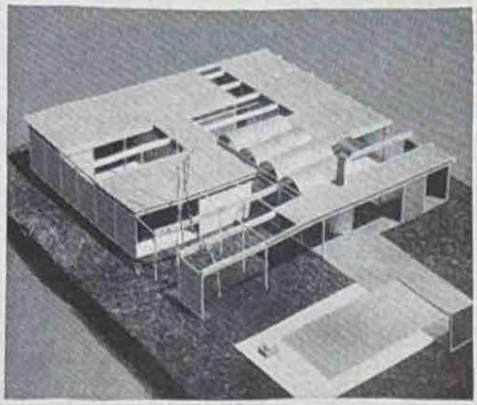
Name_____

Firm name_____

Address_____

City_____ State_____

# new approaches to structural design with fir plywood



Clean, light lines of this striking residence show how new plywood structural elements can be used to help wood construction meet the requirements of contemporary design.

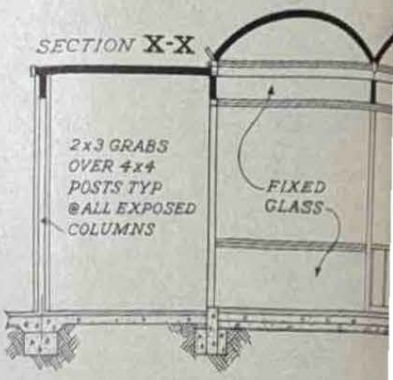
## Case Study House demonstrates imaginative handling of

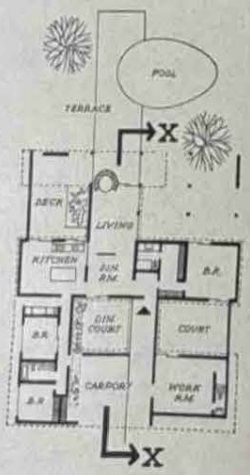
**ARTS & ARCHITECTURE Case House Study No. 20**

**OWNER: Saul Bass, Whittier, California**

**ARCHITECTS: Buff, Straub and Hensman Los Angeles, California**

**COMPONENTS: Fabricated and erected by Berkeley Plywood Company**



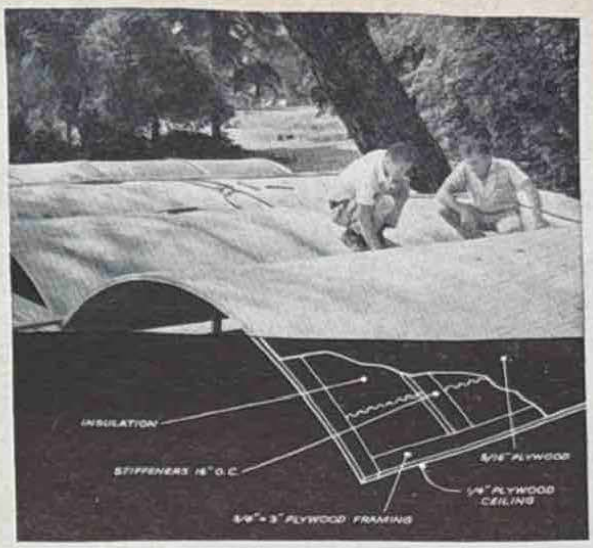




THIS SOPHISTICATED ROOF SYSTEM employs lightweight, shop-fabricated plywood components that present traditionally acceptable wood construction in a fresh context.

The architects report these new plywood structural elements—box beams, barrel vaults and flat stressed skin panels—make sense from a standpoint of cost as well as design. For the loads and spans involved, they say there is no cheaper—or better—way to do the job.

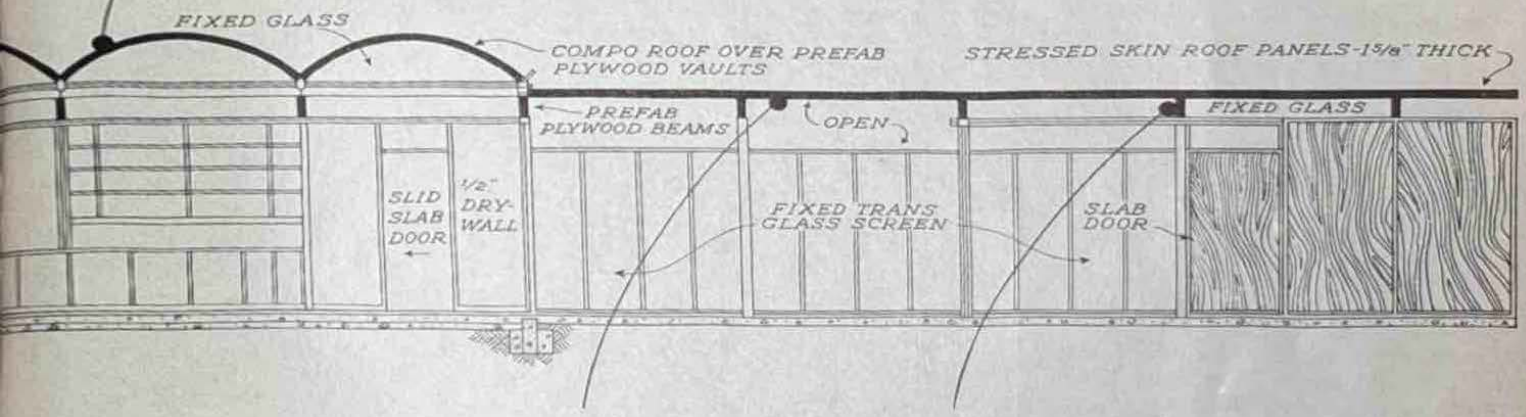
The basic structure is post and beam. Installed cost of the plywood box beams was $2 a foot, using premium overlaid plywood for the finest painting surface. The flat roof panels cost 40c per square foot in place; the barrel vaults 75c. Both were made in 2′ and 4′ widths, 8′ and 12′ lengths, combining roof deck, finish ceiling and insulation in one easily handled component.

**FOR MORE INFORMATION** about fir plywood—or DFPA design and engineering consultation services—write (USA only) Douglas Fir Plywood Association, Tacoma 2, Washington.

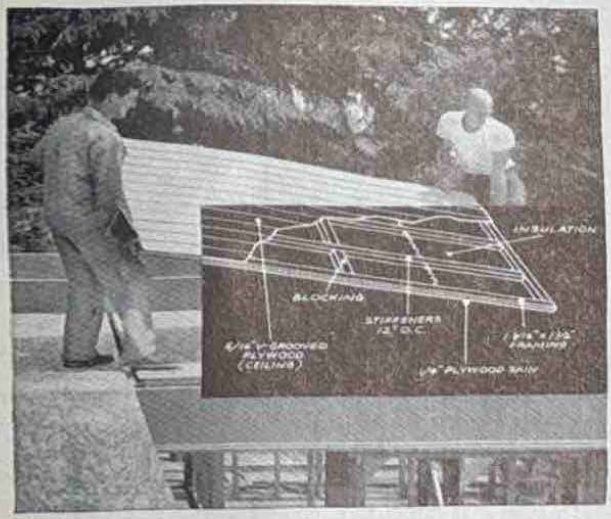



**CURVED PANELS** over living areas have same basic construction as flat panels. Underside serves as finish ceiling.

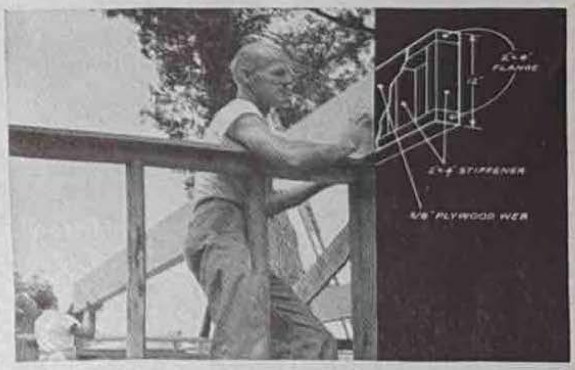
# fir plywood components




**FLAT STRESSED SKIN PANELS** have 5/16" upper, 1/4" lower plywood skins with lumber edge frames and stiffeners.




**PLYWOOD BOX BEAMS** are light, easily handled, span 16' on 8' centers. Fir plywood skins are nail-glued to 2 x 4s.





# Steel in tension is key to new system

## Highly detailed method of building for high rise structures calls for suspension of entire stories from girders and construction of floors from top down incorporating major cost reductions

A building technique for multistory structures specifies suspension of all stories from girders rather than employing conventional support by columns and requires construction of the floors from the top down.

Called the "build and hoist" system, it was worked out over the past five years by Rudi Van ByLevelt, Dutch architect-engineer, with whom the idea originated in Holland before coming to the United States. A study group has adapted the system for American construction requirements and the firm of Frank L. Hope & Associates, architects-engineers in San Diego, has filed a patent application on it.

The system is based on the fact that steel used in tension is more efficient than when used in compression due to the design factor of the ratio of length to radius when applied to problems involving bending.

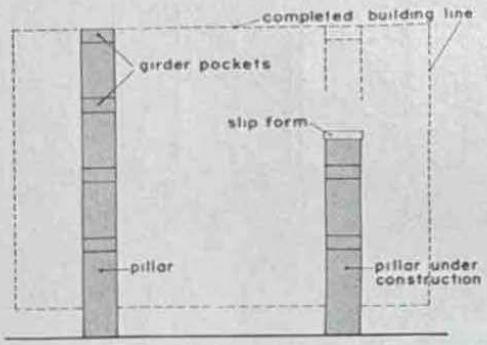
To support 150,000 lb. would require an 8x8 wide flange steel column or a 16-in. diameter reinforced concrete column if it were to be 12 ft. long and the required area of the concrete column increases 35% for the same load if it were to be 16 ft. long. This creates many disadvantages in the construction of high rise buildings with much greater loads, not the least of which is the cost factor.

To suspend 150,000 lb., i.e., approximately 1,000 sq. ft. of an average office or hospital floor, from above would require only a high tensile strength steel rod of 1-sq. in. cross section area, and with a steel cable (tensile strength 250,000 lb. per square inch) only .6 sq. in.

Basically the system involves the suspension of entire floors from prestressed concrete girders which are supported by structural utility cores containing all stairways, elevators and mechanical shafts required by an individual building design. It is estimated that from 5 to 20% saving can be realized in overall building costs of multistory structures over eight stories by employing this method. It involves the use of standard building materials and does not depend on unknown or specially manufactured materials.

To illustrate the system, assume a 16-story structure with a rectangular plan, possibly 200 ft. long and 50 ft. wide. The building might be an apartment, hospital, office building or any other commercial high rise type structure.

The first step is construction of utility core pillars which are to be self-supporting and will contain all stairways, elevators, dumbwaiters, waste chutes and mechanical shafts for the entire building. They are built in a conventional slip-form system of concrete construction around a steel framework which serves as reinforcing and as a support for the form as it is raised.




FRONT ELEVATION

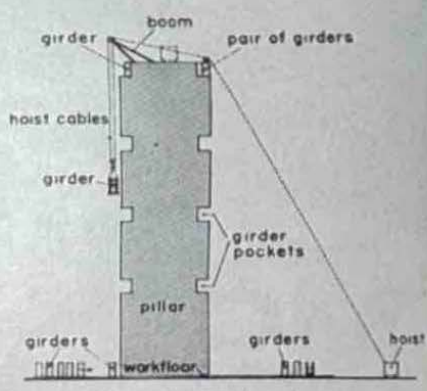
**UTILITY CORE PILLARS** are built first with pockets on outside to receive prestressed girders when they are lifted into place.

The support of the slip form by the steel frame is accomplished with a block and tackle system power operated from the workers' platform, or from the ground, and suspended from the frame one or two floors above the immediate area of pour. The support is raised as the concrete work—and with it the steel work—progresses. In this way no expensive scaffolding is required. Openings for doors, access panels, etc., as well as pockets for later support of prestressed concrete girders, are formed and poured as the pillar construction continues upward. The pillars will be 100 ft. apart and have outside dimensions of 20 ft. in length and 50 ft. in depth.

During the time the pillars are being constructed to the full 16-story height, the prestressed concrete girders are formed and poured on the ground adjacent to the building. Size will depend on individual building design, but typically they will extend from one end of the structure to the other. The overhang at each end beyond the pillars will be about 30 ft. in this case and will reduce the moment at the center of the span.

By supporting the girders at the two extreme points on each side of the 20 ft. of pillar length, the negative moment curve across these points is flattened sufficiently to allow a closer balance between negative and positive moment forces along the length of the girder, which results in a more efficient and economical concrete girder requiring less supplementary reinforcing at points of maximum moment.

The girder cross section is rectangular across these points of support, in contrast to the normal I-shape, providing strength for the shear forces plus added weight for moment reduction across the supports. The building elevators are placed immediately after the concrete in the pillars is set



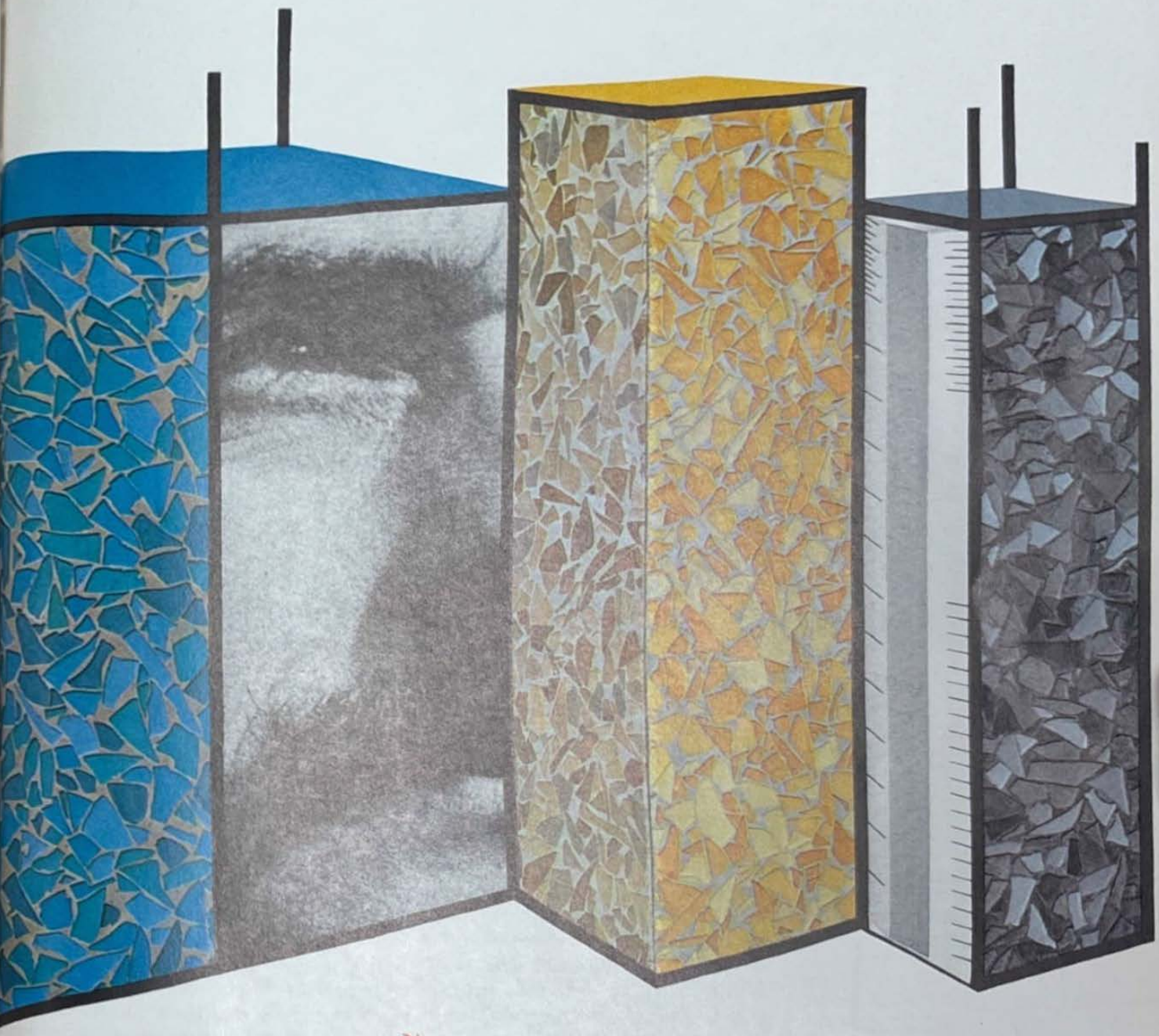

SIDE ELEVATION

**PILLARS THEMSELVES** act as huge cranes. On top of each is boom and pulley system for hoisting girders.

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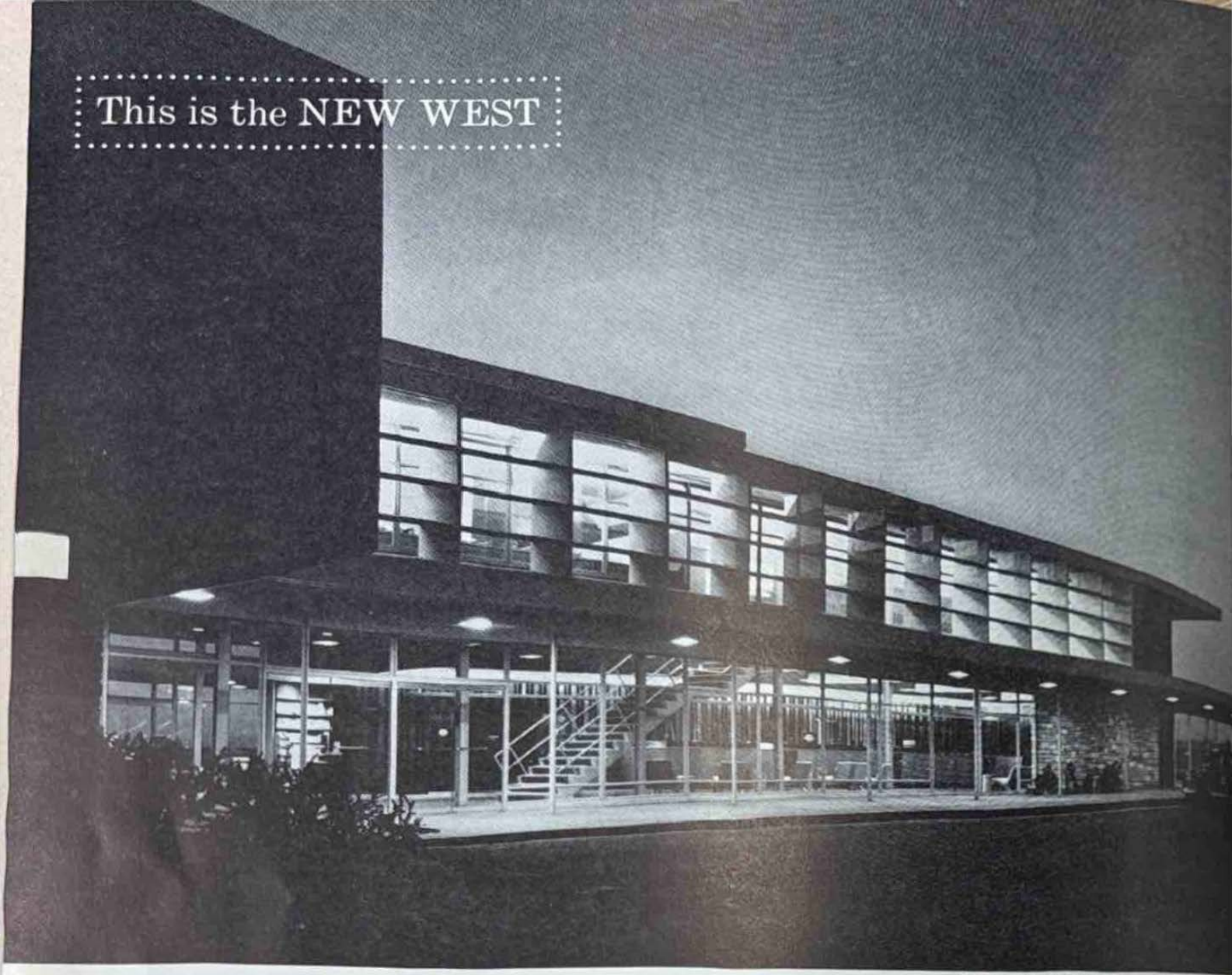


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Monterey Airport Bldg., Monterey California. Robe
Jones, Architect, Walter Burde, Associated Archite

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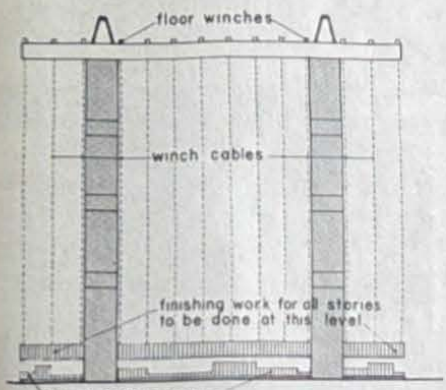
for transportation of construction personnel.

When the pillars are completed, a boom and pulley system is placed at the top of each one with the hoist motor also at the top or preferably on the ground beside the pillar if space permits. These booms are used to raise the uppermost girders to their position at the top of the pillars where they are placed in the girder pockets previously mentioned. Tie beams extend between the girders for complete rigidity. These top girders are to support four or more complete stories of the finished building.

All rough construction for the entire top story is now done on the ground between the pillars and under the girder overhangs. This work includes the complete rough construction of floor slab and partitions.

Van ByLevelt recommends the use of prefabricated prestressed concrete units as the floor slab construction for three reasons. Before the stress of raising the completed story into position could be applied to fresh concrete, a curing period of 28 days would be required while the rough construction for the interior setup of one story normally does not need that length of time. If a floor slab were poured covering the 5,000 sq. ft. between the pillars, the initial force required to overcome the suction at the start of the lift would be larger than the top girders were necessarily designed to carry. And the prestressed panels are considerably lighter than regular concrete slabs covering long spans, requiring smaller suspension rods.

When the rough construction for the story is completed, the entire unit is raised 12 to 15 ft. above the ground by cables and winches spaced as required along the top girder. While the finish work, including rough plumbing and electrical, is completed at this elevation, the rough construction for the next story can be started beneath it, using the raised floor as a shelter.

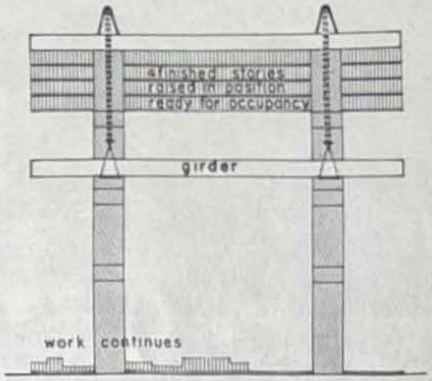



FRONT ELEVATION

**FINISHING WORK** is done at 12- to 15-ft. level while rough construction starts below for next floor.

When the partially raised story is finished, it is elevated to its final position at the top of the pillars by the same cables and winches along the top girders. After reaching its final position, the cables are replaced with high tensile strength steel rods which support the floor by suspension from the concrete girders. Cables are then lowered for use in raising the next story.

In this sequence, construction continues until the number of floors calculated to be hung from one set of girders (in our example, four) is in place and suspended. For simplicity of construction, each floor has its own set of rods extending to the girder rather than each floor being connected only to the one directly above it.




FRONT ELEVATION

**EACH SET OF FLOORS** as completed is ready for occupancy since elevators and stairs, ductwork, etc., already are in.

To completely finish a group of four or more floors after they are in place, post-tensioning rods are run longitudinally through preformed conduits in the floor slabs and through the pillar construction to insure a monolithic unit between the pillars and the suspended stories. In like manner, vertical post-tensioning rods extend through the four floors and are secured to the prestressed girders both below and above the group of floors for a vertical bond between the stories and the sets of girders.

Plumbing and electrical facilities are connected to the main feeders already contained in the pillars. All horizontal heating ducts run through the spaces between the sets of girders and then serve two floors above and two floors below by vertical ducts. Thus, vertical branch lines can be installed during rough construction and less floor to floor height is required.

When these four finished floors are completed, another set of girders is raised into position and placed in the preformed girder pockets preparatory to supporting the next group of four floors and the entire sequence is repeated, working downward until the building reaches completion.

There are advantages both from the design and construction angles in this building technique. An architect starts with a spacious column-free plant area in which to formulate his building layout. Fireproofing around the clusters of high tensile strength rods will not be greater than 8 in. regardless of the height of the building. Depending on the individual building design, the rods will be for the most part around the perimeter of the floors.

Utility cores can be grouped in two convenient locations and will not become a cumbersome design element. At any level, an entire floor can be omitted providing open dining areas, gardens, etc. Lower floor or floors can be of any height without changing column requirements, or be eliminated completely for parking space and driveways. The only footing requirements are under the pillars themselves.

An engineer designing within this system will be using steel in its most efficient state: tension. His footing calculations will be only in connection with the pillar construction and subsequent loads as transmitted through these pillars. The pillars will also provide large, structural shear walls to combat wind loading and earthquake requirements. Calculations for a 40- or 50-story building will not be greatly more complex than that required for a lower building.

In the area of actual construction the system is expected to lower costs, cut construction time and reduce working hazards. Required excavation is limited to areas beneath and around the pillars only. The pillars and booms serve as huge cranes, eliminating this expensive item of equipment. Materials for rough construction are transported horizontally only and the men work on the ground rather than on scaffolding systems. Finish work is chiefly done 12 to 15 ft. above the ground with access through the pillars by way of the building stairways and elevators already in place, again meaning easy transportation of materials plus time-saving consolidation of men and trades within the two levels close to each other. Rough and finish work overlap almost 100%. Formwork is reused for all floors without dismantling and rebuilding again for each floor.

If the molds for the girders can be reused extensively, as would be the case for a multistory building or for a series of buildings such as an apartment development, the unit cost per square foot would be reduced considerably.

## Floor type crane positions tilt-up panel in 10 minutes

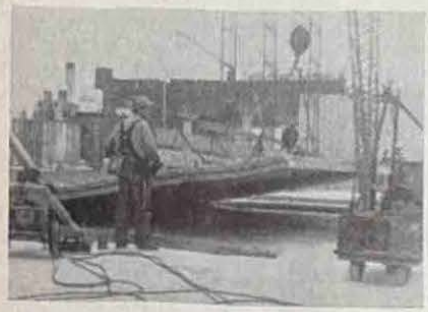


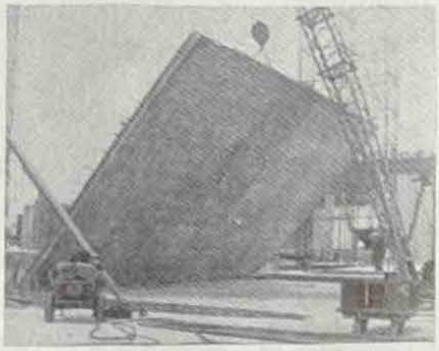
A machine which weighs only five tons is lifting and tilting up 40-ton precast wall panels on multistory buildings in the Puget Sound region and will be introduced shortly in other Pacific Coast areas.

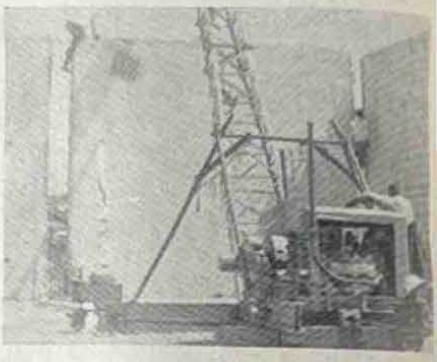
Designed and assembled by Williams Distributing Co. of Seattle, the floor type crane handles the lift-to-position sequence in 10 minutes; with rigging, etc., the total time for each panel is 40 minutes. Bolted into the concrete by inserts, the rigging is extremely maneuverable and eliminates cracking which may occur from uneven pull when two cranes are utilized.

Development of the machine is a natural outgrowth for the Williams firm, since it manufactures a tilt-up compound which users report is leaving panels properly cured and stain free and is reducing the adhesion sometimes encountered in this work.

**LIFTING AND TILTING MACHINE** is shown erecting panels for second floor of Everett, Wash., project in sequence of photos below, performing operation which normally would require two mobile cranes. Panels are 20 1/3 ft. high., 33 1/2 ft. wide, 6 2/3 ft. thick.







## Gypsum partition introduced to Northwest on Portland job

First installation in the Northwest of a movable interior partition that offers good fire and decibel loss sound ratings and is comparatively low priced has been completed in the new First National Bank of Oregon's building in downtown Portland. Johnson Acoustical & Supply Co. installed approximately 3,000 lin. ft. of laminated gypsum board Vaughan wall, made at Kaiser Gypsum's Seattle plant.

Introduced in California a few years ago, the partition is erected easily and quickly. On the job, two ⅝-in. face boards are glue laminated with special adhesive to a 1-in. core board and offset to make a t&g groove joint. Panels are 2¼ in. thick, 2 ft. wide and ceiling height, fitted to the job. Metal floor and ceiling track and door frames are part of the installation.

The partition, which is 90% recoverable, has a one-hour fire rating and about a 43-decibel loss rating. It is easily decorated (see installation photo at right) in the same way as regular gypsum wallboard, with paints or laminated veneers, neither of which impairs movability.

Developed by Vaughan Movable Interior Walls, Inc., of Los Angeles, the panel system can be installed at about half the cost of conventional types of movable partitions.

Applicators are franchised to produce the Vaughan system on the site, eliminating freight costs.

Another product — imported blue mosaic glass—also made its Northwest debut in the bank project (PA&B, June '59), designed by Stanton, Boles, Maguire & Church and built by Hoffman Construction Co.



**ASSEMBLED PANEL** is trimmed for partial-height partition in Portland bank building.





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### streamlined door closer

Multi-check door closer has straight one-piece arm which functions on a traveling spindle to relieve leverage stress on butts and door frame. Arm is completely concealed when door is closed. Closer is designed so that the same device may be mounted on either the push or pull side of either a left- or right-hand door. Overall thickness is 1⅝ in. to fit into the top edge of the door or mount on the surface of either wood or hollow metal doors. Aluminum case is painted a neutral buff.—The Oscar C. Rixson Co. **(Item No. 1)**

### roof deck assembly

Applying two-way, continuous beam principles to roof deck and subpurlin design, Tectum is offering a box section roof deck assembly incorporating a rigid box type subpurlin of galvanized steel that is light and easily handled. Box section is welded to each supporting joist or beam. Spacings up to 48 in. are possible depending on deck thickness. Tectum planks are erected across the subpurlins and anchored with T-clips that slide into the slotted top of the subpurlin. Lateral strength due to continuity of roof deck materials, plus resistance to uplift pressure, provides maximum rigidity in all directions. There is space between joist and roof deck materials for conduit, pipe, and other installations.—Tectum Corp. **(Item No. 2)**

### plastic desk surface

Textured Textolite adds a third dimension appearance to laminated plastic work surfaces and considerably reduces glare, a factor that is expected to make it particularly applicable for use on desk and tabletops. Finish also does not show fingerprints or smudges as readily as some other types. Selected colors and patterns are available, including solids, mists and wood grains.—Laminated Products Dept., General Electric Co. **(Item No. 3)**

### diffuser panels

Variety of designs are possible with a line of Compatible 2x4-ft. diffusers



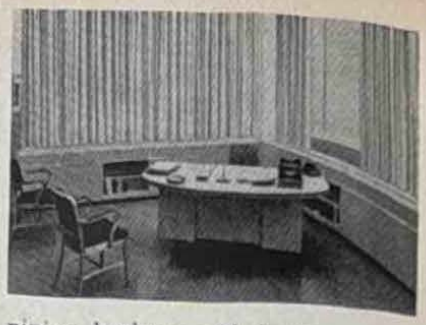
which match standard 2x2-ft. diffusers. Need for center bars is eliminated through what the company calls antisag construction. Available in both single and double dirt-shielded panels, the diffusers are crisp white polystyrene or vinyl with light transmission controlled to give low level brightness.—Lightonics. **(Item No. 4)**

### snap-lock grating

A snap-lock method of field assembly eliminates need for welding the Readco Extrud-Lock aluminum grating designed for such installations as platforms, scaffolding, balconies and catwalks. Fastening of adjacent extruded sections is accomplished by hammering an aluminum clip into place. Grating is available in three thicknesses and in 6-in. wide extrusions in any specified length. Typical 3-ft. walkway will support 350 psf.—Read Standard Division, Capitol Products Corp. **(Item No. 5)**

### perimeter air conditioning

Wall-Line air conditioning circulates air along exterior walls where most summer heat enters. Ducts extending air outlets along the full perimeter of the room make it possible to reduce the number of air conditioning units with less electrical and



piping hookups and fewer controls, thus reducing initial cost. Continuous, matched shelving and storage cabinets can be factory assembled with the ducts, providing obvious design advantages.—The Trane Co.

**(Item No. 6)**

### aluminum awning window

Preglazed aluminum awning window in the low cost bracket has 4-in. openings above the top ventilator for easy washing, triple-seal weathering and concealed hardware. Designated Series 500-A, window is furnished with an aluminum mill finish protected by a coating of methacrylate lacquer. It includes a right-hand, heavy duty offset operating mechanism of the worm and gear type; draw bar which rides on nylon draw bar guides located at the vent hinge to assure firm support for the bar to the point of maximum weight; and a torque shaft of heavy galvanized ½-in. steel. — Republic Steel Corp., Truscon Division.

**(Item No. 7)**

### walnut drafting desk

Here is an example of tastefully designed drafting room furniture that is both attractive and highly functional. Called the Landmark series, the units have walnut paneled sides with off-white drawing surface of basswood and white plastic laminate on reference surfaces. Adaptable for single or multiple installations, the Landmark has three basic components—a front table for use alone or to head an installation; a basic table with reference surface and storage for the man ahead; and a rear reference desk for the man at the end of an installation. —Hamilton Manufacturing Co.

**(Item No. 8)**



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### spandrel glass

Tempar-Glas, newest entry in the spandrel glass field, comes in 22 standard colors in polished or textured finishes. Spandrels are fully tempered, heat strengthened glass with ceramic color permanently fused to the back. They are said to have high wind and thermal shock resistance. Sizes range up to a maximum standard of 62x84-in., but larger sizes and custom colors are available on special order. Spandrels can be used for interior partitions or for exterior facades in conjunction with metal framing and curtain wall design.—Virginia Glass Products Corp. **(Item No. 9)**

### small stud driver

Fastenings to concrete or steel can be made at the rate of one a minute with the use of a blank cartridge-actuated stud driver called the Mighty-Mite. A light hammer tap drives the stud with the blank cartridge furnishing the driving power. Wide range of studs and power loads are offered. Typical ¼-in. diameter stud shot into a ⅜-in. steel plate has a pullout value of 6,800 lb. Power loads are primed with Kleanbore priming which leaves no corrosive powder or primer residues to cause rust.—Remington Arms Co., Inc. **(Item No. 10)**

### soundproof louver door

Advantages of a soundproof hollow metal door and a sound trapped air transfer duct have been combined to produce a soundproof louver door. The product was designed for private offices, conference rooms, hospital rooms and other places where supply or return air has to pass freely, yet privacy of speech is also required. The E-H sound insulating door is furnished complete with door frame, pneumatic and aluminum adjustable gasketing and adjustable threshold sealing mechanism. Certified sound transmission loss is 32 decibels.—Elof Hansson, Inc. **(Item No. 11)**

### ceiling mounted oxygen hose

To provide safe, out-of-the way storage of hoses for piped operating room and recovery room vacuum and gas services, Chemetron has developed a ceiling mounted reel assembly housed in a sturdy steel case. Hoses are color coded and equipped with non-interchangeable couplers to prevent their being used with any service other than the one intended. When not in use they are automatically reeled out of the way into the ceiling behind a stainless steel cover.—National Cylinder Gas Division, Chemetron Corp. **(Item No. 12)**

### industrial light fixtures

A line of industrial fixtures designed specifically for the new high output fluorescent lamps has 30x30-deg. shielding provided by matching louver. Of baffle type, all-steel design, the louver is finished in baked white enamel and comes in 4-ft. sections locked securely with captive fasteners.—AllBrite Division, Curtis-AllBrite Lighting, Inc. **(Item No. 13)**

### airless spray painting

An airless method of spray painting eliminates mist and rebound and produces sharp, clean edges, the developer reports. Material is forced through a small orifice at pressures from 1,800 to 2,400 psi. When the material is suddenly released from this high pressure, it expands and breaks into small particles with enough forward velocity to carry them to the surface, but not sufficient force to rebound. Equipment can handle light or heavy bodied paint.—DeVilbiss Co. **(Item No. 14)**


DECK TYPE FOUNTAIN "SPECS"?



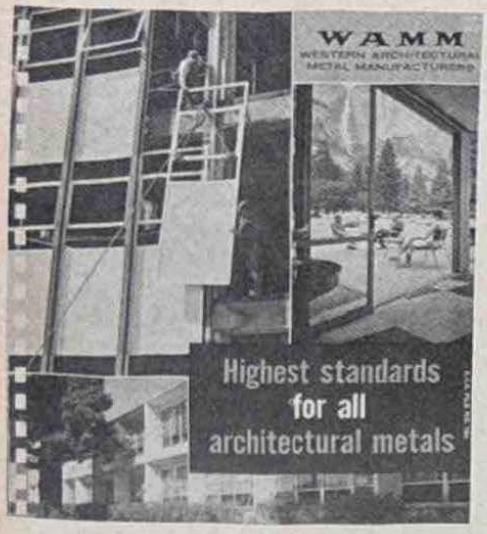

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Three sets of specifications approved by member companies of Western Architectural Metal Manufacturers are now available in booklet form under the title "Highest Standards for All Architectural Metals" (AIA 16-E). The complete and detailed specs are for aluminum projected and casement windows; aluminum top hinged, open-in windows; and aluminum vertically pivoted windows. Each section also carries the names of member companies.—Western Architectural Metal Manufacturers, 1364 Russ Bldg., San Francisco 4, Calif.

**Fiberglass Panel Screens:** colorfully depicts uses and line of Decro-Vider screens and room dividers for both buildings and home; 4 pp.—Styline Products Co., 3361 La Cienega Place, Los Angeles 16, Calif.

**Application of Redwood Siding** (3A-4-1): updates reference bulletin on proper handling and application of redwood siding with chart of suggested nailing methods; 4 pp.—California Redwood Association, 576 Sacramento St., San Francisco 11, Calif.

**Radiant Heating Slab Construction** (AIA 30-C-44): sketches four types of above grade and two types of on grade radiant heating installations with brief, concise construction recommendations; 8 pp.—A. M. Byers Co., Box 1076, Pittsburgh 30, Pa.

**Porcelain Panel Installation:** gives step-by-step details for installation of AllianceWall porcelain enamel on steel veneer panels, including preparation of wall surfaces, molding usage and panel replacement, with drawings; 9 pp.—AllianceWall Division, AllianceWare, Inc., Alliance, Ohio.

**Drafting Materials:** catalogs complete line of instruments and material with number of handy charts such as fraction-decimal equivalents.—Alvin & Co., Inc., 611 Palisado Ave., Windsor, Conn.

**Aluminum and Steel Windows** (AIA 16-E, A-59, D-59, C-59, S-59): in four publications covers curtain wall systems, steel windows and doors, aluminum windows and detention window systems with installation detail drawings and complete specs; 20 pp. to 36 pp. each.—The William Bayley Co., 1200 Warder St., Springfield 99, Ohio.

**Monotube Piles** (AIA 6-A): outlines all pertinent data on these tapered and fluted cold rolled steel piles with installation photos and tables giving driving formula, pile test and load settlement data; 22 pp.—The Union Metal Manufacturing Co., Canton 5, Ohio.

**Copings and Gravel Stops** (AIA 12-C-3): another in a series of complete cross-section drawings and installation details printed on slip sheets for convenient use in direct tracing or reproduction, in this case for aluminum copings and gravel stops with complete specs and file folder.—Reynolds Metals Co., Richmond 18, Va.

**J & L Lightweight Structurals:** uses numerous construction and completed job photos to depict versatility and low cost features of company's junior beams, junior channels, joists and light beam; 16 pp.—Jones & Laughlin Steel Corp., 3 Gateway Center, Pittsburgh 30, Pa.

**Graylite Building Board:** contains application data and photos for this building board that can be used as a combination sheathing and siding material; 4 pp.—Insulite Division, Minnesota and Ontario Paper Co., 500 Investors Bldg., Minneapolis 2, Minn.

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**Writing and Publishing Your Technical Book.** F. W. Dodge Corp., 119 W. 40th St., New York 18, N. Y. 1959. 50 pp. Free.

For the beginning writer this should be a must. It is designed to help the prospective author organize his ideas for presentation to the publisher and it does just that in a most able manner. Emphasis is placed on early consultation between author and publisher, a point that can save months of wasted effort. Also covered is advice on determining the need or market for the material, selecting a publisher, preparing a prospectus and outline and writing specimen chapters for submission to the publisher, plus description of the standard type of contract and royalty fees.

**Symposium on Some Approaches to Durability in Structures.** American Society for Testing Materials, 1916 Race St., Philadelphia 3, Pa. 1959. 72 pp. $2.50.

Directed toward correlations between tests of some commonly used structural materials and the effects of weather on them, both from the standpoint of test limits which indicate unsuitability for a specific structure as well as test limits which may increase costs or be unfair to a supplier because of general considerations rather than specific needs.

**Field Applied Paints and Coatings.** Building Research Institute, 2101 Constitution Ave., Washington 25, D. C., 1959. 150 pp. $5.

Contains the complete report of the BRI conference held on this subject in Washington last December, including a transcript of five panel discussions in which architects, builders, engineers and maintenance men posed questions to authorities on paints, coatings and their use in buildings.

**Manual of Recommended Practice for Cast-in-Place, Exposed, Architectural Concrete Finishes.** Concrete Industry Board, Inc., 220 E. 42nd St., New York 17, N. Y. 1959. 15 pp. $1.

Each important phase from specifications to construction is spelled out in detail for the architect, engineer and contractor, making it possible to evaluate quotations for concrete finishing more accurately.

**The Audio Cyclopedia.** By Howard W. Tremaine. Howard W. Sams & Co., Inc., 2201 E. 46th, Indianapolis, Ind. 1959. 1,280 pp. $19.95.

A major reference volume and working guide in which the author has attempted to compile sufficient data, in the form of questions and answers, to synthesize sound systems generally, together with their components and allied equipment and the accepted methods of installation, testing and operation.

**Preventive Maintenance Guide.** American Hospital Association, 840 N. Lake Shore Drive, Chicago 11, Ill. 1959. 82 pp. $2.

Outlines a program to extend the life of hospital equipment and buildings, to prevent costly breakdowns, to control costs and to help save patients' lives by guaranteeing that any equipment emergency can be met.

**Proceedings of the Porcelain Enamel Institute's 20th Annual Shop Practice Forum.** Porcelain Enamel Institute, 1145 19th St. N.W., Washington 6, D.C. 1959. 148 pp. $10.

Covers base metals for porcelain enameling; metal preparation; tests and specifications; architectural porcelain enamel; cost factors in shop operations; topics of general interest.

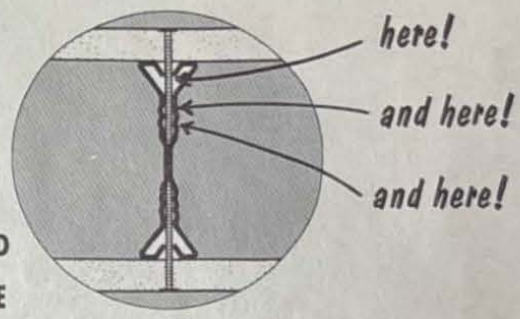
**1958 Research Houses** (two booklets). Research Institute, National Association of Home Builders, 1625 L. St. N.W., Washington 6, D.C. 1959. 48 pp. $2 each.

One deals with the house at South Bend, Ind., the other with the one at Knoxville, Tenn.


