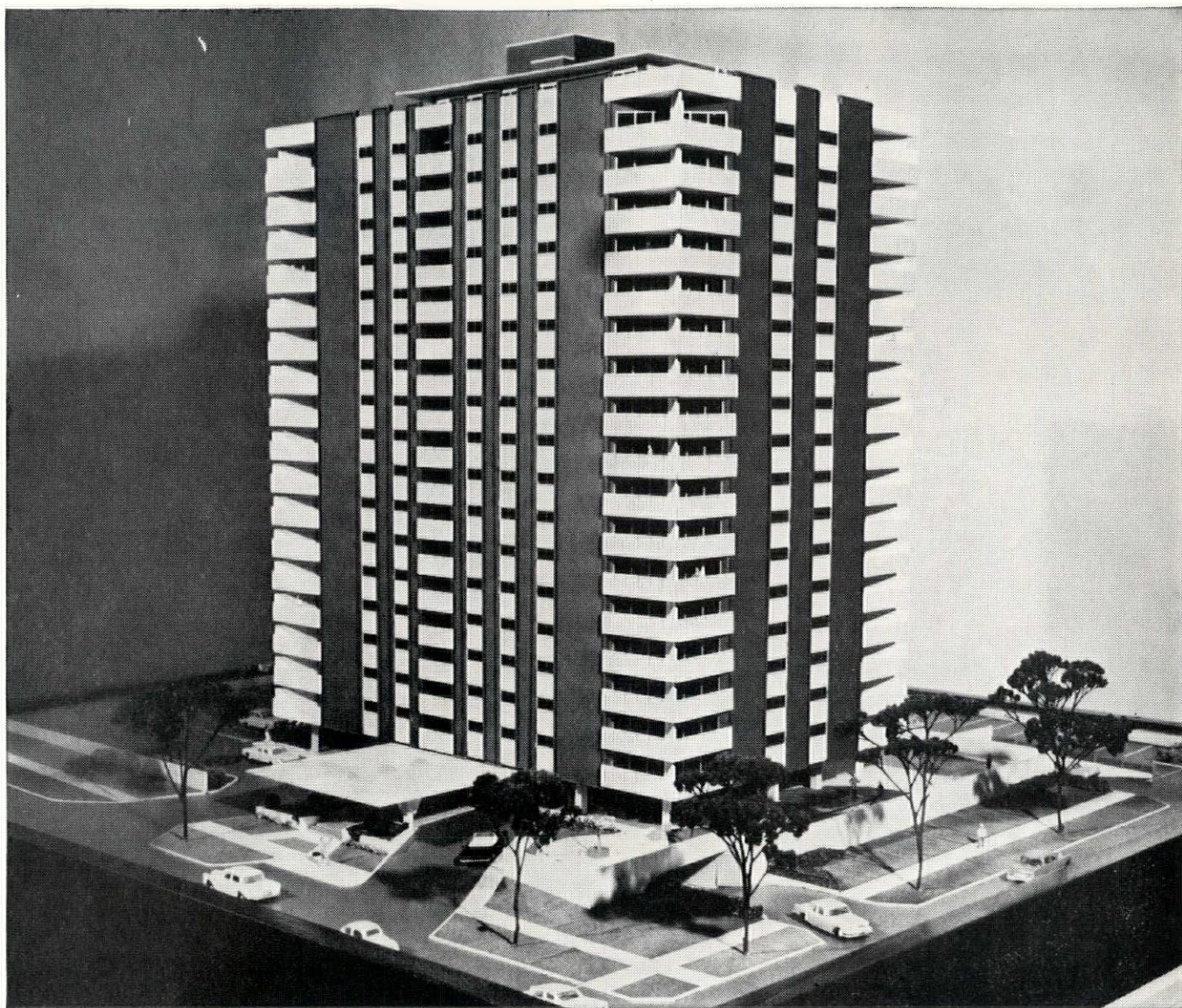


architecture / construction ***symposia***

september, 1967

Kenneth R. Fuller
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Architect: Michael W. Lombardi, A.I.A. Contractor: Loup-Miller Construction Company.

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| | |
|--------------------------|------------|
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| Salt Storage (Lbs.) | 200 |
| Salt Per Recharge (Lbs.) | 3 |
| Iron Removal | (See note) |



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SPECIFICATIONS

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| | |
|--------------------------|------------|
| Pipe Size (Inches) | ¾ |
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| Floor Space (Inches) | 18x29 |
| Height (Inches) | 59 |
| Salt Storage (Lbs.) | 200 |
| Salt Per Recharge (Lbs.) | 4.5 |
| Iron Removal | (See note) |

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symposia

serving the construction public in
Colorado, Wyoming, New Mexico,
Utah, Arizona, Nevada

VOLUME 2

NUMBER 4

SEPTEMBER, 1967

THIS MONTH

Page

| | |
|--|----|
| <i>Building Blocks</i> | 7 |
| <i>The Last Word</i> | 8 |
| <i>Regional P.C. Reports</i> | 38 |
| <i>Whatever Happened to the Little Red Schoolhouse?</i> | 18 |
| <i>Preface/Manual of Construction Procedures</i> | 24 |
| <i>The List from the Punch</i> | 24 |
| <i>We're Finished! . . . (Or are we?)</i> | 25 |
| <i>Comparative Analysis of Documents</i> | 26 |
| <i>Semi-Annual Meeting/Association Building Contractors</i> | 31 |
| <i>Never Underestimate the Power of the Automobile</i> | 10 |
| <i>Getting to the Slopes</i> | 11 |
| <i>Denver Welcomes British Town Planners</i> | 36 |
| <i>The Town Around Us AIA Western Mountain Region Conference</i> | 34 |
| <i>Symposia Around the Region</i> | 32 |
| <i>All Systems Go on Skyline/Denver</i> | 37 |
| <i>Consulting Engineers Grass Roots Program</i> | 37 |
| <i>Memo</i> | 39 |
| <i>Symposia/About the Cover</i> | 40 |
| <i>Index to Advertising</i> | 40 |

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To all members of
The Western Mountain Region

A.I.A.

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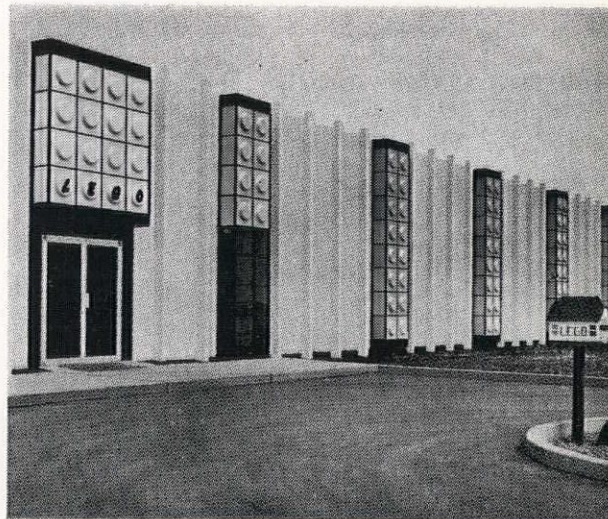
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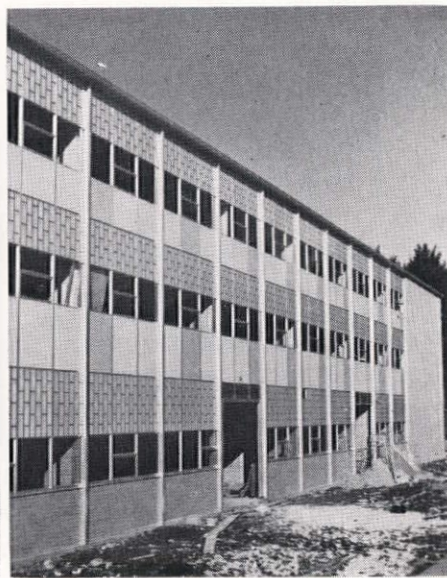
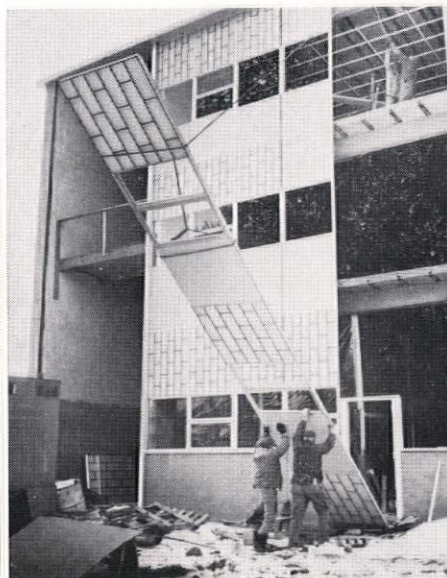
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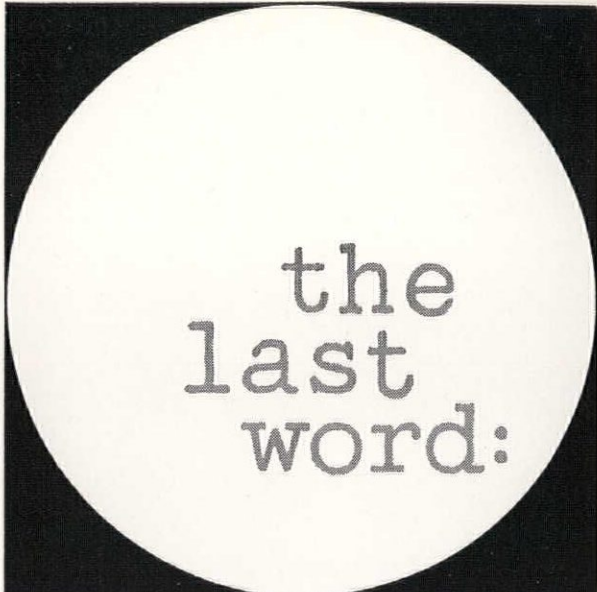
Some of the world's largest insulating wall panels have been installed recently on the construction site of a New England High School. Specified by the architects, Dirsa and Lampron, AIA, of Manchester, New Hampshire, the unusual 132 square foot panels were 4 feet wide and 33 feet high, but the weight of only 265 pounds made it possible for them to be installed without cranes.

Constructed by Kalwall Corporation, the panels are fabricated with aluminum 1-beam grid cores, and have translucent sections faced with acrylic modified fiberglass on both surfaces. Opaque sections are faced with colored porcelain enamel on the outside and .032" Aluminum on the inside. Use of the large three-floor enclosure panels by the architects realized a considerable construction saving due to speedy erection and the use of less structural steel to support the walls . . . the cost was less than \$4.00

per square foot installed, excepting glazing.

Despite lightweight construction, Kalwall panels have an insulating "U" factor of # .27 equal to 30 inches of concrete. Practically maintenance free, the most attractive feature of the panels, according to the architects is the soft, glare-free illumination provided in classrooms. Teachers and students alike speak highly of the study-inducing atmosphere this type of light produces. The translucent sections transmit 28% of the light.

Dover High School, designed by Dirsa and Lampron is located in New Hampshire, and the General Contractor was the Harvey Construction Company of Manchester. Kalwall Corporation who has manufactured this type of wall system for over a decade is represented in the Denver area by Riebe and Bowman, 2430 South University Boulevard.



the last word:

Leaps and Bounds Department: Consulting Engineers Council/Utah is third in the nation in membership growth! These figures were recently released by Donald A. Buzzell of CEC/USA Council.

Architects--Please Note! We sincerely hope NO architect's desk ever looks like Ye Editor's at deadline--but just in case it may be buried somewhere . . . it would be a good idea to unearth the Application Form for the American School Administration's Architectural Award program. These forms are due in Atlantic City by September 15, and with all the handsome schools we have in our Western Mountain Region--we should have lots of entries.

Stan Morris who heads up Tri-S Corporation, the Morris Brothers Construction Company and the Stan Morris Construction Company announces a new address--9818 East Colfax, Aurora, 80010.

Harry Hickey's friends (and there must be a million of them) will be glad to know that Harry is out of the hospital and back at his job of being a Manufacturer's Rep. Sure glad he's feeling better!

The 11th Semi-Annual meeting of the Consulting Engineers Council/USA has been scheduled for November 15-17 at the Olympic Hotel in Seattle, Washington.

No rose in the teeth is necessary, but the Instituto Mexicano del Cemento y del Concreto International Congress will gather at Mexico City, D.F., to discuss Architectural Shells, September 4-7. Ole--and details are available in the AIA Office, Central Arizona Chapter, Phoenix, Arizona.

The Denver Chapter of the Construction Specifications Institute who will play host to the 12th Annual CSI Convention scheduled for May of next year has some good news. The committee has been notified that their proposals for Host Chapter Events have been given the Gold Seal of Approval by the CSI National Committee. The Host Chapter Committee is headed by Maxwell Saul, Vice Chairman is R. James Noone, and other committee members include Art Bush, E. F. "Diz" Dillon and John McGuire. These five good men and true are now proceeding with more detailed plans for this really BIG event.

Sidney Little, FAIA, Director of the Western Mountain Region/AIA, reports a communique from the Membership Division at the Octagon which puts the Colorado Chapter at the top of the Region in the number of new elections to Corporate Membership. Symposia Congratulations are in order!

W. B. Johnson, Consulting Engineer, announces the naming of Salvador J. Archuleta as an associate--a change of address--(the new one is 2040 14th Street in Boulder, 80302) and the new firm name which is now W. B. Johnson and Associates, Consulting Structural Engineers.

Speaking of Books--Let's! We've already mentioned Edmund Bacon's superb "Design of Cities" (\$15.00--Viking Press)--and we would add to this "Schools for America" (\$7.00--American Association of School Administrators). May we also suggest the new and delightful "No More Than Five in a Bed" by Sandra Dallas (Oklahoma Press). Not exactly re-quired reading for Colorado visitors, but certainly well worth its \$5.95. Sandra Dallas, incidentally, is the sister-in-law of Denver architect,

Mr. and Mrs. Maxwell Saul (Mr. S., AIA/CSI and Symposia Editorial Board fame) will host a dinner party for members of the visiting Town Planners Phil Atchison. of Britain during their visit to Denver. Symposia publisher, Fletcher Trunk, suggests that Mrs. S. should get the headline here--well, she is doing the work!

The Colorado Chapter of the Consulting Engineers Council will host a group of CEC Engineers on the weekend of October 28th. This is the Water Resources Committee of the CEC/USA, and after Colorado's "wet" year of 1967--they couldn't find a better place to get together.

Denver's WICs (Women in Construction) elected new officers at their August 16th meeting. They are Margaret Miller (Ridge Erection), President; June Reilly (Blackinton and Decker), First Vice President; Alta Sethaler (Central Electric) Second Vice President; Starr Deveneau (Denver Acoustics) Secretary; Velma Dix (Mead & Mount), Treasurer; Marlene Turner (Pinkard Construction), Corresponding Secretary; and four new Directors: Donna Branson (Pinkard), Karen Burkhart (Briscoe), Roberta Leeper (Fowler & Peth), and Lou Pavelka (Flanagan). The really big Installation Banquet is set for September 9.

JUST THIS ONCE! Symposia cheers to the CEC/Colorado for being the FIRST to issue CEC Membership Certificates to its members. The handsome 9" by 12" certificate is presented to each member firm upon enrollment--a practice followed by CEC/Colorado for some time. It is now public knowledge that the New York Association of CEC will follow Colorado's lead, and make available these handsome certificates to their members. Just This Once--the Mountain Time Zone was ahead of everybody else--a suitable revenge for omission on TV/Radio/and assorted media.

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More and more often these days we speak of "Total Environment"—which is why Symposia welcomed a suggestion from Mr. Jay Lower, Assistant Managing Director of the Colorado Contractors Association, Inc. (Heavy Highway Division of the AGC) that we devote a page or two to National Highway Week. Specifically Mr. Lower had in mind an article he had written concerning the mountainous section of Interstate Highway 70 between Georgetown and Silver Plume due for completion this month. Highway 70's builders had observed Rule I—both the lovely little town of Georgetown and its historic Loop were left untouched, and ready for historic preservation. We decided therefor to see how "the other half" lived—and the more we looked the more obvious it became that if the architecture/construction community is to consider "Total Environment"—we must begin to open the lines of communication. It is no longer a valid premise for architects to speak only to architects, engineers to engineers, contractors to contractors and the Government only to God. If we are to build "America the Beautiful"—we've got to talk to each other.

NEVER UNDERESTIMATE THE POWER OF THE AUTOMOBILE

This ancient truism used to read—"Never underestimate the power of a woman"—however, since it is altogether possible that in USA/tomorrow, automobiles will out-number women, and have already displaced them as a status symbol, the power of the American motor car is something to be reckoned with.

Certainly designers, planners and builders are increasingly involved in what might be termed "The Total Environment." This not only includes "interior space" within structures, but all of the "exterior space" in which we have our being. Landscaping, recreational facilities, our forests, prairies, streams, streets and highways—we must even include the air which we breathe.

