AMSTERDAM, NEW YORK PUBLIC SAFETY BUILDING, BY FEIBES AND SCHMITT

NATHAN MARSH PUSEY LIBRARY AT HARVARD, BY HUGH STUBBINS AND ASSOCIATES

THREE INTERIORS BY GWATHMEY-SIEGEL

STANLEY TIGERMAN'S EXPLORATION OF NEW SHAPES FOR SPACES

BUILDING TYPES STUDY: PUBLIC ADMINISTRATION BUILDINGS

FULL CONTENTS ON PAGES 10 AND 11

# ARCHITECTURAL RECORD

SEPTEMBER 1976 ● A McGRAW-HILL PUBLICATION ● FIVE DOLLARS PER COPY

# When you want a ceiling system that gives your ingenu full rein, come to the source. Armstrong.

More architects use Armstrong Luminaire Ceiling Systems because what they get is more than just a ceiling.

They get flexibility. Flexibility that translates into the kind of freedom they need to carry out their most innovative ideas. The kind of freedom that makes it relatively simple to design, specify, control, coordinate, and install a dramatic ceiling in any building. Like the four striking solutions shown on these pages.

Midland College, Midland, Texas, Architect: Preston M. Geren Architect & Engineer and Associates, Fort Worth, Texas, Ceiling System: Armstrong Symmetry Luminaire

What you get with Luminaire is truly a system. A system that combines lightin air diffusion, fire protection, and acoustical control in one integrated assembly. B what you also get is versatility. Versatility that allows you to handle these function in many different ways.

Datacenter/The Equitable Life Assurance Society of the United States, Easton, Pennsylvania, Architects: Kahn and Jacobs, New York City, Ceiling System: Armstrong C-60/60 Luminaire

There are five Luminaire Ceiling Systems: C-60/30, C-60/60, AW 3600, Symmetr and Pentaflex™. Each is basica scaled to a 5′-square module but is also available in custom variations to meet just about ar requirement.

Each can offer you not on a choice of lighting patterns and a wide range of illuminatic but a flexibility of module, troff and panel arrangement that

National Bank, San Antonio, Texas, Architects: Environmental Professionals Corporation, San , Texas, Ceiling System: Armstrong AW 3600 Luminaire

results in almost unlimited design possibilities.

For instance, you can choose from three vaulted systems as well as two flat-type systems that provide either exposed or concealed grids. You can vault your entire ceiling or mix your vaults with flat types. You can light all the vaults or space your lighting to meet specific requirements of the job. Within a vaulted system like the C-60/60, you can even choose various light options—including square light fixtures 2′ x 2′, 2½′ x 2½′, 3′ x 3′, or rectangular fixtures 1′ x 4′ and 2′ x 4′. All of which adds up to a freedom of choice you'd be hard put to match.

Also available from Armstrong, of course, is the Armstrong man—bringing you technical assistance that can help put your entire design into focus.

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ncaster, Pa. 17604.

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nstrong Cork Canada,
. Box 919, Montreal 101,
ebec.

Palmyra Area High School, Palmyra, Pennsylvania, Architects: Lawrie and Green, Harrisburg, Pennsylvania, Ceiling System: Armstrong C-60/30 Luminaire

*re data, circle 1 on inquiry card*

FROM THE INDOOR WORLD® OF Armstrong

# Introducing the Registron™ Series from Armstrong. Three beautifully sculptured ceilings designed to make the grid become part of the pattern.

The standard lay-in ceiling has two things going for it...economy and accessibility in a suspended grid system. However, because the grid is exposed, the ceiling's design is interrupted and its aesthetic appeal diminished.Now, with the new Registron Series, Armstrong has come up with an ingenious solution.

Since there's no way to eliminate the grid, we've found a way to eliminate its visual impact. And the way we've done it is to purposely design the grid as part of the ceiling's surface pattern. So when Registron's 2′ x 4′ mineral-fiber acoustica panels are installed, what you end up with is a c ing in which the grid blends with the design to p vide a virtually monolithic look.

There are three designs available in the Re tron Series, all manufactured to carefully regist the embossed designs and to beautifully conce the acoustical perforations.

**Textured Squares** employs a 12″ x 12′ tilelike module and features embossed radiuse


ners as well as one-inch-wide grid-shaped
ments incorporated into the surface design to
nimize the impact of the grid system.

In the geometric design of **Grid Shapes,** 2′ x 4′ scale of the panel has been reduced to a nt where there is no recognizable module left. h its inch-wide grid shapes combined in an erall weave pattern, the result is a sweeping flow oure design.

**Circles 'n Squares** features eighteen circles within smooth-surfaced squares in each 2′ x 4′ ceiling panel. The one-inch-wide embossed border effectively blends in the grid and disguises sprinkler heads, lighting fixtures, and speakers.

If you're building or designing on a budget, we think you'll find that our new sculptured Registron Series offers you an uninterrupted low-cost lay-in ceiling without a low-cost look. Write Armstrong, 4206 Rock Street, Lancaster, Pennsylvania 17604.

*For more data, circle 2 on inquiry card*

FROM THE INDOOR WORLD® OF Armstrong

## Letters to the editor

I heartily applaud your editorial in the July 1976 issue of ARCHITECTURAL RECORD concerning "family architects." This is a concept which rates an advertising campaign by the AIA at least equal in scope to the one mounted to make the business community more architect-aware. With so many architects in straitened circumstances and willing to earn money in ways they would not have considered a few years ago, now is an ideal time for the general public to be made aware that architects can be rented by the hour (usually at rates lower than those of lawyers and psychiatrists). A few hours of consultation with an imaginatively analytical architect can yield a variety of alternative avenues of approach to a problem, some of which can often lead to surprisingly non-architectural solutions. Architects should be geared to offering such consultation services for a fee instead of giving them free and utilizing the time to sell project services. If he is working on a consultation-fee basis, the professional-in-name is more likely to be a professional-in-fact so far as the quality and impartiality of his advice is concerned.

*Andrew Alpern, AIA*
*New York, New York*

Your editorial in the July issue is realistic, refreshing, and regenerative. While I don't feel the title is quite right, it points out a need for greater exposure of our profession—that architecture should become a household word, and that all people should be made aware of all potential contributions by architects.

We are a small firm interested in, and enthusiastic about, the small stuff. We strongly feel this kind of market can be reopened to us through a commitment toward significant public relations and discretionary advertising by the profession. We hope you will continue this fine kind of editorial writing. Perhaps it would be timely for next year's AIA convention.

*John J. Serke, AIA*
*J/D Serke Associates*
*Havertown, Pennsylvania*

I enjoyed your editorial July "Family Architects." It is a fine reminder for young firms, as we have all gone through this stage. As a matter of fact, if a firm, no matter how large or well known, does not continue to offer this service, our profession is really not serving our clients as it should. I know our firm still does.

We just finished a design for an "A" frame children's playhouse and recently completed an organic Texas ranch house in, of all places, Big Hill, in Central Texas near Groesbeck.

Fortunately we've recently been assigned sizable new commissions to augment our "family" practice!

*Karl Kamrath, FAIA*
*MacKie and Kamrath Architects*
*Houston, Texas*

I recently read your editorial on "Family Architects" and find that you have expressed several thoughts and ideas that I myself have felt.

Many architects ignore the type of service you speak about primarily because it does not pay enough and probably because it does not have enough glamour.

I have found that if the service performed is simplified into advice and sketches or drawings that fit the need of the client, then the fees (understandably low) that you can expect, will be close to what the work effort will be.

Architects by ignoring this type of work also then feed the cycle of potential clients not knowing what architects do nor why they could possibly have need of an architect's service. Architects' active participation in everyday community affairs and problems is essential to the community's well being in areas of planning, recreation, education, rehabilitation and new construction. In serving as a so-called "family architect" to a community, an architect becomes actively involved.

Thanks for your editorial. I hope more of us will heed the call.

*John M. Scarlata, AIA*
*Glen Grove, New York*

Louis Sauer once said, as my memory recalls, ". . . as long as there are small buildings there must be small architects . . ." Lest we "littl'uns" fear the "big'uns" (SOM, CRS, TAC, etc.) we can all take notice of the fact that there are many garages in the world. . . . If building costs continue to soar—the "garage remodel" must become a new wave of architecture. . . .

Your "family architect" editorial seems to be good common sense with more impact than you realize—once people begin to trust you with designs for their old garages and understand you can solve problems that will help the lives of their dogs, cats, children, etc.—once they trust you at their home, then they will trust you with larger work which will ultimately produce a far stronger profession. Let's hear it for the small architect.

*Joe Stubblefield, AIA*
*San Antonio, Texas*

## Calendar

SEPTEMBER

**16-17** National Fire Protection Association (NFPA) Life Safety Code seminar, Philadelphia; Holiday Inn-Airport S., Essington, Pa. Contact: NFPA Seminar Registrar, 470 Atlantic Ave., Boston, Mass. 02210.

**20-24** 9th Annual National Conference of States on Building Codes and Standards, Cranston Hilton, 1150 Narragansett Blvd., Providence, R.I. Contact: Sandra A. Berry, 301/921-3146.

**14-October 22** Exhibit, a gift from the Italian government, *Palladio in America,* hosted by the University of Pennsylvania; First National Bank of the U.S., Philadelphia. Contact: Jane Wilson, 215/243-8721.

OCTOBER

**1** Last day of submissions for Record Interiors. (For details, see page 198).

**1-3** Anglo-American preservation conference, "Looking Forward to the Past . . . while preserving for the future." Sponsored by The Royal Oak Foundation, Inc., and Preservation of Historic Winchester, Inc., with the National Trust of England, Wales and Northern Ireland and the National Trust for Historic Preservation, Winchester, Va. Contact: The Royal Oak Foundation, Inc., 41 E. 72 St., New York, N.Y. 10021.

**17-20** Prestressed Concrete Institute (PCI), annual convention. Americana Hotel, Miami Beach, Fla. Contact: Gale M. Spowers, Prestressed Concrete Institute, 20 N. Wacker Dr., Chicago, Ill. 60606.

**18-19** The Society for Marketing Professional Services advanced marketing seminar, Sheraton Denver Airport Hotel. Contact: Jon Amos, Baxter-Hodell-Donnelly-Preston, 3500 Red Bank Rd., Cincinnati, Ohio 45227.

**18-19** NFPCA conference, "The Dynamics of Fire Prevention." Hyatt House Hotel, International Airport, Los Angeles. Contact: Peg Maloy, 202/634-7663.

**20, 21, 22** Workshop conference, "Philosophy & Issues in the Design of Play Environments," the University of Wisconsin–Milwaukee, Department of Architecture and Department of Physical Education. Contact: Thomas Spellman, University of Wisconsin–Milwaukee, School of Architecture and Urban Planning, P.O. Box 413, Milwaukee, Wis. 54201, 414/963-5239.

**21-22** IAB International Board for Aquatic, Sports and Recreation Facilities Architectural Congress, Niagara Hilton Convention Center Hotel, and the International Convention Center, Niagara Falls, N.Y.

ARCHITECTURAL RECORD (Com
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AND ENGINEER)

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# New Highspire Travertone™ from Armstrong.
# s what "first class" was always meant to look like.

It's the newest addition to top-of-the-line archi-ural ceilings from the manufacturer with the top-he-line reputation. Highspire Travertone. The combustible mineral-fiber ceiling tile from nstrong that provides a whole new dictionary of anings for words like "quality" and "elegance." Produced by an exclusive process that endows it n a deeper, richer textured surface, Highspire Travertone gives you the look of luxury any way you look at it. And it's available in 12″ x 12″ tiles as well as in 24″ x 24″ tegular-edged units that are installed in an exposed-grid system.

So when first class is the only way to go, Highspire Travertone could well be the only one you'll want to go with. To learn more, write Armstrong, 4207 Rock St., Lancaster, Pa. 17604.

FROM THE ® INDOOR WORLD® OF

Armstrong

# There's a new way to look at Steel Pipe...

# (Structurally)

## avings

"We were looking for a way to cut costs, and our studies indicated that steel pipe was the most efficient and economical construction material for the project. This space frame, designed by using the most recent Canadian specifications and standards, weighs 12.3 lbs. per sq. ft. compared to a conventional truss system weighing approximately 18"
— Regis Trudeau & Associates, Inc.