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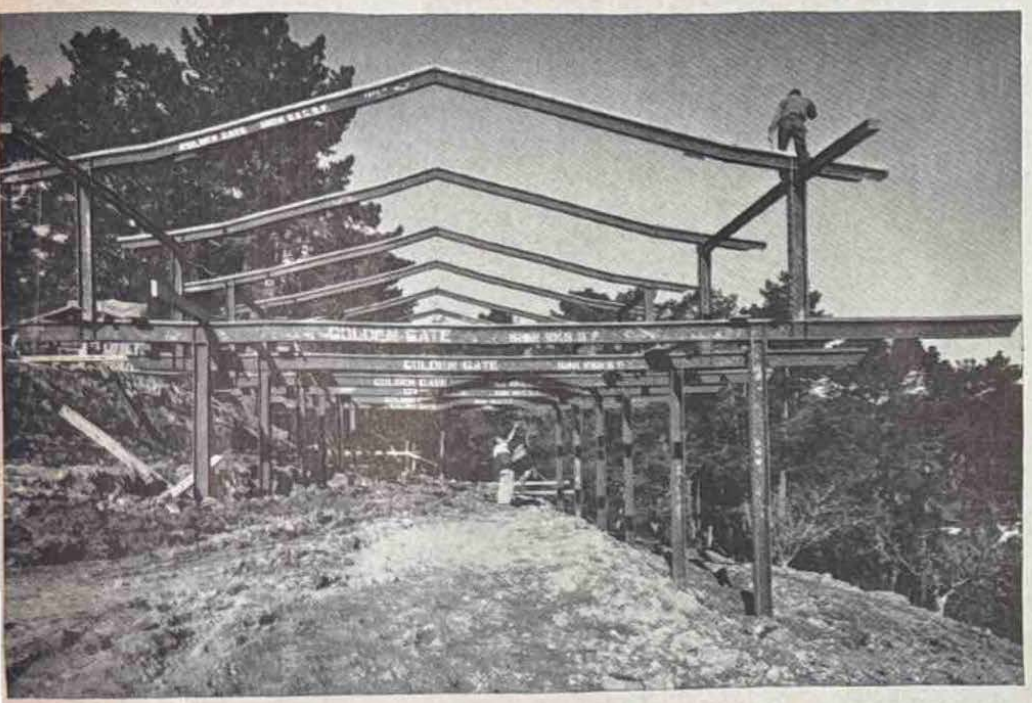
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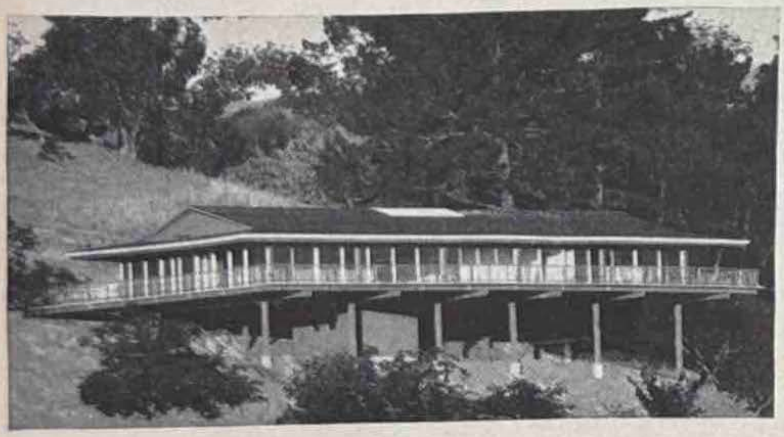
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# How they're licking the tough home building problems with steel



*structural engineer:* Warren & Siebert
*general contractor:* Roth Construction Co.
*steelwork:* Golden Gate Iron Works



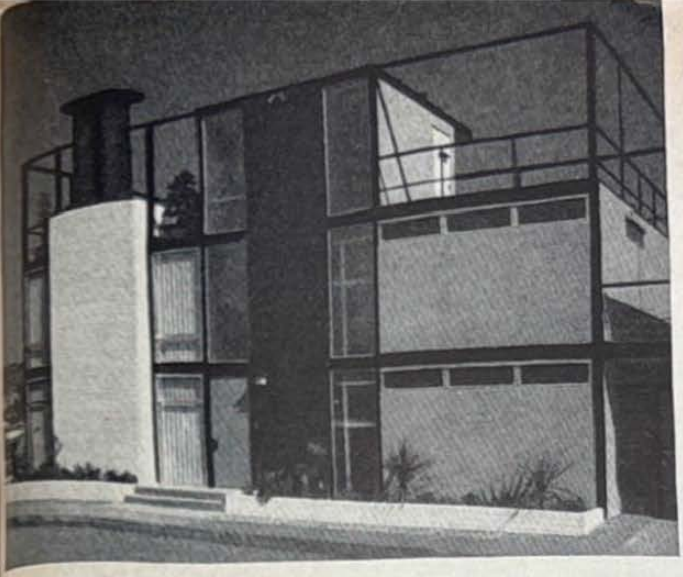
**PALO ALTO**—Builder Bill Roth had his eye on some choice lots. Prime location, commanding view, but steep-sloping. How could he build economically, and without bulldozing away the site's natural charm? Roth's architectural consultants, Johnson & Hawley, solved this puzzler with steel framing. See how those sturdy steel legs carry the load. There's not a bearing wall in the entire house. Says Builder Roth: "I'm sold on steel. It has paid off for me in a big way."

For more information about how structural steel is being used for homes and other light-occupancy structures, just ask your nearest Bethlehem sales office for copies of "Light Steel Framing."

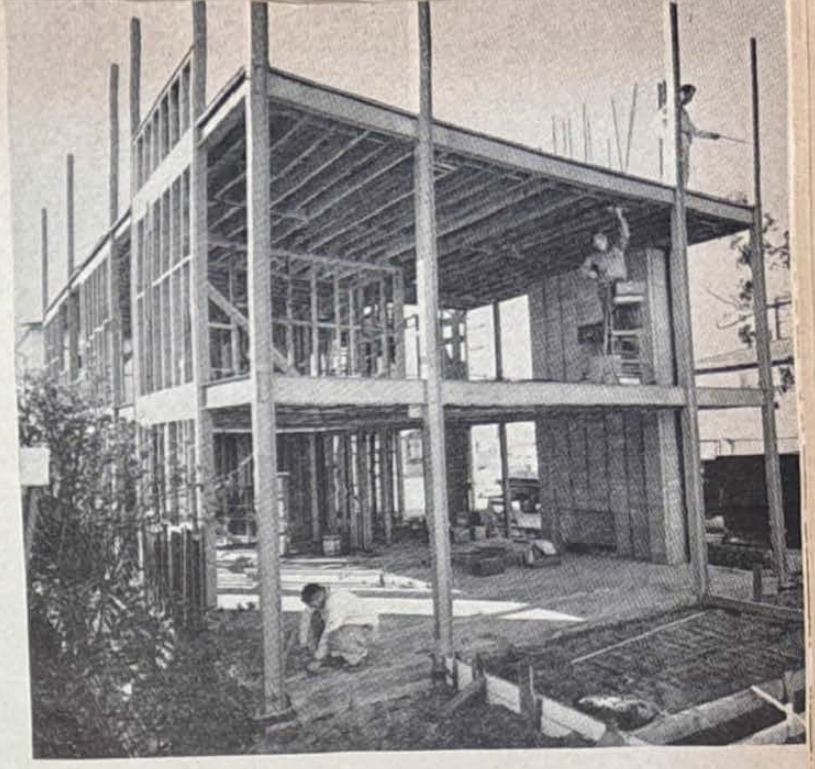
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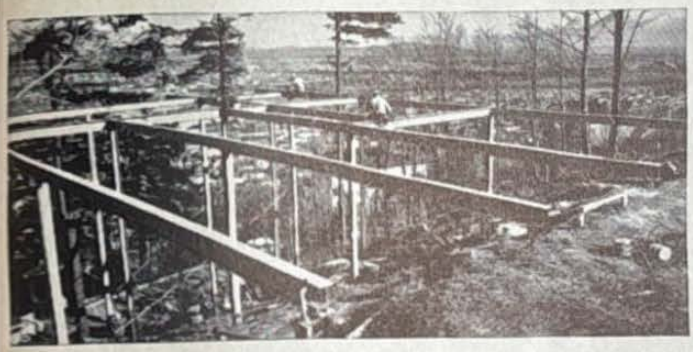


**BALBOA ISLAND**—Designer Richard Jay Smith faced the challenge of providing maximum living space on a very small lot in this exclusive resort. His solution was a two-story home framed with steel, with a patio on the roof! Says Designer Smith: "The use of steel in this home permitted adherence to close tolerances, and allowed me to repeat on both levels the glass expanses needed for the dramatic open front which faces the water. I was well pleased with the economy, too. Even with many luxurious appointments, the house cost only $14 per square foot."

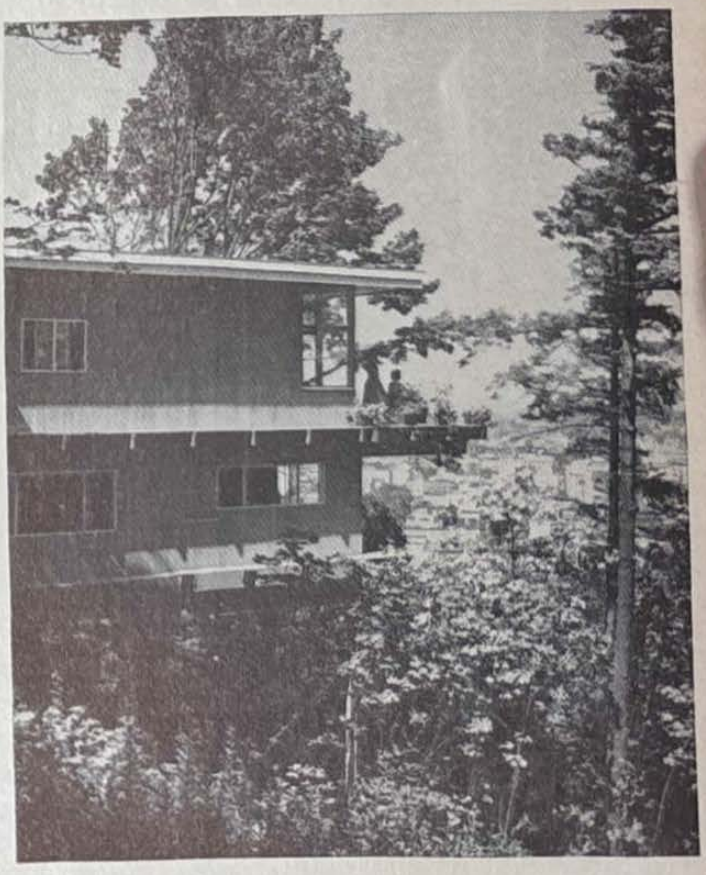


*structural engineer:* Robert E. Scherrer
*general contractor:* James D. Hoskins
*steelwork:* Smith Brothers

Steelwork was handled by Portland Wire & Iron Works



**PORTLAND**—Builder H. C. Nachand owned several lots overlooking the city, but landslides posed a threat. How could he build economical and safe foundations? Again the answer was *steel*. Geologist Herbert G. Schlicker approved of driving steel piling to bedrock, maintaining the natural grade, drainage, and vegetation. On top of the piling Nachand erected a steel framing system designed by architect Burton J. Goodrich and structural engineer D. L. McConnell. The upper level was built on the steel at grade; the lower level is framed inside the steel. Reports Builder Nachand: "Steel certainly filled the bill for me."



**STEEL** BETHLEHEM STEEL

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### new offices, partnerships

Winston Cordes has opened an office for the practice of architecture at 649 S. Olive St., Los Angeles. A graduate of Princeton University, he formerly was an associate in the firm of Albert C. Martin & Associates.

Robert R. Reid and William P. Hazard have formed an architectural partnership known as Reid & Hazard with offices in the Sandoval Building, Tucson.

Thomas C. Lefors Jr., architect, has opened an office at 1845 E. Main St., Ventura, Calif., in association with Kaestner Associates, architects-engineers.

F. Denis Beatty has opened an office for the practice of architecture at 693 Mission St., San Francisco.

Harlan A. Nelson, former urban development director for the Portland Housing Authority and Margaret G. Fritsch, architect, have opened offices in the Country Square Building, Oswego, Ore. The firm will be known as Harlan Nelson & Associates and will specialize in city, county and regional planning, land development and urban renewal.

Ray Chermak has established an office for the practice of architecture at 1501 S. Los Angeles St., Anaheim, Calif.

Fred Hummel has opened an office for the practice of architecture at 885 E. Main St., Ventura, Calif.

### firm changes

Thornton Ladd and John Kelsey have formed a partnership known as Ladd & Kelsey, architects, at 76 N. Pasadena Ave., Pasadena, succeeding the firm of Thornton Ladd & Associates.

James B. Stewart has been elected vice president of Kegley, Westphall & Arbogast, Los Angeles architects, and his offices at 550 W. Fifth St., San Pedro, have become the harbor area branch office of the new firm, Kegley, Westphall, Arbogast & Stewart. Establishing his own practice in 1956, he is a member of Mayor Poulson's advisory committee on urban renewal and was selected by the San Pedro Junior of Commerce as its "1957 Man of the Year."

R. E. Dudley, architect, has become a partner in the Seattle consulting engineer firm of Tracey, Cook & Brunstrom, now known as Tracey, Cook, Brunstrom & Dudley, architects-engineers.

### new addresses

Thomas M. I. Leake, architect, to the Gallagher Building, Ontario, Ore.

Arthur Riehl, architect, to 703 Bellevue Ave. N., Seattle.

Beland, Gianelli & Hanson, architects, to 542 Main St., Vacaville, Calif.

William L. Martin, architect, to the Cheyenne Shopping Center, 1700 S. Eighth St., Colorado Springs, Colo.

Harry S. Kohl, architect, to 4518 Allendale Ave., Oakland, Calif. He has also joined the staff of Oakland City College to instruct in architectural subjects.

Hoiland & Lund, architects, to 510 Strain Bldg., Great Falls, Mont.

Albert Sigal Jr., architect, to Columbus Tower, San Francisco.

John C. Bryant, architect, and Robert Butterfield, design associate, to 717 Medical-Dental Bldg., Everett, Wash.

Fetzer & Fetzer, architects, to 1345 S. Main St., Salt Lake City.

Jules Salkin, architect, to 8051 Fareholm Drive, Los Angeles.

William N. Ross, architect, to 609 West Clark St., Pasco, Wash.

Tod Hart, architect, to 1601 Fulton Ave., Sacramento.

### appointments, elections

James S. Sudler, architect, has been named to the Denver Planning Board for a two-year term.

Two Portland architects—L. Andre Lamoreux of Skidmore, Owings & Merrill and Alex Pierce—have been appointed to the advisory committee of the Portland Art Commission.

Ralph B. Redhead, formerly senior architect for the Oakland Public Schools, has joined the San Diego Unified School District as staff architect.

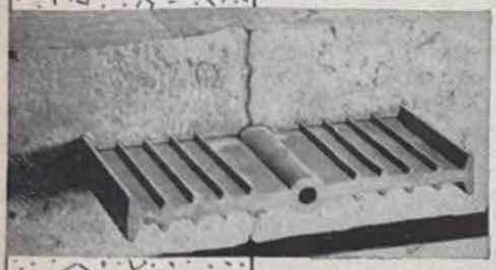
### deaths

John Mead Howells, 91, a partner in two architectural firms which were responsible for several major buildings in downtown Seattle, died September 22 at his home in Kittery


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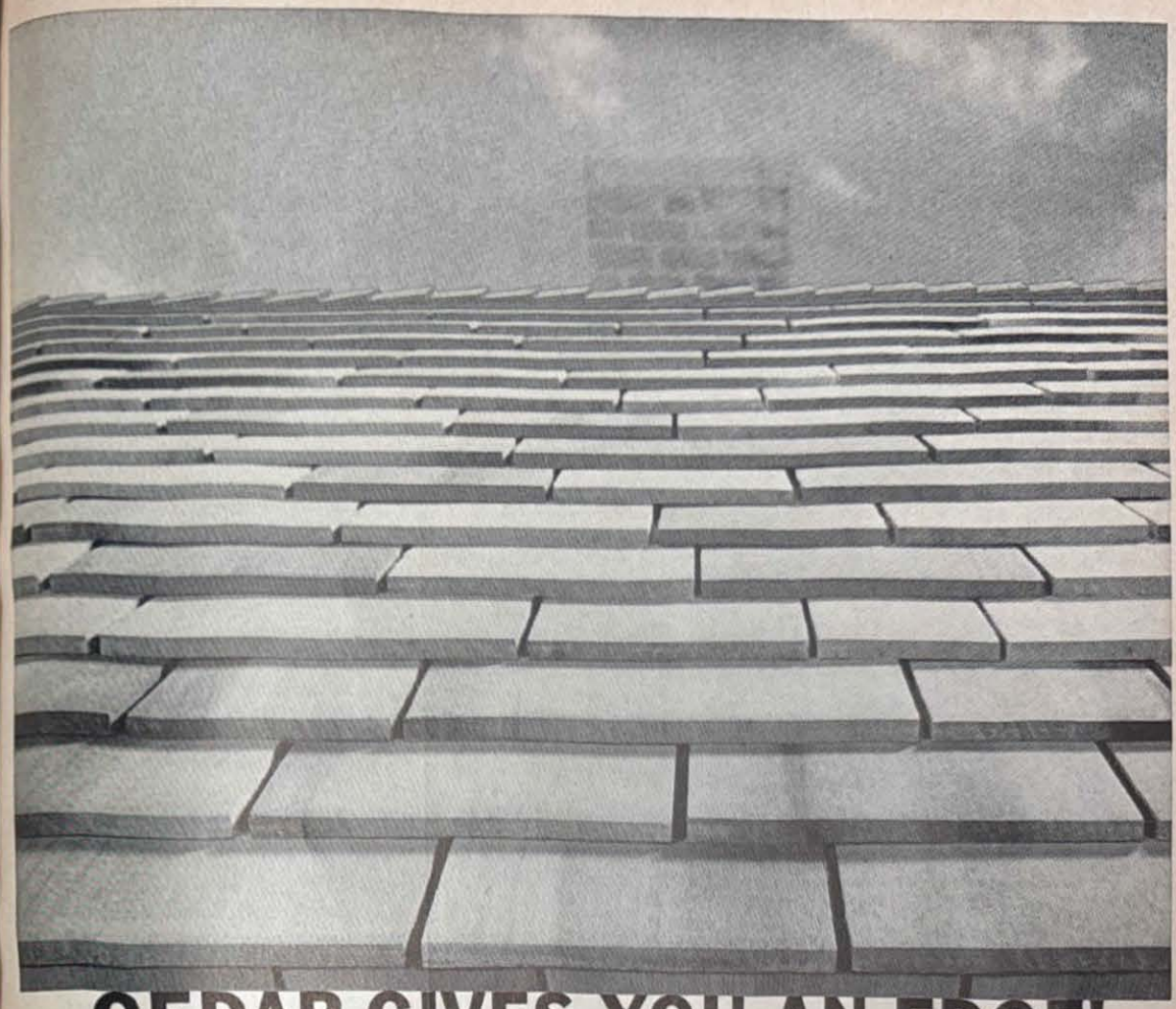
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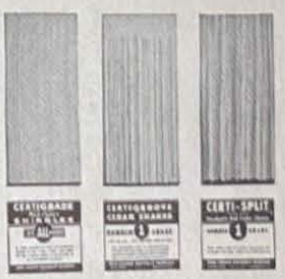
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Point, Me. The firm of Howells & Stokes designed the White-Henry-Stuart Building, the Cobb Building, the Arena Building (later converted into the Olympic Garage) and the old Metropolitan Theater; the firm of Howells & Albertson designed the Stimson Building.

Roscoe D. Hemenway, 70, Portland architect who specialized in residential work, died July 26.

## Architects told of role in urban redevelopment

If urban redevelopment is going to work and be at all effective, it is essential that architects get in at the beginning, rather than wait until they have a client and a signed contract.

That one theme was repeated in each of the speeches given by four leaders in the field at the September meeting of the East Bay Chapter, AIA. The discussion was moderated by architect Norris M. Gaddis of Oakland, who has been active in urban redevelopment for that city but not in an official capacity. Some comments from the talks of the panelists:

Peter Walker of Sasaki, Walker & Associates: The architect must overcome the reluctance to promote himself and must enter into policy-making areas to help establish the overall program before "clean-cut" clients become available.

Robert Reese, senior planner of the Richmond Redevelopment Agency: The architect has three levels of responsibility in the field of urban redevelopment: 1) as an artist to educate the planners and the public to what can be done in such projects; 2) as a technician to translate his aesthetic sense of what should be done in terms of society's framework; 3) as a citizen to work for the community's best interests.

Arthur Holl, assistant director of Oakland Redevelopment: There are two main groups who look at urban redevelopment. One is the practical, "get-things-done" type; the other can stand back and see the overall problem and what should be done to solve it. The former group presently controls how an area is to be redeveloped but this must change to where the latter makes the major decisions if urban redevelopment is to work.

John Tolan of Barrett Homes Corp.: Architects and builders need unified action so that a strong front can be presented before public bodies to counteract the lobbying done by other vested interests. One suggestion: a committee of members from the AIA and the Home Builders Association to work toward this end.

• **Southern Lacquer & Paint Corp.** has purchased a three-acre plant site in a new industrial section of South Gate, Calif., and will begin construction of a plant there in January. Site is between Garfield Avenue and the Long Beach Freeway.

• **Soule' Steel Co.** announces three new assignments in sales management. H. Scott Anderson, district manager in San Diego, is now product manager for commodity items in San Francisco. George Halgedahl, Salt Lake City district manager, moves to San Diego, and Thomas Regan, formerly in the Sacramento sales district, takes over Halgedahl's old post.

• **Portland Cement Association** has appointed James E. Armheim as structural specialist in the Los Angeles district office. He formerly was field engineer in the Long Beach and Orange County areas.

• **The Pam Co.**, Portland manufacturer of plastic dome skylights, has opened a plant in Hillsdale, Mich., under the management of Francis J. Smith, Portlander who recently was graduated from the University of Notre Dame.

• **Hagen & Strandgaard, Inc.**, San Francisco, Scandinavian furniture importer with sales offices in Los Angeles, Seattle and Denver, is now operating under a new name, Hagen International.

• **Plywall Products Co., Inc.**, has named Joe Malkovitch as West Coast sales manager, succeeding Dick Davis, who moves up to the post of assistant to the president. Malkovitch has been sales manager for Alley Lumber Co., Downey, Calif.

• **Olin Mathieson Chemical Corp.** has appointed M. L. Foss, Inc., Denver, as distributor for its aluminum in Colorado and Wyoming, northern New Mexico, the Panhandle of Nebraska and the Black Hills area of South Dakota. The distributor just recently completed construction of a new warehouse in Denver.

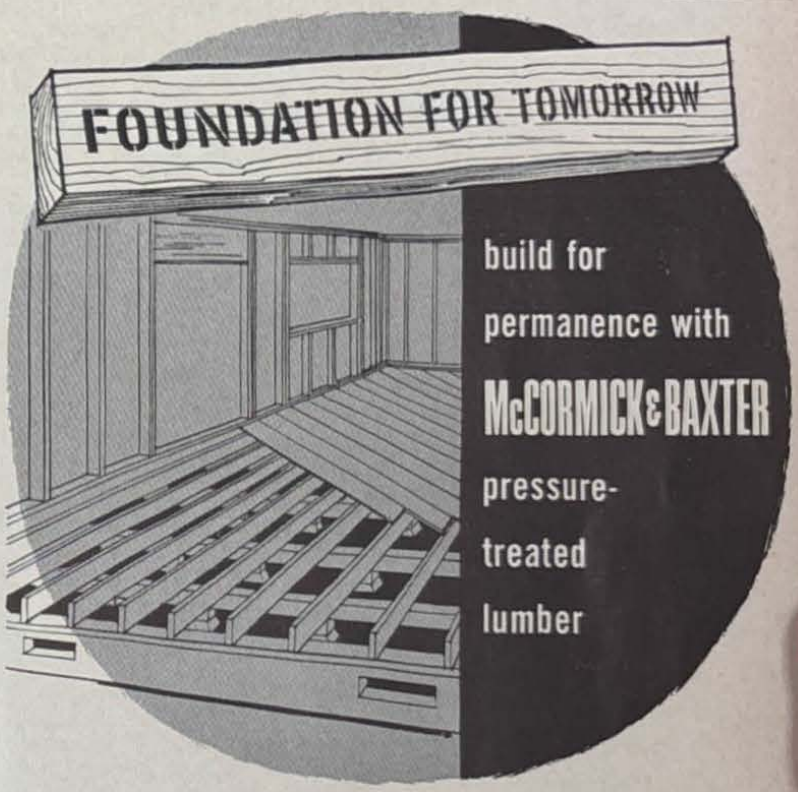
• **Weber Showcase & Fixture Co., Inc.**, Los Angeles, has elected Karl F. Weber to the post of executive vice president. He will also retain his position as general manager of the eastern plant. Robert Rutan has been named sales manager for WeberWall and Webcom flooring division. Prior to joining the firm in January he was employed by E. F. Hauserman Co.

• **Bestwall Certain-teed Sales Corp.** has moved the main San Francisco sales district offices to 301 El Cerrito Plaza in El Cerrito. The company also has opened a district credit office to serve both Bestwall Gypsum Co. and Certain-teed Products Corp. at 1014 Chesley Ave., Richmond, Calif. William S. Coupe will be in charge.

• **Aluminum Plumbing Fixture Corp.** has appointed John L. McPhee as sales manager with headquarters at the home office in Burlingame, Calif. McPhee previously was district sales representative for Shampaine Industries in the western territory.

• **Dow Chemical Co.** has moved its Seattle offices from the Tower Building to 307 Broad Street.

• **The Stanley Works** has begun construction of an office and warehouse in Crocker Industrial Park, a new industrial area near San Francisco. The one-story building will house regional sales and warehouse operations of the hardware division for California, Washington, Oregon, Arizona, Nevada and Utah and of the tools division for

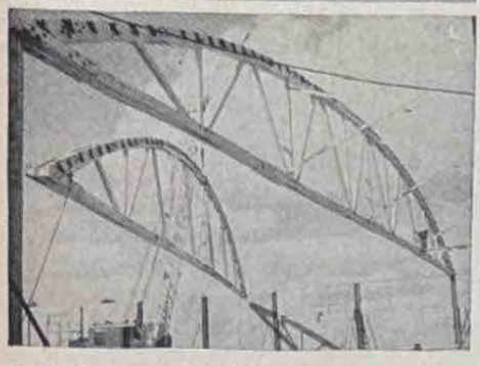




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the same states with the exception of Utah. Several other divisions will maintain sales offices there only. Building was designed by architect J. Francis Ward.

• **Koppers Co., Inc.,** has begun construction of the first wood preserving plant in Alaska to be located at Whittier, adjacent to property of Columbia Lumber Co. It is expected that the plant will be in operation by next July. Manager is Guy Phillips, formerly manager of the wood preserving division's Wauna, Ore., plant.

• **F. C. Russell Co.** has picked William A. Russell to head Rusco Window Co., Inc. Pacific Coast, new name of its western subsidiary. The appointment and name change are part of plans to expand manufacturing and distribution facilities to cover the entire Pacific Coast. Russell has been serving as manager of the replacement window division.

• **Westinghouse Electric Corp.** has transferred Burton H. Piper from Los Angeles to Seattle where he will serve as district manager of engineering and service for the apparatus division. He previously was electrical supervisor in the South Pacific district. Piper succeeds the late R. L. Von Lossow.

• **Prescolite Manufacturing Co.** has named William Govan as sales order manager in 11 western states. He will headquarter in the main office in Berkeley.

• **Forest Fiber Products Co.,** Forest Grove, Ore., has added John Caruth to the sales force, covering the southern California-Arizona area.

• **California Redwood Association** elected C. Russell Johnson of San Francisco president at the annual board meeting at Santa Rosa, Calif., in September. He is president of Union Lumber Co. Philip T. Farnsworth was reelected executive vice president; Gilbert L. Oswald, general manager of Simpson Redwood Co., Arcata, was named to the board of directors; and Willard E. Pratt, San Rafael, was elected secretary-treasurer.

• **J. H. Baxter & Co.,** San Francisco, has acquired part ownership in West Coast Wood Preserving Co. of Seattle. The Seattle firm will continue operations in the Puget Sound area under the new name of Baxter-Wyckoff Co. with owner Walter L. Wyckoff as president. Other newly elected officers are Charles A. Chadbourne, vice president; Alfred X. Baxter, vice president; R. B. Mossman, treasurer; and Warren A. Doolittle, secretary. William C. Cairns, formerly district manager for Baxter in Portland, will become general manager of Baxter-Wyckoff. Ralph F. Dreitzler, who had been with West Coast Wood for many years, will be assistant to the president and R. A. Thurston will continue as sales manager.

• **Waste King Corp.,** Los Angeles, has picked Dick Schaub for the newly created post of assistant to the general sales manager. He previously was sales coordinator for appliance and dealer distribution.

• **Douglas Fir Plywood Association,** Tacoma, has promoted John M. Hess from assistant to technical director, succeeding Nelson S. Perkins who has been named special assistant to the managing director.

• **Electric Steel Foundry Co.** has named Henry Swigert district sales representative in Arizona and New Mexico with headquarters in Phoenix, following four years of service.



**REDWOOD'S PLACE IN YEARS TO COME** is discussed at CRA conference by panelists Malcolm D. Reynolds, architect, Oakland; J. Robert Mosher, architect, La Jolla; Philip T. Farnsworth, executive vice president of association; Howard A. Libbey, head of Arcata Redwood Co. and outgoing president; Robert W. Fritz, industrial economist, Stanford Research Institute; and Thomas A. Mainwaring, market research director, Stanford Research Institute.

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## CONTRACTORS

● **Haas & Haynie Corp.**, San Francisco general contracting firm, has opened offices in Hawaii under the management of William Curlett, vice president.

● **L. H. Hoffman,** 75, founder of Hoffman Construction Co., Portland, in 1922, died August 8. Hoffman started his career as an architect with the firm of Whitehorse & Honeyman in 1908 after graduation from Harvard University. He turned over management of the construction firm to his sons in 1954, assuming the post of board chairman.

● **E. L. Cowan,** 67, retired general contractor of Great Falls, Mont., died August 27.

● **Sam Hoffman,** 59, one of the nation's largest home builders, and his wife, Ann, 55, were found dead in their Phoenix apartment October 13, the result of what police termed murder-suicide. Hoffman had projects underway in Phoenix, Albuquerque, Salt Lake City and Denver.

● **Alfred J. Stern,** president of Stern & Price, Inc., a San Francisco home building firm, and senior partner in Stern Construction Co., has been appointed to the California State Park Commission.

● **Johnson, Drake & Piper, Inc.,** general contracting firm, has moved to 4821 Tidewater Ave., Oakland.

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the same states with the exception of Utah. Several other divisions will maintain sales offices there only. Building was designed by architect J. Francis Ward.

• **Koppers Co., Inc.,** has begun construction of the first wood preserving plant in Alaska to be located at Whittier, adjacent to property of Columbia Lumber Co. It is expected that the plant will be in operation by next July. Manager is Guy Phillips, formerly manager of the wood preserving division's Wauna, Ore., plant.

• **F. C. Russell Co.** has picked William A. Russell to head Rusco Window Co., Inc. Pacific Coast, new name of its western subsidiary. The appointment and name change are part of plans to expand manufacturing and distribution facilities to cover the entire Pacific Coast. Russell has been serving as manager of the replacement window division.

• **Westinghouse Electric Corp.** has transferred Burton H. Piper from Los Angeles to Seattle where he will serve as district manager of engineering and service for the apparatus division. He previously was electrical supervisor in the South Pacific district. Piper succeeds the late R. L. Von Lossow.

• **Prescolite Manufacturing Co.** has named William Govan as sales order manager in 11 western states. He will headquarter in the main office in Berkeley.

• **Forest Fiber Products Co.,** Forest Grove, Ore., has added John Caruth to the sales force, covering the southern California-Arizona area.

• **California Redwood Association** elected C. Russell Johnson of San Francisco president at the annual board meeting at Santa Rosa, Calif., in September. He is president of Union Lumber Co. Philip T. Farnsworth was reelected executive vice president; Gilbert L. Oswald, general manager of Simpson Redwood Co., Arcata, was named to the board of directors; and Willard E. Pratt, San Rafael, was elected secretary-treasurer.

• **J. H. Baxter & Co.,** San Francisco, has acquired part ownership in West Coast Wood Preserving Co. of Seattle. The Seattle firm will continue operations in the Puget Sound area under the new name of Baxter-Wyckoff Co. with owner Walter L. Wyckoff as president. Other newly elected officers are Charles A. Chadbourne, vice president; Alfred X. Baxter, vice president; R. B. Mossman, treasurer; and Warren A. Doolittle, secretary. William C. Cairns, formerly district manager for Baxter in Portland, will become general manager of Baxter-Wyckoff. Ralph F. Dreitzler, who had been with West Coast Wood for many years, will be assistant to the president and R. A. Thurston will continue as sales manager.

• **Waste King Corp.,** Los Angeles, has picked Dick Schaub for the newly created post of assistant to the general sales manager. He previously was sales coordinator for appliance and dealer distribution.

• **Douglas Fir Plywood Association,** Tacoma, has promoted John M. Hess from assistant to technical director, succeeding Nelson S. Perkins who has been named special assistant to the managing director.

• **Electric Steel Foundry Co.** has named Henry Swigert district sales representative in Arizona and New Mexico with headquarters in Phoenix, following four years of service.



**REDWOOD'S PLACE IN YEARS TO COME** is discussed at CRA conference by panelists Malcolm D. Reynolds, architect, Oakland; J. Robert Mosher, architect, La Jolla; Philip T. Farnsworth, executive vice president of association; Howard A. Libbey, head of Arcata Redwood Co. and outgoing president; Robert W. Fritz, industrial economist, Stanford Research Institute; and Thomas A. Mainwaring, market research director, Stanford Research Institute.

# pacific architect & builder

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## CONTRACTORS

● **Haas & Haynie Corp.**, San Francisco general contracting firm, has opened offices in Hawaii under the management of William Curlett, vice president.

● **L. H. Hoffman,** 75, founder of Hoffman Construction Co., Portland, in 1922, died August 8. Hoffman started his career as an architect with the firm of Whitehorse & Honeyman in 1908 after graduation from Harvard University. He turned over management of the construction firm to his sons in 1954, assuming the post of board chairman.

● **E. L. Cowan,** 67, retired general contractor of Great Falls, Mont., died August 27.

● **Sam Hoffman,** 59, one of the nation's largest home builders, and his wife, Ann, 55, were found dead in their Phoenix apartment October 13, the result of what police termed murder-suicide. Hoffman had projects underway in Phoenix, Albuquerque, Salt Lake City and Denver.

● **Alfred J. Stern,** president of Stern & Price, Inc., a San Francisco home building firm, and senior partner in Stern Construction Co., has been appointed to the California State Park Commission.

● **Johnson, Drake & Piper, Inc.,** general contracting firm, has moved to 4821 Tidewater Ave., Oakland.

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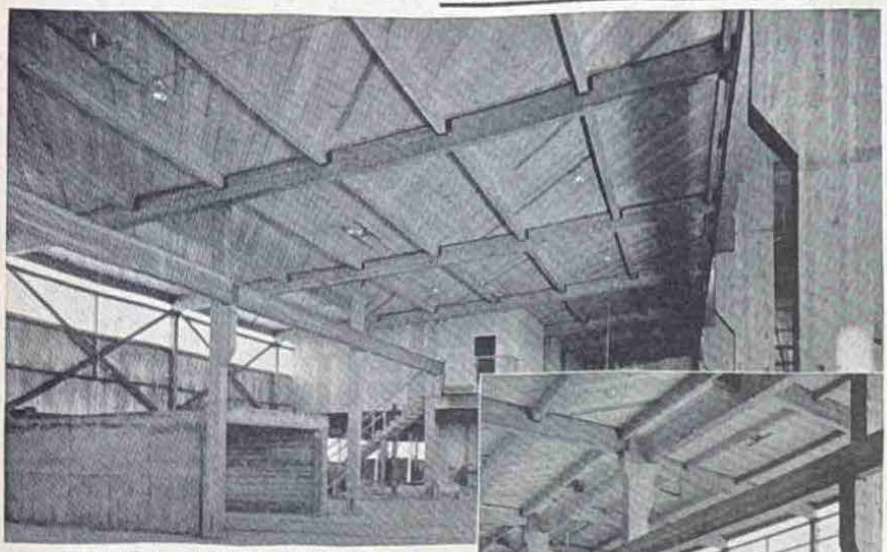
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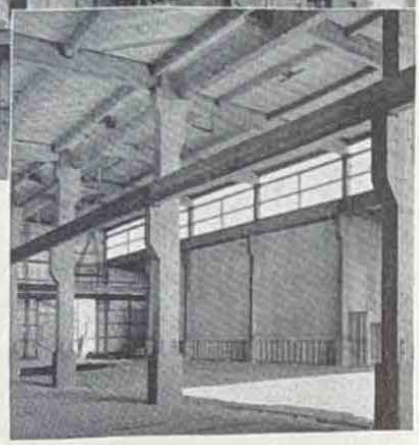
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Western Foundry Co. building Tigard, Oregon. 21,000 sq. feet of floor space. Roof is supported by 37 Rilco beams up to 11"x 24⅜" in section, 59' 11⅞" long; columns 11"x 19½" in section and 30' 8" long; center bay 40'; craneway has one 10, one 15 ton crane. Engineer and Contractor: Monson & Sivers Co., Portland, Ore.

Monson & Sivers, engineers on this Western Foundry building, report "three basic shell systems were considered . . . Upon analyzing all three, the most economical was the glued laminated beam system. Cost of the basic laminated shell in its entirety, including the columns, roof and crane beams plus all the necessary bracing erected was slightly over $1 per square foot. In going to the laminated beam system, aesthetic qualities were not overlooked, as the clean lines of the beams and columns give somewhat of a classic appearance."

RILCO laminated wood beams and columns were selected because they are unaffected by corrosive fumes and withstand extreme heat without buckling—they won't rust, crack or warp. No painting is needed, maintenance is kept at a minimum—all important considerations in a foundry.

RILCO Laminated wood members are custom fabricated to exact specifications. Connecting hardware is furnished. Erection is handled by a regular job crew.

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236 TACOMA BUILDING, TACOMA, WASHINGTON


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**on deck at pa&b**

Leading off the design features next month will be the newly dedicated Stanford Medical Center, Edward D. Stone's latest contribution to the West Coast. The $21 million complex, consisting of seven structures sharing a common roof in an H-shape, brings the university's Medical School to the Palo Alto campus after 100 years in San Francisco. A methods article will combine some interesting construction shots with completed photographs of an all-purpose building for a Seattle area high school, characterized by a thin shell concrete roof resting on seven small buttresses around the perimeter.

In December we'll begin a series of progress reports on the new headquarters building which PA&B will share with its publisher, Pacific Builder & Engineer, Inc. Construction of the project, designed by A. O. Bumgardner, consulting editor, is expected to get underway later this month, following the contract award. The five basic bids: Riley Pleas, Inc., $151,800; R. B. Miles Construction Co., $152,766; John H. Sellen Construction Co., $154,000; Sound Construction & Engineering Co., $160,630; and Eberharter & Gaunt, $166,820.

In addition to showing elevations of the accepted scheme, our initial article will illustrate the two other principal solutions proposed by the architect, outlining the advantages and disadvantages of each.

**fast plane to kuwait**

Glenn M. Canaday, well known to PA&B readers for current series on "Preparing the Building Estimate" and earlier articles on construction techniques, packed his bags in a hurry last month and flew to northeast Arabia. Accompanied by Mrs. Canaday, he is stationed in Kuwait as project manager for Wright-Cheney & Associates, in charge of securing both heavy and building contracts.

**who's whose**

Re the headline in this column for October: "art for who's sake?"

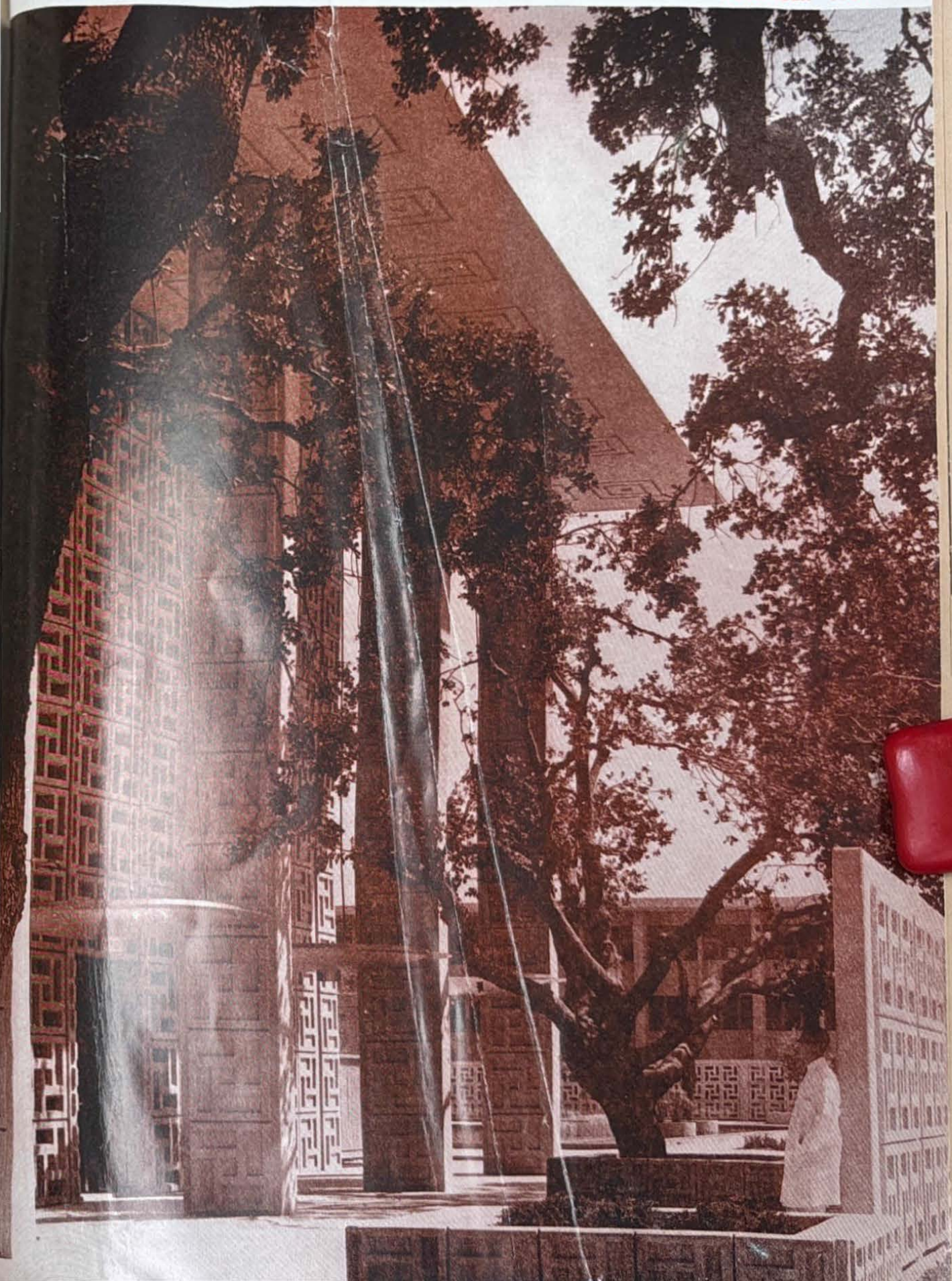
*Who's—the contraction of who is;*
*Whose—the possessive of who.*
*So we're just as baffled as you is*
*How this shabby error slipped thru!*

R.E.K.

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UNIVERSITY OF OREGON
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# pacific architect & builder

DECEMBER 1959






Macy's Valley Fair, San Jose, California. Victor Gruen, Architect A. I. A.

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# pacific architect & builder

december 1959

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21 Stanford Medical Center, Palo Alto, Calif.: Edward D. Stone, Architect

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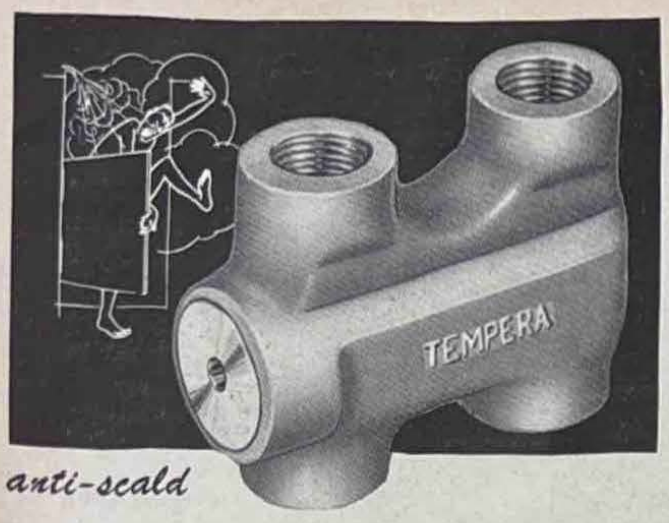
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COVER: Stanford Medical Center, Palo Alto, Calif. (p. 21)—Edward D. Stone, Architect: Stanford University photo.




*anti-scald*

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## TEMPERA CORPORATION

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## October total barely tops '58 figure

Dollar volume of building permits reported by 155 key agencies in the 13 western states for October is $301,480,879, inching past the same period last year by $9.2 million. Nine of the states show increases over last year, varying from $62,000 in Wyoming to $17.8 million in California. Other state totals topping October 1958 are Alaska, $3.5 million; Arizona, $1.9 million; Hawaii, $1.7 million; New Mexico, $724,000; Nevada, $689,000; Montana, $633,000; and Utah, $78,000.

Four states record decreases. Washington is down $8.1 million; Colorado, $5.1 million; Oregon, $4.6 million; and Idaho, $134,000.

### Top 15 agencies

Nine of the top 15 agencies for October are in California; two in Washington; two in Arizona and one each in Colorado and Hawaii. Following are the top 15:

| | October 1959 | October 1958 |
|---|---|---|
| 1. Los Angeles | $48,167,529 | $40,414,262 |
| 2. Los Angeles County | 17,845,490 | 21,414,262 |
| 3. San Diego County | 16,690,300 | 9,700,506 |
| 4. San Diego | 13,530,313 | 15,072,689 |
| 5. Sacramento County | 11,920,878 | 12,733,179 |
| 6. San Francisco | 10,627,332 | 4,020,550 |
| 7. San Jose | 10,464,454 | 9,714,265 |
| 8. Seattle | 8,971,595 | 13,969,316 |
| 9. Contra Costa County | 8,723,282 | 3,234,571 |
| 10. Honolulu | 8,461,764 | 5,642,060 |
| 11. King County, Wash. | 7,685,327 | 9,503,615 |
| 12. Phoenix | 6,829,243 | 5,236,996 |
| 13. Maricopa County, Ariz. | 6,504,946 | 10,946,615 |
| 14. Denver | 5,610,065 | 11,761,435 |
| 15. Anaheim | 5,154,393 | 4,636,426 |

### Seasonal drop from September

As would be expected at this time of year, dollar volume for the 13-state area in October shows a $49.1 million drop from September figures. Only three state totals, Alaska, Idaho and Utah, are higher than the previous month. Among the remaining states, those recording the largest decreases are California, down $16.4 million; Hawaii, $8.6 million; Colorado, $6.9 million; and Washington, $5.9 million.

