Absolute temperature control is essential at Micro-Measurements, Inc. That's why the company, manufacturer of precision strain gages for the automobile, aircraft and missile industries chose electric heat. With electric heat, temperature is easily and accurately controlled. At the same time, air changes in the building are kept within controllable, cleanable limits—an important feature in the near-sterile conditions needed here. Duct heaters maintain a constant temperature of 76 degrees during the heating season. In summer, electric air conditioning keeps the temperature at the same 76 degrees. Constructed to Edison recommendations the Romulus plant has performed to the complete satisfaction of the owner.

What about you? Before you decide on any heating system for a new or modernized building or addition, talk to an Edison Electric Heating Specialist about the many advantages of flameless electric heat. For more information just call WO 2-2100, ext. 2223 in Metropolitan Detroit. Elsewhere call your Edison office.
YOUR DESIGN IN A GUARANTEED WATERTIGHT GRID SYSTEM

Fenmark grid wall systems offer unmatched design freedom: massive areas of glass, striking structural effects, and narrow sight lines. The professional center shown here, designed by Architect Leo A. Daly, presented an unusual problem in weather integrity—penetration of the support beam through the facade. Fenmark provided the answer. It is available in load-bearing and non load-bearing, prime painted or permanent color finish, clad with stainless steel or bronze, in an endless variety of sizes and shapes. Work with Fenestra—60 years of engineering experience is at your service.

Fenestra, Inc., Architectural Products Division;
101 E. Kibby Street, Lima, Ohio 45802.
Composite floor systems, D-panel roof systems,
metal wall panels, Davidson architectural porcelain, hollow metal doors and frames.

FENESTRA SALES OFFICES IN MICHIGAN:
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The new 8-story Hillcrest North Medical Center in San Diego achieves exceptional wall interest. The imaginatively-designed wall panels, with tapered sides and wedge-shaped spandrels, provide multiple facets that catch the light in ever-changing patterns. This striking effect grows out of the structural design itself. The panels, of structural lightweight concrete, are actually vertical load-bearing channels which also enclose space. Panels are anchored integrally with the structure by cast-in-place connections. In this way, beauty is combined with high structural efficiency and economy. Such stimulating ways of using concrete are opening up a whole new field of architectural design. More and more, you see the beauty of concrete expressed in buildings of all types and sizes.

OUT OF THE GEOMETRY OF STRENGTH... a dramatic pattern in beauty for walls of precast concrete
Volume 40—No. 7

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Natural gas total energy systems
for on-site power generation

Now natural Gas total energy systems are providing on-site power generation, heating and air conditioning in schools, commercial buildings, industrial plants, apartment buildings and others from coast to coast.

How? Through the Gas total energy concept, where natural Gas engines or turbines are used to power electric generators, while heat that otherwise would be wasted is recovered and put to work in meeting all heating and air conditioning requirements.

Economical? These natural Gas total energy systems are operating at efficiencies of 60% or more. And their versatility and dependability of operation are winning hands down over other competitive-type systems.

As an added bonus to Michigan users, special rates are available which contribute still further to the attractiveness of natural Gas total energy systems. Isn't it worth your while then to find out more about Gas total energy systems and how they can benefit your planned or present projects? Just write or call Michigan Consolidated Gas Company, One Woodward Avenue, Major Project Sales Division, Detroit, Michigan. 965-8000, ext. 2975.

MICHIGAN CONSOLIDATED GAS COMPANY
Michigan Represented at Architects Congress/Convention

The Architectural spotlight of the world was focused on Washington during the recent Pan-American Congress of Architects held in conjunction with the 97th National Convention of the American Institute of Architects. This was the first meeting in the United States since the founding of the Congress in 1920. Held every three years, the ten previous Congresses have met in major capitals of South and Central America. It was an opportunity for the American Architects to reciprocate to their 1500 Latin guests the warm hospitality extended to them over the years.

The theme of the Congress was "Cities of the New World." More than twenty outstanding speakers from the U.S. and Latin America participated, with simultaneous translation facilities provided in three languages; English, Spanish and Portuguese.

Delegates from Michigan to the Pan-American Congress were: Bruce H. Smith, AIA—President, Michigan Society of Architects; Louis G. Redstone, FAIA—President; Detroit Chapter; Charles A. Blessing FAIA; Clair W. Ditchy, FAIA; Robert F. Hastings, FAIA; Adrian N. Langius, FAIA; Linn Smith, FAIA and Richard R. Stadelman, AIA.

