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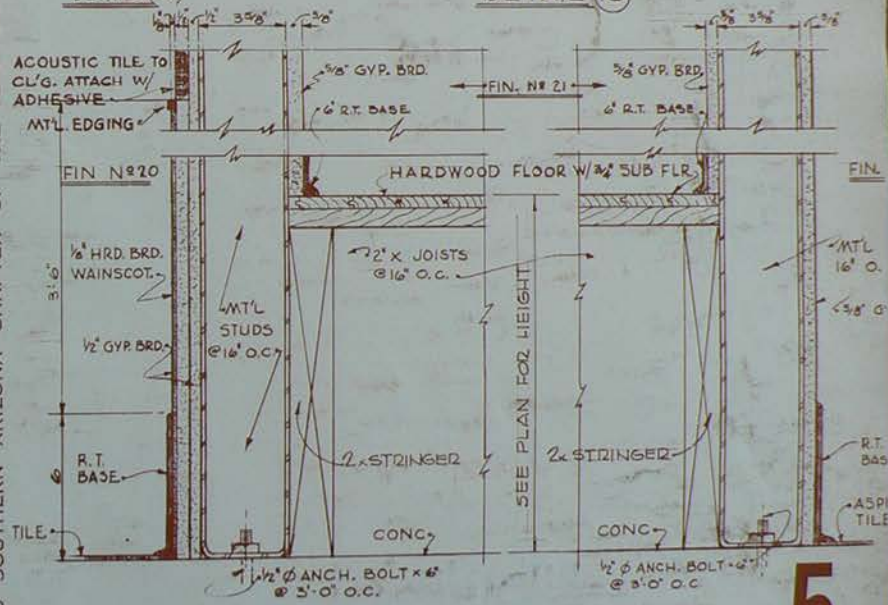
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# ARIZONA ARCHITECT



DETAIL (15)

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JANUARY 1959 Vol. 2, No.

5

OFFICIAL PUBLICATION OF THE ARIZONA SOCIETY OF ARCHITECTS, THE CENTRAL ARIZONA CHAPTER AND SOUTHERN ARIZONA CHAPTER OF THE AMERICAN INSTITUTE OF ARCHITECTS

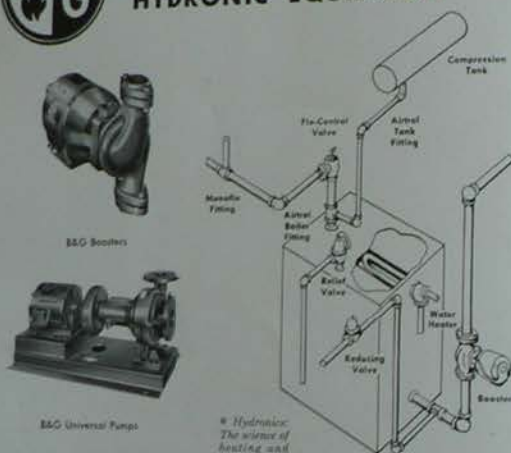






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Official Monthly Publication of the  
ARIZONA SOCIETY OF ARCHITECTS  
comprised of  
CENTRAL ARIZONA CHAPTER and  
SOUTHERN ARIZONA CHAPTER of  
THE AMERICAN INSTITUTE OF ARCHITECTS

Phil Stitt Managing Editor

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Subscriptions: \$4 a year  
Per copy: 40 cents

January, 1959  
Volume 2, No. 5

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Signed articles reflect the views of the authors and do not necessarily represent the official position of the Arizona Society of Architects or the Central or Southern Arizona Chapters, AIA.

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January, 1959

Three



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## THE PRESIDENTS' PAGE



**CENTRAL  
ARIZONA  
CHAPTER**

John Brenner



**SOUTHERN  
ARIZONA  
CHAPTER**



Edward H. Nelson

GREETINGS!

As I look forward toward the coming year, it seems I might well cast an occasional glance at the year immediately behind and become duly cognizant of the accomplishments thereof, under gentle but firm control of my predecessor and his Board. It is going to be exceedingly difficult to even equal that year's achievements and an almost insurmountable task to surpass them.

An important accomplishment of the past year was the establishment of a chapter office and the employment of an executive secretary on a split-time basis with that now prominent and influential official publication of the Arizona Society of Architects, the *Arizona Architect*.

The office usefulness has proven its value many times over in its service to each of you, to the public, and to the chapter. Through it, your Executive Board has been able to function more effectively in all its endeavors, keeping the membership better informed and more aware of its problems and achievements. The office has made possible the centralization and maintenance of files and records of the chapter's affairs, available at all times to all concerned. The convenience of secretarial and clerical assistance to your Board has proven extremely helpful. Not to be overlooked are the countless times the office is called upon to disseminate information and give guidance to the public, students, job-seekers, and the like, all of which adds up to good public relations.

The office is now partially self-supporting from the revenues of its book and magazine subscription service, and could soon become wholly on its own if each of us saw to it that whoever has the responsibility of renewing or ordering subscriptions and purchasing books for our offices would only remember us whenever they feel the urge to snap up the mail order gimmicks and "special bonus" offers.

Remember, the office facilities belong to you. Drop in at 1423 North 3rd Avenue and our personable, competent executive secretary will give you a warm welcome and perhaps sell you a delightful and useful book.

January, 1959

Best Wishes for a happy and prosperous New Year. May 1959 bring many exciting and significant build-ings to the State of Arizona.

The new executive committee of The Southern Arizona Chapter is currently indulging in some serious introspection and planning for the next twelve months. A budget is being prepared, working committees are being constituted, projects are being analyzed, and hopes and enthusiasm are at a high level.

We feel that much progress has been made under the able guidance of Santry Fuller. Projects to be continued include support for the Department of Architecture at the University of Arizona, plans for a spring awards dinner and architects' show, participation in a building industry association, work on cases of illegal practice of architecture, study and action on changes in the zoning ordinances of the city and county, participation in the Architect-in-Training program, and assistance to Phil Stitt, the capable editor of *Arizona Architect*.

In addition to these projects certain gains as well as disappointments have been noticed in less tangible fields of endeavor. At the risk of being accused of wishful thinking, I can report an increase in interest in chapter events, particularly among the associate and junior associate ranks coincident with an intensification of chapter programs and activities. The advent of the Department of Architecture at the U of A has certainly contributed to this stepped-up interest and should continue to do so as the architects and the University join together in future programs.

The emphasis this year will be on cultivating interest and wide participation in chapter activities. We hope that interesting programs and many significant chapter and committee projects will provide each member with valuable information and stimulation. But, more important, we hope that the architects, through their interest and work on projects, will be drawn more closely together. This solidarity among architects can do much toward the cultivation of a respected, unified and powerful profession. All the public relations programs in the country can do little for us without a substantial advance toward these goals.