To stress the importance of modern highways, the American Association of State Highway Officials has designated September 24-30 as National Highway Week. This week, like unto all other tribal rites of this nature, has a slogan—BETTER HIGHWAYS NOW . . . SAVE TIME . . . SAVE LIVES . . . SAVE MONEY.

Are highways important? Every time you buy a license plate, a gallon of gasoline or even climb behind the wheel whether it be lowly Volkswagen or lordly Cadillac—you are celebrating Highway Week. Fully aware of this is AIA First Vice President George E. Kassabaum, who told the Senate Committee on Public Works less than two months ago to incorporate "design concept teams" of specialists in the Federal Government's Interstate Roads program. Since 23,755 miles of the 41,000-mile Interstate System was complete as of March 31, 1967, it would seem Vice President Kassabaum was a little tardy with his appeal. This does not detract in any way from the worth of

his suggestion—certainly the Design Concept Team made up of engineers, economists, sociologists and architects, could focus, in his words, on "the complete social, economic and physical impact" of any freeway or expressway corridor on the community. He said the AIA was "convinced that this approach will produce a highway that is part of the community rather than one that takes the community apart." By way of conclusion, Kassabaum said, "If the Federal and State Highway departments would only utilize the design skills that are now available, we are convinced the highways would be safer and less disruptive."

Arthur C. Butler, Director of the National Highway Users Conference, speaking before the Western Association of State Highway Officials in Honolulu, indicates that the other side of the coin is not so different as one might surmise. Said Director Butler, "We must work for and publicize renovated and new urban areas built to include needed highways and parking facilities. And these cities must be easy to the eye, comfortable, economically feasible and functional. Some positive thinking by planners and architects is a must to make the cities compatible with the people's choice—highway transportation. What is more, we in highway transportation must willingly, tolerantly and determinedly cooperate with others at various levels who are planning in any related areas—sociological and economical, as well as physical and environmental. After all, we are dealing with a service to people. We—you and I—are working for a kind of transportation which means freedom, privacy, convenience for millions. But it is not enough to know this—even to say it. We must show it forth—dram-

atize it, and, finally, actually give our best to providing it. We must put to work our ingenuity—stretching it to and beyond its limits—so that we are not only ready for the future but able to help shape it."

This same Honolulu meeting was addressed by Francis C. Turner who is the Director of Public Roads, Federal Highway Administration, U. S. Department of Transportation. Mr. Turner spoke not only of highways, but of esthetics, as well. He said: "Today and as far ahead as we can look, the Federal-aid highway program must be concerned with the total impact of highways on people—on their environment, housing, recreation, cultural interests, and all the other elements and amenities of modern living. It must be accommodated to the wider interests made possible and encouraged by increasing affluence and more leisure time. This is a goal—or an end toward which effort must be increasingly directed. The traveling public has indicated quite strongly, for example, that it is interested in esthetics—as well as safety and a smooth, relaxed ride—on the highways it is paying for.

As you know, legislation is now pending in Congress to finance both the beautification and the safety programs out of a new special trust fund, with revenues earmarked for these specific purposes. The proposal would authorize the appropriation of \$160 million for fiscal year 1968 and \$220 million for fiscal 1969. By far the bulk of both years' appropriations would be for landscaping and scenic enhancement which form the true core of the beautification program, rather than the billboard and junkyard controls which get the publicity."

The Director of Public Roads concluded his remarks to the Western

State Highway Officials by saying . . . "Without predicting the findings of the highway needs study or studies, I believe it is safe to assume a continuing high level of highway construction activities as far ahead into the future as we can reasonably look. I believe it will include many thousands of miles of urban freeways, serving many purposes, and closely integrated with other transportation modes. I believe also that there will be many thousands of miles of scenic highways, complete with all the various types of recreational facilities that go with them. There is no doubt in my mind that public demand will compel a continuing program on something like the scale of the present one. Certainly the motoring public has consistently shown its willingness to pay for safety, ease and convenience of travel. It spends more, for example, on parking and toll road fees than it presently does for the regular Federal, State and local taxes to provide highways. The public is no longer satisfied with just getting someplace. People want not only more highways, but safer, more pleasing, and more multi-purpose highways; and one of the most urgent highway goals of 1967-68 and of all the coming years is to accommodate our roadbuilding efforts to this desire."

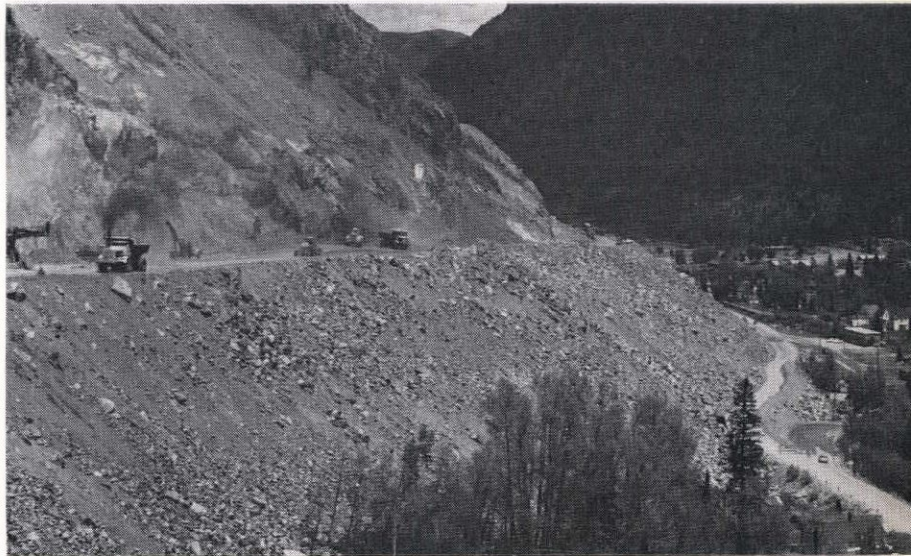
That is the enlightened point of view, the public service point of view that we as public officials have a moral obligation to maintain. There is also a selfish point of view. Last year at Sun Valley I said:

"Today's highway engineer, in rebuilding the nation's highway network, is facing his greatest challenge—and his greatest opportunity. It is no exaggeration to say that he is building a monument both to his ingenuity and to his vision. If he builds it right, it will be a lasting tribute to his work. If he doesn't, if he perpetuates his errors of judgment—or his indifference—in steel and concrete, coming generations will blame his shortsightedness so that the reputation of all those in our profession will suffer accordingly."

That was last year. Today I would re-emphasize that statement and add this:

"If we don't build the highway systems right—with meticulous attention to safety, esthetics and the enhancement of other human and social values, then we face the very real prospect of new legislation, new controls, which I know that none of you would welcome."

It would seem not even the nomenclature is too different. We can begin talking to one another. To begin—Mr. Lower's article "Getting to the Slopes."



Photographs: Colorado Department of Highways

"GETTING TO THE SLOPES"

By Jay R. Lower

Colorado Contractor's Association, Inc.

Last December, with ski-racks loaded, we were on our way to one of the many ski-areas located on the Eastern Slope of Colorado for a brief vacation with fine powder, and bright sunshine. Approaching Georgetown on U.S. Highway 6 a road sign proclaimed that the next three miles were under construction, and warned motorists of men and equipment working ahead. With a corporate groan, we viewed the area. The new highway was being literally carved out of the mountain above the present road. We were all familiar with the terrain between Georgetown and Silver Plume on the Interstate 70 being constructed. It was murderous . . . and one and all, we were resigned to the loss of an hour or more due to the construction.

As we drove into the construction area lumbering bulldozers, jack-hammers, light and heavy equipment, and a bee-hive of workmen were seen working on the new highway about 100 yards above us. On U.S. 6, shovels were scooping boulders and smaller rock from the shoulder of the road and loading them into immense dump trucks. Ahead stood a flagman—and here was the signal—all traffic must come to a halt. The big shovel swung around, moved back and forth to get into position, and proceeded to load rock. The “go-ahead” came, and we continued our journey. I, personally, had not timed the delay, but it was under two minutes—a happy surprise!

As we continued over the dirt road which was exceptionally well maintained, somebody commented that this was one of the better jobs done by that famous French Count “De Tour.” There was no dust, a minimum of chuck holes and relatively few sharp rocks. As we rounded the next curve and met the next shovel and flagman, I noticed he was holding a two-way radio. Later, it was learned all eight flagmen on the project had been equipped with one of the sending/receiving units. An outlay of \$870.00 per unit for the H-E Lowdermilk Construction Company, builders of the highway. But that is another part of the Interstate Highway 70 story.

We soon passed the familiar road sign which told us that we had accomplished the end of construction, and thanking us for our cooperation. I glanced at my watch. It had taken but an extra six or seven minutes to go through the three miles of construction—not the hour or more which we had all expected.

We returned from four wonderful days on the slopes early on a clear blue Saturday morning. As we passed through the same construction area, we were amazed. Nobody was working! This seemed a little peculiar, we all thought contractors worked Saturday if the weather was fair!

Discussion during the balance of our trip into Denver centered on the construction project. As soon as we arrived, I telephoned Bob Lowdermilk, an associate of the construction firm, to make an appointment on the Monday following, and learn more about the Interstate Highway project. I had a lot of questions ready for Monday—but Bob Lowdermilk was ready with the answers.

“We have approximately 100 men working on the project from eight to five, Monday through Friday,” said Bob. “But it is a company policy to shut down on weekends. Ski traffic is too heavy, and we couldn’t possibly accomplish enough to justify delaying those Colorado skiers.

“But,” I asked, “How can you keep traffic moving smoothly as you do—get any work done with so many motorists?” In other words, I was interested in their system of traffic control. It was no secret, Bob told me, just quality flagmen on the job and equipped with portable radios enabling them to keep close tab on all traffic conditions everywhere on the job.

“These men have been trained to this particular job—to its needs and requirements. They know when to hold the traffic, and when to release it. They are courteous and well informed. They know the exact position a car must be in to avoid danger, and this is the way other workmen can clear the road. On this project, we’re using eight flagmen, but more are available at any time if we need them to aid traffic and safety on the job.”

The very volume of the traffic itself is a major problem. It can cut machine and workmen’s potential production as much as 40 percent. However, on Interstate 70, the

very nature of the rocky terrain made it impossible to detour traffic around the area. The new highway is being literally blasted from heavy rock, and blasting stops the traffic cold.

“Another company policy,” said Bob Lowdermilk, “is to limit the size of the shots so we can open the road as quickly as possible. It is never closed over night.”

I was curious.

“What has been your longest delay?”

“Forty-two minutes—which may seem like a long time, but when you consider the tons of rock falling to the roadway after a blast—and the fact that the road must be completely clear, even for one-way traffic . . . well, it’s not as long as you might expect.” Bob went on, “The average delay is five minutes or less under normal circumstances. It used to take two hours to get from Georgetown to Silver Plume on the old and justly famous “Georgetown Loop.” The present highway cut that to eight minutes—by September on the new Interstate 70, you can cover the same distance in two minutes.”

Grade on the new highway will remain unchanged for the most part, but four lanes of roadway with a speed limit of 70 miles per hour will speed traffic and lessen congestion. Two to four hours used to be the driving time from Denver to Georgetown—today, with new four-lane roads, it takes less than an hour.

Many motorists, tourists, skiers and sportsmen stop in Georgetown. There is a lure here over and above the “bite to eat,” the “gas” or “local information.” Many travelers will enjoy looking down on the historic old community from the new road. This phase of the project is scheduled for November, when scenic overlooks will be provided where the traveler can stop and view the old “Georgetown Loop” and the historic old town. Two interchanges of a “diamond” pattern rather than the widespread cloverleaf will facilitate getting in and out of Georgetown and Silver Plume.

Two significant incidents point up this construction firm’s interest in the safety of not only the traveling public, but people at large. Last Christmas, Lowdermilk built the road over a concrete box culvert to eliminate a detour. This was to prevent any sliding off the detour into the hole around the box when icy conditions might prevail. Secondly, build-ups of rock are made along the outer edges of the roadway to protect houses and cabins below the road from falling rock, or any disturbance from the building above.

Cooperation of both contractor and the Colorado Department of Highways is necessary for the optimum advantage to the traveling public. This has been demonstrated graphically in the three-mile segment of Interstate Highway 70 between Georgetown and Silver Plume. Concluded Bob Lowdermilk, “Skiers and motorists have been exceptionally cooperative. They seem to understand our problems, and actually, I think, enjoy being “roadside supervisors” on a big highway job. It has been gratifying to feel their interest and cooperation in trying to help us. Our job, of course, is to build a better road to get them to the slopes, to Colorado skiing, not only faster, but safer, and—well, more relaxed, really ready to enjoy the skiing when they get there.”

From one schussboomer to another—that’s why we like the whole idea of Interstate 70. And . . . don’t forget . . . smooth over those sitz-marks!

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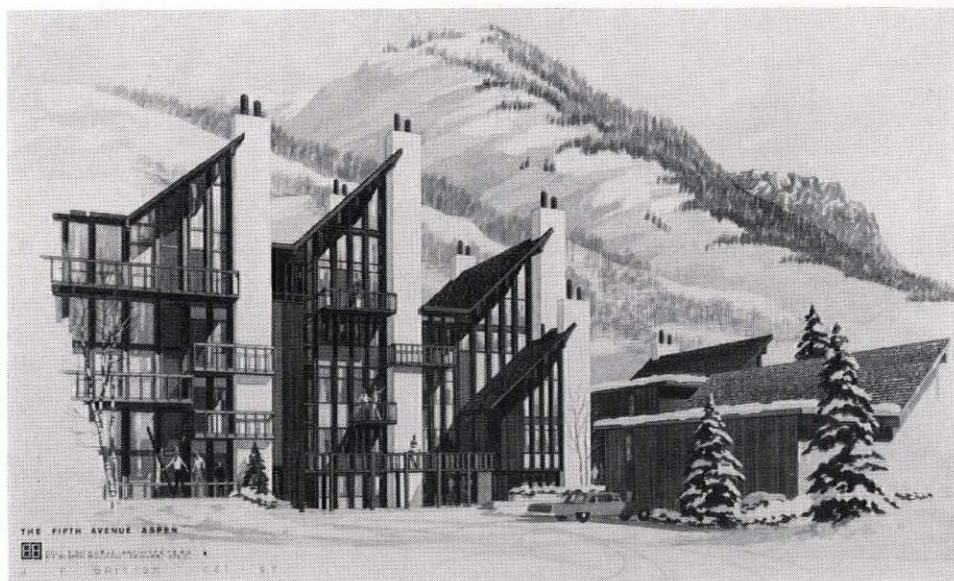


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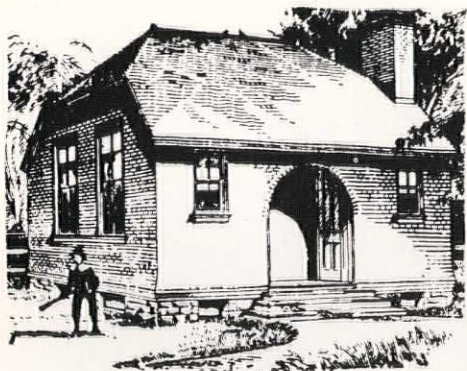
The Fifth Avenue Aspen

architect: Bell & Bicknell
engineers:
structural: Zeiler & Gray
general contractor: George Shaw

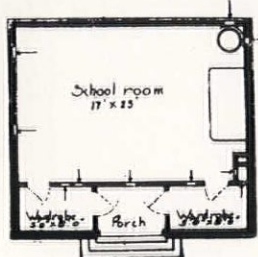
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SCHOOL HOUSE PLANS.

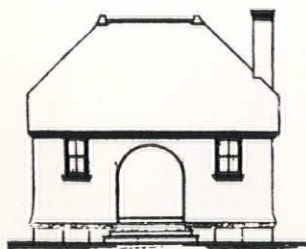


This school house can be erected at a cost not to exceed \$600. The plans were drawn in a competition offered by the state of New York and were awarded the second prize. It will be readily seen that the structure in itself makes a presentable



appearance and that the elevation and section plans offer the clearest conception of the interior arrangement as well as the actual construction. In rural districts it is specially desirable to combine in a set of plans simplicity with beauty and economy with durability. We have therefore aimed to present to those contemplating cheap school houses a series of plans which cannot be excelled in the embodiment of the above named requisites.

SECOND SET OF PLANS.



The second set represents the plans for a school house which can be erected at about \$800. It offers more room and consequently more of the conveniences that should go with a school house. This plan (2) is the outcome of a contest inaugurated by the state of New York and embraces all the elements of a modern school house structure. A careful study of the plans will at once demonstrate their simplicity and utility and economy in cost of construction. See the second column on this page.



THIRD SET OF PLANS. COST \$800.

