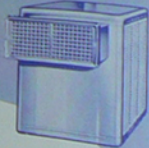




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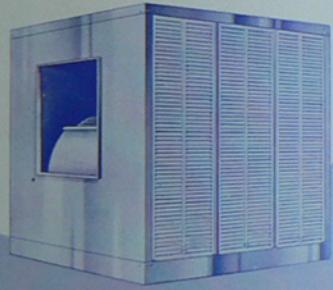
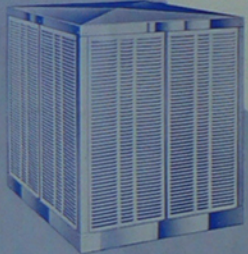
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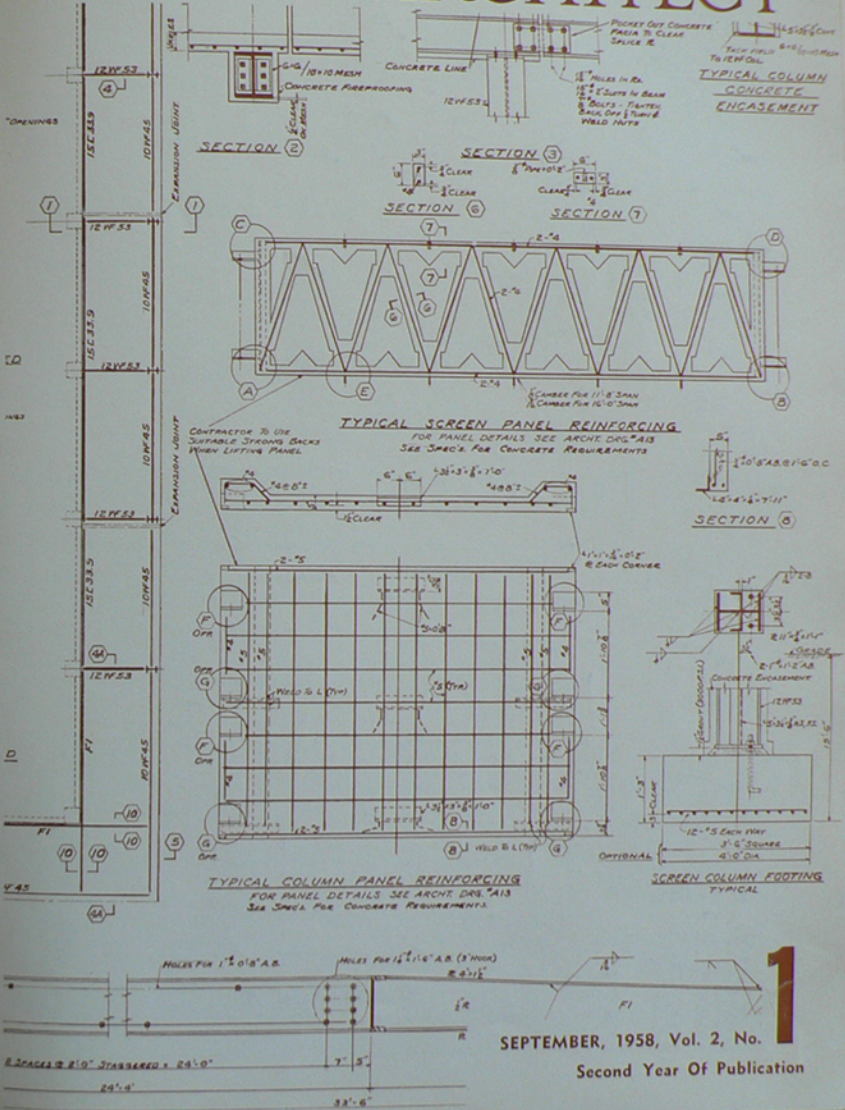
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SEPTEMBER, 1958, Vol. 2, No. 1
Second Year Of Publication



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September, 1958
Volume 2, No. 1

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

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September, 1958

Three



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Four

ARIZONA ARCHITECT

THE PRESIDENTS' PAGE



SOUTHERN
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CHAPTER

Santry Fuller



CENTRAL
ARIZONA
CHAPTER

David Sholder

GUEST COLUMN BY ARTHUR T. BROWN, AIA

YEARS AGO, a friend asked me, "Is Your Christmas tree as big as mine?"

On the way home from the A.I.A. Convention, in July, I stopped in Detroit. There I met an automotive engineer who told me that Chrysler, in 1936, had developed a car which was twenty-two feet long, with tail fins. They decided at the time that it was too long and had too much waste material to be practical.

It seems that they were twelve years ahead of their time and were right in their assumption. We have had the big cars, tail fins and tires in the tail fins, and now popular demand seems to be moving toward the smaller car.

This reminded me of explanations about why the dinosaurs became extinct. I was told that they became too big and unwieldy to resist their natural enemies.

For many years, architects of the large cities have competed to see who could design the highest building. There are even different kinds of "highest". The guide on the boat trip at the Convention amazed us by saying that the Cleveland hotel where we had our meetings was the highest skyscraper in the United States — "the highest above sea level."

The South-Missourian, when asked what kind of farm he had, used to answer, "Right smart — four mules." That was his way of bragging about size.

Some things that are big have quality and will last. But bigness, alone, should not be impressive. School buildings, at one time, were very monumental, tall, and awe-inspiring. In recent years, architects have brought them down to a proper and more friendly scale and, at the same time, have increased efficiency and quality. The public has accepted the unpretentious school; but, in cutting down, they sometimes go too far and cut quality.

It isn't the size of the Christmas tree that counts, but what is hung on it.

THE PROBLEMS of the President's office are many and varied. Many invitations are extended to me, as President, to attend meetings by organizations associated with the building trades and the arts. These invitations are always accepted, since we are interested in sharing the problems of these organizations and it affords us a chance to offer suggestions that may be of mutual benefit in the future. The end result is an on-the-spot appraisal of the problem, and an opportunity to meet the leaders of the many organizations face to face. These are pleasant problems.

However, there are problems that are not pleasant. Take the case of Mrs. X who phoned my office to complain about a situation she got into, but refused to give her name. She had plans drawn by a designer who said he was a registered architect. This is not a matter for the A.I.A. Chapter but a case for the Technical Registration Board. Then there was the case of an investor who was dissatisfied with the services performed by his architect, who by the way is not a member of the Institute. The only advice I could offer him was to consult an attorney.

There is the problem of being neutral in jurisdictional disputes where two trades claim a certain type of work and want the architects to specify it in their section of the specifications; and then a few days later there may be a request for another craft to delete from their section of the specification a portion of work that has been specified for years, and place it elsewhere. Or the requests for architects to act as experts in court cases. Many good architects would not make a good showing in court.

These are some of the demands placed upon our President outside of the normal functions of presiding at regular and executive meetings. While everyone may not agree with the decisions the President makes, at least he tries.

September, 1958

Five



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CENTRAL ARIZONA CHAPTER NEWS

The September 11th meeting of the Chapter considered and approved the proposed corporation procedure, thus officially authorizing the incorporation of the Chapter.

Miss Betty A. Pustarfi is the new office secretary for Central Chapter and *Arizona Architect*. Betty has been an Army First lieutenant and has a degree in English (with distinction) from Arizona State.