Five



## HARDWARE TIPS

By Veron Junger, A.H.C.

### ALLOWANCES



Many architects put builders hardware allowance in their general specifications rather than go into intricate descriptions of style and function. Properly used, these allowances give architects free choice through which to insure the optimum balance of competitive prices and prompt delivery as well as esthetic and functional satisfaction.

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## CENTRAL ARIZONA CHAPTER NEWS

• Regional Director Fred Porter was guest speaker at the installation of 1959 officers of the Chapter. Approximately 70 members and guests were present at the Green Gables dinner-dance. Porter expressed his pleasure at the large and enthusiastic attendance and reminded the members that 1960 would be Arizona's year to hold the Regional Convention and nominate a Regional Director.

• The following committee appointments for 1959 have been announced by the president. Figures in parenthesis indicate the term for which appointed. Each committee's board member advisor is indicated in italics.

### MEMBERSHIP

Chairman, Robert Helgeson (2) *(Goodwin)*

Francis Bricker (3) George Walsh (1)

### OFFICE PRACTICE

Chairman, Harry Youngkin (3) *(Young)*

Clarence Shanks (2) Robert Nelson (1)

### CHAPTER AFFAIRS

Co-chairmen, Ed Varney, Reginald Sydnor (3) *(Sholder)*

Donald Van Ess (2) Dean Rendahl (1)

### URBAN DESIGN & HOUSING

Chairman, Anthony Turner (3) *(Elmore)*

Ralph Morton (2) Robert Starkovich (1)

### HOME BUILDING INDUSTRY

Chairman, Lloyd Ware (3) *(Nunn)*

Steven Glowacki (2) Ralph Fitzmaurice (1)

### EDUCATION AND REGISTRATION

Chairman, Ralph Haver (3) *(Elmore)*

Michael Defiel (2) Milo Crawford (1)

### RESEARCH

Chairman, Ralph Wyatt (3) *(Young)*

B. M. Gonzales (2) Ronald Martyn (1)

### AWARDS, SCHOLARSHIPS, ALLIED ARTS

Chairman, Henry Arnold (2) *(Laraway)*

Thomas Blackwood (3) James Robertson (1)

### PRESERVATION OF HISTORIC BLDGS.

Chairman, Fred Guirey (2) *(Nunn)*

Murry Harris (3) Allen Pejsa (1)

### HOSPITALS AND HEALTH

Co-chairmen, Max Kaufman, Earl Horlbeck (3) *(Brenner)*

Edgar Wagner (2) Joseph Hughes (1)

### SCHOOL BUILDINGS

Chairman, Robert Sexton (3) *(Laraway)*

Howard Story (2) James Witner (1)

### RELATIONS WITH CONSTR. IND.

Chairman, H. H. Benedict (3) *(Sholder)*

Ramon Martinez (2) Joseph Casho (1)

### GOVERNMENTAL RELATIONS

Co-chairmen, Charles Hickman (3), Fred Weaver (1) *(Goodwin)*

Curtis Schafer (2) John Scully (1)

### PUBLIC RELATIONS

Chairman, Edward McIntire (3) *(Brenner)*

George Christensen (2) George McGrath (1)

### COLLABORATION WITH DESIGN

Chairman, Dick Drover (2) *(Young)*

James Lindell (3)

### PROGRAM

Chairman, Martin Young *(Brenner)*

### FEE STRUCTURE (Special Committee)

Chairman, Ralph Haver *(Exec. Committee)*

— AIA —

### MANUAL IN PREPARATION

A joint meeting of the Metal Curtain Wall Division of the National Association of Architectural Metal Manufacturers and the Construction Specifications Institute (New York Chapter) was held Tuesday, December 2, 1958, at New York City. The purpose of the meeting was to review the general specifications for metal curtain wall section of the Metal Curtain Wall Manual being prepared by the Research and Development Committee of the Metal Curtain Wall Division of NAAMM.

The first section of the Division's Metal Curtain Wall Manual is expected to be ready for release before April 30.



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January, 1959

Sevens

ARIZONA ARCHITECT



## SOUTHERN ARIZONA CHAPTER NEWS

• The chapter's first meeting of 1959 saw installation of the following officers: Edward H. Nelson, president; Gerald I. Cain, vice president; Robert J. Ambrose, secretary; and David S. Swanson, treasurer. Retiring president Santry Fuller became a director for a 3-year term.

• New associate member Larry Bogott was introduced, and the new president outlined a comprehensive program including specific suggestions for committee activity. Committee chairmen were urged to attend executive committee meetings to provide liaison with the board; also to organize committee meetings and programs promptly and be prepared to disseminate to members information from the Institute in the fields of their concern. Committee reports are expected to be presented in written form.

• The following committee assignments have been made for 1959: (Chairman shown in italics).

**MEMBERSHIP** *Burr Dubois*  
**OFFICE PRACTICE** *Bernard Kinsock*  
 Ellsworth Ellwood, Robert Reid, Gerald Bailey.  
**CHAPTER AFFAIRS** *Terry Atkinson*  
 Gordon Luepke, Bernard Kinsock, Richard McClanahan.  
**URBAN DESIGN & HOUSING** *Bernard Friedman*

Arthur Brown, Wm. Wilde, Wm. Lockkard, Wm. Goldblatt.

**HOME BUILDING INDUSTRY** *Carl John*  
 Santry Fuller, Russell Hastings, Ed Dunham.

**EDUCATION & REGISTRATION** *Gordon Luepke*  
 Fred Jobusch, Fred Cole, Ben Huie, Ellery Green.

**RESEARCH** *William Wilde*  
 Sid Little, Nicholas Sakellar, Leland Lawrence

**AWARDS, SCHOLARSHIPS, ALLIED ARTS**  
 Santry Fuller, Gerry Cain, Fred Cole, Sid Little, Wm. Wilde, Duane Cote, Wm. Hazard.

