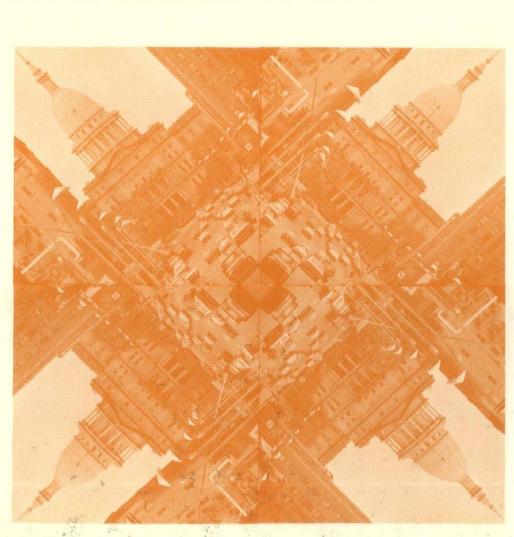
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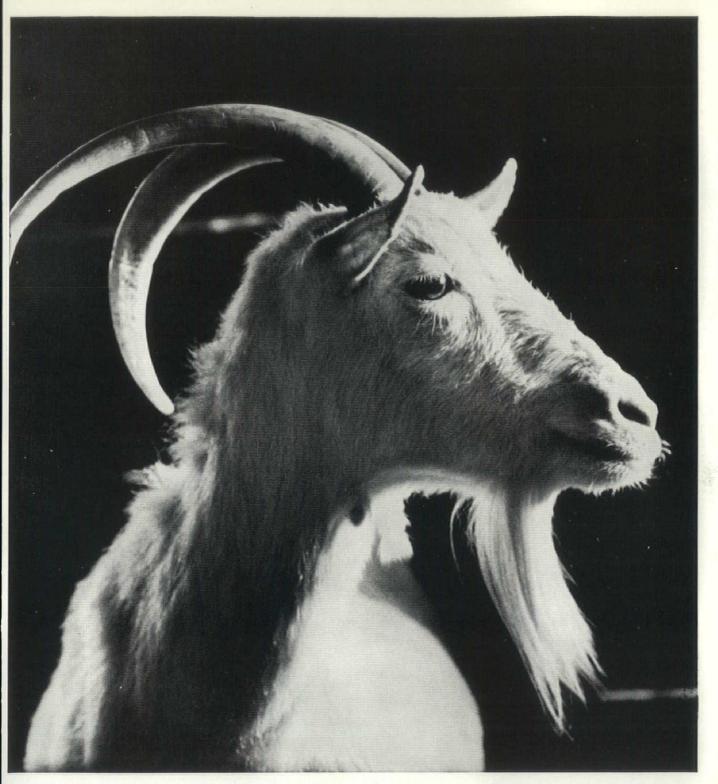
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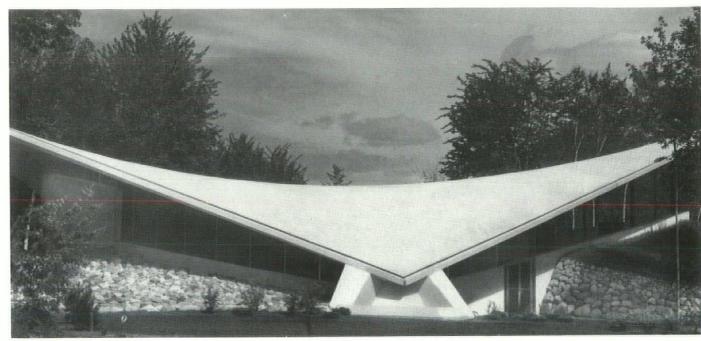
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Attractive shell roof of modern concrete helps keep cost low for new Midland church



United Church of Christ, Midland, Architects: Blacklock and Schwatrz, Midland; Structural Engineers: R. H. McClurg Associates, Detroit; General Contractor: John W. Strahan Construction Co., Riverdale

The impressive United Church of Christ structure makes effective use of a hyperbolic saddle shell roof to achieve striking beauty while retaining the advantages of economy. Designed by the Midland firm of Blacklock and Schwartz, the 6,400-sq.-ft. concrete shell spans 148 ft. from point to point and is 80 ft. across the points of the buttresses. Concrete

for the shell was placed in six hours at a cost of \$3.25 per sq. ft. Total cost of the structure was \$78,000 of which \$29,000 went for the roof, supports and tie beams. Concrete masonry walls completed the structure. This Midland structure provides another outstanding example of how progressive architects are building a better Michigan with concrete.

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Volume 41 - No. 5

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NEWS

Next Month - STEEL

The third of a series of articles on Building Technology.

Post Elected To Board of Ed.

David E. Post, Grand Rapids architect, was elected to the Grand Rapids Board of Education. Post was immediate past president of the Grand Valley Chapter of the A.I.A. In a race that started out in the primary election with 20 candidates he finished first in the final election of six candidates for



David E. Post, AIA

three vacant seats for a three-year term beginning July 1, 1966. The Grand Rapids Board is attempting to inaugurate a school building program for the next 15 years of some 25 million dollars. By lending his professional experience, he stated, he thought he could be of service to the board and the community.

Michigan Fire Safety Board

This State Fire Safety Board has been established in accordance with Act 207, P. A. 1941, as amended. One function of this board is to make and adopt reasonable and standard rules pertaining to fire safety requirements for schools, nursing homes and homes for the aged, their construction, occupancy and use. The second function is to act as a hearing body to review and render decisions on any contested case in accordance with the law.

We recognize that these rules or their interpretation may be of concern to you. It is our desire that this Board fulfil its purpose with a maximum degree of effectiveness.

We want to develop the very best set of rules pertaining to fire safety that is possible. In order to assist us we do solicit your advice and counsel. It is essential that any new rule or rule modification that is proposed be consistent with recognized good practice as evidenced by standards adopted by nationally recognized authorities in the field of fire protection. If your recommendations are well documented, they will be of significant assistance to this Board.

We have been provided with a legal opinion indicating that until such time as the present laws are modified by this Board, they shall continue in effect.

Fire safety rules, or a ruling of the Fire Marshal in his interpretation or application of the rules may be appealed to this Board. The appeal must be directed to the Board in writing. Its contents should include: the rule. the interpretation being applied by the Fire Marshal and the desired interpretation. The circumstances surrounding the cause for appeal and the consistency of proposed modification with recognized good practice should be clearly presented and documented.

The first pressing problem facing this Board is to develop its own organization and operational procedures. These will be announced as soon as possible.

Beginning with the month of April, regular meetings will be held on the fourth Wednesday of every month to consider items on prepared agenda.

The Board may be contacted by addressing communications to: The Michigan State Fire Safety Board, 714 South Harrison Road, East Lansing, Michigan. Bernard F. DeCoster, Chair-

Wold Announces MSA Committees

The following list of MSA Committees for 1966 demonstrates my firm belief that committees should not be appointed just for the sake of having committees. All of these committees were appointed to work on specific problems currently facing the Architectural Profession in the State of Michigan-and most of them are already

actively working toward the solution of these problems.

Additional committees will undoubtedly have to be appointed throughout the year as the need arises. These appointments will be made following the same procedure used to select the committees herein listed-that is, the most qualified persons available will be selected by the MSA Board and asked to serve in solving a specific problem or creating a new program.