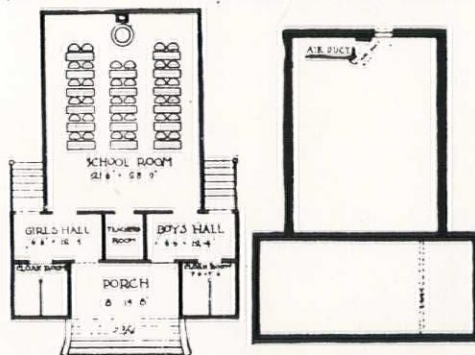
The third set of plans were drawn by John Cox, Jr., of New York city, who aimed in producing a school house that would embody all the essentials as they are now understood by modern school house construction. The building, as will be seen by the engraving above, is a handsome one and might readily be taken for a sum-



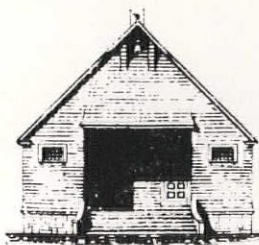
mer residence. It is designed to be airy and cool during the warmer months and at the same time comfortable and thoroughly habitable during the winter months. The architect has succeeded in



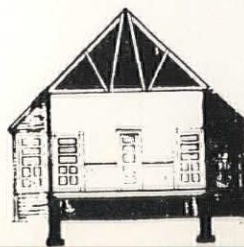
bringing into his plans the matter of economy without sacrificing any of the essentials of a good school house, or that which is understood by experts to mean a complete school building. We are



therefore happy in presenting to our readers in this issue a set of three school buildings that might be selected by any of the school boards in villages and towns where it may not be practical to consult an architect or to have special plans drawn for them. Any carpenter with an ordinary amount of ingenuity can by examining these plans readily select his material and proceed with the construction of any of these buildings. Their simplicity will also enable the average member of the board of education to see for himself that the plans are essentially carried out.

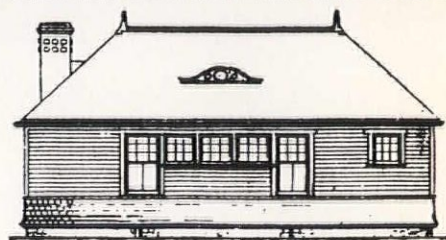


The normal system of instruction in singing has been adopted in all grades of the Burlington, Vt., public schools. About 300 new books have been bought this year.



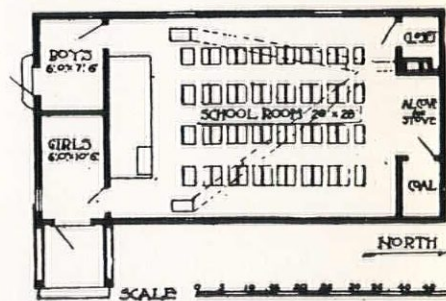
CORPORAL PUNISHMENT

Col. Smead, the well-known school house heating and ventilating engineer, expressed himself in a recent interview which appeared in one of the To-



ledo dailies, as being heartily in favor of corporal punishment.

The board of education of Minneapolis have declared in favor of the restoration of corporal punishment in the public schools by a vote of five out of the seven members of the board. The decree was made at the suggestion of the Superintendent of Schools Jordan. He has found in a long experience as a teacher that there are many



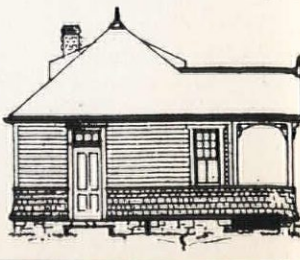
cases of insubordination that can be reached only by the rod. Many children are deficient in conscience, self-respect and the proper sort of pride. They become incorrigible, and care nothing for suspension. It is stated that the "board has no intention to give every teacher free license to whip whenever patience is exhausted or temper aroused."

President P.W. Wren, Dr. F. Rice, J. J. Rose, A. and D. Ginand appointed as a committee by the Bridgport, Conn., board of education to report upon a system of physical culture, visited Worcester, Holyoke and other cities in Massachusetts to inspect the work in those places preparatory to introducing similar methods in the Bridgport schools.

The Duluth, Minn., school board has ordered German to be taught in the night schools.

The board of directors of the Sioux City, Ia.,

schools has determined to build an \$800 dome on the new school building now approaching completion, and place a six inch telescope to cost \$1,000, for the use of the scholars.



The full page opposite is reprinted from the January, 1893, issue of the "American School Board Journal" which came to Symposia through two good friends—Holden Bowler (Editor/Ringsby Rocket) and Thomas W. Keeton (U. S. Ceramic Tile). The illustrations for Mr. Kelsey's article are reproduced by permission of the American Association of School Administrators, publishers of the book "Schools for America."

Whatever Happened to the Little Red Schoolhouse?

F. Lamar Kelsey, FAIA

Once long, long ago there stood a little red schoolhouse. Often it contained one large room. Sometimes there was a folding door to divide the room. A schoolmarm taught there and the children were all ages from six to twenty-six. For a while during the day the teacher would teach reading, then she would switch to writing and finally, to arithmetic. Whatever happened to the little red schoolhouse? NOTHING! It has been hiding but now has been found alive and traveling across the country in disguise. All of the same old things happen in it—but they have new names like "open learning spaces," "operable walls," "ungraded class groupings," and "modular scheduling."

While the little red school house was gone, it was replaced by a new kind of building which had a coat and overshoe lined walkway down its middle called a corridor and square boxes on either side of the walkway known as classrooms. These things were very permanent and they required equally permanent educational techniques. All of a sudden things are different and "education is busting out of its 30' x 30' box." The concept of the little red schoolhouse is beginning to look pretty good again.

The real problem is this: Our society is changing at a nearly unbelievable rate and a dynamic society requires equally dynamic educational processes. The new challenges to education are people, knowledge and circumstance.

Let's talk about people first and dwell for a moment on the well-known population explosion. Did you know that it took mankind somewhere in the neighborhood of two million years to acquire a world population of one-half billion people? It took 150 years to increase that population to one billion; seventy-five years to reach two billion; thirty-seven years to reach three billion; fifteen years to reach four billion (this will take place in 1977); and then only ten years will be required after that to reach a total world population of five billion people. This represents a growth of some two percent per year. For those who like to toy with figures of this kind, such a growth rate, if projected over 650 years from today, would result in there being one person for every square foot of this globe upon which we live. If we want to carry that a little farther—in 6200 years the mass of human flesh on our earth will be expanding at the speed of light. How about that for a happy thought?

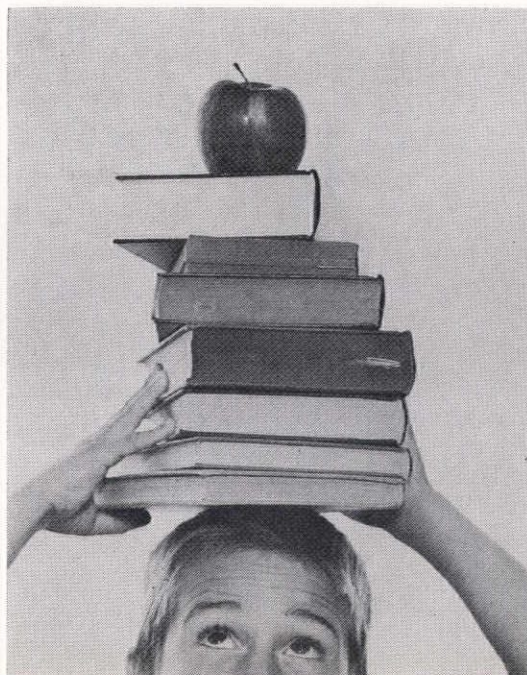
The second broad challenge is the less well known but equally important growth in the world's "fund of knowledge." Again, reaching into the statistician's area it took our civilization some two million years to double its fund of recorded knowledge. The second doubling required two hundred years, the third doubling required fifty years and the fourth doubling, which occurred in 1960, required ten years. Thus, right now the world fund of recorded knowledge is doubling more rapidly than once every ten years. As an example of this, it is interesting to ponder on the

technology of transportation. Think how long it took mankind to develop the wheel, then it took a while to recognize that an animal could pull a wheel. Not too long was required for mankind to develop an engine, then wings, and then, in no time at all man stepped into space.

The final broad area of challenges to education involves circumstances. One of the circumstances involves automation. We are now eliminating jobs at the rate of 40,000 per week. The work week has reduced from some 70 hours per week fifty years ago to 40 hours a week now and we are facing further reductions.

As you know, there are great pressures in many parts of the country to reduce our present work week from its present standards to some 35-36 hours per week. Thus, as society runs out of work it must find meaningful ways to use its spare time. Just another of the many circumstances which are creating great impacts upon higher education is the growing affluence. The average income today is some \$7,000 per family. In 1972, I am told, that same family will have an average income of \$9,500 per year. The broad strata of circumstances which will have to be coped with by education could be talked about for a long time.

Education—like Alice in Wonderland—must run faster and faster just to keep up. Education must react to change by making change. There will be changes in curriculum, techniques, equipment, policy—and facilities. If we think we have a task, imagine the dilemma of the child who attends our schools of the future. He won't know whether to take an apple for his teacher or an oil can for his time-sharing, on line, multiple processing computer.



Chances are if he wants to play his cards right, he will take them both. Perhaps education and the facilities within which learning takes place share the dilemma of the guy with a Model T Ford driving on the freeway where a minimum speed is posted. The old buggy just can't keep up. The old model of the schoolhouse can't keep up either. It can't react to the new needs of education, and tragically many thousands of the newer buildings have been built on this same old inflexible and obsolete pattern. They are unable to accommodate the needs of the children of today and will still be standing in the twentieth century.

So we must, as educators, architects and others, look into the future — to its challenges and its opportunities — for education is concerned with very little but the future, and yet all we can say about the future with any degree of confidence is that it will be different.

Let us take a look at some of the impacts then, that the future should be making on the school facilities that we are designing and building today. Without looking too far beyond the present let us examine the "School of the Seventies."

It would seem relatively safe to say that the society of the seventies will be a vastly more complex one and automation will play an ever increasing part in our way of life. I'd like to dwell for a few moments on the possible impacts of automation — specifically the computer — on education and educational facilities.

First, there is an emerging trend that the term "facilities" is beginning to imply both the physical environment (shelter) for education and the equipment which it houses. On that basis, I will discuss the computer as an example of an "educational facility." What's more, I am not saying that these things will happen but it is perfectly logical to assume that they **might**—and if they do, the School of the Seventies will be a vastly different place than the buildings that we now know.



Let's take as a starting point a School District with a total enrollment of some fifteen thousand pupils and see how this district might use a computer facility. Incidentally, smaller districts can do the same thing but it will require that they band together in order to assume the financial burden that the expensive facilities of the seventies may create. A hypothetical School District will build a computer center facility. The building will contain a large scale computer with extensive time sharing ability and will provide functional space for the operating staff and the programming and administrative personnel. Very likely this computer center will be related to the district's administrative offices and a district-wide educational materials center. Access to the computer center will be provided by the installation of remote terminals and teletypes in key locations such as satellite educational material centers, administrative units, counseling units, classrooms, laboratories and other spaces in buildings throughout the School District. Remote terminals with keyboards and display screens may be placed in the pupils' homes, thus freeing the school buildings themselves of much of the pupil timeload, allowing each building to serve many more children.

The computer network for our School Districts will do many things. For administrators, the computer will help forecast enrollments, present and compare budgets, prepare pupil schedules, evaluate curriculum and teaching techniques, forecast building needs, and store records making them instantly available. The counselor will ask the computer to assist him in interviewing pupils, preparing and presenting testing results and storing student records related to past performance and future development. The school librarian will find that the computer network will contain a memory unit which will store and catalog immense masses of information and retrieve, assemble and display them simply and quickly. The pupil, the learner, will be trained in computer use as a learning tool and, for some, as a vocation.

All of this suggests the emergence of whole new building types, and it's hardly blue sky. Every technical development in the foregoing sketch is already accomplished fact and is available either in the public domain or through commonly accessible vendors. Cost—now a deterrent—will drop substantially in the next decade.

Right now in many places across the country computer assisted learning programs are beginning to move into high gear. The future, as many of us think of it, is not just around the corner—it is here.

So much for our computer—it is only one of the many aspects of automation in education which are lurking in the shadows of the Seventies. The sketch I have given was done for one reason. That is, to establish the fact that the buildings we are building today, will serve greatly different educational programs in the Seventies. If the buildings that we now build do not permit this type of change, they will become educationally obsolete long before they reach structural obsolescence. This works its way up to a favorite word of mine when I am talking about educational facilities—the word is "permissive." In the Sixties we have developed the means for building so-called flexible buildings. I would prefer calling them permissive buildings—that is, buildings which will **permit change** rapidly, economically and with a great deal of visual grace. In the Sixties, we have developed structural components which are made as individual increments and may be stacked in box cars and delivered to the job site where they are rapidly assembled and hoisted into place creating great open areas of flexible—or permissive—space within which our educational program can flex its muscles and do as it pleases. In other words, we are now

busy creating a technology of construction which allows the educational program to shape our buildings rather than following the old pattern where our buildings molded the educational program to fit the facility in which it was offered. While we are developing a structural system which will allow us this type of permissive architecture, we are also hard at work on the technology of the mechanical systems which will allow us to provide heat, ventilation, cooling, and all of the other needs for human comfort within spaces which may be re-partitioned nearly at will. The electrical systems within our permissive architecture are doing the same thing and we must realize that as the demands of automation grow, the demands for electrical and mechanical services will also grow.

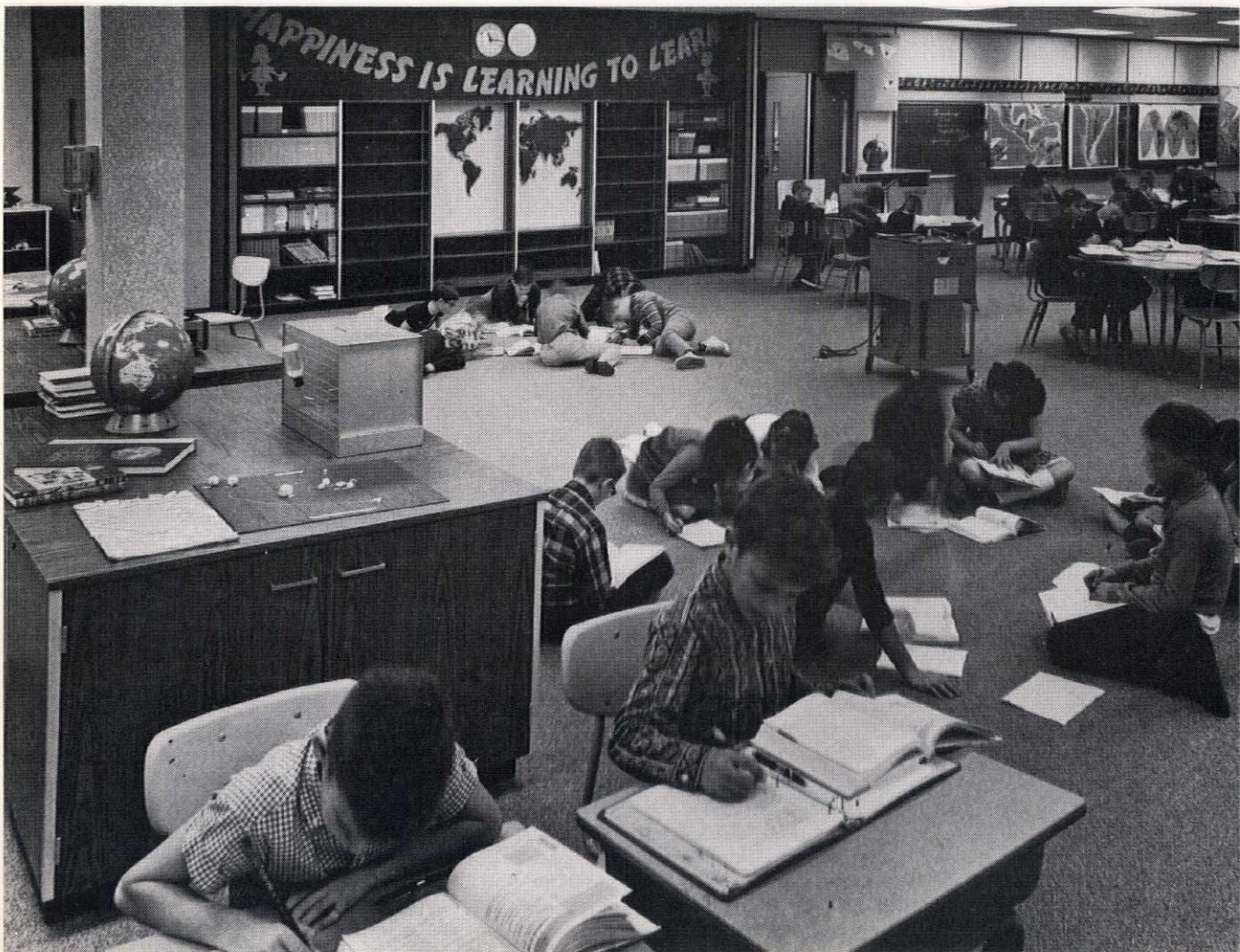
There are now on the market many different types of space dividers which we can use to separate one function from another within our flexible educational space. These dividers have the ability to control the transmission of sound and may be selected so that they provide the ability to modify space arrangement in as short a time as between classes or over the weekend or, perhaps, over a holiday recess.