The newly formed Architect's Bowling League, composed of eight teams sponsored by local architectural firms, play the first game of their series Thursday, October 2, at 6:30 p.m. at the El Dorado Bowling Alley, 4501 E. McDowell Rd. in Phoenix.

The five-man teams, representing Lescher & Mahoney, Edward L. Varney Associates, Ralph Haver & Associates, John Brenner & Associates, Charles G. Polacek, Weaver & Drover, Bricker & Busby, will conclude the series on April 30, and participate in a sweepstakes on May 7th.

The president of the League, Jim Fiakas, has announced a handicap of 2/3 of the pins below 170. A portion of each evening's \$2.00 per person bowling fee will be reserved for prize money and trophies, with the El Dorado Bowling Alley donating five trophies.

Thanksgiving, Christmas and New Year's excepted, the League will bowl each Thursday night. In addition to the president, the following officials will steer the activities of the group: Vice President Bill Brooks, Secretary-Treasurer Dick McIntire, Trophy and Awards Committee members Bob Williams, Bob Helgeson and Dick McIntire.

A sponsor's fee of \$15.00 has been established, \$5.00 of which becomes the A.B.C. sanction fee, the remainder reserved for prize money.

Further information may be obtained by calling Jim Fiakas, Yellowstone 7-7959.

ARIZONA ARCHITECT

SOUTHERN ARIZONA CHAPTER NEWS

The Executive Committee has authorized John Beck and his committee on Public Relations to purchase two films — "A School for Johnnie" and "What is a House?". In making his request, Beck explained that these films, produced by the AIA, would be used by the speakers' bureau and shown to interested groups.

The Public Relations Committee also requested that the chapter's Committee on Awards, Scholarships and Allied Arts investigate the possibility of the chapter initiating an awards dinner, designed to recognize outstanding examples of trade workmanship, art in architecture and/or architectural design.

Beck has suggested that the chapter investigate the possibility of telephone service for the chapter, with the service located in the office of the president.

Santry Fuller announced the nomination of Ed Herreras to the Institute's Committee on Preservation of Historic Buildings.

COLORADO'S CONFERENCE THEME — ARIZONA'S CONSTANT THEME

Slogans and themes change with the times, and with the progress that time allows. "Beat the Heat" will be passé at the forthcoming Regional Conference in Denver, Colorado, September 25-27. The theme of this conference, "Living with the Sun," refines an attitude that, for Arizonans, might well be expressed in the old slogan, "If you can't beat it, co-operate it to death!"

For the people of the Southwest, "Living with the Sun" expresses an everyday reality, and to those Arizona architects who are planning or still contemplating the trip, the Denver Chapter offers an exciting, stimulating series of discussions and seminars revolving around this fact of their everyday environment.

This seventh conference includes among its special attractions a tour of the new Air Force Academy, presentation of awards in the Regional Awards Competition, and, for ladies only, a demonstration of solar cooking.

There will be a rich offering of architectural information and inspiration by nationally-known persons, business meetings conducted by regional and national Institute officials, and a conference featuring a representative of the Institute's firm of public relations consultants.

Headquarters for the conference will be the Continental Denver Motel, itself an attraction designed to transform a business trip into a vacation. The formal schedule allows ample free time for activities such as sight-seeing, shopping, architectural tours, parties and . . . relaxation.

Anticipating heady and valuable ideas from this meeting, the October issue of *Arizona Architect* will present coverage of the conference and will otherwise develop the same slogan as a continuation of the conference theme — Living with the Sun.

September, 1958

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Eight

ARIZONA ARCHITECT

The Editor's PERSPECTIVE

With this issue *Arizona Architect* starts its second year of publication. While we are looking forward — with ideas for coming issues and features — it is a good time to glance backward, too, to see how we have progressed and how well our objectives have been met. In our first editorial we said:

"We're going to try to stimulate as well as inform; to challenge architects when we think they need it, just as we will challenge others when that is called for."

Through the year we've adhered to that purpose. Our last issue, for example, and this one both carry the challenge to architects to help responsible contractors produce better value in the buildings they erect. We've constantly harped on the subject of better inspection of work. To prove the need, we secured laboratory tests of mortar samples early this year. As a result of our findings the FHA sent out a directive to masonry contractors, who subsequently formed a guild with the purpose of improving the quality of their work.

As we started publication the state capitol "detached additions" were in the news. We voiced, in unison with leaders of the two state chapters of the American Institute of Architects, strong objection to the "compromise" plan with its "architectural style continued from an old building."

We said that "it is at least to be hoped that the (state planning) commission will insist that the exterior design of the wings be such that they can be easily and inexpensively modernized and added to when this or a future legislature comes to its senses."

Below, and one year later, we bring you for the first time in print, a picture of the wings as they are now planned to look. No longer in evidence are the objectionable ionic pillars around the wings. Our cover for this issue may be recognized by some as part of a working drawing for the facade.

Still in evidence, in the picture below, is the old capitol on which about a million dollars is being spent for repairs and air-conditioning. When the new wings and old interior are finished, we suspect that the con-

trast will serve as a nagging public reminder that the solution was a "compromise" and that the architectural profession was right in urging adoption of a master plan. The contrast between the modern air-conditioned wings for the legislature and the rows of tired houses in the capitol area which now provide inefficient office space for many state departments will be a reminder that architects also questioned the wisdom of letting the office need go unsolved.

The whole capitol comedy underscores the thoughtful letter we printed last November from State Representative M. O. Lindner, Sr. In it he pleaded for an end to the present unrealistic bond limitation, and progress toward planning urgently needed buildings before construction costs go ever higher.

One of the most useful issues in our first volume was the December number in which we explained the functions of an architect and his fee schedules. That issue carried the annual roster and has been valuable as an item to send to persons calling in for information about architectural services. We are now planning to make December our annual Roster Issue.

The recognition given to our May issue, featuring the restoration of San Xavier del Bac Mission, was gratifying and we were honored by the comments of the Institute's Board members and their Chapter Affairs Committee. *Arizona Architect* is grateful, too, for the interest and assistance given by the officers and individual members of the two AIA chapters in writing articles, providing information, and making suggestions.

We even enjoyed the complaint that reached us the other day. An architect, in earnest but kindly manner, told us he had just talked with a contractor who vowed he was going to cancel his "subscription" to *Arizona Architect* or throw the magazine in the waste basket hereafter.

Why? Well, because in our July issue we presented a couple of pretty gals in swimsuits, then failed to establish this as a regular feature. Sorry, men, but we're too young, as a magazine, to get into any ruts. On the other hand . . .



September, 1958

Nine

Pointers From Plasterers

By RAY COWLEY, Manager
Arizona Consolidated Masonry &
Plastering Contractors Association

At the outset, let me say that advice in any form is not usually disliked just because it is advice, but because so few people know how to give it. If the architects do not like what they find here, they may blame me for not knowing how to advise, but in no wise will disliking what is said lessen the seriousness of the problems of the plastering contractors which the architects, either through commission or omission, create.