Communications or questions relative to areas of committee work should be addressed directly to the committee chairman. If there is any doubt as to the proper committee to which to refer a specific problem or new idea, please direct your communication to your Chapter representative on the MSA Board, or to any of the officers.

BOARD COMMITTEES

Executive Committee: Robert L. Wold, Chairman, Jay S. Pettitt, Jack Monteith, Chase Black, Phil Meathe, Bruce Smith, Ann Stacy, Secretary.

Audit: Louis Menk.

Delegates to MAP: Adrian N. Langius, Walter Laitala, Louis Menk, Jay S. Pettitt, James Tomblinson, Robert L. Wold.

STANDING COMMITTEES

Standing Committees, other than those listed with "Special Committees," are composed of the respective committee chairmen from each Chapter, and will be called together for a committee meeting as the need arises.

REGIONAL JUDICIARY COMMITTEE (By Election) Auldin H. Nelson, Clair W. Ditchy, Peter Vander Laan, Clark Harris.

SPECIAL COMMITTEES

Legislative Matters: Jay S. Pettitt, Chairman, Richard Frank, Bruce H. Smith, William Black, Louis C. Kingscott, Jr., Gordon Cornwell, C. A. OBryon, Paul B. Brown, Thomas Sedgewick, Robert L. Wold, ex officio.

Legislative Advocate: Bruce H. Smith, Chairman, Robert Hastings, Phil Meathe.

Statute of Limitations: Robert L. Wold, Chairman, Charles W. Lane, Walter Laitala, James Parent.

Registration and Education: Robert F. Hastings, Chairman, Earl W. Pellerin, Bruno Leon, Walter B. Sanders, Charles MacMahon, Bernard De Vries, Thomas J. Sedgewick, James B. Shane, Charles Strieby, Louis Menk, Chase Black, Daniel W. Toshach.

MSA Conventions: Mid-Winter: William Quinlan, Ch. '66, William Black, Ch. '67, Richard Adair, Lyn E. Graziani, Robert Roney, Gino Rossetti.

Mid-Summer: Irving Palmquist, Ch. '66, Donald Humphrey, Ch. '67.

Awards Committee (Gold Medal Honorary Member): Jay S. Pettitt, Chairman, Louis Rossetti, Dale A. Suomela, Carl J. Rudine, Richard M. Robinson, Charles W. Strieby, David L. Stiffler, William C. Stenglein, James L.

MSA Design Awards '67: Gino Rossetti, Chairman.

Committee on Exhibits - School Board, Hospital, etc.: Peter Tarapata, Chairman, Charles W. Lane, Bruce H.

Critical Occupation Designation: Louis Menk, Chairman.

AIA-AGC: Joseph Daverman, Chairman, Arthur Zimmerman, Carl Kressbach, Robert Carrigan, Ralph Knuth, Eugene Stark, Irving Hunsberger, Julian R. Cowin.

State Capitol Study: Richard Frank, Chairman, Gordon Bugbee, Kingsbury Marzolf, William E. Kapp, Amedeo Leone, David L. Williams, Warren L. Rindge, John P. Baker, ex officio, William C. Roege, ex officio-P.E.

Co-ordination w/State Fire Marshal: Floyd H. DeShane, Chairman, Gordon Stow. Robert Yokom.

War on Ugliness:

Legislative Opinions: Bruce H. Smith, Chairman, Dale Suomela, Jim Tomblinson, Carl J. Rudine.

Syllabus on Approach to Legislators: Jackson B. Hallett, Chairman, Richard M. Robinson, William Stenglein, Charles Strieby.

Preservation of Natural Resources, Conservation, etc. (including pollution, sign control, and beautification): Gordon Cornwell, Chairman, Jackson B. Hallett, Richard M. Robinson, Chase Black.

Regional Planning-Urban Design: Bernard DeVries, Chairman, Charles A. Blessing, James Parent, Gerald E. Crane, Robert G. Bell, Robert M. Beckley.

Special Projects: F. Huston Colvin, Chairman, Robert S. Swanson, Paul B. Brown, Elmer Manson, Richard Frank, Paul D. Bowers, Jr., Robert S. Gazall.

GLF&E

Elect Officers

At the annual meeting of the Great Lakes Fabricators and Erectors Association recently held in Detroit, George E. McKeough, Manager of Community Services and Labor Relations, The R. C. Mahon Company, Detroit, was elected President. Other officers elected to serve in the coming year include E. L. McDowell, President, Argo Steel Consruction Company, as First Vicepresident; M. E. Woodbeck, President, Overhead Conveyor Company, Ferndale, as Second Vice-President; James Bernardi, Vice-President of Chapper Iron Works, Inc., Detroit, as Secretary; and John F. Burke, Controller, Aluminum & Architectural Metals Company, Detroit, as Treasurer.

Elected to the Board are Harry Broad, Broad Crane & Engineering Company, Detroit, John Busch, Haven-Busch Company of Grand Rapids, who will be serving his second term; H. E. Webster, Whitehead & Kales Company, River Rouge, A. E. Wetter, Byrne Doors, Inc., Ferndale; W. E. Willard. R. C. Mahon Company, N. O. Saulter of Acorn Iron Works, Inc., Detroit, remains in the Board as immediate past president.

J. Gardner Martin is Executive Secretary of the Great Lakes Fabricators and Erectors Association which represents 60 firms in Michigan and adjacent states engaged in the fabrication and erection of structural steel and metal building products. The Association maintains offices at 809 New Center Building, Detroit.

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Detroit Metropolitan Goals Conference

"Anarchy or Order in Metropolitan Growth" is the title of the fourth regional conference of the Metropolitan Goals Forum, to be held in Cobo Hall on Wednesday, May 18. Speakers and panelists include Hon. Robert C. Wood, Under Secretary of the Department of Housing and Urban Development; Philip Will, Jr., FAIA, Past President of the American Institute of Architects; Jack Meltzer, Director, Center for Urban Studies, University of Chicago, Rt. Rev. Msgr. Clement H. Kern, Pastor, Most Holy Trinity Parish, Detroit and Gerald C. Crane, Detroit Architect and Planner.

The one-day conference program will emphasize the importance of framing and implementing guidelines for giving some direction to the physical development of our six-county region. Speakers and panelists will consider the various elements of a satisfactory physical environment, the tools available to accomplish desirable changes in our urban environment, and the importance of citizen involvement in setting physical goals. They will give their answers to questions such as "Are there realistic alternatives to random and haphazard urban growth? If so, how can they best be implemented? Can the tide be turned in the War on Ugliness? What are the roles of the citizen-the architect-the plannerthe businessman?"

Advance registration is advised; fee, including luncheon, is \$5.00. Make check payable and send to "Forum for Detroit Area Metropolitan Goals," 411 Veterans Memorial Building, Detroit, Michigan 48226.

Reiter To Department of Education

Melvin Reiter, AIA, Vice-President of the Mid-Michigan Chapter, AIA, has been assigned to the Bureau of Higher Education staff of the State Department of Education. He will review proposed capital outlay programs for new and expanded facilities at publicly supported colleges and universities and confer with these institutions on capital outlay programs and planning.

A native of Joliet, Illinois, Reiter has worked for the Building Division of the State Department of Administration since 1958. Prior to that he worked for various architectural firms in Michigan, Ohio and Illinois. He holds his bachelor's degree in architectural engineering from University of Illinois, and is currently working on a master's in public administration.

Supersine Announces New Plant

The Supersine Company announced it has moved to new and larger quarters adjacent to its present plant. The new address will be 17685-95 Filer Avenue, Detroit, Michigan 48212.