So in the Sixties, we have been busy developing a technology which will create buildings that will permit change. In the Seventies, we will have to learn to use our new found freedom to the best possible effect. This will require that a planning team be established for each building—perhaps the same team which originally designed the building—and maintained on a continuing basis. As edu-

cation enters a period of rapid change, there must be continuing evaluation of educational need and a continuing process of relating need to facility. This type of permissive architecture allows me to use another set of favorite words. These words are "what if." "What if" we try this educational approach or "what if" we try another educational approach. The kinds of facilities that we are now creating will allow us to take steps forward in education recognizing that, if we go a little off our proper bearing, we have not reached a point where we cannot step back and make the necessary corrections. The "what if" theory is a necessity to progressive education and permissive facilities are a necessity to serve a theory of this type.

Education of the Seventies, then, is creating whole new breeds of buildings. All of them will be built around the theory of permissive architecture. Among these new breeds are the urban school which shares its site with commercial ventures, the rural school which will provide the children who learn within its confines the same opportunity as those in the more urban areas, and the educational park combining the diverse needs of whole school districts.

There will also be new breeds of spaces within our schools for the Seventies. Some of these spaces, like the planetarium, will be created by the need of moving into new areas of curriculum. There will be spaces for individual study and spaces for small group work, as well as large lecture halls supported by such audio-visual techniques as educational television, rear projection and many others.



Large undivided learning areas serving highly flexible class groupings are made possible by taking advantage of the acoustical properties of soft floor coverings.



Many learning spaces will be flexible so that they can be at one time small spaces and at another large ones. Resources centers will bring such media to the fingertips of the pupils as books, tapes, video tapes, films, computer terminals, and programmed learning devices. Seminar rooms will be clustered around the resources center to bring the learner in the closest possible contact with the resources so necessary to his education. Teachers who, with automation, become more and more important are also brought into close contact with the resources that they need. Electronic learning centers such as the language laboratories will be commonplace, and the large science laboratories of the Sixties will grow small project laboratories as their neighbors which may be assigned to either an individual student or a team of students for highly advanced work. These little satellite laboratories will, in a sense, become the students' property until he has completed his experiment and it will not become necessary for him to take his equipment apart at the end of every class period only to re-assemble it at the beginning of the next. During this period of emphasis on the physical sciences and increasing automation, spaces for the study of the humanities and the arts will take on increased emphasis.

The fact that educators are making a strong commitment to facilities that permit change does not prevent another commitment from being made. There are two kinds of environment provided in educational facilities. The **functional** kind is the one that we've been discussing so far. The other kind of environment is the **visual** environment and this deserves equal time. As the techniques of education tend to become more automated, the psychological need for a satisfying visual environment will grow and the word "beauty" will attain a new stature. Schools for the

Seventies will provide the youngsters who occupy them a visual environment of beauty in structure never attained before. The Schools for the Seventies will use such elements as color, building form, art, regional expression, landscaping, child scale and all of the other tools available to the Architect in creating a visual environment which will state the high position of the educational process in the hierarchy of human achievement. Visual environment plays a lead part in the education of the whole person; a person with knowledge, understanding, grace and judgment. It won't be overlooked when new facilities are being planned.

What about costs? The last ten years have seen an interesting circumstance when the cost of educational facilities is being considered. All of us know that the overall cost of construction has increased at a fairly rapid rate during this period. What many people do not know is that the **cost per pupil** of school construction has generally increased at a much slower pace. How did this happen? Well, certainly through careful planning by educators and Architects but it has also happened through the reduction of the quality of construction materials in many cases and by reducing the area of space per pupil contained in educational facilities. It is interesting to note that there are signs beginning to indicate that the end of this trend may be on its way. It may very well be that educational facilities of the future will begin to cost more and more if they are to satisfy the educational needs of our complex society of the future. We are now beginning to ask that our facilities do more than they have ever done before. As we provide flexible spaces, the building process becomes more complex and more expensive. As technology demands more and more equipment and circumstances require new curricula areas, we will find that our facilities

in the broad concept of shelter and equipment become more expensive. When the fund of knowledge has grown to the point that it can no longer become manually cataloged and stored on library shelves, the step into automation will be a costly one. All the while, we will still ask that the school provide a handsome human environment which recognizes the child's need for visual satisfaction and this increasingly important recognition may well have impacts on the cost of our facilities. While all of this is happening, it becomes imperative that there be in our society a recognition of the fact that the proper education of our children is absolutely essential to the well being of the world within which we live. If there is this understanding, then the proper monetary resources will be made available for the use of our educators.

There are many challenges involved in the process of building educational facilities to serve a future filled with change. In doing this, we must recognize that there is one over-riding constant factor—the children of our nation remain its most wonderful and valued resource. I should like to quote from a statement written by Dr. John

Caffrey, who is the Educational Program Director of System Development Corporation, "The school of the future will be the product of our ideas and hopes and goals. It will be what we make it. And, in return, our hope to survive in a meaningful world, clinging as we do to the earth in a cold and hostile universe, may to a large extent be realized only if we think carefully of what we want. I think it is fair to say that, though the efforts of education may take longer to become visible, we are today to a very great extent a reflection of the kinds of schools we have created. Whatever goals we pick for tomorrow, the school of the future will mirror our thoughts. There seem to be very few better ways to improve the world and to dispose of our resources than to devote them to education. Without it, there may be no tomorrow."

So as we plan Schools for the Seventies, let us take the time to plan wisely and let us take a deep breath and commit the resources necessary to do the job well. There are few more important tasks.

Has the little red schoolhouse disappeared? NOPE! But it's about to.



about the author

F. Lamar Kelsey FAIA, of the Colorado Springs firm of Lamar Kelsey & Associates/Architects, has devoted much of his architectural practice to the design of educational facilities. Projects he has designed have won awards from the American Association of School Administrators, the Colorado Chapter and the Western Mountain Region of the American Institute of Architects, the American Institute of Steel Construction and Nation's Schools Magazine. His school designs have been published and exhibited in the United States and abroad.

Mr. Kelsey is a past President of the Colorado Chapter of the American Institute of Architects and he has served on the AIA National Committee on School and College Architecture. In 1966, he was made a Fellow in the

American Institute of Architects. He is presently Alternate Delegate for the United States to the International Union of Architects (UIA), School Commission.

In addition to his architectural practice, Mr. Kelsey has written articles on the design of educational facilities for Nation's Schools, American School & University, College and University Business and other magazines. He was a co-author of the new book published by the American Association of School Administrators titled "Schools for America."

"Whatever Happened to the Little Red Schoolhouse" is largely based on a speech titled "Schools for the Seventies," given by Mr. Kelsey at a recent National Convention of the American Association of School Administrators.

Rough drafts of the Manual of Construction Procedures which is being developed by Denver's Chapter of the Construction Specifications Institute were presented to members and guests attending the August 9th meeting of the Institute at the Engineer's Club Building in Denver. The various documents which will be included in the loose leaf manual being readied for publication have been under study for many months. Symposia brings you the Preface to this important step forward in development of better construction procedures in this area in this September issue—feeling that the Preface will serve as the best of all introductions to Mr. R. James Noone's article which covers the panel discussion of August 9 dealing with the "Punch List."

MANUAL OF CONSTRUCTION PROCEDURES

PREFACE

The purpose of this Manual is to establish procedures of operation that are agreeable to the parties concerned with the construction document preparation, interpretation and execution.

The recommendations included in this Manual have been developed to reflect local customs in the Industry and to provide an equitable basis for operation. The Manual's publication in printed form and its endorsement by the local construction organizations should alert all Architects, Bidders, Suppliers, etc., to the standard operating procedures normally used in this area.

These recommendations are not to be construed as taking the place of any part of the usual Contract Documents; nor should this Manual be adopted or included in the Contract Documents "by reference." Modifications of these recommendations to suit specific job requirements should be made obvious (by the Specifier) by including the specific modification(s) in the Bidding Requirements, General and Supplementary General Conditions, Bulletins and Addenda. In the absence of any such modifications, it will be presumed that these normal recommendations are being followed as Standards.

Reference in this Manual to "See Project Documents" indicates that the particular item should be described in detail in the Contract Drawings and Specifications for the Project, and is not described herein.

The information in this Manual is divided into four parts, reflecting four distinct parts of the construction project operation. They are:

PART A—BIDDING PERIOD

PART B—CONTRACT SIGNING PERIOD

PART C—CONSTRUCTION PERIOD

PART D—JOB COMPLETION PERIOD

August 1967—Preliminary Issue

for Review and Comment

Denver Chapter of the

Construction Specifications Institute, Inc.

The List From the Punch

by R. James Noone, CSI/AIA

Last month we out-punched the Punch List at the Denver-CSI meeting program. Everyone had an opportunity to make a Punch List . . . Architects, Engineers, Contractors, Suppliers and Owners. Their representatives were vocal and articulate.

The discussion panel of Aubrey Brelsford, AIA, James McFall, PEC, Richard Breaker (Gerald H. Phipps, Inc., ABC), and Joseph Bergheim, President of Wilkins Co., Inc., ABC, scrutinized the first draft of the Punch List article developed for inclusion in the proposed "Manual of Construction Procedures."

In the absence of any previously documented recommendations regarding Punch List preparation, enforcement and verification, we sifted through many individual gripes and prejudices. We were able to group the problems for our analyses and future recommendations.

With the contributions of Dr. Charles E. Armstrong, Assistant Superintendent for Business Services and Engineering, School District No. 1 Denver, and Mr. Tom Foster, Denver Department of Public Works, we received valuable comments regarding the Agency-Client's role in accepting the work following the Punch List. "Should the owner be present during final inspection?" provoked some sparkling comments. Soon we were distinguishing Owner-Types . . . with present company excepted. Enforcement of "Liquidated Damages" clauses was discussed and left for future program analysis.

The concern of the Engineering Consultants was expressed by Mr. McFall (McFall & Konkell, Consulting Engineers) regarding their inspections. Inspecting, testing and balancing equipment systems presents a type of problem distinct from the investigation of static building materials. "Does the Engineering Consultant get on the job early enough and frequently enough for intermediate investigations?" was a fertile discussion question. The justification for having more than one Punch-List was explained . . . and not eliminated.

Contractors' views expressed by the discussion panel were reinforced with the remarks of Bill Baillie (Holland & Baillie, ABC), and Borge Villumsen (Hensel-Phelps, ABC). Contractors dislike having a continuing series of Punch Lists and suggest stating a definite calendar date for owner acceptance of the building. "Let's see the Certificate of Substantial Completion!" was a strong plea made.

As was expected, it was difficult to limit the discussion to the "Punch List" specific. The problems brought up

seemed to transcend any boundary and go into the fields of "Final Acceptance," "Liquidated Damages," "Beneficial Occupancy," etc. We plan to discuss these specific topics at subsequent meetings for inclusion in the Manual as separate articles.

The Architects and the AIA were well represented in the discussion. Their purposes and expectations in preparing the List were expressed by Mr. Brelsford and substantiated by Art Bush, Henry Baume, John Schaffer, John McGuire, Jerome Nagel and Bruce Bicknell. In all, an impressive list of Punch List "Authors" who are genuinely concerned with improving this rather nebulous area of unnecessary dispute. "Should we speak of COMPLETION at all; or should it be ACCEPTANCE?" "Is the building EVER complete?" were questions posed . . . and are still awaiting answers.

The subsequent publication of the MANUAL OF CONSTRUCTION PROCEDURES and its endorsement by local construction organizations will lend some authority to what we feel are equitable recommendations that may be used in this area as "Standards" (or as revised to suit particular job or agency requirements). Initial articles to be included in this first publication will cover the following topics:

Issuing Bidding Documents
Qualification of Contractors
Approval of Substitutions
Shop Drawing Processing, and
Punch Lists

Subsequent additions will provide recommendations dealing with:

Proposal Forms
Addenda
Personnel Listing and Cost Breakdown
Inspections
Acceptance
Liquidated Damages
Occupancy
And Others

We have submitted the first draft of this Manual to the Colorado Chapter of the American Institute of Architects (AIA), the Associated Building Contractors of Colorado (ABC), the Professional Engineers of Colorado (PEC), the Rocky Mountain Chapter of Producers' Council (PC), as well as to the City, State and School District Agencies involved with continuing construction programs. We solicit these organizations' comments and endorsement so that we may include their constructive suggestions in the final document.

Anyone interested in contributing his wisdom and expertise to these topics will be welcomed warmly by the Denver-CSI as a friend. Additional copies of this preliminary draft are available at the Denver-CSI office (Armstrong Cork Co., 1405 Federal Blvd., phone 255-1703).

We have been unable to determine the derivation of the term "Punch List." However, we strive to resolve the problem in discussion fashion so that it will not be interpreted LITERALLY. Thank God, it's still a metaphor.

WE'RE FINISHED! . . . (or are we?)

by Joe H. Bergheim, President Wilkins Company, Inc.

It could be said that it's easier to get a project than it is to get rid of one—even in the field of competitive bidding! There are clearly defined rules for taking bids, and strict adherence to these rules is generally maintained. Unfortunately, the same cannot be said when it comes time to close out the job. There is utter confusion as to what steps to follow, and in what order, before a final payment can be made. This problem is compounded by a growing reluctance on the part of many Owners to write a final check to the Contractor, thereby releasing their monetary advantage in disputes.

Actually, it's not too surprising that this confusion in "closing out" exists. A comparison of four frequently used General Conditions reveals no clearly outlined procedure. (This comparison of matters affecting the final stages of a job is shown in the accompanying table.) Adding to this lack of clear procedure, there is confusing terminology which in most cases is used without definition. The following terms, taken from the Table of Comparisons, are examples of this:

Completion:

1. Completion/Notice of Completion/Certificate of Completion
2. Substantial Completion/Date of Substantial Completion/Certificate of Substantial Completion
3. Final Completion/Final Completion of the Contract/Contract Fully Performed

Acceptance:

1. Acceptance
2. Notice of Acceptance
3. Final Acceptance

Occupancy:

1. Occupancy
2. Full Occupancy/Fully Occupied
3. Agreed Date of Occupancy
4. Beneficial Occupancy

Inspection:

1. Inspection(s)/Final Inspection
2. Report of Inspection
3. Punch List/Final Punch List
4. Six-Month Guarantee Inspection/Eleven-Month Guarantee Inspection

Settlement:

1. Release of Claims
2. Final Certificate
3. Final Payment
4. Notice of Contractor's Settlement/Final Settlement

ment/Final Settlement

Guarantee:

1. Guarantee/Special Guarantee
2. Warrantee
3. Materials, Workmanship & Equipment
 - a. Faulty
 - b. Defective/Defects
 - c. Deficiencies
 - d. Inferior
 - e. Not in Accordance
 - f. Not in Compliance
 - g. Unsatisfactory
 - h. At Variance
 - i. Good Quality
 - j. Failure to Conform

One of the major difficulties in the process of completing a project is the so-called "punch list." The origin of the term "punch list" is unknown, it is not defined in the General Conditions, and yet it is used almost daily by Architects and Contractors. While it may mean different things to different people, it is generally agreed that the punch list is a formal listing of Contract deficiencies prepared by the Architect as the result of his final inspection. There is not this agreement concerning the content of

the punch list, its frequency of issue, its purpose, and its use.

Some Architects feel that a "white-glove" inspection is necessary upon completion of a building. In this case, a punch list is a list of picayune items ranging from fingerprints on hardware to items beyond the scope of the contract. Such a list is not only embarrassing to all concerned, but is almost impossible to complete to the satisfaction of its author. A punch list of this type is of little constructive value, but all too prevalent.

Some Architects feel free to issue punch lists monthly during the one-year guarantee period, often adding new items, with the result that the Contractor is never able to see its end. This kind of procedure is very unfair and can delay a Contractor's final payment indefinitely.

The purpose of a punch list should be to define uncompleted and incorrect work. However, in many cases it becomes nothing more than a list of an Owner's petty complaints and maintenance difficulties, and it is used as an excuse to postpone the responsibility of accepting completed construction work. When used in this latter manner, a Contractor is often faced with the decision of performing maintenance work for which he does not feel contractually obligated, or accepting continued delay of his final payment or the necessary cost of arbitration and legal recourse. (Could this be called blackmail?)

Ideally, a punch list should be unnecessary on a project that has received adequate periodic inspection by the Architect and that has a competent Construction Superintendent who makes corrections as they are called to his attention. The terminology listed above under Guarantee/Materials, Workmanship & Equipment, suggests a situation which has been called "quality control." But isn't a final inspection the wrong time to point out "inferior" materials, "unsatisfactory" workmanship, or nonconforming equipment? Such things as "inferior"

plastering, "unsatisfactory" concrete finishing, or nonconforming mechanical equipment could, and should, be called to the Contractor's attention when first noticed—not six or seven months later when the job is completed! The Architect who points out errors or variance with Contract Documents during construction does the Contractor and the Owner a favor by preparing the job, while in progress, for a mutually successful completion.