Le Ceqep du Vieux, Montreal (College Gymnasium). Regis Trudeau & Associates of Montreal — Consulting Engineer

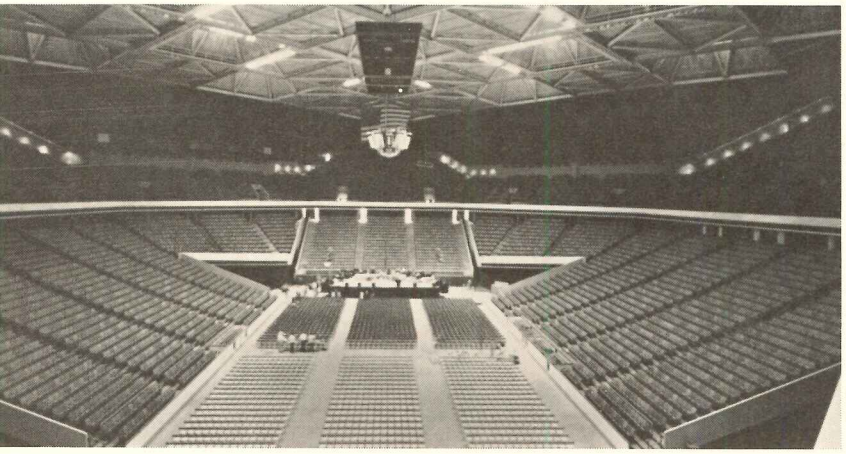
## ppeal

"We were looking for a way to create a unique design and, by going to a steel pipe truss system, we developed a trademark for the center. Not only did steel pipe provide a utilitarian solution to a major structural requirement, but it created a dynamic sculpture, representing both the grace and power inherent in the use of steel"
— Architectonics, Inc.

Crossroads Shopping Center, Oklahoma City. Architectonics of Dallas — Architects

## ersatility

"One thing we were looking for was a versatile material for the roof structure. In this project, steel pipe could efficiently handle the highly axial loads on the members, and it also enabled us to very simply detail the intersection of numerous components. The result was an economical as well as handsome roof structure, which contributed significantly to the quality of the interior space and the power of the exterior design."
— Thompson, Ventullet & Stainback, Inc.



The Omni (Atlanta Arena). Thompson, Ventullet & Stainback, Inc. of Atlanta — Architects.

Now, we'd like you to take a more in-depth look at steel pipe in structures. Through our "Design Manual for Structural Tubing" (cost: $2.50), we offer technical information to assist designers in selecting the best structural components for a given design problem. And, through our companion piece "Tentative Criteria for Structural Applications of Steel Tubing and Pipe" (cost: $2.00), specific Criteria are given for the design of tubular sections used in tension, compression, bending or torsion members. For these important manuals, promptly enclose check and make payable to:

**The Committee of Steel Pipe Producers**
American Iron and Steel Institute
1000 16th Street, N.W.
Washington, D.C. 20036

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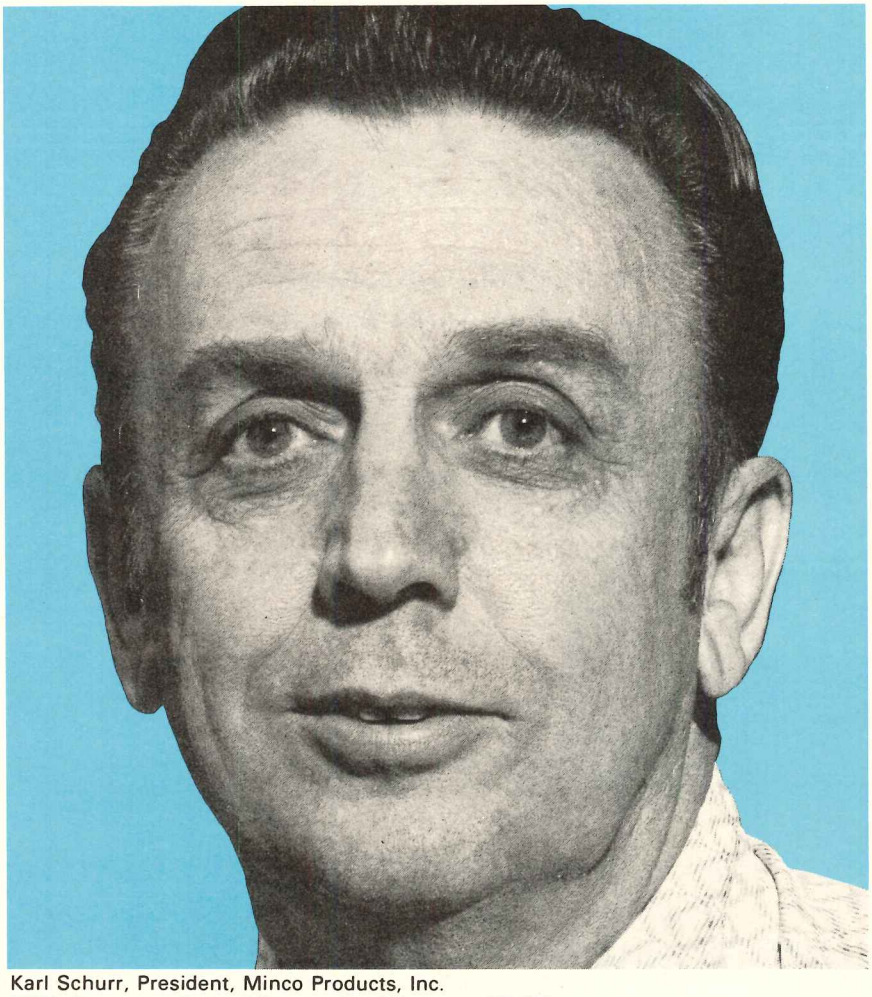
# Ask company president Karl Schurr...

## Our WATER BASE *Pitt-Glaze*® Acrylic-epoxy keeps his plant clean—at a practical cost



Karl Schurr, President, Minco Products, Inc.
7300 Commerce Lane, Minneapolis, Minnesota 55432

At Minco Products, Inc., Minneapolis, Minnesota, a clean plant is a necessity for the quality control so vital to the manufacture of Thermofoil heaters, temperature detectors and similar precious metal, fine-wire products. So when Minco completed construction on a recent plant expansion, WATER BASE *Pitt-Glaze* Acrylic-epoxy Coating got the nod for use on all inner wall surfaces.

According to Karl Schurr, "We were looking for something that would give us an easy to keep clean plant at a practical cost. WATER BASE *Pitt-Glaze* Coatings met that requirement. *Pitt-Glaze* Acrylic-epoxy also is impervious to water — another important feature since we use so much water around the plant."

The WATER BASE *Pitt-Glaze* Coating System has other advantages, too. Like low odor during application; stain, acid and alkali resistance; soap and water clean-up. It's tough, durable. Is available in hundreds of colors.

WATER BASE *Pitt-Glaze* Acrylic-epoxy might just be the coating you're looking for, too. For more information write PPG Industries, Inc., One Gateway Center, 3W, Pittsburgh, Pa. 15222.

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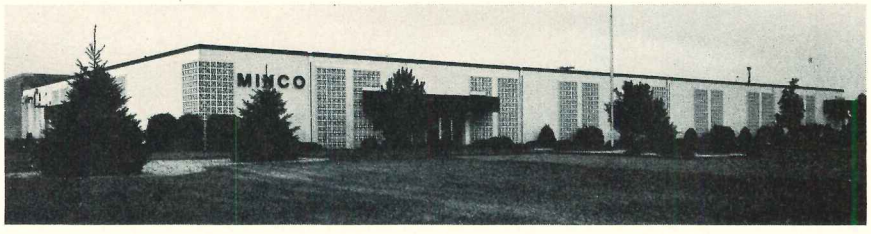
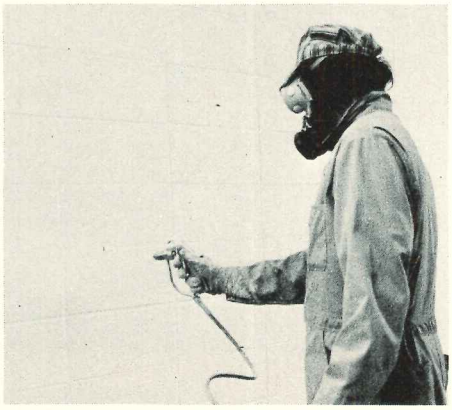



(Below) David and Karl Schurr examine *Pitt-Glaze* Finish with PPG sales representative Jim Olson



Airless spray application of *Pitt-Glaze* Acrylic-epoxy is quick and easy.

PPG: a Concern for the Future

PPG INDUSTRIES

For the name of your nearest PPG sales representative call 800/255-6880 Sweet's Buyline Service.

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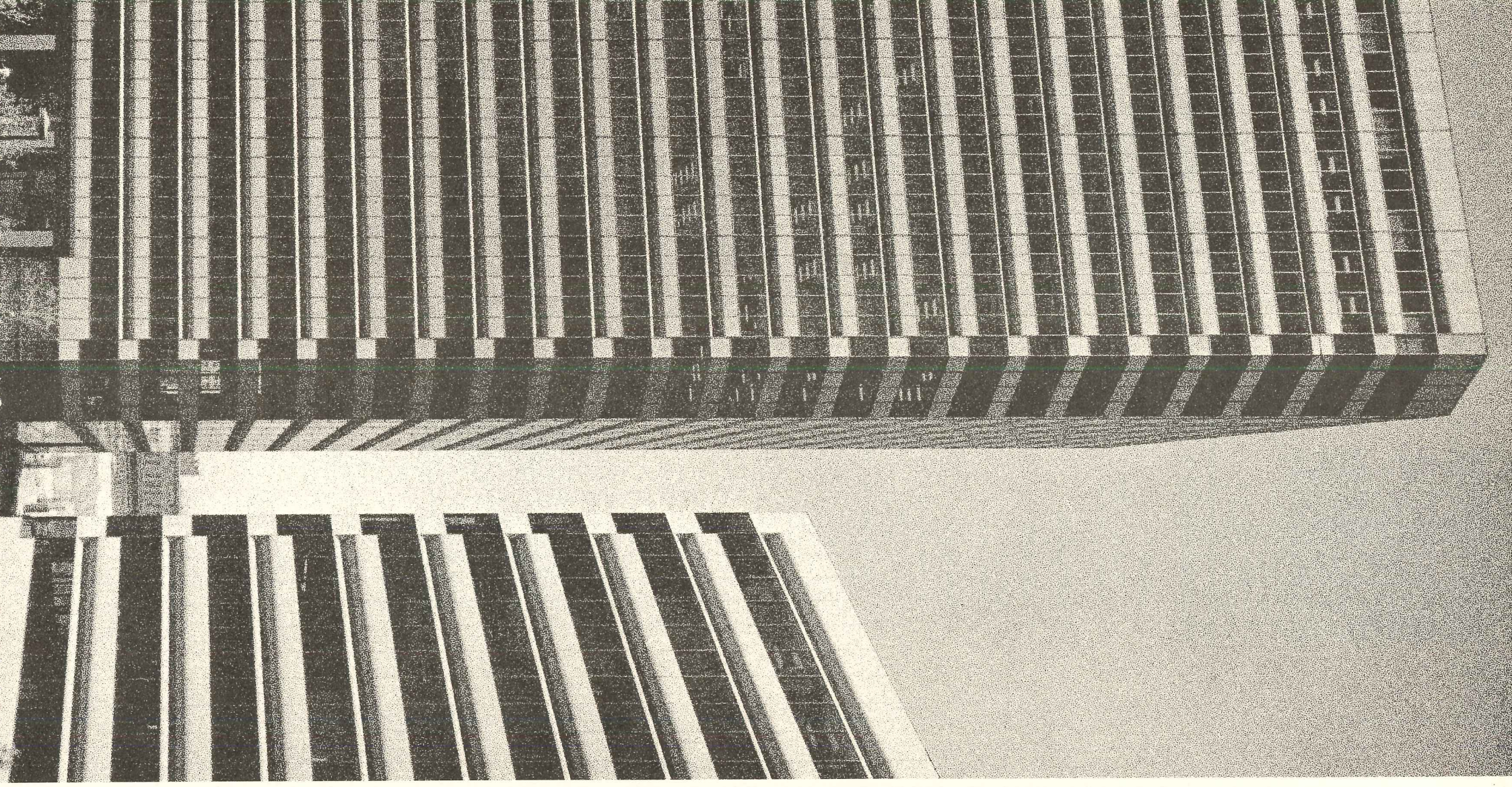

Imaginative building facades in hydroformed metal allow unlimited exploration
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offers standard panels or engineered systems to meet individual project requirements.
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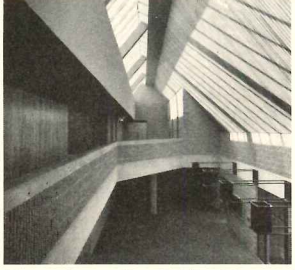
# FORMS + SURFACES

Clorox National Headquarters Bldg.
and Wells Fargo Bank Bldg.
Oakland, California
Architect: Gruen Associates



Cover: Amsterdam Public Safety Building
Amsterdam, New York
Architects: Feibes and Schmitt
Photographer: James N. Boorn



## THE RECORD REPORTS



Thoen photography



## ARCHITECTURAL BUSINESS

## ATURES

**Nathan Marsh Pusey Library, Harvard**
**Cambridge, Massachusetts**

By partially burying this three-level library underground and covering its roof with grass, architects Hugh Stubbins and Associates have added essential structure while preserving open space.