Plastering contractors, particularly those in the Association I represent, are "quality" merchants and, as such, feel that the architect needs to establish a more uniform inspection of all jobs over which he has supervision. To overlook or accept from one plastering contractor, a construction feature that is short of the standards asked in the specifications, is unfair. It is unfair to the buyer, it is unfair to the general contractor, and it is certainly unfair to those plastering contractors who are striving to dignify their profession by the maintenance of high standards of quality and

strict compliance with the specifications.

Most architects have two fees: one is the fee for the plans and specifications — the other, for the inspection of the job. To permit a plastering contractor to "get by" with inferior work is detrimental to the integrity of that contractor, and encourages him to repeat his nefarious practice. It certainly wrecks the erring architect's reputation.

The highest standards should be a part of the specifications, and those standards should be met by all. There should not be a set of inspection standards to meet each of the varying degrees of workmanship which may be found in any given craft. If the single "perfection only" standard of inspection does not apply to all, then it is unfair to the best. Some architects are known to be "tough" by merely expecting the specifications to be met, while others are considered "easy" because they allow deviations below the standard required.

High standards does not necessarily mean "high bids." The customer looks for and expects "highest quality" and is usually willing to pay for it. Since "quality" is the aim of the plastering contractor, it is unfair to compete with substitute materials and it is grossly unfair to use "substitutes" in specifications as a wedge to try and lower the prices to those of a decade ago.

Many projects have a completion date incorporated into the contract. The plastering contractor would like a more reasonable construction schedule. Too many times delays are permitted early on a given job. When finally the plastering contractors are summoned, they often find that they have only four or five days to meet the completion schedule, whereas in order to do the "quality job" asked for in the "specs," it would normally require 12 to 15 days. The poor job that results should not be traced to the plastering contractor, but to the architect. This can be due to wrong time estimates or calculations, but more than likely, it is the result of the architect's failure to see that the earlier schedules are met.

Inadequacy of specifications is a real problem with the plaster people. There are two main factors that dictate "quality" — (1) adequate thickness to gain adequate strength, and, (2), proper mix. Of these two, the failure of the specifications to require maximum strength presents the greatest problem.

The maximum strength in plaster will usually be found by applying $\frac{1}{2}$ inch plaster over a $\frac{3}{8}$ inch gypsum base. Far too many architects specify $\frac{3}{8}$ inch plaster over a $\frac{3}{8}$ inch gypsum base. It might be acceptable if the wall was never to be used. The interesting thing is that the addition of that $\frac{1}{2}$ inch plaster, bringing it to a thickness of $\frac{1}{2}$ inch, is twice as strong as the $\frac{3}{8}$ inch plaster over the $\frac{3}{8}$ inch gypsum base. Let's forget the $\frac{3}{8}$ inch over the $\frac{3}{8}$ inch gypsum base. Let's forget the "quality" figure. The inspector also needs to assure that the "grounds" are adequately placed. Since the "grounds" control thickness, it obviously follows that if the "grounds" are not up to standard, then the plastering contractor must lower his standards.

Lastly, in order to achieve the maximum strength, the plastering contractor has need for control of "ventilation" and "lighting". This strength can be gained by proper evaporation and controlled drying out of the base coat. It is absolutely essential that the plasterer have controls over this "setting" procedure. The weather and temperature, being prime factors or culprits, as the case may be, must, somehow, be controlled. Yet, how many architects insist that the plastering contractors not start their program until the windows are glazed? This may not always be sufficient control, but it is better than nothing at all.

The "lighting" of a job in progress could easily be placed in the specifications. It's not the cost that dis-



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turbs — it just simplifies the whole operation to have someone responsible in the 'specs.' Whoever coined the phrase — "most crafts work in the dark," could easily have been the honest man that Diogenes was trying to find. Plastering contractors are one of the last of the craftsmen on a project. Their work, however, is usually the first to meet the eye of the customer. The customer might not be as critical of the finished product if he would judge it by the same lighting conditions which the plastering contractor was required to work under to create it. A simple coverage of this in the specifications telling who supplies the lighting would solve this problem immediately.

To summarize, let me outline the salient points of this effort to obtain a closer understanding between architect and plastering contractors. All of the above problems can be solved if . . . the architect would:

- (1) Establish and maintain a strong and uniform standard of inspection, not based on weaknesses or reputation, but on strict adherence to the specifications.
- (2) Discontinue the encouraging of substitutes for quality.
- (3) Insist and enforce a reasonable production schedule.
- (4) Adapt specifications to achieve ultimate in quality.
- (5) Provide more opportunity for the plastering

contractor to control "ventilation" and "lighting."

These little pearls of wisdom were solicited by the editor of *Arizona Architect*. The plastering contractors are not running around with little chips of plaster on their shoulders, and I assure you that it is my sincerest wish that everything expressed in this article will help to bring the architects and the plastering contractors into a closer, more harmonious and more profitable relationship, and furthermore, assist in bringing truthfulness and actuality to the statement found in Timothy II, -15, "This workman needeth not be ashamed."

— AIA —

CAREER INFORMATION

A new pamphlet, "Designing a Better Tomorrow," has been released by the A.I.A. to replace the publication, "So You Want To Be An Architect."

This release is designed to attract young people into the profession and to provide some basic facts concerning training and educational requirements, the advantages and demands of architecture as a career.

Of special interest to those involved in youth groups, high school career programs and PTA, this pamphlet may be ordered from the following address without charge: Designing a Better Tomorrow, The American Institute of Architects, 1735 New York Avenue, N.W., Washington 6, D.C.

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RETIREMENT LAW FAILS

Despite passage in the House of Representatives and strong support by AIA-urged Senators, the Jenkins-Keogh Bill (H.R. 10), which seeks to provide a voluntary retirement plan for the self-employed, was dropped from consideration in the Senate on August 12 as an amendment to H.R. 8381, a bill to amend the Internal Revenue Code of 1954.

In a letter informing David Sholder, president of the Central Arizona Chapter, of the Senate action, Senator Barry Goldwater commented that he considers this action, "... nothing more than a legislative maneuver to kill this bill by those who were afraid of a vote on its true merits."

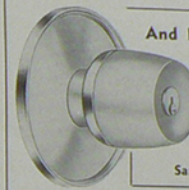
Mr. Sholder, in keeping with National AIA policy and action, had previously requested support of this bill by both Arizona Senators. Senators Hayden and Goldwater demonstrated enthusiastic approval of this legislation in letters to Mr. Sholder, and have assured him that the purpose of the bill will not be forgotten.

— AIA —

The history of civilization is essentially the record of man's creative ability. Imagination is the cornerstone of human endeavor.