"In addition to providing new office space, plant and production capabilities have been doubled. We have added complete foundry facilities for casting bronze and aluminum tablets, plaques and customized individual letters," stated Robert S. Raisch, Supersine's President.

Supersine was established 16 years ago, primarily, as a manufacturer of a newly-developed die-raised stamped sign. The firm was acquired by Raisch in 1955 and since that time has expanded into the manufacture of engraved metal and plastic signs; individual letters, custom designed and pictorial information signs in porcelain, metal and plastic; and aluminum and bronze cast signs.

"Along with the physical plant expansion Supersine has enlarged the selection of type faces available for both our die stamped aluminum Supersines and the engraved plastic line of signs. It's safe for us now to claim the most complete line of signs and custom identification requirements available in the United States," added Raisch.

MCCC Expands

Plans for a \$3,371,692 Industrial Technology Complex, the second major project for Macomb County Community College's South Campus, Twelve Mile between Schoenherr and Groesbeck, have been given impetus with the tentative approval of a \$1,209,-108 grant by the Michigan Department of Education.

MCCC President Robert E. Turner said the new complex, designed by Harley, Ellington, Cowin and Stirton, Inc., architects-engineers-planners, will enable the college to expand its program (which presently serves 1,600 students attending classes in county high schools and industrial plants during late afternon and evening hours) by September, 1967, the tentative completion date.

New facilities will include a mechanical technology building, graphics technology building, lecture - conference center and power plant. The South Campus, which opened in September, 1965, now has five buildings of a proposed eight-building quadrangle complex for classrooms, offices and student services.



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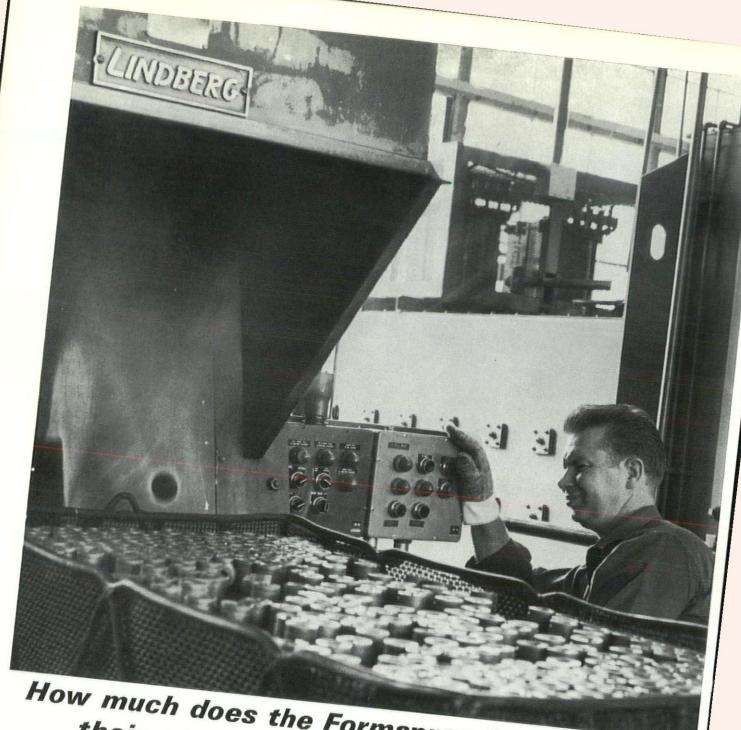
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When we asked Charles Bayless, Heat Treat Superintendent at the Formsprag Co., Warren, Michigan, how he compared his new electric furnace with other furnaces he's used, he answered, "All I can say is I like it. I'm just not going to have near the problems

What does he like better? A lot of things. The electric furnace is a lot cleaner—clean machinery, clean walls, clean ceiling. And it really performs. It idles at low temperatures and comes quickly up to heat. And the quality of their product requires

extremely precise heat control—another reason for purchasing an electric furnace. At 1600° it varies only a few degrees front to back. He can take it down stone cold without damage. The low voltage in the elements prevents arcing, resulting in long life.

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MSA 1966 CONVENTION

DeVries Receives MSA Gold Medal

The MSA presented its coveted Gold Medal to Bernard J. DeVries, AIA of Muskegon at the Annual Awards Dinner held at the Statler Hilton Hotel in conjunction with the 52nd Annual MSA Convention. DeVries was presented with the Medal for Achievement in public service and his

contributions to the profession.

A tireless worker in civic affairs, a founder to the Lake Michigan Region Planning Council, a member of the Michigan State Board of Registration for Architects, Profesional Engineers and Land Surveyors, he has been a member of the Muskegon City Planning Commission for 20 years and chairman of the Commission for 16, a member of the Muskegon Zoning Board of Appeals, a founder and former director of the Michigan Society of Planning Officials. He is a past president of the Muskegon Kiwanis, a recipient of I.S. Junior Chamber of Commerce Distinguished Service Award.

He has served the Michigan Society of Architects as a director and officer of the Western Michigan Chapter of

the A.I.A.



Draftsmen's Competition Winners

Grand Prize: Mr. Angelo Revello-Germany, Klees & Bliven (An architectural drawing). First Prize: Architectural, Mr. Angelo Revello-Germany, Klees & Bliven. Second Prize-Architectural, Mr. Allen Cornwall-Harley, Ellington, Cowin & Stirton, Inc. First Prize: Mechanical, Mr. Edward R. Newcomb-Smith, Hinchman & Grylls Associates, Inc. Second Prize: Mechanical, Mr. Thomas E. Carter—Smith, Hinchman & Grylls Associates, Inc. First Prize: Structural, Mr. Ellsworth Clos-Albert Kahn Associates, Architects and Engineers. Second Prize: Structral, Mr. Angelo Delben-Smith, Hinchman & Grylls Associates, Inc. First Prize: Electrical, Mr. Rex D. Reittenbach-Wigen, Tincknell & Associates, Inc. Second Prize: Electrical, Mr. David J. Winton-Albert Kahn Associates, Architects and Engineers.





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Publications

The Prairie School Review-A Quarerly Journal, \$1.50 per copy or \$5.00 a year by subscription, The Architecture of Purcell and Elmslie, by David Gebhard, 96 pp. monograph, \$4.00 in paper or \$6.50 in cloth, Historic American Buildings survey, Chicago and nearby Illinois Areas 52 pp. \$1.50. Published by the Prairie School Press, 117 Fir Street, Park Forest, Illinois 60466.

Perhaps the most esoteric publisher in the private world of architecture is The Prairie School Press. This is not meant to belittle the efforts of the Press for their publications quite honestly attempt to preserve a kind of architecture which is quickly being destroyed by "progress" and one which our present technology could never reproduce. The Prairie School of Architecture is difficult to define. It was more than a style, it's cohesiveness derived from ideas, ideas about life as well as architecture. Names such as Sullivan, Elmslie, Purcell, Girffin, Steele and Wright describe better than words the direction and attitudes of the Prairie School. The Prairie School Review is a quarterly journal "devoted to the architecture of Sullivan, Wright and their contemporaries." The Review deals with personalities of the Prairie School with scholarship and insight. As an example, the Fourth Quarter 1965 issue has a twenty page manuscript on Alfonso Lannelli, sculptor and one of the few non-architects of the Prairie School. The article includes many of Lannelli's sketches and magnificent details from the Midway Gardens, where he combined his talent with that of Frank Lloyd Wright. The next issue is to be devoted to the work of Hugh Garden, designing partner of the firm of Schmidt, Garden and Erickson, certainly a remote figure in a history which is so recent, yet so interesting.