Concerning the outlook for 1960, the forecasters are being considerably more conservative than usual. The consensus seems to be that it won't be a boom year by any means, but there will be enough activity to keep the industry out of a slump. Money is tight and there is every indication that it will get tighter. In fact, some observers feel that this is the beginning of a cycle that will amount to a prolonged squeeze of great magnitude. Mortgage rates already are topping 6% and mortgage money is getting scarce.

### Analysis of typical areas—October

| | Dwelling | Commercial & Industrial | Public |
|---|---|---|---|
| Los Angeles County | $13,452,174 | $2,574,566 | *$1,103,500 |
| Orange County | 2,660,673 | 48,090 | 15,000 |
| Sacramento County | 8,952,225 | 598,748 | 2,147,804 |
| Las Vegas | 2,135,650 | 113,000 | 277,000 |
| Denver | 1,464,575 | 1,495,935 | 100,000 |
| Seattle | 3,905,482 | 2,818,050 | 1,996,833 |
| King County | 6,513,244 | 351,100 | 704,350 |
| Portland | 1,124,495 | 326,900 | |
| Honolulu | 6,355,094 | 1,529,374 | 219,362 |

*Does not include $1,599,739 for tax-supported school construction.

# Building Permit Totals for 155 Western Agencies for October

| CALIFORNIA | Oct. 1959 | Oct. 1958 |
|---|---|---|
| Alameda County | $ 993,600 | $ 1,208,050 |
| Anaheim | 5,154,393 | 4,636,426 |
| Bakersfield | 510,475 | 761,416 |
| Burbank | 458,468 | 1,634,559 |
| Contra Costa County | 8,723,282 | 3,234,571 |
| Fresno | 1,236,387 | 1,027,134 |
| Fullerton | 1,146,199 | 2,062,417 |
| Glendale | 1,673,444 | 1,159,514 |
| Inglewood | 644,822 | 1,068,695 |
| Long Beach | 2,957,355 | 4,964,830 |
| Los Angeles | 48,167,529 | 40,650,677 |
| Los Angeles County | 17,845,490 | 21,414,262 |
| Oakland | 2,917,194 | 4,448,277 |
| Ontario | 380,575 | 758,544 |
| Orange County | 3,085,147 | 2,816,174 |
| Palo Alto | 2,653,691 | 1,018,093 |
| Pasadena | 3,795,716 | 1,817,616 |
| Pomona | 986,097 | 407,844 |
| Richmond | 1,354,491 | 519,514 |
| Riverside | 1,870,781 | 1,687,169 |
| Sacramento | 5,095,690 | 6,628,267 |
| Sacramento County | 11,920,878 | 12,733,179 |
| San Bernardino | 1,183,167 | 2,421,829 |
| San Bernardino County | 4,615,307 | 6,436,561 |
| San Diego | 13,530,313 | 15,072,689 |
| San Diego County | 16,696,300 | 9,700,500 |
| San Francisco | 10,627,332 | 4,020,550 |
| San Jose | 10,463,454 | 9,714,265 |
| San Mateo | 982,784 | 1,615,487 |
| San Mateo County | 2,041,865 | 3,326,931 |
| Santa Ana | 4,461,769 | 1,025,722 |
| Santa Monica | 832,091 | 1,658,816 |
| Stockton | 2,623,754 | 2,024,239 |
| Sunnyvale | 2,268,325 | 1,608,823 |
| Torrance | 1,233,350 | 1,548,805 |
| West Covina | 920,735 | 1,384,877 |
| TOTAL | $196,117,225 | $178,217,321 |

| OREGON | Oct. 1959 | Oct. 1958 |
|---|---|---|
| Albany | $ 76,800 | $ 138,750 |
| Astoria | 25,300 | 7,017 |
| Baker | 127,540 | 45,000 |
| Bend | 121,305 | 74,400 |
| Coos Bay | 272,341 | 65,095 |
| Corvallis | 271,600 | 326,040 |
| Eugene | 672,467 | 419,285 |
| Grants Pass | 101,400 | 64,150 |
| Gresham | 23,800 | 19,721 |
| Hillsboro | 255,660 | 110,906 |
| Klamath Falls | 146,770 | 268,680 |
| LaGrande | 554,362 | 81,095 |
| Lane County | 1,921,223 | 970,541 |
| Medford | 293,126 | 1,129,821 |
| Multnomah County | 3,579,467 | 3,913,915 |
| North Bend | 18,457 | 97,900 |
| Oregon City | 36,910 | 32,725 |
| Portland | 2,410,965 | 7,779,130 |
| Roseburg | 393,569 | 196,372 |
| Salem | 519,824 | 625,003 |
| Springfield | 44,551 | 147,025 |
| The Dalles | 32,675 | 84,831 |
| TOTAL | $ 11,900,112 | $ 16,597,402 |

| WASHINGTON | Oct. 1959 | Oct. 1958 |
|---|---|---|
| Aberdeen | $ 59,459 | $ 73,352 |
| Anacortes | 79,955 | 102,998 |
| Auburn | 88,800 | 364,000 |
| Bellingham | 302,879 | 1,833,058 |
| Bremerton | 543,590 | 253,635 |
| Centralia | 52,648 | 60,982 |
| Chehalis | 35,902 | 21,734 |
| Ellensburg | 76,026 | 64,417 |
| Ephrata | 3,400 | 31,665 |
| Everett | 339,604 | 133,998 |
| Kelso | 47,250 | 97,000 |
| Kennewick | 172,510 | 53,600 |
| King County | 7,685,327 | 9,503,615 |
| Kirkland | 94,050 | 47,100 |
| Longview | 120,082 | 243,018 |
| Moses Lake | 275,550 | 92,320 |
| Olympia | 184,956 | 205,598 |
| Pasco | 54,817 | 132,300 |
| Pierce County | 1,801,656 | 1,815,830 |
| Port Angeles | 59,600 | 27,950 |
| Puyallup | 9,300 | 29,050 |
| Seattle | 8,971,595 | 13,969,316 |
| Spokane | 1,788,964 | 2,009,647 |
| Spokane County | 1,555,215 | 1,651,399 |
| Tacoma | 1,947,398 | 1,424,154 |
| Vancouver | 269,076 | 764,060 |
| Walla Walla | 352,177 | 195,510 |
| Wenatchee | 585,228 | 251,877 |
| Yakima | 509,205 | 502,030 |
| TOTAL | $ 27,846,219 | $ 35,955,213 |

| ALASKA | Oct. 1959 | Oct. 1958 |
|---|---|---|
| Anchorage | $ 3,546,221 | $ 669,051 |
| Fairbanks | 984,770 | 56,670 |
| Juneau | 23,800 | 42,500 |
| Ketchikan | 50,150 | 156,250 |
| TOTAL | $ 4,514,941 | $ 924,471 |

| IDAHO | Oct. 1959 | Oct. 1958 |
|---|---|---|
| Boise | $ 431,744 | $ 713,308 |
| Caldwell | 153,800 | 108,166 |
| Coeur d'Alene | 75,860 | 164,695 |
| Idaho Falls | 647,450 | 881,356 |
| Jerome | 39,500 | 29,950 |
| Lewiston | 102,219 | 146,925 |
| Nampa | 568,031 | 267,425 |
| Payette | 36,900 | 12,700 |
| Pocatello | 213,920 | 191,037 |
| Sandpoint | 10,250 | 76,000 |
| St. Maries | | 23,000 |
| Twin Falls | 304,000 | 102,820 |
| TOTAL | $ 2,583,674 | $ 2,717,382 |

| MONTANA | Oct. 1959 | Oct. 1958 |
|---|---|---|
| Billings | $ 648,000 | $ 284,650 |
| Bozeman | 440,883 | 189,150 |
| Butte | 206,480 | 75,388 |
| Glasgow | 103,700 | 68,600 |
| Glendive | | 42,600 |
| Great Falls | 1,067,076 | 1,005,733 |
| Helena | 276,655 | 513,810 |
| Kalispell | 128,689 | 54,385 |
| Lewistown | 211,950 | 238,825 |
| Livingston | 38,485 | 16,175 |
| Miles City | 164,074 | 105,940 |
| Missoula | 132,474 | 184,550 |
| TOTAL | $ 3,412,466 | $ 2,779,806 |

| WYOMING | Oct. 1959 | Oct. 1958 |
|---|---|---|
| Casper | $ 368,930 | $ 697,822 |
| Cheyenne | 874,290 | 446,842 |
| Sheridan | 74,289 | 110,725 |
| TOTAL | $ 1,317,509 | $ 1,255,389 |

| COLORADO | Oct. 1959 | Oct. 1958 |
|---|---|---|
| Aurora | $ 539,656 | $ 736,249 |
| Boulder | 772,866 | 579,376 |
| Denver | 5,610,065 | 11,761,435 |
| Englewood | 301,634 | 275,050 |
| Fort Collins | 1,068,303 | 545,722 |
| Grand Junction | 713,315 | 146,900 |
| Greeley | 407,125 | 463,556 |
| Pueblo | 692,610 | 733,383 |
| Trinidad | 17,451 | 19,150 |
| TOTAL | $ 10,123,025 | $ 15,260,821 |

| UTAH | Oct. 1959 | Oct. 1958 |
|---|---|---|
| Logan | $ 196,280 | $ 178,500 |
| Murray | 128,400 | 205,900 |
| Ogden | 965,400 | 1,013,700 |
| Provo | 232,050 | 470,360 |
| Salt Lake City | 1,912,315 | 1,487,929 |
| TOTAL | $ 3,434,445 | $ 3,356,389 |

| NEVADA | Oct. 1959 | Oct. 1958 |
|---|---|---|
| Elko | $ 62,183 | $ 683,520 |
| Las Vegas | 2,551,250 | 1,077,047 |
| Reno | 1,462,499 | 1,568,904 |
| Sparks | 128,984 | 186,129 |
| TOTAL | $ 4,204,916 | $ 3,515,600 |

| ARIZONA | Oct. 1959 | Oct. 1958 |
|---|---|---|
| Douglas | $ 39,725 | $ 143,675 |
| Flagstaff | 230,820 | 586,295 |
| Glendale | 876,845 | 50,015 |
| Maricopa County | 8,504,946 | 10,946,615 |
| Mesa | 1,337,717 | 441,481 |
| Phoenix | 6,829,243 | 5,238,996 |
| Tucson | 4,416,211 | 778,184 |
| Yuma | 53,157 | 154,060 |
| TOTAL | $ 20,288,664 | $ 18,337,321 |

| NEW MEXICO | Oct. 1959 | Oct. 1958 |
|---|---|---|
| Albuquerque | $ 4,392,944 | $ 3,650,044 |
| Carlsbad | 171,325 | 172,540 |
| Clovis | 452,458 | 224,502 |
| Gallup | 98,909 | 297,359 |
| Hobbs | 199,850 | 707,850 |
| Las Cruces | 502,000 | 593,000 |
| Roswell | 734,990 | |
| Santa Fe | 236,658 | 420,143 |
| TOTAL | $ 6,789,134 | $ 6,065,438 |

| HAWAII | Oct. 1959 | Oct. 1958 |
|---|---|---|
| Hawaii County | $ 404,863 | $ 335,606 |
| Honolulu (city-county) | 8,461,764 | 5,642,060 |
| Maui County | 81,922 | 223,813 |
| TOTAL | $ 8,948,549 | $ 7,201,479 |
| GRAND TOTAL | $301,480,879 | $292,184,032 |

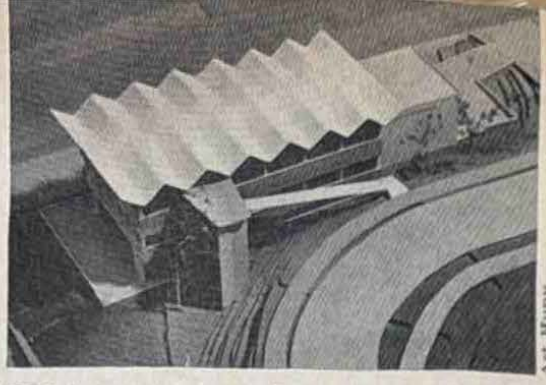
# No. 1: PA&B progress report

Sitework has begun for the headquarters building which Pacific Architect & Builder will share with its publisher Pacific Builder & Engineer, Inc., on a steeply sloping lot overlooking Lake Union, one mile from downtown Seattle. Completion date is set for the summer of 1960.

The general contract is held by Riley Pleas, Inc., whose low bid of $151,800 was slightly below the estimate of architect A. O. Bumgardner, who also serves as PA&B's consulting editor. Structural engineers are Worthington, Skilling, Helle & Jackson, Jack Christiansen, associate, mechanical engineers, Sterne & Towne; electrical engineers, T. E. Sparling.

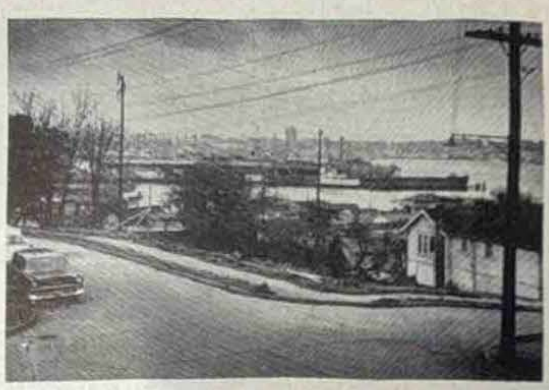
Plans provide for parking on the ground level, loading, printing and storage on the first and publishing on the second. A variation of the accepted scheme and another which called for one story and basement are shown in the diagrammatic sketches below. The three-level proposal got the nod because it achieves considerable economies of vertical construction, equalizing cut and fill on the site, and permits the building to stand free within the property boundaries enabling the development of an appropriate architectural expression.

The reinforced concrete structure will be dominated by a 2½-in. thin shell concrete hyperbolic paraboloid roof which allows clear span areas of 45x83 ft. on each floor and provides unrestricted cross ventilation.

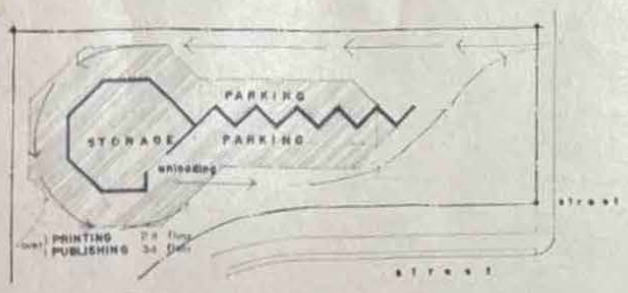


Art Hupy

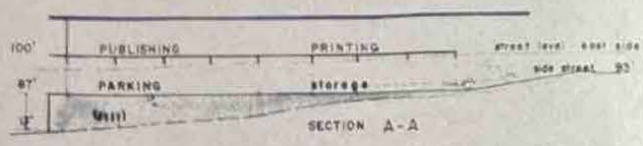
**ROOF** is important design element since major approach to building is from north-south arterial above property. Free-standing stair tower is sheltered from weather, provides access between publishing and printing levels without interrupting flexibility of main clear span space.

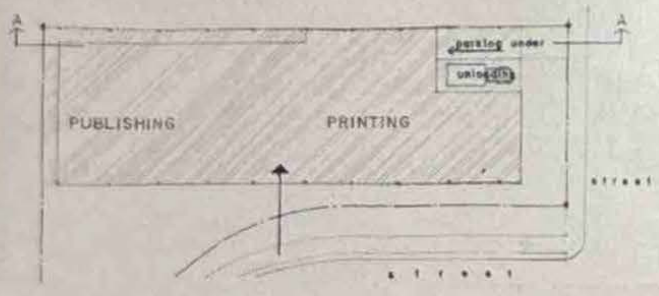


**HOLE IN THE GROUND:** Steepness of slope is indicated in site photo, showing Lake Union and its fishing vessels, downtown Seattle at left and telephone poles, of course. Queen Anne Hill is across water.



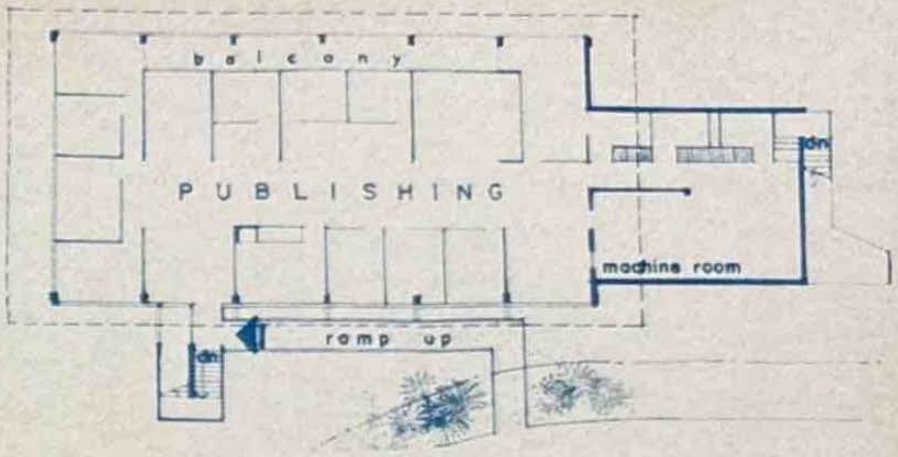

**VARIATION OF ACCEPTED PLAN** also is three-level scheme but with different allocation of space. Ground level would provide for parking, loading and storage; printing would occupy first floor exclusively; publishing would remain on second floor. It provides most advantageous parking solution and architect felt it could be exciting designwise. Its major drawback: requires elevator since all materials would have to travel via lift between printing and loading.

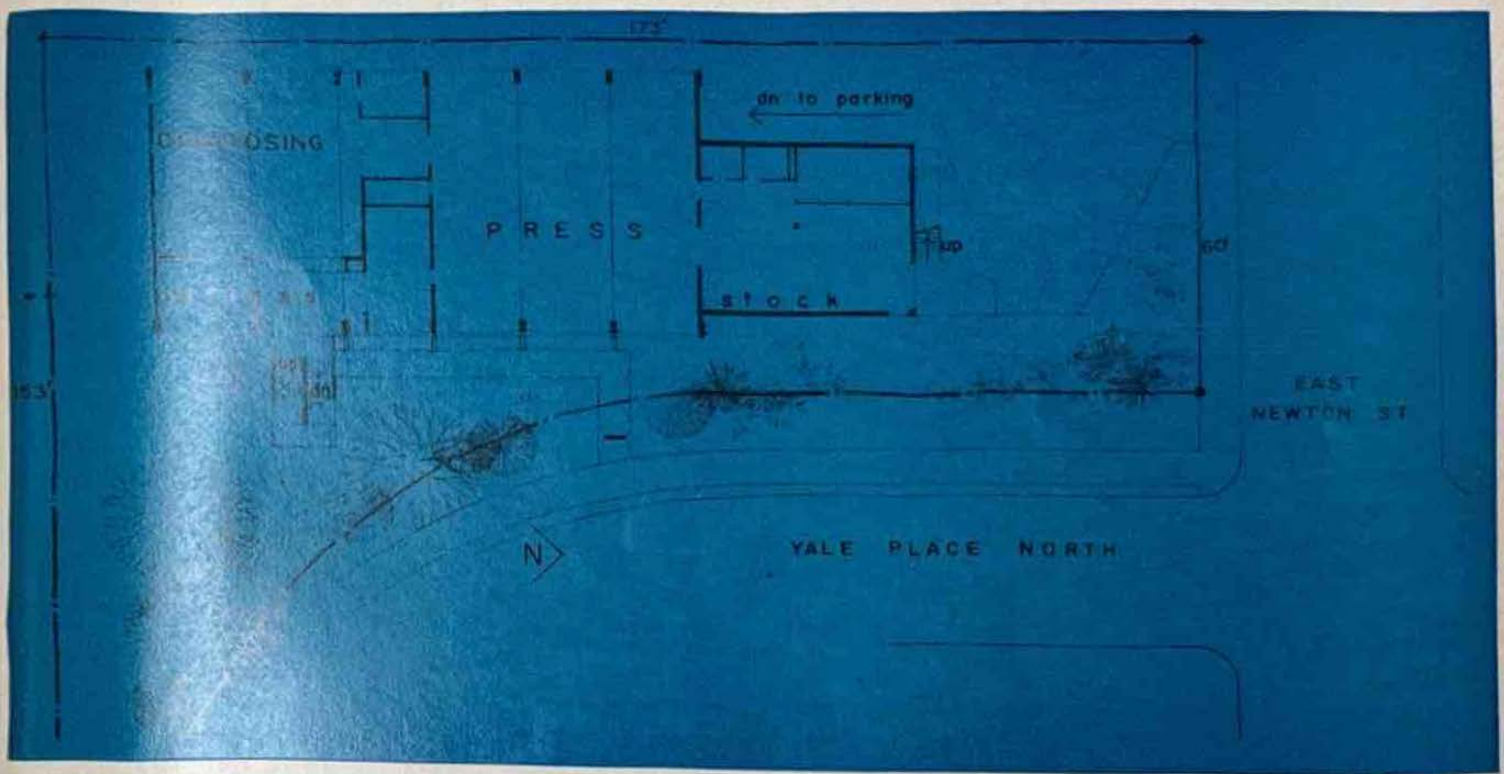



**ONE STORY PLAN** with parking, loading and storage on ground level is most ideal circulation within building, eliminating stairs. Specifically, it allows receptionist to control printing access and still work in publishing stenographic pool. But it restricts vehicle circulation, amount of parking space, necessitates elevator to basement stockroom and uses up entire site.

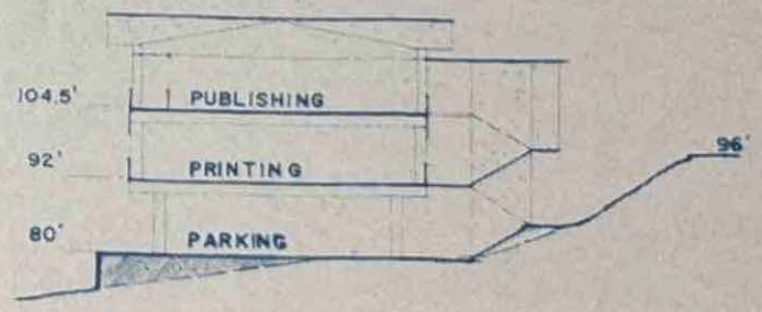
**AS OFFICE WORK GOES,** producing daily, weekly and monthly publications is relatively noisy business. On this level, folders, stencil machines and postage meter are confined to separate machine room; daily newsroom is next adjacent; editors and advertising personnel have semiprivate spaces; management and bookkeeping are oriented to "quiet" end of building. Balcony sets general office area well back under roof overhang to protect from westerly sunshine, also provides promenade from lounge-lunchroom for excellent view of downtown.



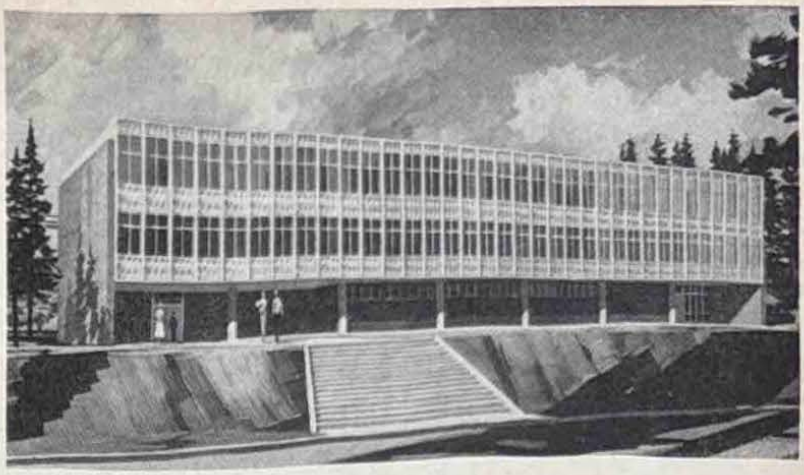

**PRINTING FLOOR** is at side street level so that heavy equipment and 3,000-lb. skids of paper may be moved in and out with relative ease. Press and composing room must be adjacent, yet they have entirely different noise, temperature and humidity control problems. Here they are separated by metal room, mechanic space and engraving storage room.

**CROSS SECTION** through stair tower. Site that is so odd shaped and sloping as to render it virtually useless for many purposes here is utilized to maximum, with covered parking for dozen cars on lower level; factory space at level of egress from side street (92-ft. elevation); office space on top level accessible by pedestrian ramp from front street level (96-ft. elevation).



## SCHOOL OF MINES BUILDING

on University of Idaho campus in Moscow will house classrooms, laboratories and offices to serve both school and Idaho Bureau of Mining Industries. Building will be concrete frame with precast T-floor and roof system, aluminum framed curtain wall with multicolored porcelain enamel panels, concrete masonry interior panels and some brick masonry. Architects: Hicks & James associated with Culler, Gale, Martell, Norrie & Davis, architects-engineers.



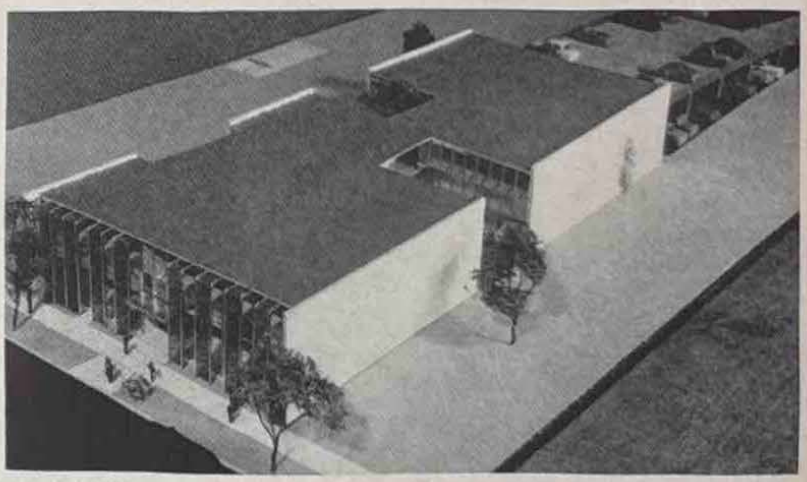
## $3 MILLION HOTEL

will help take care of convention guests meeting on University of Colorado campus in Boulder who previously had to return to Denver for sleeping accommodations. Park Allen now under construction will be seven stories with two wings, each two stories high, providing total of 200 rooms. It will have a swimming pool, pitch and putt golf course, ice rink, tennis courts, bridle path and stocked trout ponds. Architects: James M. Hunter & Associates.



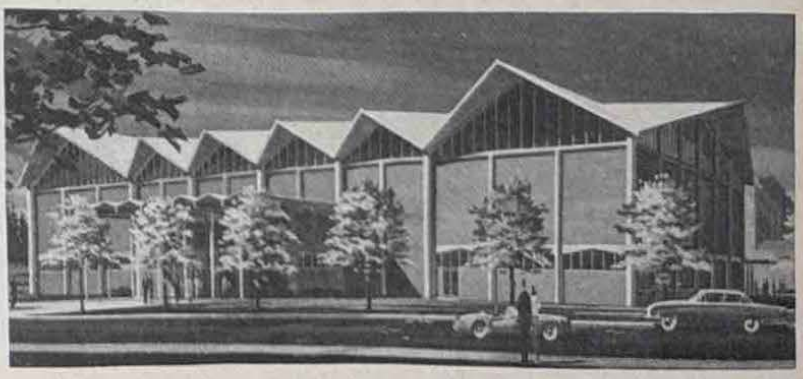
## MEDICAL BUILDING

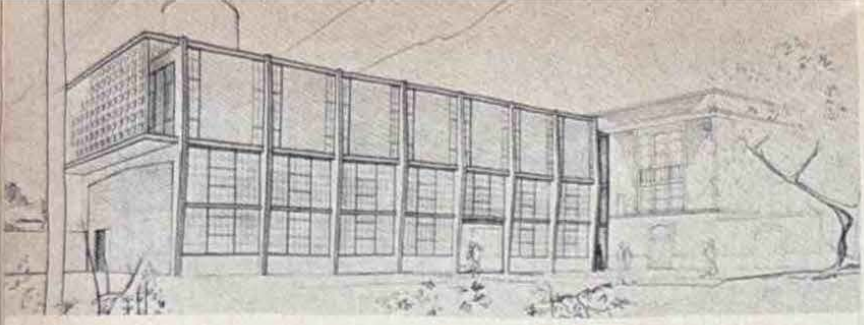
being built in Sacramento will provide space for 22 doctors and 2,500-sq. ft. X-ray laboratory. Building will cover 23,000 sq. ft. of ground area and parking on two levels will accommodate 85 automobiles. Architects: Morrison & Howard.

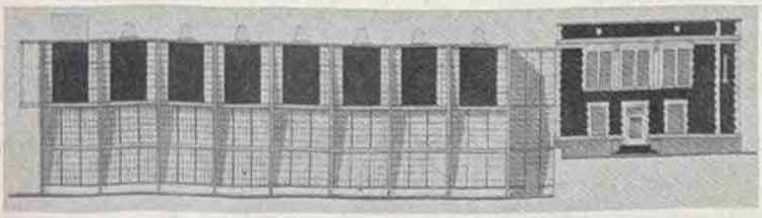


## MEN'S PHY ED BUILDING

for Western Washington College of Education in Bellingham will feature thin shell concrete hyperbolic paraboloid roof. Concrete frame, brick veneer structure will contain 60,000 sq. ft., providing four basketball courts, handball courts, physical education and varsity locker and shower facilities, classrooms and seating for 4,000 to 5,000 spectators. It will be built as addition to existing gymnasium which will be converted to use by women students. Architects: Bassetti & Morse.

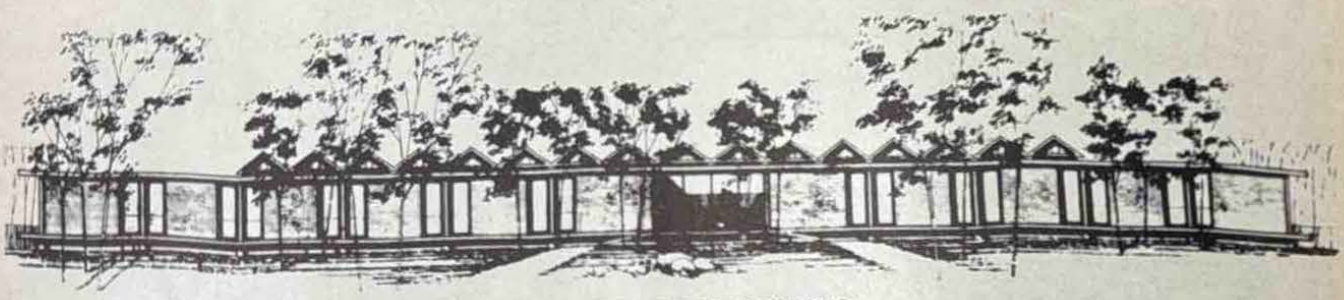






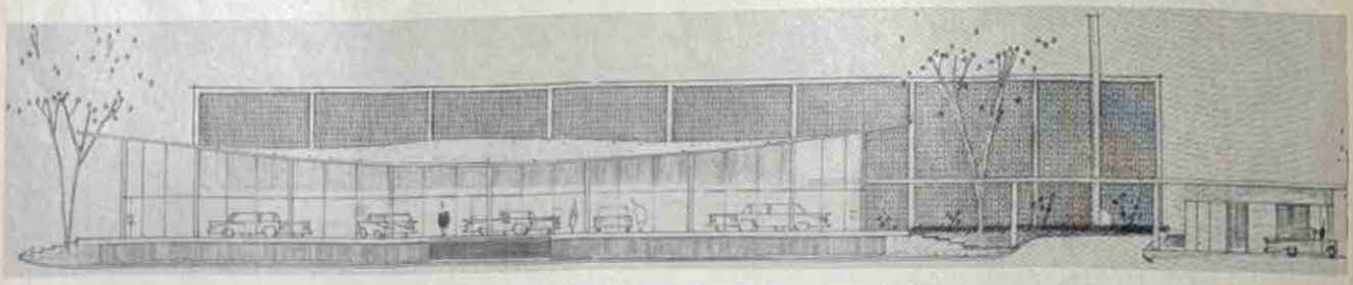
## HYDRAULICS BUILDING ADDITION

on University of Washington campus in Seattle is designed to be harmonious with existing building without conforming to Gothic style. Exposed concrete structure of $300,000 addition will contrast with red brick filler panels in manner similar to way terra cotta quoining contrasts with red brick of older unit. Eight bays will be formed by H-frame made up of prestressed beams and columns 14½ ft. apart with prestressed 6-in. floor and ceiling slabs. Housing test and fluid dynamics laboratories, two classrooms, six offices, library and secretarial office, project will be industrial-like inside. Architects: Liddle & Jones.



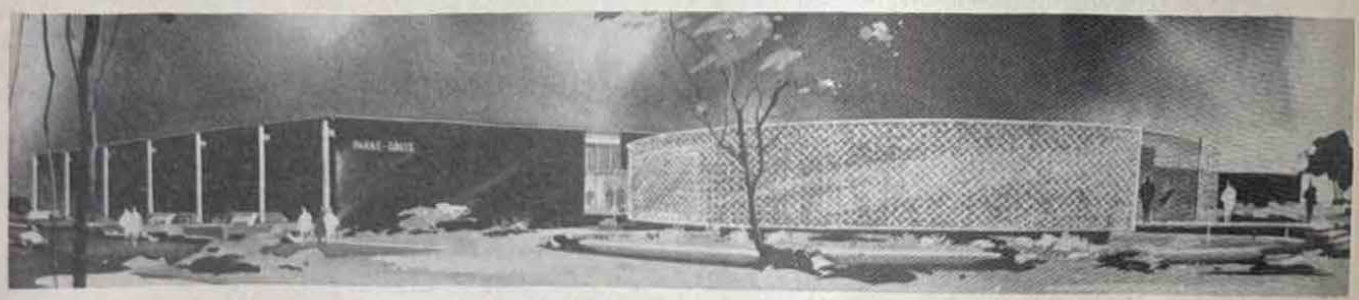
## ADMINISTRATION BUILDING

for Grant Union High School District will be constructed in Del Pasco Heights, Sacramento County, opposite school plant. Structure will contain administrative, curriculum and business offices in 8,000 sq. ft. Scheduled completion date is summer of 1960. Architects: Starks, Jozens & Nacht.



## SHOWROOM AND SERVICE BUILDING

to be built for Lew Williams Chevrolet Co. on site of existing Coca Cola plant in Eugene will involve remodeling and construction of 9,000-sq. ft. addition. Showroom will feature laminated wood beams over steel posts on concrete slab; interior finishes will consist of plastic lighted ceiling, ceramic floor and hardwood plywood office partitions. Shops will have tilt-up walls and trussed wood roof. Architects: Balzhiser, Seder & Rhodes.

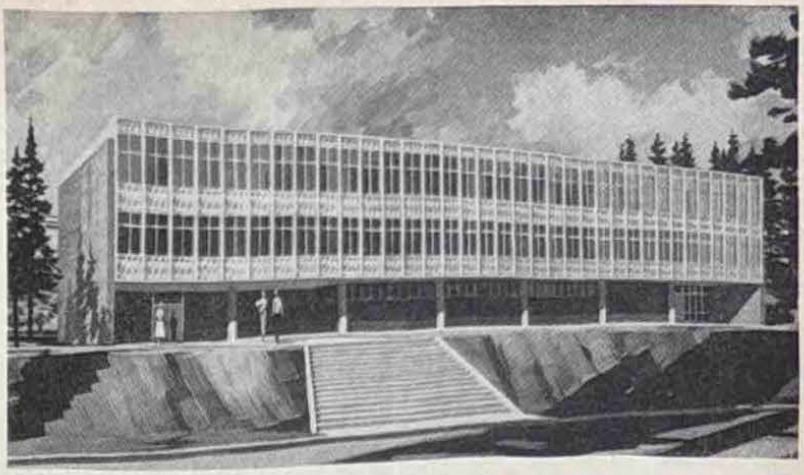


## OFFICE AND WAREHOUSE FACILITY

to be located in industrial district of Los Angeles will provide 32,000 sq. ft. of space for storage and packaging of Parke-Davis Co. products, plus 7,500 sq. ft. of office space. Structural system for office building will be reinforced concrete for columns, floor slab and roof deck. Aluminum sections will form exterior walls, with aluminum screen suspended from the roof at 5 ft. beyond exterior wall line. Warehouse walls will be of tilt-up concrete, roof of precast lightweight concrete panels. Cost is estimated at $600,000. Architects: Charles Luckman Associates.

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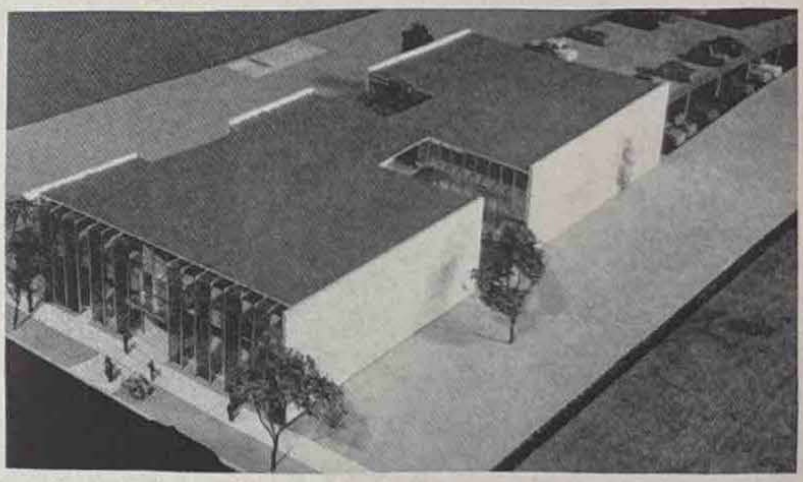
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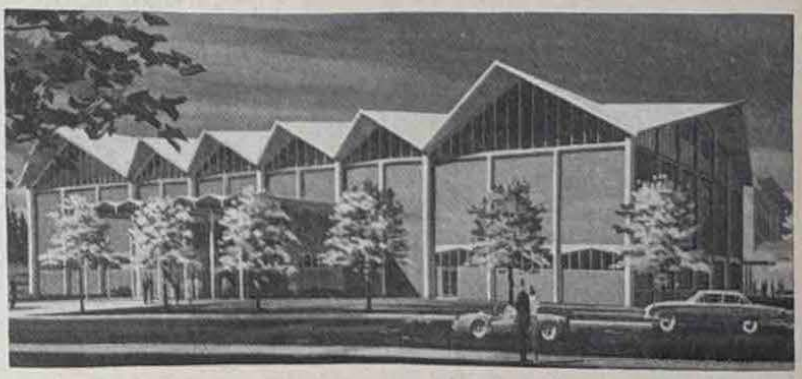
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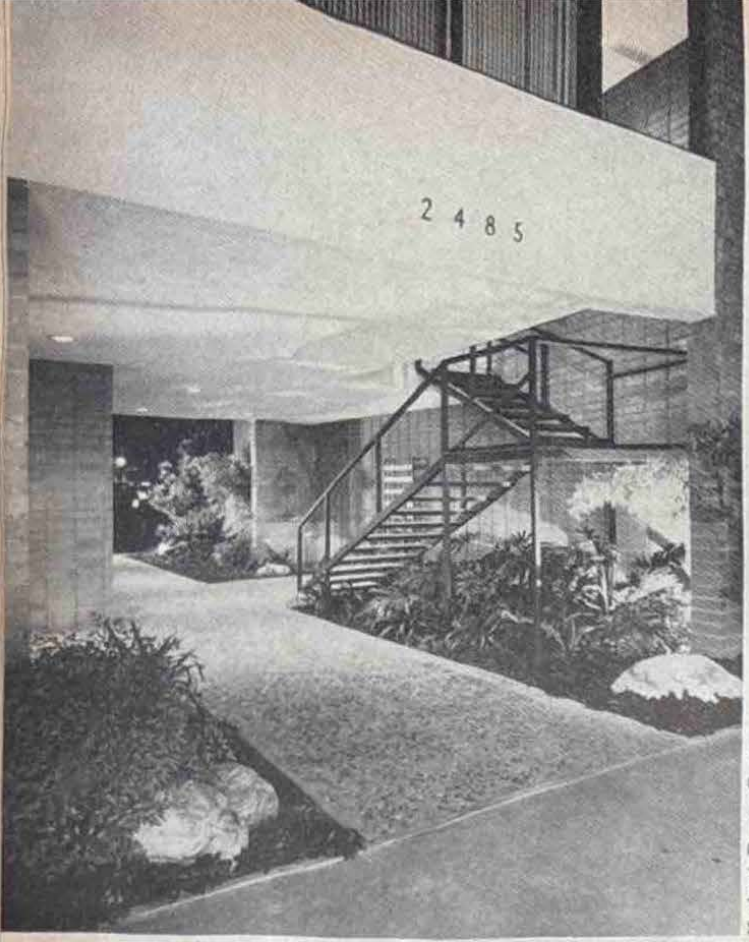


## Orange County AIA honors seven buildings

In its first annual design competition which encompassed both completed projects and those in the planning stage, the Orange County Chapter, American Institute of Architects premiated seven buildings. One firm—Pleger, Blurock, Hougan & Ellerbroek—capped the two Honor Awards and a Merit Award, shown at the left and below. The other four Merit Award winners are seen in the opposite page.

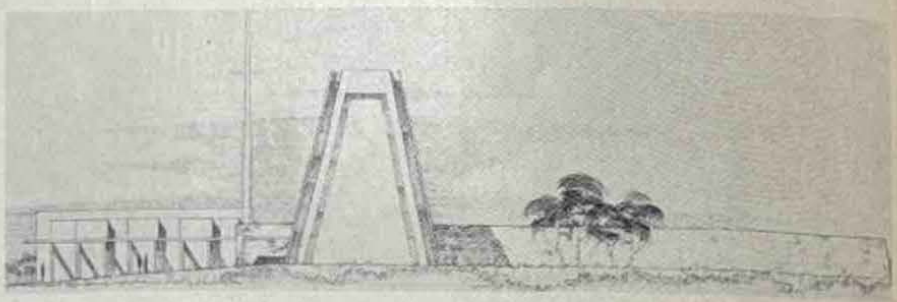
Thirty-four entries presented by eight architectural firms were reviewed by the jurors: Pasadena architects Whitney Smith and Thornton Ladd and Dean Arthur B. Gallion of the School of Architecture at the University of Southern California. Commenting on one of the top awards, they said: "This well disciplined small office building has a nicely organized plan and shows excellent use of space. Handling of entrance and facade gives a feeling of impact, but with subtlety, as highlighted by a good choice of materials, coordination of landscaping, detailing and control of the graphics."

Purpose of the competition, according to Raymond Levanas, awards committee chairman, is to use the selected projects for panels to be used by the exhibits committee in a program which may be continued throughout the year. Awards were presented at a dinner in Santa Ana's Revere House October 8. Principal speaker was Sam Mitchell, advertising representative of the Santa Ana Register, whose topic was "Public Relations and the Architect," stressing the importance of acquainting the public with the services he renders.



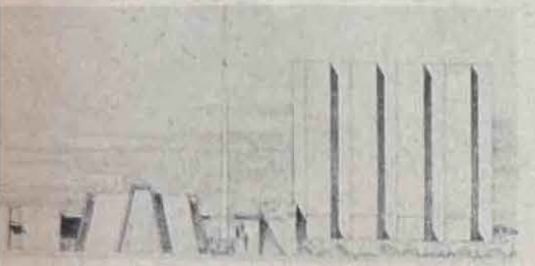

Herbert Bruce Cross

**NEUHOFF BUILDING**, San Marino: Pleger, Blurock, Hougan & Ellerbroek, architects.

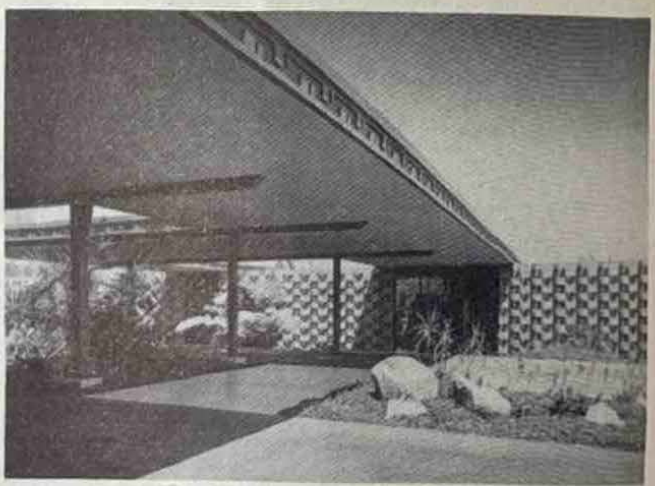


**COMMUNITY CHURCH**, Cathedral City: Pleger, Blurock, Hougan & Ellerbroek, architects.

NORTHWEST ELEVATION



NORTHEAST ELEVATION



Robert C. Cleveland

**SCHUMACHER RESIDENCE**, Bel Air: Pleger, Blurock, Hougan & Ellerbroek, architects.

## nitial Design Awards competition

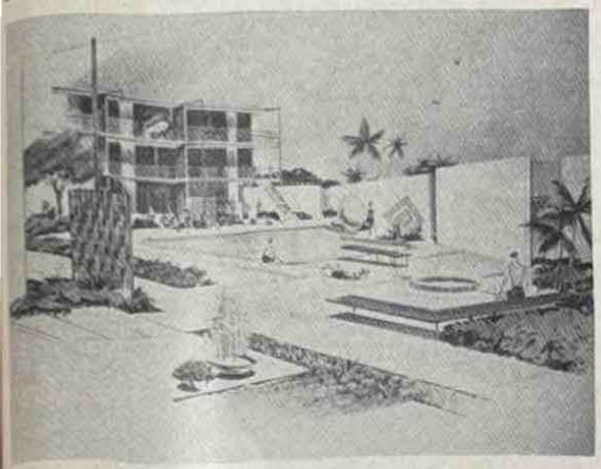
1



Harbor Photo Lab

1. **IRVINE RESIDENCE,** Irvine Terrace: Brownell & Dorius, architects.
2. **APARTMENT BUILDING** for Darnell Development Co., Newport Beach: Schwager, Fernald & Ballew, architects.
3. **COMMERCIAL BUILDING** for Robert Jacobs, Newport Beach: Schwager, Fernald & Ballew, architects.
4. **NEWPORT TOWER MOTEL-HOTEL,** Newport Beach: Schwager, Fernald & Ballew, architects.