— Alex F. Osborn

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The "Other Arts" of Architects

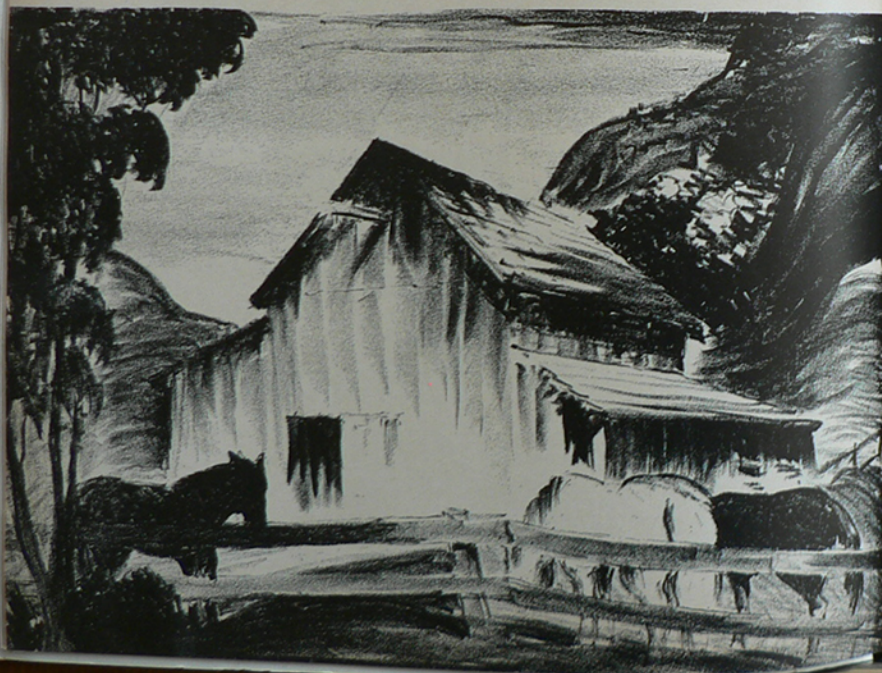
II



THIS IS ONE of a series of examples of the artistic talent of members of the two Arizona chapters of the American Institute of Architects.

Part of most architects' training has been in "the arts" and many have utilized such media as watercolor, oils, casein, lithography and photography in creating work of their own design, either for use as an integral part of a building's design or purely as a source of pleasure to them.

This month "The Other Arts of Architects" features samples of the work of Arthur T. Brown, AIA, who supplemented the art training in his bachelor of architecture degree program at Ohio State University with later work at the Elliott O'Hara Watercolor School.



ART BROWN has shown his work in exhibitions of the Tucson Fine Arts Association and at Laguna Beach and San Francisco, California; Wichita, Kansas; and the Chicago Art Institute.

He won two prizes at the Arizona State Fair in 1940, first place for black and white and honorable mention for watercolors. He was awarded first prize for black and white at the Tucson Fine Arts Association exhibition in 1944 and second prize the next year. A second prize was awarded him by the Tucson Watercolor Guild in 1950.



September, 1958

Fifteen

Construction Insurance and Performance Bonds

By T. D. Gibson and W. W. Ridout

The following are excerpts from two talks given before the Central Arizona Chapter, AIA, at one of their recent meetings. They are being printed here because of their general interest and informative value. The first is by Mr. Gibson, Manager of the United States Fidelity and Guaranty Company, Phoenix. The second is by Mr. Ridout, the company's Surety Superintendent.

Mr. Gibson:

I would like to outline the problems which we face as insurers in connection with unrealistic insurance requirements. During the time I have been in the insurance business in Arizona, it has been my questionable pleasure to review some pretty rough insurance specifications. Cases wherein specifications call for the duplication of insurance and thereby the duplication of costs, asking the contractor to provide coverage beyond the scope of his operation or otherwise waste money by asking insurers to cover an unreasonable requirement. Anything may be insured for a price, but when your specs go beyond necessity you are increasing the ultimate cost of your project unnecessarily.

Several years ago I was asked to insure the construction and maintenance contract in connection with a large sign that was to be installed on top of one of the larger department stores in Tucson. In studying the contract I found that our contractor was going to hold the owners of the store harmless for the entire operation of the department store for a period of five years. I was somewhat alarmed as the contract had already been signed. However, when I advised our insured's attorney that the cost of that insurance would be several times the actual cost of his contract, we were able to get the Hold Harmless Clause stricken from the contract and then we provided the store with a policy costing about \$25 covering their contingent liability for our insured's installation and maintenance of the sign. I would guess that the cost of insuring the contract as it was would have been in the neighborhood of \$60,000. This, of course, was a very unusual case, but it illustrates very clearly how much additional cost can be incurred by the improper drawing of the insurance specifications.

I believe that the simplest and most adequate insurance program is to simply require that the contractor provide the owner with an Owner's Protective Policy with adequate limits, (100/300/100). The Owner's Protective Policy covers not only actual construction of the project at the site, but also includes contingent

automobile coverage. By that I mean the operation of automobiles by the contractor and his sub-contractors. Cost of this policy is based upon the total cost of the project and, therefore, will vary in accordance with the project's size. Use of this policy form makes it unnecessary to obtain certificates of insurance and thus eliminates a clerical operation that is usually not handled correctly as the people delegated to keep track of the certificates are unfamiliar with insurance and thus are not properly equipped to check their accuracy or value.

So far I have touched only on the liability portion of your insurance specs, but of equal importance is Builder's Risk. Your specifications should spell out who is responsible for loss of the project itself by fire, windstorm, vandalism, etc. I cannot recommend any certain type of Builder's Risk Insurance because there are half a dozen forms which have been developed for different types of structures, different occupancies and no one form will serve in every case. Therefore, don't specify the type Builder's Risk Insurance in your specifications; merely clearly show whose responsibility it is to rebuild if the project is destroyed by fire, etc.

Nearly every contractor now is cognizant of his insurance costs and of the hidden cost that may be incurred by over-cautious insurance requirements. These additional costs are estimated and the bid is increased for profit and overhead. Your client in the end pays for his unrealistic insurance requirements, not the contractor. Therefore, if you are including insurance requirements in your contract, be sure that you avoid duplication of coverages, spell out who is responsible for what, and provide adequate limits on liability or Builder's Risk. Nearly all the other hazards to the ultimate completion of your project will be covered by the Surety Bond if it is required.

Mr. Ridout:

Our Company, and the others in the industry, are quite reluctant to bond performance contracts unless the owner has retained an architect to both design the building and supervise the construction. Among our reasons for this stand are: first, we feel that if a licensed architect prepares the plans and specifications that there will be less likelihood of a contractor

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ARIZONA ARCHITECT



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in structural
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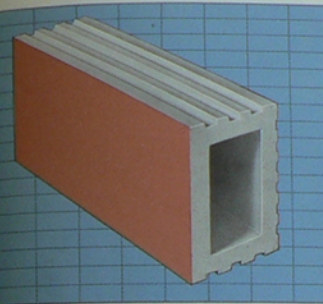
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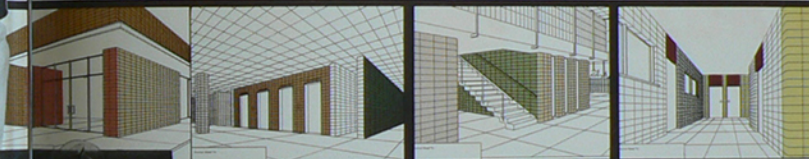


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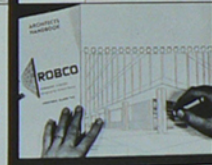