The Prairie School Press has also published a number of monographs devoted to various personalities. The most recent publication entitled The Architecture of Purcell and Elsmlie is a reprint of the work of Purcell and Elmslie which appeared in the pages of The Western Architecture in 1913 and 1915. It is a magnificent document, bound to become a collector's item in its own right.

A second publication Historic American Buildings Survey, Chicago and Nearby Illinois Areas is a catalog and reference to an exhibition currently being circulated by the Smithsonian Institution. The proceeds from the catalog of 307 buildings will go toward continuing efforts to record, in drawings and photographs, this important part of American architectural history. For Beauty, Distinction, Permanence and Economy

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Third, the use of a well disciplined design method employed by Professor Christopher Alexander (Notes on the Synthesis of Form, Cambridge 1964) illustrates a useful tool for attacking complex problems of design. The report does not in itself present a design solution for the use of freeway airspace, but it does establish the parameters which must be considered before any meaningful design can be accomplished. This paper by the CCAIA hopefully will not be the last and perhaps it will encourage other state societies of the AIA to make as positive a contribution.

CCAIA Report No. 502-66-Freeway Airspace. CCAIA Environmental Research Grant, No. 1. By Shlomo Angel. Published by California Council, The American Institute of Architects, 1736 Stockton Street, San Francisco, California 94133. 40 pp. \$2.00.

"Is the concept of airspace development (over and under freeways) a good one? Will the benefits outweigh the disadvantages?" These questions, asked of the California Council, AIA, served as the catalyst for the CCAIA's sponsorship of a research project concerned with the constraints of development of airspace above and below freeways. The results of the research, con-

ducted by Shlomo Angel of the University of California, College of Environmental Design, have been published by the CCAIA under the title Freeway Airspace. The research paper should be of interest to MSA members for several reasons. First, as the product of research sponsored by a state society of the AIA it represents an area of involvement which might be emulated by other such organizations, including the MSA. The research, which was in response to local needs for information in this area, is intended to provide local government, state agencies, private citizens and designers with guidelines for the use of freeway airspace. This is, indeed, a public service of a very high quality. Second, as freeways are a national and indeed international phenomenon, the impact of this research will extend well beyond the borders of California, including, we hope, Michigan.

North Honored At Convention

Frank North, Associate member of the Detroit Chapter of the American Institute of Architects was honored at the Annual Awards Dinner by the Michigan Society of Architects with

the presentation of Honorary Membership in the Society.

North is the Architectural Liaison for the Detroit Edison Company, has long been active in the functions of



Frank North

the Michigan Society of Architects, the Detroit Chapter, AIA and to the profession in general.

His tireless, willing efforts for many years have been appreciated by the members of the Society.

Watch for announcement of Detroit Chapter Honor Awards Program. Applications will be mailed soon.

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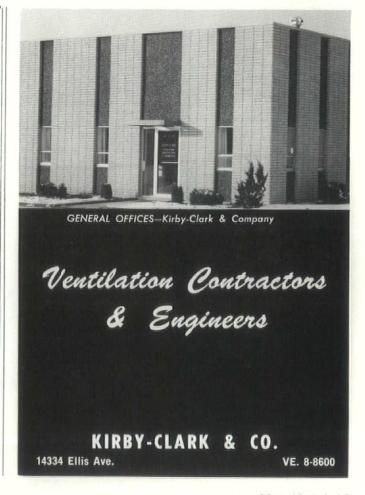


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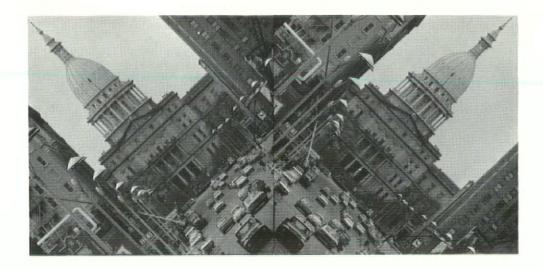
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EDITORIAL



The editorial comment for this month was prepared by Thomas J. Sedgewick, AIA a member of the Flint Area Chapter of the AIA and also a member of the Michigan State Board of Registration for Architects, Professional Engineers and Land Surveyors. Mr. Sedgewick was asked to discuss the effect of current legislation on architectural practice.

At the present time, the basic legal right to practice architecture in the State of Michigan is delineated by law, Public Acts 240 of 1937, as amended. This Act, as written, is for the protection of the health, welfare, and safety of the public; and, as such, it limits the areas of jurisdiction of the Registration Board. Any licensed architect or would be practitioner who desires registration should be aware of his rights and duties under this Act. He should also be responsible in the performance of his duties and should be aware of the multiude of political and individual actions that might hinder or modify his rights under the present law. Some of the actions which may affect the practice of architecture in Michigan are discussed in this editorial.

When Public Acts 240 was originally written, it displayed unusual foresight in providing for the representation of three professions by one board. This provision has allowed us to avoid the very costly and damaging lawsuits that other states have experienced in attempting to define the interfaces between the practice of architecture and professional engineering. A common board has allowed the professions concerned to move toward their common goals in a spirit of mutual respect, realizing the contribution each can make in our area of common endeavor.

Michigan's new Constitution states the composition of Boards of Registration or Licensing must be such that the majority of the members of the Board are practitioners in the field governed by the Board. This has been construed to mean that each profession should have its own board. Because of the existence of the Registration Board, Section (3A) was added to the registration act. Section (3A) states that solely for the purpose of administration in determining the majority of the members of the Board of Architects, Professional Engineers and Land Surveyors, all three will be deemed to be members of one profession, notwithstanding the separate licensing; and, the provisions of the Act are applicable to the separate classifications of such professions. This particular section of the Act is under fire at the present time, and there is a case pending in the Michigan Court of Appeals to declare that Public Act 240 is unconstitutional on the basis of this provision within the Act. This court action is in connection with litigation instituted by an unsuccessful candidate for registration. The candidate has failed to gain registration by written examination and is now attempting to gain it through the courts. A byproduct of this case is the attempt to declare the entire Act invalid and, hereby, possibly gain registration under a new

The Landscape Architects, after many years of trying, now have a separate Registration Board. This is despite the fact that opposition to the creation of this Board was expressed by various professional groups. Possibly, the greatest affect this separate Board will have will be in future attempts to delineate the interfaces of practice where the one profession ends and another one starts. It possibly would have been to everyone's benefit if the Landscape Architects had also been included under the presently constituted Registration Board by the addition of several Landscape Architect members.

Presently, a large amount of proposed legislation affecting the professions and the Board is appearing in legislative committee hearings.

HOUSE BILL 3500

This bill has been reported out of committee and will probably be in the Senate by the time this editorial appears. This particular bill provides for the Registration of Community Planners. It was opposed vigorously last year in the committee and was tabled until this year. Modifications and amendments were made to the original act; and, as a net result of these modifications, it was brought back this year. The Bill has already been voted out of the State Affairs Committee and was passed on to the Ways and Means Committee where implementation is being studied prior to being voted out onto the floor of the House. The professions that opposed this legislation find the bill well on its way to being produced. From a negative position to a positive position, the only area of discussion that could still be explored is that of incorporating Community Planners as part of the present Registration Boards so that the interfaces of practice could be resolved by the total Board. It appears the sponsors of this bill feel, at present, that it is too late for this type of provision to be made, and the provision should have been suggested at the time the bill was being considered last year.