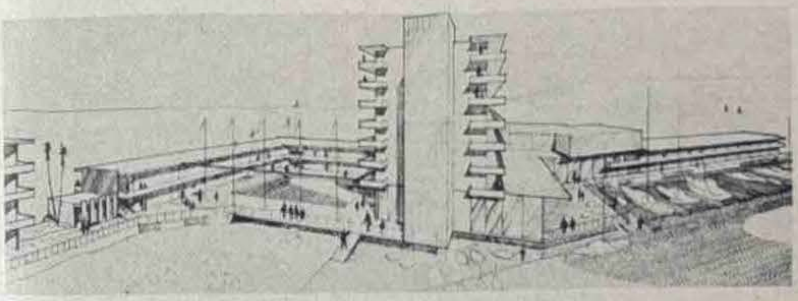
2



3




4



## Westerners play important role as lumber industry maps stepped-up program

A dynamic $12½ million promotion and research program has been proposed to the lumber industry in a move frankly designed to meet the inroads of competition from other building materials.

As presented before the recent annual meeting of the National Lumber Manufacturer's Association, the program would include expanded technical promotion field activity to keep architects, engineers, builders, dealers and the general public up to date on latest advances in wood technology; an industry program of product and market research to find new ways of building with wood and new products utilizing wood; development of a special salesmark to certify the quality of wood products manufactured by subscribers to the program; an all-out advertising program; and a merchandising and product publicity program to tie all these activities together.

The plan was presented to the some 300 industry principals gathered in Washington, D.C., early in November by association staff members and the VanSant-Dugdale advertising agency of Baltimore.

In a speech urging the lumber manufacturers and distributors join in sponsoring the 10-year program, Robert M. Ingram, NLMA president, said the lumber industry can meet the challenge of competitive materials "only if we put a new and greater emphasis on creative selling and better distribution; only if we accept change and prepare to take advantage of that change."

Ingram, who is president and general manager of Cedar Lumber Co., Aberdeen, Wash., described the progress the industry has made in assuring perpetual supplies of timber and using every scrap down to the sawdust. He said the lumber industry must match in marketing the progress it has made in forest management and increased log utilization. "Rather than downgrade our planning to accommodate the less progressive elements of our industry, we must gear our programs to the aggressive lumberman, to the fellow who wants to be in business

at least a generation from now, to the company that is determined to provide perpetual jobs for its employees and a continued fair return to its stockholders."

Among major speakers at the meeting was Henry Hill, San Francisco architect, who told the assembled industry leaders that a new concept of architecture is taking hold in the design of homes and that wood has been assigned a key role because of its life and warmth. "The architect is no longer designing the enclosed box, or a series of boxes, with holes punched into the walls through which to peek out," he said. "We are concerned with space and the three-dimensional definition of that space." Building materials are now being used not for themselves but for what they contribute to the livability of a home.

Wood should gain greater importance in home design, Hill asserted, because it has "a living quality that is shared with delight and understanding by all mankind . . . To me, above all, wood has a dignity. It follows that wood must be treated with dignity." (For a digest of the architect's remarks, see p. 40)

### Housing in the crystal ball

FHA Commissioner Julian H. Zimmerman predicted that the nation's housing inventory will more than double by the year 2000 and new home starts, including farm units, will rise to 2.25 to 2.5 million annually.

An expanding economy, spurred by population growth, an increased rate of new-family formations and a continued rise in living standards could bring this nation to the highest plateau of living ever dreamed of by man, he said.

Zimmerman also predicted that during the next 40 years the price of a typical new home may jump from $13,500 to the $20,000 to $25,000 class and that families who buy these houses will get better value, dollar for dollar, because of the great advances that are being made in building materials and techniques.

### Bostonian named president

Elected president to succeed Ingram was Thomas J. McHugh, president of Atlantic Lumber Co., Boston. Ingram was named board chairman. A. B. Hood, vice president and general manager of Ralph L. Smith Lumber Co., Anderson, Calif., was elected first vice president.

Among new regional vice presidents are J. D. Bronson, Cascade Lumber Co., Yakima, Wash., and president of Western Pine Association; and Eliot Jenkins, Eugene, Ore., president of West Coast Lumbermen's Association.

## Architects back uniform building code for California

Development of a single, uniform building code that could save the state millions in construction costs has been unanimously endorsed by the governing board of the California Council of the American Institute of Architects.

At its fall meeting in San Diego, the board of directors voted to sponsor a program "dedicated to the development of a single uniform code for all building in California." The resolution was passed "in view of the serious, costly and chaotic situation caused by the overlapping and conflicting building codes presently in use in California."

Director William L. Higgins of San Jose, chairman of the code committee, said the state's various departments and agencies now operate under individual codes that are "conflicting, confusing and costly. It has been estimated," he said, "that the state could save as much as $25 million by adopting a single, uniform code that would apply to all agencies."

In other action, the board:

1. Voted to investigate the possibility of sponsoring a second Pacific Rim Conference in Mexico City. (The organization held the first such conference recently in Honolulu.)
2. Nominated Malcolm Reynolds of Oakland as director of the California region to succeed Ulysses Floyd Rible of Los Angeles.
3. Elected William Glenn Balch of Los Angeles to the regional judiciary committee.

## Revitalized business center target of Phoenix study

The City Planning Commission of Phoenix has begun a comprehensive study of land use and traffic patterns in an effort to seek ways and means of revitalizing the central business district. The study is being coordinated with a program by the Downtown Committee, an organization of Phoenix businessmen for improvement of city core properties.

At present the advance planning staff is studying programs in other cities and collecting basic land use data. Further studies will include compiling information on future plans of government and private groups, and evaluating population and traffic projections. It is hoped that a long-range plan for the central core area will be ready within one year, according to William Phelps, the city's principal planner. Three staff members will work on the project.



**INDUSTRIAL PARK DEVELOPMENT** will be served by railroad as well as projected freeway.

## Park near San Diego will combine industry and research

Ground was broken recently for an industrial park that will combine plant and research facilities on an 800-acre site outside San Diego. The project, planned as the southern California counterpart of the Stanford Research Park in Palo Alto, was designed by Albert C. Martin & Associates, Los Angeles architectural and engineering firm.

Master plan calls for a community of distributional industrial plants, research and development centers and similar facilities, a community park, recreation center, warehouses and an office building, all in a landscaped setting. To be called Sorrento Valley Industrial Park, it will eventually complement the La Jolla campus of the University of California in a manner similar to the relationship of Stanford Research Park to that university.

Initial three units now under development will comprise 280 acres, with the first plants expected to be in operation early next year. A sewage treatment plant is ready for operation and new water mains, gas, electricity and telephone facilities will be available to the subdivision.



## HOW STEEL IS SOLVING THE WESTERN SCHOOL SHORTAGE

A SHORT TERM AGO—they were cramped and crowded. But today thousands of lucky students are going to school in handsome, new classrooms—of steel. Faced with a vital building shortage, more and more Western school boards are turning to this quick, economical new construction method to meet their needs. This is the fast-growing success story of steel schools in the West.

Steel production cuts weeks—even months from building schedules—dollars from building costs. Full-size, permanent classrooms, mass-produced from standard steel shapes, seat 35 students and may be erected in a week by skilled steelmen for much less than other materials. Steel frames, wall panels and roof decking lock together to make the buildings earthquake-safe and 100% incombustible.

Students can't break the sound barrier between classrooms. Dividing walls are sandwiches of steel with built-in thermal-acoustical insulation. Thin curtain walls provide increased area within the buildings. Outside, steel, in a variety of finishes, always looks bright and new. Porcelain-enameled steel, for example, will not fade or discolor. It needs no maintenance, and seasonal rains will do the cleaning.

Architects find design versatility all but limitless with steel. Lower rooflines reach out with wide overhangs to bring shade and shelter to walkways and play areas below. These permanent, versatile structures are easily expanded with minor framing changes. Here are only a few of the economical advantages of building with steel. Visit a steel school soon and you'll discover many more!

Free copies of *"New Ideas in School Construction"* with steel application ideas and specifications data are available for school officials, architects and engineers. Write: Steel Schools, Dept. SS6, United States Steel, Columbia-Geneva Steel Div., 120 Montgomery Street, San Francisco 6, California.

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## ...and it concerns you!

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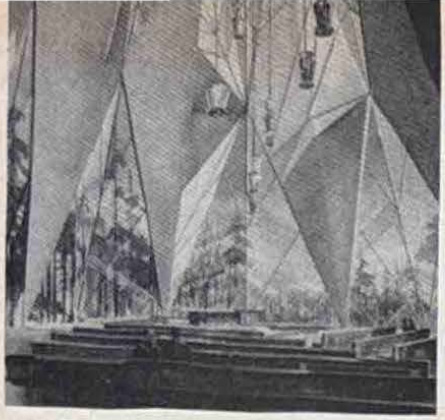
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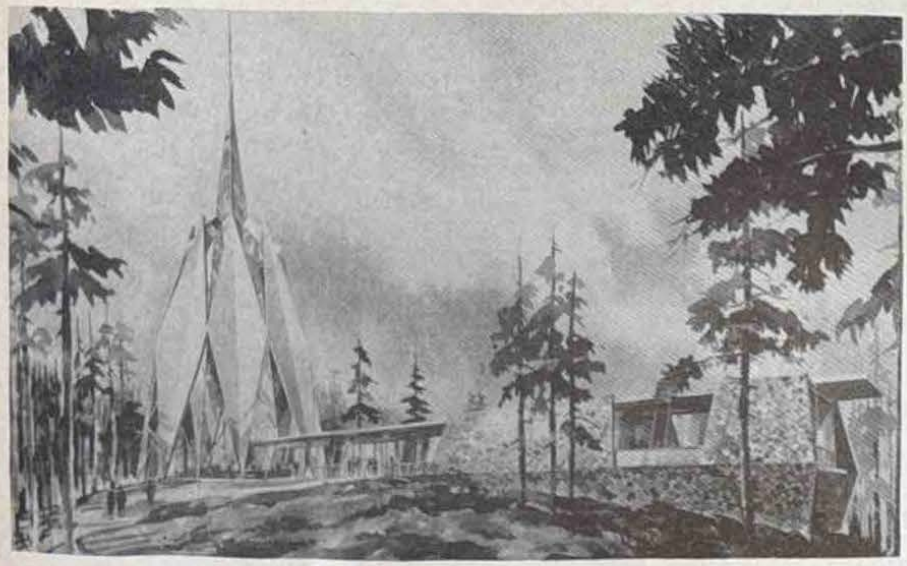
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**COVINA ARCHITECTS** Burdette M. Pulver and James H. Maul are shown above examining model of their winning design for chapel to be built in South Dakota's Black Hills. Concrete and glass chapel with 118-ft. spire and office wing are two separate units connected by covered walk.

## California architects win church design competition

A design by two southern California architects featuring huge diamond shaped concrete panels has been selected for a tourist chapel to be built in the Black Hills of South Dakota by the Evangelical Lutheran Church. Winners in the invitational competition were partners James H. Maul and Burdette M. Pulver, of Covina. They received $1,000 and the contract to supervise construction.

The building, which will be known as "The Chapel in the Hills," will overlook the surrounding Black Hills country. It will include a permanent home for the national Lutheran Vespers program.

The architects designed two separate units. Chapel utilizes seven diamond shaped concrete panels rising 62 ft. set around the periphery, forming a circle 47 ft. in diameter. Panels will be folded plates of 6-in. thick gunite finished with an integral white cement and ground quartz crystals and will be 15 ft. at the widest point. Between them will be seven glass sections, clear gray for the lower sections and stained glass for the upper ones.

Chapel is topped by a copper tower rising to height of 118 ft. A glass walled narthex connecting the chapel and office will be roofed by a concrete slab continuing over the administration wing. Office is of glass and local stone exposed both inside and outside.

Structural engineer for the chapel is Richard Bradshaw of Van Nuys. James Schweickert & Associates of Covina are doing the remaining structural engineering. Roger Darricarrere, Los Angeles artist, has been commissioned to do an abstract design for the stained glass windows.

The competition was limited to 11 architectural firms across the nation. The jury of church laymen cited Maul & Pulver's entry for its boldness and daring, saying that "its unique design met the possibility and challenge of the hilltop site and its potential to reach thousands of people." They further stated that the "design combined the visually attractive and the spiritually significant in a wonderful way" and that it "succeeded in answering all the design qualifications very well and most of them in an outstanding manner."

## Bay area rapid transit picks tentative routes

Preliminary routes have been selected for approximately two-thirds of the proposed five-county San Francisco Bay area rapid transit system, according to Keneth M. Hoover, chief engineer for the district. The tentative alignments, some 80 miles in length, are located in Alameda, Contra Costa and Marin counties. Still under consideration are those in San Francisco and San Mateo counties.

More than 120 miles of rail lines are planned for the regional transit system, all on exclusive rights-of-way utilizing subway, elevated and surface routes and including a four-mile long underwater transit tube connecting San Francisco and Oakland. Approximately 50 passenger stations will be utilized with parking lots capable of handling 500 to 1,000 autos.

Bay area residents will vote on a general obligation bond issue to finance construction in November 1960. Consulting engineering firms planning the project are Pasons, Brinckerhoff, Hall & Macdonald, Tudor Engineering Co. and Bechtel Corp. Donald C. Hyde, general manager of the Cleveland Transit System, has been retained as a special consultant.

Farther north, plans for the Seattle monorail are being reconsidered in the light of the decision by Century 21 officials to shorten the fair from two years to six months. The monorail was to have provided rapid transit from city center to the fair site. While the monorail is still under consideration, the decrease in possible revenues has considerably dampened Seattle Transit's enthusiasm for the project.

## Underground wiring gains foothold in Seattle

Proponents of underground wiring won half a battle in Seattle recently when the City Council voted to bar most overhead utility wire crossings of the central freeway. Only a few high voltage transmission crossings will be placed above ground.

The resolution also called for steps leading toward "an orderly program of placing City Light wiring underground . . . consistent with current revenue" and directed the public utility to assist in every way possible in the creation of local improvement districts to help finance underground wiring.

Mayor Gordon Clinton estimated that about 900 poles will be eliminated by freeway work.

## Roseburg: 'undaunted reconstruction'

"Planning is a most human affair and it affects man, woman and child," writes Richard J. Neutra in his preface to the just released Disaster Recovery Plan for the city of Roseburg, Ore., prepared by Clark-Colman & Associates.

The Douglas County seat in the center of the Umpqua Basin is engaging in a very human affair indeed as it makes preparations to redevelop its disaster portion—an area of eight blocks near the heart of downtown which was devastated and an additional 22 blocks which sufferred considerable damage. A sleeping city was aroused August 7 when a small fire in a lumber yard caused a truck containing explosives which was parked nearby to blow up.

### Many cities have failed

"The building of a city is usually a slow and sometimes much too dragging a process," says the Los Angeles architect who consulted with the planning firm, which has offices in Seattle and Portland. Neutra continues: "Many cities in Europe, after the destruction of war, have failed (like San Francisco after its fire of 1905) to take full advantage of the potentials and possibilities of renewal. Roseburg may become an example of a most unusual procedure; a vigorous attempt of undaunted reconstruction—but reconstruction not without full planning effort. Under such extraordinary circumstances, forecasts of normal progress and prosperity may easily be misleading. The present impetus will have brought about an abnormal, and perhaps a happily improved, evolution for a city which, more than ever, has now the sympathies of outsiders; and above all, the sympathy of the industries upon which it most depends.

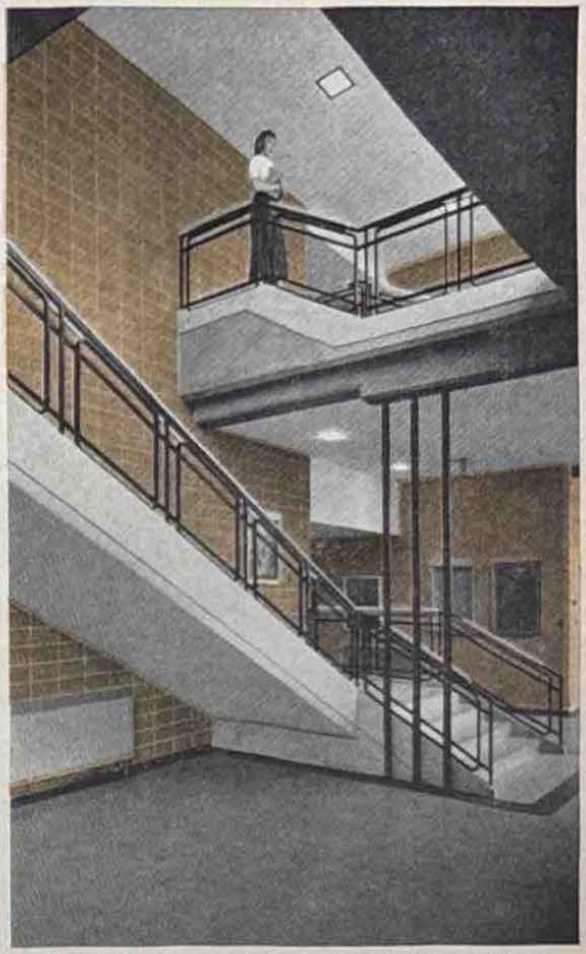
"No wonder that the reconstruction of Roseburg, which traces its beginnings to the fire in a lumber yard, will also find its remedial support in the faith of the wood products industries that Roseburg must rise to a new level of municipal well being. The city between its hills, at the winding Umpqua River, may become a national focus where a basic industry annually reviews its program and finds widest attention for its helpfulness to a happily renewed community. Every new pattern of life, movement, traffic, as a new plan initiates them, calls for a new formation of habits."

### A 21-point program

The plan outlined by Clark-Coleman proposes an evaluation of the South Umpqua River crossing sites and suggested alignment for the new structure; street and land use plans for the disaster area; and methods for implementing those recommendations. Included in the 21-point program are establishment of pedestrian malls along Oak Street, Rose Street and the east bank of the river and development of a public buildings complex around the County Courthouse.

Cost of rebuilding the core devasted area is estimated at $10 million. About 50% of the total must be supplied by public agencies; the remaining half by private parties' investments in new utilities and buildings.

The report also specifically attempts to give the lumber industry a boost with these two suggestions: broaden and stabilize the economy by increasing the manufacture of wood by-products and the manufacture of implements for lumber cutting and processing; encourage annual exhibits in Memorial Park which will depict technological advances in the lumber industry.

Fred L. Markham, Architect, selected Kraftone Color Glazes No. 423 Cream and Ocular Green No. 222 for corridor walls in the Provo High School to harmonize with light green stairs and balcony.

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## Curtain walls get share of attention at BRI conference

The Building Research Institute at its fall conference in Washington, D.C., last month heard an assistant professor of Washington State University outline a proposal for the development of solar curtain walls; and it also heard a Chicago architect declare that the public may demand office buildings which look like Greek temples if the profession doesn't stop designing structures which are "as dull as apple crates."

Robert P. Darlington, who heads the architectural research section on the Pullman campus, said that his objective is "to develop the principles from which curtain walls for buildings may be designed which will intercept solar energy in winter for heating and in summer for cooling; to design, construct and test a working prototype solar curtain wall."

The proposal basically had its inception in the solar curtain wall design which won a third prize for Darlington in a nationwide competition in 1956. This design would be used as a point of departure for pursuing the research project (to be discussed more thoroughy in PA&B next month).

Darlington's proposal was one of seven selected by the BRI research committee for presentation at the conference.

### Architectural monotony

Alfred Alschuler, partner in the architectural firm of Friedman, Alschuler & Sincere, blamed much of the modern architectural monotony on unimaginative use of curtain wall construction—where the exterior skin of the building is simply hung on the frame in sections. Uncritical use of these sections can result in dull, repetitious architecture against which the public may soon rebel, he said.

"A certain major building that is about to be perpetrated on the public has such wonderful flexibility in design," Alschuler declared, "that you could turn it around, back-side forward, down-side up or leave it as it is supposed to be and it would look just as monotonous in any position.

"A few more jobs like this and the public will clamor for good old Colonial or Gothic architecture or even Greek temples. The only architects left will be those with an aesthetic sense, a conscience and imagination."

Alschuler said that curtain wall construction will meet public resistance, despite its advantages, because it is being used without imagination. Actually, curtain walls have been used about 70 years, although the present concept of their use has been popular only in the past decade.

He charged that thinking in terms of curtain walls has become too rigid. "One of the problems may be that we seem to employ large and prominent grids or vertical and/or horizontal members which become one of the main features of the exterior design.

"While these are the ribs of the structure, they are not as important as the backbone of the structure nor as beautiful as the skin should be. After all, it doesn't take a genius or anyone with talent to produce a building that looks like a piece of graph paper."

### Need for variety urgent

Alschuler proposed that prefabricated curtain wall sections be "shaped and varied in their spacing, color, widths, material, texture and even lengths to give interest and attractiveness to the structure."

He praised the approach of one porcelain enamel manufacturer who is offering panels with a large variety of designs, colors and combinations of colors within the larger units that might help create a more interesting appearance.

Some panels might be recessed and others projected to give the building more depth while panels or groups of panels could be sloped in or out or even could be bent in and out.

"There is no law that says panels cannot be round, spherical, diamond shaped or free form," the architect commented. "I am not suggesting the use of all varieties in one building, but I am suggesting that it takes more than the design of one panel to design the entire building attractively.

"Perhaps as important a factor in appearance is to have the basic form of the building varied from rectangular flat-faced to curved, slanted, or sawtoothed. With the varied forms given to the building, the metal curtain walls can be utilized to enclose and enhance the building."

### Design competition suggested

Alschuler proposed that the manufacturers of curtain walls and their component parts employ an architect to design buildings of a different type each month to demonstrate imaginative use of this kind of construction in their advertising. Another approach, he said, would be a competition among architects to seek the best and most interesting solution to the problems posed by different types of buildings.



**VIEWING EXHIBIT** honoring their buildings at the San Francisco Museum of Art are John L. McCrea, vice president of John Hancock Mutual Life Insurance Co.; J. D. Zellerbach, president of Crown Zellerbach Corp., and architect Nathaniel Owings.

## Art museums feature two San Francisco buildings

The new western home office buildings of two major business organizations were featured exhibits recently at the San Francisco Museum of Art and the Portland Art Museum. Both the John Hancock Mutual Life Insurance Co., and Crown Zellerbach Corp. projects were cited as having "assumed their place in the city of San Francisco with the utmost tact . . . like civilized men, standing intact in their own persons. And what is immediately apparent is that each possesses striking and profound individuality," said a spokesman for the San Francisco museum.

The John Hancock Building, by Skidmore, Owings & Merrill, was designed to fit in with an existing environment on a conventional urban site. The 14-story structure is built of reinforced concrete, sheathed in polished dark brown granite with a pattern of bronze trimmed windows of gray glass. Its base is flanked by a succession of arches, reminiscent of a Renaissance arcade, an eye-catching feature on an otherwise predictable street.

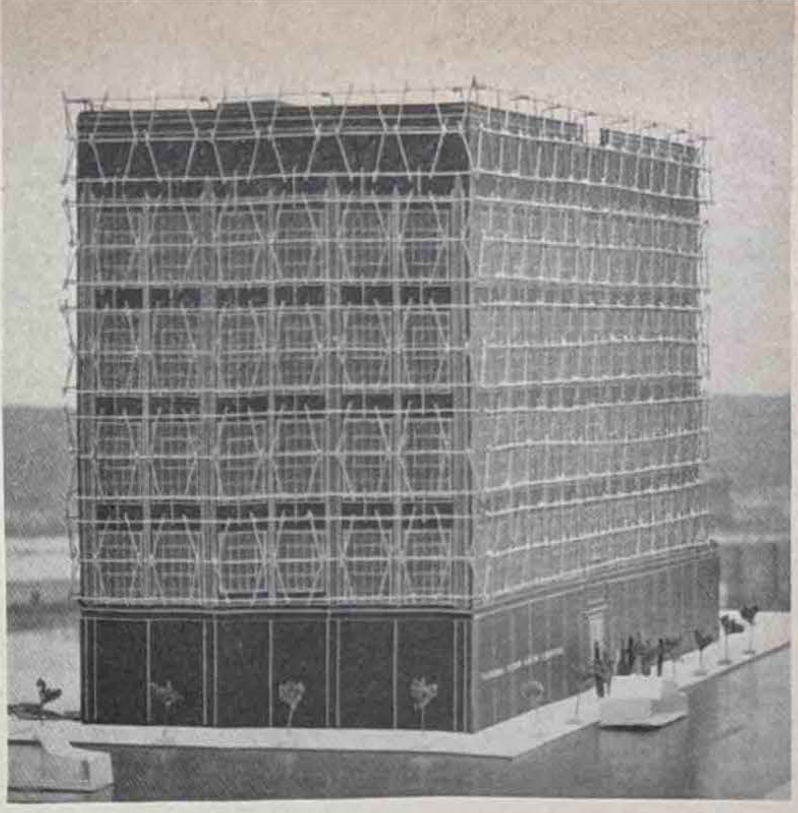
The Crown Zellerbach Building, also by SOM in association with Hertzka & Knowles, is a tower of green tinted glass crossed horizontally by glass spandrels panels of darker bluish green and striped vertically by aluminum mullions, showing the 16 business floors rising as a series of horizontal planes separated by air. Eighteen steel columns ascend the full 20-floor height.

Artwork has been used extensively in both buildings.

Richards Studio



Art Hupy



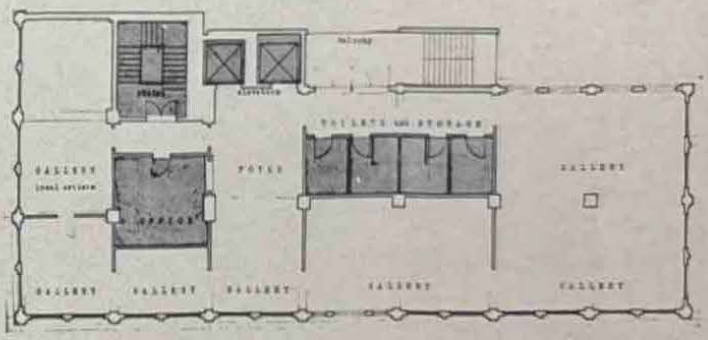
**OLD CITY JAIL** as it now stands and as it will appear if plans are successful to turn it into fine arts center.

## In Tacoma: a silk purse out of a sow's ear

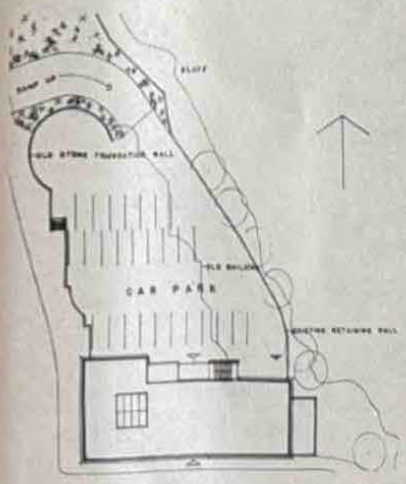
Fund raising campaign is underway for an intriguing project that would change the old city jail in Tacoma into a fine arts center. Sponsored by Allied Arts of Tacoma, the plan envisions expenditure of approximately $175,000 for remodeling the exterior and interior of the five-floor building, demolition of the adjacent structure and conversion of this site into a parking lot.

Preliminary plans by architects Little & Jones call for the ground floor to be used as one large exhibition area available for shows and civic displays, including Tacoma's participation in Century 21.

Second floor would be the art gallery; third floor would house a meeting room, craft room and office space for member organizations; fourth and fifth floors, formerly the cell block, would become a two-story auditorium seating 300; and fifth floor mezzanine area would offer space for additional offices.



SECOND FLOOR ART GALLERY




SITE PLAN

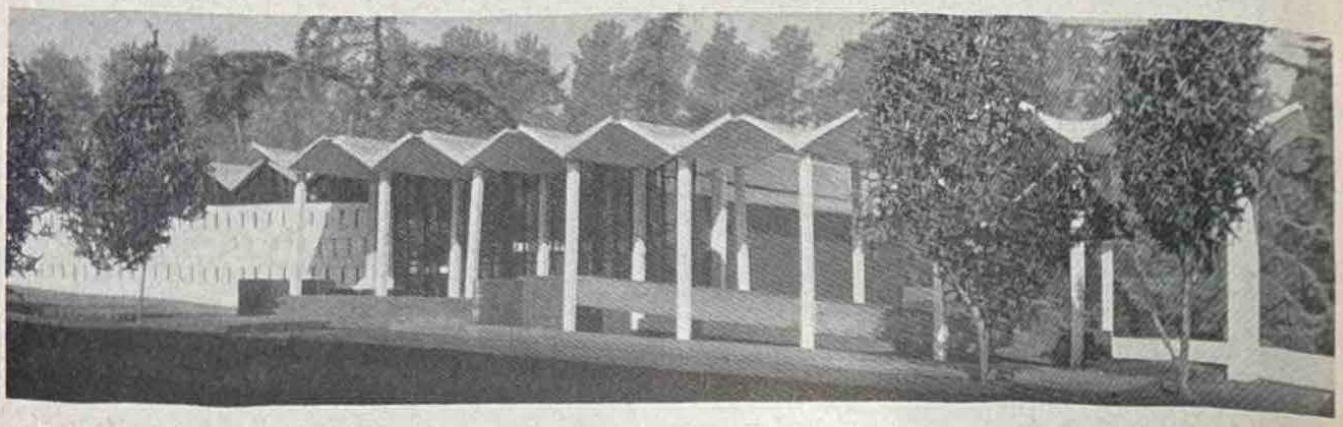
Exterior of the building would be changed by covering the ground floor windows and one entrance and painting the entire stucture in a dark shade. A gold anodized aluminum screen would be hung from the second floor to the roof.

Building is of reinforced concrete with interior tile partitions. Most of the interior partitions would be removed, but no changes would be made in the structural system. The old stone foundation would be retained as an enclosure for the car park.

Removal of the adjacent building, which has been condemned, will leave the old jail standing alone on an important downtown intersection with an excellent view overlooking the harbor and the industrial section of Tacoma.

Following a pattern established by other art centers throughout the country, it is expected that a city ordinance would establish the relationship between Allied Arts and the city. The city would continue to hold title to the building and provide it with utilities and maintenance. Allied Arts, a federation of 30 cultural organizations, would manage the activities in the building.

The total amount allocated for the project has been broken down thusly: 1) demolition of the adjacent condemned building, $25,000; 2) patching of the wall exposed by demolition, new elevator, new exterior stair and parking lot, $50,000; 3) conversion of the structure to the needs of the fine arts center, $100,000. The city already has set aside funds for the demolition and the Weyerhaeuser Foundation will contribute $50,000 for the second phase. Fund raising campaign so far has resulted in pledges of $40,000 from groups requesting space. The architects feel that work can get underway when the drive hits $60,000.



## Entire wall can be unbolted in library building geared to expansion

UNIVERSITY OF NEVADA LIBRARY, RENO: Flexibility to meet changing needs over a long period of years is the keynote of this 100,000-sq. ft. air conditioned building. Designed to support stacks at any location with permanent partitions held to a minimum, the frame will allow interior rearrangements without costly changes. In addition, the entire north wall is designed so that it can be unbolted and moved to the north to accommodate major expansion.

The three-story structure of reinforced concrete will accommodate 1,400 students and 350,000 volumes. A 4-in. thick folded plate, post tensioned concrete roof will span 90 ft. with a 25-ft. cantilever at each end, creating both a striking appearance on the outside as well as in the room on the top floor.

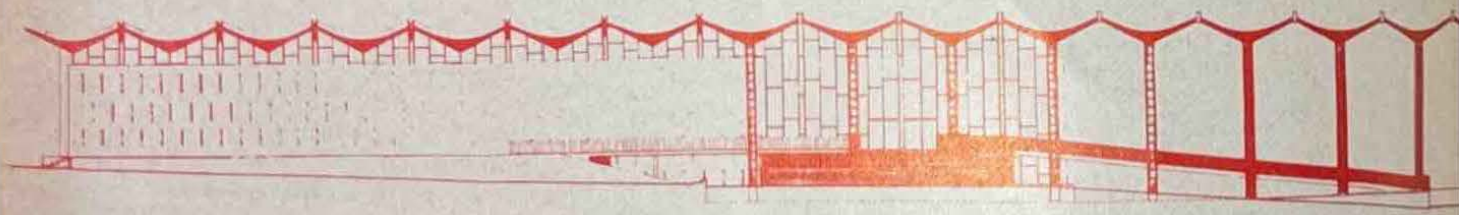
First and second floor slabs will be 9-in. thick post tensioned lift slabs. Columns will be precast. A limestone screen on the south wall and brick ends will recall materials used on nearby buildings.

Glass wall on the north will open out onto a sunken garden containing seating areas, pools and trees. Carrying out the theme of the roof's shape, folded plate ends will extend out over a long arcade. Sheathed in silver mosaic and molded to a birdlike form, they will perch on 36-ft. high columns sheathed in granite.

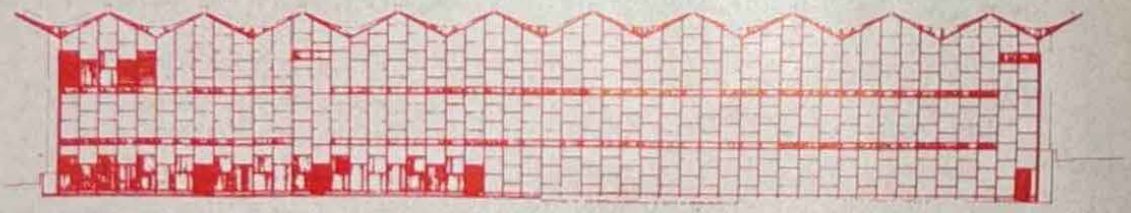
The library, estimated at $2,150,000, is believed to be the largest single capital investment ever undertaken by the state.

Construction start hinges on completion of the new dining hall, now behind schedule. The present infirmary will have to be demolished to make room for the library and the health facilities in turn will be transferred to the existing dining hall.

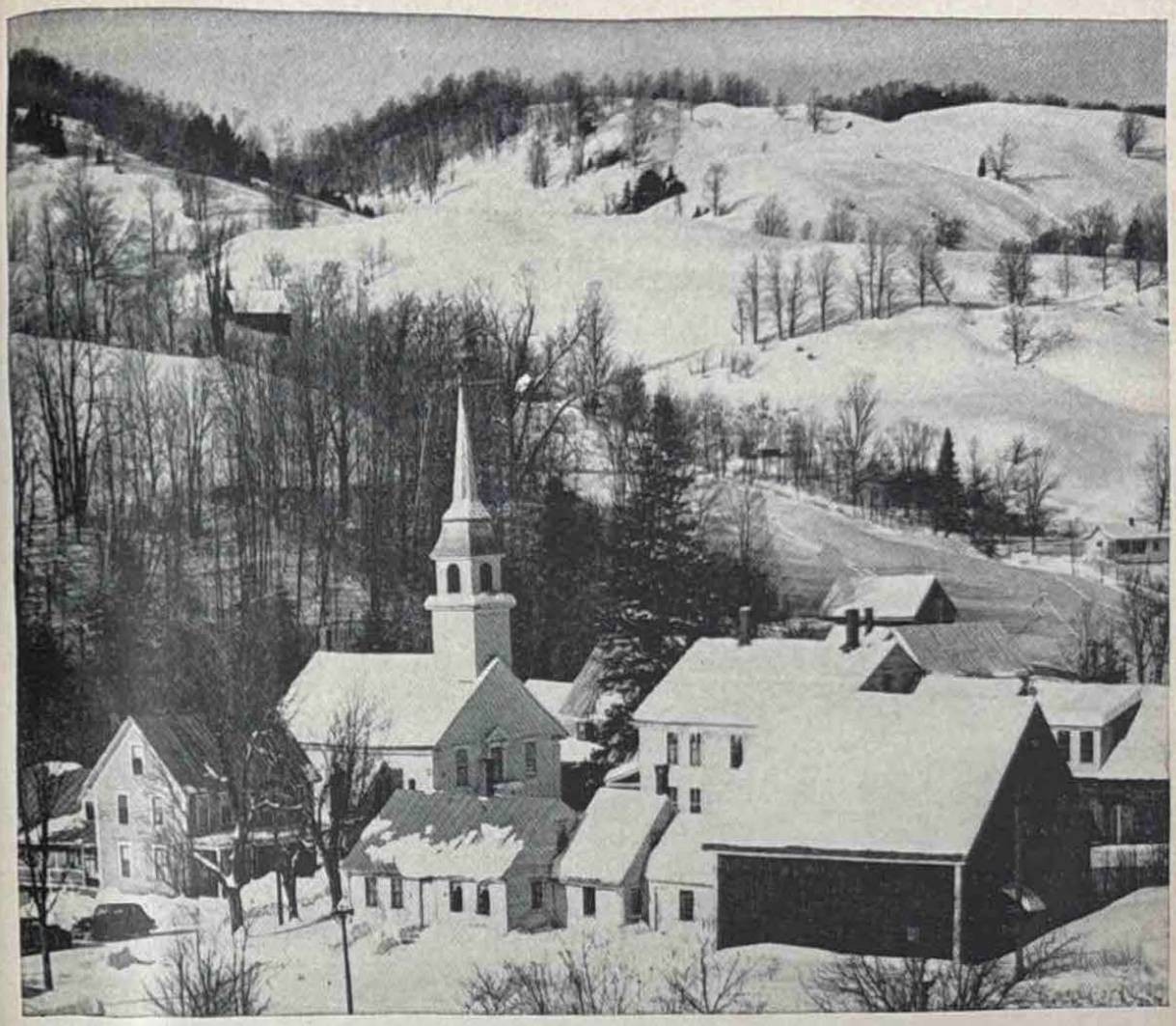
Architects: Robert E. Alexander & Associates; resident architects: Vhay Associates.



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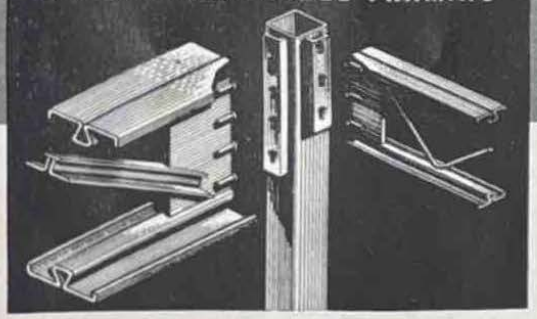
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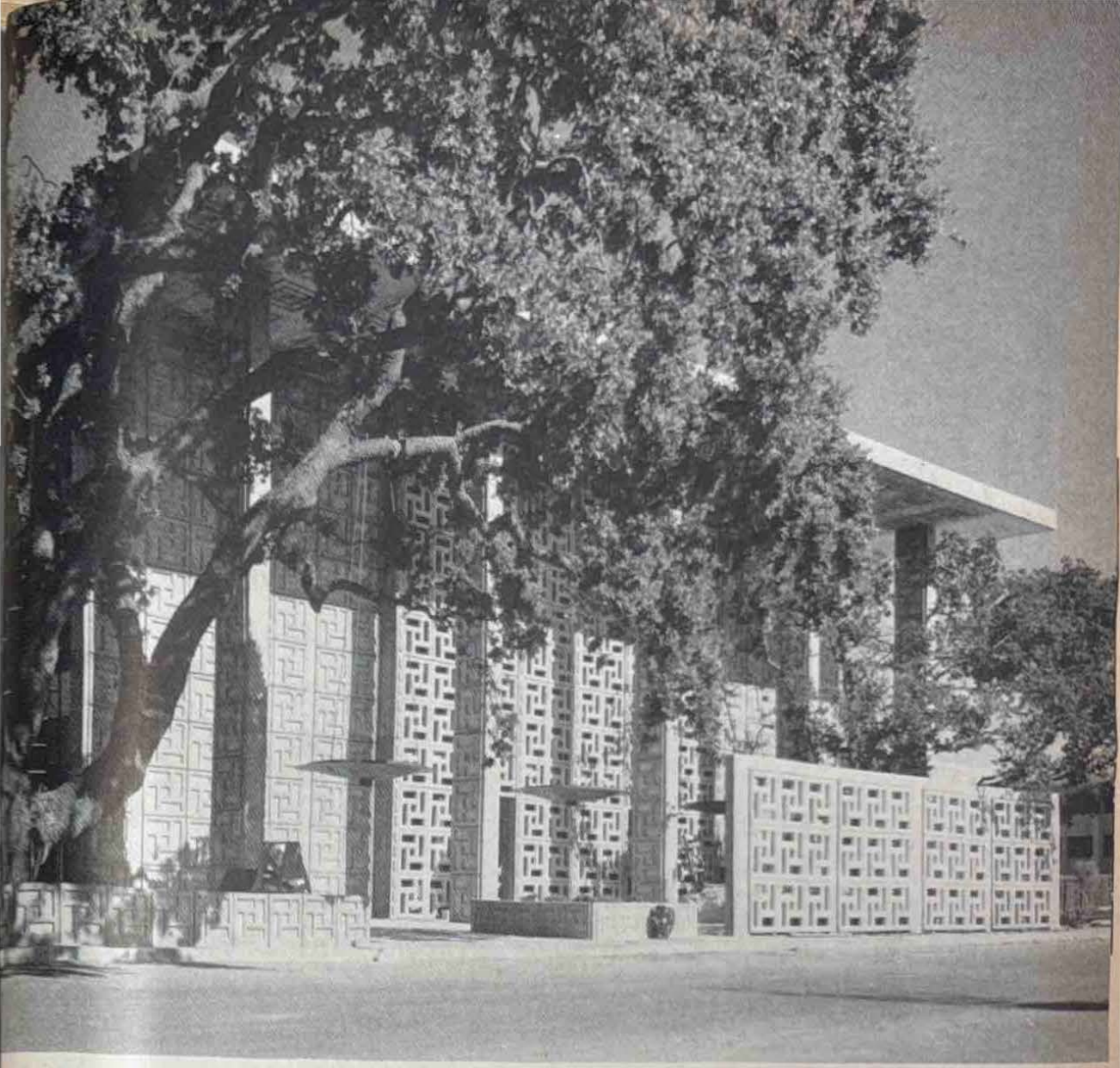
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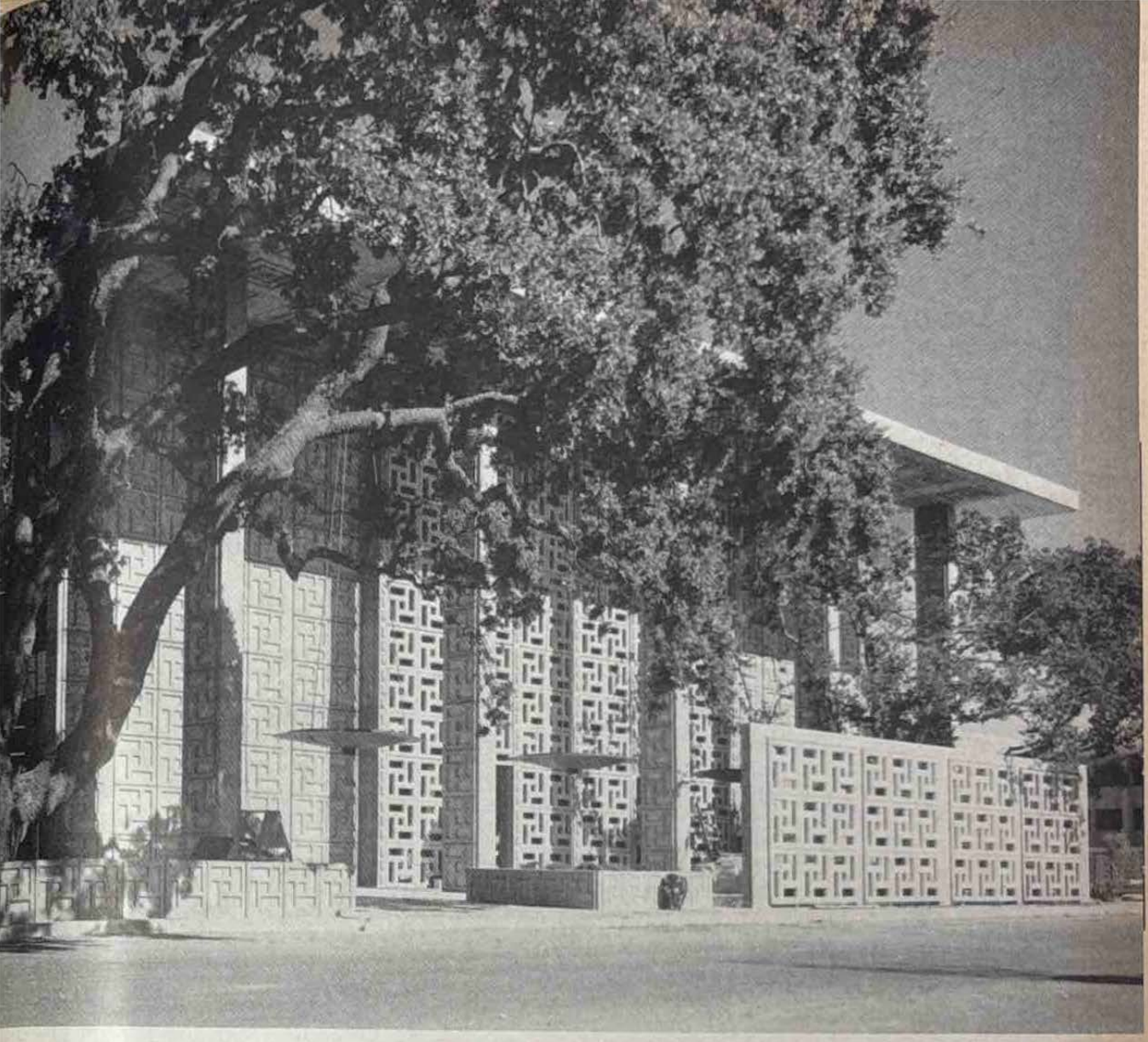
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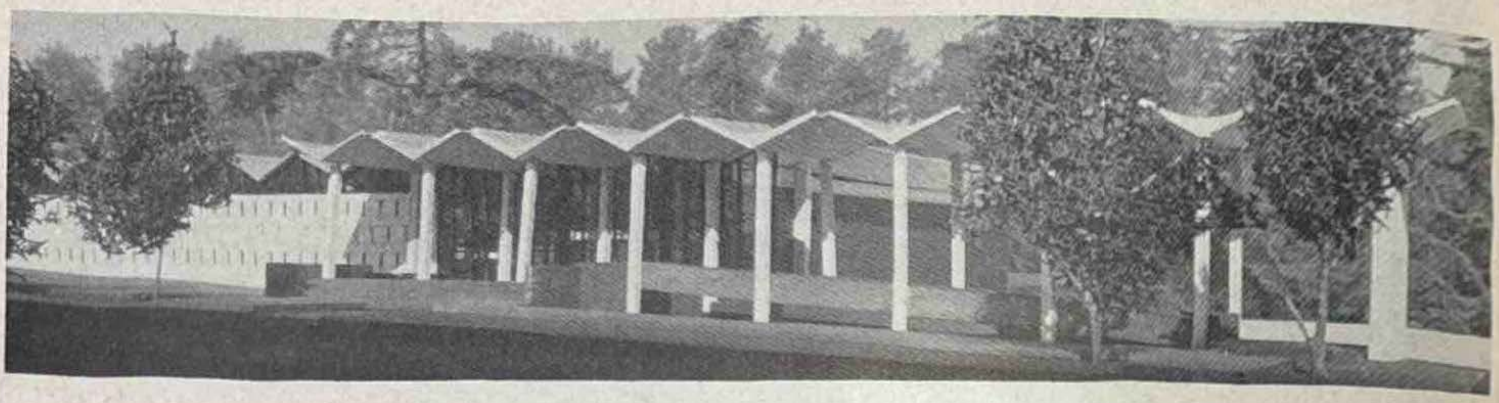
Stanford Medical Center
Palo Alto, California

EDWARD D. STONE
Architect

STANFORD UNIVERSITY
General Contractor

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Construction Consultants

## JOB OF THE MONTH



### Entire wall can be unbolted in library building geared to expansion

UNIVERSITY OF NEVADA LIBRARY, RENO: Flexibility to meet changing needs over a long period of years is the keynote of this 100,000-sq. ft. air conditioned building. Designed to support stacks at any location with permanent partitions held to a minimum, the frame will allow interior rearrangements without costly changes. In addition, the entire north wall is designed so that it can be unbolted and moved to the north to accommodate major expansion.