**PRESERVATION OF HISTORIC BUILDINGS**  
 E. D. Herreras, Wm. Lockkard, Fred Eastman, Fred Knipe.

**SCHOOL BUILDINGS** *Emerson Scholer*  
 William Carr, Clarence Torsell, Robert Maasen

**HOSPITALS & HEALTH** *Frederick Cole*  
 Thoralf Sundt, Ernest Silberschlag.

**RELATIONS WITH CONSTRUCTION INDUSTRY**  
 Fred Jobusch, Arthur Brown, Bob Ambrose, Carl John, Larry Bogott.

**GOVERNMENTAL RELATIONS**  
 M. H. Starkweather, Lew Place, Emerson Scholer, Bernard Aros.

**PUBLIC RELATIONS** *John H. Beck*  
 Duane Cote, Santry Fuller, Wm. Goldblatt, Edmund Sutterley, James Hockings.

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 Arthur Brown



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January, 1959



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## NEW REGISTRANTS

The State Board of Technical Registration has announced that on January 1, 1959 the following architects were registered and certified in the State of Arizona:

Arizona architects include: Chauncey F. Hudson, P.O. Box 4708, Univ. Station, Tucson; Jack W. Kaufman, 6209 N. 32nd Dr., Phoenix; Sidney W. Little, Univ. of Arizona, Tucson; Nelson, 3361 E. 28th St., Tucson; Eugene I. Pierson, 4102 E. Avalon Dr., Phoenix; Wendell E. Rossman, 4132 E. Granada Rd., Phoenix; and James Williamson, 3409 W. Rancho Dr., Phoenix.

Residing elsewhere are Edward D. Davies, 1251 Inverness Dr., Pasadena, California; David R. Hayes, 1147 Charlton Ave., Salt Lake City; Jack Knighton, 2014 E. Charleston Blvd., Las Vegas; L. W. Scholl, 501 Lemcke Bldg., Indianapolis; and Abner L. Sommers, 231 S. LaSalle St., Chicago.

Newly certified architects-in-training are Marvin E. Williams, 53 Udall St., Mesa; James E. Witner, 5606 N. 19th St., Phoenix; and James H. Hockings, Rt. 4, Box 96, Tucson.

— AIA —

## CONSTRUCTION BOOMS

November contracts for future construction in Arizona amounted to \$25,453,000, an increase of 14 per cent from November 1957. F. W. Dodge Corporation, construction news and marketing specialists reported this month.

The cumulative total of contracts for the first eleven months of 1958 in the major construction categories showed: non-residential at \$100,822,000, up 33 per cent; residential at \$201,658,000, up 33 per cent; and heavy engineering at \$79,566,000, down 66 per cent.

— AIA —

Count Tolstoi wrote, in **WHAT IS ART?**: "Art is a human activity having for its purpose the transmission to others of the highest and best feelings to which men have risen."

## The Editor's PERSPECTIVE

THE BLOOD of Miguel Robles stains the hands of many. In the words of the coroner's jury, Robles "died in Phoenix, Arizona, on the 7th day of October, 1958, and said death was the result of the collapse of a certain wall in a building under construction at 8900 North Central Avenue. It is our opinion that collapse was caused by inadequate engineering design, improper construction procedures and a definite lack of supervision. All of this indicates to this jury criminal negligence on the part of those involved."

Despite the verdict, it appears no one will be charged with negligent homicide and sent to prison. According to the County Attorney, blame for the death rests upon so many that it would be difficult to convict any one person.

The case is far from over. Charges have been filed by the Board of Technical Registration against Frank Maddock and Stefan Ryciak. Maddock, a registered civil engineer, is charged with two violations: (1) gross negligence, incompetence and other misconduct in practice of his profession; and (2) aiding and abetting an unregistered person to sign as an architect and as an agent, partner, and associate. Ryciak is charged with gross negligence in practice of his profession as an architect.

The contractors have appeared at a voluntary hearing before the Registrar of Contractors. Action, if any, had not been determined at press time.

But what of others, whose acts or omissions may be partly to blame?

The collapse was outside of the city of Phoenix and the jurisdiction of its building inspection department. The legislature has failed to adopt a state building code; neither has it passed enabling legislation permitting counties to adopt codes. Earlier this year the state senate let a bill die that would at least have strengthened the hand of the Registrar of Contractors in enforcing regulations governing standards of workmanship.

The coroner's inquest brought out this testimony from engineer John E. Stephens:

"Q: If plans had been submitted according to a uniform building code . . . would those plans have been accepted?"

"A: It most surely would have been discovered that there was a discrepancy between the design and that required by the code."

And the life of a workman might have been spared. It could have been many lives, as this further testimony from Stephens suggests:

"Q: What is your opinion in regards to the cave-in? Would it have taken place another time because of the weight distribution?"

"A: In my opinion, it most surely would have. If,

by some chance, the structure could have been shored up and completed and then the shoring removed, it is my honest opinion that this thing would have collapsed and fallen down in the street. And I think it's a blessing, in spite of the fact a fine man had to lose his life — I think perhaps we should all be thankful in this instance that we know about the deficiencies in the structure now."

How could a thing like this happen? It is natural that persons involved would tend to exonerate themselves from responsibility. Brief excerpts from the testimony cannot reflect the full meaning read into the inquest, and it is not our purpose to judge any person.

But consider this further testimony, given by Arnold H. Becker, real estate investor representing owners of the collapsed structure:

"A: I am one of thirteen partners, most of whom are local businessmen, doctors and lawyers. . . . A similar group of people with me built a building called 444 Camelback West, which rented very quickly. So, we decided that Sunnyslope needed that type of office building. . . . But the offices at 444 were a little smaller. We want a bigger building and better building."

"Q: Did you request supervision by the engineer who did the plans?"

"A: No, we never hire supervision from an architect, except for supervision of the stages for drawing on our interim financing. We hire the architect to draw the plans and specifications, and that is what we pay him for."

Following the collapse at the "bigger and better" building in Sunnyslope, independent engineering studies were made of both buildings. Engineer Frank Foltz reported that "to check adequacy of foundation we will need a thorough report prepared by some independent testing laboratory . . . shoring should be done as soon as possible to avoid any further damage and for safety reasons."

The new 444 Camelback West Building is estimated to have had thousands of dollars worth of shoring and other remedial work done since the Sunnyslope tragedy. The final cost of both buildings thus will be much greater than was anticipated.

The requirements of a reasonable building code would have saved a life. They could have prevented irreparable damage to the professional and business reputations and economic well-being of many who were involved with construction of the Sunnyslope building.

The legislature should provide for building codes at once.

*Phil Sitt*

Deven

January, 1959.

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## Sprinklers Might Have Cut Loss

### Shopping Center Fire Studied By Experts

By ORLEN BEATY

THE COSTLY A. J. Bayless shopping center fire last week might have been held to a relatively minor loss had the buildings been constructed under the city building code.

That was the gist of a report to the city council last night on the fire which destroyed virtually the whole shopping center at 32nd Street and McDowell with losses estimated in excess of \$500,000.

H. H. Dinwiddie, a city building inspector, and fire department officials investigated the charred wreckage yesterday to prepare the report.

PHOENIX firemen assisted during the blaze because the shopping center is just outside the city limits and property inside the city was threatened.

Because it is outside the city, city firemen stood by for a time before joining a private fire protection company.

F. C. Hurst, city superintendent of building inspections, said he asked for the study to determine how the shopping center buildings were built, differed from those required by city building codes.