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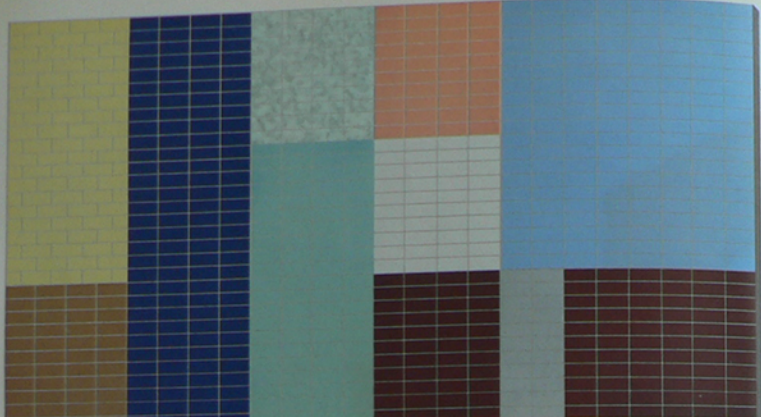
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misinterpreting some point and entering too low a bid. Second, should some dissension arise between the owner and the contractor we feel that the presence of the architect as an arbitrator would materially improve the chances of a satisfactory compromise between the parties. Third, the architect's supervision would tend to prevent any contractor that was inclined to "cut corners on his building methods" from doing so.

A good starting point for a discussion such as this would be an expression of the surety's viewpoints regarding securing of waivers of liens and release of retainage. The remarks that I am about to make must of necessity be of a fairly general nature and I ask that you bear in mind at all times that I am speaking in generalities.

Many years ago the law courts were prone to completely discharge a surety when the owner or obligee prematurely released retainage which he had agreed to withhold. With the advent of compensated sureties the prevailing opinion of most courts now seems to be that the surety is not completely discharged as to its obligation but instead it is released to the extent that it suffers as a result of an unauthorized premature release of retainage by the owner. In view of this attitude of the courts I strongly urge that you, as the owner's representative, require that the contractor furnish you with a complete list of all his sub-contractors and principal suppliers prior to the actual commencement of construction. Then at the completion of the job you will safeguard your client's interest by requiring the prime contractor to furnish you with notarized waivers of liens from all of the sub-contractors and suppliers.

We fully realize that from time to time situations beyond the contractor's control will arise where he will not be able to pay all of his obligations without using a portion of the retainage. In these instances I suggest that you contact the surety and I believe that you will find that they will invariably co-operate with you and the contractor in working out a method of payment which will preserve the rights of all parties.

Prior to letting, you can:

1. Assist the surety company by giving them, when requested, a round-figured estimate of the contract price. This will help them weed out unqualified bidders.
2. Furnish the successful bidder with an extra copy of the contract for delivery to his surety - prior to actual signing. Surety will check for bond form specified and other necessary data.
3. Keep the surety advised as to the contractor's progress.
4. If changes are made in contract price, time allowed, etc., get surety's written consent. I would like to call your attention to the fact that a number of bond forms specifically waive any obligation on the part of

the owner to notify the surety of changes in contract price, time allowed for performance, and other portions of the contract. It is equally true that many bond forms in current usage today do not waive these points; therefore, I still feel that my suggestion that you keep the surety company informed as to major changes in the contract is still a sound bit of advice and may possibly save you considerable time and effort.

5. If the contractor falls behind schedule, does unacceptable work, or creditors start calling you, advise the surety company at once.

- AIA -

WALKER'S A GOOD GUY, BUT . . .

Apparently getting the right cover for an architectural magazine is an occupational hazard peculiar to the profession.

Witness this item by "H. B." in *Blueprint*, published by the Westchester Chapter, A.I.A.

"Have any of you ever felt like hiding your Architectural magazines, or are you happy to leave them right out in the open on your waiting room table? If you think that's a silly question, just read on and find out something. You see, it's like this. Some of our architectural magazines - our old favorites that we love, honor, and copy - are letting their hair grow so long it's getting in our eyes. It's the cover I'm talking about - the first impression. The graphic 'Front' that should generate an urge, on the part of the viewer, to look inside. Well, what do some of these front covers generate? They generate trouble that's what. Now, you take my client, Walker Hardrow. He comes in without an appointment, so he has to wait a few minutes. He looks over some of these magazines and gets quarrelsome over the cover designs, so he changes the plan of his building around again.

"How do I know it was a cover design that did it? Well, he waved one at me and said it was this vague and freakish stuff that was the matter with us architects. Of course, he didn't mean me, but do you think I could have explained to him that the cover design represented an orthographic retention of a basic visual preception corelevant with a current organic dynamism? No! Walker's a good guy. He may be a little square, but he pays sound money for sound advice. No, I didn't try to explain. I just subscribed to the Saturday Evening Post and hereafter will keep the architectural press out of clients' line of vision."

- AIA -

Ralph Haver has received an award of merit from the Arizona Chapter of the National Society of Interior Designers. The award was presented at a forum discussion on "Architecture and Interior Design" sponsored by the interior designers and held at Phoenix College September 9th.



HARDWARE TIPS

By
Veron Junger, A.H.C.

Architects can help builders avoid time-consuming mistakes if they require hardware consultants to schedule finish hardware properly.

Proper scheduling means that each box containing a hardware item is labeled with a number and a description of its location in the building. Numbers and descriptions cross reference with the written schedule furnished when the job begins. This means there are two checks by which the mechanic who applies the hardware can make sure he is locating it correctly while shortages can easily be spotted by checking boxes received against the master schedule.

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WHY INDEPENDENT TESTING?

By J. E. WARNE, JR., P.E.

A completed structure and the owner's satisfaction with it — not the drawings or perspectives — are monuments to the skill of an architect and engineer. Therefore, part of the architect's usual fee is devoted to construction supervision in order that the designer may be certain the structure is well built and will be a source of continuing pride to his client.

For this reason, too, it is often wise for the architect to induce his client to allow funds to provide testing and quality control, independent of the contractor or suppliers. This is one of the cheapest forms of insurance against sub-par materials and workmanship.

No testing firm of integrity would suggest that the complete gamut of tests available should be performed on every job. Generally the need for tests increases proportionately to the size of the job.

To aid the architect in showing his client the value of independent testing along with supervision by the former, a brief resumé of some of the more common tests and control measures are outlined.

Too often, particularly with the widely varied soils on which we must place structures in Arizona, we are confronted with unsightly cracks in concrete floor slabs, walks, walls, and other portions of the structure, which have resulted from distortion due to volume

changes or differential consolidation within the sub-soil. The latter is usually associated with larger structures as are base- or shear-failures, but should not be entirely overlooked even in the design of the smallest of buildings.

When such damage occurs in a public structure or a large development, for example, the resultant publicity can cast public doubt on the efficiency and integrity of the architect, engineer, and contractor involved and on their respective professions as a whole. Then, as if to add salt to one's wounds, someone is saddled with the absorptive costs of repair.

Many of these causes of unfavorable public reaction, and ultimately-added construction or maintenance costs, may be eliminated by proper consideration and utilization in design of the most important building material involved in the structure. This, of course, is the base or bearing material on which the entire structure rests — the earth. Proper consideration and utilization of the soils involved is best facilitated by an adequate soil investigation to secure the necessary engineering data on surface and subsurface soil conditions.