**Interiors by Gwathmey-Siegel**

Pearl's Restaurant, New York City

Vidal Sassoon, Costa Mesa, California

Unger Apartment, New York City

**Exploration of new shapes for spaces**

A group of projects by Stanley Tigerman shows the ways in which he has been exploring rounded shapes to define new kinds of spaces:

Private residence in Illinois

Private residence in Indiana

St. John's, University of Illinois

Illinois Regional Library for the Blind and Physically Handicapped

Ukrainian Institute of Modern Art

"Zipper" housing, Evanston, Illinois

**Even small banks can express a regional vernacular**

The Redwood Bank, Vallejo, California by architects Smith Barker, Hanssen

The Bank of Suffolk County, New York by architects Michael Harris Spector and Associates

Northpark National Bank, Dallas, Texas by architects Omniplan

The branches of the First National Bank of Albuquerque, New Mexico by architect Antoine Predock

**Functional simplicity in design for earthquakes**

In accordance with the Field Act, which outlines the minimum design and construction of all California public schools for earthquake resistance, the Piedmont Junior High School by Chester Bowles replaces an older, outmoded complex.

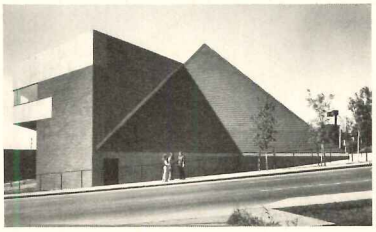
## BUILDING TYPES STUDY 493

**127 Public administration buildings**

How well are we designing for the public realm? The question of the quality and efficiency of our public architecture has become a subject of increasing concern to professional architects and to the governmental agencies who commission them and use them. Here is a portfolio of recent successes —focusing on medium-size buildings in medium-size towns, the kind the vast majority of architects are working on.

**128 Belmont Regional Center**
**Charlotte, North Carolina**
Gantt/Huberman Associates, architects

**132 Amsterdam Public Safety Building**
**Amsterdam, New York**
Feibes and Schmitt, architects



James N. Boorn

**136 Malden Government Center**
**Malden, Massachusetts**
Doxiadis Associates, architects

**139 United States Post Office**
**Ahoskie, North Carolina**
Gantt/Huberman Associates, architects

**140 United States Post Office**
**Waughtown Station**
**Winston-Salem, North Carolina**
Gantt/Huberman Associates, architects

## ARCHITECTURAL ENGINEERING

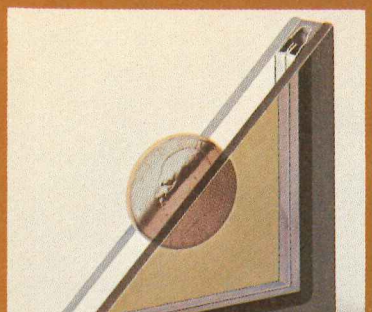


## NEXT MONTH IN RECORD

**Building Types Study: Airports**

With the recent passage of Federal law 94-353, there can be no doubt that the activity in airport construction will quicken. That law will allow a much higher amount of Federal participation in local efforts—up to $500 million this year alone. But what will the new construction be like? Most will not be on the very large all-new projects. In RECORD for October, a few of the probable alternatives will be discussed, and these will range from small new airports to alterations of existing facilities to the construction of new satellites around still-functioning older buildings.

## We've designed Tru-Therm® to save 2 of the scarcest things in today's world. Energy and money.



We know the crunch affecting both is something you recognize all too well. We also want you to have a solution you can live with—aesthetically and economically—for years to come. That's why ASG Tru-Therm insulating glass units are built to provide outstanding efficiency, trouble-free performance and genuine durability. And they can do it right from the beginning, facilitating a reduced initial investment in heating and air conditioning equipment, along with a long-term cut in the consumption of costly fuel.

Thanks to Tru-Therm, it's feasible to increase the size of exterior openings to take maximum advantage of natural light, thereby minimizing the energy consumed by artificial lighting. Tru-Therm units are available in a wide variety of sizes with a choice of air spaces. What's more, they're adaptable to all the latest glazing techniques and all glass used in them can be tempered for extra strength and safety.

Tru-Therm shows its real beauty with an exterior lite of Bronze or Gray tinted twin-ground plate glass. Both are heat absorbing and glare reducing. Gray tinted glass blends with white, gray and black accented buildings. The Bronze harmonizes ideally with tinted glass spandrel and other earthtone materials, while giving a beautifully subdued reflective appearance. In fact, when you stop to think about it, we're going easy on three things. Energy, money and who knows how many eyes. For complete information, write ASG Industries, Inc., Dept. A, P.O. Box 929, Kingsport, Tennessee 37662.

ASG Industries Inc.
The Glass Company

*For more data, circle 10 on inquiry card*

# ASG
# the glass company

# Three cheers for the AIA for pushing so hard on the energy bill. Now the real push starts. . .

The AIA's strongest effort in years at "going public" was launched on June 23rd with a full-page ad in *The Washington Post* encouraging quick affirmative action on the energy conservation bill. The ad read, in part: "The current and seemingly abundant supply of foreign oil must not blind us to the urgent need for [an energy policy]. . . . To do this we will obviously need more than legislation. Successful execution of a national policy will require the cooperation of that broad segment of the economy responsible for the built environment—financial institutions, developers, the building trades unions, engineers, the designers and manufacturers of building materials, and, of course, architects. It will also require the enthusiastic support of the Federal establishment, beginning with the White House. (The present Administration has been far too obsessed with the supply side of the energy crisis.) The cooperation of state and local government is essential. . . ."

To extend the impact of the ad, reprints were mailed with covering letter to all Senators and Representatives, all 50 governors, 30,000 city and county officials and agencies, and all AIA chapters for local follow-up. Articles were prepared for distribution to suburban papers, radio and television stations. Lou de Moll, president-elect Jack McGinty, and Energy Committee Chairman Carl Bradley provided background briefings for many major newspaper editorial boards; and Bradley presented a proposed energy plank to the Democratic platform committee, which was adopted at least in part. (A similar effort is underway at the Republican convention as this is written.)

That is some kind of effort at explaining to a not-too-excited public what this business of energy conservation is all about. And, as the headline of this piece suggests, I think three cheers are due the AIA.

**The bill as passed is a start—and gives a big push towards standards**

The major thrust of the bill does seem primarily concerned (still!) with stimulating oil companies to increase domestic production by granting them higher prices. And I don't pretend to know whether that carrot will work this time.

There are also incentives, via grants and loan guarantees, to try to encourage homeowners and owners of some commercial buildings to "insulate" and "weatherize" their properties—and I'd be willing to bet that carrot *won't* work.

But most importantly, the bill *does* say: "Get on with the job of setting standards. . . ." The bill "directs" the Federal Energy Administration and HUD to establish energy conservation standards to be incorporated in state and municipal codes. And that does seem to me, at least, to be the only thing that will result in us getting on with the job of designing and building energy-efficient new buildings and retrofitting our old ones.

As RECORD pointed out in its first Round Table on energy conservation—back in January 1972—there is just no doubt that architects and engineers know *how* to conserve vast amounts of energy. The problem is persuading owners and clients and mortgagers to accept the additional first costs that will be required in some (but by no means all) cases.

Our second Round Table on energy—published in our Engineering for Architecture issue last year (mid-August, 1975)—indicated that almost no one was against meaningful standards that spread the concerns and the costs even-handedly. Many owners at that Round Table agreed with a point of view I've held all along—standards are necessary because you can't ask responsible and concerned architects and engineers to do the extra study and research needed to design energy-efficient buildings; and you can't ask responsible and concerned owners to pay any extra first costs involved (even if your life-cycle costs look good) as long as there are "bad guys" down the street who will (by ignoring the desperate need for energy conservation) be able to "under-sell" you.

Good standards (and the right kind of standards are—as RECORD, AIA, the GSA, and most architects and engineers have been saying all along—performance standards) seem to me to be the only way to put everyone on the same footing and to get on with the job of conserving energy. The building industry *can* make a massive impact: for example, the AIA thinks we can reach savings on the order of 12.5 million barrels of petroleum equivalent per day by 1990. And *that's* 12.5 million barrels not wasted; 12.5 million barrels that we won't have to explore for, drill for, build refineries for . . . or pay for. —*Walter F. Wagner Jr.*

# THERE'S A NEW CHOICE IN LOW-GLARE LIGHTING...

Attractive appearance and energy efficiency have now been combined to create a new era of low-glare lighting.

General Electric's new low-glare luminaires cut off unwanted light above 90 degrees and put light on the task — where you want it. These new lighting systems have been specially engineered for HID (high intensity discharge) light sources such as Lucalox®, so you don't lose good efficiency while you gain light control.

Choose between the Powr/Door® cut-off luminaire (upper left) or the Decashield® (lower left) for higher wattage applications. Both provide easy component accessibility for maintenance or upgrading. Or select from the Decaflood® luminaire (lo right) with its unique set of area o roadway optical systems . . . to th Spaceglow® with the attractive glow shield.

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# THAT'S EASY ON YOUR EYES

GE LIGHTING
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# HOW MUCH WATER WOULD THE WATER SAVERS SAVE IF EVERY WATER CLOSET WERE AN EMBLEM WATERSAVER

## 1,752,000 gallons each year on 200 units

And, the Emblem is Eljer's regular production model water closet. No premium charges for watersaving. No special orders. Every Emblem uses less water per flush than some of the extra-cost "watersaving" closets.

The Emblem uses much less per flush than the 3.5 gallons stipulated by water conservation codes. And, savings over ordinary closets average a gallon and a half per flush.

So, in a 200 unit apartment building, assuming four residents per apartment and four flushes per day per resident, the Emblem can save 1,752,000 gallons of water every year. That's $1,594 savings** per year on water and sewage bills. And, as costs go up . . . so will the savings.

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| | **20 psi** | **40 psi** | **60 psi** |
| Round | 3.16 | 3.20 | 3.05 |
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You will conserve precious water, ea the demands on sewage systems and save on operating costs at no extra co with the Emblem. Why would anyone buy any other water closet?

*As tested by Dynamics Testing Laboratory, Toledo, O

**Based on a 91¢ average cost per thousand gall in 5 major cities.

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Dept. AR, 3 Gateway Center
Pittsburgh, Pennsylvania 15222

***ELJER***

WallaceMu

# The GF Cube. It doubles your thinking power.

The new GF Cube offers twice as many desk and console configurations as our best competitors.

That has to start you thinking. Because, this great variety of configurations allows you to make better use of very expensive floor space.

The open office shown here gives you just a glimpse of the possibilities.

Ask your GF representative to put the complete GF Cube story together for you. Or write us for literature. GF Business Equipment, Inc., Youngstown, Ohio 44501. In Canada: Toronto, Ontario.

Office Furniture Systems

GF Business Equipment

*For more data, circle 46 on inquiry card*

# Before you cover you

**Consider the type of traffic that will pass by.**
Korolite wallcoverings are heavy enough to take a lot of punishment – they run from 15 ounces minimum to a maximum of 25 ounces. Most other type 1 materials go up to only 12 ounces. And because they're vinyl, they're long lasting, durable, and easily cleaned.

**Consider the type of people who will look at what you select.**
Korolite wallcoverings come in over 107 different choices. And in a wide range of patterns, colors and textures to satisfy any taste or personality. From modern to traditional.

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e is no wall too large or too small for B.F. Goodrich Korolite®
l wallcoverings. They come in 54 inch widths, and are ideal
uite improvement or renovation, hotel-motel
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B.F.Goodrich
Koroseal Vinyl Wallcoverings

**After you've considered all the angles, you'll conclude that the right wallcovering for you can be selected right from this book.**
Get a hold of one to see and feel our wallcoverings. Or consult your Koroseal® swatch book or Sweet's for your nearest BFG distributor.