Principal differences noted in Dinwiddie's report are:  
1. CITY requires structures with as large floor space as the Bayless grocery (134,000 square feet) to have automatic sprinkler systems. The Bayless store did not have one. It would have cost about \$125,000.

2. City code would have separated the grocery, the adjacent hardware and drug store, and a group of smaller stores into three separate buildings. Between them 12-inch masonry fire walls extending above the ceilings would have been required. There were eight-inch brick walls extending

only to the ceilings. The extra walls would have cost about \$1,500.  
3. Plastered ceilings are required by the city and were lacking in the shopping center structures.

NONE OF these items individually would have stopped a fire of the intensity of this one, the report concedes. But if all had been incorporated into the construction, reasonable fire fighting efficiency probably would have confined the loss to the middle building housing hardware and drug stores.

It appeared, the city officials told the council, that the fire started in the hardware store and spread west into the grocery and east into the drug store and beyond.

Hurst said grocery stores of the size of the Bayless market built inside the city have sprinkler systems. And if other stores are acquiring the same shopping center, fire walls are required.

High insurance rates, rapid deterioration of property values, and loss of business result from substandard construction. And loss of life. (See pages 11 and 17.) State or county building standards would prevent much of this waste.

## IT CAN AND MAY HAPPEN AGAIN

A drug store, part of a recently completed shopping center at Tucson (but out of its building code jurisdiction) was leased to the tenant without air conditioning. Mechanical refrigeration was installed on a basis that the store would contain only a fountain. After installation, plans were changed and kitchen facilities installed, including steam tables, exhaust fans, etc. Resulting inadequate cooling led to an investigation. This revealed an overloaded electrical system which could easily have caused another disastrous fire.

State or county building codes would have prevented the error.

## Legislation Needed

Building Codes  
Protect  
Property  
Values  
...and Lives

Silvia Porter, William B. Tabler, AIA, and others have written or spoken about "chaotic building codes" that vary from city to city; that in some cases unreasonably reflect an area's economic interests or the influence of labor organizations; that are too slow to accept new products; and that greatly increase the cost of building.

Tabler, at the last AIA convention, urged widespread adoption of national building codes and local machinery which would permit appeals for modifications.

Do these conditions exist in Arizona?

Arizona Architect has learned that Tucson, Mesa, and other communities generally follow the recommended national or regional codes. We have submitted Tabler's views to Phoenix building inspection, fire, and planning officials to learn if the Phoenix code is unduly severe. If it did cater to whim and special interest, then the legislature might be justified in its failure to adopt a state building code, or enabling legislation to permit county codes.

Here are answers given by the Phoenix officials, which lead Arizona Architect to believe that the code is neither too severe nor inflexible:

Q. Why did Phoenix revise its building code in 1958 instead of adopting the Pacific Standard Code?

A. Because the city's advisory code committee decided its own code would result in lower fire insurance rates than would be allowed under the Pacific code. This is because the latter allows larger areas of undivided floor space (unprotected by fire walls) than seem advisable here. (Under the Phoenix code, complete fire walls through the roof are not mandatory if the roof itself is of fire-detering materials, such as concrete slab, gypsum slab, prestressed, etc., on steel framing.)

Q. Will sprinkler systems allow a builder to increase the size of the undivided area?

A. Yes, up to 300% in a one-story building not over 25 feet high.

(Continued next page)



# BUILDING CODES (continued)

Q. Can annexation of areas with buildings constructed without benefit of building codes affect our fire rate?

A. Yes, it can. On our last rating by the National Board of Fire Underwriters, Phoenix received 83 structural deficiency points (out of a possible 200), largely by reason of the annexation of sub-standard buildings. Under our old code we received 55 deficiency points for weaknesses in the building law itself. The 1935 revision was designed to overcome some of these deficiencies. It is now based on the National Board of Fire Underwriters Code, modified to meet local conditions.

Q. How does our code compare with the National Electric Code?

A. It is based upon the National, is almost identical insofar as residences are concerned, but is more restrictive on commercial. We are more restrictive in respect to use of conduit where air conditioning is concerned because of heavy loads that are required.

Q. Is non-metallic cable permitted under the city code?

A. It has been allowed for the last three years for one-story residences up to three apartments, though it is considered less safe than metal-covered cable.

Q. How does our code compare with the National Plumbing Code?

A. In 1953 we adopted the recommended require-

ments of the Coordinating Committee for the National Plumbing Code, which are considered the minimum for a sanitary code. Our code permits about \$50 a house saving even under the minimum requirements of the Pacific Code.

Q. Can plastic pipe be used?

A. It is not generally permitted for water or fur drainage systems because the advisory board has not received evidence of adequate tests. Some plastics are subject to destruction by insects, and the danger of driving nails through plastic gas pipe make it inadvisable for that purpose. Contraction and expansion resulting in breakage are problems with some plastics.

Q. What about appeals; how rigid is the code?

A. Any company can offer new products with evidence of adequate tests and they will be considered. One company in Phoenix is now using plastic in its water and electrical systems by permission of the advisory boards, but with consent for periodic inspection by the city to insure public safety. Actual amendments to the code must be made by the City Council.


Q. Are there delays in securing approval of plans for the issuance of permits?

A. A few months ago Arizona Architect heard complaints from some architects on the matter of delays. However, additional staffing appears to have remedied the situation according to recent inquiry.)

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Fourteen

ARIZONA ARCHITECT

# Tucson Daily Citizen

VOL. 88 NO. 288 TODAY'S NEWS TODAY TUCSON, ARIZONA, TUESDAY, EVENING, DECEMBER 1, 1958 MAIN 2-8884 13 CENTS—10 PAGES

## FLASH FIRE TAKES LIVES OF 90 AT CHICAGO PAROCHIAL SCHOOL

### It Could Happen Here, Says Chief

By PETER STARRETT

If a fire such as the one which took 90 lives in Chicago yesterday should break out in one of Tucson's multi-story schools "the first thing we'd do is to start praying," Tucson's fire chief said today.

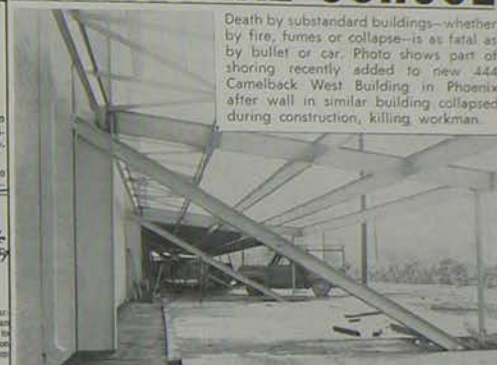
Such a fire could happen in Tucson, according to Chief John H. Freeman.