Realization that some soils, upon acquiring moisture, can swell enough to actually lift a superimposed load of over two tons per square foot, and that some soils will consolidate under pressure so that settlements will adversely affect the structure (in addition

to the wide variation in the possibility of shear failure) indicates the need for pre-design and pre-construction knowledge of the engineering properties of the soil.

A competent job of soil investigation — including field and laboratory testing, and proper analysis by an engineer proficient in soil mechanics and foundation engineering — will provide complete information and recommendations regarding allowable bearing capacities with suitable factor of safety against shear failure and complete settlement analysis (when applicable) in correlation with the various sizes, depth, and types of footings or foundations to be used. This information, of course, is also contingent upon the structure itself and the loads anticipated. In effect, the report will include recommendations for proper dimensioning and placement of footings to provide against shear failure and adverse differential settlement, and proper preparation of the sub-grade under floor slabs or under footings in an area to be filled.

Beyond the preliminary soil investigation and foundation design other problems often exist in the field of soil mechanics during or prior to construction. Probably the most frequent problem is that of uncompacted or improperly compacted sub-grade and fill areas. Too often the degree of compaction of the soil is left to guesswork on the part of an inexperienced inspector or to the man on the tractor. Inadequate

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Architect: H. Roy Keller, Los Angeles

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September, 1958

Twenty-three

compaction or densification within the sub-grade soil can prove detrimental in many cases where its stability is somewhat critical to the structural design. This of course is a matter for the structural or soils engineer to analyze and recommend the necessary procedure to follow.

In many cases even such usually non-critical components of construction as concrete floor slabs and walks placed on grade, or paved parking areas lend themselves more esthetically and to a more useful, longer life if their sub-grades are properly prepared.

No one knows the plans for the structure better than the architect, for he designed the building, drew the plans, and wrote the specifications. It is then logical that he should inspect and control its construction to see that his specifications are being followed in all respects. This, of course, includes quality control of all materials, including concrete, masonry and clay units, mortar, grout, and other materials. A competent job by an independent testing laboratory on this phase — because of the nature of these materials, the laboratory's experience, equipment, and independent status — is perhaps the only manner of determining and maintaining quality. This independent testing should be done at the discretion of the architect or his representative, not the contractor.

It makes sense. Just as an architect would be reluctant to judge a design contest which his firm has en-

tered, the contractor cannot be expected to determine the time and number of tests on the materials he is using. Even though he has the highest integrity, the contractor himself cannot know, for example, the volume of cement his workers put in each batch of mortar. Officials of the Arizona Masonry Guild, Inc., have recommended that tests be conducted by the architects' inspectors or independent testing laboratories rather than the contractor, as have officials of the Central Arizona Concrete Association.

Proper concrete control and testing includes adequate inspection and construction of the sub-grade and forms; reinforcing placement; proper sampling, storing, curing, and testing of concrete test specimens; and protection of the concrete in place against the elements during the early stages.

When the compressive strength of hardened concrete is in doubt, the only sure and accurate method of arriving at the strength is by actual compression tests of cored samples. In certain instances a load-bearing test in accordance with the A.C.I. code may be applicable — but probably more expensive.

Blocks, brick and stone should be brought to meet certain requirements and are so checked by their shrinkage, absorption and strength properties as well as other A.S.T.M. requirements.

Mortar and grout should be checked frequently — again, at the discretion of the architect or his representative — to determine quality and compressive strength. Most laboratories will lend their clients the cube molds for molding test specimens, particularly for out-of-town jobs that might otherwise impose a problem.

If the costs of independent testing must be borne within the contract price rather than directly by the owner, separate allowances that will adequately cover these costs should be set up by the architect. As a result, there should be no feeling on the contractor's part that he is being saddled with payments for tests he did not order in the first place.

The architect should also specify that if the allowance is depleted and additional testing is required, the cost for tests whose results conform to specifications will be borne by the owner, but that the costs on tests whose results fall below the required specifications are borne by the contractor. (Conversely, any surplus in monies can be reimbursed to the owner by the contractor.)

The architect, mindful of his client's concern for "bringing the job in within the money," justifiably is careful to exclude extraneous expenses. Whether independent testing falls into that category or is, rather, a needed insurance against later difficulties and expense, depends on the given job itself. Any independent testing laboratory stands ready to give the architect an honest opinion on the needs of specific projects.

CENTRAL ARIZONA CHAPTER

The American Institute of Architects

BY-LAWS

ARTICLE 17. GENERAL PROVISIONS

Section 7. Endorsements.

Neither this Chapter, the Executive Committee, any Chapter committee, or any of its officers, directors, committee members, or employees, in their respective official capacities, shall approve, sponsor, endorse, recommend, warrant or vouch for, either directly or indirectly, any enterprise, whether public or private, operated for profit, or any material, facility, product, or device made, sold or used in or for the construction or erection of buildings, or any method or manner of handling, using, distributing, or dealing in any such material, facility, product, or device.

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Twenty-five

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ARIZONA ARCHITECT

September, 1958

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Twenty-six

Notable Quotes . . .

Herbert H. Swinburne, AIA, speaking on "New Fields of Architectural Research" at the AIA Convention, Cleveland, July 8:

Architecture is not keeping pace with the other professions in asserting leadership in design and construction for the coming atomic age.

The Architect is losing this leadership because he does not properly understand his client; he is trying to maintain the status quo of the practice of architecture when that practice is changing rapidly and drastically and not keeping pace with technological and sociological changes.

The last century saw the industrial revolution with the development and expansion of the physical sciences. The next century will see a social evolution with development of the behavioral sciences.

In order to properly understand the client (as an individual, a group, a corporation or the government), we will need the consulting services of the very best psychologists, sociologists, anthropologists and economists. These consultants must analyze our clients and establish broad principles that we can use collectively as a profession, and individually as practicing architects.

We would better understand the art of persuasion and how to change attitudes if we knew more about psychology. We could deal more precisely with an exploding population and great urban concentration if we better understood the contributions to these problems that can be made by the sociologists and anthropologists. The background of the economy of construction is changing rapidly and we need the best information the economists can give us.

The architect is not as adept in the field of communication as he should be, and his whole practice depends on it. The science of communications, of interviewing techniques, of graphic presentation, need to be developed for the profession.

We must research the client in every single phase and understand him better. We must determine the national image of the architect in order that prejudices and misunderstandings about us may be overcome.

The architect is not doing these things today. Other professions are, and if we do not conduct our own investigations in the behavioral sciences, others will.

We could lose leadership in the field of construction before the end of this century.

— AIA —

"The events of human existence, whether public or private, are so closely allied to architecture that the majority of observers can construct nations in their habits and ways of life from the remains of public monuments or relics of a home."

— Honore De Balzac

ARIZONA ARCHITECT

NEW REGISTRANTS

The State Board of Technical Registration has announced that as of September 8, the following architects have been newly registered and certified in the State of Arizona:

Phoenix architects include John Dellisanti, 3137 W. Elm St., George B. Domaz, 1649 Highland Ave., Apt. 2, Wm. A. Lockard, 902 W. Oregon Ave., Robert J. Peterson, 2827 W. Butler, John W. Scully, 1530 E. Coronado, and A. R. Walker, 1329 E. Gibson Lane.