One of the interesting by-products of this negative type of professional action was that another bill was also introduced this year.

HOUSE BILL 3736

The sole purpose of introducing this particular bill was to point out to the presently licensed professionals that their seeming intransigence in continually opposing the desire of licensing by other professions would not go unnoticed. The sole purpose of House Bill 3736 was to repeal Public Act 240 in its entirety and, therefore, place all professionals back on an equal footing. To some extent this particular bill was introduced as a warning to our profession that we also exist by acts of our legislature. This bill died in committee. The significant part of this bill is the fact that it was even introduced. It serves as a reflection of the attitude of legislators to professionals and the seeming inability of the professions to be flexible enough to deal with the legislature. This bill hammered home the point that we are not the only ones in the community that deserve to have a Registration Act. Others may equally deserve the same right; and, if we are going to adamantly oppose them and be completely unyielding, then the members of the legislature are perfectly willing to take us to task also. This sort of action points out the lack of ability of the professions to operate within the political realm.

HOUSE BILL 3404

This bill would allow the registration of structural engineers as a separate group. The result of this particular bill would affect all of the examination procedures of the Board, and, consequently, it would affect licensing. It would create new areas to be dealt with regarding building engineering and would thereby complicate a problem that is already besetting the professions. When the hearing was held on this bill, the Board of Registration appeared at the committee hearing; and, apparently, the bill will be held over. Now the probability is that this bill will be back next year, inasmuch as the proponents of the bill are arguing for it on the basis of public safety, and public safety is something that is difficult to oppose. If this bill is passed, it will affect Architects and Professional Engineers greatly. It will mean the necessity of carving out areas of practice of every specialty within engineering. This bill would greatly affect the Architect's right to do structural engineering in any form; but, as previously mentioned, if this Board and these professions do not want to appear in a negative position, it will be incumbent upon the professions to suggest what might be done to accomplish what these legislators desire to accomplish; that is greater protection for the public. This matter could be resolved in a manner that is acceptable to all the professions. It should be our responsibility to take the lead in making suggestions for legislation; and as professionals, we would be very remiss if we did not show ourselves to be in the vanguard for this kind of action.

It is difficult to follow up on proposed legislation after it has been introduced without appearing negative and destructive. It would be much better to utilize a positive approach prior to the public hearings held by a legislative committee. An excellent example of this is House Hill 3500 for the licensing of Community Planners. All arguments this year were directed to the House Ways and Means Com-

mittee. This was the wrong place to propose revisions to the bill, inasmuch as the committee that originated the bill was the State Affairs Committee; and this bill was voted out of that committee before it was generally known by the profession. The main difficulty is that there is no way, at present, to keep in touch with everything that is going on in Lansing, especially when there are thousands of bills being introduced every year. Additionally, as a group, our profession seems to lack acquaintanceship with local Representatives and Senators or with the legistlative process.

Another bill was introduced in the Senate to enlarge the present Registration Board by adding a Land Surveyor to the Board. The present Board composition is three Architects and four Professional Engineers. Needless to say, the Board is on record to support the bill with the provision that the Board be expanded by the addition of a Land Surveyor.

Among other problems faced by the Registration Board is the perennial one of budget. Not only is there a need for expanded services by the Board, but there also exists the difficulty of retaining sufficient monies for progressive Board operation. Inasmuch as the monies are paid by registrants there is a certain percentage kept out for the general fund operations of the State. This overhead contributes to the operations carried on by the State for the Board's benefit and includes such items as record keeping, assistance from the office of the Attorney General, and other areas that are utilized in the performance of the Board's functions. This percentage has always been deducted. When fees are increased as they were three years ago however, it seems to take this length of time for the fact to be recorded so that such increases may be taken into account and the budgets awarded to the Registration Board adjusted accordingly. It is the Board's contention that next year's budget should reflect the increase in fees so that there will be money available for expanded services. The Board should also be able to more fully assess its position regarding future budgets. We are hopeful this will come to pass. Areas of expanded services, would include improved testing and enforcement.

This year, Michigan will, for the first time, provide candidates for Architectural examination with National Exams in five of the seven parts of the Exam. We are providing these Exams by pledging our future budget. It is ridiculous that this state cannot afford support for the already established budget which would provide this service to our candidates. In mentioning enforcement, it is unrealistic to shortchange this aspect of the overall program of the Board for fulfilling the needs of the profession.

All of these aforementioned items are normally handled by the individual initiative of Board Members who on a few days notice interrupt their schedules to appear at legislative hearings, review records for enforcement, etc., while the executive secretary must keep in touch with all of the above as well as handle the day to day problems of the Board's operation. All of these activities need the support of the professions at large, but they can best be assisted by the individual and collective activities of all registrants in securing a favorable atmosphere for approaching the legislature and the public.

If legislation similar to House Bill 3404, regarding structural engineers, continues to appear, we should be in the position of being there first with sound constructive legislation. Needless to say, this requires good support, for to open up an existing act for consideration by the legislature allowing them to amend it in anyway they see fit, requires planning and close liaison work. All of the professions should be aware of this and be prepared to act as necessary. We had better do it now while we have the opportunity rather than settling it later in the courts.

father than setting it later in the courts.

MICHIGAN SOCIETY OF ARCHITE

AWARD OF MERIT

WESTLAND CENTER NANKIN TOWNSHIP, MICHIGAN VICTOR GRUEN ASSOCIATES, Architects LOUIS G. REDSTONE, ARCHITECTS, INC. **Associate Architects**

Jury Comment: This is skillful handling of an everyday problem. The restraint of materials is admirable. The plan is good for the climate service corral well done and the problem of circulation nicely solved.

RESIDENCE FOR PROF. RICHARD WILT ANN ARBOR, MICHIGAN DAVID W. OSLER, ARCHITECT

Jury Comment: Character of the house seems to relate with the setting. The form is interesting with good use of materials. Exterior reflects the interior charm. A good and expressive plan done in an attractive and comfortable manner.

HONORABLE MENTION

RESIDENCE FOR MR. & MRS. J. E. RIECKER MIDLAND, MICHIGAN ALDEN B. DOW ASSOCIATES, INC.

Jury Comment: This atrium plan with living room in enclosed center is handled well. The proportion of space and materials used give a warm and pleasant

A certain awkwardness of circulation pattern.

CLIMAX MOLYBDENUM COMPANY OF MICHIGAN ANN ARBOR, MICHIGAN SMITH, HINCHMAN & GRYLLS, ASSOCIATES, INC.

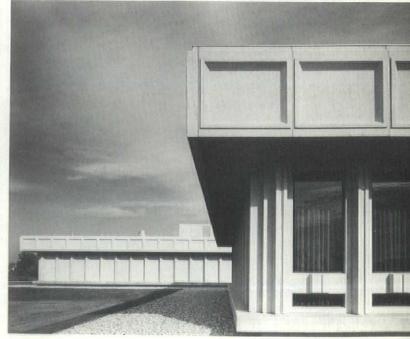
Architects and Engineers Jury Comment: Carefully contrived grouping with a well worked out plan for massing. Good outdoor areas formed by building. Consistent use of materials well organized.