### Page School Closes; Gas Heaters Bad

PAGE (AP)—Fumes from defective gas heaters closed the Page Accommodative School yesterday, school officials announced.

### Family Periled By Fumes

A family of seven had a narrow escape from fumes from an inverted heater after failing to open windows before retiring on the first night in a three-room house, police reported.



Death by substandard buildings—whether by fire, fumes or collapse—is as fatal as by bullet or car. Photo shows part of shoring recently added to new 444 Camelback West Building in Phoenix after wall in similar building collapsed during construction, killing workman.

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Fifteen



# Cartwright School Suit Averted

Architects Consider Action To  
Protect Children And The Public

The Cartwright School District recently passed a \$310,000 bond issue, \$170,000 of which was to purchase buildings from subdivider John F. Long, whose Maryvale Terrace caused a school population growth of 1500% in a period of three years. The buildings in question had been leased from Long in January 1957, because the district's bonding limit had been reached, and a school crisis was faced.

When the recent bond issue was offered, it was reported that Long, after selling his buildings, would build additional ones and would again lease them to the district.

Such procedure could have established a precedent for acquiring school buildings without benefit of the public safety protection Arizona law is designed to assure. It could also short-circuit the intent of law to secure public buildings only upon competitive bidding.

Sale of bonds was scheduled less than three weeks after the bond election, on December 4.

Central Arizona Chapter, representing the Arizona

Society of Architects, considered taking injunctive action as a necessary first step to determine legality of the school district's procedure.

The school board, upon learning of the intent, postponed bond bid opening until February 5, then on December 10 met with executive committee members of Central Arizona Chapter and legal counsel in order to consider if the problem could be resolved without litigation.

In the words of school board president Adrian O. Riggins, in a letter subsequently written to the Society of Architects:

"At the meeting, the district representatives pointed out that the arrangement for the leasing and purchase of John Long buildings was adopted as a temporary expedient to meet an emergency situation.

"Representatives of your group pointed out that the architects were primarily interested in making sure that school children are housed in safe buildings and that the taxpayers receive full value for their dollars devoted to the acquisition or construction of school

buildings. Members of your group pointed out further that serious consideration should be given to a detailed inspection of the buildings purchased from Long for the purpose of ascertaining whether or not they may be safely used for classrooms."

The official stated that "members of the Board of Trustees, including the new member who was recently elected to the Board, have unanimously agreed that they feel that it will be unnecessary to acquire school sites or build classrooms in other than the conventional manner . . . and in any future building program will conform to all legal requirements as prescribed by the laws of the State of Arizona."

With that assurance, and in understanding of the difficult situation facing the district and its residents, Arizona Society of Architects contemplates no further action except to inspect the buildings for safety when requested to do so by school officials.

— AIA —

## LOS ANGELES HOLDS CHURCH EXHIBIT

The 1959 Conference on Church Architecture will be held at the Statler Hilton Hotel, Los Angeles, February 17-20. The conference is jointly sponsored by the Church Architectural Guild of America and the Department of Church Buildings of the National Council of the Churches of Christ in the U. S. A.

One of the important features of the conference is the exhibit of models, mounts and renderings of churches constructed in the past five years.



Tucson Daily Citizen Photo

## Gas Poisoning

### Family Of Eight Rushed To Hospital

Outside of the City of Tucson and the protection of its building code, a family of eight recently made the above headline.

When found in his rented house, Earl Cravenor was too weak to walk from the house. Mrs. Cravenor (in white blouse) collapsed a moment after this picture was taken.

A family of six and two elderly couples died from asphyxiation the previous year in Pima County.

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January, 1959

Seventeen



## Professionals and Public Payrolls

By BETTY A. POSTAR

"Before long pretty nearly everybody will be working for the government." So warns Robert Moses in an article that appeared in the November 16, 1955 issue of the New York Times Magazine. This warning is extended by the author because of what he calls the tendency to "force public officials to use only permanent civil service technicians in the preparation of engineering, architectural, landscape and related plans and specifications for public works and for supervision of construction of such works."

The article is not an emotional outburst against bureaucracy. It is rather a thoughtful analysis of the place of the private consultant in the different types and various stages of public works. Mr. Moses holds such titles, himself, as Chairman of the New York State Power Authority, chairman of the Triborough Bridge and Tunnel Authority, Park Commissioner of New York, and City Construction Coordinator. He states his position clearly, validates this position by revealing the reasoning and facts that support it, and makes a plea for the continued "three way separation of power in big building."

This division of power he sees as (1) the Govern-

ment's role — to conceive, initiate, control, (2) the outside consulting engineering or architectural firm, which makes the plans and supervises the adherence to those plans; and (3) the outside contractor who performs the actual construction. Mr. Moses also sees this division in terms of a balance of labor: public employees in the first, professional and private in the second, and union in the third.

In reaching his conclusions, the author points out the case against a permanent government engineering and/or architectural organization. The following "case" is in Mr. Moses' own words.

(1) "Permanent government engineering organizations recruited to handle huge construction programs acquire rights, privileges and protections under laws which make it impossible to tailor their size to current needs. They go on indefinitely. Work has to be made for them if, as in most instances, they live on capital construction as distinguished from expense budget appropriation.

(2) "The costs of engineering, design and inspection by government agencies run up to 18 per cent of estimated construction costs, according to surveys made by the Hoover Commission in its second report as against an average 4 per cent for inspection ordinarily paid to private consulting firms who have to meet their entire overhead bills and pay full taxes.

Other authoritative studies substantiate the conclusion that engineering plans and supervision in a typical state highway department ranges as high as 16 per cent of the cost of construction, while private engineering firms generally work for half that amount.

(3) "Elimination of employment of outside private professional firms and technicians would force state, city and other municipalities to expand their already unwieldy and extremely expensive permanent engineering staffs to meet emergencies and peaks in construction programs. It is doubtful if many competent engineers and architects with specialized training and knowledge would accept civil service employment where their abilities might be put to use only a few times in their entire careers.

(4) "It has been increasingly difficult to find people in public employment competent to meet our big construction requirements. (they) have left public service for better paying positions in private practice. Outside consultants, firms and companies can seek their talent anywhere regardless of restrictions; they can advance and reward at will; they can make it possible for exceptional men to become partners.

(5) "Public business . . . suffers from absurd residence and age restrictions, seniority systems, veteran and other preferences, uniform efficiency ratings . . . all aimed to maintain a level of satisfied mediocrity.

(6) "The tendency of a permanent staff is to keep

plenty of plans in abeyance and not to work itself out of a job . . . leave no intervals without funds.

(7) "Private firms move much faster in progressing large building programs. Multiplying civil service technicians means recruiting by examination, slow promotions, tremendous overhead costs — delays, slow motion, and futile attempts to make an effective team out of people who usually lack incentives for imaginative concepts, speed, and economy.