Residing in Scottsdale are John H. Howe, Taliesin West, Stephen N. Oyakawa, P.O. Box 157, and John Rattenbury, P.O. Box 157.

Others include Wm. F. Cann, 7153 Pershing, University City, Missouri; Ellery Green, 5418 E. Holmes, Tucson; Carl F. Guenther, 13124 Shaker Square, Cleveland; Perry Langston, 7284 Maryland Ave., University City, Missouri; Stanley Lewis, 4520 Fairfield Dr., Bethesda, Maryland; Maynard W. Meyer, 424 E. Wells St., Milwaukee.

Located in Los Angeles are Richard J. Neutra, 2379 Glendale Blvd.; Chester R. Phillips, 4415 Rosewood Ave.; and Adrian Wilson, 816 W. 5th St., and in Hollywood, Romeo Rodriguez, 7024 Melrose.

— AIA —

LUMBER HANDBOOK

Now available at the Lumber Merchandisers Association, 4740 N. Central Ave., Phoenix, Arizona, is the "Douglas Fir Use Book," prepared by the West Coast Lumbermen's Association.

Priced at \$5.00 per copy, this book is of interest to architects and builders primarily because of the information it provides on span and stress specifications for this type of lumber.

— AIA —

"Art imitates Nature, and necessity is the mother of invention."

— Richard Franck, 1658.

September, 1958

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Twenty-seven

INSTITUTE VIEW ON BID PEDDLING

"Now, unless the greatest care has been taken to include in the incitation none but bidders of the highest character, the lowest bid is likely to come from a Contractor who has made it by adding to the cost of his own work all the lowest sub-bids he could get and then perhaps knocking off something in the hope that a lucky chance will leave him a profit. If he gets the contract he does not close with the men whose bids have enabled him to win the work, perhaps a poor enough lot, but he employs every art further to depress their bids or he seeks out other Sub-Contractors at still lower figures. It needs little imagination to picture the result of such a course on the quality of the work; and the course is not an unusual one. Such Contractors are mere brokers of other men's services. Their interest is not in the integrity of the work . . ."

"Dickering of sub-bids after the contract is let is of advantage to no one but the Contractor and sometimes may prove a boomerang to him. It is to the advantage of the owner that the sub-contracts be let to responsible bidders at reasonable prices. If the names of the proposed principal Sub-Contractors are given in the proposal, and form part of the accepted bid, their status is determined and no second bidding for cut-rate prices is possible for those portions of the work. If any of these sub-bidders are incompetent or unfit, substitutions of satisfactory ones can be arranged before the contract is signed. Furthermore, the naming of sub-bidders permits a more intelligent analysis of the low bid and indicates the general class of work to be expected . . ."

Excerpts from *Handbook of Architectural Practice* issued by the American Institute of Architects.

Quality

There is no substitute for quality, whether in human character, a finished product, or workmanship. For quality is a lasting virtue, implying humble pride in perfection.

The Pipe Trades Industry Program of Arizona is devoted to higher quality throughout the trade. By co-operating in apprentice and journeymen training programs, by seeking high standards in building codes for protection of health and safety, and by requiring contractors and employees to meet ever-increasing standards, the Program constantly seeks a better Arizona.

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Pipe Trades Industry Program of Arizona

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Phoenix

CR 7-2634

Twenty-eight

ARIZONA ARCHITECT

CONSTRUCTION UP IN WESTERN STATES

Contracts for future construction in July in the 11 states west of the Rocky Mountains totaled \$821,442,000, an increase of 37 per cent from July 1957, F. W. Dodge Corporation, construction news and marketing specialists, reported this month.

Non-residential building contracts in July amounted to \$244,611,000, an increase of 14 per cent compared to the like 1957 month. Decreases in commercial and manufacturing buildings were more than offset by gains in all other types of non-residential buildings, with substantial increases in hospital, public and social and recreational buildings.

Dollar volume of contracts in the residential building category in July totaled \$371,263,000, an increase of 69 per cent from the corresponding month of 1957.

A.I.A. To Hold Architectural Photography Exhibit

The third exhibition of architectural photography sponsored by The American Institute of Architects, will be held in the Gallery of the Institute early in 1959.

The purpose of the exhibition is to recognize and encourage outstanding work in the field of architectural photography and to demonstrate the value of this specialized branch of photography to the architectural profession.

More people than ever before are looking at architecture and considering the place of architecture in the community. Architectural photography provides an important means of communication between the architect and the public.

All professional photographers are eligible to submit work to the jury of selection and no entry fee will be charged the photographer who wishes to submit his work. All entries must be received by Monday, November 10th, and should be shipped to: Mrs. Alice G. Korff, Curator of Gallery, The American Institute of Architects, 1735 New York Avenue, N.W., Washington 6, D. C.

For further information on submission of entries call *Arizona Architect*, ALpine 2-4318.

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Arizona's Lien Law Explained

By DONALD B. SHORTRIDGE, Lawyer

REPRINTS AVAILABLE

Because of special interest in our articles on the lien law, a four-page reprint is being ordered. Copies may be had without cost by sending a stamped, addressed envelope to "Arizona Architect, Box 904, Phoenix, Arizona."

In this second of two articles about Arizona's lien law prepared by Mr. Shortridge, we present a general, up-to-date restatement of the law and Arizona Supreme Court decisions. For ease of reading, we have eliminated most references to statutes and decisions, and presented the cases as a series of questions and answers.

Because of the complexity and changing nature of the law, these articles do not constitute legal advice. For such counsel, and more detailed information, consult your lawyer.

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Thirty

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"A structure is only as sound as the foundation on which it is built."



Engineers Testing Laboratories, Inc.
2515 East Indian School Road • CR 4-4690 • Phoenix, Arizona

September, 1958

Thirty-one

ing the benefits of this article, within sixty days after the completion of a building, structure or improvement, or any alteration or repair thereof, shall . . . file one copy (of notice and claim of lien) with the county recorder of the county in which the property or some part thereof is located . . ."

The Supreme Court has said:

"Filing of a notice and claim of lien within the time prescribed by this section is a condition precedent to securing a mechanic's lien."

Q: The owner moved into his dwelling. Subsequent to that time, the contractor performed several jobs about the premises to make the work conform with the owner's interpretation of the contract. Did this extend the time?

A: Yes. Time was extended to the completion of the last miscellaneous job.

Q: The contractor commenced work, but ceased to perform work and sued. Upon what issue did the existence of a lien depend?

A: Upon whether the building had been completed or abandoned.

Q: The contractor placed a cover over a pump-house, substituted night latches and corrected doors. Do these activities extend the statute?

A: No. They are mere trifling adjustments.

(Continued next page)

Q: The materialman furnished materials on August 5th. The contractor completed the whole job September 30th. When did the materialman's time period start?

A: August 5th, upon his furnishing of the materials.

Q: The materialman furnished some articles within the lien period and some without. Does he have a lien?

A: Yes, as to articles furnished within the lien period.

RANKING OR PREFERENCE OF MECHANIC'S LIENS

Section 33-992 provides:

"The liens provided for in this article, unless otherwise specifically provided, are preferred to all liens, mortgages or other encumbrances upon the property attaching subsequent to the time the labor was commenced or the materials commenced to be furnished.