The three-story structure of reinforced concrete will accommodate 1,400 students and 350,000 volumes. A 4-in. thick folded plate, post tensioned concrete roof will span 90 ft. with a 25-ft. cantilever at each end, creating both a striking appearance on the outside as well as in the room on the top floor.

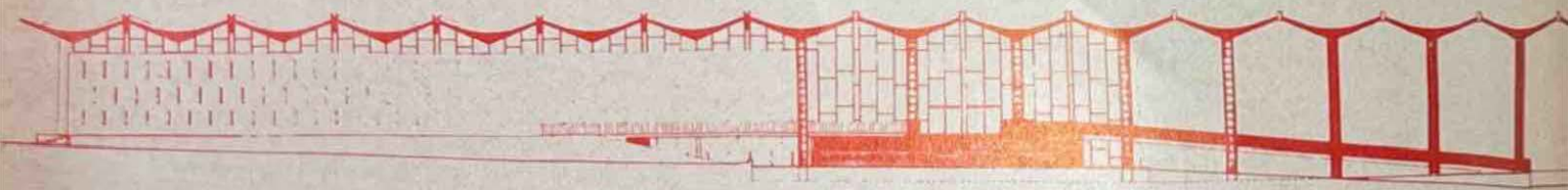
First and second floor slabs will be 9-in. thick post tensioned lift slabs. Columns will be precast. A limestone screen on the south wall and brick ends will recall materials used on nearby buildings.

Glass wall on the north will open out onto a sunken garden containing seating areas, pools and trees. Carrying out the theme of the roof's shape, folded plate ends will extend out over a long arcade. Sheathed in silver mosaic and molded to a birdlike form, they will perch on 36-ft. high columns sheathed in granite.

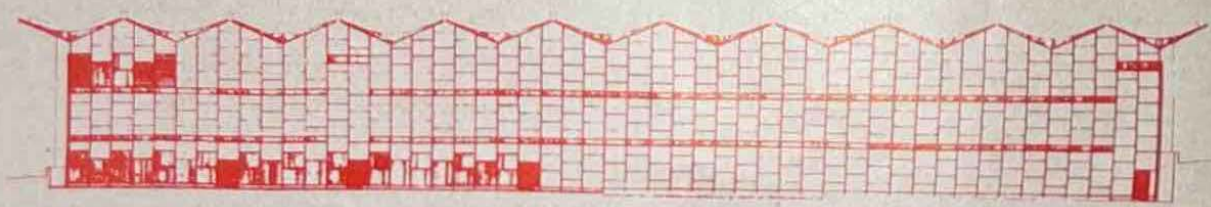
The library, estimated at $2,150,000, is believed to be the largest single capital investment ever undertaken by the state.

Construction start hinges on completion of the new dining hall, now behind schedule. The present infirmary will have to be demolished to make room for the library and the health facilities in turn will be transferred to the existing dining hall.

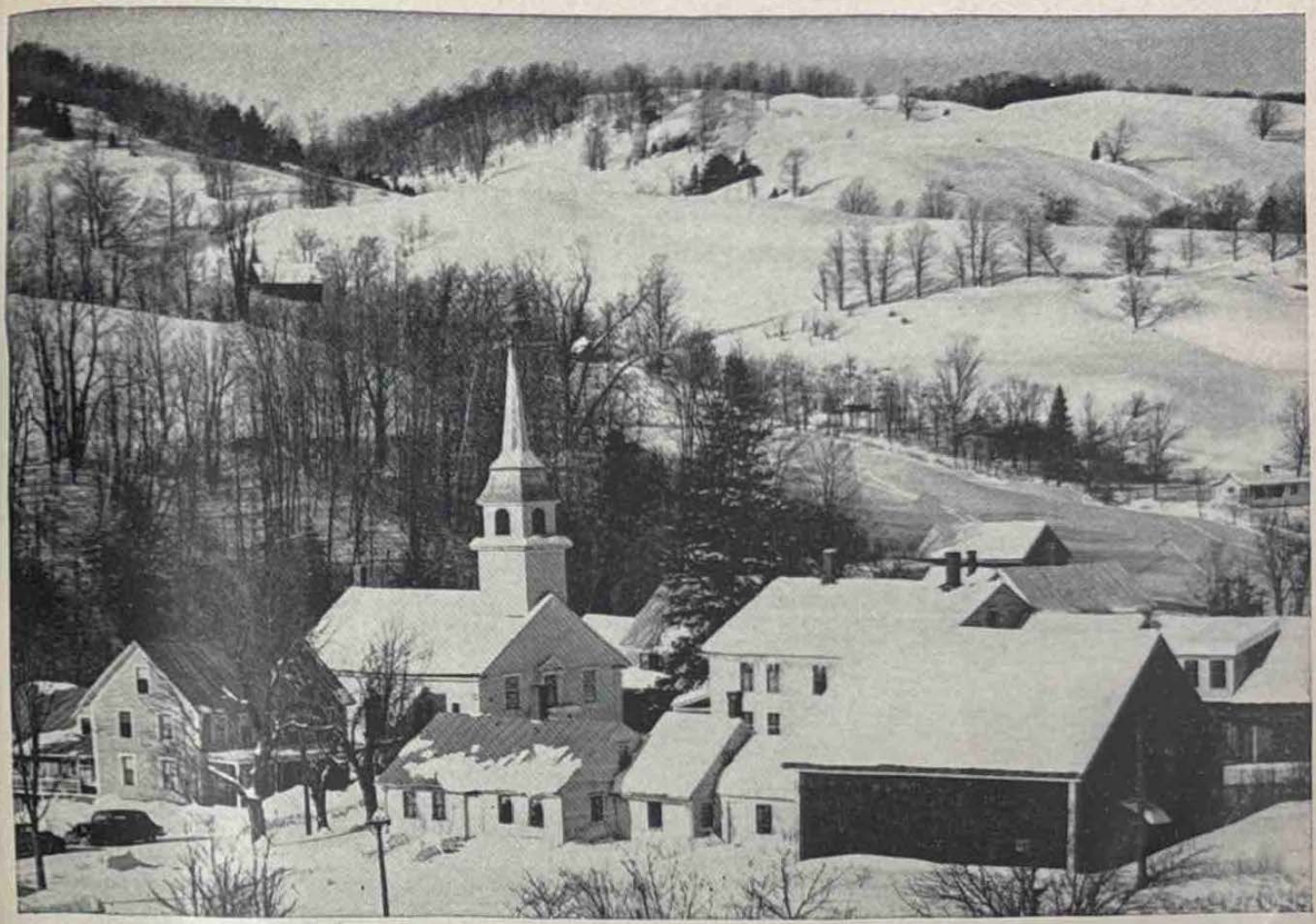
Architects: Robert E. Alexander & Associates; resident architects: Vhay Associates.



SOUTH ELEVATION



NORTH ELEVATION



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## Curtain walls get share of attention at BRI conference

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Darlington's proposal was one of seven selected by the BRI research committee for presentation at the conference.

### Architectural monotony

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"A few more jobs like this and the public will clamor for good old Colonial or Gothic architecture or even Greek temples. The only architects left will be those with an aesthetic sense, a conscience and imagination."

Alschuler said that curtain wall construction will meet public resistance, despite its advantages, because it is being used without imagination. Actually, curtain walls have been used about 70 years, although the present concept of their use has been popular only in the past decade.

He charged that thinking in terms of curtain walls has become too rigid. "One of the problems may be that we seem to employ large and prominent grids or vertical and/or horizontal members which become one of the main features of the exterior design.

"While these are the ribs of the structure, they are not as important as the backbone of the structure nor as beautiful as the skin should be. After all, it doesn't take a genius or anyone with talent to produce a building that looks like a piece of graph paper."

### Need for variety urgent

Alschuler proposed that prefabricated curtain wall sections be "shaped and varied in their spacing, color, widths, material, texture and even lengths to give interest and attractiveness to the structure."

He praised the approach of one porcelain enamel manufacturer who is offering panels with a large variety of designs, colors and combinations of colors within the larger units that might help create a more interesting appearance.

Some panels might be recessed and others projected to give the building more depth while panels or groups of panels could be sloped in or out or even could be bent in and out.

"There is no law that says panels cannot be round, spherical, diamond shaped or free form," the architect commented. "I am not suggesting the use of all varieties in one building, but I am suggesting that it takes more than the design of one panel to design the entire building attractively.

"Perhaps as important a factor in appearance is to have the basic form of the building varied from rectangular flat-faced to curved, slanted, or sawtoothed. With the varied forms given to the building, the metal curtain walls can be utilized to enclose and enhance the building."

### Design competition suggested

Alschuler proposed that the manufacturers of curtain walls and their component parts employ an architect to design buildings of a different type each month to demonstrate imaginative use of this kind of construction in their advertising. Another approach, he said, would be a competition among architects to seek the best and most interesting solution to the problems posed by different types of buildings.



**VIEWING EXHIBIT** honoring their buildings at the San Francisco Museum of Art are John L. McCrea, vice president of John Hancock Mutual Life Insurance Co.; J. D. Zellerbach, president of Crown Zellerbach Corp., and architect Nathaniel Owings.

## Art museums feature two San Francisco buildings

The new western home office buildings of two major business organizations were featured exhibits recently at the San Francisco Museum of Art and the Portland Art Museum. Both the John Hancock Mutual Life Insurance Co., and Crown Zellerbach Corp. projects were cited as having "assumed their place in the city of San Francisco with the utmost tact . . . like civilized men, standing intact in their own persons. And what is immediately apparent is that each possesses striking and profound individuality," said a spokesman for the San Francisco museum.

The John Hancock Building, by Skidmore, Owings & Merrill, was designed to fit in with an existing environment on a conventional urban site. The 14-story structure is built of reinforced concrete, sheathed in polished dark brown granite with a pattern of bronze trimmed windows of gray glass. Its base is flanked by a succession of arches, reminiscent of a Renaissance arcade, an eye-catching feature on an otherwise predictable street.

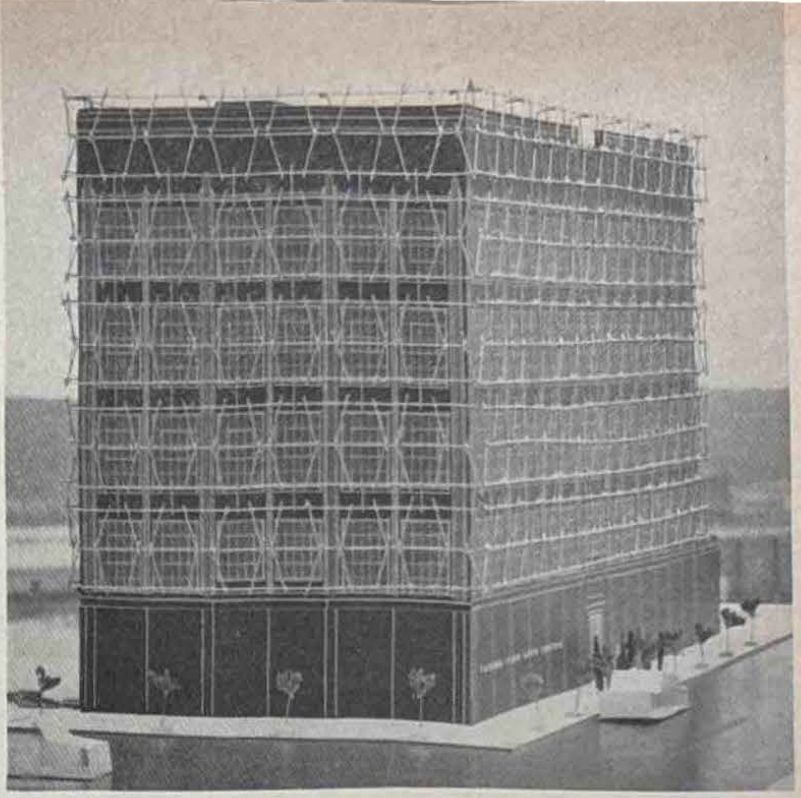
The Crown Zellerbach Building, also by SOM in association with Hertzka & Knowles, is a tower of green tinted glass crossed horizontally by glass spandrels panels of darker bluish green and striped vertically by aluminum mullions, showing the 16 business floors rising as a series of horizontal planes separated by air. Eighteen steel columns ascend the full 20-floor height.

Artwork has been used extensively in both buildings.

Richards Studio



Art Hupy



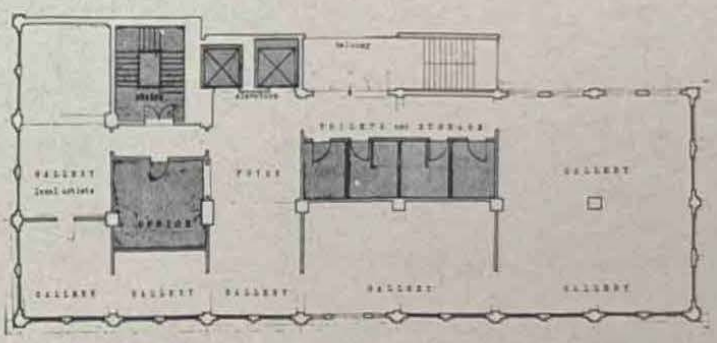
**OLD CITY JAIL** as it now stands and as it will appear if plans are successful to turn it into fine arts center.

## In Tacoma: a silk purse out of a sow's ear

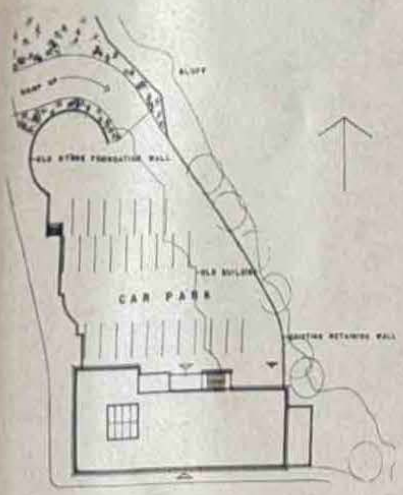
Fund raising campaign is underway for an intriguing project that would change the old city jail in Tacoma into a fine arts center. Sponsored by Allied Arts of Tacoma, the plan envisions expenditure of approximately $175,000 for remodeling the exterior and interior of the five-floor building, demolition of the adjacent structure and conversion of this site into a parking lot.

Preliminary plans by architects Little & Jones call for the ground floor to be used as one large exhibition area available for shows and civic displays, including Tacoma's participation in Century 21.

Second floor would be the art gallery; third floor would house a meeting room, craft room and office space for member organizations; fourth and fifth floors, formerly the cell block, would become a two-story auditorium seating 300; and fifth floor mezzanine area would offer space for additional offices.



SECOND FLOOR ART GALLERY




SITE PLAN

Exterior of the building would be changed by covering the ground floor windows and one entrance and painting the entire stucture in a dark shade. A gold anodized aluminum screen would be hung from the second floor to the roof.

Building is of reinforced concrete with interior tile partitions. Most of the interior partitions would be removed, but no changes would be made in the structural system. The old stone foundation would be retained as an enclosure for the car park.

Removal of the adjacent building, which has been condemned, will leave the old jail standing alone on an important downtown intersection with an excellent view overlooking the harbor and the industrial section of Tacoma.

Following a pattern established by other art centers throughout the country, it is expected that a city ordinance would establish the relationship between Allied Arts and the city. The city would continue to hold title to the building and provide it with utilities and maintenance. Allied Arts, a federation of 30 cultural organizations, would manage the activities in the building.

The total amount allocated for the project has been broken down thusly: 1) demolition of the adjacent condemned building, $25,000; 2) patching of the wall exposed by demolition, new elevator, new exterior stair and parking lot, $50,000; 3) conversion of the structure to the needs of the fine arts center, $100,000. The city already has set aside funds for the demolition and the Weyerhaeuser Foundation will contribute $50,000 for the second phase. Fund raising campaign so far has resulted in pledges of $40,000 from groups requesting space. The architects feel that work can get underway when the drive hits $60,000.

at least a generation from now, to the company that is determined to provide perpetual jobs for its employees and a continued fair return to its stockholders."

Among major speakers at the meeting was Henry Hill, San Francisco architect, who told the assembled industry leaders that a new concept of architecture is taking hold in the design of homes and that wood has been assigned a key role because of its life and warmth. "The architect is no longer designing the enclosed box, or a series of boxes, with holes punched into the walls through which to peek out," he said. "We are concerned with space and the three-dimensional definition of that space." Building materials are now being used not for themselves but for what they contribute to the livability of a home.

Wood should gain greater importance in home design, Hill asserted, because it has "a living quality that is shared with delight and understanding by all mankind . . . To me, above all, wood has a dignity. It follows that wood must be treated with dignity." (For a digest of the architect's remarks, see p. 40)

### Housing in the crystal ball

FHA Commissioner Julian H. Zimmerman predicted that the nation's housing inventory will more than double by the year 2000 and new home starts, including farm units, will rise to 2.25 to 2.5 million annually.

An expanding economy, spurred by population growth, an increased rate of new-family formations and a continued rise in living standards could bring this nation to the highest plateau of living ever dreamed of by man, he said.

Zimmerman also predicted that during the next 40 years the price of a typical new home may jump from $13,500 to the $20,000 to $25,000 class and that families who buy these houses will get better value, dollar for dollar, because of the great advances that are being made in building materials and techniques.

### Bostonian named president

Elected president to succeed Ingram was Thomas J. McHugh, president of Atlantic Lumber Co., Boston. Ingram was named board chairman. A. B. Hood, vice president and general manager of Ralph L. Smith Lumber Co., Anderson, Calif., was elected first vice president.

Among new regional vice presidents are J. D. Bronson, Cascade Lumber Co., Yakima, Wash., and president of Western Pine Association; and Eliot Jenkins, Eugene, Ore., president of West Coast Lumbermen's Association.

## Architects back uniform building code for California

Development of a single, uniform building code that could save the state millions in construction costs has been unanimously endorsed by the governing board of the California Council of the American Institute of Architects.

At its fall meeting in San Diego, the board of directors voted to sponsor a program "dedicated to the development of a single uniform code for all building in California." The resolution was passed "in view of the serious, costly and chaotic situation caused by the overlapping and conflicting building codes presently in use in California."

Director William L. Higgins of San Jose, chairman of the code committee, said the state's various departments and agencies now operate under individual codes that are "conflicting, confusing and costly. It has been estimated," he said, "that the state could save as much as $25 million by adopting a single, uniform code that would apply to all agencies."

In other action, the board:

1. Voted to investigate the possibility of sponsoring a second Pacific Rim Conference in Mexico City. (The organization held the first such conference recently in Honolulu.)
2. Nominated Malcolm Reynolds of Oakland as director of the California region to succeed Ulysses Floyd Rible of Los Angeles.
3. Elected William Glenn Balch of Los Angeles to the regional judiciary committee.

## Revitalized business center target of Phoenix study

The City Planning Commission of Phoenix has begun a comprehensive study of land use and traffic patterns in an effort to seek ways and means of revitalizing the central business district. The study is being coordinated with a program by the Downtown Committee, an organization of Phoenix businessmen for improvement of city core properties.

At present the advance planning staff is studying programs in other cities and collecting basic land use data. Further studies will include compiling information on future plans of government and private groups, and evaluating population and traffic projections. It is hoped that a long-range plan for the central core area will be ready within one year, according to William Phelps, the city's principal planner. Three staff members will work on the project.



**INDUSTRIAL PARK DEVELOPMENT** will be served by railroad as well as projected freeway.

## Park near San Diego will combine industry and research

Ground was broken recently for an industrial park that will combine plant and research facilities on an 800-acre site outside San Diego. The project, planned as the southern California counterpart of the Stanford Research Park in Palo Alto, was designed by Albert C. Martin & Associates, Los Angeles architectural and engineering firm.

Master plan calls for a community of distributional industrial plants, research and development centers and similar facilities, a community park, recreation center, warehouses and an office building, all in a landscaped setting. To be called Sorrento Valley Industrial Park, it will eventually complement the La Jolla campus of the University of California in a manner similar to the relationship of Stanford Research Park to that university.

Initial three units now under development will comprise 280 acres, with the first plants expected to be in operation early next year. A sewage treatment plant is ready for operation and new water mains, gas, electricity and telephone facilities will be available to the subdivision.

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Students can't break the sound barrier between classrooms. Dividing walls are sandwiches of steel with built-in thermal-acoustical insulation. Thin curtain walls provide increased area within the buildings. Outside, steel, in a variety of finishes, always looks bright and new. Porcelain-enameled steel, for example, will not fade or discolor. It needs no maintenance, and seasonal rains will do the cleaning.

Architects find design versatility all but limitless with steel. Lower rooflines reach out with wide overhangs to bring shade and shelter to walkways and play areas below. These permanent, versatile structures are easily expanded with minor framing changes. Here are only a few of the economical advantages of building with steel. Visit a steel school soon and you'll discover many more!

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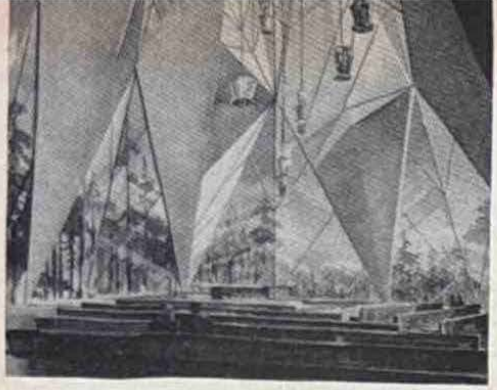
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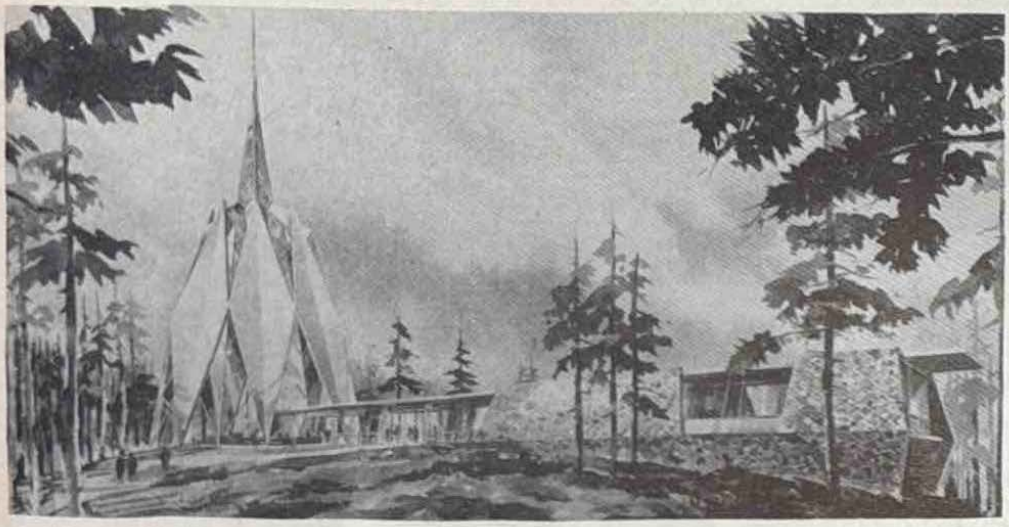
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**COVINA ARCHITECTS** Burdette M. Pulver and James H. Maul are shown above examining model of their winning design for chapel to be built in South Dakota's Black Hills. Concrete and glass chapel with 118-ft. spire and office wing are two separate units connected by covered walk.

## California architects win church design competition

A design by two southern California architects featuring huge diamond shaped concrete panels has been selected for a tourist chapel to be built in the Black Hills of South Dakota by the Evangelical Lutheran Church. Winners in the invitational competition were partners James H. Maul and Burdette M. Pulver, of Covina. They received $1,000 and the contract to supervise construction.

The building, which will be known as "The Chapel in the Hills," will overlook the surrounding Black Hills country. It will include a permanent home for the national Lutheran Vespers program.

The architects designed two separate units. Chapel utilizes seven diamond shaped concrete panels rising 62 ft. set around the periphery, forming a circle 47 ft. in diameter. Panels will be folded plates of 6-in. thick gunite finished with an integral white cement and ground quartz crystals and will be 15 ft. at the widest point. Between them will be seven glass sections, clear gray for the lower sections and stained glass for the upper ones.

Chapel is topped by a copper tower rising to height of 118 ft. A glass walled narthex connecting the chapel and office will be roofed by a concrete slab continuing over the administration wing. Office is of glass and local stone exposed both inside and outside.

Structural engineer for the chapel is Richard Bradshaw of Van Nuys. James Schweickert & Associates of Covina are doing the remaining structural engineering. Roger Darricarrere, Los Angeles artist, has been commissioned to do an abstract design for the stained glass windows.

The competition was limited to 11 architectural firms across the nation. The jury of church laymen cited Maul & Pulver's entry for its boldness and daring, saying that "its unique design met the possibility and challenge of the hilltop site and its potential to reach thousands of people." They further stated that the "design combined the visually attractive and the spiritually significant in a wonderful way" and that it "succeeded in answering all the design qualifications very well and most of them in an outstanding manner."

## Bay area rapid transit picks tentative routes

Preliminary routes have been selected for approximately two-thirds of the proposed five-county San Francisco Bay area rapid transit system, according to Keneth M. Hoover, chief engineer for the district. The tentative alignments, some 80 miles in length, are located in Alameda, Contra Costa and Marin counties. Still under consideration are those in San Francisco and San Mateo counties.

More than 120 miles of rail lines are planned for the regional transit system, all on exclusive rights-of-way utilizing subway, elevated and surface routes and including a four-mile long underwater transit tube connecting San Francisco and Oakland. Approximately 50 passenger stations will be utilized with parking lots capable of handling 500 to 1,000 autos.

Bay area residents will vote on a general obligation bond issue to finance construction in November 1960. Consulting engineering firms planning the project are Pasons, Brinckerhoff, Hall & Macdonald, Tudor Engineering Co. and Bechtel Corp. Donald C. Hyde, general manager of the Cleveland Transit System, has been retained as a special consultant.

Farther north, plans for the Seattle monorail are being reconsidered in the light of the decision by Century 21 officials to shorten the fair from two years to six months. The monorail was to have provided rapid transit from city center to the fair site. While the monorail is still under consideration, the decrease in possible revenues has considerably dampened Seattle Transit's enthusiasm for the project.

## Underground wiring gains foothold in Seattle

Proponents of underground wiring won half a battle in Seattle recently when the City Council voted to bar most overhead utility wire crossings of the central freeway. Only a few high voltage transmission crossings will be placed above ground.

The resolution also called for steps leading toward "an orderly program of placing City Light wiring underground . . . consistent with current revenue" and directed the public utility to assist in every way possible in the creation of local improvement districts to help finance underground wiring.

Mayor Gordon Clinton estimated that about 900 poles will be eliminated by freeway work.

## Roseburg: 'undaunted reconstruction'

"Planning is a most human affair and it affects man, woman and child," writes Richard J. Neutra in his preface to the just released Disaster Recovery Plan for the city of Roseburg, Ore., prepared by Clark-Colman & Associates.

The Douglas County seat in the center of the Umpqua Basin is engaging in a very human affair indeed as it makes preparations to redevelop its disaster portion—an area of eight blocks near the heart of downtown which was devastated and an additional 22 blocks which sufferred considerable damage. A sleeping city was aroused August 7 when a small fire in a lumber yard caused a truck containing explosives which was parked nearby to blow up.

### Many cities have failed

"The building of a city is usually a slow and sometimes much too dragging a process." says the Los Angeles architect who consulted with the planning firm, which has offices in Seattle and Portland. Neutra continues: "Many cities in Europe, after the destruction of war, have failed (like San Francisco after its fire of 1905) to take full advantage of the potentials and possibilities of renewal. Roseburg may become an example of a most unusual procedure; a vigorous attempt of undaunted reconstruction—but reconstruction not without full planning effort. Under such extraordinary circumstances, forecasts of normal progress and prosperity may easily be misleading. The present impetus will have brought about an abnormal, and perhaps a happily improved, evolution for a city which, more than ever, has now the sympathies of outsiders; and above all, the sympathy of the industries upon which it most depends.

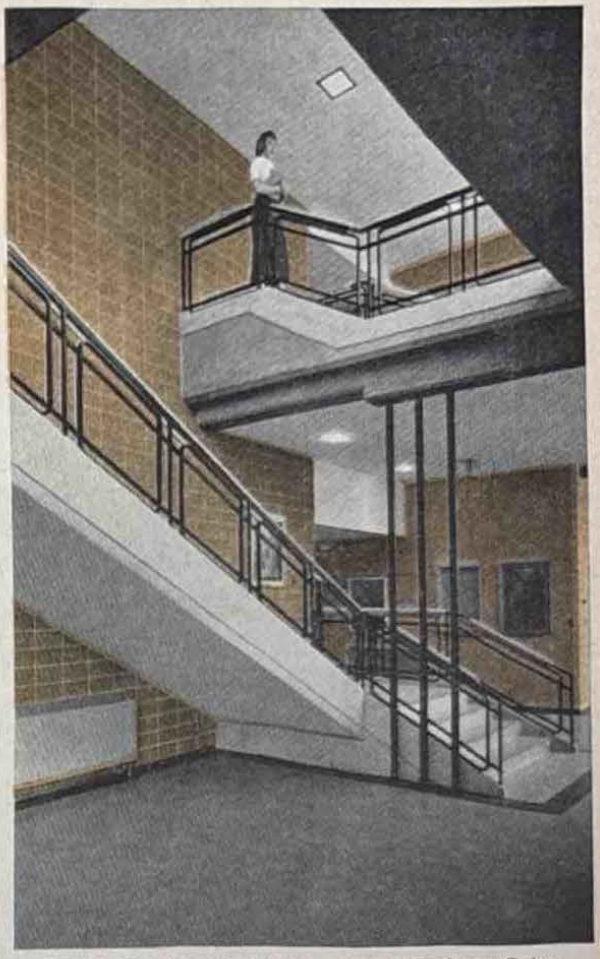
"No wonder that the reconstruction of Roseburg, which traces its beginnings to the fire in a lumber yard, will also find its remedial support in the faith of the wood products industries that Roseburg must rise to a new level of municipal well being. The city between its hills, at the winding Umpqua River, may become a national focus where a basic industry annually reviews its program and finds widest attention for its helpfulness to a happily renewed community. Every new pattern of life, movement, traffic, as a new plan initiates them, calls for a new formation of habits."

### A 21-point program

The plan outlined by Clark-Coleman proposes an evaluation of the South Umpqua River crossing sites and suggested alignment for the new structure; street and land use plans for the disaster area; and methods for implementing those recommendations. Included in the 21-point program are establishment of pedestrian malls along Oak Street, Rose Street and the east bank of the river and development of a public buildings complex around the County Courthouse.

Cost of rebuilding the core devasted area is estimated at $10 million. About 50% of the total must be supplied by public agencies; the remaining half by private parties' investments in new utilities and buildings.

The report also specifically attempts to give the lumber industry a boost with these two suggestions: broaden and stabilize the economy by increasing the manufacture of wood by-products and the manufacture of implements for lumber cutting and processing; encourage annual exhibits in Memorial Park which will depict technological advances in the lumber industry.

Fred L. Markham, Architect, selected Kraftone Color Glazes No. 423 Cream and Ocular Green No. 222 for corridor walls in the Provo High School to harmonize with light green stairs and balcony.

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Alschuler said that curtain wall construction will meet public resistance, despite its advantages, because it is being used without imagination. Actually, curtain walls have been used about 70 years, although the present concept of their use has been popular only in the past decade.

He charged that thinking in terms of curtain walls has become too rigid. "One of the problems may be that we seem to employ large and prominent grids or vertical and/or horizontal members which become one of the main features of the exterior design.

"While these are the ribs of the structure, they are not as important as the backbone of the structure nor as beautiful as the skin should be. After all, it doesn't take a genius or anyone with talent to produce a building that looks like a piece of graph paper."

### Need for variety urgent

Alschuler proposed that prefabricated curtain wall sections be "shaped and varied in their spacing, color, widths, material, texture and even lengths to give interest and attractiveness to the structure."

He praised the approach of one porcelain enamel manufacturer who is offering panels with a large variety of designs, colors and combinations of colors within the larger units that might help create a more interesting appearance.

Some panels might be recessed and others projected to give the building more depth while panels or groups of panels could be sloped in or out or even could be bent in and out.

"There is no law that says panels cannot be round, spherical, diamond shaped or free form," the architect commented. "I am not suggesting the use of all varieties in one building, but I am suggesting that it takes more than the design of one panel to design the entire building attractively.

"Perhaps as important a factor in appearance is to have the basic form of the building varied from rectangular flat-faced to curved, slanted, or sawtoothed. With the varied forms given to the building, the metal curtain walls can be utilized to enclose and enhance the building."

### Design competition suggested

Alschuler proposed that the manufacturers of curtain walls and their component parts employ an architect to design buildings of a different type each month to demonstrate imaginative use of this kind of construction in their advertising. Another approach, he said, would be a competition among architects to seek the best and most interesting solution to the problems posed by different types of buildings.



**VIEWING EXHIBIT** honoring their buildings at the San Francisco Museum of Art are John L. McCrea, vice president of John Hancock Mutual Life Insurance Co.; J. D. Zellerbach, president of Crown Zellerbach Corp., and architect Nathaniel Owings.

## Art museums feature two San Francisco buildings

The new western home office buildings of two major business organizations were featured exhibits recently at the San Francisco Museum of Art and the Portland Art Museum. Both the John Hancock Mutual Life Insurance Co., and Crown Zellerbach Corp. projects were cited as having "assumed their place in the city of San Francisco with the utmost tact . . . like civilized men, standing intact in their own persons. And what is immediately apparent is that each possesses striking and profound individuality," said a spokesman for the San Francisco museum.

The John Hancock Building, by Skidmore, Owings & Merrill, was designed to fit in with an existing environment on a conventional urban site. The 14-story structure is built of reinforced concrete, sheathed in polished dark brown granite with a pattern of bronze trimmed windows of gray glass. Its base is flanked by a succession of arches, reminiscent of a Renaissance arcade, an eye-catching feature on an otherwise predictable street.

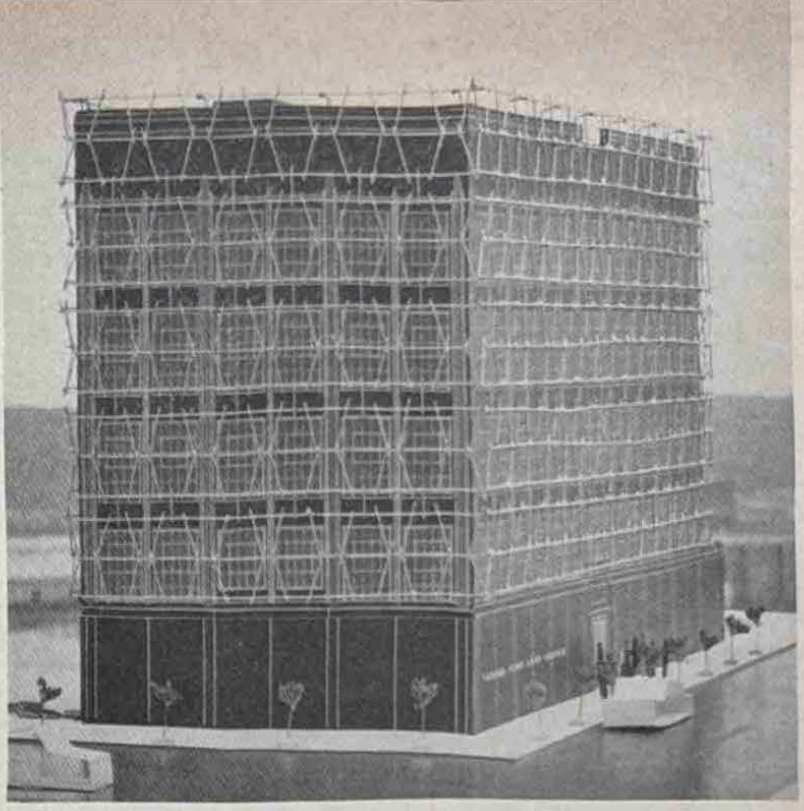
The Crown Zellerbach Building, also by SOM in association with Hertzka & Knowles, is a tower of green tinted glass crossed horizontally by glass spandrels panels of darker bluish green and striped vertically by aluminum mullions, showing the 16 business floors rising as a series of horizontal planes separated by air. Eighteen steel columns ascend the full 20-floor height.

Artwork has been used extensively in both buildings.

Richards Studio



Art Hupy



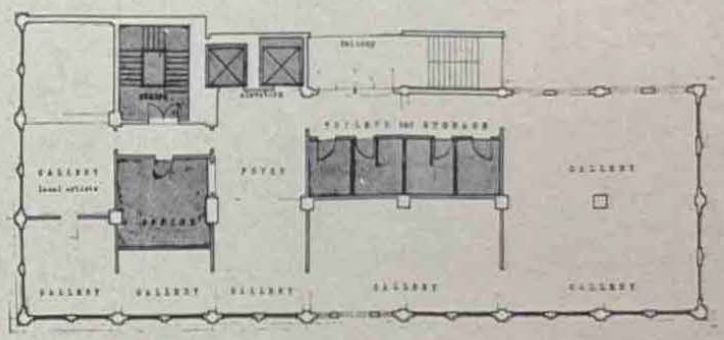
**OLD CITY JAIL** as it now stands and as it will appear if plans are successful to turn it into fine arts center.

## In Tacoma: a silk purse out of a sow's ear

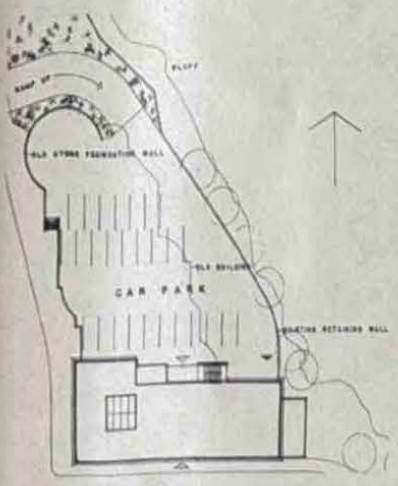
Fund raising campaign is underway for an intriguing project that would change the old city jail in Tacoma into a fine arts center. Sponsored by Allied Arts of Tacoma, the plan envisions expenditure of approximately $175,000 for remodeling the exterior and interior of the five-floor building, demolition of the adjacent structure and conversion of this site into a parking lot.

Preliminary plans by architects Little & Jones call for the ground floor to be used as one large exhibition area available for shows and civic displays, including Tacoma's participation in Century 21.

Second floor would be the art gallery; third floor would house a meeting room, craft room and office space for member organizations; fourth and fifth floors, formerly the cell block, would become a two-story auditorium seating 300; and fifth floor mezzanine area would offer space for additional offices.



**SECOND FLOOR ART GALLERY**




**SITE PLAN**

Exterior of the building would be changed by covering the ground floor windows and one entrance and painting the entire stucture in a dark shade. A gold anodized aluminum screen would be hung from the second floor to the roof.

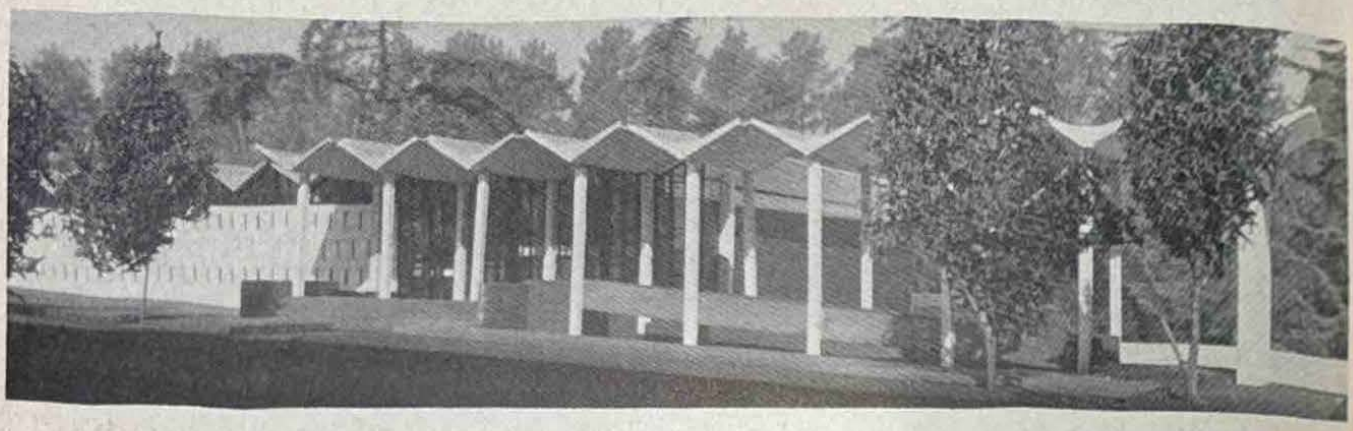
Building is of reinforced concrete with interior tile partitions. Most of the interior partitions would be removed, but no changes would be made in the structural system. The old stone foundation would be retained as an enclosure for the car park.

Removal of the adjacent building, which has been condemned, will leave the old jail standing alone on an important downtown intersection with an excellent view overlooking the harbor and the industrial section of Tacoma.

Following a pattern established by other art centers throughout the country, it is expected that a city ordinance would establish the relationship between Allied Arts and the city. The city would continue to hold title to the building and provide it with utilities and maintenance. Allied Arts, a federation of 30 cultural organizations, would manage the activities in the building.

The total amount allocated for the project has been broken down thusly: 1) demolition of the adjacent condemned building, $25,000; 2) patching of the wall exposed by demolition, new elevator, new exterior stair and parking lot, $50,000; 3) conversion of the structure to the needs of the fine arts center, $100,000. The city already has set aside funds for the demolition and the Weyerhaeuser Foundation will contribute $50,000 for the second phase. Fund raising campaign so far has resulted in pledges of $40,000 from groups requesting space. The architects feel that work can get underway when the drive hits $60,000.