Realistically though, a punch list will always be necessary. The important thing is to eliminate the inequities by proper and clear definition so that the punch list can be effectively used, but not misused.

A proper punch list should be issued one time only upon completion of a project, and should be limited to a listing of reasonable contract errors and omissions. Since the Architect should be the judge of contract performance and the author of the punch list, it would be advantageous if the Owner did not take an active part in the final inspection. The Owner has the opportunity to utilize the entire construction and guarantee periods to make known to the Architect his wishes and complaints.

If the Owner desires to occupy and use a portion of the building before completion of the entire project, it would first be necessary to inspect that portion and to prepare its punch list. Upon completion of the project, a separate punch list would be issued to cover the balance of the building; however, the important consideration is the fact that there is only one punch list covering any particular area.

In addition, the Owner's acceptance of the project, or the portion he intends to occupy, should become effective on the date of the inspection, subject only to completion of punch list items. This procedure would establish a point in time when responsibility for utility costs, insurance obligations, and maintenance operations would transfer from the Con-

tractor to the Owner. This acceptance date would also mark the beginning of the one-year guarantee period. Any additional defects or omissions which might be discovered after this date would be corrected under the guarantee provisions rather than being a requirement for contract completion. An analogy might be made with a fiscal year date which is nothing more than an imaginary stopping of the clock to analyze the condition of a business on that date.

There should be a designated period of time for completing the punch list although it is conceivable that completion of some items could be delayed considerably by delivery problems or weather considerations (such as paving work which must be delayed until weather permitted.) Any exceptions could be handled equitably without the necessity of a long delay in releasing the Contractor's full retainage. The Contractor's responsibility is to see to the prompt correction of the punch list, and to advise the Architect of any exceptions he takes or delays he anticipates. The Contractor must also assume full responsibility for seeing that his Subcontractors attend to their punch list obligations.

Each step to be followed in finalizing a construction Contract should be clearly defined for the benefit of the Contractor, Architect, and Owner. While completion of the punch list is only one of the requirements leading to the final payment, the overall completion of a construction contract would be simplified considerably by the application of the punch list as suggested herein. The Denver Chapter of the Construction Specifications Institute, Inc., is in the process of preparing a "Manual of Construction Procedures" to establish procedures of operation not clearly defined in the Contract Documents. Procedures for handling the punch list, such as suggested in this article, could well be included in this Manual.

Mr. Bergheim has prepared a comparative analysis of four separate documents on "finalling" a job. They are (1) the AIA Document A-201, (2) The State of Colorado Form SC 6.23, (3) The Federal (G.S.A.) Form 1139 and 23-A, and (4) The Public Health Service—143. Nine separate items are treated.

ITEM: Right of occupancy

STATE OF COLORADO

Art. 51. Owner may occupy prior to final completion. Prior to occupancy an inspection shall be made by A/E, Contractor, etc. (nothing more is said about this inspection) . . . areas so occupied will be subject to a final inspection.

ITEM: Final Inspect.

A.I.A.

Art. 2 ARCHITECT

2.2.15 The Architect will conduct inspections to determine the dates of Substantial Completion and final completion, will receive written guarantees and related documents required by the Contract and as-

sembled by the Contractor, and will issue a final Certificate for Payment.

9.7.2 Upon receipt of written notice that the Work is ready for final inspection and acceptance and upon receipt of a final Application for Payment, the Architect will promptly make such inspection and, when he finds the Work acceptable under the Contract Documents and the Contract fully performed, he will

promptly issue a final Certificate for Payment stating that to the best of his knowledge, information and belief, and on the basis of his observations and inspections, the Work has been completed in accordance with the terms and conditions of the Contract Document and that the entire balance found to be due the Contractor, and noted in said final Certificate, is due and payable.

STATE OF COLORADO

ART. 48. COMPLETION, FINAL INSPECTION, ACCEPTANCE AND SETTLEMENT

A. NOTICE OF COMPLETION.

When the work is complete and ready for final inspection, the Contractor shall file a written Notice with the Architect/Engineer that the work, in the opinion of the Contractor, is complete under the terms of the Contract.

B. FINAL INSPECTION. Within ten (10) days after the Contractor files written Notice that the work is complete, the Architect/Engineer, the Principal Representative, the Division of Public Works and the Contractor shall make a "final inspection" of the project to determine whether the work has been completed in accordance with the Contract Documents. A final punch list shall be made by the Architect/Engineer in sufficient detail to fully outline to the Contractor:

- (a) Work to be completed, if any;
- (b) Work not in compliance with the drawings or specifications, if any;
- (c) Unsatisfactory work for any reason, if any.

The required number of copies of the punch list will be countersigned by the authorized representative of the Division of Public Works and will then be transmitted by the Architect/Engineer to the Contractor and Principal Representative.

FEDERAL (G.S.A.)

Art. 10 INSPECTION and ACCEPTANCE

Subparagraphs "a" thru "e" refer mainly, to Government's rights to inspect material and work in place anytime, anyplace, etc., and the right to open covered work, etc.

The following is from G. S. A. Form 1139

1-25 Final Inspection and Tests—The requirements of clause 10 of Standard Form 23-A, General Provisions, are supplemented as follows:

- (a) If any part of the work as installed be at variance with the contract requirements, the Contracting Officer may, if he finds it to be in the interest of the Government, al-

low all or any part of such work to remain in place, subject to a proper adjustment in the contract price.

(b) The Contractor shall give the Contracting Officer at least ten (10) days advance notice of the date the work will be **fully completed and ready for final inspection and tests.** An endorsement by the Government Representative at the site shall be attached to this notice which shall not relieve the Contractor of his responsibilities in the matter. Final inspection and tests will be started within ten (10) days from the date specified in the aforesaid notice.

(c) Regardless of quantities involved, inspection of Material and finished articles to be incorporated in the work at the site shall be made at the place of production, manufacture, or shipment, only when shop inspection, mill inspection or plant inspection is required by the specifications unless a determination to the contrary is made by the Contracting Officer.

PUBLIC HEALTH SERVICE

Art. 51. FINAL INSPECTION

"When the work is substantially complete the contractor shall notify the owner . . ." that the work will be ready for final inspection and test on a definite date which shall be stated in such notice. The notice shall be given at least ten (10) days in advance of said date and shall be forwarded through Architect who will attach his endorsement as to whether or not he concurs in the contractor's statement that the work will be ready for final inspection or test."

ITEM: Temporary heat and Utilities cut-over

A.I.A. DOCUMENT

Refer to Substantial Completion

9.7.1 When the Architect on the basis of an inspection determines that the Work is substantially complete, he will then prepare a Certificate of Substantial Completion, which shall state the responsibilities of the Owner and the Contractor for maintenance, heat, utilities, and insurance.

STATE OF COLORADO

Art. 52. UTILITIES

A. TEMP. UTILITIES states contractor to furnish all temporary utilities, etc. and then goes on to say "The cut-off date on permanent meters shall be either the agreed date of occupancy or the date of

final acceptance of the project, whichever shall be the earlier date.

Art. 54. TEMP. HEAT

Contractor to furnish. Permanent system not to be used for temp. heat. Contractor may test system. One year guaranty starts at final acceptance.

PUBLIC HEALTH SERVICE

40 HEATING: "The contractor shall provide heat, fuel and services as necessary to protect all work and materials against injury from dampness and cold **until final acceptance** of all work and material in the contract, **unless** the building or buildings are **fully** occupied by the owner prior to such acceptances, in which case the owner shall assume all expenses of heating from date of occupancy. The contractor shall provide heat as follows:

Goes on to stipulate, minimum temperature, duration, etc., for various phases of construction.

ITEM: Substantial Completion

A.I.A. DOCUMENT

8.1.3 The Date of Substantial Completion of the Work or designated portion thereof is the **Date certified by the Architect when construction is sufficiently complete**, in accordance with the Contract Documents, so the **Owner may occupy the Work or designated portion thereof for the use for which it is intended.**

9.7 SUBSTANTIAL COMPLETION AND FINAL PAYMENT

9.7.1 When the Contractor determines that the Work or a designated portion thereof acceptable to the Owner is **substantially complete**, the Contractor shall prepare for submission to the Architect a list of items to be completed or corrected. The failure to include any items on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents. When the Architect on the basis of an inspection determines that the Work is substantially complete, he will **then prepare a Certificate of Substantial Completion**, which shall state the responsibilities of the Owner and the Contractor for maintenance, heat, utilities, and insurance, and shall fix the time within which the Contractor shall complete the items listed therein, said time to be within the Contract Time unless extended pursuant to Paragraph 8.3. The Certificate of Substantial Completion shall be submitted to the Owner and the Contractor for their written

acceptance of the responsibilities assigned to them in such Certificate.

9.7.4 If after Substantial Completion of the Work final completion thereof is materially delayed through no fault of the Contractor, and the Architect so confirms, the Owner shall, upon certification by the Architect, and without terminating the Contract, make payment of the balance due for that portion of the Work fully completed and accepted. If the remaining balance for Work not fully completed or corrected is less than the retainage stipulated in the Agreement, and if bonds have been furnished as required in Subparagraph 7.5.1 the written consent of the surety to the payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by the Contractor to the Architect prior to certification of such payment. Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of claims.

STATE OF COLORADO

Refer to Par. 48D. SETTLEMENT

If the work shall be **substantially completed**, but final completion thereof shall be prevented through delay in correction of minor defects or unavailability of materials or other causes beyond the control of the Contractor, the Principal Representative in his discretion may release to the Contractor such amounts as may be in excess of three times the cost of completing the unfinished work or the cost of correcting the defective work, as estimated by the Architect/Engineer and approved by the Division of Public Works.

ITEM: Liens and Waivers

A.I.A. DOCUMENT

9.7.5 The making of final payment shall constitute a waiver of all claims by the Owner except those arising from:

- 1 unsettled liens,
- 2 faulty or defective Work appearing after Substantial Completion,
- 3 failure of the Work to comply with the requirements of the Contract Documents,
- 4 terms of any special guarantees required by the Contract Documents.

9.7.6 The acceptance of final payment shall constitute a waiver of all claims by the Contractor except those previously made in writing and still unsettled.

STATE OF COLORADO

Art. 32. LIENS

Colo. law does not allow right of

lien against public buildings. In lieu, thereof final payment may not be made until such creditors have been given notice by public press of pending payment and given opportunity to stop final payment.

PUBLIC HEALTH SERVICE

(e) **Release of Claims**—Neither the final payment nor any part of the retained percentage shall become due until the contractor shall deliver to the owner through the architect a complete release of all claims against the owner arising under and by virtue of this contract, including claims of all subcontractors and suppliers of either materials or labor, other than such claims, if any, as may be specifically excepted by the contractor.

(h) **Acceptance of Final Payment Constitutes Release**—The acceptance by the contractor of the final payment shall be and shall operate as a release to the owner of all claims and of all liability to the contractor for all things done or furnished in connection with this work and for every act and neglect of the owner and others relating to or arising out of this work, excepting the contractor's claims for interest upon the final payment, if this payment be improperly delayed. No payments, however, final or otherwise, shall operate to release the contractor or his sureties from any obligations under this contract or the Performance and Payment Bonds.

ITEM: Acceptance and completion

A.I.A. DOCUMENT

9.4.4 No Certificate for a progress payment, nor any progress payment, nor any partial or entire use or occupancy of the Project by the Owner, shall constitute an acceptance of any Work not in accordance with the Contract Documents.

13.3.1 If the Owner prefers to accept defective or non-conforming Work, he may do so instead of requiring its removal and correction, in which case a Change Order will be issued to reflect an appropriate reduction in the Contract Sum, or, if the amount is determined after final payment, it shall be paid by the Contractor.

STATE OF COLORADO

Art. 48

C. NOTICE OF ACCEPTANCE.

"The notice of acceptance shall establish the completion date of the project."

FEDERAL (G.S.A.)

(f) Unless otherwise provided in this contract, acceptance by the Government shall be made as promptly as practicable after the completion and inspection of all work required by this contract. Acceptance shall be final and conclusive except as regards latent defects, frauds, or such gross mistakes as may amount to fraud, or as regards the Government's rights under any warranty or guarantee.

1-25 FINAL INSPECTION AND TESTS

The requirements of clause 10 of Standard Form 23-A, General Provisions, are supplemented as follows:

(a) If any part of the work as installed be at variance with the contract requirements, the Contracting Officer may, if he finds it to be in the interest of the Government, allow all or any part of such work to remain in place, subject to a proper adjustment in the contract price.

PUBLIC HEALTH SERVICE

(f) **Certificate of Completion**—Upon completion and acceptance of all work whatsoever required, and the release of all claims against the owner as specified, the architect shall file a written certificate with the owner and with the contractor as to the entire amount of work performed and compensation earned by the contractor, including extra work and compensation therefor.

Final Payment

A.I.A. DOCUMENT

9.7.3 Neither the final payment nor any part of the retained percentage shall become due until the Contractor submits to the Architect; releases or waivers of all liens arising out of the Contract; an Affidavit that the releases and waivers include all the labor, materials and equipment for which a lien could be filed and that all payrolls, bills for materials and equipment, and other indebtedness connected with the Work for which the Owner or his property might in any way be responsible have been paid or otherwise satisfied; consent of surety, if any, to final payment; and such other data establishing payment or satisfaction of all such obligations as the Owner may require. If any Subcontractor refuses to furnish a release or waiver, the Contractor may furnish a bond satisfactory to the Owner to indemnify him against any such lien. If any such lien remains unsatisfied after all payments are

made, the Contractor shall refund to the Owner all moneys that the latter may be compelled to pay in discharging such lien, including all costs and reasonable attorneys' fees.

9.4 CERTIFICATES FOR PAYMENT

In addition, the Architect's final Certificate for Payment will constitute a further representation that the conditions precedent to the Contractor's being entitled to final payment as set forth in Subparagraph 9.7.2 have been fulfilled. However, by issuing a Certificate for Payment, the Architect shall not thereby be deemed to represent that he has made exhaustive or continuous on-site inspections to check the quality or quantity of the Work or that he has reviewed the construction means, methods, techniques, sequences or procedures, or that he has made any examination to ascertain how or for what purpose the Contractor has used the moneys previously paid on account of the Contract Sum.

Also refer to Paragraph 9.7.2 under final inspection.

STATE OF COLORADO

D. SETTLEMENT. The Principal Representative shall not authorize final payment until all items on the punch lists have been completed, the Notice of Acceptance issued, and the Notice of Contractor's Settlement published. If the work shall be substantially completed, but final completion thereof shall be prevented through delay in correction of minor defects or unavailability of materials or other causes beyond the control of the Contractor, the Principal Representative in his discretion may release to the Contractor such amounts as may be in excess of three times the cost of completing the unfinished work or the cost of correcting the defective work, as estimated by Architect/Engineer and approved by the Division of Public Works. Before the Principal Representative may advertise, the Contractor shall:

1. Deliver to the Architect/Engineer:

(a) All guaranties and warranties;
(b) All statements to support State sales and use tax refunds;

(c) Three (3) complete bound sets of required operating maintenance instructions;
and

(d) One (1) set of drawings showing all job changes.

2. Demonstrate to the operating personnel of the Principal Representative:

(a) Proper operation and maintenance of all equipment.

Upon completion of the foregoing the project shall be advertised in accordance with the "Notice of Contractor's Settlement" by two publications of notice the last publication appearing at least ten (10) days prior to the time of final settlement. On the date of final settlement thus advertised, and after the Contractor has submitted a written notice to the Architect/Engineer that no claims have been filed, final payment and settlement shall be made in full.

If any unpaid claim for labor, materials, supplies or equipment is filed before payment in full of all sums due the Contractor, the Principal Representative and the State Controller shall withhold from the Contractor sufficient fund to insure the payment of such claim until the same shall have been paid or withdrawn, such payment or withdrawal to be evidenced by filing a receipt in full or an order for withdrawal signed by the claimant or his duly authorized agent or assignee. However, as provided by statute, such funds shall not be withheld longer than ninety (90) days following the date fixed for final settlement with the Contractor, as set forth in the published Notice of Contractor's Settlement, unless an action at law shall be commenced within that time to enforce such unpaid claim and a notice of such action at law shall have been filed with the Principal Representative and the State Controller. At the expiration of the ninety (90) day period, the State Controller shall release to the Contractor all monies as are not the subject of such action at law.

FEDERAL (G.S.A.)

7. PAYMENT TO CONTRACTOR

(e) Upon completion and acceptance of all work, the amount due the Contractor under this contract shall be paid upon the presentation of a properly executed Voucher and after the Contractor shall have furnished the Government with a release, if required, of all claims against the Government arising by virtue of this contract, other than claims in stated amounts as may be specifically excepted by the Contractor from the operation of the release. If the Contractor's claim to amounts payable under the contract has been assigned under the Assignment of Claims Act of 1940, as amended (31 U.S.C. 203, 41 U.S.C. 15), a release may also be required of the assignee.

PUBLIC HEALTH SERVICE

(g) **Final Payment**—Within thirty (30) days after the filing of such certificate of completion, the owner shall pay to the contractor the amount therein stated, less all prior payments and advances whatsoever to or for the account of the contractor. All prior estimates and payments including those relating to extra work shall be subject to correction by this payment, which is throughout this contract called final payment.

