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SKYLINES



NOVEMBER
1955

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SKYLINES

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Skylines

Volume Five, Number Nine

November 1955

The weeks ahead of us, from now until Christmas, are going to be busy ones for the members of the Chapter.

The December Chapter Meeting should be on the "must" list. Be sure to be there for the annual election of officers. The program will be devoted to Public Relations.

Another event that should not be missed is the Annual Producers' Council Christmas Party, which will be held in the Grand Ballroom of the Town House Hotel in Kansas City, Kansas. Members of the Council have been busy making plans for the party, and it promises to be one of the finest they have ever given. You should have your announcement by now, so fill in the postcard and get it in the mail by November 23 so the Council may get your formal invitation to you. ADMITTANCE WILL BE BY INVITATION ONLY. Be sure to fill in the name of your wife or guest before mailing the postcard.

Remember these dates:

Tuesday, December 13—December Chapter Meeting and Election of Officers.

Monday, December 19—Producers' Council Christmas Party.



This month we honor one of our own members, Mr. Frederick C. Gunn. He has been a member of the Kansas City Chapter of the American Institute of Architects since 1916.

Birthday congratulations, also, are in order. November 4, Mr. Gunn celebrated his ninetieth birthday. Sixty-two of those years he devoted to architecture in Kansas City.

Mr. Gunn was born in New York State, the son of Major O. B. Gunn, engineer and bridge builder. He is a graduate of Rensselaer Polytechnic School in Troy, New York.

In 1890 he established his office here in Kansas City. He designed many county courthouses during his early practice. One of the earliest was the Henry County Courthouse at Clinton, Missouri.

In 1905 he designed the General Hospital Group; and in 1912, the National Fidelity Life Building where he had his office until he retired from active practice in 1952.

In the 1930's he was a member of the Board of Architects, with Keene & Simpson and E. F. Neild, for the Jackson County Courthouse in Kansas City. The courthouse was built under the direction of Harry S. Truman, who was Presiding Judge at that time.

NOTICE OF ANNUAL MEETING

The Annual Meeting of the Kansas City Chapter of the American Institute of Architects will be held on Tuesday, December 13.

This meeting is called for the express purpose of election of officers for the coming year. According to the by-laws, in order to make this nomination and election official a quorum of at least twenty per cent (20%) of the total number of assigned members of this chapter must be present.

The Executive Committee has interpreted the by-laws that Corporate, Associate and Junior Associate members of the Chapter are entitled to vote on the election of officers as this is not an Institute matter.

Notices naming the time and place will be mailed by the Program Committee.

W. H. Simon, President

NOMINATING COMMITTEE

The President has appointed the Nominating Committee composed of Al Fuller, Chairman, Joe Shaughnessy and Mark Sharp, members, to nominate two names for each office to be voted upon. This committee's recommendations will be forthcoming to the membership by November 28. Any comments or recommendations which the membership may like to make to this committee should be made well in advance of this date.

A.G.C. DOES IT AGAIN!

On Tuesday, October 25, the Kansas City Chapter of the A.G.C. revived the very popular annual meeting with architects, and the men of our Chapter responded in full force.

The date fell on the third Tuesday of the month, our regular meeting night, thereby relieving the lethargic Program Committee of their monthly attempt at drawing out the membership. The Chapter meeting was canceled, naturally.

The contractors displayed unusual thoughtfulness in arranging to have an architect for the featured speaker in the person of O'Neil Ford of San Antonio. Mr. Ford came through with a disarming and delightful delivery in awakening the builders (contractors and architects) to their responsibilities in their chosen field. He criticized practically all U. S. Architecture (except the old buildings at Harvard and the new lift slabs in Texas).

The evening commenced with the usual elbow-bending in the Junior Ballroom of the Muehlebach, proceeded to the Grand Ballroom where the full course was run, complete with roving musicians and floor show.

To the General Contractors, we say a hearty "thank you," particularly in behalf of the Program Committee.