Michigan delegates to the AIA Convention, in addition to the above were: Ralph W. Hammert, AIA; James B. Hughes, AIA; William R. Jarratt, AIA; Sol King, AIA; Amedeo Leone, FAIA; James R. Livingstone, AIA; Charles H. MacMahon, Jr., AIA; Philip J. Meathe, AIA; Louis Menk, AIA; Earl W. Pellerin, FAIA; Trenton, AIA; Robert W. Yokom, AIA from the Detroit Chapter; Thomas J. Sedgewick, AIA, Flint Area Chapter; Roger Allen, AIA and David E. Post, AIA, Grand Valley Chapter; Howard E. DeWolf, AIA; Melvin Reiter, AIA; Charles W. Streeby, AIA and Richard H. Stuckman, AIA, Mid-Michigan Chapter; Edward V. Olencki, AIA; Richard M. Robinson, AIA; Walter B. Sanders, FAIA and Keith F. Weiland, AIA, Huron Valley Chapter; H. Chase Black, AIA and James L. Parent, AIA, Western Michigan Chapter.

Youtz' Visit Rhodes

Dean and Mrs. Philip N. Youtz, visited the Island of Rhodes recently on their tour around the world.

With the accompanying photograph taken on Rhodes, the Youtz' sent the following greeting: "Best wishes for the MSA Mid-Summer Conference on Mackinac."

Having started their tour in August of last year, the Youtz' are expected to return to Ann Arbor early this fall.

Twenty-five Years of U-M Architecture

The University of Michigan, Ann Arbor, recently held an "open house" in connection with an impressive display of architectural models, photographs and drawings on display de.

The regular monthly meeting of the Mid-Michigan Chapter was held June 2 at Tarpoff's Restaurant. Seventeen guests joined 15 Corporate and 9 Associate members for lunch.

Howard DeWolf gave a report on the recent Seminar/Workshop on Construction Documents after which Terence J. Boyle and Richard J. Julin, East Lansing landscape architects presented their solution entered in the competition for the enhancement of the San Francisco Civic Center Plaza.

Reynolds Award Goes to London Architects

An English university building of striking design brought architecture's largest award to its creators. For their design of the Engineering Building at Leicester University, London architects James Stirling and James Gowan were named recipients of the 1965 ninth annual $25,000 R. S. Reynolds Memorial Award.

Announcement was made in Leicester on May 31 at a luncheon for university and city officials given by The American Institute of Architects, which administers the international award "for distinguished achievement in architecture with significant use of aluminum." Attending the announcement meeting were Morris Ketchum, Jr., FAIA, President-designate, A.I.A.; R. S. Reynolds, Jr., Board Chairman of Reynolds Metals Company, which sponsors the Award; William H. Scheick FAIA, AIA Executive Director; William Stephen Allen FAIA, San Francisco, Chairman of the AIA jury which made the award and architects Stirling and Gowan.

In addition, to the exhibit, a dinner was held in the Ballroom, in celebration of Education Day during Michigan Week and in honor of Lynn W. Fry, who is retiring after 25 years of service as University Architect.

The eight models and 200 photographs and drawing on display depicted the growth and development of the U-M from its collegiate orientation of the last century to the vital and dynamic institution it is today.
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Our highly competent staff of engineers can eliminate delays that cost you time and money.

To do this, may we suggest that our engineers be present during the planning stages of your next project. We know that you and your client will benefit by our many years experience in this specialized field.

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ROOFING & SHEET METAL CO.
ized architectural party a day from all over the world, plus uncounted numbers of casual sightseers.

Built under rigid rules of cost and function on a left-over campus site, the building consists of an expansive base of low-lying engineering workshops with eye-catching roof-lights, two cantilevered towers with snubbed-off undersides to clear obstructions below, and glistening arrays of glass to provide natural light for laboratories, classrooms and offices.

The architects credit standard aluminum glazing bars with making possible much of the unusual configuration required by the design. The building is famed for its rigidly functional design, and the industrial-type glazing bars are a key expression of this concept which has aroused so much interest—and debate—among architects.

Leicester University's Engineering Building has been hailed in British architectural reviews as “the first world-class building to be put up in England for a great many years” and “one of the more extraordinary spectacles contemporary architecture has to offer.”

The AIA jury called it “a distinguished work of architecture, a powerful expression of both the art and technology of our time.”

MEAD Hosts Detroit Architects & Engineers

More than 150 Detroit area architects and engineers attended a dinner meeting in the Veterans Memorial building in Detroit's Civic Center May 27th to discuss the newest methods of ventilating and air conditioning large commercial buildings, hotels, apartments and industrial plants.