966 HONORS AWARDS PROGRAM









BUILDING TECHNOLOGY

GLASS IN DESIGN

Of the many materials associated with "modern" architecture, glass would head the list of most architects and laymen. In the early decades of the modern movement the new glass technology allowed building to be opened up and the work of Corbusier and Wright was very dependent upon the openess afforded by large expanses of glass. The new glass technology to some meant a simplification of building. The glass skyscraper projects of Mies Van Der Rohe in 1919 and 1920 represent one of the earliest attempts to express the wall as a curtain, exposing the structure as had been done much earlier in the great exposition buildings of the late 19th century. But, of all the materials in use today, glass is perhaps the most abused and misused.

For a long time the word glass has been synonymous with the word window. While glass windows can provide light, view and ventilation, our ever increasing demands for a more precisely controlled environment requires us to look closely at what glass can and cannot do.

There are a number of criteria that must be determined before an intelligent decision can be made concerning the location, size and kind of glass to be used in a given situation. Many of these considerations are taken for granted and overlooked during the initial design stages of a project. Some of these factors are reviewed in the following article with comments concerning specific considerations which must be given to the proper use of glass, and future development which may be expected in the glass industry.

NATURAL ILLUMINATION

Because of a lack of research, the amount of natural illumination desired for any specific environment is highly subjective. Artificial illumination can produce almost any intensity of light desired. It cannot, however, reproduce the complete color range of natural light or the built in variety afforded by natural illumination.

Sun Penetration

The size of the opening and the longitude and latitude of the sun are the determinants controlling the penetration of the sun into a room. This is data which is easily quantified and can be predicted with almost absolute certainty. These calculations, however, are tedious to make and the slightest change in orientation can cause significant changes in penetration. This usually results in inadequate consideration of this problem. Digital and graphic computers could be used advantageously to accurately analyze the many conditions that may exist in a proposed design solution.

The question also arises whether sunshine inside a room with a relatively dark exterior scene, is to be preferred to the vision of a sunlit scene viewed outside from a shady room. If not carefully applied the use of tinted glass to control sun penetration can greatly exaggerate exterior scenes which are in shade.

Glare

Glare is defined as unwanted light, and it becomes clear this can only be defined in terms of the use of the light. Sky glare is the most common kind of glare and because it is a fixed and common source it is easly controlled by overhangs or the use of tinted glass. Reflected glare from surrounding surfaces is much harder to predict and to control. The use of reflecting pools and areas of bright metal outside of large glass areas have created conditions of glare which are intolerable.

A number of tinted glasses have been manufactured to solve the problem of glare. Tinted glass is available in plate or sheet quality and in blue green, grey or bronze tints. Tinted glass softens sky glare and will exclude a portion of the suns radiant energy. A comparison of the light transmittance of ½" regular plate glass and ½" grey tinted glass shows:

	1/4" regular plate glass	1/4" grey tinted glass
Luminous Illuminant C (Average Daylight Transmittance)	89.1%	44.2%

Where tinted glass is going to be used special care should be taken in detailing to avoid heat traps. Breakage of heat absorbing glass can occur from thermal shock when the temperature differential within the glass is large. Draperies and curtains should be hung at least 6" from the glass. Venetian blinds and roller shades should be hung so there is a minimum clearance of 2" between them and the glass. A minimum clearance of 1½" should be provided at the top and bottom or at the sides to permit venting between the shading device and glass. Pockets caused by glazing in front of columns or beams can serve as traps for hot air. Hot air supply and the location of outlet grills should be carefully designed to avoid temperature differential across the glass. Painting, sandblasting, signs, etc. applied to the glass can also create temperature differentials causing breakage.

VIEW

With an increase in the quality of air-conditioning and artificial lighting systems the major purpose of glass on exteriors of buildings is to provide a visual link between the interior and exterior environments.

Location

The appropriate use of such visual links is subject to the judgment and experience of the designer, though research in this area may someday give use a better understanding of the psychological and physiological affects of view.

Glass Specifications

As view becomes important so does the quality of the glass which is specified. Improvements in manufacturing procedures continue to improve the quality of glass in all areas. Criticism of glass quality is usually due to a mistake or misunderstanding in specification. If undistorted view is desired polished plate glass should be specified. Distortion in glass occurs when the two faces of the glass are not parallel to each other. Polished plate gives the truest uniformity of thickness because each side is carefully ground to an accurate and uniform dimension.

Small pieces of sheet glass when viewed from straight on may appear as distortation-free as plate glass. However, the draw process by which sheet glass is produced creates a wave distortion, which becomes more noticeable with larger pieces of glass. When viewed obliquely the distortion becomes worse. This has become a common complaint in areas where sheet glass has been substituted for plate glass to save cost, but it is a factor which is inherent in the manufacture of the material and must be considered as a factor if an undistorted view is truly desired. In recent years plate glass has become competitive with sheet glass in many sizes.

Tinted glass affects the color or tone of the scene. This may not be an important factor in some situations, but in areas where true color is desirable, such as show windows in commercial installations, other means of controlling glare must be found. Color distortion should also be considered as a factor when specifying materials, interior furnishings, draperies and items which will be viewed through

the glass.





A glass "cladding" of bronze plate glass and bronze "Vitrolux" was used in the remodeling of the Burroughs Building in Detroit. Architects Marr and Marr.



Polished plate glass of grey tint was used at Grand Valley State College to preserve the view and yet protect the viewer from the strong glare of the sun. Architects Meathe, Kessler and Associates. Photo Baltazar Korab.

TEMPERATURE CONTROL

The greatest deterent to the use of large areas of glass has been the problem of temperature control. The properties of radiation and conduction contribute most to the effect of glass upon temperature and comfort.

Radiation

Solar radiation is a factor which exists any season of the year. Direct radiation from the sun is most generally associated with infrared energy but all radiant energy may be converted into heat if it is absorbed and none of it is truly heat until it has been absorbed and converted. There is more energy per wave of ultra-violet than in infrared and the visible spectrum is also more effective in producing heat than the infrared when it is absorbed. Solar energy is only approximately 50% infrared. It is therefore deceptive to compare the radiant energy transmitting properties of glass on the basis of their infrared transmittance alone. Diffuse radiation can occur even when the sun is not visible. Solar radiation is often reflected by dust particles and moisture vapor in the air, and this condition is most common in urban areas. Indirect radiation can also be a source of discomfort. Highly reflective surfaces such as water, bright metal, white concrete, etc. can produce high amounts of indirect radiation in unexpected places. Indirect radiation can also be a major problem in urban areas with a dense developmen of highly reflective materials.

Conduction

Because of the composition of glass compared to other building materials it is a notorious conductor of heat from buildings. The reduced temperature of the glass surface also causes a radiant loss of heat energy from the bodies of persons near such cold glass areas. An accompanying problem is condensation which occurs when warm air comes in contact with the cold surface of the glass.



The use of obscure glass as interior partitioning is increasing rapidly because of the light transmission properties of the material which still allows visual privacy. This example is in the lobby of the Detroit Bank and Trust Co.

Thermal Calculations

There are many variables affecting heat transfer as can be seen. To get an accurate picture of the results generated by a particular design solution a wide range of variables must be considered. Because of the tedious calculations involved the engineer or designer usually assumes a few broad generalized conditions, relating to time, temperature, sun angle, etc. It is not unlikely that he will not forsee the worst conditions which might prevail. Improved testing procedure and the use of the computer to do the laborious work of numerous calculations are needed to increase our ability to predict and analyze the effects of various glazing conditions on the thermal environment.