Frank Grimaldi

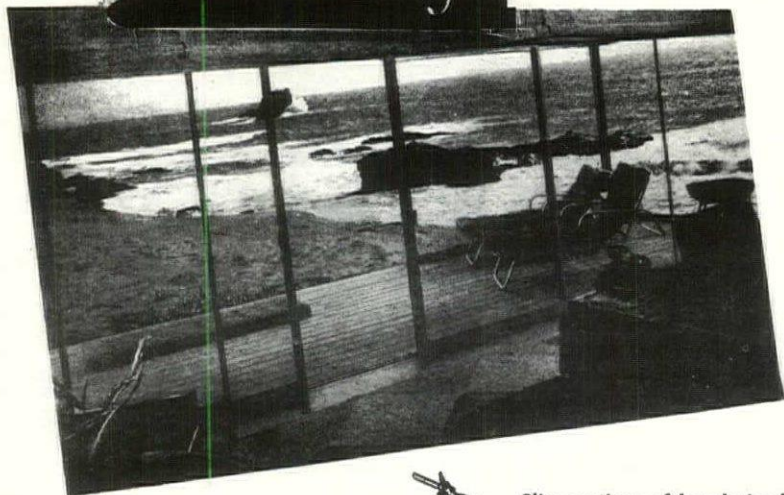
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It was wonderful!

What was? Why, the evening at Eddys', of course. Those who were there had a very good time. November 9th will long be remembered by Chapter members.

When the members arrived, they were met at the door by one of the hosts and were directed to the private dining room where samples of granite and photographs showing some of the ways granite has been used were on display. This room also had a well-stocked bar.

After a little more than an hour, which was spent in conversation (no sales talk), dinner was served in the main dining room. The dinner left little to be desired . . . but the evening was not over. The very kind hosts had arranged for the members to see the floor show . . . they were even part of it, joining in on "Shine on Harvest Moon" and "Doodle-de-do." After the floor show, the evening quickly drew to a close with the hosts standing at the door bidding everyone farewell and receiving sincere thanks for grand evening (and still no sales talk).

Again we want to say thanks. To whom? Why, to CARTHAGE MARBLE CORPORATION, COLD SPRING GRANITE COMPANY and TEXAS GRANITE CORPORATION. Thanks again, and again. It was wonderful!

FROM JEFFERSON CITY . . .

At a recent meeting of the State Board of Registration for Architects and Professional Engineers the following resolution was passed.

BE IT RESOLVED, that all regular and special meetings of the Board shall be open to the public and that all citizens interested in the proceedings of the Board may attend such meetings at pleasure and that the officers, directors and members of the Executive Committee and the Committees on Ethics and Practice of Architecture or Professional Engineering are cordially invited to attend the regular and special sessions of the meetings at their convenience and pleasure; provided this resolution shall not be so construed as to prevent the Board and each of its Divisions from holding executive sessions when any such session shall be deemed in the public interest; and provided further that no action affecting adversely the interests or rights of any registered architect or registered professional engineer or the general public shall be finally taken at any executive session of the Board or of either of its Divisions; and

BE IT FURTHER RESOLVED, that the Secretary furnish copies of this resolution to architectural and engineering publications in Missouri.

At the annual architectural examination held by the State Board of Registration for Architects and Professional Engineers at Jefferson City, October 17-20, a total of 48 applicants took the examination. Of this number, 22 were from Kansas City and the immediate surrounding area. Papers are being graded and results will be announced as soon as grade reports are filed and classified.

Bruce Williams, Chairman of the Missouri State Board of Registration for Architects and Professional Engineers, was installed as President of the National Council of State Boards of Engineering Examiners at its 34th annual meeting in Washington, D. C., October 20-22. Mr. Williams owns and operates The Bruce Williams Laboratories at Joplin.