For more data, circle 14 on inquiry card

# Presenting the new ESWA heating system



Most heating systems require an entire crew and a whole array of tools to install the many components.

All it takes to install ESWA is one man armed with a staple gun. Sometimes it doesn't even require that.

Just unroll the ESWA elements and put them into place. Your heating unit is up in a fraction of the time it takes to install other systems requiring extensive labor.

That's because ESWA lets you eliminate furnaces, radiators, intricate wiring, blowers, ducts and pipes — and therefore much of the expense of putting in a heating system.

And ESWA gives you one of the most effective heating systems available today. It's custom designed to eliminate heat waste.

And for maximum comfort and efficiency, the temperature of each area can be controlled with its own thermostat.

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Should a nail or screw penetrate an element, the material actually insulates itself from the intruding object, providing safe and continuous operation. The ESWA Heating System provides clean, economical heating in any kind of building. That's the reason it's been in use in Europe for over 15 years.

Isn't it time you started installing your heating systems with a staple gun?

For more information, call or write Mr. Thomas J. Hoffman, ESWA, Elixir Industries, 17925 S. Broadway, Gardena, CA 90248 (213) 321-1191.

## and its installation tool.

ELIXIR INDUSTRIES

17925 So. Broadway, Gardena, CA 90248
(213) 321-1191

U.S. Patent Nos. 3263307, 3336557



*For more data, circle 15 on inquiry card*

# TERNE ROOFING . . . FORM, COLOR, FUNCTION

***From the standpoint of form,***
Terne permits any visual roof area to become an integral part of the total design concept.

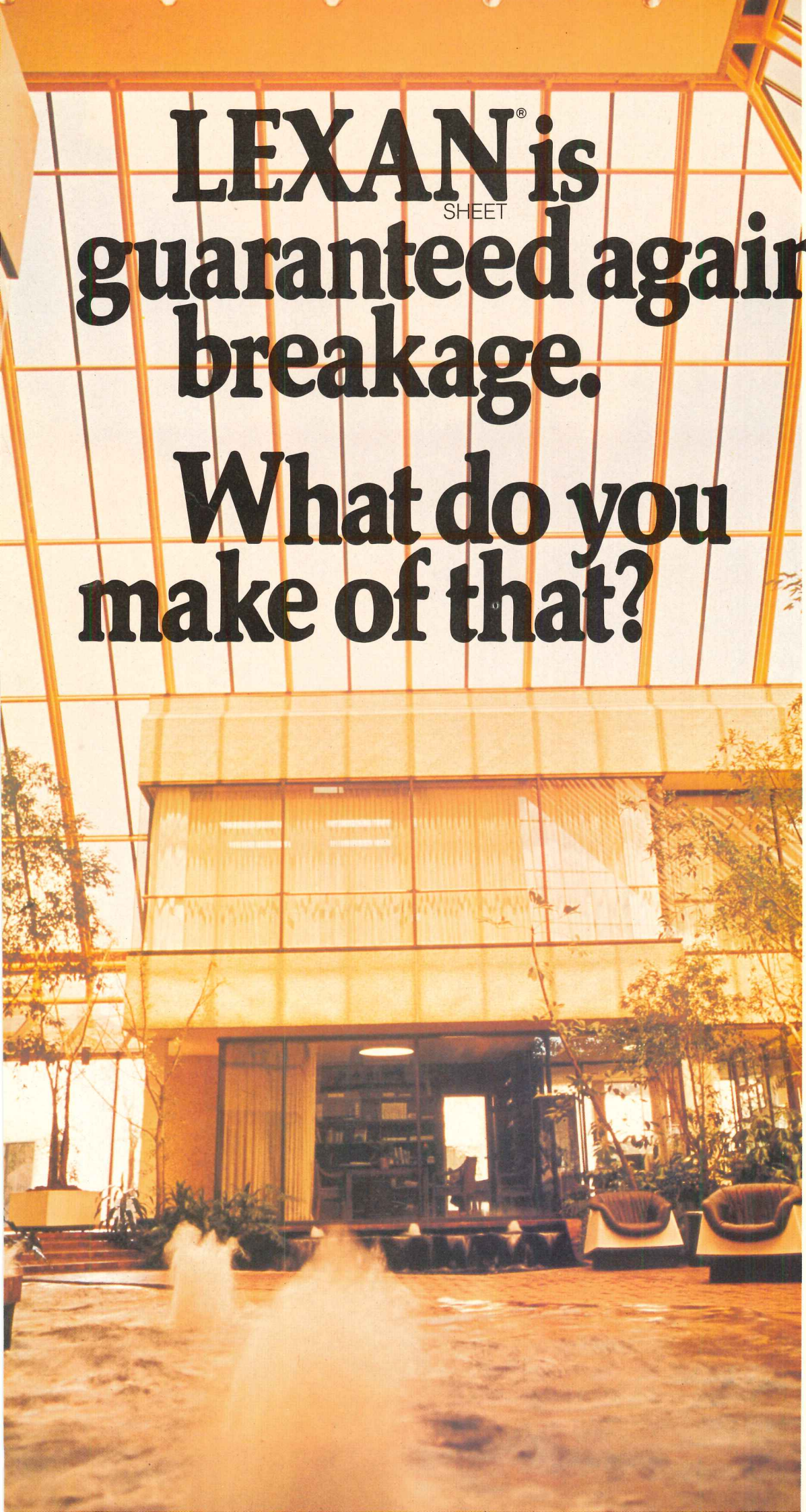
***From the standpoint of color,***
Terne provides the architect with a creative latitude as broad as the spectrum itself.

***From the standpoint of function,***
Terne's durability is measured in generations rather than years; it is easily installed, and when measured by the criteria of those to whom ultimate performance is no less significant than initial cost, it is relatively moderate in price.

**FOLLANSBEE**
FOLLANSBEE STEEL CORPORATION
FOLLANSBEE, WEST VIRGINIA

Boulder Recreation Center, Boulder, Colorado
Architects: Nixon-Brown-Brokaw-Bowen, Boulder, Colorado
Roofer: Reliable Heating, Longmont, Colorado

*For more data, circle 16 on inquiry card*



# LEXAN® SHEET is guaranteed against breakage. What do you make of that?

Whatever you make of it wil withstand the worst punishmen possible. LEXAN sheet is guaranteed against breakage,* even under the blows of a sledgehammer or the onslaugh of a steamroller. That means lower replacement costs, more economy. LEXAN sheet is UL listed Burglar Resistant, compl with the Safety Glazing A.N.S.I. (Z97.1) standard and OSHA requirements. And new F-2000 flame-retardant grade meets the highest standards for reduced flammability.

There's LEXGARD® bullet-resistant laminate which meets UL ballistic level ratings up to a .44 Magnum (UL 752 standard)

For industrial glazing PROTECT-A-GLAZE™ sheet offers an attractive, clear and tinted, translucent glazing for durability with economy.

And architects are finding more and more applications. LEXAN sheet is being used for lighting panels and lenses which are light weight and provide high light transmissior

**Tough skylights.**
LEXAN sheet's high impact resistance, clarity, and weather resistance make it ideal for durable, attractive skylights.

Photo: Nashville House
Nashville, TN
Architect: Robert Lamb Hart/HKS

**NOTICE:**

LEXAN® SHEET IS THE LEAST COMBUSTIBLE SAFETY GLAZING PLASTIC SHEET BUT WILL IGNITE WHEN EXPOSED TO AN IGNITION SOURCE IN EXCESS OF 800°F (426°C).

**FOR MAXIMUM SAFETY...**

- Advise local fire officials of LEXAN glazing installations.
- Consider sprinkler systems for additional safety.
- Check local codes for construction applications.
- Observe fire precautions similar to wood.
- Consider emergency access sash construction.

## Safe school windows.

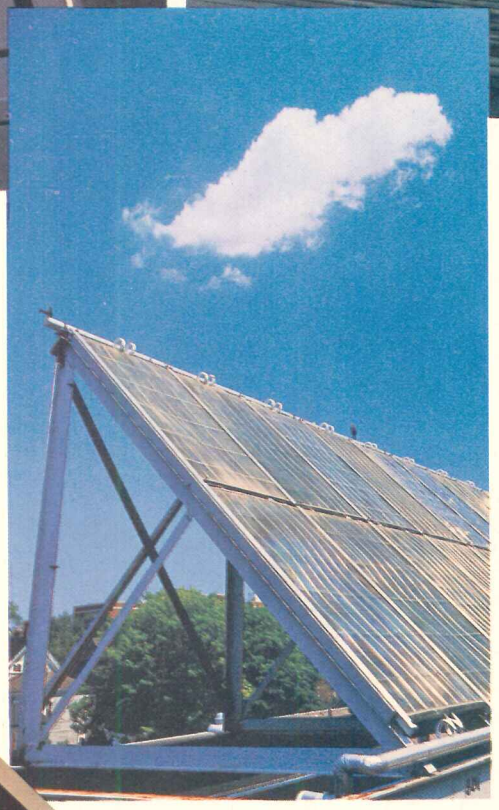
n school systems throughout the USA, EXAN sheet secures buildings against andalism and theft, with LEXAN sheet viding up to 25% more insulation than comparable thicknesses in glass.

Photo: Walt Disney Magnet School
Chicago, IL
Architect: Perkins & Will

## Long lasting enclosed walkways.

Domes and enclosed walkways of LEXAN sheet are weather resistant, color stable, and offer high light transmission.

Photo: Provincial Court & Remand Centre
Calgary, Alberta, CANADA
Architects: Long Mayell & Associates



## Light weight solar collector panels.

LEXAN sheet .040 and .080 mils thick offers high light transmission, physical toughness, high heat stability, and environmental resistance.

Photo: Grover Cleveland Junior High School
Dorchester, MA

## Strong passenger shelters.

Durable passenger shelters with LEXAN MR-4000 mar resistant panels protect passengers from the weather, and resist damage by vandals.

Photo: TRI-MET System
Portland, OR
Architect: Skidmore, Owings & Merrill

Whatever you design that needs to be transparent, tough, and attractive—and safe—there's a grade of LEXAN sheet to design it with.

# LEXAN® SHEET Get behind it.

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General Electric Plastics: What the world is coming to.

See Sweet's Architectural Catalog Ref. 8.26/GE



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# Create seemingly seamless buildings. That's the beauty of designing with Dow Corning® 790 building sealant.

Now you can design the buildings of your dreams, with fewer, narrower joints—for endless expanses of wall.

While most sealants are designed to accommodate joint movement of ±12½% to ±25%, Dow Corning 790 sealant allows design freedom because of its ±50% movement capability without affecting adhesion or cohesion. Use 790 on ±25% joint designs, and rest easy. Its increased capabilities give you an extra margin of safety.

Buildings sealed with 790 remain weatherproof, watertight and maintenance free. For twenty years or more.

Application? Fast and easy. 790 is ready to use. Less material required, less time, labor and expense. No primer needed on most substrates, no job delays or costly callbacks. For design freedom, beauty and practicality, Dow Corning 790 sealant is a dream come true.

Start your dream today; write for more information to: Dow Corning, Dept. 6400A, Midland, Michigan 48640.

DOW CORNING

DOW CORNING

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# Don't these German classrooms suggest a design idea to you?


Photos of Saint Augustin School Centre near Bonn, Germany.

First, let us give you a hint. Look for practicability as well as appearance. If you were to tour this entire project, you would discover that all classroom and corridor walls are constructed of porcelain-on-steel Rite-On, Wipe-Off panels... the new dust-less writing system by AllianceWall Corporation that is both vandal- and graffiti-proof.

Students and teachers use special dry-marker pens. Writing dries instantly and can be erased dry without leaving a speck of dust. Panels also double as projection screens for movies, slides and other types of audio-visual presentations, as well as magnetic bulletin boards. They come in 50 decorator colors and fit any partition system.

The writing surface is guaranteed for 50 years. And the cost--amazingly low when you consider the panels require no expensive maintenance.

Those are just a few of the ideas you may wish to consider. For complete information write:

AllianceWall® CORPORATION
BOX 247, ALLIANCE, OHIO 44601

Factories in Alliance, Ohio; Okmulgee, Oklahoma; Genk, Belgium; and Odense, Denmark.