Sponsored by the Sheet Metal Employers Association of Detroit, the meeting featured a slide presentation on a new construction manual called "High Velocity Duct Systems." Speaker of the evening was Lawrence Paul, president of Narowitz Heating and Ventilating Company, Chicago. Mr. Paul was a member of the committee of the Sheet Metal and Air Conditioning Contractors National Association which prepared the 100-page manual.

Host for the meeting, at which the eagerly awaited manuals made their first appearance in Detroit, was Tony Asher, executive secretary of the Sheet Metal Employers Association of Detroit.

The high velocity duct system for ventilating and air conditioning buildings employs dual systems of pipes for both hot and cold air, thermostatically controlled. Individual mixing units for each room provide the desired temperature of air.

Copies of the construction manual are available through the Sheet Metal Employers Association of Detroit, 15139 West Eight Mile Road, Detroit, Michigan 48238.
DeVries Honored by Secretary's Association

Bernard J. DeVries, AIA, past president of the Grand Valley Chapter, A.I.A., was named "Boss of the Year" by the local chapter of the National Secretary's Association.

Also honored was his secretary, who was voted "Secretary of the Year."

Urban Transportation Training Announced

The Polytechnic Institute of Brooklyn will offer a new Master's Degree Program in Urban Transportation Planning, beginning in the Fall Semester, 1965.

"Our Purpose," says Dr. Ernst Weber, President of the Polytechnic, "is to begin training now the planners who will be needed to anticipate the transportation needs of an estimated 72.5 million Americans who will be living in 290 urbanized areas (those with over 50,000 population) by 1980."

"By the year 2000," he says, "it is expected that 85 per cent of our population will be living in urban areas. In the New York metropolitan area, and in the nation's other major cities increased congestion due to rising population densities will be greatly aggravated in the foreseeable future. All of these factors lead to the indisputable conclusion that lack of individuals adequately trained to cope with the problems of urban transportation planning could result in catastrophic conditions for urbanized areas."

Continuing, comprehensive advance planning of transportation will be required after July 1, 1965 for federal aid highway projects in any urban area of more than 50,000 population, Dr. Weber point out. "Such projects will not be approved unless requirements for highways are coordinated (Continued on page 21)
Identification sign designed by Morton Goldsholl Design Associates for the North Shore Congregation Israel Temple by Minoru Yamasaki & Associates, Architects. Bronze glass panel has symbol and name of temple etched and lined in white. Building is visible through glass which is edge lit. Standards are stainless steel #5 finish.

SYMBOLS, SIGNS & SIGNATURES

Problems of transition in corporate image programs

TRADEMARKS, brand marks, logotypes, symbols, identification programs, signatures, corporate image and signage are some of the many overlapping forms of terminology that have now become a part of the language used by corporations today. These words spring, in part, from the new comprehensive design concepts embraced by companies seeking to communicate with their audience thru the media of sign/symbol language. To implement these concepts, counsel is sought from specialists in the communication and design field such as architects, graphic and industrial designers, advertising and research experts, etc. Vast amounts of technical knowledge separate these fields with the result that without a clear understanding of original concept the communication message in transition can become confused and diffused. Truly the “Renaissance man” could not comprehend all these areas of highly technical information. Perhaps Buckminster Fuller comes closest to being the “comprehensive designer” so much in need today to comprehend and relate, thereby bringing into focus new conceptual information.

The sum total of all communications from a company as reflected by its audience can be termed its image. At any one point the message from the image communicator can be broken. A particularly key area is the one of signage, a relatively new word coined to express those areas of design involved in communicating by means of signs and symbols, especially as related to our exterior environment.

by SUSAN KARSTROM KEIG, designer, Fellow 1964 Society of Typographic Arts, Chicago. Contributor to professional journals and recipient of numerous awards in graphic design. Associated with Morton Goldsholl Design Associates, design and film organization in Northfield, Illinois.
The face of signage is multi-faceted. Ranging from a simple statement in modest typographic style over the company door to giant three-dimensional figures on top of buildings, the height and breath of signage possibilities is enormous. It is this very diversity of materials that perhaps helps make for unknowledgeable solutions. More often than not decisions are not made by the design experts but rather by the manufacturer of signs, lighting equipment companies and merchandising consultants who conceive, sell and execute what often turns out to be the image "breaker."

In the interest of continuity and for protection of the original design investment, signage is conceived as an integral part of the total corporate design program by those companies who have the insight to perceive the potential of this media.