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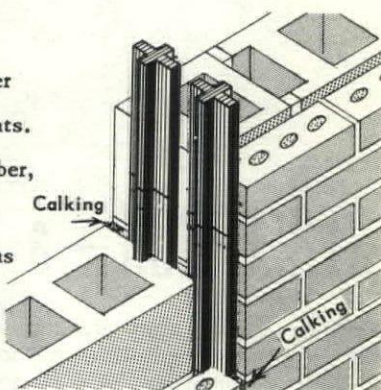
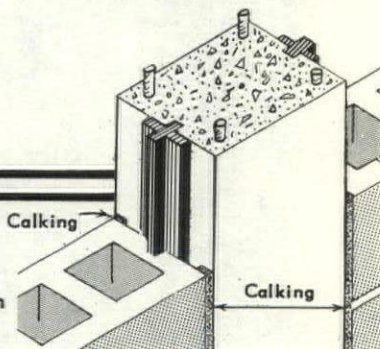
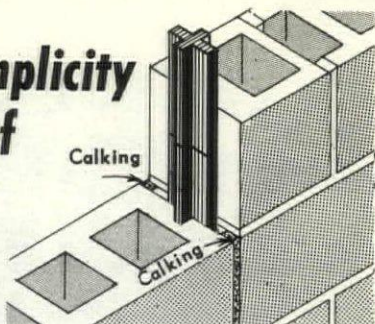
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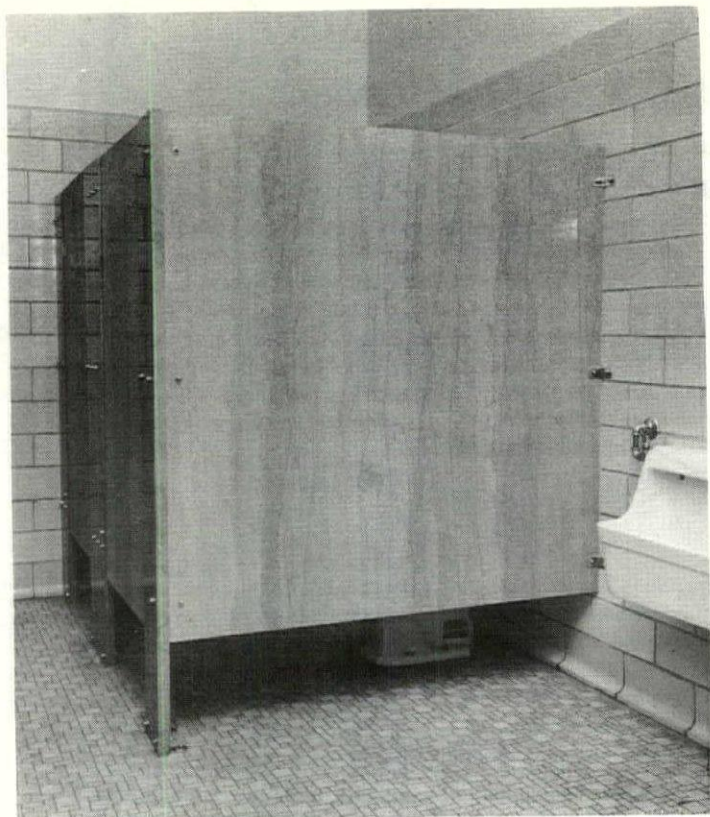
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Have you been noticing the series of house designs appearing on Sundays in THE KANSAS CITY STAR? This is a project of the Public Relations Committee of our Chapter. They have been working with Fred Fitzsimmons, of the STAR, and are doing an excellent job. The committee plans to feature a house designed by a different architect each week. The house can be any size. If you would like to help on this project and have designed a house that would be of interest to the public, call Bob Earnheart at DR. 3736.

From George Beal at the University of Kansas, comes word that there has been a meeting of the Educators Planning Committee for the Architects Conference to be held at the University next spring. Lloyd Roark and Don Hollis represent the Kansas City Chapter on this committee and will work with E. A. McFarland, George Beal, Robert Mann, John Hines and Kenneth Miller from the University and Kansas Chapter.

The committee has chosen the subject of the conference, which will be THE THIRD ANNUAL ARCHITECTS' CONFERENCE—OFFICE PRACTICE. The dates are March 7 and 8, 1956, and the enrollment fee is \$25.00. Start making your plans now to attend.

Also on the Spring Schedule at K. U. is the FIRST ANNUAL MIDWEST ARCHITECTURAL AND ENGINEERING INSTITUTE, which will be held April 20 at the Union Building. This will be co-sponsored by the University of Kansas Architectural and Engineering School and the Kansas City Chapter of the Producers' Council. One member of the Council will be selected to conduct the meetings, and the purpose of this institute is to acquaint younger members of the architectural and engineering professions with the materials and the uses of materials available to them.

IS YOUR ADDRESS CORRECT?

The SKYLINES mailing list is being revised and corrected. If your address is incorrect on our list or if your name is misspelled, please drop a card to the editor before December 3 so that our records may be corrected by the first of the year.

COMMENTS on the 10th ANNUAL CONFERENCE CENTRAL STATES REGION A.I.A.