## JOB OF THE MONTH



# Entire wall can be unbolted in library building geared to expansion

UNIVERSITY OF NEVADA LIBRARY, RENO: Flexibility to meet changing needs over a long period of years is the keynote of this 100,000-sq. ft. air conditioned building. Designed to support stacks at any location with permanent partitions held to a minimum, the frame will allow interior rearrangements without costly changes. In addition, the entire north wall is designed so that it can be unbolted and moved to the north to accommodate major expansion.

The three-story structure of reinforced concrete will accommodate 1,400 students and 350,000 volumes. A 4-in. thick folded plate, post tensioned concrete roof will span 90 ft. with a 25-ft. cantilever at each end, creating both a striking appearance on the outside as well as in the room on the top floor.

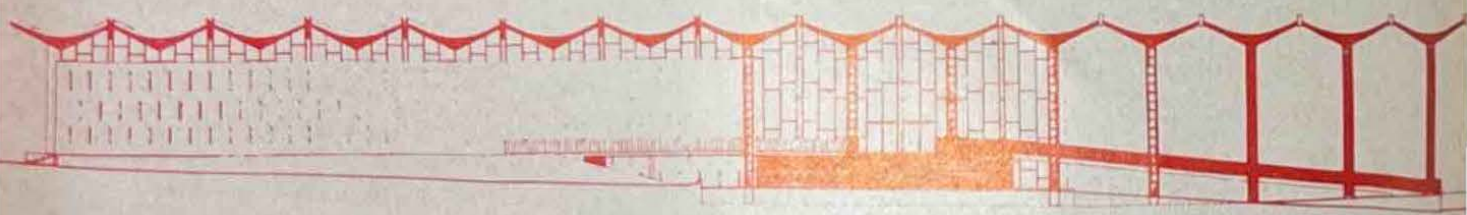
First and second floor slabs will be 9-in. thick post tensioned lift slabs. Columns will be precast. A limestone screen on the south wall and brick ends will recall materials used on nearby buildings.

Glass wall on the north will open out onto a sunken garden containing seating areas, pools and trees. Carrying out the theme of the roof's shape, folded plate ends will extend out over a long arcade. Sheathed in silver mosaic and molded to a birdlike form, they will perch on 36-ft. high columns sheathed in granite.

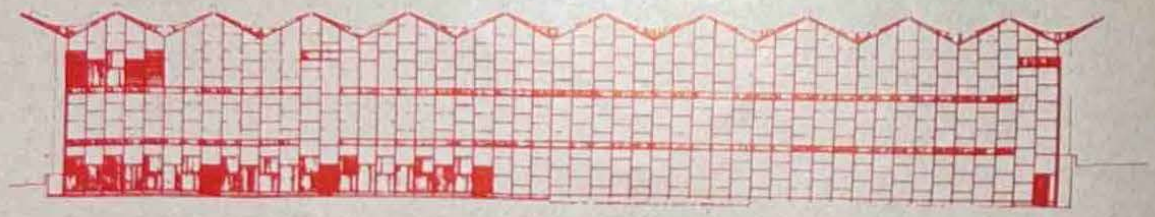
The library, estimated at $2,150,000, is believed to be the largest single capital investment ever undertaken by the state.

Construction start hinges on completion of the new dining hall, now behind schedule. The present infirmary will have to be demolished to make room for the library and the health facilities in turn will be transferred to the existing dining hall.

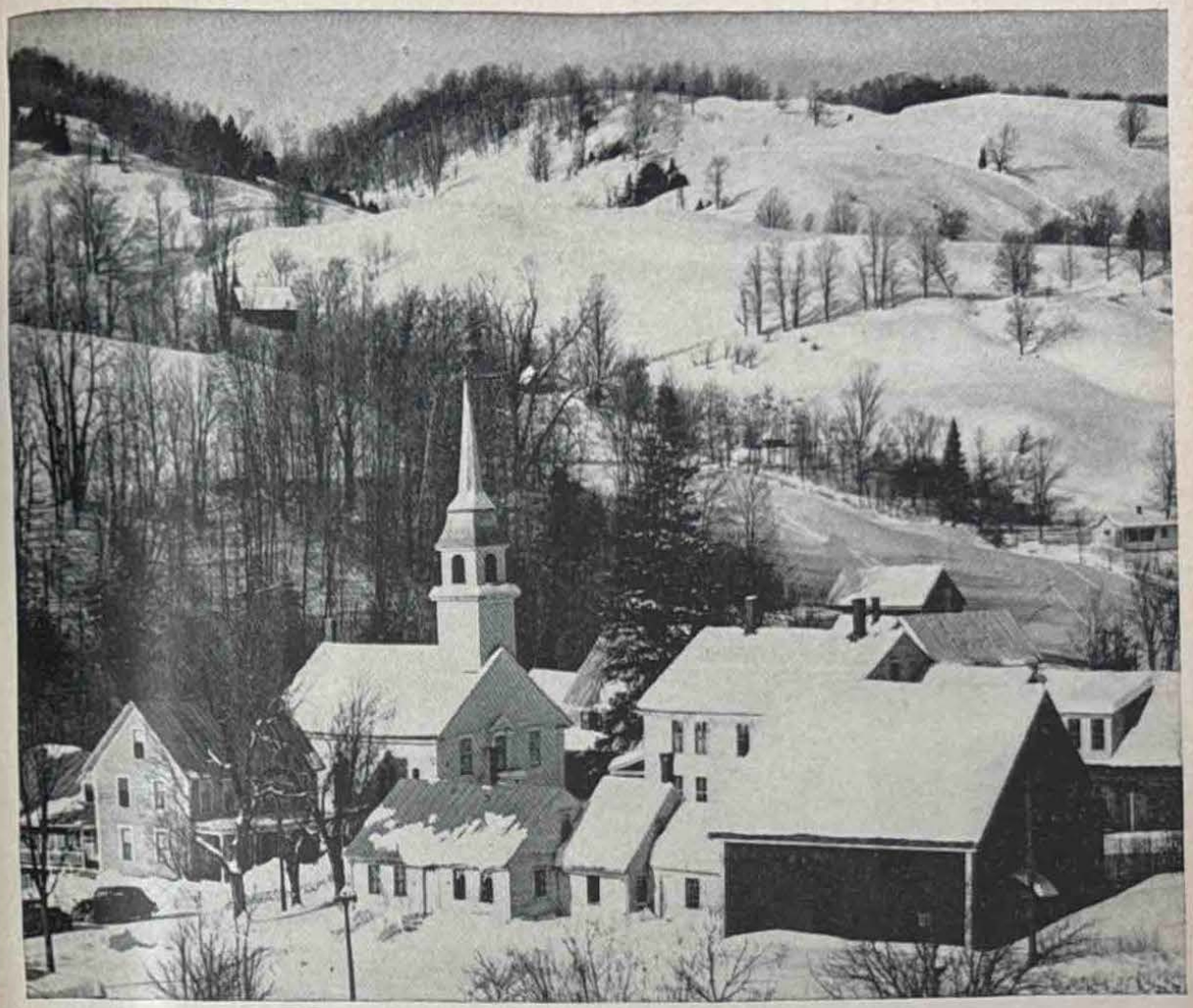
Architects: Robert E. Alexander & Associates; resident architects: Vhay Associates.



SOUTH ELEVATION



NORTH ELEVATION



# How to support America's Peace Power with each Christmas Bonus

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**THE U.S. GOVERNMENT DOES NOT PAY FOR THIS ADVERTISEMENT. THE TREASURY DEPARTMENT THANKS, FOR THEIR PATRIOTISM, THE ADVERTISING COUNCIL AND THE DONOR BELOW.**



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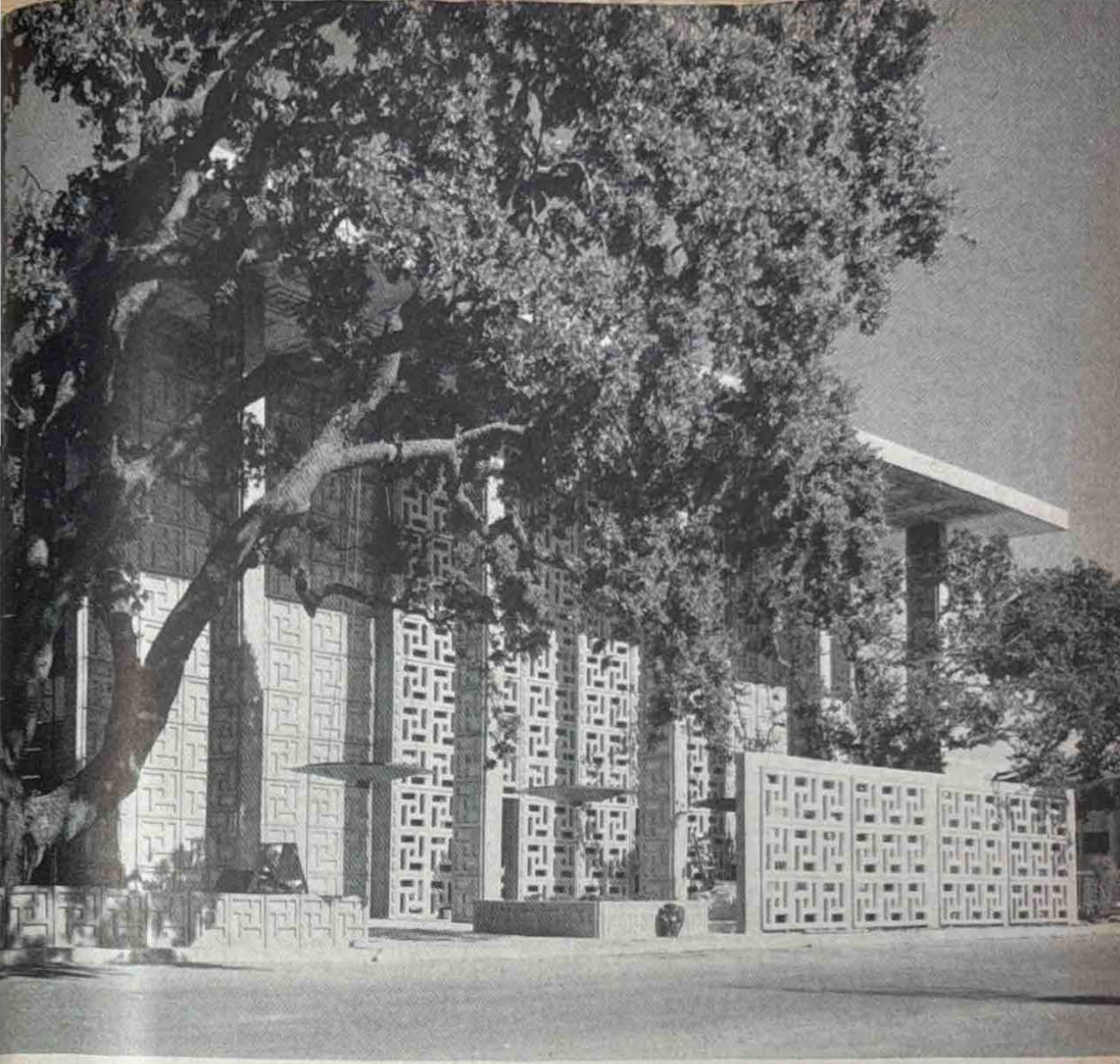
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# MACOMBER

## CANTON 1, OHIO



# Stone stamps his trademark on Stanford

Stanford Medical Center
Palo Alto, California

EDWARD D. STONE
Architect

STANFORD UNIVERSITY
General Contractor

WAGNER & MARTINEZ
Construction Consultants

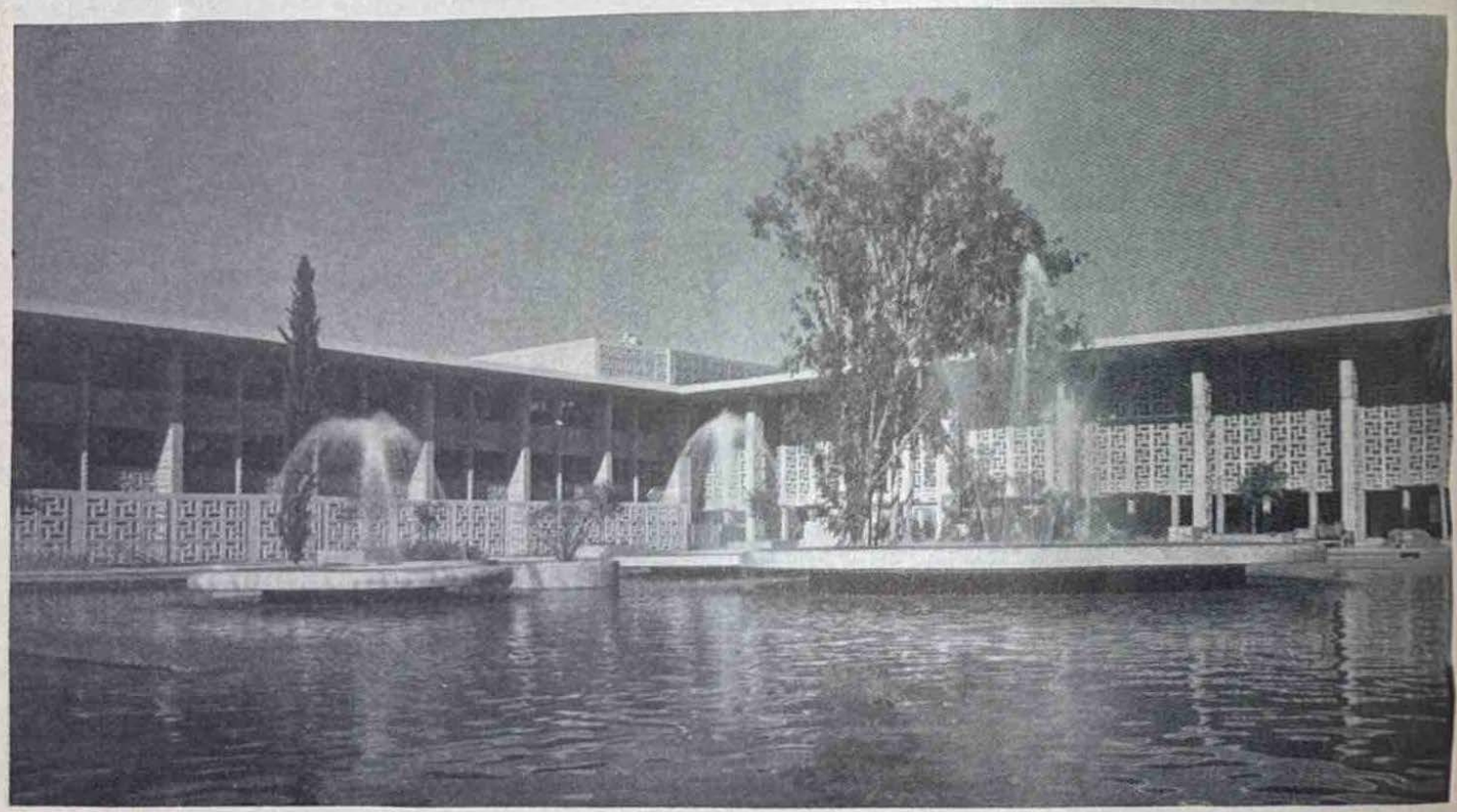
SYMBOLIZING the changing concept toward a more integrated medical education, this seven-building complex is tied together by a common roof and placed on the Stanford campus. Instruction and hospital teaching facilities are close together rather than 30 miles apart, as has been the case since 1859 when the Medical School opened its doors in San Francisco.

The steel reinforced concrete structures are interconnected by numerous arcades and covered walkways. Precast concrete grillwork employed to screen these areas is an extension of the same design and texture on the walls and columns of the buildings themselves, patterned to simulate the sandstone block surfaces of the main quadrangle. But whether Stanford will be able to live happily ever after with Stone's lacy grills on such a massive scale remains to be seen. In addition to the buff colored walls, trimmed with terra cotta red and brown, the architect has retained the general style of the campus architecture by keeping the buildings to three stories in height.

The $21 million center contains 715,321 sq. ft. The Palo Alto-Stanford Hospital consists of two wings—200 and 192 beds, respectively—joined by a central core providing both services and medical



**DOUBLE CORRIDOR DESIGN** permits all patient rooms to face outside; hence this is view available to majority.





Photos courtesy Stanford University

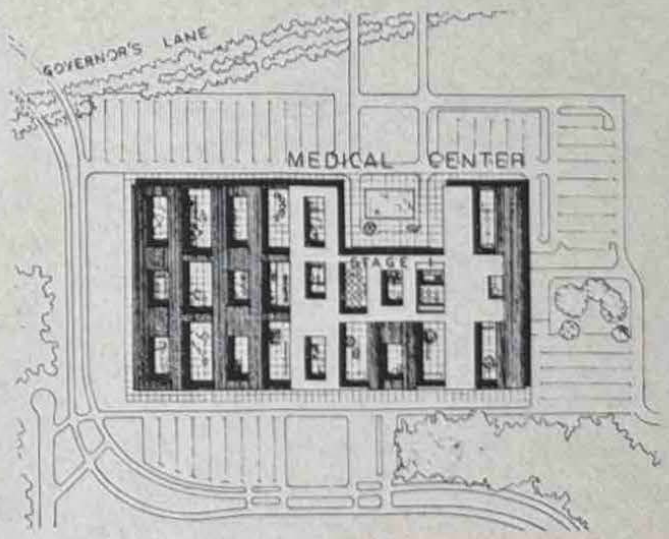
"HANGING GARDENS" will feature winter grape, variegated ivy and other plantings within concealed lighting fixtures.

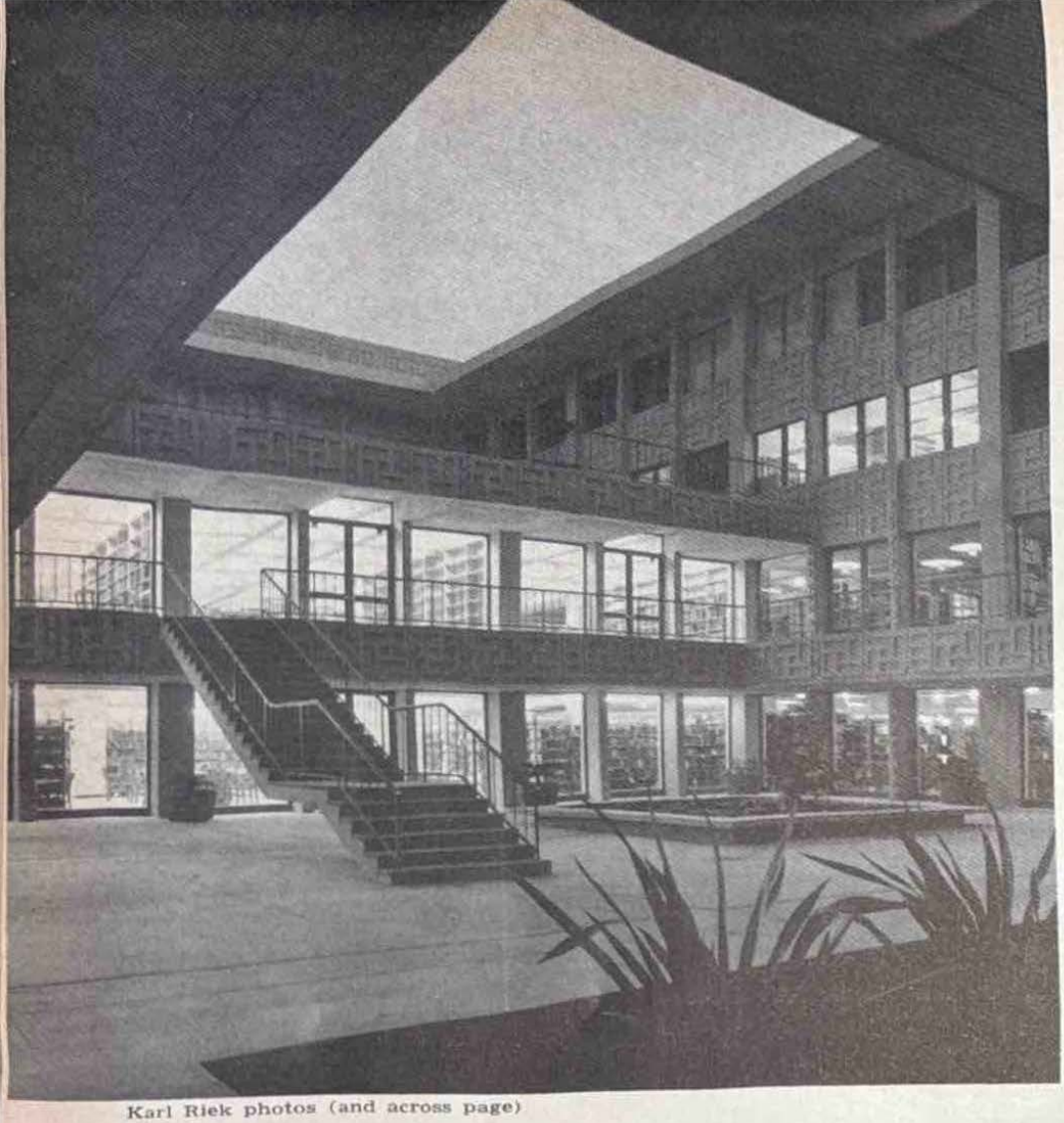


facilities, including obstetrics and pediatrics with 42 children's beds. The remaining four structures: Medical School Building, administration and teaching; Boswell Building, primarily for handling clinical traffic; Lane Building, library, offices, laboratories, child psychiatry, pathology and pharmacology; and Edwards Building, rehabilitation services (physical therapy, demonstration rooms, etc.).

The overall H-design provides for future second stage development that is expected to cost $4 million. Existing buildings (shown in white portions below) also have been constructed to allow for interior changes in space assignment as needed.

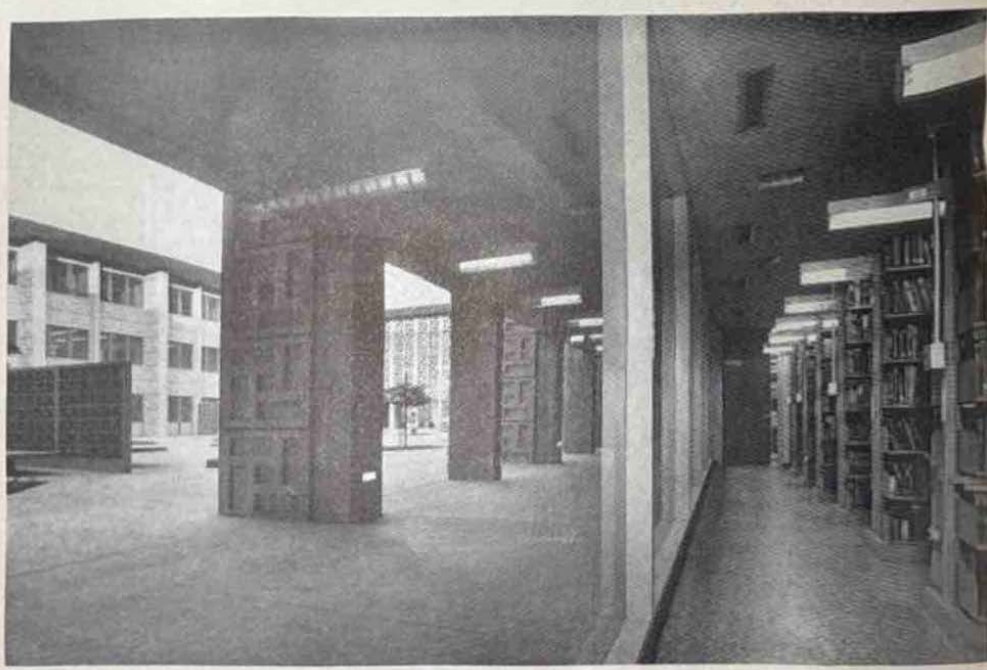
Consulting hospital architect: E. Todd Wheeler; interior decorator: Maurice Sands; landscape architect: Thomas F. Church.

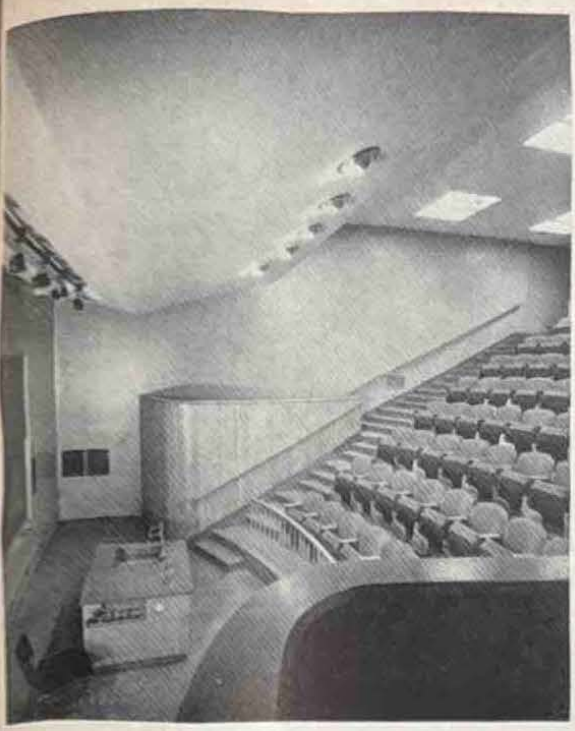


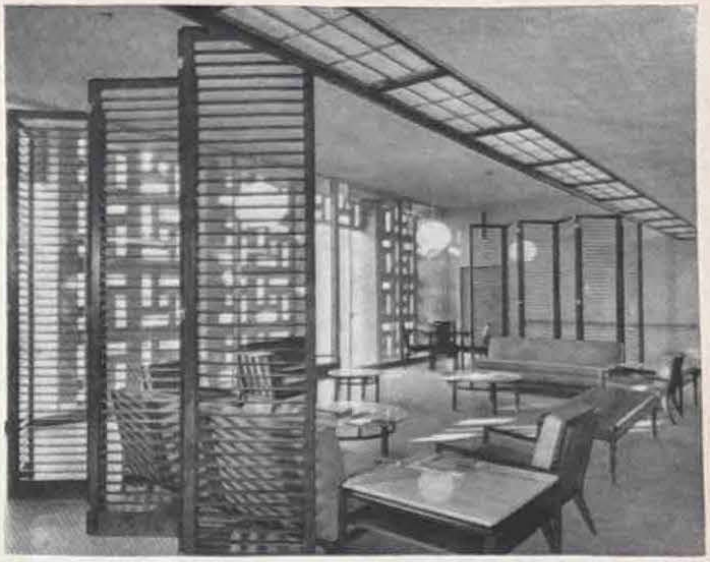


Karl Riek photos (and across page)

**COURTYARDS,** such as this one adjacent to 165,000-volume library, unify building complex and provide light and air for interiors.







**EACH NURSING WING** has solarium and patients' lounge at one end, visitors' lounge at other. Amphitheater classroom at left is one of several.

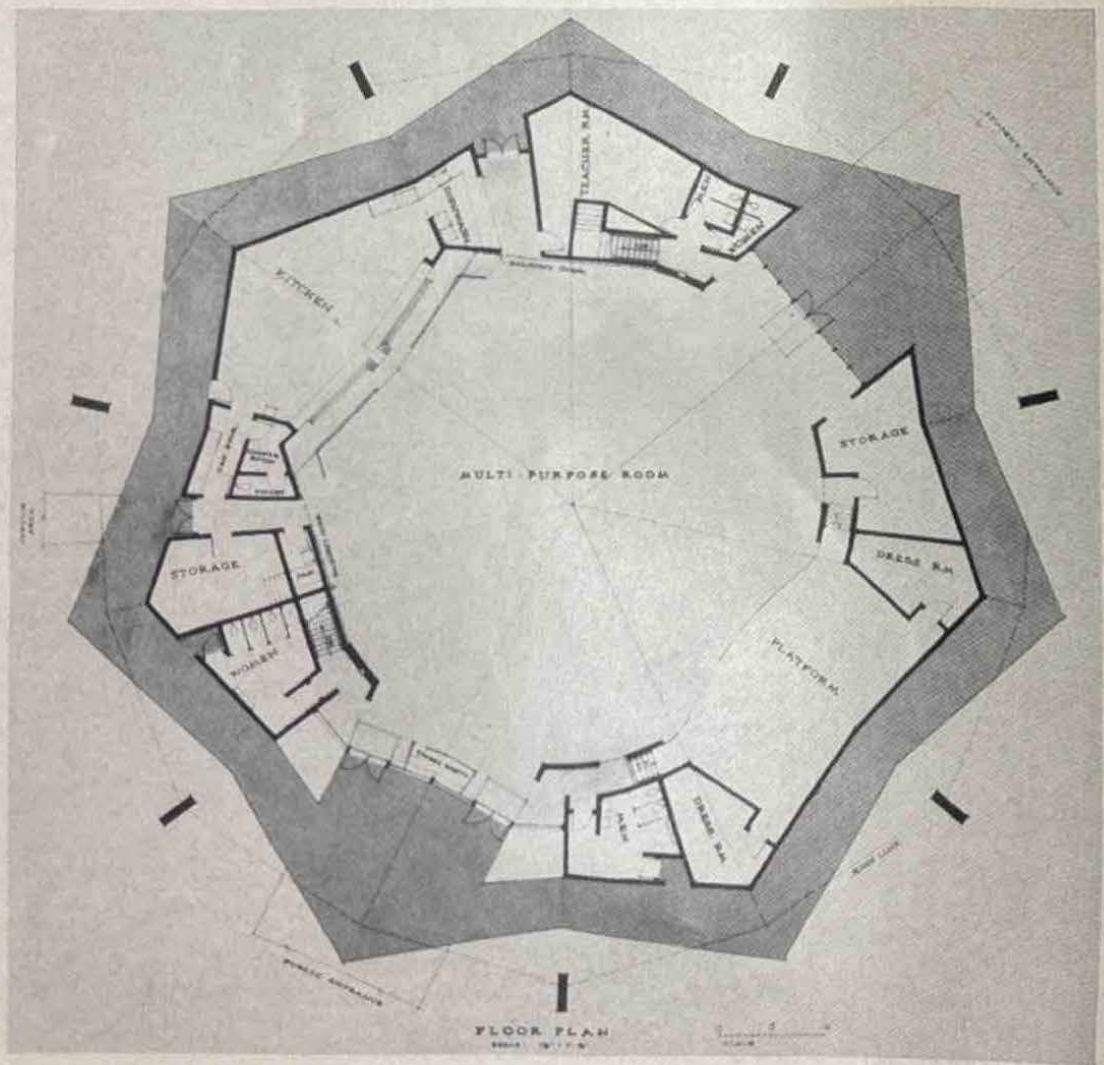
**ADMITTING OFFICE WAITING ROOM** repeats grillwork pattern on columns.





Art Hupy photos (except as noted)

# Structural geometry for a high school campus



Multipurpose Building
Mercer Island High School
Mercer Island, Washington

•

BASSETTI & MORSE
Architects

WORTHINGTON, SKILLING, HELLE & JACKSON
Structural Engineers

JOHN P. HOPKINS CO., INC.
General Contractor

CONTRASTING sharply with the verticals and horizontals of low surrounding buildings, this thin shell hyperbolic paraboloid calls attention to its group use, a cafeteria and assembly building by day and music, dance and community hall by night. Variety of form and contrast of heights, together with the changing daylight brought in through the main entrances and over the balcony, create a lively, cheerful structure. Unfortunately, the space allocated for the building in the total scheme does not seem to be sufficient to give it air to breathe.

A seven-segment plan was chosen for its adaptability to the several small rooms surrounding the central area and because the architects felt that the odd number of bays would seem more dynamic than an even number. Main floor capacity for lunches is 350 students and seating capacity for assembly, including the balcony over the kitchen, is 900. Platform is 24x50 ft.

Clear span between opposite buttresses is 142 ft. with a rise of 32 ft. at the center. Interior has asphalt tile flooring and sprayed acoustical fiber ceiling with pumice block walls throughout. Roofing is a cold process fiberglass and asphalt emulsion with a white color coat. A combination of absorbing and reflecting surfaces in ceiling and walls provide acoustical control. Lighting is incandescent; heating and ventilating, a combination of volume heaters and baseboard radiation.

Roger Dudley



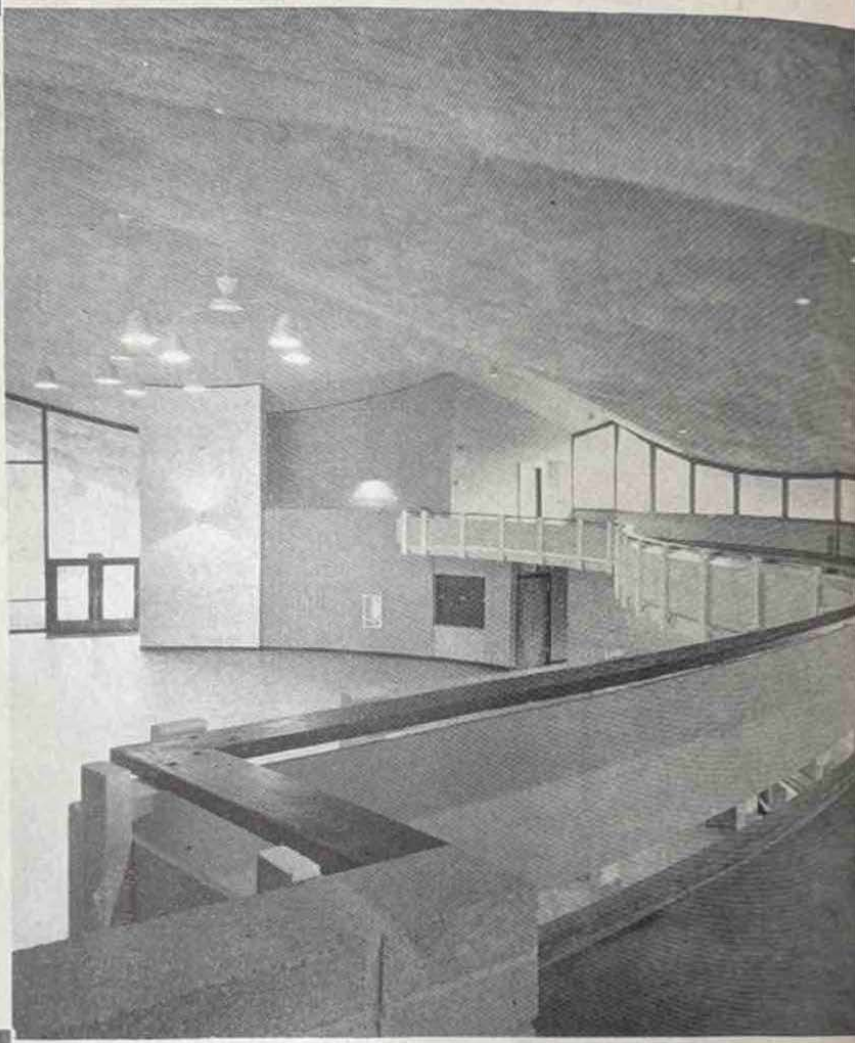


Concerning the geometry of the shell roof, Jack Christiansen of the structural engineers says: "The structure consists of seven identical, saddle shaped, hyperbolic paraboloid concrete shells, 3 in. thick. These saddle shapes are tipped up at one end and joined to form a domelike structure which is 142 ft. in diameter. The roof is supported at seven points by concrete abutments which are connected by a ring tie below grade.

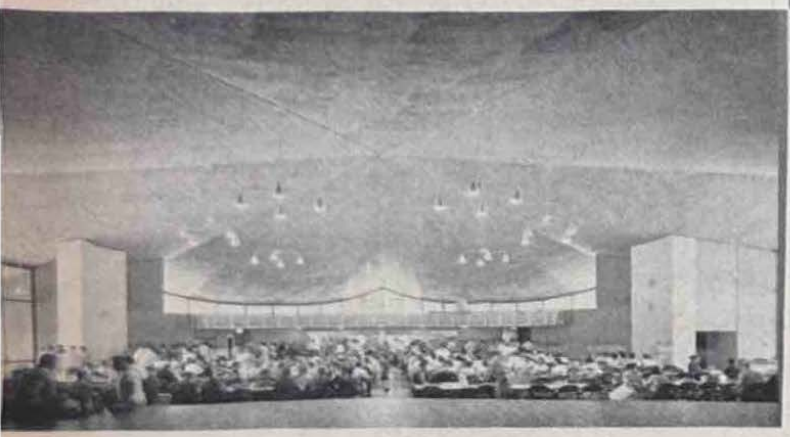
"Each of the seven units is composed of two half-saddles of different curvature joined to produce a single, unsymmetrical shell. This increased the head height under the shell near the abutments. The edges of each saddle are stiffened by 24-in. deep beams, which also deliver thrusts to the abutments.

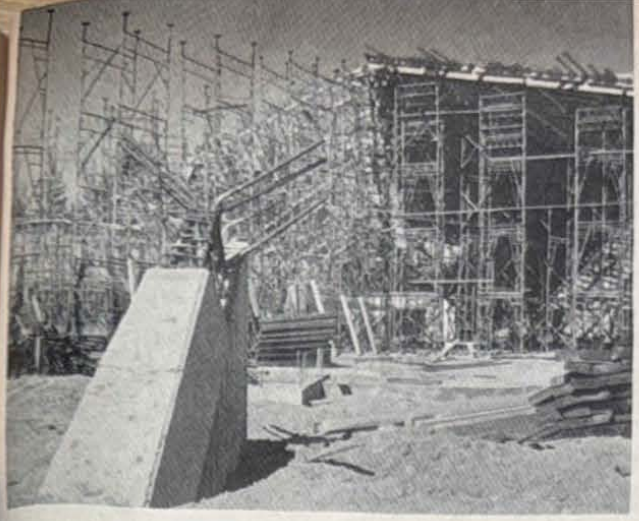
"The hyperbolic paraboloid derivations of the surface enabled the form to be readily constructed of straight beams, joists and planks."

Completed in 1959, the building cost $174,000, exclusive of taxes and fees. Mechanical engineer was Stanley G. Webster; electrical engineers, Beverly A. Travis & Associates; and acoustical engineer, Vern O. Knudsen.

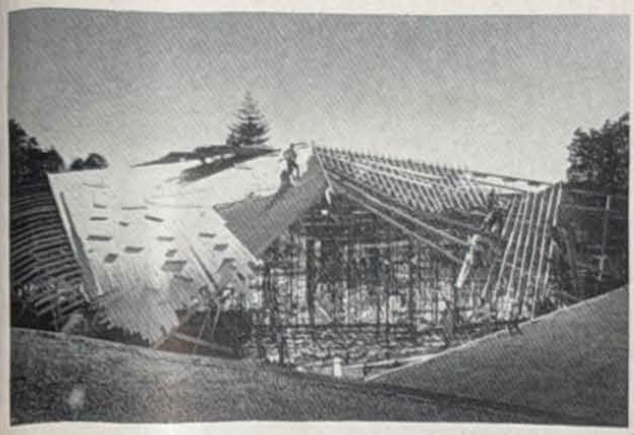


**ACOUSTICS** are reported to be "excellent" by several critics, including conductor of Seattle Symphony Orchestra. Believed to be first shell of its kind constructed in area, architects add this note: "Contractor had a good deal to figure out, from geometry to concrete placement to labor relations. The fact that sleeved electrical and mechanical items in the roof matched the interior walls which were erected later was a constant amazement to us."

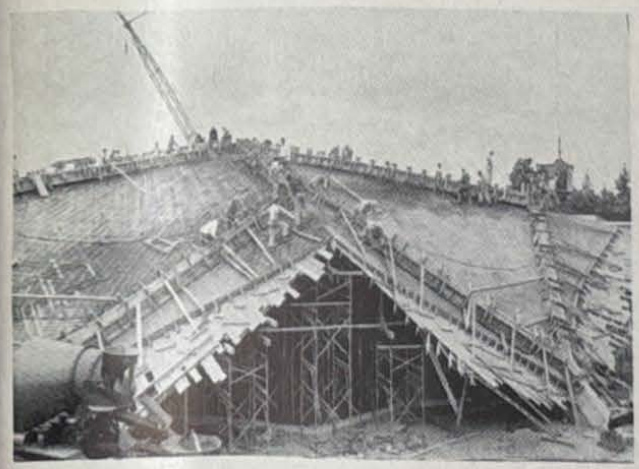




**ONE OF SEVEN CONCRETE ABUTMENTS** is seen in foreground. Behind is tubular metal scaffolding used to carry roof forms.



**FORM CONSTRUCTION** in progress. Note that straight joists and beams define surface. Upper and lower forms have different properties (hence change in direction of joists at their junction). However, two different surfaces do merge together smoothly.



**CONCRETE BEING PLACED** by crane in typical shell panel (one of seven). Concrete strength is 3,750 psi. in seven days with 6½ sacks of Hi Early cement per cubic yard. Three cranes are used to make 10-hour pour. Note that 3-in. shell slab reinforcing is simple mat of bars in two directions.




**PROJECTING ROOF** is extension of shell surface. Stiffener beams are 12 in. wide and 24 in. deep and project above slab.

Saul Bass Residence
Altadena, California

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BUFF, STRAUB & HENSMAN
Architects—Builders

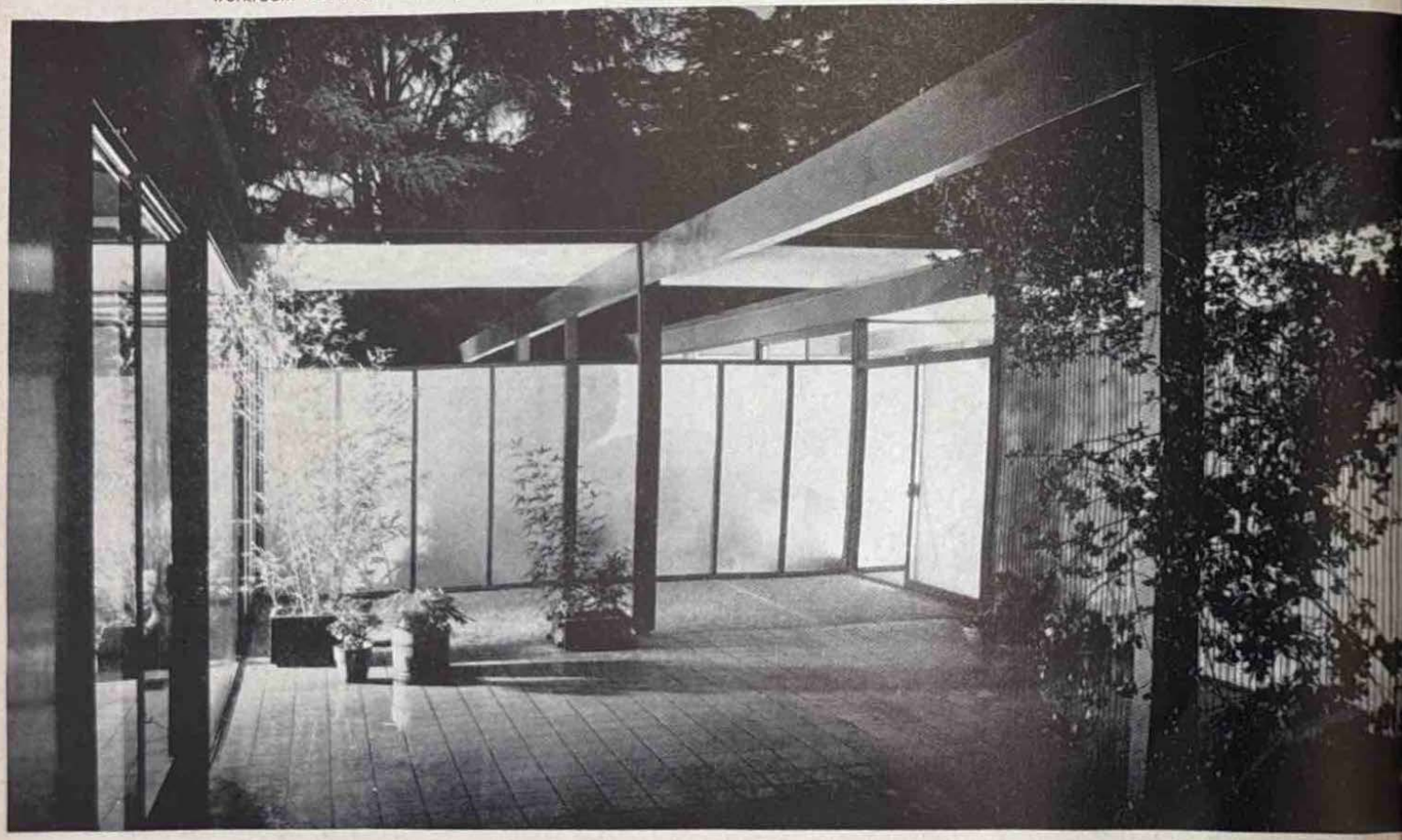
# Courts divide living zones in experimental project

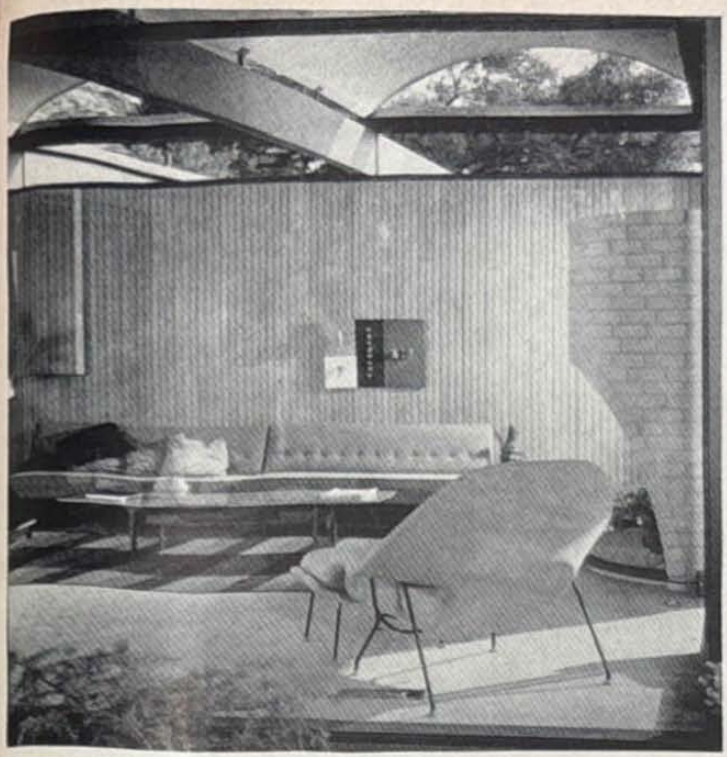
SITE CONSIDERATIONS which provide a poor immediate view but attractive long-range vistas and the need for zoning off major functions of the house dictated a floor plan designed around several courts and terraces. The result is three principal interior areas: family living; owner's studio-workroom; and separate parents' suite and children's bedroom wing. Continuity is achieved through an orderly circulation pattern and unified floor planes. For example, quarry tile links the entry court, living-dining area and major garden terrace adjacent to the swimming pool. Landscaping complements the space organization, utilizing as much as possible the existing trees and growth on the site.