(8) "The ablest heads in public service must be given incentives and rewards to keep them on their toes. . . . They should have the greatest outside professional talent made available to them for design, just as they should have the best private contractors in the field.

(9) "No doubt there will occasionally be favoritism, politics, pull and other extraneous reasons for the selection of this or that consulting firm, but the Government service is not free from such considerations either. No system yet devised is absolutely foolproof.

In concluding, Mr. Moses states that it has been shown, in South America, for example, that if the three-way balance or separation of powers is disturbed in big public building — "that is, in major, original, non-recurring projects — there is usually trouble and always heavy expense. . . . and you create a private or public monopoly which is no good for Government, the professionals, management, labor or the citizenry in general."

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## Just a Point of View

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They recognize these regulations not as restrictions to their own operations, but as a safeguard to the general public health and safety against the unscrupulous.

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## Pipe Trades Industry Program of Arizona

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January, 1959

Nineteen



## ARCHITECTURAL JOURNALISM AWARD

The American Institute of Architects has announced the Sixth Annual Architectural Journalism Award for the best news or feature stories on an architectural subject or personality. Four cash prizes totaling \$1,500 will be awarded in each of two categories — newspaper and magazine. Entries may be submitted by either the writer or publication, and must have been published between January 1, 1958 and December 31, 1958.

Entries, which are not returnable, will be judged by a jury of professional writers and architects, and the awards will be announced not later than March 1, 1959. Each writer and/or publication may enter a maximum of four stories for consideration. A tear sheet of the story or article should be submitted, with each entry accompanied by a letter giving the name and address of the author, the name and address of the publication in which the item appeared, and a notation as to whether the entry is submitted in the newspaper or magazine class.

Each envelope should be clearly marked "Architectural Journalism Award," postmarked not later than January 30, 1959, and mailed to the Assistant to the Executive Director, American Institute of Architects, 1735 New York Ave., N.W., Washington 6, D. C.

## Stock School Plans

On January 1st, the Vice-Chairman of the Maricopa County Board of Supervisors announced, via the *Arizona Republic*, that the Board will ask the state legislature to revise the law to permit school districts to use the same plans and specifications for several buildings in its programs. Considering the publicity the use of such stock plans has received locally in the past few weeks, it would appear that this building concept has emerged as a new champion in the "cost vs. need" school-building arena.

A brief review of the record and reputation of stock plans might result in the disillusionment of their proponents and a refreshed reaffirmation by those citizens, public officials and the architects who know that "stock plans are stock plans only once."

The impulses behind the desire for stock plans for school buildings can be summed up in one word — MONEY. The *New York Daily News* did not miss this point when it headlined a recent editorial "School DisCu\$tion." By proposing stock plans, states seek to

## In The News

save on the architect's fee. Locally, the county supervisor suggests that the 6% fee the architect is entitled to by law can be reduced, after the initial plans and specifications are drawn, to a 2% fee for the supervision of each additional building constructed under the same plans and specifications.

It is well-recorded history that stock plans do not reduce costs. Five years ago South Carolina, considering such a use, surveyed other states, found that the conclusion reached by most informed officials in the 48 states was that the necessary change orders, adaptations to different sites, material quality/price changes, made even the initial cost of the building rise above that which was uniquely planned and executed for a specific site and need.

An article in the December 29, 1958 issue of *Time* tells the "Sarasota Success Story," wherein the town, by the construction of an architect-designed school plant realized a saving of \$40,000 below the estimated cost. *Time* goes on to report that although this construction was undertaken skeptically and reluctantly,

after this savings, "The School Board then adopted a hands-off attitude that challenged the architects to do their best. Result: Sarasota schools, once a collection of piano crates and grim barracks, are now a showcase of school architecture." Sarasota seems to have pin-pointed at least one salient fact: The cost question is not a matter of the division of total design-and-construction costs, but of how much the building costs the taxpayer, complete. And the man who spear-headed the effort, Philip Hiss — real estate man and member of the school board — added another consideration when he remarked, "That's one happy result of decent architecture — the kids actually enjoy going to school now."

Beyond the reduced initial cost, and certainly reduced maintenance cost of planned design and supervised construction, other factors argue against the use of stock plans.

These other factors — esthetics, quality and education — prompted the *New Yorker* magazine in the November 29, 1958 issue to bring wit and humor to bear upon the question of stock plans. An editorial had appeared in the *Daily News* concerning an amendment to the New York State Constitution. This change would have allowed the city to borrow five hundred million dollars more than the legally fixed debt limit for needed school construction. Commented the *New Yorker*, "... the *News* is fighting the amendment —

(Continued next page)



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## WORKMANSHIP STANDARDS

REQUIRING REASONABLE WORKMANSHIP in all construction is good public policy. Regulations of this office governing contractors licensed by the state require that:

Sec. VI. All work must be done in workmanship manner. Failure to perform in workmanship manner may subject the licensee to suspension or revocation of his license after due notice and hearing.

In order to determine what shall constitute workmanship the following minimum standards are hereby adopted:

1. In all residential new construction or remodeling the minimum standards shall be in accordance with the terms of the Minimum Property Requirements (M.P.R.) of the Federal Housing Administration (F.H.A.) in effect as of December 1, 1957, as they pertain to construction and not to matters of design and site development.

2. In all commercial new construction or remodeling the minimum standards shall be in accordance with the terms of the minimum building requirements as set forth in the Uniform Building Code of the Pacific Coast Building Officials Conference, Volume I, 1935 Edition, as they pertain to construction and not to matters of design and site development, except any portions of said code relating to plumbing, electrical or mechanical refrigeration work shall not be included. Plumbing, electrical and mechanical refrigeration work shall be governed as follows:

a. PLUMBING — In all commercial new construction or remodeling the minimum standards in the plumbing field shall be in accordance with the terms of the 1953 Edition of the Western Plumbing Officials Uniform Plumbing Code of the Western Plumbing Officials Association.

The staff of the Registrar of Contractors is prepared and ready to assist in any cases where performance or workmanship may be in question.

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b. ELECTRICAL — In all commercial new construction or remodeling the minimum standards in the electrical field shall be in accordance with the terms of the 1956 Edition of the National Electric Code of the National Fire Protection Association.

c. MECHANICAL REFRIGERATION — In all commercial new construction or remodeling the minimum standards in the mechanical refrigeration field shall be in accordance with the terms of the American Standard Safety Code for Mechanical Refrigeration of the American Society of Refrigerating Engineers A.S.A. B91, 1953 Safety Code.