Reprinted from "A.I.A. Record" of CONSTRUCTION RECORD which is the official publication of the St. Louis Chapter of the A.I.A.

by Eugene J. Mackey

As the keynote speaker for the opening panel session, Fred Severud, noted consulting structural engineer of New York City, found his cue in the theme of the convention "Collaboration in the Design Professions."

Emphasizing the family relationship of the design team assembled to plan a modern structure, Severud said, "Only in such an atmosphere can changes or new proposals for the betterment of a building be evaluated and cheer-accepted by each member of the team." He likened the architect to the head of a family, whose responsibility (to the owner) was that of "providing the best possible service, and thereby, the best possible building."

In summarizing Severud urged members of the design professions to be more observing in allied fields; for not until artificial boundaries between professions are removed, will solutions be found to fully visualize architectural possibilities. Messrs. Germundsson, Harvie and Hanrahan spoke to the specific contributions of concrete, steel and timber in contemporary work. Each illustrated structural means available to the architect of our time.

by Kenneth E. Wischmeyer

The three members of the panel discussing "The Impact of Mechanical Equipment on Design" again emphasized how mechanical equipment has revised the entire approach to the design of buildings in the last fifty years. Charles S. Haines, of Voorhees, Walker, Smith & Smith, outlined his own firm's programming procedure and design analysis and appealed to all members of a collaborating design team to keep the design "fluid" in the preliminary stages, then freeze the concept and

make no changes if possible in the final development. Walter B. Moses, of Weil and Moses, consulting engineers of New Orleans, was suddenly taken ill and was unable to appear, but his fine paper was ably read by Lester Roth. Moses stressed the importance of mechanical equipment in design approach and emphasized the increase in percentage cost of total building cost that mechanical equipment now occupies in contrast to fifty years ago. Carter Lewis of St. Louis, chief commercial sales engineer for the Union Electric Company of Missouri, indicated the many and varied possibilities in illuminating and stressed the sales importance of proper lighting design, giving harmony of treatment, attractive atmosphere and physical surroundings.

by Harris Armstrong

Bob Newman's talk on the impact of acoustics on design was particularly pleasant because of his gay and amusing treatment of a subject that one ordinarily thinks of as dry if not dull. His knowledge of his subject, and his very real interest was infectious and I'm sure he held the rest of his audience the way he did me.

Of greatest value to most of us was his clear and concise statements relative to what you can do, and what you cannot do, to control noise. I sometimes think we spend great effort trying to do the impossible particularly when it is in one of the lesser known aspects of our work.

To me acoustics have always seemed somewhat mysterious and this opinion is reinforced by the large number of acoustically bad rooms in which I find myself; but his clear statement of the basic principles was both instructive and enjoyable, which is a happy combination.

His rather rough treatment of the "glueboys" and pasted-in acoustics was the result of many experiences in which improper knowledge of the nature of the problem, both on the part of the architect, and the acoustical material salesman, had resulted in making things worse instead of better by the standard acoustical treatment.

The sound-lag technique for long churches and the use of reflecting panels suspended within "pure forms" were both interesting examples of solving acoustical problems by straight analysis and reason.

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KEYNOTE . . . PANEL DISCUSSION

THE IMPACT OF MECHANICAL EQUIPMENT UPON DESIGN

by Charles S. Haines, A.I.A.

I brought with me a complete set of working drawings for a building designed in 1903. I also have a set of working drawings for a building completed in 1955. They happen to be designed by the same office for the same client and to be used for the same purpose.

While this is not the place to make a plea for larger fees, I think it should be rather obvious that the architect of today is providing a type of service that was never dreamed of 50 years ago. And since the scope of the structural design in each building is approximately the same, almost all of the additional drawings are required by our advancement in the fields of mechanical and electrical engineering.

At the turn of the century the architects and engineers were working with the then relatively new tool, "central heating." For a few years the electric light had been available in the larger cities. Sanitation was a fact as we had both sewage disposal and water supply. Fifteen or twenty years of the telephone had given a few of the Architects a preview of the wonders of present day communication, although I doubt very much if the teenager had really become a serious infestation of this time.

These things were accepted as "modern" conveniences, but with the exception of the elevator I doubt if architectural design had felt any real impact resulting from their invention and/or development. Certainly the lighting fixtures were little more than safer chandeliers or candelabra. No one really believed that illumination would be effectively substituted for daylight in factories and offices.