ITEM: Warranties and Guaranties

A.I.A DOCUMENT

Art. 4 CONTRACTOR

4.5 Warranty and Guarantee

Subparagraphs 4.5.1 and 4.5.2 (these two paragraphs are the only ones that make up 4.5) they generally state that contractor will warrant materials and equipment will be "good quality, free from fault and defects," etc.

Art. 9 PAYMENTS AND COMPLETION

9.3 Progress Payments

9.3.3. States Contractor warrants and guarantees title to all Work, materials, and equipment covered by an Application for Payment.

Art. 13 UNCOVERING AND CORRECTION OF WORK

13.2 Correction of Work

13.2.1. The Contractor shall promptly correct all Work rejected by the Architect as defective or as failing to conform to the Contract Documents whether observed before or after Substantial Completion and whether or not fabricated, installed or completed. The Contractor shall bear all costs of correcting such rejected Work, including the cost of the Architect's additional services thereby made necessary.

13.2.2. If within one year after the Date of Substantial Completion or within such longer period of time as may be prescribed by law or by the terms of any applicable special guarantee required by the Contract Documents, any of the Work is found to be defective or not in accordance with the Contract Documents the Contractor shall correct it promptly after receipt of a written notice from the Owner to do so unless the Owner has previously given the Contractor a written acceptance of such condition. The Owner shall give such notice promptly after discovery of the condition.

13.2.7. The obligations of the Contractor under this Paragraph 13.2

shall be in addition to and not in limitation of any obligations imposed upon him by special guarantees required by the Contract Documents or otherwise prescribed by law.

STATE OF COLORADO

Art. 49. WARRANTIES AND GUARANTIES

"The Contractor shall guarantee his work for a period of one year from the date of the Notice of Acceptance. (see Final Inspection). In case of work performed for which warranties are required by the specifications, the Contractor shall secure the required warranties and deliver copies thereof to the Principal Representative through the Architect/Engineer upon the completion of the work. The warranties as such do not in any way lessen the Contractor's responsibilities under his contract. Whenever guaranties or warranties are required by the specifications for a longer period than one year, such longer period shall govern.

Art. 20. CORRECTION OF WORK AFTER ACCEPTANCE

Neither the final certificate for payment nor any provision in the Contract Documents shall relieve the Contractor of responsibility for faulty materials or workmanship, and, unless otherwise specified, he shall remedy any defects due thereto and pay for any damage to other work resulting therefrom, which shall appear within a period of one year from the date of Notice of Acceptance. The Division of Public Works shall give notice of observed defects with reasonable promptness. Such notice shall be in writing to the Architect/Engineer and the Principal Representative.

FEDERAL (G.S.A.)

From G.S.A. Form 1139

1-26 Guaranties:

(a) Unless otherwise provided in the specifications, the Contractor guarantees all mechanical and electrical work to be in accordance with contract requirements and free from defective or inferior materials, equipment, and workmanship for one (1) year after the date of final settlement or from an earlier date determined by the Contracting Officer which date will not be earlier than the day the equipment or work was placed in use by the Government.

(b) If, within any guaranty period, the Contracting Officer finds that guaranteed work needs to be repaired or changed because of the use of materials, equipment, or

workmanship which, in his opinion are inferior, defective, or not in accordance with the terms of the contract, he shall so inform the Contractor in writing and the Contractor shall promptly and without additional expense to the Government:

- (1) place in a satisfactory condition all of such guaranteed work;
- (2) make good all damage to equipment, the site, the building or contents thereof, which is the result of such unsatisfactory guaranteed work; and

- (3) make good any work, materials, and equipment that are disturbed in fulfilling the guaranty, including any disturbed work, materials, and equipment that may have been guaranteed under another contract. Should the Contractor fail to proceed promptly in accordance with the guaranty, the Government may have such work performed at the expense of the Contractor.

(c) Any special guaranties that may be required under the contract shall be subject to the stipulations set forth above, insofar as they do not conflict with the provisions of such special guaranties.

PUBLIC HEALTH SERVICE

52. Guarantee of Work—(a) Except as otherwise specified all work shall be guaranteed by the contractor against defects resulting from the use of inferior materials, equipment, or workmanship for one year from the date of final completion of the contract, or from full occupancy of the building by the owner, whichever is earlier.

(b) If, within any guarantee period, repairs or changes are required in connection with guaranteed work, which, in the opinion of the architect, is rendered necessary as the result of the use of materials, equipment, or workmanship which are inferior, defective, or not in accordance with the terms of the contract, the contractor shall, promptly upon receipt of notice from the owner, and without expense to the owner:

- (1) Place in satisfactory condition in every particular all of such guaranteed work, correct all defects therein; and

- (2) Make good all damage to the building or site, or equipment or contents thereof, which, in the opinion of the architect, is the result of the use of materials, equipment, or workmanship which are inferior, defective, or

not in accordance with the terms of the contract; and

- (3) Make good any work or material, or the equipment and contents of said building or site disturbed in fulfilling any such guarantee.

ITEM: Guarantee inspection (6 month and 11 month instect.)

STATE OF COLORADO

Art. 50. GUARANTY INSPECTIONS AFTER COMPLETION

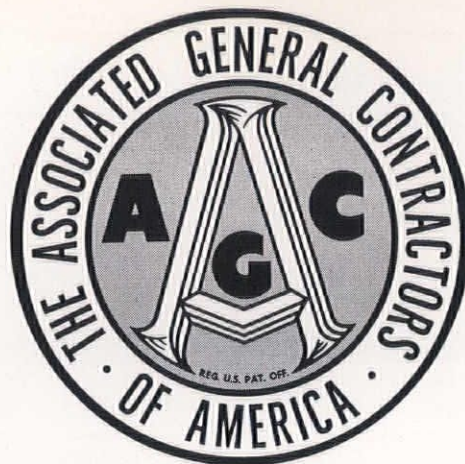
The Division of Public Works, the Architect/Engineer, the Principal Representative and the Contractor together shall make at least two complete inspections of the work after the work has been accepted. One such inspection, the "Six-Month Guaranty Inspection," shall be made approximately six (6) months after the acceptance of the work, and another such inspection the "Eleven-Month Guaranty Inspection," shall be made approximately eleven (11) months, after the acceptance of the work. The Division of Public Works shall schedule and so notify all parties concerned of these inspections.

Written punch lists and reports of these inspections shall be made by the Architect/Engineer and forwarded to the Contractor and all of the other participants within ten (10) days after completion of the inspections. The Contractor shall immediately initiate such remedial work as may be necessary to correct any deficiencies or defective work shown by this report, and shall promptly complete all such remedial work in a manner satisfactory to the Architect/Engineer and the Division of Public Works.

If the Contractor fails to promptly correct all deficiencies and defects shown by the report, the Principal Representative may do so, after giving the Contractor ten (10) days written Notice of intention to do so. The State of Colorado acting by and through the Principal Representatives shall be entitled to collect from the Contractor all costs and expenses incurred by it in correcting such deficiencies and defects, as well as all damages resulting from such deficiencies and defects.

september semi-annual meeting

Associated Building Contractors



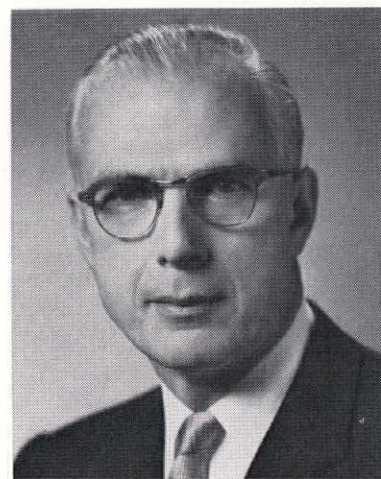
The semi-annual meeting of the entire membership of the Associated Building Contractors (Colorado's Building Chapter of the Associated General Contractors of America, Inc.) is of particular significance this September, 1967. Colorado's General Contractors, Sub-Contractors and their suppliers will welcome as principal speaker of the evening of September 5 William E. Dunn, Executive Director of the AGC. This year's meeting will be held at the Tiffin Inn in Denver, with the Happy Hour scheduled for 6:30 and dinner at 7:30 p.m.

The program is in charge of the Associate membership headed by Forrest Jensen (Symons Manufacturing Company), Chaimon and Herman Rask (Denver Wood Products) Vice Chairman. Master of ceremonies for the semi-annual dinner meeting will be Keppel Brierley. Mr. Brierley is a past president of the A.B.C., and a past national director. He is the president of the J and K Construction Company of Denver.

National Director William Dunn will bring to the General Contractor groups an up-to-the-minute report of the overall national Construction picture. He will discuss, in some depth, the work being done on construction safety, education, legislation and labor matters. Mr. Dunn, as executive director, represents over eight thousand General Contracting firms in the United States. Construction, 1967, is the nation's largest business—responsible for 15% of the Gross National Product. Since joining the National Staff of the Associated Building Contractors, Mr. Dunn has visited every state in the Union, and is universally recognized as an authority on matters of construction throughout the country.

Bill Dunn has been with the Associated General Contractors since 1947, and has served the organization in many capacities. He has worked with its Labor Service Department and later with the Legislative Department. In 1956, Mr. Dunn was appointed Assistant National Executive Director, a position he held for five years. This was a particularly active and rewarding period for the Construction Industry in the legislative field—salient results were the expanded highway program and passage of the Landrum-Griffin Act. Following the death of James D. Marshall in 1961, Mr. Dunn was appointed National Executive Director, his present position. During his tenure, he has devoted considerable time and effort to the AGC safety program, membership growth and legislation. He is married, lives in Sumner, Maryland, just outside the Nation's Capitol, and is the father of five children. All members of the architecture / construction community will be interested in reviewing Mr. Dunn's remarks to the general A.B.C. Membership this September 5th in Denver.

Still another highlight of the semi-annual meeting will be the Associated Building Contractors' yearly salute to the men who have headed the organization since its inception in 1934. As always, the Past Presidents will be presented with a token remembrance for the guidance and leadership they have provided, bringing the Association to its present distinguished position in the Construction Industry. Past Presidents to be honored on September 5th will be Chester M. Schrepferman, J. T. Gibson, David A. Olson, Roger B. Mead, C. M. Brown, N. G. Petry, J. Alvin Schrepferman, George



William E. Dunn
Executive Director
Associated General Contractors

B. Folsom, Jr., James R. Howell, Gerald H. Phipps, N. R. Petry, Keppel Brierley, Walter L. Meyer, Robert E. Kenney, Richard O. Hart, Max T. Morton, John N. Johansson, John D. Lonergan, Ralph A. Mitchell, Dean R. Weaver, Donald W. Decker and B. H. Baker. A special silent tribute will be paid to Mr. Gibson and Mr. N. G. Petry, now deceased.

Colorado's Associated Building Contractors, now in their 34th year of service to the Industry represent the highest construction standards, and limits its membership to those contractors who qualify as to Skill, Integrity and Responsibility and whose business practices are honorable and ethical.

symposia/around the region

arizona

Frederick P. Weaver, F.A.I.A.
Phoenix, Arizona

Awards Program

The Central Arizona Chapter of the American Institute of Architects is sponsoring a 1967 Honor Awards Program. Projects must have been completed after January 1, 1963. They may have been completed anywhere as long as the office of the Designing Architect was located within the area of the Central Arizona Chapter. Entries must be in not later than 4:00 p.m., September 8, 1967. All entries will be exhibited at the Phoenix Art Museum after the judging and until the night of the Awards Dinner, at which time they will be exhibited at Mountain Shadow's Resort during the Awards Program. Both locations are desirable for this type of display, and it is anticipated that the Public will show considerable interest. The Central Arizona Chapter had a similar Awards Program a few years ago, and received splendid support.

Architectural Agreement

One of the most eventful, and we hope successful, accomplishments which has happened in recent years is the successful conclusion of an agreement for Architectural Services to be used between architects and State or Municipal Agencies . . . i.e.: School Boards, Boards of Regents, City-County etc. In the past, the individual Architect has had to accept about anything in the way of a contract which the Agency wished to present, or that the Attorney, representing the Agency, thought he could get away with. The new Agreement was prepared with the aid of Legal Counsel and is as nearly like AIA Form/B-131/1966 as practical. The main difference in the format is a better explanation of the Architect's basic services and special services. This was necessary because of recent State Legislation whereby the Architects got some relief in the area of what they were required to do for their 6% Basic Service. It is hoped that with proper education of the individual practitioner in his negotiation with the Agency involved, that he can get relief on the small and remodeling jobs where he has historically **lost money**. The larger and more complicated projects where there is no repetition will allow for additional fees in the engineering fields which, it is believed will

strengthen the fees to the Architect. With the Architect losing money nationally on one out of four projects, it is time we became concerned with fees or we won't be around to practice the good architecture many of us talk about. A realistic fee structure will allow the Architect to devote more time to the project, analyze different approaches, different structural and mechanical systems with the end result to the owner of a better building at budget cost if not lesser project costs.

This Agreement has all the corrections and conditions necessary to meet the Arizona Revised Statutes and has received the approval of the State Attorney General as to form and legality. It is now in final printed form and copies may be obtained by writing the Central Arizona Chapter—American Institute of Architects, 2720 North 16th Street, Phoenix, Arizona—(ED: There will be a small charge for this document, but in view of the E.S.W. (Enraged Specification Writer), and the feeling of many other members of the architectural/construction community we can feel assured they will be most interested in examining the document described above by Mr. Weaver. And, he called this an uninteresting report because he had just returned from Vacation!)

CSI/Arizona—New Officers

First and foremost, Phoenix is the home of the new Western Section Director—Mr. George O. Petty (Monarch Tile Manufacturing, Inc.) Phoenix Chapter Officers for 1967/68 are:

President: H. Maynard Blumer, Guiry, Srnka and Arnold, Architects. Secretary: James F. Lindlan, Weaver and Drover, Architects. Treasurer: James W. Fraser, Phoenix Cement.

Editor of "Cactus Comments": Robertson (Bob) Ford, Sheetmetal and Air Conditioning Trades.

Tucson Chapter Officer for 1967/68 are:

President: William R. Eley, Engineering Division, City of Tucson. Secretary: Warren G. Edminster. Treasurer: Myron H. Babby, Babby Building Specialties.

Membership Chairman: Charles Sewall, Sewall Painting Contractors. Technical Chairman: James R. Schibley, Blanton, Inc./Architects. Editor of "Tucson Topics": Alfred H. Burlini.

nevada

Walter F. Zick, AIA
Las Vegas, Nevada

Reno CSI Officers

President: Merle Wahlgren, Ken R. White Company. Secretary: Bruce Hicks. Treasurer: Vern Segale, Flanigan Warehouse Co., Inc. Editor of the Reno Spokesman: Rich Scheuermann.

new mexico

James R. Cushing/CSI
Albuquerque, New Mexico

Bradley P. Kidder/FAIA
Santa Fe, New Mexico

CSI/August, Meeting

A "fun and games" affair in August—golf tournament and an outdoor steak fry scheduled for the 22nd at the new University of New Mexico South Campus Golf Course. The chapter is still juggling the meeting dates around—hardly any plans definite beyond thirty days.

Albuquerque/Downtown

Ronn Ginn's position with the completion of his award-winning "Albuquerque Downtown" plan and its acceptance by the A/D group and presentation to the City Commission. Since that time the American Institute of Architects locally has been endeavoring to breathe some life into A/D, local business men, and build a fire under the City Commission. Albuquerque does have a planning group—would suggest adding their names to the Symposia mailing list—some of your articles on what other communities are doing should prove inspirational.

Urban Renewal

Albuquerque has established an Urban Renewal Commission, employed an Executive Director, and has selected consultants. The firm of Flatow, Moore, Bryan and Fairburn/Albuquerque and a Mr. Scanlon, an engineer from Santa Fe, have been given the nod on the consulting job.

SANTA FE OPERA PAVILLION BURNS TO THE GROUND

Sometime in the early morning hours on Thursday, July 27th, following the premier performance of the opera, "Cardillac," a fire got started in the lowest regions of the costume shops under the stage, and before the fire burst into the open and the flames were observed, (about 4:00 a.m.), the opera was doomed.

The flames were spread rapidly by a fairly strong breeze and raced through the stage, out onto the wooden benches of the auditorium and up into the wood decks of the balcony. When the fire department arrived, they had

barely enough water available merely to save the box office which was not in line with the prevailing breeze. The box office and the bar on the lower level, which were largely of cement block, were about the only elements saved.

Both the stage and the balcony were of a form of mill-construction of heavy wood decks, T & G, and with large glue-laminated columns and beams. Builders and architects found it hard to believe that these heavy members could have been consumed so completely — but, with no water, or very little water for fighting the fire — these members were completely consumed.

The opera, especially after the balcony was added and the subsequent improvements to make it weathertight in 1966, had become an esthetically approved and publicly accepted Santa Fe monument — the pride of Santa Fe'ans, who took great delight in exhibiting it to visitors. Its loss was felt keenly by all of those who had in any way contributed to either the building of the structure or had in some small way contributed to the truly international acclaim which had been accorded its performances.