3. In any case where compliance with a portion of the aforementioned minimum standards shall constitute an undue hardship upon a licensee, the licensee, prior to construction, may petition the Registrar of Contractors in writing for permission to deviate from said minimum standards, setting forth the reasons why compliance would create a hardship and the proposed method of doing the work in question. Said petition shall be signed by the contractor and owner or architect. The Registrar shall either grant or deny said petition in writing with a brief statement for the basis of his decision.

4. The term "residential construction" as hereinabove set forth shall include single family dwellings, duplexes and townhouses used for residential purposes. All other construction shall be classed as commercial regardless of use. (As amended.)



## STOCK PLANS (continued)

possibly because it fears that a general rise in the level of education would constitute a threat to its circulation, now the largest in the country." Although quipping, the *New Yorker* implies that a reaction against quality, under the guise of irrelevant economic and sociological arguments is something to distrust.

The article points out that the editorial referred to the City Comptroller who opposed the bond issue because the Board of Education had been extravagant in planning schools it had recently built. Among other things, it had retained professional architects to design buildings for specific sites instead of using a standard set of plans for all. Furthermore, certain other extras were unnecessary, such as drinking fountains in each classroom. To this the *New Yorker* replied, "We recall the quarter-hours of squirming, obsessed by a thirst that was not for knowledge, before we worked up nerve to ask the teacher's permission to go to the drinking fountain in the hall. After that it required minutes to get recognition from the chair, who was not as sympathetic as in more clearly recognized emergencies, and who had to deal with a dozen petitions per class period. The cost of this 'extra,' according to the *New Yorker*, 'works out to a nickle or so per beneficiary, and to one ten-billionth of a cent for every squirm averted.'"

But what, in the magazine's own words, "... really nobbed us ..." was the Comptroller's recommendation

that 'architectural embellishments and unusual and costly designs' be 'eliminated.' Let a man put up the most embellished office building that ever gleamed on Park Avenue and nobody, least of all the income-tax authorities, will deny that the embellishment helps him to sell soap. But learning, according to (the Comptroller) must be put across in a plain wrapper, like some disgraceful kind of patent medicine; the child must be repelled from the start.

"In an age when people fall limply into molds, there must be nothing 'unusual' about the design of the school the child attends, because that sort of thing might discourage him from becoming a uniform-quality, boneless, cellophane-wrapped, tabloid-reading party-machine voter. . . . If we could get a new building so good that pupils would run to look at it, it would be cheap at the price of four office buildings and a pickle factory."

Why not stock plans? The answers are clear and inevitable. They will not save money and in many cases they actually increase costs. Quality and usefulness will suffer through design inadequacy.

The American Institute of Architects asks us also to review some of the ideals which have long been a part of our environment and which we know work: healthy competition means technological advances, ever-improving design, technique, products; incentive for creative research and experiment. In a word — progress, not static standardization.

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## METROPOLITAN AREA LEGAL PROBLEMS TO BE STUDIED

A two year study of the application of legal methods to resolve metropolitan area problems was recently launched by the Legislative Research Center of the University of Michigan Law School.

Professor William J. Pierce is director of the study which is being financed by the William W. Cook Fund for Graduate Research. Monographs in the law of municipal corporations with particular reference to its application to metropolitan areas are now being prepared. Monographs are planned on the following topics: home rule, state supervision of municipalities, the English Town and Country Planning Act, annexation and other territorial changes, consolidation of governmental units, metropolitan districts, and municipal finance.

The approach to the research, for which the background planning and orientation have been completed, will be interdisciplinary in that sociologists, economists, city planners, political scientists, and others will be consulted in an attempt to direct the legal research to those areas which are of interest and importance to them in their respective fields.

The monographs will be followed by a publication consisting of an analysis and criticism of the

various legal methods now available for resolving metropolitan area problems coupled with suggested legislation and constitutional schemes for more adequate solutions to such problems. This latter volume will consider alternative legal structures with analysis of the advantages and weaknesses of each. Because of the great diversity of possible solutions, a guidebook for legislators and others is considered by the University to be more desirable than a model code which could apply to only a few states and cities.

The Center wishes to hear from any persons working on metropolitan area problems, with an eye to determining what legal questions need to be researched, what the realistic problems are, and what solutions are now being suggested or tested in different parts of the country. Correspondence should be addressed to the Legislative Research Center, University of Michigan Law School, Ann Arbor, Michigan. (From *Looking Ahead*, National Planning Association)

— AIA —

Men are not to be judged by their looks, habits, and appearances; but by the character of their lives and conversations, and by their works. It is better to be praised by one's own works than by the words of another.

— L'Estrange.



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Twenty-three



## NOTABLE QUOTES

ARTHUR C. HOLDEN, FAIA, proposes a different function for Zoning Laws which would eliminate arbitrary and general rules — a procedure for making judgment rather than a formula by which to judge.

No one knows better than the architect that only too frequently well-meaning laws hamper freedom of design and result in the maintenance of safe and sanitary and needlessly expensive mediocrity.

Obviously there is need for periodic reviews of the accomplishments of zoning. We architects were alert to the fact that pressures have been increasing to advance the zoning powers beyond the regulation of bulk, height, population density, use and area to be covered. It therefore behooves us as designers to see that the steps taken should be such as to replace arbitrary rules by procedures which should at least facilitate the exercise of judgment in the interest of the local situation.

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Twenty-four

Community appearance — indeed the appearance of buildings — cannot be achieved by a veneer smeared on from the outside. If we desire to maintain and improve community appearance, two things are necessary: first, to protect the community from the abuse of disfigurement, and second, to liberate community growth from a strait jacket which compels it to grow within the limits of arbitrary rules instead of through the fullest possible exercise of available intelligence.

The first proposition involves a prohibition; the second involves the improvement of procedure and the cultivation of understanding.

Human beings are so made that they recognize easily a bad smell or an offensive noise. As a result the law has for centuries been able to prohibit the commission of nuisances which are offensive to the ear and nose. The human eye, however, is a very much more complicated mechanism. Between the eye and the brain there is necessity for the exercise of judgment. Human beings differ in their capacity to exercise judgment. Judgment is not something that can be defined by law or that can be written into law. The desired result can be achieved, however, when the law prescribes how judgments must be formed in order to warrant the exercise of compulsion by the community. The right of the community to control appearance and to prevent disfigurement and offenses against the eye has now been

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affirmed by a decision of the United States Supreme Court, 1954 Berman vs. Parker (348 U. S. 26).

The early concept of zoning did not recognize the relation of esthetic values to standards of health and public comfort. It completely neglected the preservation of historic values. Today in many states legislation has been enacted authorizing the creation of special zones for the preservation of existing amenities. City Planning Commissions, as a result, have the power to designate portions of municipalities where it is desirable to preserve esthetic or historic amenities. In such zones new construction and changes may be limited to such as harmonize with or enhance values already created. Here we find the need for the Board of Review to judge whether proposals for change would disfigure the community or violate public policy.