Some directions on signage can be found in SIGN LANGUAGE by Jacobsen and Constantine, while Peter Blake delivers a biting commentary in GOD'S OWN JUNKYARD on the current state of affairs at home. Abroad, our technical expertise rather than design skill is evident in the "American-style" signage found everywhere. In Tokyo, due to the absence of street names and numbers, visitors look to the neon monstrosities in the sky for guidance in finding their way to various parts of the city.

Signage in the more complete sense does not pertain solely to signs, billboards, spectaculars, flashing news reports, etc., but to the very necessary informative labeling found on entrance doors and directional signs, for building identification and recognition of company. All these should reflect the care with which the original design program was conceived. Lack of awareness of substitution in styles of typography, inappropriate letter forms and uses can be found in an otherwise controlled program. Also color variances, not by intention, are rampant, thereby confusing the original message.

Top left, logotype designed by Morton Goldscholl Design Associates for the North Shore Congregations Israel Temple in Glencoe, Ill. This basic design motif is being interpreted by Goldscholl in various ways in fulfillment of signage projects: top right, model of teak pedestal for a book; lower right, model of memorial plaque in glass and aluminum with ingenious system of changing light patterns. These design solutions complement the architecture and carry through the rhythm of arches echoed in various ways throughout this structure designed by Minoru Yamasaki & Associates, Architects. The persistence of the design motif does not bore the viewer due to the subtle nuances and interpretations; thus an ever-changing view is presented of the basic theme.
The careful execution of the original design concept into various media demands that the designer be acquainted with materials and processes. Signage design is usually unique and of a limited production run, therefore one of a kind molds is often the case.

In some instances, as in the Westinghouse design program, designer Paul Rand devised a completely new alphabet for the logotype and symbol. Used throughout the company buildings and printed literature, on vehicles, uniforms and equipment, the word Westinghouse in its unique type style consistently builds in image potential. The letter "W" shows a relationship to the logotype but functions alone as the symbol. Because of its special design characteristics this symbol says in a cryptic style all that the company represents. This is an excellent solution to a difficult problem, and shows the exacting relationship between signage and image.

Illustrated here are some of the special problems encountered by Goldsholl Design Associates in fulfilling the signage project for a synagogue, where understatement of message and harmony with a dominant style of architecture were especially important. The type style chosen was American Uncial for its legibility, and decorative style which indicated its derivation. The symbol with its architectural feeling is entirely adaptable to a large roadside sign or to the printed page, in cut out brass or etched in glass.

In contrast industry, as demonstrated by the Marquette Corporation illustrations, demanded entirely different feeling. The use of the strong primary color red with black and white adds impact to the Micro-gamma type style. Here the name of the company as in the Westinghouse example functions as the logotype, the letter "Q" giving the name a special character and personality always unique to this particular company. When the graphic symbol, based on the letter "Q", was designed for the letterhead and other business forms the concept was tested for versatility and ease of transition into other media. Comprehensive design schemes are therefore a requirement for various needs of signage.

Top photo, manufacturer in Minneapolis, Minn., of automotive equipment required a signage logotype suggesting strength and progress. The development of the logotype and symbol, shown below in graphic form, from two dimensions to three dimensions demanded a versatile and adaptable design, powerful enough to communicate in various signage needs, yet entirely suitable in smaller version for printed material. Basic color scheme is black and white with inner circle red. Corporation name on building shown was interpreted in aluminum with symbol in baked enamel. Corporate image designed by Morton Goldsholl Design Associates.

HEarcher Corporation

July, 1965 | 11
22nd MID-SUMMER CONFERENCE
Michigan Society of Architects

GRAND HOTEL, MACKINAC ISLAND
AUGUST 5, 6, 7, 1965

THURSDAY, AUGUST 5

10 to 5:00 P.M.  Registration, Main Lobby*
12:15 P.M.  Lunch, Main Dining Room
3:00 P.M.  M.S.A. Board Meeting
6:30 P.M.  Reception—Grand Hotel Terrace
           Sponsor—NAARCO (formerly Modii-wall)
7:30 P.M.  Dinner, Main Dining Room

SATURDAY, AUGUST 7

10 to 12:00 M.  Registration—Main Lobby*
10:00 A.M.  Golf Tournament continues throughout the day
12:15 P.M.  Lunch, Main Dining Room
6:30 P.M.  Midsummer Conference Banquet—Casino
           Sponsor: Valley Metal Products Company
           Toastmaster: Roger Allen, FAIA
           Speaker: Marshall Fredericks, Sculptor
           Topic: Sculpture and Architecture
           Award of Golf and Door Prizes
11:00 P.M.  Afterglow Party

*Registration Fee: Members and Guests—$15.00;
   Wives and Children—Free.