Within hours after the fire, when it was announced that the opera, with some modifications, would complete its 1967 season and would be rebuilt in time for the 1968 season, offers of financial help poured in from opera "buffs" throughout the entire United States. Such had been the fame of the opera that several major foundations have already agreed to assist in a substantial manner with the program for rebuilding.

The firm of McHugh and Kidder, the original architects, was retained to start at once on the plans for rebuilding. This time, since the opera had been in existence for eleven years, all of the problems incidental to preparing for and staging the operatic productions have been studied with the idea that would be possible to improve on existing conditions — so, all of these ideas will be incorporated in the new theatre. The seating will be increased, and the stage and orchestra pit enlarged. It is hoped — and sincerely desired — that much of the spirit of the former Opera Pavilion can be retained — and still be made fireproof.

Rain

With a couple of adobe houses under construction, and with a third of our annual rainfall here in Santa Fe occurring within ten days . . . well, there are a lot of free-formed adobe walls around town.

Construction Commission

The Construction Industries Commission met on July 1 and 28 and appears to have the immediate situation in hand, or at least as far as the renewal of existing licenses is concerned. The new Commission has been given the requirement of determining the contractor's financial responsibility which requires re-examination of all existing licenses. Each new applicant will be required to take an examination on General Business Knowledge, Knowledge of the Law, and a trade examination in his chosen classification of construction.

With all new forms to prepare, new examinations to be drawn up, financial statement forms and policies for determining financial responsibility and a completely new set of Rules and Regulations—the Commission is scheduled for several busy months ahead.

Trampas Foundation

Work is presently progressing on applying a new coating of mud plaster on the exteriors—using native Trampas labor and materials. This project is off to a good start and is progressing nicely in accordance with a master plan—which is still being worked on. Problems of land titles to rights of way are still a major consideration—in fact, one tract of land involved doesn't seem to belong to anyone.

AIA/Santa Fe

The Santa Fe Chapter of the American Institute of Architects usually meets on the second Thursday of every month. August, of course, was given over largely to business. At the September meeting—we may have a speaker, a dinner meeting and invite our ladies. Presently we are in a state of indecision.

Apology

What with the rains raising Cain with our two adobe jobs, the work on the opera (incidentally, we've had supervision of all demolition and preparation for rebuilding), supervision for the GSA on the National Park Service job, the Chairmanship of the Construction Industries Commission and seven visiting relatives (house guests)—your reporter has not had much time to do any news gathering for Symposia . . . for which my abject apologies. (Ed.: Mr. K.'s always splendid coverage—this month, or any month—hardly calls for apology, abject or otherwise!)

utah

Wayne D. Criddle, Salt Lake City member of the Consulting Engineers Council of Utah, has been elected chairman of the Executive Committee of the U.S. Committee on Irrigation Drainage and Flood Control.

(Harold G. Arthur of Denver has also joined this group.) Plans call for participation in the ICID to be held in Mexico City in April of 1969. They will also attend with the Irrigation and Drainage Division of the American Society of Civil Engineers the Specialty Conference in Sacramento, November 1-3. Theme for the ASCE meeting is a tender spot for most Westerners—"Competition for Water in an Expanding Economy."

CSI/Salt Lake

New officers for the 1967/68 term in Salt Lake City are:

President: Jack H. Craven, Templeton-Linke-Alsup.

Secretary-Treasurer: John H. Beam. Salt Lake puts out a newsletter titled Spex, and of course, is the home of Region 10 Director, C. Walter Scott of Scott and Louie. Mr. Scott was Symposia saluted in the February, 1967 issue.

wyoming

Gerald P. Deines, AIA
Casper, Wyoming

N. A. Nelson, AGC
Sheridan, Wyoming

Joint Committee

The joint committee which resulted from the AGC meeting in Teton Village on July 7th will meet again on August 21st. Members of this committee of the AIA and the AGC are working together to find solutions to joint problems. Comments Jerry Deines, "We are striving for Utopia. Seems history has told me this is impossible."

School Feature

In an upcoming issue of Symposia, we will have, thanks to Mr. D. and the Casper architectural firm of Krusmark and Krusmark, a splendid feature on school construction in Wyoming. Multi thanks from the Ed. to all concerned.

colorado

Washington Man Power Pow-wow

H. W. Houston (H. W. Houston Construction Company, Pueblo) has returned recently from a two-day manpower conference sponsored by the Associated General Contractors in Washington. The conference heard from top representatives of the construction industry, government and labor on the manpower needs of the Industry, and the current input particularly through the apprenticeship system. Mr. Houston, a member of the National AGC Apprenticeship and Training Committee, foresees a decided improvement in industry practice as a result of the conference.



THE TOWN AROUND US

Each succeeding report to Symposia from the AIA's Western Mountain Region Conference Headquarters in Colorado Springs indicates the 16th will indeed be a memorable occasion! Just a few of these upcoming events have cast some significant shadows before them. Here are some for instances:

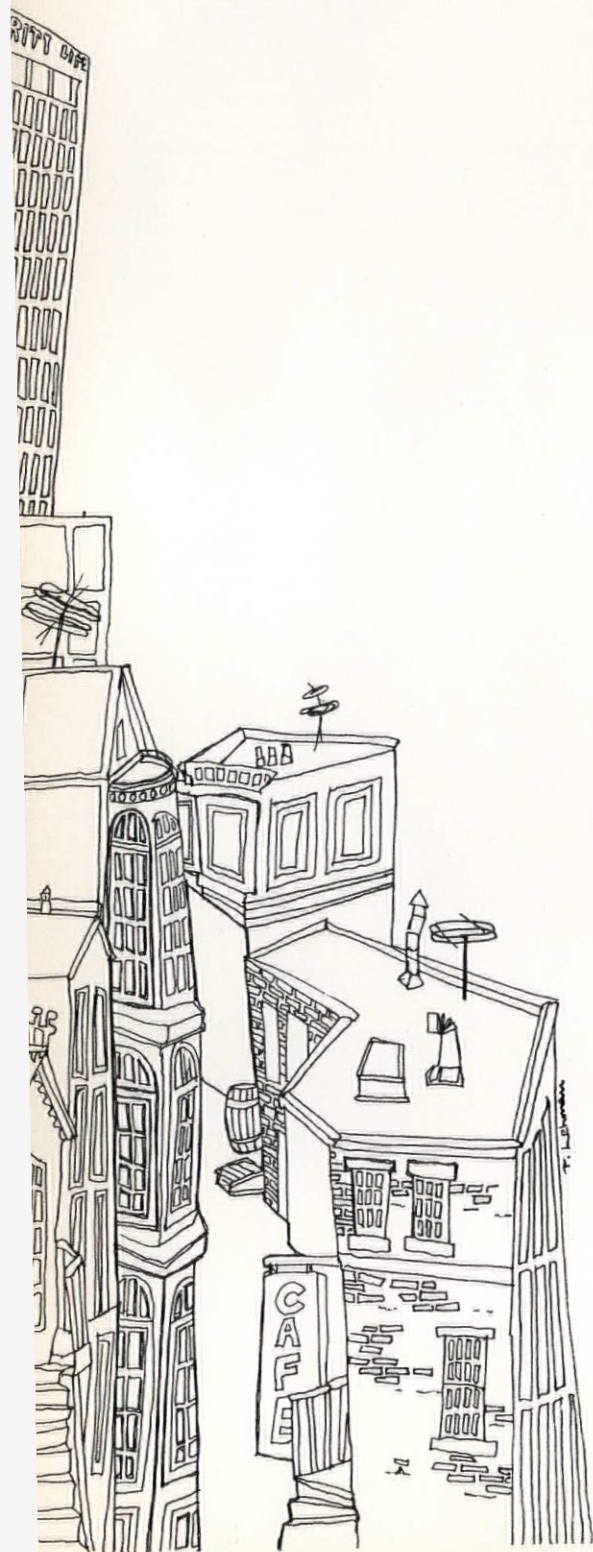
PRE-REGISTRATION

Never—but never—has pre-registration been so enticing as it is for the 16th Western Mountain Region Conference. The host chapter has acquired a block of 200 seats for the great Service Classic football game between the U. S. Air Force Academy and the U. S. Army. Falcon Stadium at the Academy will be a "sell-out," and all the color and excitement of a great traditional rivalry will be yours! Pre-registration forms will be sent out early in October and if you plan on coming to the game—remember, it's "first come—first served," so respond with alacrity, and you'll be among the cheering thousands at Falcon Stadium on Saturday, November 4.



Something for the Girls

The Ladies Committee—Frances R. Ten Eyck, Ann Ritz, Lucille Lusk, Viola E. Merrill and Ruth Ann Kelsey—have made this report: The Ladies Committee is busy planning a welcome for all the wives and hoping for many of them. Assuming that most will be interested in attending the convention program—we have scheduled just one event "strictly for the ladies," but we all feel it will be outstanding. This will be a very special luncheon at the Antlers Plaza Hotel. A garden and flower demonstration called "Moving with the Current" is planned by Dixie Freudenberg, during which she will show something old, something contemporary and something "avante garde." Mrs. Freudenberg, nationally accredited judge for the Federated Garden Clubs of America, has an extensive background in commercial art and television. She has taught flower arranging for six years, and also exhibits at flower shows with many prizes to her credit. Many plans are also in the making for the Architect-at-Home dinners Monday night, November 6. These dinners have become a favorite convention event and everyone who indicates when they pre-register that they would like to visit with all of us at home will receive a special invitation.



AMERICAN INSTITUTE OF ARCHITECTS WESTERN MOUNTAIN REGION



Conference—November 5-8, 1967—Colorado Springs, Colorado

ARCHITECTURAL AND PRODUCT EXHIBITS

Mr. Clifford Nakata of the Architectural Exhibit Committee reports about 125 panels will be needed to accommodate the more than 50 projects submitted for the consideration of the Architectural Awards Committee. This will be not only one of the largest W.M.R. Awards showings, but both the quality and the variety of buildings is unusually fine. As always, the Producers' Council, this year headed by Thomas W. Keeton Jr., is planning a most interesting visual preview of the "tools of construction."



Edmund N. Bacon
Executive Director
City Planning Commission
Philadelphia, Pennsylvania

THE ALL STAR CAST

To treat the challenging conference theme "The Town Around Us," an all-star cast of speakers is being assembled for the November meeting. There will be among others—**Albert Bush-Brown**, who is Dean of the Rhode Island School of Design in Providence, widely known and respected in his field; **J. H. Finch, FAIA**, of Atlanta, a principal in the firm of Finch, Alexander, Barnes, Rothschild and Paschal, Architects. Mr. Finch has worked with inspiration and dedication on the downtown redevelopment of his home city of Atlanta. Western mountain region architects will be happy to welcome **Ronn C. Ginn, AIA**, back home. Mr. Ginn was in Santa Fe at last year's regional meeting to accept an award for his design concept for Albuquerque/downtown. Ronn is now with the Model Cities Administration of the Department of Housing and Urban Development in Washington, D. C.

And then, of course, there is **Edmund N. Bacon!** Mr. Bacon has been the executive director of the Philadelphia City Planning Commission since 1949. Under his leadership, Philadelphia has been given the "TLC" all cities, especially old ones need, and has reached a new flowering of architectural and civic beauty. He is the author of a magnificent book, "The Design of Cities"—tracing the historic development of man's urban environment from the Acropolis to Brasilia. Mr. Bacon's book is fast becoming a guide to not only the changing forms of architecture but to city planning as a whole.



By way of conclusion, Symposia can only underline a paragraph from Dean Sidney Little, FAIA, as the Western Mountain Regional Director wrote to fellow A.I.A. members:

"Make your plans NOW to join us for the 1967 conference. Listen and visit with some of our national professional leaders. Join in the provocative discussions of matters critical to the region and its chapters."

Hear! Hear!

Denver Welcomes British Town Planners

Denver and its planners are busy polishing up their "Cheerios!" these days, in preparation for a proper British greeting to a visiting delegation, some 90 strong, from the Town Planning Institute of Britain. The English Town Planners have projected a brief tour of the United States prior to their attendance at the Annual Conference of the American Institute of Planners scheduled October 1-6 in Washington D. C. The proposed itinerary of the tour includes New York City, Chicago, Denver, an overnight stop at the Grand Canyon in Arizona, Los Angeles, San Francisco and, of course, their final destination, the Nation's Capitol. The tour director is British Planner Ernest Doubleday, and many of the visitors will be accompanied by their wives.

In charge of the "Cheerios" in Denver will be Charles D. Braman, Jr., personable Director of Planning for the City of Denver. In his summary for Symposia of the events scheduled for September 19-22, Mr. Braman writes: "Please realize that a great number of persons have been involved in making arrangements and in obtaining the information needed to make the Denver visitation a success. These persons are too numerous to mention and only the key persons are listed herewith." Certainly, a great deal of thought, time and effort has gone into the planned itinerary for the brief visit which might very well serve as a guide to anyone who wanted to see a lot of Mile High country in the approximately 66 hours the English will be in Denver.

The British Planners will arrive in Denver on the afternoon of Tuesday, September 19—and will have the opportunity to view a portion of Denver's parkway system, Cranmer and Cheesman Parks—on the way to their headquarters at Denver's historic Brown Palace Hotel. An individual walking tour of Denver's downtown area will take the planners to Larimer Square where arrangements for a guided tour of the Square have been made by Mrs.

John Crawford (Larimer Square) and Mrs. William Fluty of the State Historical Society. Following dinner, Britishers and their guides will continue the downtown walking tour, arriving at 8:00 for a program at the Wyer Auditorium, Denver Public Library. Speakers at the Tuesday evening program will include Director of Planning Charles Braman; Assistant Director of Planning, Paul Wichman; British Consul, Colin Mayhew, and a representative of Denver's mayor, Thomas Currigan. (Mr. Currigan will be in Denver's sister city—Brest, France—at this time.)

On Wednesday morning, sightseeing begins bright and early with a tour of the Colorado State Capitol, a visit to the Botanic Gardens and Conservatory, and City Park. Miss A. P. Neal, Curator of Graphic Design at the Museum of Natural History, has made all arrangements for a briefing and tour at the museum.

Luncheon, minus speeches, formality and a head table, will be at the Hungry Dutchman Restaurant which will enable the English visitors to glimpse Speer Boulevard, the Cherry Creek Shopping Center and the Valley Highway en route. (Ed.: Someone was exceptionally astute in eliminating from this automotive Denver coverage—that screaming section of Colorado Boulevard known to local residents as "Billboard Alley.") In the afternoon, arrangements have been made by Captain Michael McRaney, of the Office of Information, for a tour of the United States Air Force Academy.

The trip back from the Air Force Academy (via 6th Avenue) will enable the British Planners to shift gears from the "New West" to the "Old West." Ira Hardin of Jefferson County has waiting at the Jefferson County Fairgrounds a demonstration of rodeo techniques and a riding program by the justly famous Westernaires.

On Wednesday evening, 25 Denver couples will open their homes to the visitors and their wives for "at home" dinner parties, and an opportunity for everyone to become better acquainted in a relaxed atmosphere. The ladies have not been neglected; on Thursday, the 21st, there will be breakfast, a slide show and a guided tour of the Villa Italia Shopping Center—all arranged by Mr. Gerry Kelly of Von Frellick Associates, Inc. While the distaff side is thus engaged, British Planners will participate in a panel discussion and slide show at Wyer Auditorium.

Speakers at the Thursday morning discussion will be Charles Braman, Denver Planning Office; J. Robert Cameron, Denver Urban Renewal Authority, and J. K. Smith, Director of the Inter-County Regional Planning Commission. In addition to the panel discussion of Urban Renewal and Urban Development Patterns in the United States, the British contingent will present a slide show featuring "Trends in European Walkways."

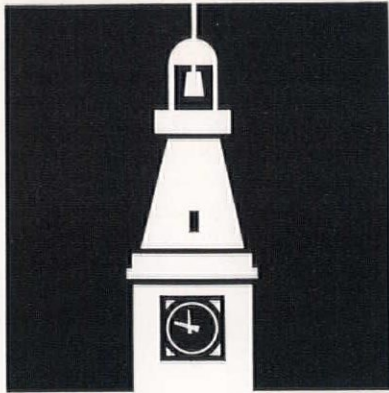
The gentlemen will rejoin the ladies at Villa Italia and head over the Hog Back for lunch at Red Rocks. In addition to viewing this magnificent out-door facility, a few added "oh's" and "ah's" may interrupt the box lunches when the Colorado Mountain Club demonstrates rock and mountain climbing techniques.

"Oh's" and "Ah's" and perhaps a couple of "I say, old chap, let me out of here" may be heard as the tour proceeds over the summit of Loveland Pass to the Cabin Creek project where tour arrangements have been made by Mr. Daniel McNellis of the Public Service Company of Colorado. Here again a sharp contrast between old and new will bring the visitors to the historic old mountain community of Georgetown. Mr. A. Storck (Storck Art Studio) has prepared an itinerary for a walking tour of the picturesque town with visits to significant historic buildings. Cocktails and dinner are scheduled at Georgetown's Red Ram. If time permits, the group will return to Denver via the Lariat Trail down Lookout Mountain.