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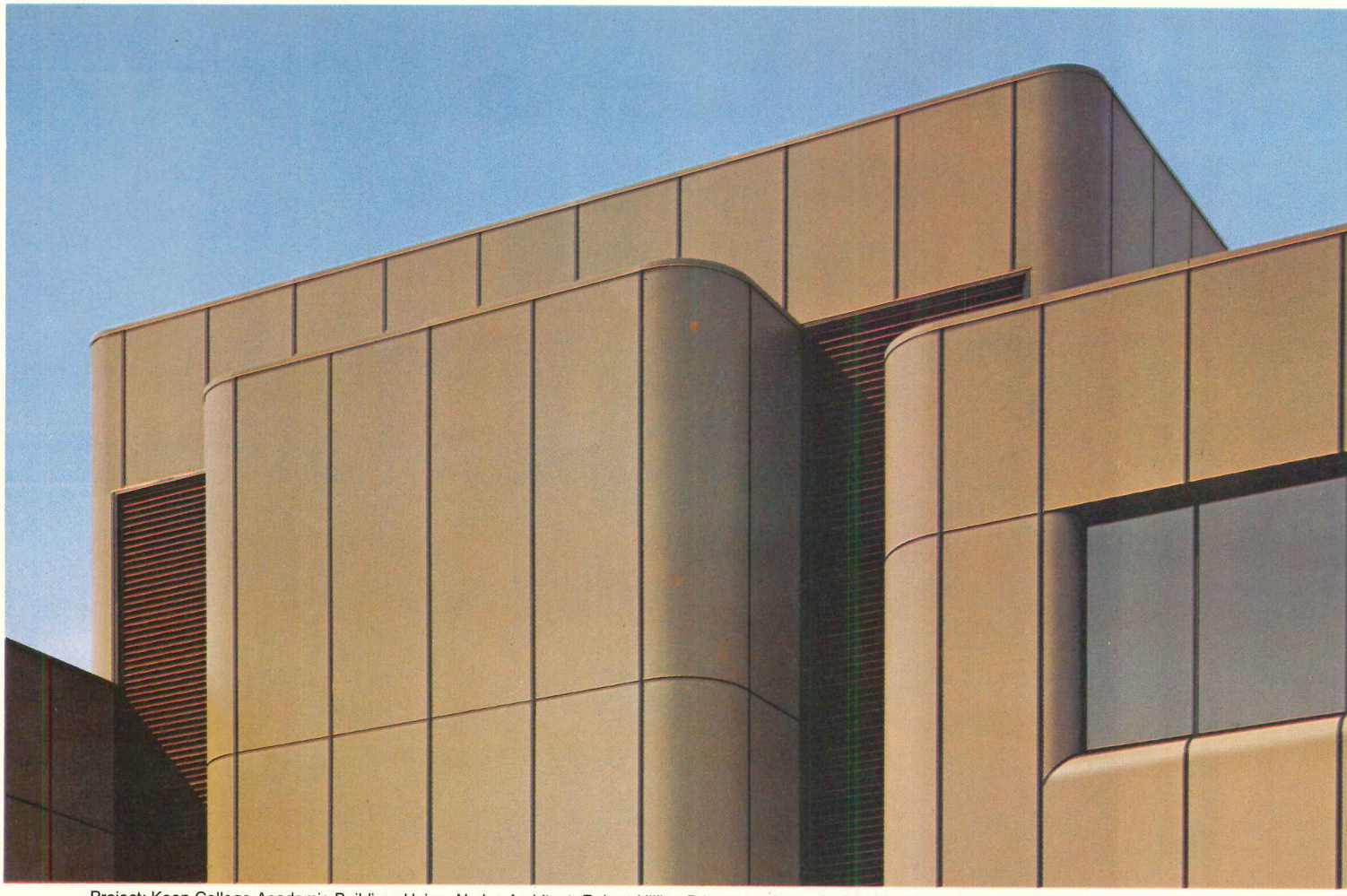


Project: Keen College Academic Building, Union, N. J. Architect: Robert Hillier, Princeton, N. J. Curtain Wall Erector: Whelan Mfg. Co., Trenton, N. J.

# Alcoa Alply Insulated Panels offer you custom design flexibility.

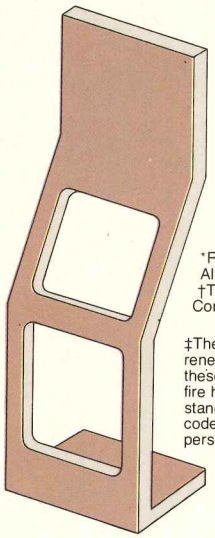
## Why settle for less?

If aesthetic freedom and energy conservation are important to you and your client, then we suggest you contact us for your nearest Alcoa Alply* panel regional distributor, who offers you single-source responsibility — everything from engineering to the completed wall system, in place, with integral fenestration, interior and exterior finish and thermal insulation.

No other insulated modular wall offers all these choices for low- to middle-rise buildings:

Exterior and interior skins: aluminum, stainless steel, hardboard, plywood, cement-asbestos — you name it.

Finishes: four standard finishes and 18 colors, including Super Alumalure* baked-on, factory-applied fluoropolymer enamels . . . Alumalure baked-on synthetic resin enamels . . . Alumilite† electrolytic coatings in natural aluminum . . . Duranodic† hard-coat finishes in three integral bronze shades and three new integral gray shades.



*Registered Trademark of Aluminum Company of America
†Trade Name of Aluminum Company of America

‡The use of polyurethane, polystyrene and isocyanurate cores in these applications may present a fire hazard under certain circumstances. Consultation with building code officials and insurance company personnel is recommended.

Panel cores: polystyrene, polyurethane, isocyanurate‡ or other materials, depending upon project requirements.

Wide range of panel sizes: up to 5 feet wide, 18 feet long.

Variety of shapes: panels can be shop-formed to almost any three-dimensional shape desired.

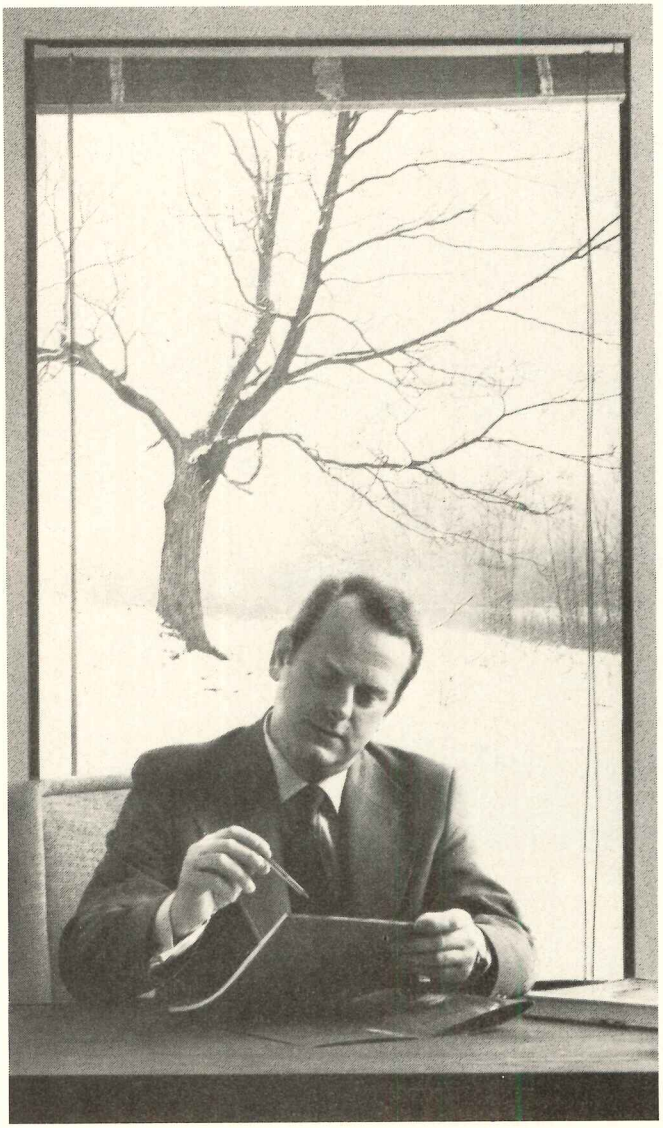
Choice of joining systems: Alcoa's patented Snug Seam* caulking, splines, battens or frames.

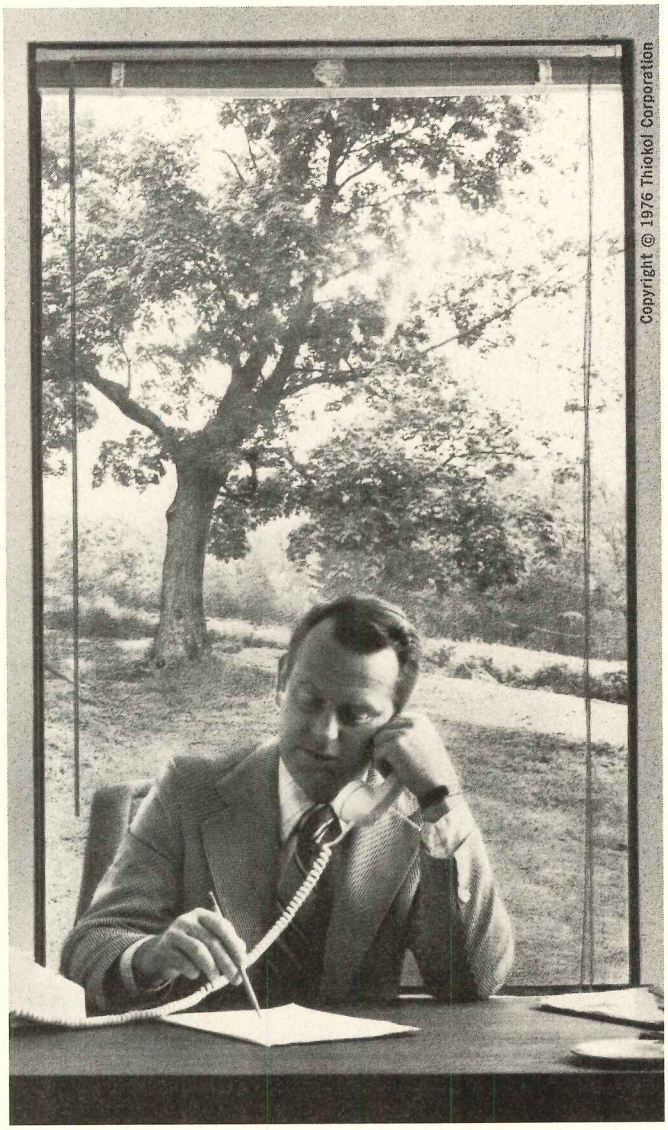
Variety of cutouts possible: to accommodate windows, doors, sloping grade lines, walkways, difficult contours, parapets.

Whatever you're designing, let our regional Alcoa Alply panel distributors help. They know a great deal about wall systems, finishes, industrial roofing and siding and other low- and middle-rise construction problems. For further information, write: The Stolle Corporation, Aluminum Company of America, 1025-J Alcoa Building, Pittsburgh, PA 15219.

**The Stolle Corporation** **A Subsidiary of Aluminum Company of America**

*For more data, circle 20 on inquiry card*





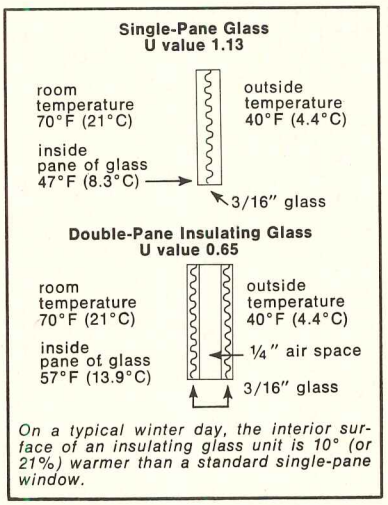


# Insulating glass. The heating and cooling system you don't even have to plug in.

What's more, there are no wearing parts. And the only maintenance is an occasional washing.

The point is that once purchase and installation costs are paid, double-pane insulating glass throughout a building is a year-round system to help keep in the heat all winter and not lose your client's cool in the summer. Saving energy. Saving money.

This diagram, for example, shows that on a typical winter day, the interior surface of a double-pane, double-hung unit of insulating glass can be 21% warmer than its single-pane counterpart*. Resulting in a heat transfer coefficient (U value) slashed from 1.13 to 0.65. Add a metalized coating to the glass and the U value drops to a highly efficient 0.50.




*On a typical winter day, the interior surface of an insulating glass unit is 10° (or 21%) warmer than a standard single-pane window.*

In addition to lower heat loss are the many years of service you can expect from insulating glass units, particularly when they are manufactured with sealants based on our LP® liquid polysulfide polymer. Fact is, over 80% of IG manufacturers use polysulfide base sealants.