CONFERENCE COMMITTEE:
Irving G. Hunsberger, AIA Conference Chairman
Irving E. Palmquist, AIA Conference Vice-Chairman
Mrs. Irving E. Palmquist, Women's Activities Chairman
Marvin Brokaw
Frank A. North
Walter Scott
James B. Hughes, AIA Executive Director M.S.A.
the many many material benefits of...
Blast-furnace slag! pref e const

is defined (by A.S.T.M.) as the "non-metallic product consisting essentially of silicates and aluminosilicates of lime, and other bases, which is developed simultaneously with iron in a blast furnace." Simply stated: Blast-furnace Slag is a result of the iron-refining process. Its useful characteristics have been known for centuries. In recent years this 'by-product' has fathered a vital and strong industry. Crushed Slag is a highly versatile construction material. Its application is limited only to the imagination of the user. We offer examples:

1. Concrete masonry units made with expanded Slag aggregate mean weight savings for easier handling, more economical masonry work. The Slag aggregate also provides a cellular structure that imparts excellent sound-absorbing, heat-insulating properties. Slag blocks are nailable and retain their natural color and texture is attractive, or they can be re-finished to enhance any architectural design concept.

2. Slag aggregate concrete panels (either pre-cast or cast in place) can be designed to provide unusual texture, color design treatments to interior walls—particularly in exposed aggregate applications.

3. Prestressed concrete applications are a prime example of the contribution Slag aggregate can make to a project. It is hard, tough, and highly resistant to weathering. The comparative light weight of Slag aggregate in concrete effect reduces the dead load of the project and permits substantial savings in the design and use of steel or other support members.

4. Slag must be considered the best aggregate for built-up type roofing because of its shape, texture, weight and sun area. Slag forms a long-lasting bond with the bitumen, provides maximum protection against the severest climatic changes.
Roofing aggregate—surfacing for built-up roofs

5. Structural concrete—coarse aggregate, Portland slag cement

9. Terrazzo—for functional and decorative applications

10. Landscaping—soil conditioner and accent to planting areas

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**material benefits**

- **Product purity**—is assured. Blast-furnace slag is practically free of any deleterious substances.
- **Acceptability**—is high. Slag aggregate is acceptable under all pertinent building codes.
- **Fire resistance**—is maximum. Slag provides substantial increases of protection as compared to other aggregates confirmed by Underwriters' tests.
- **Durability**—is great. Slag is virtually unaffected by temperature variables—highly resistant to weathering, has a lower soundness loss than other aggregates.
- **Color tone**—is pleasing. Slag is light in color, a neutral gray. Slag block can be easily painted—even in pastel colors.
- **Strength**—is excellent. Slag concrete has high bond and shear strengths. Masonry units have exceptional resistance to chipping.
- **Weight**—is low. An outstanding feature of slag is its lightweight. This effectively reduces a building's dead load—permits savings in design, load and transit.
- **Quality**—is controlled. Slag is carefully screened and blended to exact graduation requirements—the result: uniformity in appearance, color, texture and properties.

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**d for all uses**

...and in your building projects it can be used in many, many ways

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Slag, with its material benefits and construction versatility, offers a basic tool for architects and engineers.
Slag is a pure material, introduced in the blast furnace as high quality limestone—deleterious material is burned out in the process. It is a completely proven material—proven over many years in many different construction applications. Slag is preferred for its physical advantages: its rough, angular surface provides more surface area than round natural aggregates resulting in a better bond with cement mortar and greater stability in bituminous mixtures. It produces a high-density packing when used alone.

Slag aggregate is highly resistant to the severest climate conditions of wetting and drying, freezing and thawing. It has a relatively low, very uniform rate of expansion to make it highly compatible with cement and reinforcing steel in concrete. Slag has no equal for fireproofing encased girders and beams. Its cellular composition also gives Slag weight savings that result in less weight in finished structures and provides greater ease and economy in handling and transportation.

Again, Slag's purity is of primary importance. Slag surpasses top-quality aggregate specifications which permit not more than 3% deleterious material. Slag meets the requirements of every major Federal, State and Municipal specification-writing body. And from a local source you have the end product of the nation's largest and most modern aggregate processing plant. The giant facility is backed by constant inspection, quality control and testing methods, implemented by a complete laboratory and inspection staff.