But then we really "took off." An improbable structure was made to leave the ground at Kittyhawk in 1903 with a piece of mechanical equipment. Many of the historians were impressed with the wizardry of the structural engineer in connection with the development of the skyscraper. I am willing to wager that they would still be sitting around with their black sleeve covers and green eyeshades in their eight-story walkups, dreaming of Eiffel towers, if it were not for mechanical equipment. The concept of the skyscraper is not possible without boilers, transformers, elevators, pumps, fans, conduits and pipe. Such a structure is a mere skeleton without the nerves, arteries and insides to give it life.

During the first fifty years of the century we have seen the genius of the mechanical and electrical engineer make these gadgets available to Architects in astonishing variety. So that no one will think that the Architect during this period wandered around dazed by this aura of perfection, let it be recorded that a tremendous amount of this advancement resulted

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directly from his efforts. A lot of it was actually invented by the Architect and improvement resulted from his constant desire to improve the quality of design. So much for the impact of mechanical equipment upon design as a product. I'm sure that we can agree that, as we approach control of our environment, mechanical equipment has done much to differentiate such control from mere shelter.

Before we get down to the chief business of how to make the collaborators collaborate, I would like to spend one more minute of another implication of the phrase "impact of mechanical equipment on design." If we can put down what we mean by design for the purposes of this session we can more clearly focus on our objective. I wish to eliminate discussion of the future. In 1984, I believe when you return to your bubble after a hard day in the mines on the moon, and your wife beats you to death about what a hell of a time she had polishing push buttons, that such advancement in design will have been made possible through the development of mechanical equipment. I also wish to eliminate any discussion of architectural theory. Therefore, let us accept as fact, no matter how enticing a subject, that if given enough glare control, we can provide enough mechanical equipment to make it a glass building habitable.

I believe that in order to achieve design as a product that there must be integration of design as a process. Thus, we not only concern ourselves with the creation of architectural expression, but we must worry about the mundane. I submit that we are floundering in the matter of handling cooling towers. Some of us attempt to hide these hallmarks of progress, others try camouflage, the rest pretend that if ignored they will simply go away, presumably to sulk. We have been with boilers longer and seem to understand them. At least we do a creditable job when they are in separate or attached buildings; and when they are put in a basement we know how to avoid giving the hot foot to the inhabitants above.

Spaces for housing air conditioning equipment are universally poorly located and designed. You either accept dictation from the mechanical engineer as to its location or you become petulant and force him to use some area that presents an unsatisfactory mechanical solution. Both attitudes stem from the abdication of leadership by the Architect. Proper balance of the factors of economy, weight, vibration, sound transmission, air borne noise, access for repair and maintenance with the architectural considerations of plan and appearance can only be combined through collaboration and under the direction of a single head.

The determination of the routing of conduits, ducts and pipes is too often overlooked by the Architect. The general pattern may be set by the engineer. Usually however, plumbing, electrical and heating draftsmen compete for leftover space. When these poor souls can't agree, the smart construction foreman of the mechanical trade who gets his work done first will make this final decision.

The selection of the system to be designed by the engineer is still another phase of the larger field of design that the Architect so often delegates to others. Not infrequently the Owner's engineers impose the entire mechanical design upon the Architect as a "requirement." The Architect

passes this along to the mechanical designers, as having been determined. It is a question as to whether these directives, if ill-conceived (and I concede that there is the possibility of an Owner's engineering staff having come up with the right answer), are allowed to stand because the Architect doesn't know any better or the Architect and engineer let them go unchallenged, as an easy way out. Neither reason is commendable. We are prone to take the attitude that this is a world of "the specialist" and that, therefore, we will do better to delegate this part of design to the specialist. I disagree. There must remain overall direction, just as a composer of an orchestration needs not be able to play each instrument in order to produce an acceptable symphony.

My professional life has been spent in an office which performs all phases of engineering. Depending upon the work load in the office we use outside consultants as required. I merely mention this to substantiate a belief that the technique of collaboration is similar in the integrated office to those problems which must be handled by the practitioner who entirely depends upon consultants for engineering services.