We think that simple fact speaks for itself.

For more information on insulating glass units and the polysulfide base sealants that give them long life, write Marketing Communications, Thiokol/Chemical Division, P.O. Box 1296, Trenton, New Jersey 08607.

Based on calculations from the ASHRAE (American Society of Heating, Refrigeration and Air Conditioning Engineers, Inc.) Guide and Data Book.

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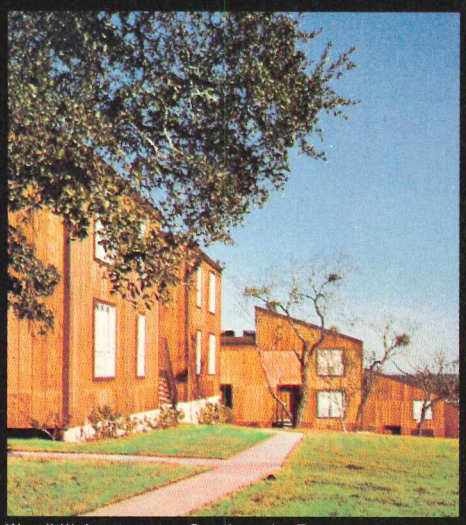
Specialty Polymers • Off-the-Road Vehicles • Synthetic Fibers • Sprayers • Propulsion • Educational Services
Friction Materials • Ski Lifts • Pyrotechnics • Closures • Rubber and Rubber Chemicals • Radiation Curable Polymers and Coatings

Medical Center—Andover, Massachusetts • Architects: Drummey Rosane Anderson, Inc.



Woodhill Apartments—San Antonio, Texas
Architects: Hoff, Blackstone and Strode, AIA

# Redwood Plywood

Nob Hill Condominiums—Hauppage, New York • Arch : John A. Jacobsen and Associates • Sponsor & Builder: The Campagna Development Corporation

Professional Center—Carmel, California • Architects: Rochlin and Baran, AIA, and Assoc.

Office Building—Sausalito, California
Arch.: Wurster, Bernardi and Emmons, Inc., AIA
Structural Engineer: W. B. Clausen

Regula's Designs in Flowers—San Francisco, California
Designer: John Augsburger

# .its beauty is more than skin deep.

ıal appeal is clearly the principal reason for selecting
vood plywood as a building material. The warm beauty
rich color of its surface enhance the structure itself
its physical setting.

redwood plywood also offers the architect and builder
y practical advantages and economies.

durable. Redwood plywood is naturally resistant to
ther, and protected with both a waterproof bond and
ecial water-repellent preservative.

fire-resistant. Redwood plywood, in ⅝″ thickness, has
ed a low flame-spread rating that qualifies it for all
s II uses in the Uniform Building Code.

ntenance is minimal. Redwood plywood will take and
l a wide variety of finishes, or weather beautifully when
unfinished.

onserves energy in heating and cooling. Like other
st products, redwood plywood affords high insulation
e, requires less fuel to maintain comfortable year-
nd temperatures.

Construction is simplified. Because of redwood plywood's cross-laminated strength, it can be applied directly to studs without diagonal bracing. No building paper is required with shiplapped or battened joints. And redwood plywood comes not only in standard 4 x 8 panels, but in 4 x 9 and 4 x 10 sizes as well, to facilitate modular design.

Many patterns are available. Choose from plain, grooved and inverted batten designs, in solid-color heartwood or sapwood-streaked faces. All suitable for interior or exterior use—all textured for rich surface interest.

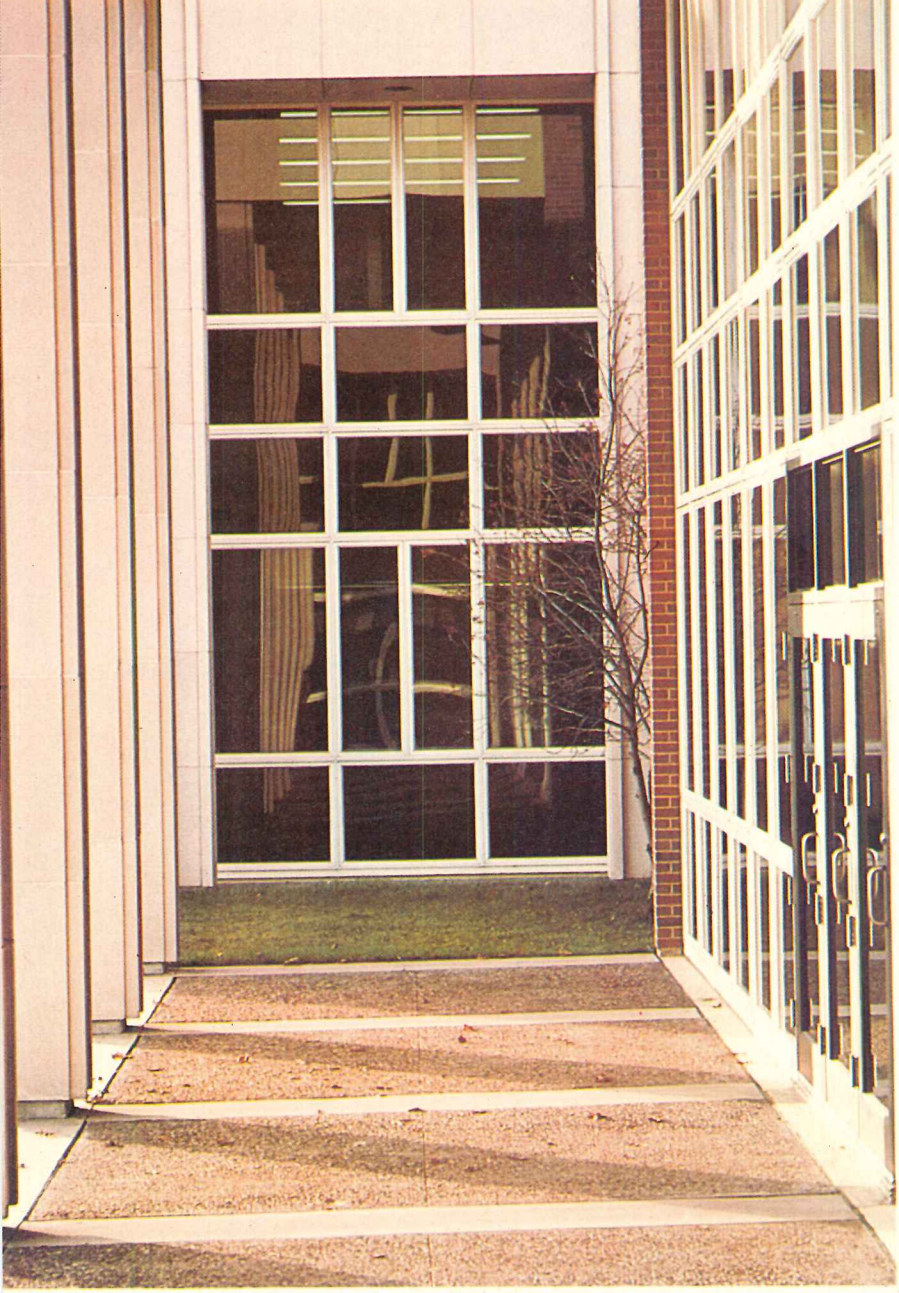
Current examples of redwood plywood applications are shown in the accompanying photographs. For data on specifying redwood plywood, see the Redwood Plywood Guide in Sweet's or write us at Department P.

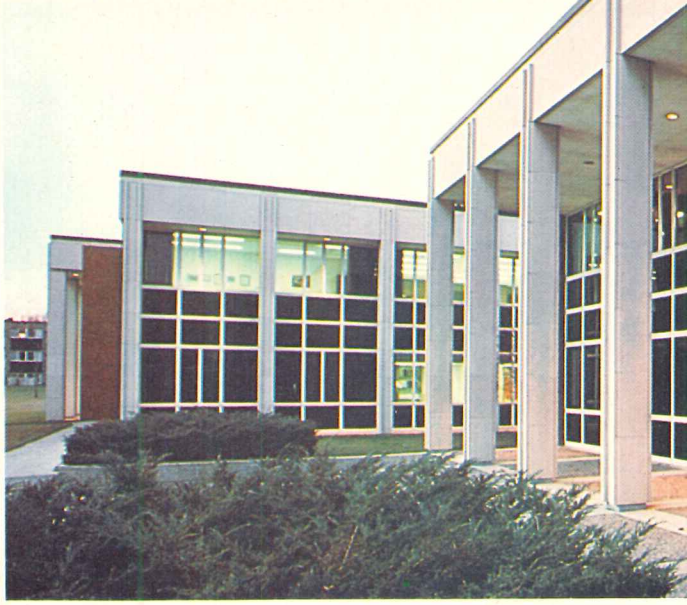
CRA CALIFORNIA REDWOOD ASSOCIATION

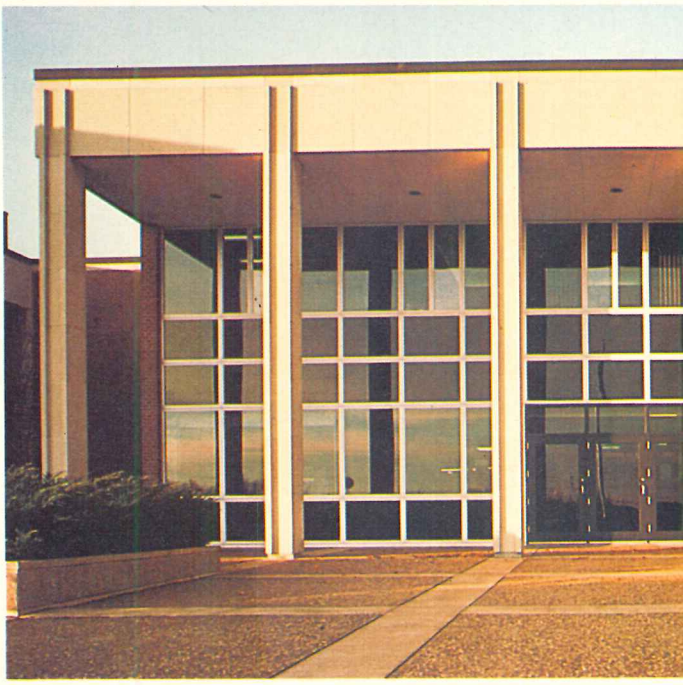
*Redwood—a renewable resource*

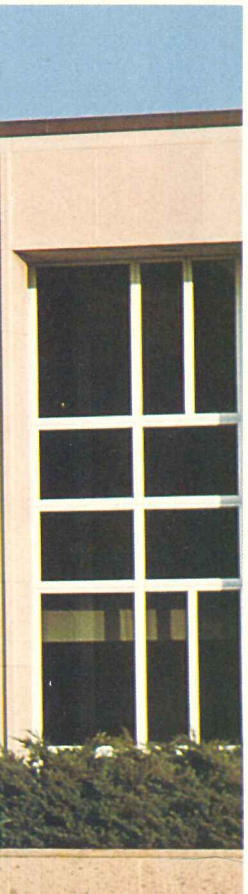
617 Montgomery Street, San Francisco, CA 94111

*For more data, circle 22 on inquiry card*

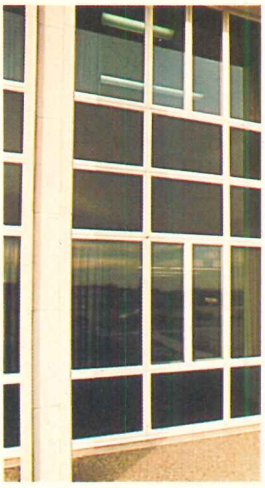




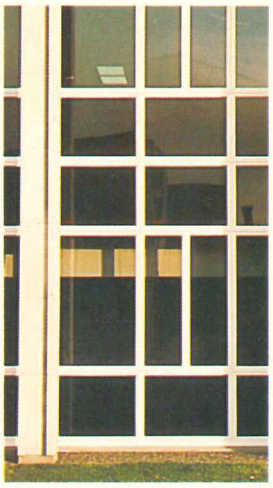




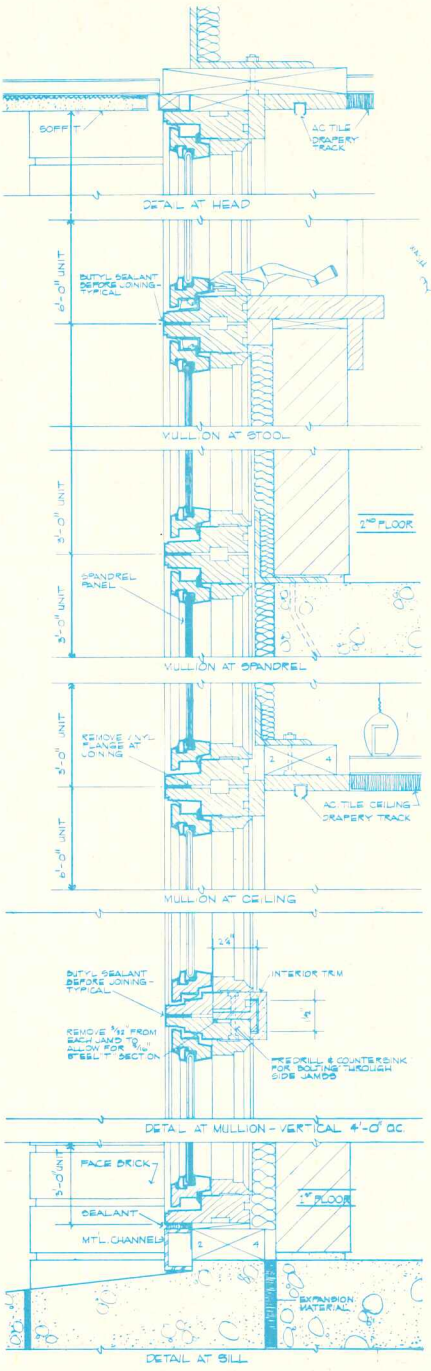
# Six years ago Washington County took Andersen to court.