The Company stockpiles only the basic, semi-finished sizes of Slag—it is re-screened and blended to exact gradation requirements as it is loaded for delivery. In addition, technical information services for any application of Slag is always available. Consultation available without obligation.

Slag is economical. In the metropolitan Detroit area, its price per ton compares favorably with that of other aggregates. With its lighter weight, Slag yields more aggregate per ton.

Slag is available. Recent developments in steel-making techniques, i.e. the Basic Oxygen Process with its attendant greater demand for 'hot' metal from blast furnaces, have generated more-than-usual supplies of Slag. This is particularly true in the Detroit area.

Slag provides user benefits: superior fire resistance and insulation; low shrinkage; pleasing natural color; artistic texture; structural strength; excellent acoustical properties; and beauty, durability and cost savings.
Recently dedicated were the first units of a Community College which will provide higher education for 2,600 high school graduates. Ten buildings will eventually rise on the 140 acre site. These buildings will be grouped around a quadrangle. They will be located on a hillside overlooking a large midwestern industrial city and the locations will coincide with the natural terrain adding interest to the architectural composition.

The primary educational purpose of the College is to make education beyond the high school level available to all students interested in, and capable of, benefiting from such an educational program. This program provides terminal programs for students not going on to four year programs, provides transfer programs for students who do wish to complete college programs, provides a technical institute for the community, and provides opportunities for interested persons to achieve vocational and cultural needs through evening classes.
Four one-story buildings; library, administration, forum and temporary campus center, are the first to be completed. The library will provide a large reading and reference room, individual study carrels, typing rooms, and listening and viewing rooms for all types of audio-visual work.
The second floor houses classrooms, a listening laboratory, and a group of faculty offices. In the administration building are facilities for student counseling, testing, admissions, registration, and the health service. The offices of the president, the academic deans, and the business manager are also situated in this area. The forum, the largest of the four buildings, will be used as a general instructional area. It will provide not only laboratories but also classrooms and faculty offices. One unusual feature will be the forum, a lecture hall seating approximately 150, equipped for all types of audio-visual instruction. The temporary campus center houses food services, bookstore and offices. In the future this center will be used for other purposes when the permanent campus center is built.

Structural systems utilized are either laminated wood or steel frame construction, with brick exterior walls, aluminum windows and standing seam terne roofs. Walls in general are painted block. In most cases floors are resilient except in utility, toilet and kitchen areas where ceramic tile is used.

The buildings on this campus are heated with electric resistance heaters and cooled with electrically driven refrigeration compressors. 13,200 volt underground electrical lines distribute power to strategically located pad mounted transformers. From these transformers, 480-277 volt electricity is supplied to each building. The supply air is either heated or mechanically cooled to a base temperature in central multi-zone supply fans from which it is distributed to the occupied areas.
Each supply fan is provided with a separate refrigeration compressor and evaporative condenser. Multi-room zones have individual room control through the use of a room thermostat, and wall radiant panels and duct heaters. Console unit heaters are used in the corridors. All resistance heaters including the fan coils are wired to provide demand limit control. Electric water heaters strategically located furnish domestic hot water. Public water and sanitary sewage serve the site. Storm water is drained by sewers to a ravine. Bottled gas is provided for laboratory use. Perimeter corridors were used in planning as a result of utilizing an electric heating system.
with plans for improvements in all other affected modes of transportation."

In connection with the new degree offering, the Polytechnic will also establish a Visiting Professor's program under which leading experts in Urban Transportation Planning will be brought to the campus for periods of from two months to one year. A $45,000 grant has been made to the Polytechnic by the New York State Science and Technology Foundation to support the Visiting Professorships. World-renowned authorities will thus be available to guide the development of the new M.S. program; to assist in organizing and presenting a series of conferences and seminars for State and City participants; to help in initiating a program of graduate research in Urban Transportation Planning; and to aid and advise the Institute on liaison with State and City transportation officials, Dr. Weber says.

Topics studied in the M.S. program will include highway economics and planning, geometric highway design, traffic engineering, elements of probability, mathematical statistics, computer techniques in engineering, city planning, airport engineering, forecasting, political science, sociology, anthropology, psychology, operations research, traffic flow theory, dynamics of industrial systems, and stimulation principles and techniques.

Dow Chemical Announces Plastics Sales Realignment

Realignment of Dow Chemical's plastics field sales management to enable field sales to achieve the growth goals set for 1970 and to make possible closer planning and coordination with Plastics Sales Department group managers has been announced by Fred K. Quigley, Jr., sales manager, Plastics Department, and Leo B. Grant, Dow general sales manager.