14,000 square feet of insulating glass gives thermal protection to the Shanty Creek Lodge, in northern Michigan. Architects Begrow and Brown.

Glass Specifications

The development of tinted glass, heat absorbing glass and insulated glass have helped to alleviate some of the problems of temperature control. Recent improvements in combining tinted and insulated glass have utilized the advantages of each and at present represent the most complete thermal control available using a single glazing unit. Such units are composed of an exterior light of tinted glass and interior light of clear glass, separted by sealed-in dehydrated air. A typical comparison of transmission data between an insulated unit of ½" plate glass and an insulated unit using ½" tinted glass on the exterior shows:

tinted glass on the exterior shows

|\frac{1}{4}" plate glass |\frac{1}{4}" tinted glass insulated |
|total solar heat transmission | 72.8% | 49.5%

Other developments in heat-reducing glass units include: 1. A double glazed unit with a coating on the inside of the outer panel that reflects the heat.

2. A glass sandwich that has a louvered screen of coated steel or stamped aluminum between two pieces of glass.

3. A single light of heat-resistant glass with a permanent reflecting coating on both sides of the glass that cannot be removed by ordinary cleaning solutions or methods.

4. A laminated glass with a thin coating of metal on one of the inner surfaces of the glass to reflect the heat.

These specialized units obviously place limitations on factors such as vision, size, etc.

SIZE LIMITATIONS

Glass strength, glazing techniques and manufacturing limitations have been the major criteria for establishing size. Advances in all three areas give the designer more specific criteria for evaluating the porformance of glass.

Glass Strength

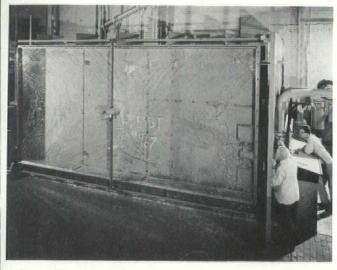
The size limitations of various kinds of glass have, in the past, been based on mathematical theory. Recent tests in specially designed pressure chambers have indicated strength based upon mathematical theory to be somewhat inaccurate. Strength of ½ inch thickness glass was found to be close to previous information but the tests proved that glass in thicknesses greater than ½ inch would withstand greater wind loads than were predicted based on the previously calculated data. It was also determined that thickness and size of glass, rather than ratio of width to length, is the most important factor governing strength. Many cities will be revising their existing codes to include these new findings.

It is also important to realize that design pressures may be unique for each building. Wind load studies show very little correlation between wind velocity and wind pressure on a practical basis. Theory provides very precise correlations but unfortunately the theory presently does not consider the effects of surrounding buildings and variations in the architectural design characteristics of buildings. Wind tunnel tests on building models have shown it is imperative these factors be considered. These tests have shown that the negative pressure on the lee side of a building may be twice as great as the positive pressure on the windward side. This is supported by reported instances of failure in pre-

formed gasket glazing systems which have been designed for conditions of positive external pressures.

Improvements in the manufacture of glass continue to improve their performance. Tempered glass is 3 to 5 times stronger than regular plate glass. Glass is tempered by reheating it to just below its melting point and then suddenly cooling it. Tempered glass is not as flat as ordinary plate glass particularly along the edges, but the deviation is slight. Unlike ordinary glass it disintegrates into relatively small pieces when its limit of resistance is reached. Air quenching techniques have been used to develop an 1/8" thick tempered glass of curved section for use in automobiles and this technique may, in the future, be used for architectural glass.

Laminating glass is a method commonly employed for improving the strength of glass. The laminations may be made from transparent or colored vinyl plastic of varying thickness. The sandwich is made by a combination of heat



Strength tests conducted by the Libbey-Owens-Ford research staff have helped to determine with greater accuracy the actual strength of glass under specific load conditions.

and pressure which bonds the glass to the plastic. Research is also being conducted in chemical methods for improving the strength of glass.

Glazing Techniques

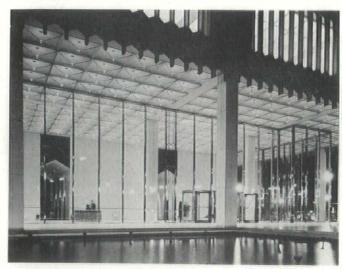
Movement is one of the biggest factors in glass failure and this has been especially true where repetitive units of glass have been used of a very large size. Two systems which have been adopted for extremely large sections of glass are the tension mullion and suspended glazing.

Tension mullions: Unbraced mullions over 10 feet in height must act as a beam to withstand imposed pressures placed upon the glass. If the mullion moves beyond the bending ability of the glass the unit will break. A number of methods have been developed for putting the mullion in tension and thereby reducing bending. The system used in the Michigan Colsolidated Gas Co. building in Detroit, supports glass 25 feet high with mullions 21/2" x 63/4" in section at 4'-8" o.c. The continuous vertical mullions in this



Tempered plate glass provides an open and yet rugged entrance to the City National Bank in Detroit's Penobscot Building.

case are constructed of 21/2" x 4" steel bar which extends through the floor slab to a heavy duty compression spring. The compression spring is capable of exerting 500 lbs. of tensile force on the mullions steel core and is thus able to resist all lateral motion in the window wall. The tensioned bar is fixed at the top to the structural steel or slab. All horizontal forces are transmitted to the tension bar but the glass holding member forms a shell around the bar and is independent of it allowing free movement vertically. The 1/2" polished plate glass is held by a system of bronze sash extrusions.



Tension mullions which allow the use of 1/2" plate glass 25 feet in height contribute to the open character of the lobby at the Michigan Consolidated Gas Co. Architects Minoru Yamasaki-Smith, Hinchman and Grylls, associated architects and engineers.

Suspended glazing: The concept of suspended glazing received its first practical application in Europe in 1957. The United States has been slow to adopt the system but in 1964 The Festival of Gas pavilion at the New York Worlds Fair used suspended glass quite successfully. Suspended glazing is a method of glazing which utilizes a lateral head suspension device attached to the structural steel above the plate glass thus suspending the glass without the use of block support at the sides or bottom. Each suspended section of glass is gripped at the top by concealed metal clamps which transfer the glass load to the supporting structure. Placed between the clamps and the glass is a bronze pressure plate and two layers of felt to distribute the pressure across the face of the glass. Epoxy adhesive SH-10 bonds the glass to the pressure plate. The bottom edge of the glass is allowed to move vertically in a metal channel holding a weatherproofing sealant. The vertical joints between the lights are also sealed with SH-10. Glass stabilizers are centered at right angles to the vertical joints and contact fitted with SH-10 for reinforcement. The system reduces the possibility of breakage due to movement in the structure thus allowing extremely large glazing sections to be used. (Glass units 35 feet high have been installed using this method.) The elimination of metal mulions creates a completely transparent wall of glass over a large area.

The system is not without its disadvantages however. Extra structural provisions above the window wall must be considered a part of the initial design. The special skills and equipment required for installation can make application quite expensive. Replacement of suspended glazing is

complicated and costly.

CONSTRUCTION

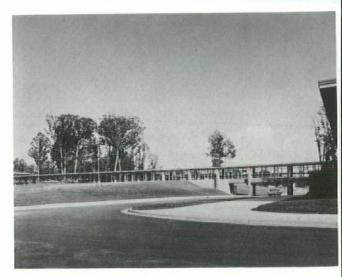
The greatest danger to glass usually occurs during construction and special care must be given to the protection and installation of glass during the construction stage.