With these brochures I hope to illustrate the process of design, with respect to the coordination of the design process. These booklets illustrate the fundamental design for three laboratory buildings done by our office within the last few years. In each case I was charged with the responsibility for the coordination of design among the other duties which are required of project management. Our concept of the fundamental design is considerably broader than implied by the term preliminary design. It has as its objectives:

- (A) To develop the Owners requirements.
- (B) To make a design satisfying these requirements.
- (C) To provide a budget estimate for the Owner. The fundamental drawings and specifications are prepared in minimum detail to establish a basis for
 - (1) permitting the Owner to make an analysis of the design so that he may authorize the preparation of the working design with confidence.
 - (2) making the determination to proceed directly with the working drawings and specifications.
 - (3) making an estimate that is dependable.

In the concept illustrated, the design progress is analogous to the mathematical process known as successive approximation. In a series of frequent meetings with the Owner (after the program has been previously well defined) in which structural, mechanical, electrical, as well as architectural designers are represented, successive designs are presented. Each design has progressive development over its predecessor. The effect of architectural, structural, mechanical and electrical investigations and analysis are interjected as improvement continues.

In order that the Owner is able to come to the meetings prepared to render decisions we prepare at an early date, a schedule of work. This is divided roughly as follows:

- Group A—Determination without reference to arrangement.
- Group B—Determination of an arrangement.
- Group C—Determination of Architectural character.
- Group D—Determination of engineering considerations.

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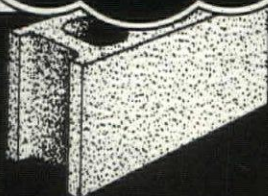
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The determinations which have no reference to arrangement, include parking facilities, typical wall sections, hardware, acoustical treatment, typical steel design. The Group B determinations of arrangement include the development of design for the modular space and the principal non-modular spaces, and finally the integration into a complete design. The determinations of Architectural character are carried forward simultaneously and include the fenestration. The various materials in the exterior and interior design and other special features. The engineering considerations are divided into structural, plumbing and heating and ventilating and air conditioning, electrical and the elevators. Accordingly the major parts of the design are determined, at least tentatively, before major effort is made to compare these parts to the structural or mechanical design. This eliminates a great many of the alternatives and thus reduces the variables in the comparative cost studies.

In the selection of a system of air conditioning for a research laboratory, we determine the hood requirements and other miscellaneous amounts of exhaust air. After the design states are determined, a quick calculation produces the air required for conditioning the areas to be treated. From these data a system may be selected for trial layout and routing of ducts, pipes and conduits of the miscellaneous mechanical laboratory services.

Since structural framing is still fluid one is able to test the economy of various column and girder arrangements together with the mechanical service complex and the architectural enclosure.

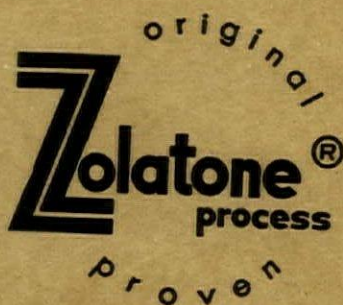
The drawings that are made in this state are only made by Architect and are invariably composite drawings. The structural system, the interior finishes, the electrical and mechanical systems are fully indicated. In this way structural and mechanical interferences are recognized and solved from the very outset. Rube Goldberg solutions for problems may preclude the use of what appears to be otherwise a satisfactory solution for a mechanical service system. The engineering designers are, therefore, largely consultants to the Architectural designer through the fundamental design period. As studies are improved, the drawings are increased in scale and the calculations become more accurate. While the plan drawings of the building as a whole are usually kept to 1/16" or 1/32" the drawings of the modular space are expanded to 3/4" scale and even larger.

Once the parts and the loads have been carefully determined the engineers make a one line diagram which completely defines the assembly and the parts of any one system. Finally within the last week of this stage plans are made showing the actual location of the mechanical service and these are sized on a tentative basis to be used for estimating on Mechanical and electric equipment rooms are carefully laid out.

In addition to the brochures which are aimed at top management, we prepare fundamental design reports for the Owner's engineering staff. Each engineering system is fully described and there is a complete outline specification so that the working design may begin and proceed without interruption during the final design period. During the preparation of the working drawings there are only infrequent meetings with the Owner. Part for the course would be a condition in which all decisions were made by the Owner prior to the start of working drawings.

I believe this process gives the Architect design control while enabling the engineer the opportunity of making a fine contribution to a balanced design. The Owner is assured of a fine project with a minimum of construction extras.

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