The restructuring involves the appointment of individual district managers for the three departmental marketing groups — molding and extrusion, coatings, and construction materials. The growth of the plastics business and the necessity for more rapid and effective implementation of plans for new products and markets prompted realignment.

Among the new district managers named for the product groups is Joseph J. Panella, construction materials district manager for Detroit, Cleveland and Pittsburgh.
Gentlemen:

In an effort to more clearly define the higher aspirations of responsible electrical contractors and their proper function in the economy of construction, the Thomas Edison Club has adopted this Code of Ethics.

We hope to instill in the minds of our members, other electrical groups, associations and individuals this higher concept of service to the end that it may engender greater pride of craft and an upgrading of the industry.

A considerable portion of our efforts will be directed to the accomplishment of this purpose.

Your comments in this regard would be sincerely appreciated.

Very truly yours,

THOMAS EDISON CLUB
OF DETROIT

M. E. Bowers,
Chairman
Architects Committee
Netherlands Visitor Entertained by AKA

As the request of the Royal Netherlands Embassy, Washington, D.C., Albert Kahn Associates recently entertained A. R. Harmsen, scientific attaché for the A.K.U. Company of the Netherlands. Mr. Harmsen, is on a tour of the U.S. to study industrial construction in general and buildings to house the textile and chemical industry in particular.

Mr. Harmsen's visit follows an earlier one by a 14-man Soviet delegation under U.S. State Department auspices, also a recent AKA citation "for outstanding contribution to... international goodwill" by the International Relations Committee of the Association of Collegiate Schools of Architecture.

Zebrowski Brothers Merge

Richard W. Zebrowski and Edward J. Zebrowski, Demolition Contractors, operating under corporate names of Zebrowski & Associates, Inc. of Indiana and Zebrowski & Associates, Inc. of Michigan, announce that they have merged the two corporations.
Staggered Terms
For AKA Directors

At their recent annual meeting, held in the Rackham Building, the stockholders of Albert Kahn Associated Architects and Engineers elected Sol King, Paul G. Fleck and Daniel H. Shahan to serve on the firm's Board of Directors for a period of three years; Louis Menk and Virgil C. Wagner were elected for two years; and Charles J. Allen and Sheldon Marston were elected for one-year terms to expire in April, 1966. This action implements a new policy of "staggered" terms for Board members adopted by the firm's shareholders in December, 1964. According to Sol King, president, "the adoption of 'staggered' terms will ensure greater continuity and stability of management's policies."

Officers re-elected by the Board for the ensuing year are: Sol King, president; Sheldon Marston, executive vice president; Messrs. Allen, Fleck, Wagner and John C. Haro, vice presidents; Louis Menk, treasurer and Daniel H. Shahan, secretary.

Messrs. King, Haro and Menk are registered architects; Fleck, Shahan, Wagner, Allen and Marston are registered professional engineers.

Theater to be Built at Northland Center

Ground will be broken August 1st for the 1460 seat theater to be located on the north side of J. L. Hudson Drive just east of Northwestern Highway. Designed by T. Rogvoy and Associates, Inc., the theater is scheduled to open in the spring of 1966. The ultra-modern theater will be equipped for every existing and contemplated process including 70 mm. Todd-AO and Cinerama, giving Northland Cinema a range beyond that of any other movie house. The idea of a theater of this design at Northland Center has been researched for years according to Mr. Carpenter. Negotiations for the theater were through the direction of Foster Winter, Vice President of Shopping Centers, Inc.

Northland Cinema will be managed by Suburban Detroit Theaters whose president is Richard Sloan.

A.I.A. Commends G.S.A. Policy Report

The American Institute of Architects gave its enthusiastic approval of a recent U.S. General Services Administration report promising GSA use of the "finest contemporary architectural thought." The report was made to President Johnson by Lawson B. Knott Jr., GSA acting administrator, appointed to the administrator's post by the President. Knott was immediately praised for his statement by Arthur Gould Odell Jr., FAIA, then Institute president.

"The American Institute of Architects stands ready to support and encourage the intent and spirit of your report as it represents a significant element of President Johnson's desire to improve the urban environment for the benefit of the American people," Odell said in a message to Knott.

The message, a copy of which was sent to the President, said, "The stimulation and leadership of the federal government in providing high standards of architectural excellence will serve as inspiration to the people of our entire nation . . ."

The Knott report said that "in planning and constructing of public buildings in Washington and other American cities emphasis must be placed on designs that embody the finest contemporary architectural thought, carefully avoiding an official style . . ."