Because the owner, operating on a fixed budget, was more interested in space than expensive and luxurious construction, the architects paid more than usual consideration to lower cost methods of building in a house of this scope. The result: a simple post and beam structure with a flat roof relieved by a series of vaults that appear to float above their supports.

An interesting feature of the house is the ex-

**CENTRAL DINING-ENTRY COURT** shows use of hollow plywood box beams. Master bedroom and studio-workroom look out onto private garden situated beyond translucent glass screen at rear of photo.





**LIVING ROOM** conservation area wall has ⅜-in. California redwood siding. Hinged door at far left can be closed to cut off kitchen.

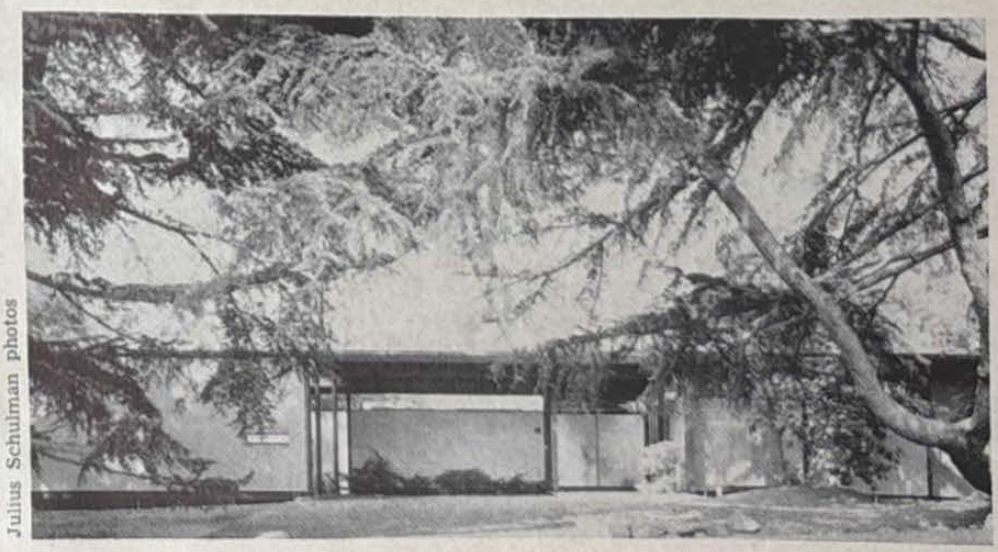


**HANGING FABRIC SCREEN** differentiates dining-living functions. Quarry tile floor continues beyond fireplace to pool terrace.

perimental use of several prefabricated Douglas fir plywood components. Beams are hollow plywood boxes 12 in. deep consisting of two skins of ⅜-in. resin overlaid fir plywood applied with nails and glue to both sides of flat 2x4 top and bottom chords. They span up to 16 ft. forming a series of 8-ft. bays. Bays are roofed with hollow core plywood vaults and flat stressed skin panels, both composed of two layers of plywood with fiberglass insulation built into the panels. Main exterior surfacing is plywood paneling with medium density overlaid face. For contrast, some surface grooved paneling is employed.

The architects' comment: "Lamination, pressure gluing, plastic impregnation on surfaces and uses of plywood panels as load-bearing elements are giving a new significance to this traditional material (wood), indicating its rational use as part of our contemporary vocabulary of structural techniques."

The owner, a graphic arts designer, was associated with the architects in planning the house—a case study for *Arts & Architecture*—and also created a ceramic tile screen in the entry court called "Bass Relief." Landscape architects: Eckbo, Dean & Williams.



Julius Schulman photos

Saul Bass Residence
Altadena, California

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BUFF, STRAUB & HENSMAN
Architects—Builders

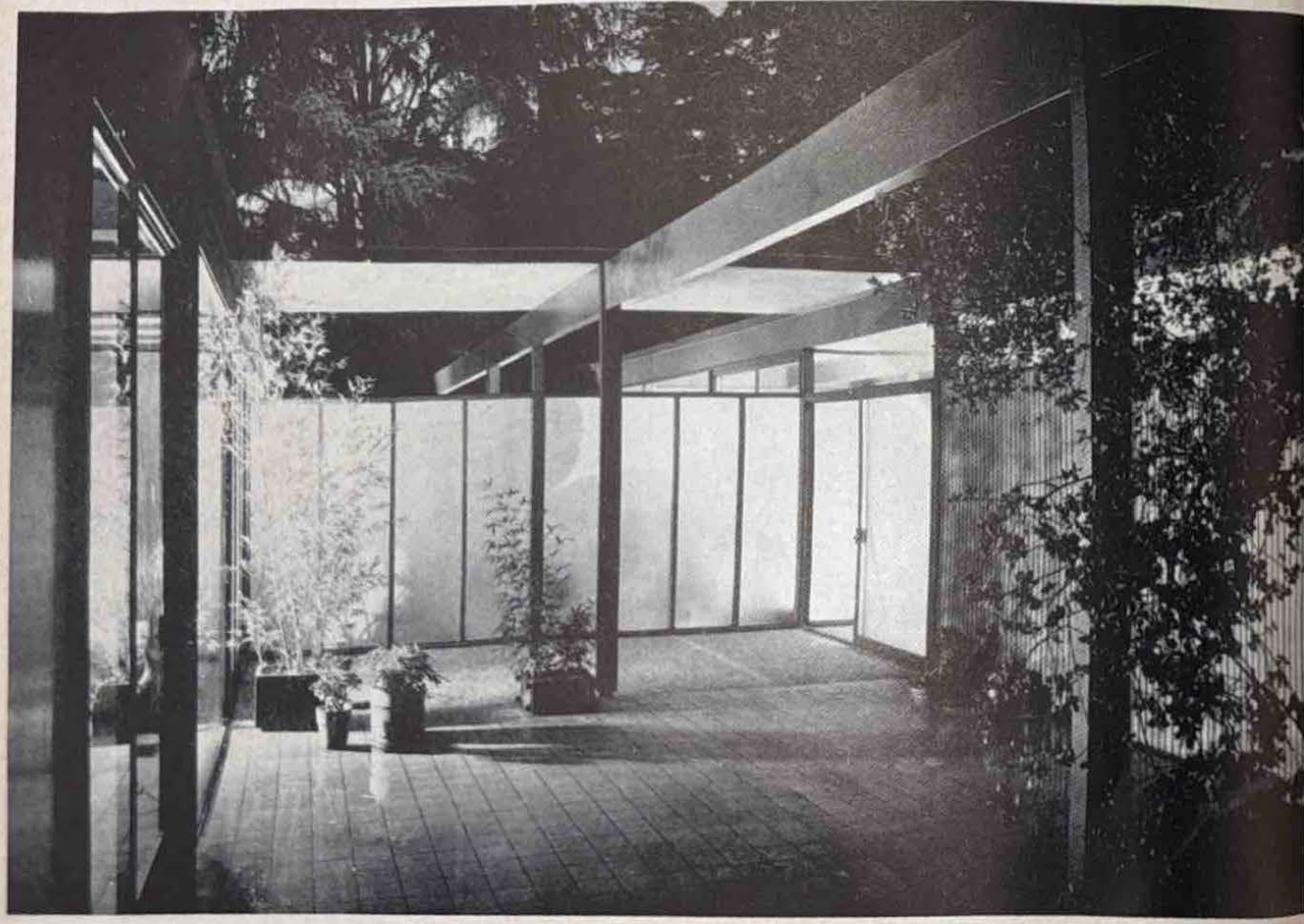
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**CENTRAL DINING-ENTRY COURT** shows use of hollow plywood box beams. Master bedroom and studio-workroom look out onto private garden situated beyond translucent glass screen at rear of photo.





**LIVING ROOM** conservation area wall has ⅜-in. California redwood siding. Hinged door at far left can be closed to cut off kitchen.



**HANGING FABRIC SCREEN** differentiates dining-living functions. Quarry tile floor continues beyond fireplace to pool terrace.

perimental use of several prefabricated Douglas fir plywood components. Beams are hollow plywood boxes 12 in. deep consisting of two skins of ⅜-in. resin overlaid fir plywood applied with nails and glue to both sides of flat 2x4 top and bottom chords. They span up to 16 ft. forming a series of 8-ft. bays. Bays are roofed with hollow core plywood vaults and flat stressed skin panels, both composed of two layers of plywood with fiberglass insulation built into the panels. Main exterior surfacing is plywood paneling with medium density overlaid face. For contrast, some surface grooved paneling is employed.

The architects' comment: "Lamination, pressure gluing, plastic impregnation on surfaces and uses of plywood panels as load-bearing elements are giving a new significance to this traditional material (wood), indicating its rational use as part of our contemporary vocabulary of structural techniques."

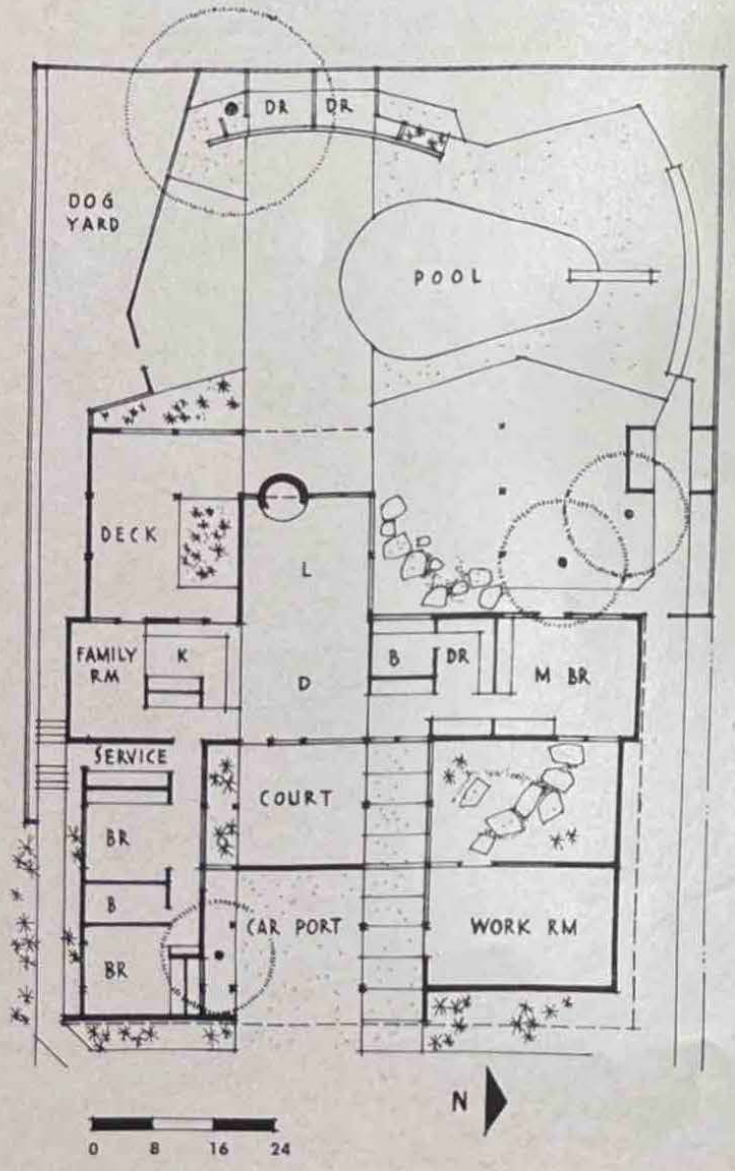
The owner, a graphic arts designer, was associated with the architects in planning the house—a case study for *Arts & Architecture*—and also created a ceramic tile screen in the entry court called "Bass Relief." Landscape architects: Eckbo, Dean & Williams.



Julius Schulman photos



**OVERHEAD STORAGE** in kitchen has been eliminated by utilizing bank of sliding door cabinets just above sink and counter surfaces. All major appliances are built in.




## OUTLINE SPECIFICATIONS

**Structure**: frame: continuous plywood box beams—fabricated by Berkeley Plywood Co. in association with Douglas Fir Plywood Association; roof: stressed skin plywood panels and hollow core plywood vaults with built-in insulation—fabricated by Berkeley Plywood Co. in association with Douglas Fir Plywood Association; floors: part slab and part 1⅛-in. combination subfloor and underlayment—(2-4-1) Douglas Fir Plywood Association.

**Exterior Finish**: textured (Texture 1-11) and resin overlaid plywood panels—Douglas Fir Plywood Association; translucent glass—(Factrolite) Mississippi Glass Co.

**Roof Surfacing**: asphalt felt and crushed gray slag—Pioneer-Flintkote.

**Doors**: steel sliding glass—Arcadia Metal Products, Inc.; interior sliding wood—Ostling Manufacturing Co.

**Ventilating Sash**: stainless steel louvers—(Lourve Leader) The Keiner Co.

**Floor Surfacing**: quarry tile—Summitville Face Brick Co.; vinyl tile—(Econolast) Vinyl Plastics, Inc.; carpeting—Firth Carpet Co.

**Interior Finish**: Painted gypsum board—(Sheetrock) United States Gypsum Co.; vertical grain plywood—Douglas Fir Plywood Association; ¾-in. detailed redwood siding—California Redwood Association; ceramic tile in baths—Pomona Tile Manufacturing Co.

**Lighting Fixtures**: incandescent—Holliday Lighting Co.; continuous in studio—(Universal Lighting Duct) Bulldog Electric Products of Los Angeles.

**Heating**: reverse cycle heat pump—(Vornado) The O. A. Sutton Corp.

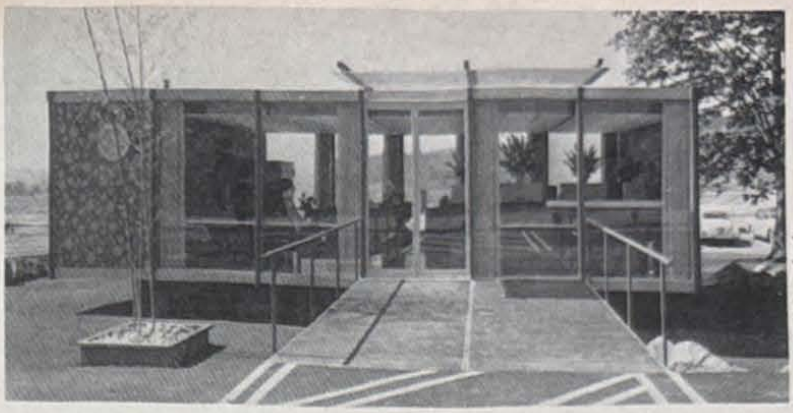
**Plumbing and Sanitary**: Crane Co.

**Special Equipment**: aluminum framed plastic skylights in interior bath and service areas—Wasco Products, Inc.; cloth screen—Webb Textiles, Inc.; ceramic tile screen—Pomoma Tile Manufacturing Co.; swimming pool—Anthony Pools.

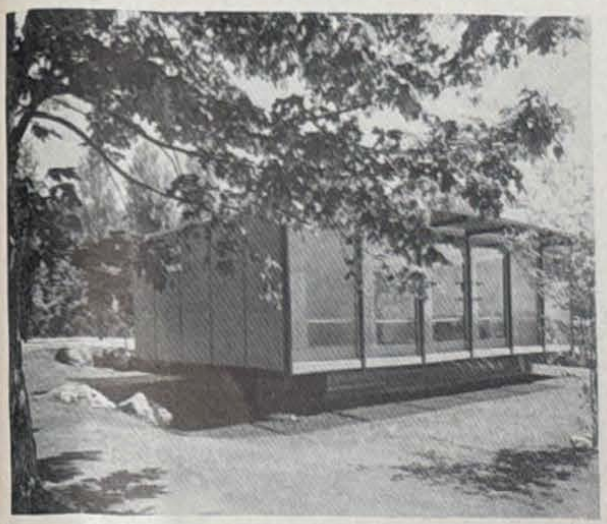
**Total Area**: 2,200 sq. ft. (enclosed sections only).

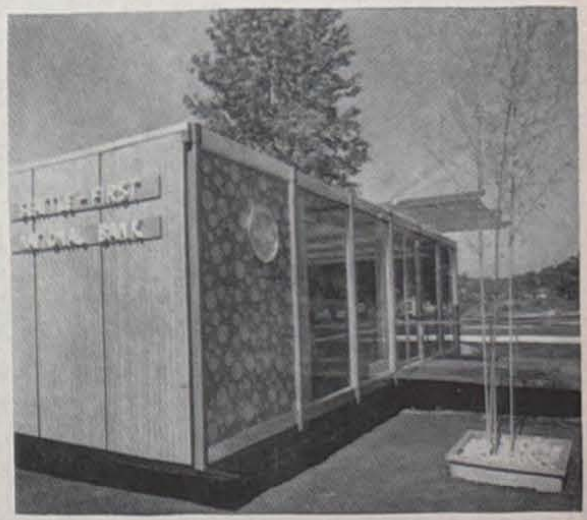
**Total Cost**: $35,000 (excluding supplier subsidies).

**Cost per Square Foot**: $14 (carport and walkways at one-third).



Fred Milkie photos





Portable Branch
Seattle-First National Bank

•

Steinhart, Theriault & Anderson
Architects

# Temporary quarters with a permanent look

DESIGN CONSIDERATIONS called for a low maintenance interim type building to provide quarters for temporary limited banking service during a period when permanent facilities were being completed. While portability was one of the prime considerations, the client also wanted a structure that would be attractive and create interest.

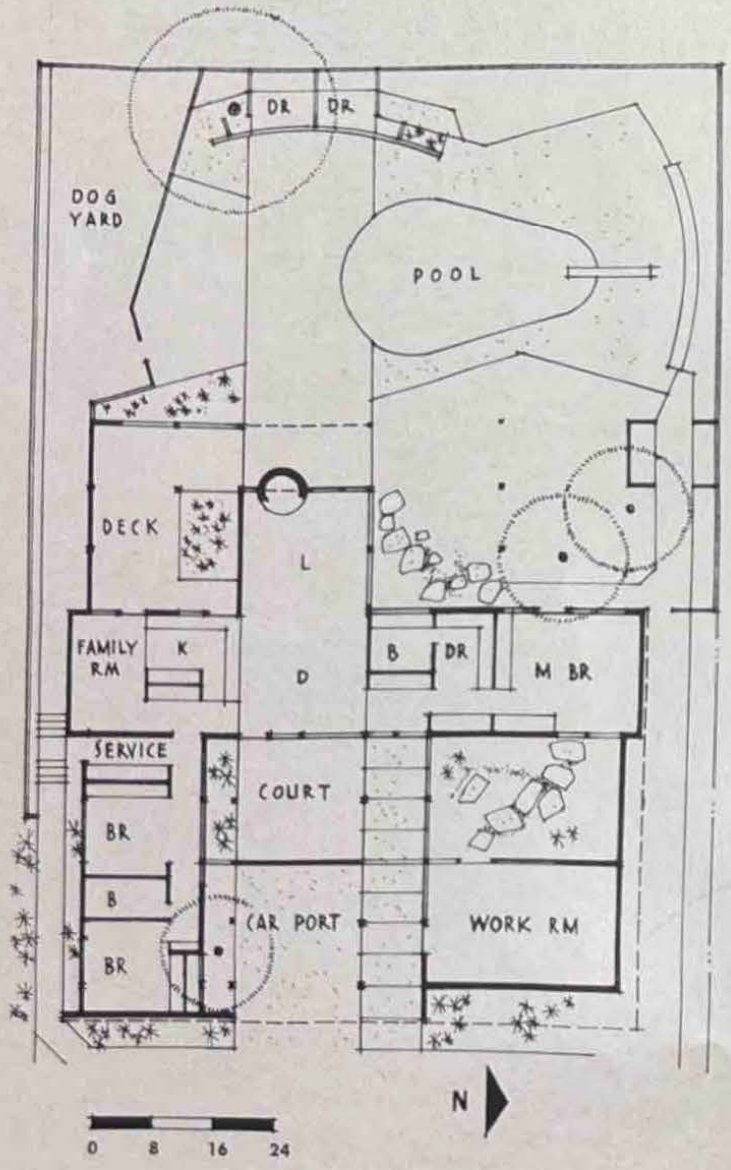
The rigid steel frame with panelized floor, roof and wall system fulfills this requirement and can be moved without damage. Main support steel beams are built into the frame to receive movers' equipment. Building was sized—20 ft. wide, 37½ ft. long and 11 ft. high—so that it could be moved on city, county or four-lane state highway. When loaded on house movers' dollies, maximum height would be 13½ ft., the same as allowed for highway trucks.

Extensive use of glass promotes interest by day and provides added protection by leaving the building well illuminated by night. Installation on the site is in a depressed area, eliminating the need of steps to the banking room and also providing a place for drain fields where sanitary sewers are not available.

Portable has three teller cages and a 10-ft. officer's counter. A plastic foam insulates ceiling, floor and walls. Lighting is through a suspended louvered ceiling system; heating by electric baseboard. Full air conditioning with mechanical cooling is provided.



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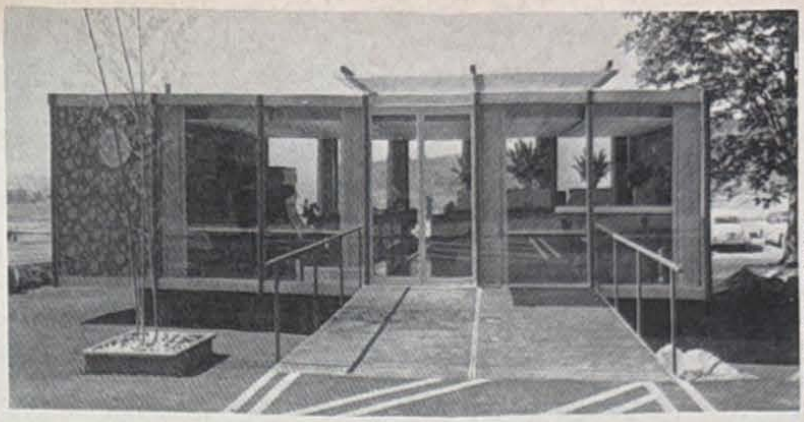
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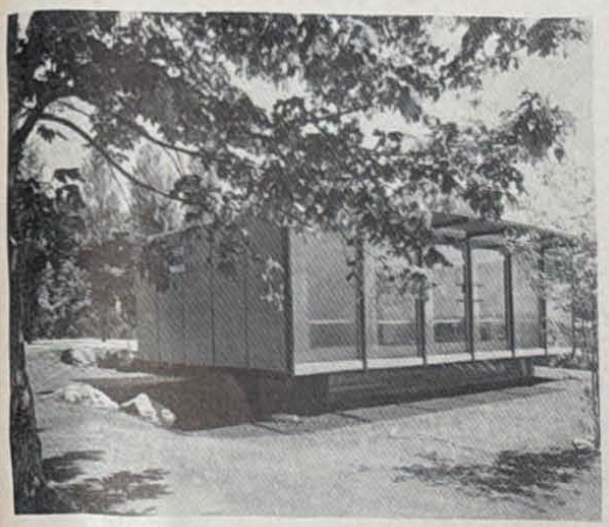
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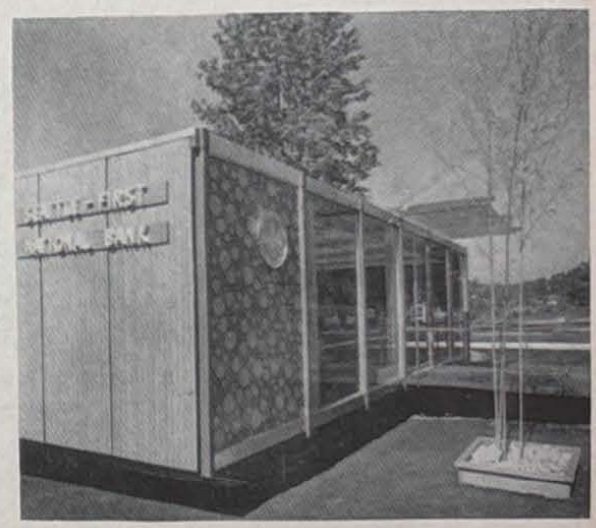
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Fred Milkie photos





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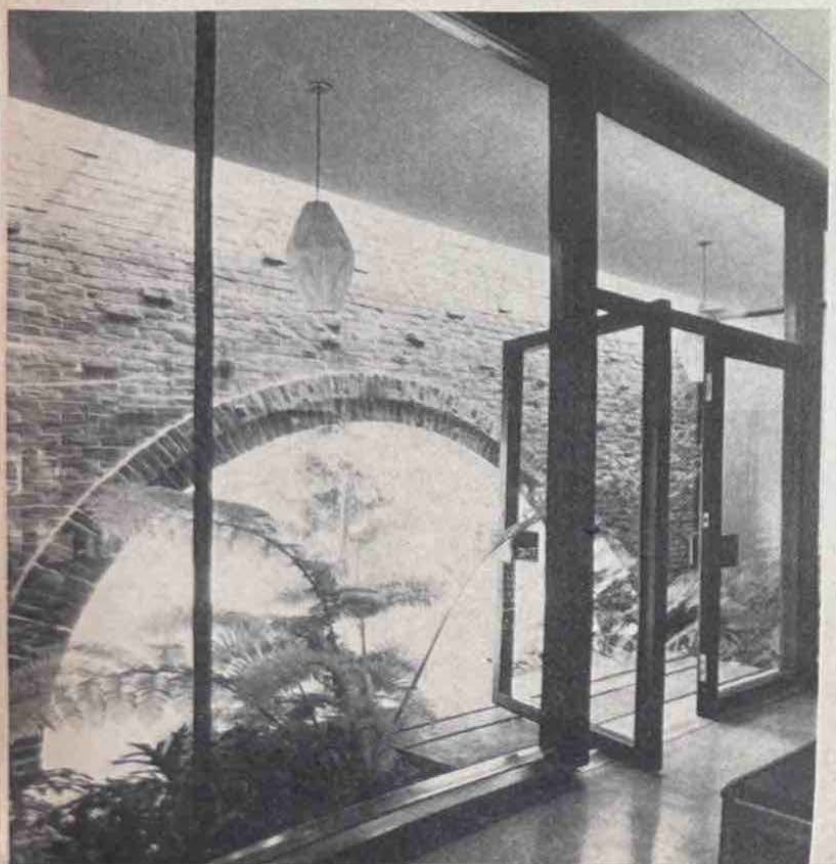
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Karl Riek photos



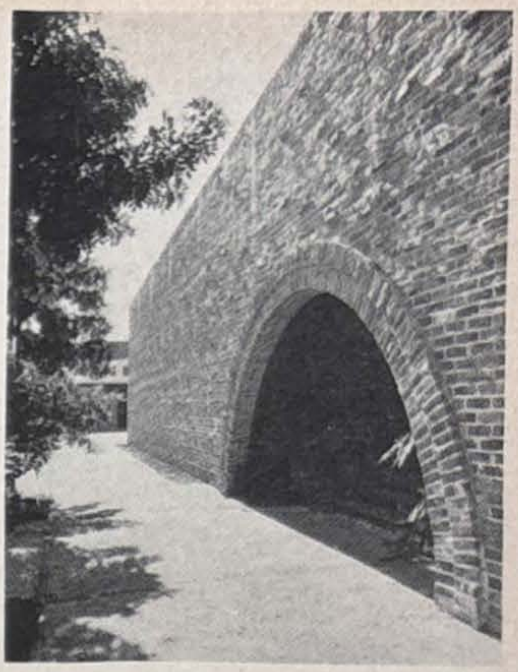
## *Where architects hang their hats*

OFFICE OF ERNEST J. KUMP
Palo Alto, California

**PLANTED LOGGIA** just inside main entrance archway. Strong articulation of brick wall and ceiling is achieved through continuous skylight, with sunlight washing down texture.



**SOUTH SIDE FACADE** shows steel structural columns outside glass wall and plaster soffit which shade interior from direct sunlight.





SIMPLICITY of design and materials and the internal flexibility of basic space modules in this combination architect's office and rental building mirror the firm's philosophy of architecture.

The single-story $140,000 structure consists of nine basic space modules approximately 32x32 ft., supported by two exterior walls of brick on the east and west; exposed steel columns just outside the nonbearing walls of glass on the north and south; and four interior mechanical cores. This leaves the inside free of structural elements except for the cores which supply washroom facilities, heat and ventilation to each of the nine space units.

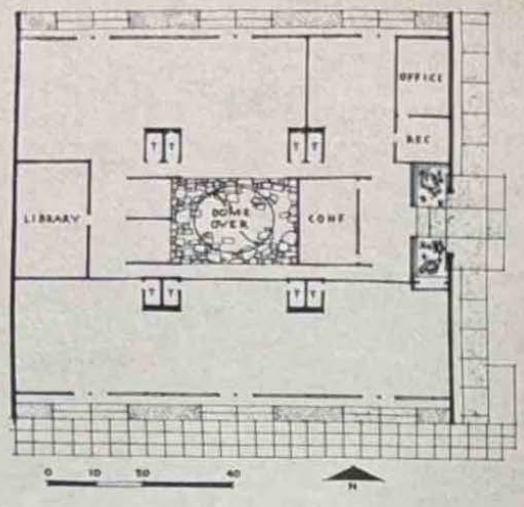
Center unit was designed to be a display area with slate flooring and a 30-ft. diameter geodesic dome of polyester fiber. Four contiguous modules of the remaining eight are occupied by the architect, three of them making up the 32x96-ft. drafting area. The fourth includes offices, conference room and reception area.

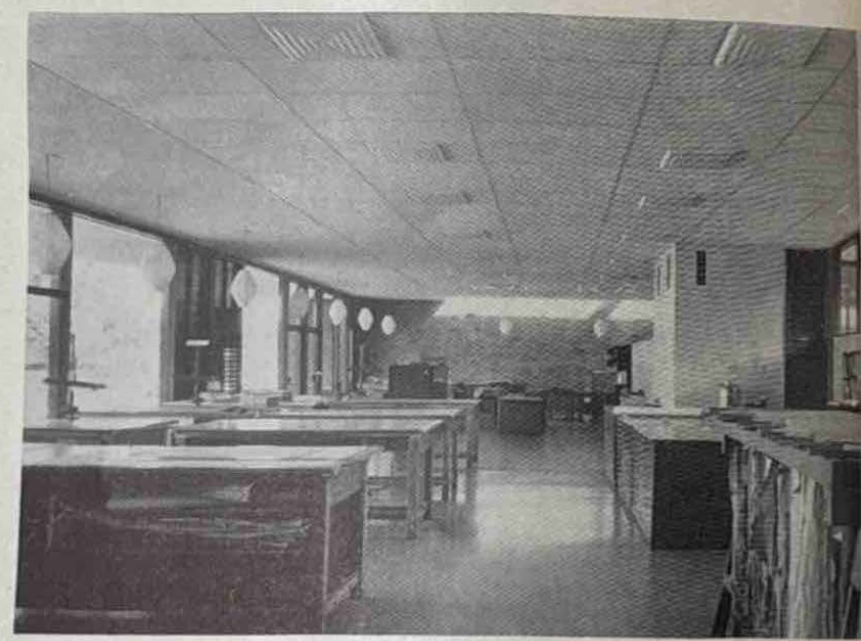
Materials were kept to a minimum to achieve the desired overall feeling of warmth and harmony. The clinker brick walls, uninterrupted except for the en-

trance arch on the east side have a natural irregularity which produces a pronounced texture and changing shadow patterns in the sunlight. A continuous skylight delineating the brick walls from the roof structure also permits sunlight to wash down their interior face for similar visual effects inside.

The glass walls run from floor to ceiling and are uninterrupted laterally except for doors leading into each module and adjustable wooden jalousies for ventilation. The feeling of openness is enhanced by a white ceiling texture continued out beyond the glass walls and into the 10-ft. wide plaster soffits which shade the interior from direct sunlight. Nonbearing walls inside are of birch plywood.

The building was completed in 1958 by Barrett Construction Co.



**DRAFTING ROOM** takes up three 32-ft. square modules on north side. Mechanical cores seen at right contain washroom, heating and ventilation facilities.



by GLENN M. CANADAY

Sixth in a series: Masonry, Plastering, Tile, etc.

# Completeness of bid essential in subcontracts

### 12. MASONRY

Although masonry is a subcontract item with the majority of general contractors, all must figure their own masonry work part of the time. Check your subcontractors' bid carefully. He may have a complete bid. On the other hand, he may omit one or more of the following:

Scaffolding
Hoisting
Reinforcing steel
Wall ties and anchors
Dampproofing
Sealing
Cleaning

Responsibility for reinforcing steel installed in masonry must usually be clarified. This item could possibly be charged twice or left out entirely. Although it is a common practice in most areas for the general contractor to furnish reinforcing steel and for the masonry contractor to install it, you cannot proceed on this assumption. The following subdivision will serve as a guide.

Common brick
Face brick
Haydite, pumice, cinder, sand and gravel blocks
Fire brick
Flue liner
Stone and cast stone
Glass block and accessories
Hollow clay tile
Gypsum block
Glazed structural tile
Mortar materials (lime, cement, sand)
Mortar color
Mortar additives
Wall ties, reinforcing
Dampers, cleanouts
Anchors, inserts
Scaffolding
Hoisting
Cleaning and sealing

### 13. PLASTERING

Plastering and lathing is usually a subcontractor item. Check the specifications carefully to determine the responsibility for grounds, screeds, access panels, ceiling inserts, furring strips, plastering for ceramic tile, etc. Also check plans and specification for miscellaneous iron and sheet metal work connected with suspended ceilings. Clarify responsibility for clean-up, ventilating and heating.

### 14. CERAMIC TILE MARBLE & TERRAZZO

Ceramic tile, marble and terrazzo are normally subcontractors' items. Clarify responsibility for plastering, setting beds, divider strips, protection and cleaning.

### 15. METAL SASH & WINDOW WALLS

Metal sash and window walls can be a material bid or a completely installed subcontractors' item. The cost may vary from a few dollars to several hundred thousand dollars. Include all material costs, subcontractors' bids and labor costs for metal sash and window walls in this division. If you plan to do your own installation, make the takeoff in either square feet or by the unit. Include the miscellaneous material costs of blocking, grouting and anchors. Include all labor costs to install blocking, sash, hardware, trim, anchors, inserts, etc. Clarify responsibility for cleaning and staging. This item can cost a considerable amount.

### 16. GLASS, GLAZING & MIRRORS

Check your subcontractors' bids carefully for inclusion of miscellaneous glass items such as sliding doors and hardware, glass shelves done by the general contractor. Get a bid figure by the square foot of glass area. Check the painting specifications for cleaning.

### 17. METAL DOORS & PARTITIONS

Metal doors and partitions are manufactured in a variety of styles, sizes and materials. Study the plans and specifications carefully and list different types of doors separately. Include in this division subcontractors' bids, material quotations, installation labor and miscellaneous installation materials. The following subdivisions may be used as a guide.

**17.01: Hollow Metal Doors and Frames.** You will normally receive a complete material quotation for this item. List doors and frames separately in the estimate, price installation labor by the leaf and by the frame. Include miscellaneous material costs of anchors, temporary braces, etc. Check material quotations for inclusion of cutting and drilling for hardware. The manner in which the doors are prepared for hardware greatly influences hardware installation labor.

**17.02: Kalamein Doors and Frames.** Include all costs of material, installation labor and miscellaneous installation materials. Check your sheet metal bids for possible inclusion of this item.

**17.03: Aluminum Doors and Frames.** Aluminum doors and frames are often furnished and installed by the glass contractor or the window wall contractor. Check specifications carefully to avoid omitting or doubling up costs of this item. Aluminum doors are usually furnished complete with hardware. If you figure installation yourself, include installation of hardware furnished with the door in this division.

**17.04: Fire Doors.** Include material quotations for firedoors and frames, installation labor and miscellaneous installation materials. Check the specifications and plans carefully to determine sizes and weights.

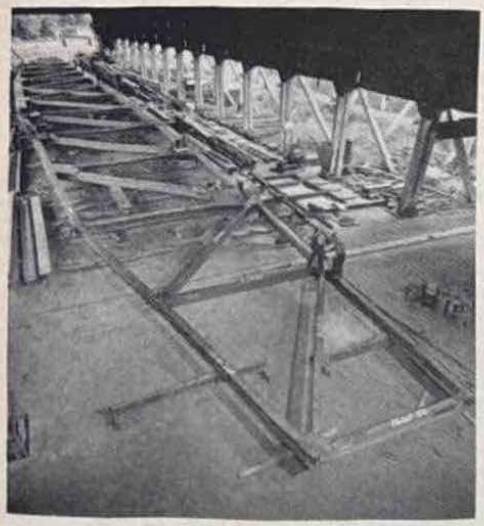
**17.05: Rolling and Sliding Industrial Steel Doors.** Doors in this classification are often quoted furnished and installed complete by the supplier. Clarify installation of anchor bolts and metal frames. If you figure your own installation, separate into sizes and classifications. Price by the unit. Include all costs of handling, uncrating, installing and adjusting.

**17.06: Vault Doors.** Include cost of doors, frames, handling, installation and related concrete work or grouting. Check the plans and specifications and material quotations for sizes of doors involved. Some vault doors require no more than one man day for installation; others involve considerable installation labor.

**17.07: Access Doors and Frames.** Access doors and frames may be included in plastering, acoustic or sheet metal bids, or they may be the responsibility of the general contractor.

**17.08: Metal Toilet Partitions, Doors and Screens.** You may receive subcontract bids on this item or material quotations. If you install the partitions yourself, price labor by the unit. Include miscellaneous material costs of anchors.

**17.09: Metal Office Partitions and Doors.** Metal office partitions and doors are normally a subcontract item except on very small isolated jobs. Check your subcontract quotations carefully for inclusion of anchors, door hardware, closure strips, cutting and fitting around piping, painting and transportation of materials.



ONE OF TWO LARGEST TRUSSES in the project, this one is 360 ft. long, weighs 250 tons.

# Steel roofs Portland's coliseum . . .

Perched on four giant columns, the structural steel cover for Portland's Memorial Coliseum represents a happy solution to a difficult design problem, as well as a fast, precise fabrication and erection job.

The four reinforced concrete columns cantilever 95 ft. off their foundations and form the corners of a 240-x270-ft. rectangle inside the walls but outside the arena area. The roof extends 45 ft. and 60 ft. beyond the columns.

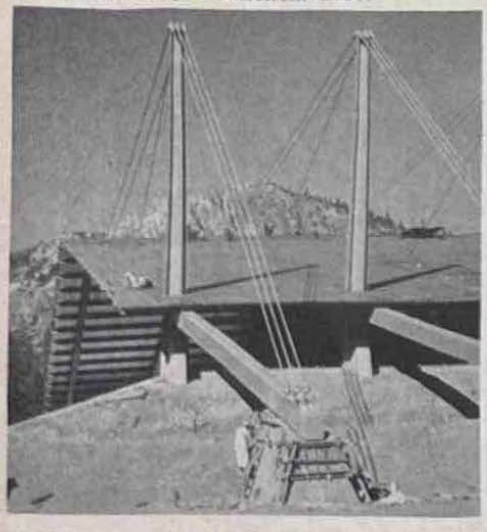
Building needs no support from the glass and wood exterior walls. The walls are supported vertically by the concourse floor framing and laterally at the top by the roof framing system which in turn transfers the lateral load to the cantilever columns.

Design of the roof for the $8 million coliseum was picked after extensive design and cost studies were run by architects Skidmore, Owings & Merrill and structural engineers Moffat, Nichol & Taylor. Final design gave the contractor the option to use a steel or timber framing system.

Hoffman Construction Co., general contractor, picked the structural steel option and turned the fabrication over to Poole, McGonigle & Dick. Shop work was started in May and although some of the fabrications were highly complicated, all the 1,250 tons required by the roof structure were delivered to the jobsite by August 13.

Helping to speed erection was the fact that the fabricator had preassembled practically all the steel in the plant to make sure it fit. High strength bolting also was a factor. Connecting

Photos courtesy Bethlehem Steel



IN PROFILE, each of girder column sections for area can be compared to derrick. Girders supporting roof are pin connected to rigid backstay and mast and are suspended by cables, permitting vertical movement of roof girder under loading in same manner as boom on derrick.

# . . . and Squaw Valley's vast arena

Cantilevered cable suspension roof of the main arena at Squaw Valley for the 1960 Olympic Winter Games was designed with an eye to the need for providing an unobstructed view within the building and the weather problems inherent in an area of heavy snowfall, plus temperature changes as great as 140 deg.

The architects, Corlett & Spackman, and Kitchen & Hunt, and the structural engineers, H. J. Brunnier and John Sardis, settled on a roof incorporating structural steel, boxed plate girders and cellular steel decking with the two halves of the roof suspended from cables running from backstayed masts. These halves are separate structurally, except for a sliding connection which equalizes ridge deflection of adjacent halves. Roof has a slope of 4 in 12.

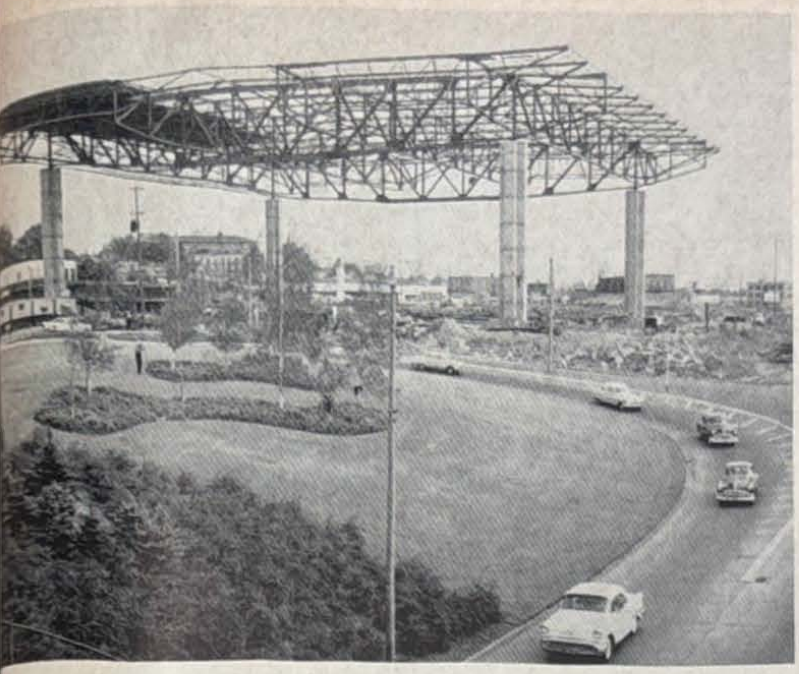
Cellular decking also serves as ducts for a reverse cycle heat pump system from the refrigeration unit for melting snow and providing heating for the spectators.

Decking, fabricated and erected by Harold E. Peterson Co., Inc., is composed of a welded sandwich of 18-gage Bethcon corrugated sheets on the roof side and 16-gage flat sheet on the ceiling side installed in panel units 2 ft. wide. It extends in a 14½-ft. overhang to provide shade and carry the cleared snow into carryoff trenches along each side.

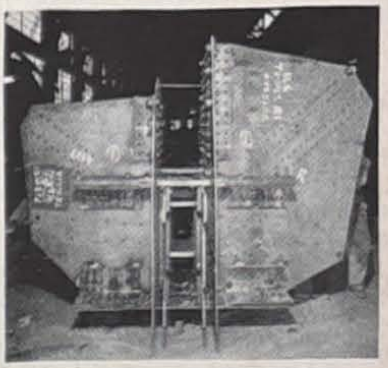
Erection of the structural steel by the fabricator, Pittsburgh-Des Moines Steel Co., was similar to that of a bridge. The tapered box section steel plate columns were erected first on 32-ft. high concrete piers. Tops of the columns were equipped with suspended cables consisting of galvanized prestressed bridge strand. Three steel cables were strung from the top of each side of the column.

Next, 84-ft. long backstay beams of boxed steel plate were erected over the piers and tied into 12-ft. high concrete anchor piers. They were connected to the steel columns with high strength bolts and three of the steel strands running from each column were anchored to the lower end. Backstays were tensioned to induce bending in the columns, so that they would be straight at maximum load.

Tapered girder sections were erected in two units. A 65-ft. long section was pin connected to the column base forming a hinge, then raised and anchored to the middle of the three remaining cables running from each tower. Final 91-ft. long section was then erected, anchored to the two outside cables from each column and spliced by field welding. Although requiring considerable field time, the



**COMPLEX STEEL FABRICATION** shown below is one of four situated at top of roof directly above concrete columns and carrying weight of entire roof structure. Giant trusses are tied together by these units, crossing one another at these points.



the steelwork required 35,000 bolts, as well as 25,000 rivets. The job was done by Steel Construction Co. of Oregon two weeks ahead of time, making it possible for interior work to go ahead all winter.