Because of the tremendous change in the scale of modern life, we are at the beginning of a new period when the skilled technician, especially the architect, will be called upon more and more to shape and interpret public policy. It behooves all of us to recognize and take our part to guide the forces that are gathering. The menace to our life today is too much arbitrary restriction and too many general rules made with too little consideration of local applicability.

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## CRITIQUE

31 December 1958

Editor, Arizona Architect

Please accept my congratulations on the quality of the *Arizona Architect*. The December issue seems particularly rich in substance, especially in public relations.

Mr. David Sholder's letter to the superintendent of the Phoenix Union High School District is well expressed and I hope that you send it to the *AIA Journal*, for the matter as well as the competent treatment of it is of value to all of us.

Over here in California we wonder how you can do schools for a six percent fee. Some of you know that the writer slaved to cut costs on two Arizona projects when he practiced there and succeeded in getting contracts that were substantially under the districts' budgets — with the disastrous result of fees so reduced as to cover, at best, two thirds of his production costs. Many architects over here would be glad to make one out of the eight per cent.

FREDERICK W. WHITTLESEY, AIA

San Mateo, California

(Former president of the then  
Arizona Chapter)

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Twenty-five



## IN THE BOOK WORLD

**SAVING DOLLARS IN BUILDING SCHOOLS**, by David A. Pierce, Reinhold, \$5.95.

The publishers point out that "just as a house is the largest single purchase most families make, so is a school system the largest single purchase most communities make." Which is reason enough why communities, their public officials and the newspapers take notice when million-dollar schools are proposed.

But, "just as a man can make a terrible mistake in buying a house if he buys the cheapest one he can find, so can a community make a similar mistake by building the cheapest school it can build."

This book was largely printed from type already set by the State of Ohio for its *School Economy Studies*. It should be a valuable guide to educators, school board members, bankers, architects, editorial and news writers, and administrators, for it deals in terms of long-range costs (30 years) instead of simply initial costs. How many people know that operations and maintenance costs on some buildings add up over a period of years to many times the original cost of the building, or that a material carrying the lowest initial cost may have the highest annual cost?

The 112-page book is full of comparative cost tables, and includes chapters on Planning, Finance, Construction, Materials and Methods, Operation and Maintenance, and Final Cost Comparisons. — P.S.

(May be ordered from *Architect's Book and Magazine Service*.)

**CONSTRUCTION ACCOUNTING & FINANCIAL MANAGEMENT** by William E. Coombs. The author, an attorney and certified public accountant, describes and specifically recommends proper accounting and management procedures for the construction industry. Its fundamental purpose — to give effective financial control over every operation. 490 pages. Illus. Single copy \$12.85.

**COLOR PLANNING FOR BUSINESS AND INDUSTRY** by Howard Ketcham. Points the way to easier and more profitable color planning and is based on the author's successful experience in planning and supervising color strategy for leading firms from coast to coast and around the world. Illus. Harper & Brothers. Single copy \$5.95.

**THE PUBLIC BUILDINGS OF WILLIAMSBURG** by Marcus Whiffen. This handsome volume, featuring scores of priceless plate engravings, blueprints, drawings, photographs, plans and elevations, focuses on the actual structures of 18th Century Virginia. Whiffen, noted architectural historian, tells how, why, and through whom these famous buildings came to be, how they were related to the architecture of contemporary England, and how they influenced the architecture of Colonial Virginia and America. Henry Holt. Single Copy \$12.50.

**A MANUAL OF ENGINEERING DRAWING FOR STUDENTS AND DRAFTSMEN** by French & Vierck. 8th Ed. A classic in its field, the new edition contains the latest standards and incorporates all the modern practices and methods of engineering drawing. 715 pages. Illus. McGraw. (1953) Single copy \$8.75.

**THE CITY** by Eliel Saarinen. Points out the fundamentals of all town building which when applied, will bring about in the city of tomorrow a healthy, pleasant environment for living and working. 394 pages. Illus. Reinhold, \$6.95.

**TOWARD NEW TOWNS FOR AMERICA** by Clarence S. Stein. A new American edition of a book which The American Society of Planning Officials calls "the most important contribution to planning literature." It records Mr. Stein's experience in the creation of safe, comely, and neighborly communities set in spacious natural green. 240 pages. Illus. Reinhold, \$12.50.

**NATIONAL PLUMBING CODE HANDBOOK** edited by Vincent T. Manas. This book makes it possible to plan, specify, install or inspect plumbing work with every assurance that your work will exactly meet the National Plumbing requirements every time. 525 pages, \$7.50.

**ARCHITECTS AND BUILDERS HANDBOOK** by Kidder & Parker. The standard encyclopedia of the building industry. In one volume are combined the knowledge and experience of a host of experts in the building field. 2315 pages. Illus. Wiley, \$15.00.

**FIELD INSPECTION OF BUILDING CONSTRUCTION** by Thomas McKaig. A guide to the supervision of construction for the architect and his field inspector. Charts a clear path through the maze of owner-architect-contractor-subcontractor relations. 335 pages. Illus. Dodge, \$9.35.

**THE CONTEMPORARY CURTAIN WALL** by Dudley Hunt, Jr. A wealth of information on its design, fabrication and erection. Analyses and evaluates the walls, their functions and malfunctions, their component parts, materials and installation. 454 pages. Illus. Dodge, \$12.75.

**CONSTRUCTION MANAGEMENT AND SUPERINTENDENCE** by Walter C. Voss. A procedural outline for construction management and superintendence from contractual relations and labor records to the supervision of 13 major jobs such as water-proofing, stonework, floor finishing, and painting. The author is a consultant on architectural construction and materials. 246 pages. Van Nostrand, \$6.95.

**APARTMENTS AND DORMITORIES** by the editors of *Architectural Record*. The 53 projects chosen for study were erected between 1950 and 1958. Planned not just as separate structures, but as contributions to the total environment, these buildings illustrate what can be done by thoughtful use of appropriate building design, full utilization of the site, and long range planning which takes into account the social and economic need of the community. Range in size from 2-family house to a project planned for 80,000 people. Range in location from USA to Europe, South America and Japan. 238 pages. Illus. Dodge, \$8.95.

**GROUND MAINTENANCE HANDBOOK** by Herbert S. Conover. The first comprehensive guide for landscaping and maintenance of public, semi-public, industrial, and commercial grounds. Complete exposition of virtually every aspect of grounds maintenance and development, from the original selection of land, through planting and seeding, to the equipment and methods necessary to keep it in prime condition. 503 pages. Dodge, \$10.75.

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