It also made known that Knott is taking steps toward the creation of an advisory panel on architectural services in GSA.

The panel of "at least three distinguished architects" would develop criteria for the selection of architect for public building projects. It would also make direct recommendations of such selections for "projects of national significance."

"We enthusiastically endorse the creation of an advisory panel on architectural services and will be more pleased to offer counsel no nominations for appointment to the panel," Odell said.

In his report, Knott told the President the panel "will strengthen us as we move forward in our determination to achieve the standards of architectural excellence which you have so strongly supported."

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Monthly Bulletin, MSA
AKA Associate Speaks at Unistrut Meeting

Joseph F. Ebenhoeh, Jr., chief of architectural specification writers for Albert Kahn Associated Architects and Engineers and an associate of the firm, addressed the Unistruct Corporation's Annual District Manager/Technical Representative Meeting on Tuesday, June 8th, at the Dearborn Inn.

Subject of Mr. Ebenhoeh's talk was 'Architecture'. He defined an architect's activities; discussed his relationship and responsibility to a client; pointed out the services required of a Technical Representative including how such services can best be rendered; and discuss the development of material specifications. A question and answer period followed the talk.

Ebenhoeh is a registered architect and holds a B.A. degree in architectural engineering from the University of Detroit School of Engineering where he was graduated in 1951. He joined Albert Kahn Associates in 1963 and was made an associate in March of this year.

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Members of the Detroit Chapter of Producers' Council, Inc., have elected their officers for the coming 1965-66 season. The new president is Richard G. (Dick) Grinnell, U. S. Plywood Corp. Other officers are Fred H. Blackwood, Beaver Distributors, Inc., first vice president; Donald M. Howell, Jr., Owens-Corning Fiberglas Corp., second vice president; Galen D. Robbins, Armstrong Cork Co., secretary; and Don Blake, Stylon Corp., treasurer. (From left to right—Robbins, Blake, Grinnell, Blackwood, and Howell.)

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Fremont, California Opens Competition

The City of Fremont, California is conducting an AIA approved competition to select an architect for the City Government Building, for the Hall of Justice, and for the Master Plan for a new Civic-Cultural Center. The Jury will be Pietro Belluschi FAIA, Paul Rudolph FAIA, John Merrill AIA, Lawrence Halprin ASIA, and former mayor Raymond Tucker of St. Louis. The Professional Advisor is Jacob Robbins AIA. The Civic-Cultural Center will be built on 70 acres, next to a 430 acre Park and Lake, adjacent to the Central Business District, and served by Freeways and Rapid Transit. Fremont is a rapidly growing new city on the east shore of San Francisco Bay, whose population is now 85,000 and will be 220,000 by 1980.

The competition is a single stage. Prizes are $4000 first; $3000 second; and $2500 third. Programs will be available after July 15. Applications for programs must be received by September 15. Registration closes October 1. Deadline for design submissions is December 15, 1965. Address communications to the Professional Advisor, City Hall, Fremont, California 94538.

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Aug. 5-7 — MSA 2nd Annual Mid-Summer Conference
— Grand Hotel— Mackinac Island.
18-21 — Northwest Region, Glacier National Park, Montana.
Sept. 9-11 — New Jersey Society of Architects. Essex and
Sussex Hotel, Spring Lake
Oct. 1-3 — New England Region, Colony Motor Hotel,
Providence, R. I.
6-10 — California Region, Yosemite National Park
14-16 — Ohio Region, Atwood Lake Lodge, New
Philadelphia, Ohio.
21-23 — Pennsylvania Region, Hershey; Western
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sort, Scottsdale, Arizona.
Nov. 3-5 — Texas Society of Architects, Austin

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<tr>
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<th>Stainless</th>
<th>Aluminum</th>
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<tr>
<td>Ultimate tensile strength (ksi)</td>
<td>90,000 psi</td>
<td>22,000 psi</td>
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<tr>
<td>Yield point (2% offset) (ksi)</td>
<td>40,000 psi</td>
<td>16,000 psi</td>
</tr>
<tr>
<td>Melting point (°F)</td>
<td>2,570°F</td>
<td>1,270°F</td>
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<tr>
<td>Modulus of elasticity (E)</td>
<td>28</td>
<td>10</td>
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<tr>
<td>Thermal conductivity (Btu/ft/hr/°F/in)</td>
<td>113</td>
<td>1,393</td>
</tr>
<tr>
<td>Thermal expansion (°F x 10^-6)</td>
<td>9.4</td>
<td>12.1</td>
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