The use of certain materials that come in contact with areas of glass during construction can have a deteriorating effect on the glass. It has been found that alkalis released from the concrete, (either precast or cast in place) can stain or etch glass. The effect occurs on both clear and tinted glass but it is usually more apparent on grey or bronze glass. By careful detailing this problem can be avoided but care must be taken to eliminate head details at sash which allow water to wash across concrete onto the glass.

Concrete surfaces that are to be sandblasted, bushammered, grouted, etc. should be complete before glazing is installed. Safety markings should be kept off the glass as they may photograph through to the glass because of weathering or chemical interaction with the glass. Openings should be marked instead with tapes or flags that are held away from the glass. Periodic inspection should be made of the glass during construction to see that it is not marked by plaster, mortar, or paint splatter.

Installation

An understanding of glass installation is essential to proper design. The following basic factors should be considered in detailing glass application. 1. Glass should not come in



Glass corridors provide enclosure and protection across a road at Loy Norrix High School, Kalamazoo, Mich. Architects the Perkins and Will Partnership.

direct contact with metal or other hard or sharp materials. 2. Glaze with a resilient type of sealant. 3. Stops should be of sufficient size to hold glass firmly in place and allow for expansion and contraction. 4. Openings should be rigid, plumb and square. 5. Provide expansion joints and "isolation" connections to the structure to keep sash movement to a minimum.

RESEARCH AND NEW TECHNIQUES

Research continues in the development of new kinds of glass. Greater solar heat control and light control will become available at a lower cost through new techniques being developed in filming. A new process utilizes vacuum deposition filming principles which allow the filming of large glass areas on a continuous production line. This process could make obsolete the present time-consuming and expensive method of manufacturing tinted glass which requires changing the actual composition of the batch of glass being melted in the furnace.

The development of phototropic glass may very well revolutionize the architectural use of glass. Phototropic glass will get darker when exposed to the sun and will get lighter when in the shade, providing a building material which can, in fact, change with changing conditions of the environment.

The use of glass is being extended as fast as the capabilities of the material itself. The experience and accurate data which is now available from representatives of the glass industry can contribute substantially to the imaginative use of this material which still has unexplored potential in the building industry.

This article was prepared with the cooperation of the Libbey-Owens-Ford Glass Co. and American Saint Gobain Corporation. Photos courtesy of the Libbey-Owens-Ford Glass Co.

Says architect Sandy MacHootey "Tile ceramic does multiple duty It's clean and it's thr-r-rifty It's wearproof and nifty And ye just canna beat it for beauty."



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ANNOUNCEMENTS

Members are reminded of the Symposium on Stainless Steel Design-5:30 P.M., Thursday, May 12-Statler Hilton Detroit.

Illustrated talks will cover "Why Design in Stainless," "Design Potential," "Product Design," and the principal speaker R. F. King will speak from the owners point of view.

The Exhibit will feature stainless steel products, doors, windows, curtain wall and hardware chosen to illustrate good design quality. Cocktails will be served.

Members are asked to return their reply cards to the sponsors, The Committee on Stainless Steel Producers, 633 Third Ave., New York City, N.Y. or bring them to the door.

T. Rogvoy Associates, Inc. Architects have moved their offices to 15600 Puritan. The new phone number is VF 8-3434

Detroit Bank & Trust has selected Levine Alpern and Associates, Detroit, as the architects for their new branch office in Plymouth Township. The building will be located on the southeast corner of Ann Arbor and Lilley Roads, and will replace a temporary office presently located there. The office will serve residents of southern Plymouth, southern Plymouth Township and western Livonia.

The Plymouth Township office is the 69th branch. Ground-breaking for the new building is expected to take place in the early summer.

H. J. Tanana, Consulting Engineer, announces the opening of his new facilities at 18610 West Eight Mile Road, Southfield, Michigan 48075. Telephone: 356-0258.

Time Saver Standards: A Handbook of Architectural Design, Fourth Edition. Editor-in-Chief, John Hancock Callender, Professor of Architecture, Pratt Institute. Prepared by a staff of specialists. 1292 pages plus index; 2110 illustrations; 81/2 x 11; McGraw-Hill Handbook Series; \$27.50. Publication date: April, 1966. McGraw-Hill Book Company, 330 West 42nd Street, New York, N.Y. 10036.

The Public Housing Administration, Housing & Home Finance Agency has announced publication of "Report on Family Living in High Apartment Buildings," by Miss Elizabeth Coit, FAIA.

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Interested applicants please submit resume to: Fred Sanders, 100 Oakman, Detroit, Michigan 48203. Attention: Hektor Peshkopia.

OBITUARY

Arthur DesRosiers

Arthur DesRosiers, AIA, died March 21 at the Southfield Nursing Home.

Born in Ottawa, Ontario on July 7, 1891, DesRosiers graduated from Ottawa University in 1907 then entered McGill University at Montreal. Graduated from McGill in 1912 as an honor student with a BS degree, he then worked for the Saskatoon Highway Department and designed and supervised the construction of the Saskatoon Bridge at Alberta.

A Detroit resident since 1916, Des-Rosiers opened his own office in 1920 and designed many institutional buildings. His Memorial Chapel at St. Hugo of the Hills, Bloomfield Hills was judged one of the hundred most distinguished and representative buildings of the post war period in the United States and England, erected

since 1918.

DesRosiers was a member of the Detroit Chapter, AIA and the Michigan Society of Architects since 1943. Surviving are two sons and a daughter.

M. Den Braven

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CALENDAR

1966			
May	3 & 4	Architect and Consulting Engineers Conference — University of Michigan, Ann Arbor.	
May	12	"Design in Stainless Steel", Statler Hilton Hotel, Detroit $-$ 5:30 P.M.	
May	14 & 15	Seventh Annual Congress of the Professions, Ponchartrain Hotel, Detroit.	
May	18	Forum for Detroit Area Metropolitan Goals, Cobo Hall.	
June 2 July	6 thru 1	AIA Convention, Denver Hilton Hotel, Denver.	
August 4 thru 6		MSA Mid-Summer Conference, Grand Hotel, Mackinac Island.	
1967			
April	12 & 13	MSA 53rd Annual Convention – Civic Center, Lansing.	
April	13-15	Gulf States Regional Convention, Hot Springs, Arkansas.	
May	10-12	Wisconsin Chapter, Lake Lawn Lodge, Delavan, Wis.	
Septen	nber 8-10	New Jersey Society of Architects, Essex and Sussex Hotel, Spring Lake, New Jersey.	

New Posts Filled at HEC&S

The appointment of M. Fred Bennett as Project Administrator and the appointment of Alvin F. Blair to the new post of Administrative Designer have been announced by Julian R. Cowin, president of Harley, Ellington, Cowin & Strirton, Inc., architects-engineers-planners.

Bennett, who joined the firm in 1949 as a designer following numerous assignments as both designer and job captain with architectural firms in Detroit, Chicago, New Orleans and Chattanooga as well as his own firm, will handle administrative and design functions on certain specialized projects. He holds a Bachelor's degree in Architecture from the University of Illinois and is a registered architect in the State of Michigan.



M. F. Bennett



Alvin Blair

Blair will continue to specialize in college and university projects in addition to handling assignments in related fields under the direction of James Gibson, Director of Architecture. Prior to joining HEC&S in 1964, Blair spent 11 years as designer and job captain with Detroit-area architectural firms after attending Wayne State University and earning a degree in Civil Engineering.

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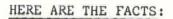
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