1969 Perma-Shield Window.



1975 Perma-Shield Window.




# And we're still appealing.

Back in 1969, Washington County opened its dramatic new courthouse and government office building. And the first Andersen® Perma-Shield® Windows were put on trial.

Now, after six years of cold, snowy Minnesota winters and humid, sun-baked summers, Andersen's crisp, clean beauty is still appealing.

The evidence? A side-by-side comparison with the brand new Perma-Shield Windows in the building's 1975 addition.

A confrontation that could keep a jury deliberating for months as to which are the old and which are the new.

The reason for Perma-Shield's long-lasting beauty? A low maintenance rigid vinyl sheath (over a wood core) that doesn't rust, pit or corrode. Doesn't chip, crack or peel. Keeps on looking its best year after year.

But don't accept one county's decision. Try the case yourself. Use long-life, low maintenance Perma-Shield Windows in your next building.

For more details, see Sweet's File 8P. Or call your Andersen Dealer or Distributor. He's in the Yellow Pages under "Windows". Or write us.

The beautiful, carefree window.

Andersen® Windowalls®
ANDERSEN CORPORATION BAYPORT, MINNESOTA 55003

Washington County Office Building, Stillwater, Minnesota.

# "GE's Twin-Package System has the flexibility to help relieve the gas problems in commercial and industrial buildings."

"I could use a little help myself."

GE has a Twin-Package System with 15, 17-1/2 or 20-ton capacities, in three combinations.

The single package cooling system can be installed with four stages of cooling which allow you to match more closely your cooling requirements. With electric strip heaters you can have up to eight stages of heating.

With the Weathertron® Heat Pump, it can have two stages of compressor heat plus eight additional stages of electric heating, and two stages of cooling.

Combined gas-electric, in the three capacities, gives you up to four stages of heating, and four stages of cooling. A number of other variations are also possible.

Because this system uses standard 7-1/2 and 10-ton equipment, you can have improved parts availability.

For more information, contact your GE Central Air Conditioning Zone or Independent Distributor. He's in the Yellow Pages.

GENERAL ELECTRIC

*For more data, circle 24 on inquiry card*

# THE RECORD REPORTS



**The jobs bill is still uncertain of a go-ahead from Congress and from the President.** But if it suceeds, new public works projects could get rolling by early next month. Details on page 34.

**President Ford has signed the housing authorization bill** despite his apparent opposition to many of its programs. The bill revives the conventional public housing program and provides a Treasury loan for construction of housing for the elderly. Details on page 34.

**New York City has plans to build a playground for handicapped children as well as for those who are able-bodied.** Architects working in the state of New York, and wishing to participate in the design competition for this playground, should contact the New York City Department of City Planning, Playground Competition, Publication Sales Office—Room 1616, 2 Lafayette Street, New York, New York 10007.

**Congress has finally appropriated funds for the Pennsylvania Avenue restoration project proposed more than 15 years ago.** The plan calls for construction of both residential and commercial units along the historic route between the White House and the Capitol. Details on page 34.

**Prescriptive standards are needed for buildings that will limit energy savings, the AIA told the Federal Energy Administration recently.** Urging that the FEA revise its proposed State Energy Conservation Plan guidelines, AIA vice-president Carl L. Bradley argued for adoption of performance-based standards.

**The Justice Department plans to re-open its antitrust case against the American Society of Civil Engineers.** Ended four years ago in a consent decree, the case challenges prohibitions on price competitions as stated by the profession's code of ethics. Details on page 34.

**Ten architectural and artistic design projects are part of a national touring exhibit** sponsored by the General Services Administration. The display features winners of GSA's Second Biennial Design Awards program, including projects involving historic preservation, adaptive re-use, interior space planning and design, office building construction, fine arts, and barrier-free design. Now on display at Boston's Federal Center, the exhibit will open September 14 at the Massachusetts Institute of Technology; October 18 at the Federal Center in New York; November 17 at McCormick Place in Chicago; and December 28 at the Federal Building in Kansas City, Mo.

**An exhibit exploring the impact of black artisans on the architecture and building crafts of the South will open** September 30 at the Los Angeles County Museum of Art. "Two Centuries of Black American Art" will remain in Los Angeles until November 21 and then travel to the High Museum of Art, Atlanta (January 8-February 20, 1977), the Dallas Museum of Fine Arts (March 30-May 15, 1977), and the Brooklyn Museum (June 25-August 21, 1977).

**New York City Club's Bard Awards for Excellence in Architecture and Urban Design were recently presented.** The winners were: Bustop shelters, by Holden/Yang/Raemsch/Terjesen, Architects; Arts for Living Center, by Prentice & Chan, Ohlhausen, Architects; and 1199 Plaza Cooperative Housing, by The Hodne/Stageberg Partners, Inc., Architects. Alfred DeVido, Philip Johnson, Peter Samton, and Joseph Wasserman served on the jury.

**The Concrete Reinforcing Steel Institute's 1976 design awards program is now taking entries.** Deadline is November 15, 1976. The awards recognize reinforced concrete structures that show "creative achievement in esthetics, economy, engineering and functional excellence"; and are open to all registered architects and engineers (individuals or teams) whose structure is located within the continental United States and has been completed since January 1, 1974 or essentially finished by November 15, 1976. For more information, contact: Victor Walther Jr.; Concrete Reinforcing Steel Institute; 180 North LaSalle Street, Room 2110D; Chicago, Illinois 60601.

**The projects of 11 American architects are currently being exhibited in the 1976 Venice Biennale.** The display, dealing with suburban alternatives, contains works by: Raimund Abraham, Emilio Ambasz, Peter Eisenman, John Hejduk, Craig Hodgetts, Richard Meier, Charles Moore, Cesar Pelli, Robert Stern, Stanley Tigerman, and Denise Scott Brown with Robert Venturi. The exhibition was organized by the Institute for Architecture and Urban Studies in New York City.

**ARCHITECTURAL RECORD invites submissions for RECORD INTERIORS of 1977 and RECORD HOUSES and Apartments of 1977.** Deadlines for receipt of material are: October 1, 1976 for RECORD INTERIORS, to be featured in the January 1977 issue; and November 1, 1976 for RECORD HOUSES and Apartments, for the 1977 mid-May issue. For further details, contact Barclay Gordon, ARCHITECTURAL RECORD, 1221 Avenue of the Americas, New York City 10020. Telephone: (212) 997-2334. (Also see page 198.)

## Ford signs housing bill after a long battle

The housing authorization bill President Ford signed just before the Republican Convention last month actually revives, continues, or expands a number of categorical-type housing programs the President does not want. For example, it revives the conventional public housing program, provides a $2.5 billion direct-from-the-Treasury loan program to build housing for the elderly, and continues for another year a program that subsidizes mortgage payments for private builders of housing for rent to low-income families.

President Ford, however, said he signed the bill because "good government requires" that a number of program extensions become law "as soon as possible." He also noted that Congress was voting less actual spending—for the public housing program for example—than the maximum allowed under the authorization bill.

The final law was the product of a prolonged battle between Congressional Democrats and the Ford Administration forces led by Housing Secretary Carla Hills.

On public housing, the bill calls for $100 million of annual contract authority spending to be committed to the construction of new substantially rehabilitated conventional housing projects. The appropriation, however, is $85 million.

On housing for the elderly, the $2.5 million Congress authorized is "off-budget" lending by the Treasury to builders of new housing for the elderly—enough to start about 90,000 new units. It requires no appropriation.

The battle of trimming back planning grants ended with $100 million authorized, but only $62.5 million voted, as compared to last year's $75 million.

Other actions include raising the mortgage limits and the maximum allowable income for a moderate-income family who want to buy a house under the revived home-ownership program. The government now subsidizes the mortgage rate down to 5 per cent. The program was also liberalized to make mobile homes eligible.

Other provisions authorize funds for the new National Institute of Building Sciences; boost the funding for the urban homesteading program; and make permanent an exemption from the mandatory flood insurance, thus making it possible for homeowners to finance the sale of houses in flood-prone areas not in compliance with the law.

The actual amount approved for all subsidies for lower-income families for fiscal year 1977 (beginning October 1) is $675 million, including an Administration program under which Secretary Hills is trying to house as many needy families as possible in existing apartments, rather than in new buildings constructed under government contracts.—*Donald Loomis, World News, Washington.*

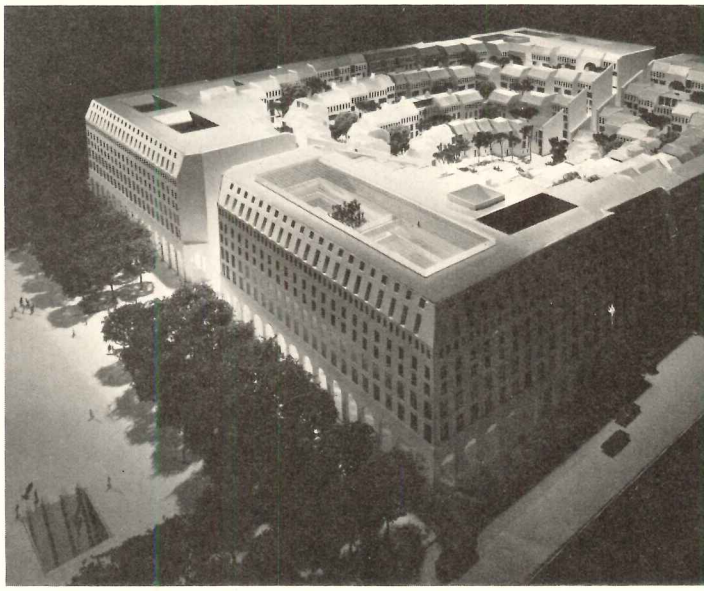
## Jobs bill still not guaranteed of a go-ahead

The fragile coalition who wired together enough Senate votes to override President Ford's veto of the jobs bill fears their deal may yet come unstuck. The coalition has to hang together long enough to get the $3.95 billion appropriation bill through both houses. And the President will have to sign the bill before Washington bureaucrats can give the mayors and governors the green light on any spending.

Whether the President will is an open question: but if he does, Commerce Department approvals of public works projects might begin by October 1, as would spending by some states of new allocations for sewage treatment plants from the Environmental Protection Agency (EPA). Spending by cities and states of Treasury's countercyclical revenue-sharing checks could start by November 1.

But by early this month, which is the earliest an appropriation bill is expected to reach the White House, new political strains could develop around the Congressional consideration of the $5 billion bill for EPA grants and a $6.6 billion revenue-sharing bill—both of which have already passed the House. Adoption of these bills (and the appropriations bills for them that must be enacted by October 1) poses another danger for the smaller $3.95 billion jobs programs, particularly if Ford vetoes the appropriation bill.