Seating capacity of the coliseum, built for the Portland Exposition-Recreation Commission, will range from 8,500 for stage events to 14,000 for boxing matches. Completion is scheduled for November 1960.

splices were considered necessary since the girders would be exposed to view.

While erection progressed, the girders were tied together laterally by purlins composed of 16-in. wide flange 36-lb. sections. The 16 suspended steel frames were erected on 32-ft. centers, spanning 300 ft.

Structure is 224 ft. long and 300 ft. wide, enclosed on three sides with its open end looking out on the jump hill. Roof rises to a height of 85 ft. at ridge line, permitting an uninterrupted view of the arena ring and portions of the speed ring and the jumping hill, with five lifts.

The arena, which will accommodate 8,000 spectators, is practically two independent structures, the massive suspended roof and the grandstand which houses dressing rooms, press facilities, concessions, etc. Glass walls held between thin steel mullions are the only closure between the structural steel roof system and the reinforced concrete grandstand structure.

Diversified Builders, Inc., is general contractor for the majority of the Squaw Valley work, which must be completed by February, including parking for 10,000 cars; housing for athletes of 33 countries; dining, recreation and press accommodations and other facilities to handle an expected daily influx of 35,000 spectators.





**DETAIL** of pin connected box girder, tying into base of column over concrete pier. Duct holes penetrating into cellular roof decking can be seen along eave line of building.

# Wood in a living architecture

by HENRY HILL

**A San Francisco architect gives the lumber industry some advice**

When he recently visited America, Ernesto Rogers, the Italian Architect, was asked by a Stanford student for his definition of "culture." Dr. Rogers immediately said he would qualify his reply by defining a "living culture." His definition: "knowledge in action."

This is pertinent today because I believe you have knowledge. Share this with the architect. Through him, the knowledge is realized in action and becomes a three-dimensional reality. Architecture is the three-dimensional expression and realization of a culture. At its finest, it is the complete expression of all of man's knowledge, experience and beliefs. It is "knowledge in action."

Let me, in an oversimplification, tell you what a few are doing now. The architect is no longer designing the enclosed box—or a series of boxes —with holes punched into the walls through which to peek out. (The so-called "picture window" with its cellophane-wrapped lamp shade in the middle is only a larger hole.) We are concerned with space and the three-dimensional definition of that space.

The wall is now a screen to define: solid, void, flexible, obscure, grill or even a curtain of glass—glass, not for its own self, but for what it gives. The architect's structure delineates this space and its human use. Thus, it is a living and vital space, not static. You should recognize and understand this. The architect uses his materials as a technical means to realize his new concept of architecture.

Now, mine is only one man's opinion, for you to accept or reject. I do not advocate one material over another; however, I love wood and, in many ways, I prefer wood over any other material with which to work.

I have read in a recent issue of Architectural Forum that today lumber production is 15% less than it was 50 years ago. To me this does not make any kind of sense. I feel that during this period the public (and the architect) has grown to feel that wood is for residential work alone; and when it appears in larger work, it is mostly as a decoration or as a softening effect only. Is this good enough? And why has it come to this?

---

A digest of an address given before the annual meeting of the National Lumber Manufacturers Association in Washington, D. C., in November.

The architect is given the information that he can span "so and so" with steel and concrete. Can he do it with wood? Where can he find out? Who will help him? Where is the knowledge (and knowledge that is up to date)? He knows that other materials are fireproof. The public knows this too. It is not all the architect's fault that he does not know that wood may do the same—and that wood too can be fireproof. What a waste it is if you have not shared this information with him.

Contrary to the East Coast, residential work in the San Francisco Bay area is the backbone of the architect's office. It is safe to say that of this residential work, 100% is wood frame construction. How shocking it is when you have the sympathetic architect who wants to use wood, who does believe in it, who turns to you and is simply told that "it can't be done."

What tools for the use of wood have you given us? The Woodwork Institute of California has given an excellent one in "details of millwork for cases." We have nothing for framing. Take the actual post—the mullion itself. It is the structural and finish piece in itself. A typical corner mullion in my office is shown as made up of two pieces with the glass held by a single stop.

### 'Best that is in the human being'

Wood is inherently a vital and living material. More than any other material we have, it has an extraordinary abundance of the best that is in the human being: life and warmth and a vital quality of expressing itself so that we all understand it immediately. These qualities are grasped and accepted—and most of all, desired.

To me, above all, wood has a dignity. To me, it follows that wood must be treated with dignity. For this there is no apology.

To you, there is the wonderful and simple economic fact: wood is economical and this is not an apology; it is simply a positive force in its favor. An architectural problem is only to be realized and solved in three dimensions, by the balance of the site, the problem and the budget. These are in balance and therefore are equal, budget simply being one of the three.

Why has wood slipped and why is it slipping in use? Here is one vital reason from the architect's point of view. The architect is a "standard," a corner mullion of, quite literally, 15 pieces! Our typical mullion is one piece. A so-called "standard" is made of eight pieces; one shows 16 pieces for one mullion. To realize his belief and conviction, the architect has in the past (and unfortunately in the present) developed his detailing by himself. We have nothing that we can use for the framing of openings—this space I have spoken of.

A few years ago the Woodwork Institute started a wonderful survey. Architects cooperated and gave their details, but nothing came of this. What we do have is hopelessly outmoded details of 50 years ago and for East Coast conditions at that. The California Redwood Association has done a good job, but it is not enough. You have given us plywood and the laminates, which is good, but not enough. Give us more and more on the laminates, give us the research and the findings of the research. What you have done is so little, it hardly counts. No wonder we see the threat of being swamped by the damned curtain wall!

I do not say this to tear down but to point out a situation which I most sincerely believe must be corrected—corrected by research for development, to explore and to lead and to share. I believe that this is your responsibility.

It has gotten to the ridiculous point where some want wood to pretend to be something else or where wood is distorted out of all recognition. In turn, other materials, through photography or other means, are bending head over heels in order to be made to look like wood. Wood has a dignity and beauty of its own. It hardly needs our help to achieve this.

But we wish to use it wisely and well. We ask for help, in standards and stock sizes for today's needs, conditions and beliefs. Points I may have made are not made as unproductive criticism but as an explanation on which to base a plea to you: for your knowledge, with understanding, for our action.

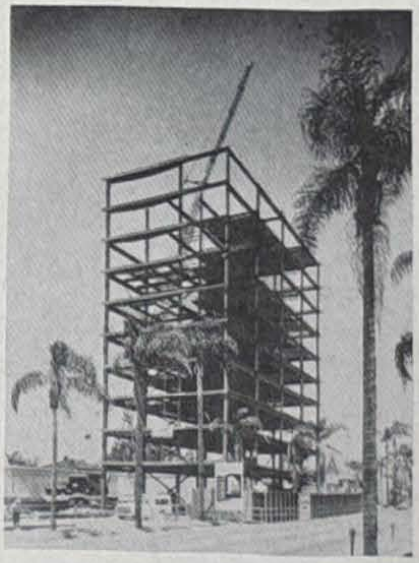
Organize and coordinate your efforts into one with one direction: to give us knowledge. You have in your material a living quality that is shared with delight and understanding by all mankind. And you have it within your capacity to share and contribute this.



## 300 MILES OF STEEL PIPE

are being placed in 28-story Kaiser Center office building in Oakland as part of largest Burgess-Manning air conditioning system ever installed. Five million gallons of water will circulate daily through pipe grids suspended from ceiling of each level. Perforated metal acoustical tile will be attached below grids forming visual ceiling and also serving to control temperature by radiation. Architects-engineers: Welton Becket & Associates; general contractor: Robert E. McKee General Contractor, Inc.

***On the construction front***



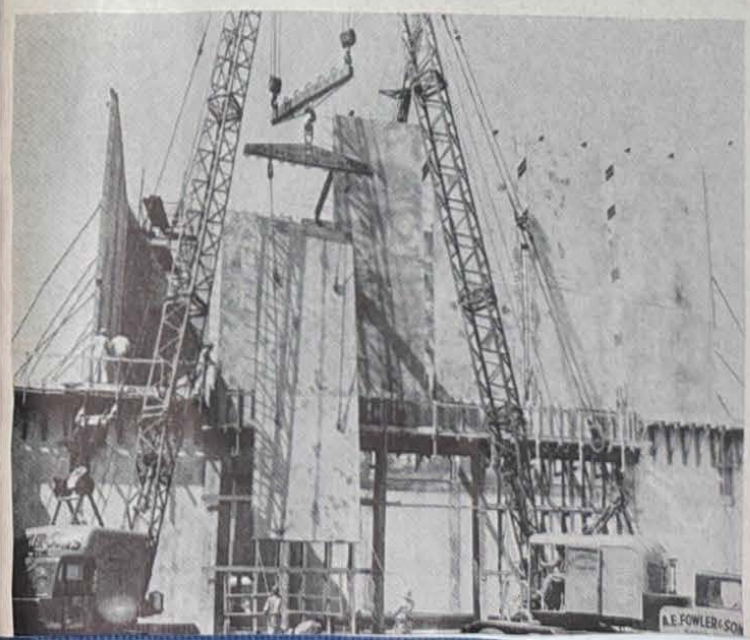
## 10-STORY BANK BUILDING

in Santa Ana will be tallest structure in Orange County, Calif. Framework for Citizens National Bank employs steel plate girders and steel tapered girders in place of conventional rolled structural shapes. Architects: Bennett & Wynne; consulting engineer: Carl Hart; general contractor: Riverside Steel Construction Co.



## MOSAIC SLAB FACINGS

for Hilton Hotel in Denver are hoisted into place by Quick-Way 10-ton crane with American preformed Tru-Lay cable. Cranes are mounted on skid type rails and work from building extensions. They average nine 2,300- to 3,800-lb. slabs per hour. Architect: I. M. Pei & Associates; general contractor: Webb & Knapp Construction Co.



## PANELS ARE LIGHTENED

for this tilt-up job, Del Rio Senior High School in Santa Ana, Calif., by using Rocklite expanded shale aggregate concrete. Seventeen-ton panels are lifted into position 60 ft. high with extension boom. Rocklite also is used in roof deck to reduce seismic concentration overhead. Architect: Harold Gimeno; engineer: Floyd Weaver; general contractor: Means & Ulrich.

### bathroom wall tile

Formica has branched out to the wall tile field with a line of eight artistic patterns ranging from formal antique Milano with its appearance of fine stone to gay gold flecked pieces. Manufactured in 10-in. squares, tiles are easily installed and easy to keep clean since there are no grout lines to scrub. Floor-to-ceiling cost is reported to compare competitively with wainscoting - height installation of some quality bathroom wall materials. —Formica Corp. (Item No. 1)

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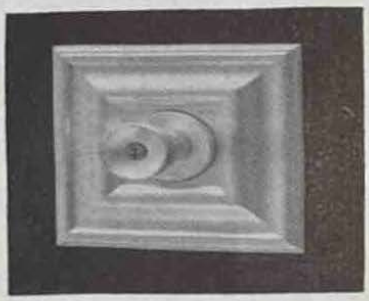
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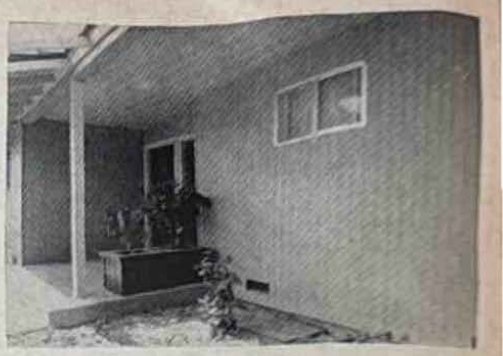
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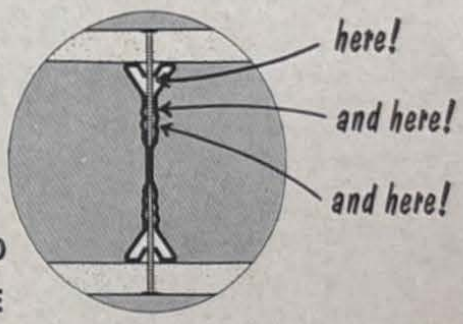
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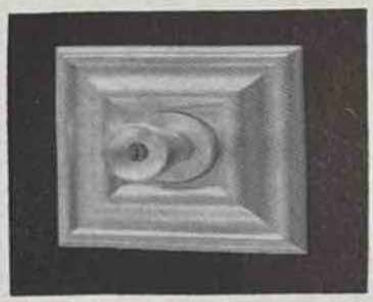
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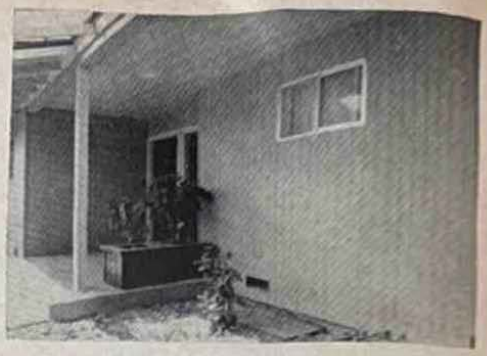
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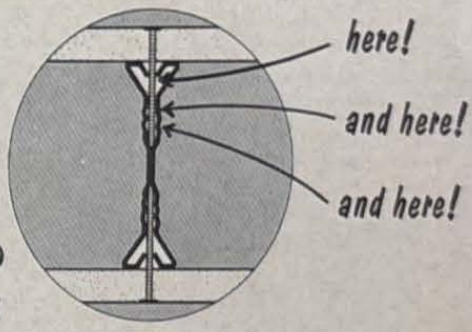
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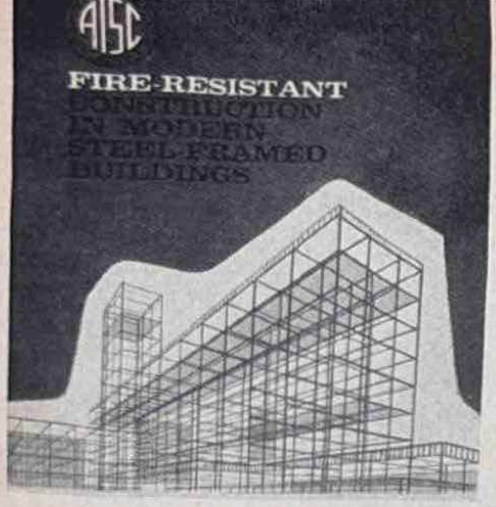
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**pa&b pick of the month**

Development of new, lightweight fireproofing materials that can be combined with structural steel framing has been so rapid in the past two decades that it is difficult to keep up, especially with the information scattered throughout a number of sources. "Fire-Resistant Construction in Modern Steel-Framed Buildings" steps into this void with a summary of up-to-date information about various materials and constructions now available to the designer of steel structures. Ten design examples are described and pictured. A reference table lists more than 150 constructions involving columns; beams, girders and trusses; and floor and roof systems with fire-resistance ratings for each.—American Institute of Steel Construction, 101 Park Ave., New York 17, N. Y.




**pa&b pick of the month**

Striking and varied design possibilities of steel window walls in school construction are beautifully illustrated in a 24-page brochure called "Modern Dimension in School Design." Among the projects shown are Milikan Senior High in Long Beach; West Boron School in Boron, Calif.; and UCLA Humanities Building in Los Angeles. Brochure also uses construction pictures to demonstrate fast erection time.—United States Steel Corp., 525 William Penn Place, Pittsburgh 30, Pa.

## LITERATURE

**Corrosion Control:** describes an alloy bonding of zinc to steel for long-lasting corrosion protection of plant windows.—Fenestra, Inc., 2250 E. Grand Blvd., Detroit 11, Mich.

**Terne Roofing Metal:** depicts advantages of this revived material and illustrates installation of four basic seams; 8 pp.—Follansbee Steel Corp., Follansbee, W. Va.

**Waterproofing Basements:** outlines method of protecting building foundation with Jennite J-16.—Maintenance Inc., Wooster, Ohio.

**Marble Forecast** (AIA 22-A): lists domestic and foreign marbles currently available in this country with information on texture and color characteristics; 8 pp.—Marble Institute of America, Inc., 32 S. Fifth Ave., Mount Vernon, N.Y.

**Metal Lath Vertical Furring** (AIA 20-B-1): provides drawing details for shafts, stiffeners, direct wall furring, etc.; 4 pp.—Metal Lath Manufacturers Association, Engineers Bldg., Cleveland, Ohio.

**Stainless Steel in Buildings** (AIA 15-H-1): discusses effective use in chain store construction and interesting lighting possibilities in summer issue of "Stainless Steel Architectural Quarterly"; 8 pp.—Committee of Stainless Steel Producers, American Iron and Steel Institute, 150 E. 42nd St., New York 17, N.Y.

**Building Modernization with Aluminum:** shows before and after of four downtown projects with brief description; 16 pp.—Reynolds Metals Co., Richmond 18, Va.

**Steel-Ply Forms:** catalogs complete line in sizes from 3 to 8 ft. and accessories with application photos; 16 pp.—Symons Clamp & Manufacturing Co., 4249 W. Diversey Ave., Chicago 39, Ill.

**Tubular Steel Scaffold;** describes special panel and brace locking mechanisms, line of scaffolding materials hoisting towers and structural concrete shoring; 16 pp.—Beaver-Advance Corp., Ellwood City, Pa.

**Atlas White Portland Cements** (AIA 3-A-23): illustrates many uses and applications with typical installation details; 24 pp.—Universal Atlas Cement Division, United States Steel Corp., 100 Park Ave., New York 17, N.Y.

**Concrete Forming News:** outlines savings in time, materials and labor when using pre-engineered form systems, with numerous on-the-job illustrations; 16 pp.—Universal Form Clamp Co., 1238 N. Kostner Ave., Chicago 51, Ill.

**Fenestration Fabrics** (AIA 2B-D): gives heat shade factors, noise reduction coefficients and light transmittance values of Fiberglas fenestration fabrics for attractive control of heat and sun glare, with handsome color photographs; 8 pp.—Owens-Corning Fiberglas Corp., 717 Fifth Ave., New York, N. Y.

**Transitubes** (AIA 35 H-21): presents comprehensive data with typical installation drawings of complete line of pneumatic tube systems; 54 pp.—The Grover Co., 25525 W. Eight Mile Road, Detroit 40, Mich.

**Mosaic Tile Pacific Coast Service Plan:** shows in full color tile types and sizes and accessories available in company's Pacific Coast warehouses.—The Mosaic Tile Co., 10848 Weyburn Ave., Los Angeles 24, Calif.

**Baxco-Pyresote** (AIA 19-A-3): describes and illustrates where and how fire-retardant lumber and plywood may be used in public buildings to comply with fire code requirements; 12 pp.—J. H. Baxter & Co., 120 Montgomery St., San Francisco 4, Calif.

**Swimming Pool Standards:** details recommended minimum standards for public and residential pools developed by the industry, in two separate booklets; 36 pp.—National Swimming Pool Institute, Harvard State Bank Bldg., Harvard, Ill.

**Specialized Protective Coatings** (AIA 25): charts correct coating and procedures for exterior and interior masonry, concrete, acoustical and other surfaces; 8 pp.—Super Concrete Emulsions Ltd., 1372 E. 15th St., Los Angeles 21, Calif.

**Aluminum Rolling Windows:** depicts advantages of Penguin line, such as allowing sash realignment after plastering and easy removal for washing; 4 pp.—Peterson Window Corp., 734 Livernois Ave., Ferndale 20, Mich.

## BOOKS

**Summer Air Conditioning.** By Seichi Konzo, J. Raymond Carroll and H. D. Bareither. The Industrial Press, 93 Worth St., New York 13, N.Y. 1958. 554 pp. $8.

**Winter Air Conditioning.** Same authors and publisher. 1959. 317 pp. $8.

While intended primarily as textbooks for heating and air conditioning engineers, these two companion volumes should be of interest to architects, city planners and others who are seriously concerned with the why of the science as well as the how of the art of residential and small building heating and cooling. The earlier book contains valuable information on weather, duct fabrication, orientation and design of structures, costs of cooling houses, etc.; the latter has a wealth of working data such as heat loss factors for various walls, work sheets for heat loss calculations, radiator selection, duct sizing and much more.

**Design and The Production of Houses.** Edited by Burnham Kelly. McGraw-Hill Book Co., Inc., 327 W. 41st St., New York 36, N.Y. 1959. 428 pp. $10.

Experts in the fields of design, materials production, site planning, construction and other aspects of housing discuss the problems and potentials in the field. Modern methods, materials and designs are explored in terms of their benefit for both the house buyer and the public as a whole. Editor is associate professor of city planning at the Massachusetts Institute of Technology.

**Industrial Building Details.** By Duane F. Roycraft. F. W. Dodge Corp., 119 W. 40th St., New York 18, N.Y. 1959. 356 pp. $12.75.

Begun as a private collection, the author, a Detroit architect, received so many requests for copies that he published the collection privately. This is an expanded and revised extension of the earlier publication presenting over 1,500 architectural details which the author believes to be most useful, timesaving and universal in their application.

**Estimating Structural Steel: Including Structural Aluminum and Miscellaneous Materials.** By George A. Saunders. McGraw-Hill, 327 W. 41st St., New York 36, N.Y. 1959. 270 pp. $9.50.

As the title indicates, this is a highly practical guide for the estimator bidding on jobs involving fabrication and erection of structural steel frames, whether they be small or complex jobs. Examples are given of typical assemblies with the step-by-step procedures for arriving at all costs shown. Author is estimating consultant for Lehigh Structural Steel Co.




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### new offices

Einhorn & Nash have opened an architectural office at 640 Sherman St., Denver, in an expansion of activities at their headquarters in Greeley, Colo. Claude A. Nash will head the Denver operation, while the Greeley office will remain under the management of Kenneth F. Einhorn.

John O. Phillips, architect, has opened a downtown office in the Lloyd Building, Sixth Avenue and Stewart Street, Seattle.

Marshall Welch McDonald, who has had 21 years' experience in the architectural field, including work with Indenco Engineers and Kaiser Engineers, has opened his own office in the Central Building, 436 14th St., Oakland. Active in preservation and restoration projects, he is a member of the Society of Architectural Historians and the California Historical Society.

Lory Ice, architect, formerly of Tulsa, Okla., has established an office at 1614 Carr St., Lakewood, Colo.

Arthur E. W. Dodds, who has been with the firm of Ashley, Keyser & Runge of San Francisco for the past three years, will return to Seattle before the end of December to reopen an office for the practice of architecture and structural engineering. Temporarily located at 2632 Walnut Ave., he also will act as resident supervising architect for out-of-state architectural firms with projects in the vicinity of Seattle.

C. Clay Davis has opened an office for the general practice of architecture at 2773 S. Harrison St., Denver. A graduate of the University of Illinois, he worked in the office of Gordon D. White for 12 years.

Arthur A. Graves has opened the first consulting structural engineering firm in Everett, Wash., with offices in the Commerce Building, 1803 Hewitt St. For the past 10 years he has been associate architect in the office of Harold W. Hall. The latter will continue the practice of architecture with his associate, David W. Dykeman Jr.

Stefan J. Medwadowski has opened an office for the practice of consulting engineering at 111 New Montgomery St., San Francisco, and will continue his East Bay office in Berkeley.

Fujio Matsuda, structural engineer with Park & Yee since 1956, has opened a consulting office at 1012 Pikoi St., Honolulu. He served on the engineering faculty of the University of Hawaii from 1955-58.

### new partners, associates

Walter Z. Davis has joined Culler, Gale, Martell & Norrie, Spokane architects-engineers, as a senior partner in charge of mechanical engineering. The firm, now known as Culler, Gale, Martell, Norrie & Davis, also has named a new associate, Wilho E. Williams, who will head the structural and civil engineering department.

B. J. Greulich has become a partner in the firm of Hugh B. Brewster, structural engineer, Fresno, Calif. For the past 20 years he has been employed by Midstate Construction Co. as engineer and construction estimator.

Stanley M. Pauch has become an associate with Alfred W. Johnson, San Francisco architect, in charge of the San Mateo office.

Grant F. Groesbeck, who has been with Kenneth W. Brooks, Spokane architect, since 1956, has been made an associate in the firm.

### firm changes

The San Francisco architectural firm of John S. Bolles has elected Kurt Helmstaedter as executive vice president and Richard E. Audsley as vice president.

Marvin G. Sturgeon has been advanced to vice president and director of engineering for Charles Luckman Associates, planners - architects - engineers of Los Angeles; and Victor A. Cusack has rejoined the staff as chief designer. For the past two years he served in a similar capacity with the San Francisco firm of Hertzka & Knowles.

Additions to the staff of Daniel, Mann, Johnson & Mendenhall, Los Angeles architects-engineers, include David M. Fleming as associate director of industrial and military projects; and Hugh E. Mulholland, civil engineer, as special consultant to the firm's civil engineering clients.

### new addresses

Walter D. Widmeyer, architect, to the Perkins Building, S. 11th and A streets, Tacoma.

Skidmore, Owings & Merrill, architects, to the Crown Zellerbach Building, 1 Bush St., San Francisco.

Peter M. A. Moyes, architect, to 336 S. Third East, Salt Lake City.

Edward J. LaBelle, architect, to the Carlson Building, 808 106th Ave. N.E., Bellevue, Wash.

Norman Karasick, architect, to 1063¼ N. Alma St., Los Angeles.

Burns, Bear, McNeil & Schneider, architects, to 5502 N.E. Glisan St., Portland.

Donald Beach Kirby, architect, to 535 Pacific Ave., San Francisco.

Funk, Murray & Johnson, architects, to S. 164 Division St., Spokane, a temporary location on their future building site.

Del Campo & Clark, architects, to 150 Green St., San Francisco.

Robert D. Haugaard Jr., architect, to 2801 E. Foothill Blvd., Pasadena.

Kruse & Fitch, architects, to the New Park Building, Fourth and Park streets, Coos Bay, Ore.

Bindon & Wright, architects, to the Norton Building, Second Avenue and Cherry Street, Seattle.

John Rutherford, structural engineer, to 160 Main St., Los Altos, Calif.

### deaths

John B. Lyman, 76, architect-engineer of the Tucson firm of Lyman & Place, died September 29. A member of the first Arizona Board of Regis-

**REMODELING PHOTOS**

In order to build a photographic collection of outstanding remodeling jobs, the Red Cedar Shingle Bureau is offering to pay architects $50 for each set of exterior "before and after" pictures — 8x10-in. glossies—using shingles or shakes on sidewalls and roofs. A brief explanation of the job should accompany each set, which may illustrate any type home remodeled during the last five years. Photographs should be mailed to the Red Cedar Shingle News Bureau, 1400 Tower Bldg., Seattle 1, Wash., and all not accepted will be returned.

tration for Architects and Professional Engineers, he designed the College of Mines and Engineering Building, Steward Observatory, Cochise Hall and the library of the University of Arizona. He was founder and first president of the Tucson Rotary Club.

✔ Sam Halfon, Seattle architect, died September 12 at the age of 47. He was chief draftsman in the office of B. Marcus Priteca, with whom he was associated for nearly 14 years. A graduate of the University of Washington, he gained his early experience with the firm of McClelland & Jones before entering the U.S. Navy, where he was awarded a bronze medal. At the time of his death, he was a captain in the Naval Reserve.

### appointments, elections

✔ Newly organized Butte (Mont.) Society of Architects has picked Walter Hinick as its first chairman. Completing the slate are Charles Kestle, vice chairman; LeRoy Cottom, secretary; and Harold Godtland, treasurer. The group plans meetings for the second and last Wednesday of each month at the office of Norman Hamill, 58 W. Quartz St.

✔ Idaho Chapter, AIA, has elected these officers, all of Boise: Glen Cline, president; Rod Grider, vice president; H. Curtis Finch, secretary-treasurer; and Ed Trout, board member.

✔ Roberta Wightman of Seattle has been named the first president of the Pacific Northwest Chapter, American Society of Landscape Architects. Others elected at the founding meeting in Portland in October are J. Hazlett Bell, Portland, first vice president; Robert Woerner, Spokane; second vice president; Arthur L. McClish, secretary; and William Roth, Portland, treasurer. Trustee on the national board is Prof. Frederick Cuthbert, chairman of the department of landscape architecture at the University of Oregon.

✔ Hobart D. Wagener, architect, has been elected first vice president of the Boulder (Colo.) Chamber of Commerce.

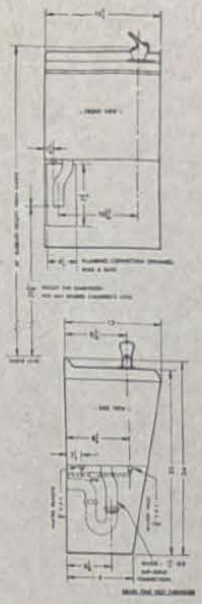
✔ James C. Howland of Corvallis has been named chairman of the public disaster committee formed by the Consulting Engineers Association of Oregon as a result of the downtown explosion in Roseburg August 7. A specialist in hydraulic and soil mechanics problems, he is managing partner of Cornell, Howland, Hayes & Merryfield, consulting engineers.

✔ Van Lee Schmidt, Los Angeles architect-engineer, has been retained as technical consultant for Western States A-E-C Catalog, which is affiliated with the CCAIA in the field of product literature. He formerly was associated with the late Gordon B. Kaufmann and with the architectural department of the Los Angeles City School District.

✔ The California State Division of Architecture has filled three top-level appointments, all new positions. Earl W. Hampton is deputy chief in charge of architecture and engineering. Named as assistant state architects are Arthur F. Dudman for northern California and Tom Meret for southern California.

✔ A Seattle architect, John S. Detlie, has been named initial chairman of the Governor's Council on the Arts, a group which ultimately will consist of at least 25 persons representing a cross section of all the arts.

✔ Ervin M. Thoreson, formerly designer for sewers and street improvements, has been named landscape architect for the Portland Parks Bureau.

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● **Pioneer Sand & Gravel Co.,** Seattle, the largest producer of ready-mix concrete in the Northwest, has been sold to Lone Star Cement Corp., New York. Gordon N. Scott will continue as president of Pioneer, with no change in the name of the company or its policies, according to H. A. Sawyer, Lone Star board chairman and president.

● **Lighting Dynamics, Inc.,** has begun construction of a $2-million manufacturing plant in City of Industry near Los Angeles which will replace its Whittier facility when production begins early next year. Building will act as its own merchandiser. Each office will have a different type of ceiling and lighting fixtures with access holes to allow inspection of mounting arrangements.

● **United States Gypsum Co.** has appointed Richard C. Anderson as district manager for the Pasadena district. He has served in various sales capacities with the firm since 1946.

● **Skyco, Inc.,** of Montrose, Calif., has a new southern California distributor for its line of single- and double-dome Plexiglas skylights: Seaboard Glass Corp. of Long Beach, Calif.

● **Formica Corp.** has named Pioneer Wholesale Co. of Santa Barbara, Calif., as distributor of the firm's laminated plastics.





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● **Columbia-Geneva Steel Division,** United States Steel Corp., with headquarters in San Francisco, has appointed a native Californian, J. D. McCall as its new president. He succeeds Leslie B. Worthington who was elected president of U. S. Steel. McCall had been vice president in charge of operations for Columbia - Geneva since 1957. Before that he served for two years as the division's general manager of operations. He is a graduate of Stanford University where he received both a bachelor's degree in mechanical engineering and a master's in business administration.


McCALL

● **Forest Fiber Products Co.** has set up a field sales office at 138 S. Second East, Salt Lake City, under Warren Higgs who will cover Utah and Idaho from this headquarters.

● **Reynolds Metals Co.** has established two new divisional sales manager posts in the West. Los Angeles manager will be A. R. Kavich and San Francisco, A. J. Bordalampe.

● **W. P. Fuller & Co.** has combined the San Francisco and Oakland districts into a unified Bay area district under the management of M. H. Poppett, a 37-year veteran with the firm, who formerly was manager of the San Francisco district. The move was made to provide improved service in what has become in recent years an interrelated metropolitan complex, the company says.

● **Hawaiian Cement Corp.** officials had an October preview of the $12 million plant which is rising on 27 acres at Barber's Point in the James Campbell Estate Industrial Park at Leeward Oahu. The facility is expected to be in operation by next summer with a capacity of one million barrels annually.

● **Builders Brick Co.** has opened a $1.5 million clay processing plant at Newcastle, east of Lake Washington in the Seattle area, with a covered storage area of 25,000 sq. yd.

● **The Siegler Corp.** has elected Robert K. Miller to a vice presidency. He has been president of the Holly-General Division of Pasadena since 1958 and will continue to head that division.

• **Glaceramic Products Division** of Dudley Industrial Corp. has acquired a 20,000 sq. ft. plant facility and six acres of land at Hemet in the Los Angeles area. This is the second airport location for the firm.

• **Calaveras Cement Co.**, San Francisco, has promoted Jack Gordon, regional division manager, to the post of assistant sales manager.

• **Radco Products, Inc.**, has completed a warehouse and assembly plant for Radco windows at the Gillespie Field Airport, El Cajon, Calif. The plant is under the management of George Welles, factory representative in the San Diego district.

• **The Philip Carey Manufacturing Co.** has promoted C. J. Bainum, southwest division manager, to the new post of western division vice president, comprising the California, Dallas, Seattle and Houston districts. He will headquarter at Houston.

• **The Ceilcote Co.** has appointed E & M Equipment Co. of Denver to represent the firm in Colorado, Wyoming, Montana, Utah, Arizona and New Mexico.

• **Porcelain Enamel Publicity Bureau** has expanded its scope of operations and acquired a new name, Western Porcelain Enamel Council. The organization has just published recommended standards and specifications oriented to western building needs. It will also study processes, quality, testing methods and other technical aspects of the industry. Council headquarters office is in Pasadena.

• **Western Floor Covering Association**, a newly organized group encompassing all the states west of the Mississippi River, has chosen H. Earl Warren of Denver as its founding president. Delegates to a recent convention in Reno also elected Erv Parent of Seattle, vice president; Barney Tambor, San Francisco, secretary; Wayne Ricker, Huntington Park, Calif., treasurer; and Sherwood M. Sitz, executive director. Jack Freeman of Beverly Hills has been named head of a technical committee which will foster uniform product specifications and standards of workmanship. Office of the organization is at 3801 Beverly Blvd., Los Angeles.

• **California Drywall Contractors Association** has changed its name to the Gypsum Drywall Contractors Association of California.


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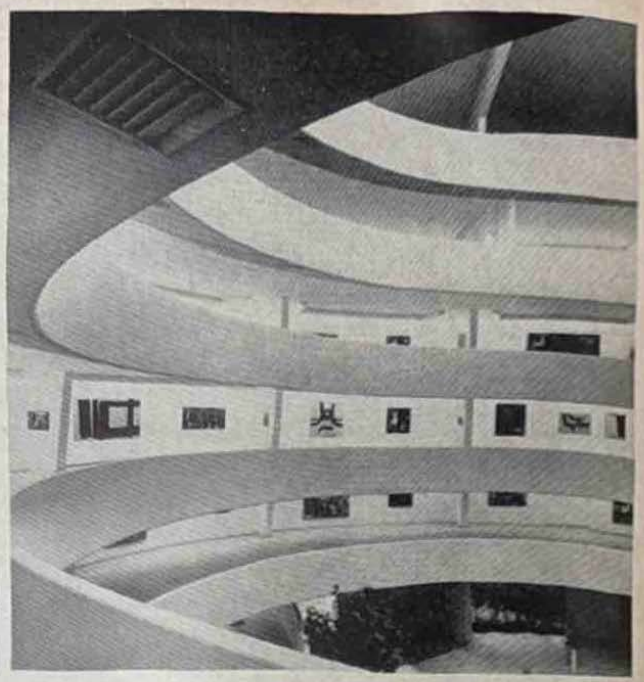
### on deck at pa&b

As new building methods and materials—or at least new adaptations of old ones—exert more and more influence on the architectural scene, PA&B proposes to devote more and more editorial space to these topics. Our major article next month will describe what is believed to be a first in the West: use of glued laminated timber in a triangular pattern similar to the geodesic dome for a high school gymnasium. Particularly interesting is the fact that the members were assembled as they were erected with gin poles. Designwise, we'll show a ski lodge, a chapel, a branch bank and a couple of unusually fine houses.

### a westerner views THE museum

In light of the recent opening of the Guggenheim Museum and the widely publicized reactions of architects and other related professionals to the building itself, it was interesting to come across the opinions of an art reviewer far removed from New York City who had just visited the initial show. Here are some comments from Anne G. Todd, writing in the Seattle Times:

"Designed by Frank Lloyd Wright, the Guggenheim Museum will stir controversy for the rest of its existence. Its virtues and drawbacks are extreme enough to guarantee this. But, since the museum aims to develop 'popular appreciation of contemporary art through a stimulation of interest in it by the direct, sensuous and esthetic



Ezra Stoller

appeals of the pictures and sculptures themselves,' the building, daily visited by hordes of people, is a successful ally to the cause.

"Entering the building is like entering an immense beehive flooded with light. It is faintly distressing to crane for a look at the ribbed-glass dome, but one need not look up to know the ceiling is high. A ramp starting at entrance level winds up around the interior of the building. While it's easy and obvious to walk up the ramp, one is not encouraged to. Since the ramp is the picture gallery, one is expected to take the elevator to the top and walk down the ramp to view the pictures.

"The impact of the sense of remarkably enclosed space is one of the building's main virtues. Its special quality of light is another. Its drawback, which may prove a virtue but which now is distressing, is the fact that one may feel dizzy because the ramp slopes in, with the pictures aligned with the sloping floor so that even they are not level.

"The installation of paintings is ingenious. Apparently James Johnson Sweeney, director of the museum, deserves credit for this. Unframed paintings stand out from the wall on hidden rods. Each work receives a flood of indirect light. It simply exists, in a state of perfection, before your eyes.

"The ramp is 15 ft. wide, the farthest one can stand away from any painting, unless he wants to look across the museum and view from a distance of 80 ft. In some instances the short perspective is complimentary. Pierre Bonnard's 'Dining Room on the Garden' is gorgeous seen in this way. So is Afro's 'For an Anniversary' or Chagall's 'Paris Through the Window.'

"At the top of the ramp is the Kandinsky Gallery with 21 paintings selected from the museum's collection. On the floor of the museum are several sculptures, mainly by Brancusi. The museum offers a handsome illustrated catalog and in its section devoted to drawings, Kenneth Callahan's* 'Dead Grasshopper' is outstanding." R.E.K.

*Seattle artist whose epic mural hangs in the Washington State Library (PA&B, 'Sept.' 59).


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| Los Angeles, Holman Methodist Church—Kenneth N. Lind | March | 15 |
| Los Angeles, Star of Creation Chapel, La Tijera Methodist Church,—Hal C. Whittemore & Associates | September | 32 |
| San Pedro, Calif., Seaman's Center Building (Chapel) Carleton Winslow and Warren Waltz | June | 20 |
| Spokane, Westview Congregational Church (school and meeting unit)—Warren Cummings Heylman | January | 20 |


### Architects' Offices


| | | |
|---|---|---|
| Anchorage, Alaska, Edwin Crittenden & Associates | July | 28 |
| Los Angeles, Douglas Honnold, John Rex, Architects & Associates | June | 24 |
| Los Angeles, Lee B. Kline | October | 26 |
| Los Angeles, Jones & Emmons & Associates | August | 26 |
| Palo Alto, Calif., Ernest J. Kump | December | 34 |
| Seattle, Bystrom & Greco | September | 33 |


### Project Roundup


| | | |
|---|---|---|
| San Francisco Arts Festival: Redwood Pavilion—Marquis & Stoller; Redwood Drum — Evelyn and George Kosmak | January | 22 |
| Three campus buildings: Stanford, Calif., Physics Lecture Hall, Stanford University—Gardner A. Dailey; Westwood, Western Data Processing Center, University of California at Los Angeles—Risley & Gould; Tacoma, Chris Knutzen Fellowship Hall, Pacific Lutheran College—Johnson-Austin Associates | August | 28 |
| Three recent structures from the office of Welton Becket & Associates: Palo Alto, Calif., Mobil Service Station; Santa Monica, Calif., State Park Beachhouse; Los Angeles, Texas Co. West Coast Headquarters | February | 18 |

# Methods/Materials


Air conditioning load cut by new sunscreen—Texaco Co. Building, Los Angeles — May 32
Big cranes, construction's latest boon—Beatty-Pecco introduced in Los Angeles — June 29
Big trusses erected on Denver job (Hilton Hotel) by unique method — July 36
Celanese House—Stone's showcase deluxe — September 52
Curtain wall . . . as good as you make it—Ralph L. McKenzie — April 21
Denver area schools save $25 per light fixture — August 37
Designing for fire protection must go beyond defense—Raymond J. Casey — October 34
Effect of fixture angles on lighting — February 24
Factory produced steel house, Los Angeles — October 32
Floor type crane positions tilt-up panel in 10 minutes — November 40
Free span dome provides low cost eating shelter for Newport Union High School, Costa Mesa, Calif. — May 31
Glass mosaic curtain wall makes Northwest debut—First National Bank of Oregon, Portland — June 29
Gold alloy sheet used for spandrels—Kaiser Center project, Oakland — May 31
Gypsum partition introduced to Northwest—First National Bank, Portland — November 40
Heat pump system of heating and air conditioning—Washington Water Power Co.'s Central Service Facility, Spokane — October 31
High rise construction gets real lift in Bay area (passenger elevator for construction workers) — August 44
How to properly care for forms—John G. Symons — January 26
How to raise the roof . . . and faster (preassembled bowstring trusses) — February 24
Intercom saves contractor $120 a day on Seattle's Norton Building — July 34
Los Angeles gets first building to exceed 13-story limit — August 39
Low cost sound control for schools — January 23
Monorail system a la Disney — August 36
Moving sidewalks (Travolator) transport San Diego visitors — June 30
Parasol in plywood for $3 per square foot—Stuart Co. employees' swimming pool, Pasadena — September 39
Prestressed and architectural concrete—a few ideas from papers presented at annual American Concrete Institute convention — June 31
Roof poured first for Dr. Samuels Institute Building, University of Washington, Seattle — June 30
Shoring system gives clear working space below (Spanall) — September 42
Stadium for San Francisco Giants will offer fans solid comfort — August 38
Steel in tension is key to new system for high rise structures — November 36
Steel roofs Portland's coliseum and Squaw Valley's vast arena — December 38
Structural exercise in descriptive geometry—First Congregational Church, Sunnyvale, Calif. — March 26
Taped column cap forms produce smooth finish and allow more reuse of forms—Tacoma County-City Building — May 32
Terne roofing comes in colorful new dress — September 40
Tilt-up costs lowered with special frames — December 40
Ultraviolet-sensitive tube may revolutionize fire, explosion warning systems — February 25
Unusual sandwich construction used on Hawaiian project, Kailua Second High School, Oahu — September 42
Vaulted roof of fir plywood panels relieves cube-like severity of California residence — January 24
Window design factors studied by producers — January 24
Wood in a living architecture—by Henry Hill — December 40


# Other Articles

## Practice of Architecture


A theory of design—William L. Pereira — October 25
Courtyards for living and working as well as for viewing — June 15
Demountable buildings?—C. Theodore Larson — April 23
Design, discipline and dogma—Samuel T. Hurst — August 17
Need for leadership in the design professions—James M. Hunter — July 22
New eyes for old: the perspective of a new people on a landscape immeasurably old—Stanley White — June 26
Some thoughts about design—Gideon Kramer — March 22
The arts, architecture and the man-made environment—Victor Gruen — February 21
Warnecke, John Carl, PA&B profile — July 15


## Job of the Month


Los Altos, Calif., Foothill College—Ernest J. Kump and Masten & Hurd — November 22
Los Angeles, American Cement Corp. Home Office Building—Daniel, Mann, Johnson & Mendenhall — August 19
Reno, University of Nevada Library—Robert E. Alexander & Associates — December 18
Salt Lake City, Walker Center Parking Terrace—Laurence Farrant Associates — October 18
San Francisco, Hilton Hotel—William Tabler — September 18
San Francisco, International Airport Master Plan—Welton Becket & Associates — June 6
Santa Monica, Calif.—Electronics Research Center Expansion—Richard L. Dorman & Associates — May 18
Seattle, Century 21 Main Exposition Building—Paul Thiry — July 12


## Conferences and Conventions


AGC annual convention, Miami Beach — February 11
AGC, western chapters conference, Monterey — June 40
AIA annual convention, New Orleans — August 7
AIA, California Council annual convention, Honolulu — November 8
AIA, Northwest District annual conference, Spokane — November 8
AIA, Oregon and Southwest Oregon chapters first joint annual meeting, Corvallis — January 8
AIA, Western Mountain District annual conference, Albuquerque — November 8
American Institute of Planners annual convention — September 8
Aspen, ninth annual International Design Conference — September 12
Church Architectural Conference, Los Angeles — March 13
NAHB annual convention, Chicago — February 12
New Mexico Home Builders Association convention Albuquerque — July 8
School conference, Washington State University, Pullman — October 41


## Editorial Comment


California manufacturer's stimulating seminar: a non-commercial approach — April 4
Oregon—A 100th anniversary and a few words about preservation activities — May 21
Package plan for Seattle's municipal building: a horse-and-buggy approach — April 4


## Miscellaneous


Oregon's Centennial—PA&B pictorial — August 24
Oregon impressions—a photographic salute to the state's centennial by Tom Burns Jr. — May 16
Oregon architecture 100 years ago—Marion Dean Ross — May 22
Preparing the building estimate—Glenn M. Canaday:
Site preparation, earthwork — July 31
Foundation work, concrete — August 33
Precast and tilt-up concrete, reinforcing, structural steel, miscellaneous iron and metal — September 35
Carpentry and millwork — October 27
Hardware and weatherstripping — November 33
Masonry, plastering, tile, etc. — December 37
Two buildings . . . San Francisco 1959 — September 25