British Town Planners will head for Grand Canyon next morning at 6:15 from Stapleton International Airport.

In discussing the visit of the English planners Mr. Braman said—"We have tried to give them a glimpse of the many facets which make up our way of life here in the West. We have included many tours and much entertainment that does not apply to city or town planning—but this may be the first and last time many of these people will come our way, and we wanted to have them learn as much about us as possible." With this, Symposia can heartily agree in principle—and in practice, but we might recommend a holiday on Friday for those professional staff members of the Denver Planning Office who will be acting as hosts and tour guides for this "whirlwind" 66-hour visitation. Those deserving the day off would certainly include not only Mr. Braman himself but also Robert Giltner, Assistant Director of Planning; Paul Wichmann, Joe Lontin, Vern Vanzant, D. B. Grove, Robert Damerau, Philip Schmuck, John Dillavou, Morton Baker, Louis LaPerriere and Mrs. Merideth Potter, City Planners.

ALL SYSTEMS GO ON SKYLINE/DENVER



CONSULTING ENGINEERS GRASS ROOTS PROGRAM!

The Consulting Engineers Council/USA publishes monthly a CEC Newsletter. Much of its information is what we might term "in house," however, the August issue contained information which we feel is of importance to the entire architecture/construction community, and certainly indicates the interest and the involvement of Consulting Engineers in the Symposia region. We feel these efforts and activities on the part of the CEC in our area deserve further publication and congratulation from all segments of our industry.

WHO SAYS CONSULTING ENGINEERS ARE UNCONCERNED? (from August, 1967, CEC Newsletter).

A review of the reports submitted by CEC member organizations to the 1967 Board of Directors reveals information on many service programs being conducted on the local level. Frequently, these important activities go unnoticed nationally, yet they are the foundation of strong grassroots efforts by CEC associations which contribute to the national strength of CEC. These programs are broad and varied. For example, did you know that:

—the CEC/ARIZONA is seeking amendment to the registration law to provide a separate category for consulting engineer registration?

—the CEC/COLORADO participates in a local Interprofessional Commission on Environmental Design (ICED) with architects, planners and landscape architects?

—the CEC/NEW MEXICO participates with eight other segments of the construction industry in the Construction Practices Council of New Mexico?

—the CEC/UTAH worked with the architects in removing restrictions from an architects' licensing bill which would have been harmful to consultants, and developed a working agreement with the State University regarding engineering professors performing consulting work?

—the CEC/WYOMING obtained passage of legislation relating to the monumentation of property and public survey corners?

Add to this group from our Symposia region—some 18 other CEC Chapters making a significant contribution to the architecture/construction community on a grass roots level—and there is just one answer—Consulting Engineers Care—maybe that's what CEC stands for, after all!

On May 16th of this year, Denver's voters overwhelmingly approved the urban renewal of 37 blocks in the down-at-the-heels core area of the city. Dubbed "Skyline," the design concept was the work of Marvin Hatami of the firm, Baume, Polivnick and Hatami of Denver. The plan has become the delight of the architecture/construction community.

Before plans were complete and formally approved or graphics available for publication, Symposia met frequently with Mr. Hatami discussing the basic architectural and planning philosophy of the project. It was, at that time, Mr. Hatami said—"Design without implementation does not make sense. Skyline/Denver must include as its prime objective the long term planning and step-by-step execution which will bring the project to fruition, true to its original goals."

Three months later, Symposia talked with Mr. J. Robert Cameron, Executive Director of the Denver Urban Renewal Authority, to determine how far along the Red-Tape Road, Denver had come toward implementation. His report was happily an optimistic one. The Denver Planning Board met and approved the Skyline Urban Renewal Project on August 9th—The Denver City Council held a first reading on an ordinance authorizing the loan and grant application on Monday, August 14th, and set the date for Public Hearing on August 28th. Mr. Cameron expressed the belief the many steps required before the project can be finally submitted to the Department of Housing and Urban Development will be accomplished by August 31—well ahead of the September 11th deadline. Denver Mayor, Thomas Currigan, beamed . . . "They are moving faster than anyone contemplated. We now are running a couple of weeks ahead of the most optimistic schedule." Asked if he anticipated any difficulty at the August 28th Public Hearing of the Denver City Council, Mr. Cameron said: "There will be, we assume, a few speeches, but we cannot foresee any real problem in view of the mandate given Council by the people in May."

Mr. Cameron also spoke strongly on the subject of architectural counsel on the implementation of Skyline. "Whatever rumors have been set afoot on this subject are simply not true. Money has been budgeted for such architectural consultant service from the very beginning," he continued, "And it is my sincere hope that, in future, if anyone in Denver is concerned about something in connection with Skyline, they would simply call me on the telephone. I'm a public servant, and here to answer questions and clarify any future plans."

The Executive Director said that land acquisition might begin as early as the first quarter of 1968, and clearance would follow as soon as possible.

With these happy tidings, we can report Skyline/Denver . . . all systems are go . . . and everything under control on the launch pad.

RENDERINGS

Our only requirement for publication will be that the rendering must be of a structure on which you have completed a firm contract for construction. The Editorial Staff will need, in addition to the rendering, your name, the name of the owner, and that of the General Contractor. You may telephone the Symposia office at 422-4153, and we will arrange to call for this material at your offices. If you are outside the Metropolitan Denver area, you may address us: SYMPOSIA—Boyce Publications, Inc.—4070 Estes Street—Wheat Ridge, Colorado 80033.

regional P. C. REPORTS



*Paul L. Curtis, President
Intermountain Chapter
Producers' Council*

The Producers' Council of Salt Lake City, Utah (Intermountain Chapter) has checked in with not only the names and numbers of all their players, but also with their imposing program of events scheduled from September until January 1, 1968. Thanks to Mr. Donald K. Irvine, Immediate Past President of the Chapter, Symposia is happy to report the Cast representing the National organization of the manufacturers of Building Materials and Equipment in the Utah area.

Officers for 1967 are:

President: Mr. Paul L. Curtis (Honeywell, Inc.).

First Vice President: Mr. Joseph G. Pass (Interstate Brick).

Second Vice President: Mr. William C. Howe (Building Specialties).

Secretary: Mr. Leon C. Searle (Utah Power and Light).

Treasurer: Mr. Harold V. Hymas (Bennett's).

Committee Chairmen are:

Membership: William F. Hughes

Silver Bowl Award: Donald K. Irvine.

Award of Merit Program: Jack W. Lowder.

Christmas Party: C. Craig Washing.

Golf Party: Robert I. Merrill.

September Kick-Off: Richard A. Ridges.

Welcoming: Stephen G. Lym.

Satellite Programs (and with the line-up they have, no wonder they have four fellows on the job) Gerald S. Howells, Charl Singleton, H. A. (Pete) Case and Wes Coryell.

The line-up of meetings for the balance of the year for the Intermountain Chapter is most impressive — 7 (seven) — count 'em Satellite Programs!

September 8: September Kick-Off Meeting.

September 12: Great Falls, Montana Satellite Program.

September 14: Billings, Montana Satellite Program.

September 25: Pocatello, Idaho Satellite Program.

September 26: Idaho Falls, Idaho Satellite Program.

September 28: Boise, Idaho Satellite Program.

October 3: Provo, Utah Satellite Program.

October 5: Ogden, Utah Satellite Program.

October 16: Luncheon/Informational Meeting sponsored by Pomona Tile Manufacturing Company, Salt Lake City.

November 20: Award of Merit Program.

November 27: Business Meeting and Election of New Officers.

December 7: Joint PC/AIA Christmas Party.

Symposia also has a Program Committee Report from the Producers' Council (Rocky Mountain Chapter) in Denver. Roland Proett, President, and his Executive Committee tell us the following gentlemen will be serving the Chapter until June of 1968. They are:

AIA/PC Joint Committee: R. C. Sandoval and Thomas W. Keeton, Jr.

AGC/PC Joint Committee: Bill Dingler.

Annual Report: B. A. Wyatt.

B.O.M.A./AIA/PC: Don Wakefield.

CEC/PC Joint Committee: Phil Smith.

CSI/PC Joint Committee: Evan Williams.

Decision Makers: Milt Hayman.

Golf Committee: Gaylord Kirksey.

Program and Reception: B. A. Wyatt.

Membership: Tom Bowman.

Mile-Hi P.C. News and Denver Chapter News: Evan Williams.

HBA/PC Joint Committee: Carl Edwards.

Nominating Committee: R. C. Sandoval.

Symposia Editorial Advisory Board: Roland Proett.

Publicity: B. A. Wyatt.

Satellite Program: Joe Cullen.

Telephone Committee: Milt Barnes.

Photographers: Roland Proett, R. C. Sandoval, Carl Edwards.

All of Denver's Arnie Palmers, Jack Nicklauses, etc., etc., will be teeing off beginning at 11:00 on September 15th at the Meadow Hills Country Club for the annual PC/AIA Golf Party. We must pay some small tribute to two of the braver participants, Symposia publisher Fletcher Trunk and Harold Dahl (Builders Service Bureau) — who will be checking scores.



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Memo...



NOTE: Many of our readers tell us they are using the "Memo" as a day-to-day reminder of where to be—and when to be there. We are endeavoring, of course, to make this a **complete** calendar—only possible if we have the cooperation of all the construction-oriented organizations. If your meeting dates are not now included please call us at 422-4153—or if you are outside the Denver Metropolitan Area—mail your meeting schedule to Editor—Symposia—Boyce Publications, Inc., 4070 Estes, Wheat Ridge, Colorado 80033.

SEPT. 2-4: International Congress on Religion, Architecture and the Visual Arts — McGill University, Royal Victoria College, Montreal, Canada.

SEPT. 4-7: Instituto Mexican del Cemento y del Concreto International Congress, Mexico, D.F. Subject: Architectural Shells.

SEPT. 5: ABC/Colorado — Combined Membership Meeting and Past President's Night. 6:30 p.m. — Tiffin Inn, Denver.

SEPT. 5: CEC/Colorado — Director's Meeting. Cocktails: 6:00 — Dinner: 6:30 — Place to be announced. (Note: All members are invited and urged to attend Board Meetings. For reservations, telephone 244-4717 before noon of the previous day.)

SEPT. 6: Association of Remodeling Contractors, Board of Directors Meeting. Dinner: 6:30 p.m. — Four Winds Motor Hotel, Denver.

SEPT. 6: CEC/Utah — Executive Board Meeting — NOON at the Ambassador Club, Salt Lake City — Confirm by calling R. B. Jones: 364-7775.

SEPT. 8: PC/Intermountain Chapter — September Kickoff Meeting, Salt Lake City, Utah.

SEPT. 8: Entries due today for AIA/Central Arizona Chapter Honor Awards Program.

SEPT. 12: PC/Intermountain Chapter—Satellite Program

SEPT. 9: WICS/Denver Chapter—Initiation of Officers. Place to be announced. 6:00 p.m. in Great Falls, Montana.

SEPT. 13: CSI/Denver Chapter — Regular monthly meeting. Dinner: 6:30 — Program: 7:30 p.m. Engineer's Club Building, 1380 South Santa Fe Drive, Denver.

SEPT. 13: AIA/South-Eastern Section, Colorado Chapter. Executive Board: 4:30 — General Membership: 6:30. Cavalier Lounge, Colorado Springs, Colorado.

SEPT. 13: CEC/Utah — General meeting — Promptly at Noon — Oak Room of the Ambassador Club, Salt Lake City. (Confirm attendance by calling R. B. Jones, 364-7775.

SEPT. 14: PC/Intermountain Chapter — Satellite Meeting, Billings, Montana.

SEPT. 15: PC/AIA Annual Golf Party — Golf play begins at 11:00 a.m. — Dinner at 7:30 p.m. — Meadow Hills Country Club, Denver.

SEPT. 15: Entries due today in A.A.S.A. School Competition, Atlantic City.

SEPT. 18: ABC (AGC) Executive Committee Luncheon meeting, 12:00 Noon — Silver Room, Engineers' Club Building, Denver.

SEPT. 19-22: Producers' Council Inc.'s 46th Annual Meeting. Hotel Americana, Houston, Texas.

SEPT. 19-22: Town Planners of Britain — Denver Visitation.

SEPT. 20: CSI/Albuquerque Chapter — Social Hour: 5:30 — Dinner: 6:30 — Meeting: 7:30 p.m. Polynesian Inn, 2420 San Mateo N.E., Albuquerque. (Members of neighboring chapters visiting Albuquerque are cordially invited to attend).

SEPT. 20: CSI/Phoenix Chapter — Cocktails: 6:30 — Dinner: 7:00 p.m. ABC Club, Mayer Central Building, Phoenix.

SEPT. 21: AIA/Colorado Chapter — Joint meeting with Ladies Auxiliary. 6:00 p.m. Showcase Restaurant, Denver.

SEPT. 23-27: Associated General Contractors — Mid-year Board Meeting. St. Louis, Missouri. (Not much like those balmy breezes in Honolulu last time, eh, fellas?)

SEPT. 25: CSI/Tucson Chapter — 7:30 p.m. — Redwood Gay Nineties, 5535 East Speedway, Tucson.

SEPT. 25: PC/Intermountain Chapter — Satellite Program: Pocatello, Idaho.

SEPT. 26: CSI/Denver — Executive Board Meeting — Luncheon 12:00 noon. Denver Athletic Club.

SEPT. 26: CEC/Colorado. General Membership Meeting — Cocktails: 5:30 — Dinner: 7:30 p.m. Place to be announced.

SEPT. 26: PC/Intermountain Chapter — Satellite Program: Idaho Falls, Idaho.

SEPT. 28: Mountain States Bureau for Lathing and Plastering, Inc. Board of Governors Meeting — 10:00 a.m. — 221 Santa Fe Drive, Denver.

SEPT. 28: PC/Intermountain Chapter — Satellite Program: Boise, Idaho.

SEPT. 29: Symposia/Editorial Advisory Board — 8:30 a.m. Board Room of the A. A. and E. B. Jones Construction Co., 1050 South Jason, Denver.

SEPT. 29: PC/Rocky Mountain Chapter — PPG Industries, Regional Division, Informational meeting. 12:00 noon — California Suite of the Hyatt House, Denver.

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Index to Advertising

CSI Specification Division

| | Page |
|--|--------------------|
| 8 Colorado Metal Products Company..... | 6 |
| 15 Colorado Pipe Trades Industry Program..... | Inside back cover |
| 8 W. Ray Crabb, Inc..... | 38 |
| 3 Dow Chemical Company..... | Inside front cover |
| 6 Economy Building Specialties..... | 40 |
| 4 General Building Service and Supply, Inc..... | 13, 14, 15, 16 |
| 5 Leever Building Specialties..... | 9 |
| 15 McCoy Company..... | Outside back cover |
| 9 Mountain States Bureau for Lathing and Plastering..... | 40 |
| 8 Pella Products of Colorado, Inc..... | 17 |
| Producers' Council | 6 |
| Public Service Company of Colorado..... | 40 |
| 2 Richlawn Turf Farms | 6 |
| 10 Sargent Western Corporation..... | 9 |
| 15 Shaker Air Conditioning Company..... | 39 |
| 4 Trus-Joint Corporation..... | 13, 14, 15, 16 |
| 10 Unistrut Western, Inc. | 17 |
| 15 The Warner Company..... | 3 and 4 |
| 6 William G. Zimmerman Architectural Metals, Inc..... | 17 |

is teamwork overworked?

Teamwork may be overworked as an expression implying intelligent, warm-hearted cooperation among members of a group acting together in common cause. Yet (perhaps, because we're mechanical contractors, and not poets), we can't think of a better term to describe what is fundamentally necessary when—working with you—we set out to create a building.

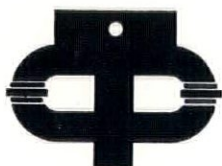
You, the architect, create the design, shape it for an intended use. Your genius gives it dimension, line and color, grace and the distinction of your individual touch.

We, among the essential members of your team, supply the veins and arteries, the temperatures and pressures, the very heart-beat of your creation. Together, we make it live.

We take unabashed pride in the skills and accomplishments of our team. We want only to help reproduce in reality—as perfectly as possible—your original vision of the building.

Like all teammates, we are interdependent. You need our skills to attain your vision. We need your understanding if we are to perform well, to carry out our responsibilities to your satisfaction.

In this series of messages, we'd like to discuss with you a number of subjects bearing on better teamwork. While teamwork may be overworked as a cliché, we know you'll agree it has no substitute in getting tough jobs done well.



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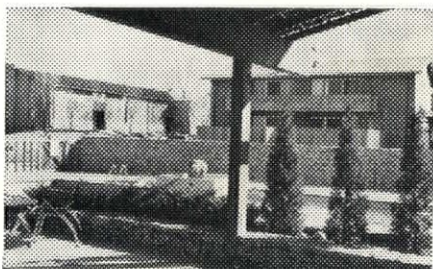
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