"The liens provided for in this article are also preferred to all liens, mortgages and other encumbrances of which the lienholder had no actual or constructive notice at the time he commenced labor or commenced to furnish materials."

Q: A contractor commenced work on the owner's building on April 25th. On April 28th, the owner ex-

ecuted and recorded a mortgage on the property. Is the mortgage lien prior to "A's" mechanic's lien?

A: No. The time the labor was commenced, or the materials furnished, is determinative.

Q: The contractor commenced his work on the owner's building on April 5th. A mortgage, executed by the owner on April 1st, was not recorded until April 5th. Is the contractor's lien prior?

A: Yes, if he had no actual notice of the mortgage. Certainly, without the recording he had no constructive notice.

Q: A contractor had a lien. He took a mortgage for his bill. Did he thereby make his mortgage lien inferior even to mechanic's liens arising after the recording of the mortgage?

A: Yes. The transfer was subject to the rights of the lien creditors. The improved property was a trust for the payment of lien creditors.

PROTECTIONS FOR REAL PROPERTY OWNER Right to hold back sums; to recover from contractor:

33-994 — "Upon service of the notice and claim of lien, the owner may retain, out of the amount due or to become due the original contractor, the value of the labor or material furnished as shown by the notice and claim of lien.

"The owner shall furnish the original contractor with a true copy of the notice and claim of lien and if the contractor does not, within ten days after receipt of the copy, give the owner written notice that he intends to dispute the claim, he shall be considered as assenting to the demand, which shall be paid by the owner when it becomes due."

33-995 — "During pendency of (an action by the contractor) the owner may withhold the amount sued for, and if judgment is given upon the lien, he may deduct from any amount due or to become due from him to the contractor the amount of the judgment and costs.

"If the owner has settled with the contractor in full, or if such an amount is not owing to the contractor, the owner may recover back from the contractor the amount so paid by him, and for which the contractor was the party originally liable."

The Court said in 1913:

"The primary object of our lien law is to insure to the laborer and materialman the payment of their accounts, and incidentally to protect the owner against the filing of liens by such persons against his property for services and material rendered and furnished the original contractor."

Right to force contractor to defend the suit at his own

expense:

33-995 — "When a lien is filed or notice given by any person other than a contractor, the contractor shall defend, at his own expense, any action brought thereon."

Right to compel joinder of all lien claimants:

"33-996—"Lienors not contesting the claims of each other may join as plaintiffs, and when separate actions are commenced the court may consolidate them, and make all persons having claims filed parties to the action.

"Persons claiming liens who fail or refuse to become parties plaintiff shall be made parties defendant, and those not made a party, may, at any time before final hearing, intervene." (Adopted from Colorado.)

"All claims for materialmen's liens should be litigated in the same action and all lien claimants should be made parties and their rights determined therein."

"The purpose of this statute is to dispose of all lien claims of a common origin against the same property in one action or proceeding. All lien claimants may appear as plaintiffs, or some as plaintiffs and others as defendants or interveners. The essential thing is that all liens against the property be adjudicated at the same time."

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Core — Constructed in two bars, separated by a 2" intermediate rail. Rails to be 1/2" thick placed vertically spaced 2" apart with rounded ends recessed in mortised rails.

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BOOKS FOR PROFESSIONALS

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BETTY PEPIS' GUIDE TO INTERIOR DECORATION. The author traces the course of taste in interior decoration from the end of the 19th century to the present and discusses the effects on interiors of such contemporary phenomena as the open floor plan, television, informal living and dining. 215 pages, over 350 illus., 1957. Single copy \$6.95.

BUILDING, PLANNING AND DESIGN STANDARDS by Sleeper. For architects, engineers, designers, consultants, building committees, draftsmen and students. Illus., diagrams, 331 pages. 1955. Single copy \$12.00.

ARCHITECTURAL GRAPHIC STANDARDS by Ramsey and Sleeper. Thoroughly over-hauled edition of the famous "bible" for architects, builders, engineers and draftsmen. 5th edition, 758 pages, 1956. Single copy \$18.95.

BENJAMIN LATROBE by Hamlin. The first full-length biography of America's first professional architect. Makes full use of the voluminous Latrobe papers, sketchbooks and drawings. 633 pages, illus., with 104 half-tones and 42 line cuts. 1955. Single copy \$15.00.

ARCHITECTURE IN THE AGE OF REASON by Kaufmann. Baroque and post-Baroque in England, Italy and France. Study of 18th Century architectural reforms in the above countries, their inter-relationships and the primary ideas and trends in the Baroque and post-Baroque period. 319 pages, biblio., illus., diagrams. 1955. Single copy \$10.00.

PLANNED SHOPPING CENTERS by Baker and Funaro. A thorough study of modern shopping centers. 470 photos and illus., detailed information on planning, design and operation. 288 pages. Single copy \$13.50.

NEW GERMAN ARCHITECTURE. A graphic survey of post-war German architecture, illustrating the various types of public and private buildings that have been built during the past few years. 210 pages, profusely illustrated, diagrams. Text in German and English. \$11.50.

LADENGESTALTUNG (SHOP DESIGNS) by Gutman and Koch. Photos and plans, showing the new trends and developments in shop design throughout the world. Chapters on: The New Face, The Specialty Shop, The Small Shop, Show Rooms, Department Stores, Shop Fittings, Shopping Centers. Text in German and English. 195 pages. 1957. Single copy \$12.50.

TIME-SAVER STANDARDS. Third Edition. Designed to save long hours of tedious research and thousands of dollars on construction costs on all types of building projects. Intended mainly for use and guidance of specification writers, architects, engineers, and building technicians. Selected by *Architectural Record*, the proved-by-experience solutions to structural problems were chosen over a 14 month period from the works of the world's foremost architects and engineers. Includes a nine page master index which helps to locate any desired information. 888 pages, illus. Single copy \$12.50.

DECORATIVE DESIGNS FOR CONTEMPORARY INTERIORS by Gatz. The latest utilization of technical and artistic possibilities of color and special surfaces in room structure in private, public, commercial and industrial buildings of U.S. and Europe. 248 pages, 440 illus., incl. 60 in color on 36 colored plates. 1955. Single copy \$12.75.

DECOUPAGE by Dorothy Harrower. The first introduction to the history and the how-to of the art of decoupage — — decorating objects by cutting out and rearranging paper designs. 82 black-and-white photographs in addition to many in full color. (Coming in late October.)

TIMBER DESIGN AND CONSTRUCTION HANDBOOK prepared by Timber Engineering Company. Handbook of timber design and construction, written by 25 timber specialists and edited by a committee of leading engineers and scientists. Comprehensive timber design reference and practical field handbook. 622 pages. Single copy \$12.00.

ART IN EUROPEAN ARCHITECTURE by Damaz. Preface by Le Corbusier (in English and French), 240 pages, profusely illus., 14 in color, diagrams. 1956. Single copy \$12.50.

DESIGN FOR MODERN MERCHANDISING by the editors of *Architectural Record*. A detailed study of the physical design of selling establishments of all types. A source of ideas for anyone involved in new construction or renovation of a merchandising building — — architect, designer, builder, owner, or department head. Photographs, plans, diagrams. Single copy \$8.95.

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