The mayors and governors are being urged to recommence their lobbying efforts on the three senators who cemented the bill together: (1) Jennings Randolph (D-W.Va.), who is Chairman of the Public Works Committee. The $2 billion in his part of the bill allows the Commerce Department's Economic Development Administration to parcel out funds project-by-project with most getting $5 million or less, and no state winding up with more than a $125 million slice of the piece. The money can go for almost any kind of building or public works or recreation project—except canals. (2) Edmund Muskie (D-Maine), who shoved through the $125 million for revenue-sharing grants to be parceled out over five quarters retroactive to July, mostly to cities with high unemployment. The money would be used to maintain public service by keeping employees on public payrolls. (3) Herman Talmadge (D-Ga.), who led the block of 66 senators from 33 Southern and Western states that would get a slice of the additional $700 million in water pollution control funds.—*Donald Loomis, World News, Washington.*



## At last, Pennsylvania Avenue project gets funds from Congre

Congress has finally put some money behind its plans to spruce up Washington, D.C.'s Pennsylvania Avenue. The House of Representatives has authorized $38.8 million to begin restoration of the historic route between the White House and the Capitol. The Senate approved a similar bill last December.

First proposed more than 15 years ago, the plan calls for construction of both residential and commercial facilities, a mixture that should encourage people to come into Washington's downtown area. Congress has determined to avoid the mistake made in the construction of the city's L'Enfant Plaza, an office complex that empties after working hours. A total of 1,500 rental and condominium units (including the scheme above designed by Hugh Newell Jacobsen, RECORD, May 1974, pages 117-119) will be built about midway between the Capitol and the White House. The project is expected to require $130 million in Federal funds over the next 15 years and to attract about $400 million in private investment.

Federal money will be used purchase and restore the historic lard Hotel, a building where m Presidents stayed but which has b closed since 1968. The current ov had planned to remove the structu ornate facade and convert it to an fice complex.

The Senate version of the bill thorized the full $130 million in eral funds, but, to speed things up, Senate says it will now consider House-passed measure. Passage is most certain, and the Ford Adminis tion also backs the bill.

To get the money flowing, C gress would either pass a special propriations bill after the Noven elections, or it would wait and pro for the project in appropriations fo cal 1978. In either case, money co presumably be used as soon as it comes available. The Pennsylva Avenue Development Corporat which will administer the project, been functioning for four years, s Congress first approved rede opment plans.—*Judith Dobrzyn World News, Washington.*

## Justice attempts to re-open antitrust case against ASCE

The Justice Department is trying to re-open its antitrust case, ended in a consent decree four years ago, against the American Society of Civil Engineers. The case was the twin of the Justice prosecution of the American Institute of Architects, both challenging professional code of ethics prohibitions on price competition.

Each society rewrote its code to remove the bans on price bidding, although the National Society of Professional Engineers elected to fight the issue and is currently at the United States Court of Appeals in Washington with its case. What Justice is now arguing is that the ASCE code revision did not go far enough, and that more changes are needed to open the way for one member to bid against another.

Being questioned is what is now Article Three of the ASCE code, wh holds it to be unprofessional, dish orable, and undignified for any engineer" to attempt to supplant other engineer in a particular enga ment after definite steps have b taken towards his employment." tice claims that since the ban on c petitive bidding was removed, the ciety has used the don't-steal-cli provision to bar price competit and has "aggressively investigated leged violations of Article Three."

The Government's case rests marily on Society disciplinary act taken against two top officials of M calf & Eddy, the Boston-based de firm that is a subsidiary of Resea Cottrell. ASCE dropped Franklin Sunn, then president, from mem ship for three years and vice presi George K. Tozer for two. The cha was that M&E had won away—by derbidding—a design review and c

ction services contract for the
gkok water system that a joint ven-
of Black & Veatch International
Camp, Dresser & McKee had al-
ly negotiated a contract on.
Justice calls the action against
n and Tozer evidence that ASCE is
beying the 1972 court order that
it will not adopt "any plan, pro-
n or course of action which pro-
ts members. . . from at any time
mitting price quotations for engi-
ring services." The antitrust law-
are asking that the Society be held
ontempt of court for not obeying
order, and be punished by being
ered to drop Article Three from its
e—as well as reinstate Sunn and
er.
The Society, suggesting it will
t the action, claims that the issue of
ng to supplant another engineer is
entirely different one from price
npetition. BVI managing partner
mas B. Robinson, however, admits
price "was the wedge by which
got the ear of the client." *—Dan-
Moskowitz, World News, Wash-
on.*

## icago neighborhoods for landmark status

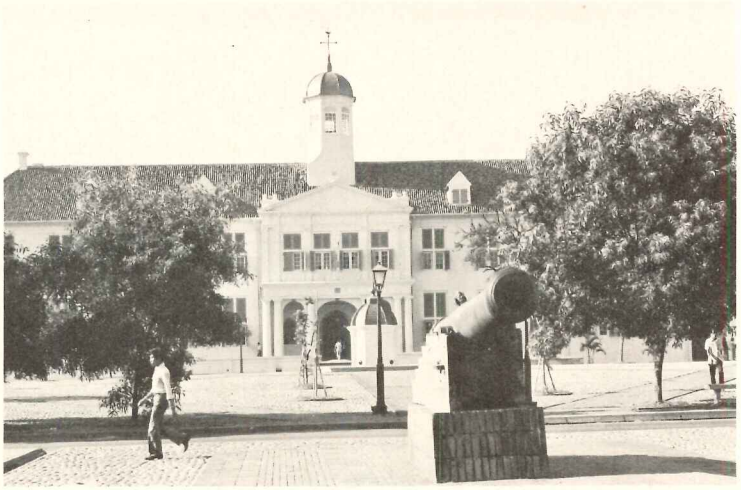
ne of Chicago's best historical ar-
ecture comes to life in such major
gle buildings as Henry Hobson
hardson's Glessner House or Louis
hri Sullivan's Carson Pirie Scott &
Building. And charged with identi-
g and preserving the city's quality
nitecture, the Commission on Chi-
o Historical and Architectural
dmarks, with City Council ap-
val, has designated many of these
ctures as landmarks. But in the past
r or two, the commission, respond-
to public sentiment, has increas-
y turned its attention to Chicago's
nitecturally significant residential
ghborhoods to be named landmarks
areas instead of individual build-
s.
In this endeavor, according to ar-
tect Daniel Brenner, the commis-
n's work "is considerably behind
w York City," which has designated
eral hundred buildings as land-
rks. Brenner sits on the Council's
visory board and is a principal of
nner-Danforth-Rockwell, Chicago.
One example of such a neighbor-
od is the six-block-long Astor Street
trict, approved by City Council as a
dmark last December. Architects
resented in the district include such
sters as Frank Lloyd Wright, Joseph
nan Silsbee, and Stanford White, of
Kim, Mead and White. Three pe-
d styles—the Queen Anne, the
hardsonian Romanesque, and the
orgian Revival—dominate Astor
eet, located in the city's near-north
e. Still more areas that boast the
rk of the Chicago school's George
her, and Adler & Sullivan, for ex-
ple, are under consideration.
The trend toward making land-
rks out of neighborhoods has pre-
tably aroused the ire of developers, who claim such designation unduly restricts free enterprise. Leonard S. Eisenberg, a senior vice president at Arthur Rubloff & Co., one of Chicago's major owner-developers, says landmark designation of neighborhoods drives new construction to the suburbs. Despite developers being hampered severely by the slack demand for multi-family housing, Eisenberg says, the landmark areas add still another thorn to what he calls restrictive zoning on the city's lakefront and high-rise building codes that add to costs. "Pretty soon they'll declare the whole city a landmark and then it'll all decay at the same rate" he says.

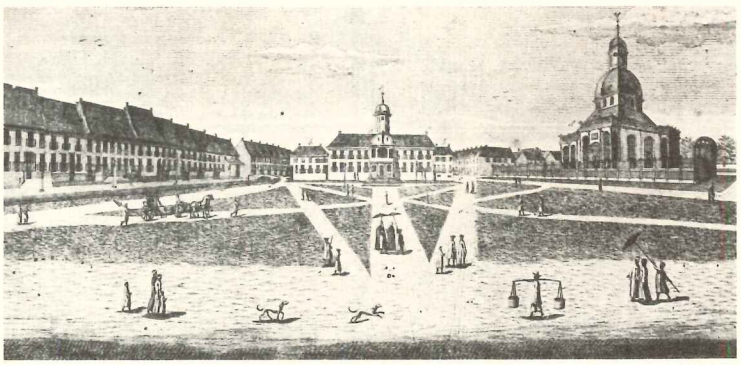
But Brenner says Eisenberg's claims "are a lot of hogwash." The only case the commission has lost, he says, came when Adler & Sullivan's Old Chicago Stock Exchange was demolished to make way for a new high-rise office building. According to the Chicago commission's staff, the neighborhood trend will continue; director William M. McLenahan says the advisory committee has advised that "60 or 70" more buildings, including many neighborhoods, be considered for landmark designation.

Brenner says reactions of residential real estate owners to having their property named a landmark varies widely. In some cases, owners find designation strengthens rent demand, he says, but other claim it can hurt their ability to refinance a mortgage. At any rate, Brenner says public sentiment, and as a result, political momentum, currently favors preservationists. "There will always be some fights, but at the moment, high-rise is a dirty word to the public," he says.

Following the designation of Astor Street, the commission recommended to the City Council that two more neighborhoods receive landmark status. They are a one-block area known as the Jackson Boulevard District and a ten-square-block neighborhood called the Mid-North District. Furthermore, the commission is considering designation of three more city neighborhoods—the McCormick Row House District (part of the Old McCormick Seminary), the Hutchinson Street District, and the Old Town District.

Throughout the Mid-North neighborhood, styles popular in residential structures from 1850 to the late 1880's can be seen: the decorative detail of the Italianate style, the color and texture of Queen Anne facades, and the round arches and rough masonry made popular by Henry Hobson Richardson. And in the area next nearest to landmark designation, the 1500 block of West Jackson Boulevard in Chicago, the same general styles are evident, in addition to the Second Empire style with its high mansard roofs. This charming little enclave, however, is probably safe from destruction even if it does not receive landmark status, because young, middle-class families have bought into it and will most likely protect it.*—Daniel Brown, World News, Chicago.*





## Port city of Jakarta continues major restoration project

A few years ago, the United Nations sent industrial designer Sergio Dello Strologo to Jakarta to help the Indonesian government improve its labor-intensive industries. After a realistic appraisal, Dello Strologo chose to concentrate on traditional ethnic crafts (crafts being the main potential for export in an area with some of the world's finest artisans); and he went about advising the Indonesians on how to market and thus capitalize on their indigeneous arts.

Now, eight years later, the Jakartan government headed by Governor Ali Sadikin has discovered other ways to use Dello Strologo's expertise. With guidance from this Italian-born American (who also oversaw a restoration project for Kingston, Jamaica), Jakarta now has a major restoration project of its now—a project that is sure to spur economic development via the internal and international tourism engendered, and that, more importantly, is instilling civic pride in the city's past. From its 15th century beginnings, Jakarta has been a wealthy, cosmopolitan port and a long-time headquarters of the spice trade. Its history was greatly influenced by the Portuguese, British, French, Chinese, and Dutch.

Initially, the restoration of Jakarta was limited to the old town square. Under the direction of Project Officer Ir. Tjiong, the architects and designers closed the square to traffic and reproduced its original layout with lawns and a radial pattern of stone paths. A central cistern was restored over foundations uncovered during construction; and a cannon locally thought to induce fertility by touch was re-installed. Stadhuis, the Dutch city hall was restored as the Museum of Jakarta, a monument celebrating the country's Indocentric history. And the original Justice Court House was turned into a performing arts center.

For the Jakartans, however, all this restoration was not enough; and according to Dello Strologo, "The enthusiasm of the intelligentsia of the city forced us to enlarge the project to include the ancient port of Sunda Kelapa."

Work on phase II has now begun: Plans have been laid and the zone has been declared historical. Eventually, houses down the canal leading to the old port Pasar Ikan (fish market) will be refaced in 17th and 18th century styles, enhanced by street signs reminiscent of the same era. A 240-year-old mosque will be restored, while two old warehouses of the Dutch East India Company will become museums of maritime and of spice trade. Nearby, a group of 17th century Chinese houses has been earmarked for restoration as a museum detailing one of the earliest settlements of Chinese outside their own country. And out in the bay, four islands, for merly a naval base, will become a "marine playground" for tourists to enjoy bathing, water skiing and sailing.

Primarily funded by the governor's office of Jakarta, the restoration project has catalyzed enthusiasm throughout Indonesian "hill-country" itself. "Jakarta has always been a style-setter," Dello Strologo says, comparing its development to that of New York. And already, other places are heeding Jakarta's pace: The city of Surabaya is planning its own restoration and Makassar has already finished restoring its old fort.*—Harriet Sugar.*

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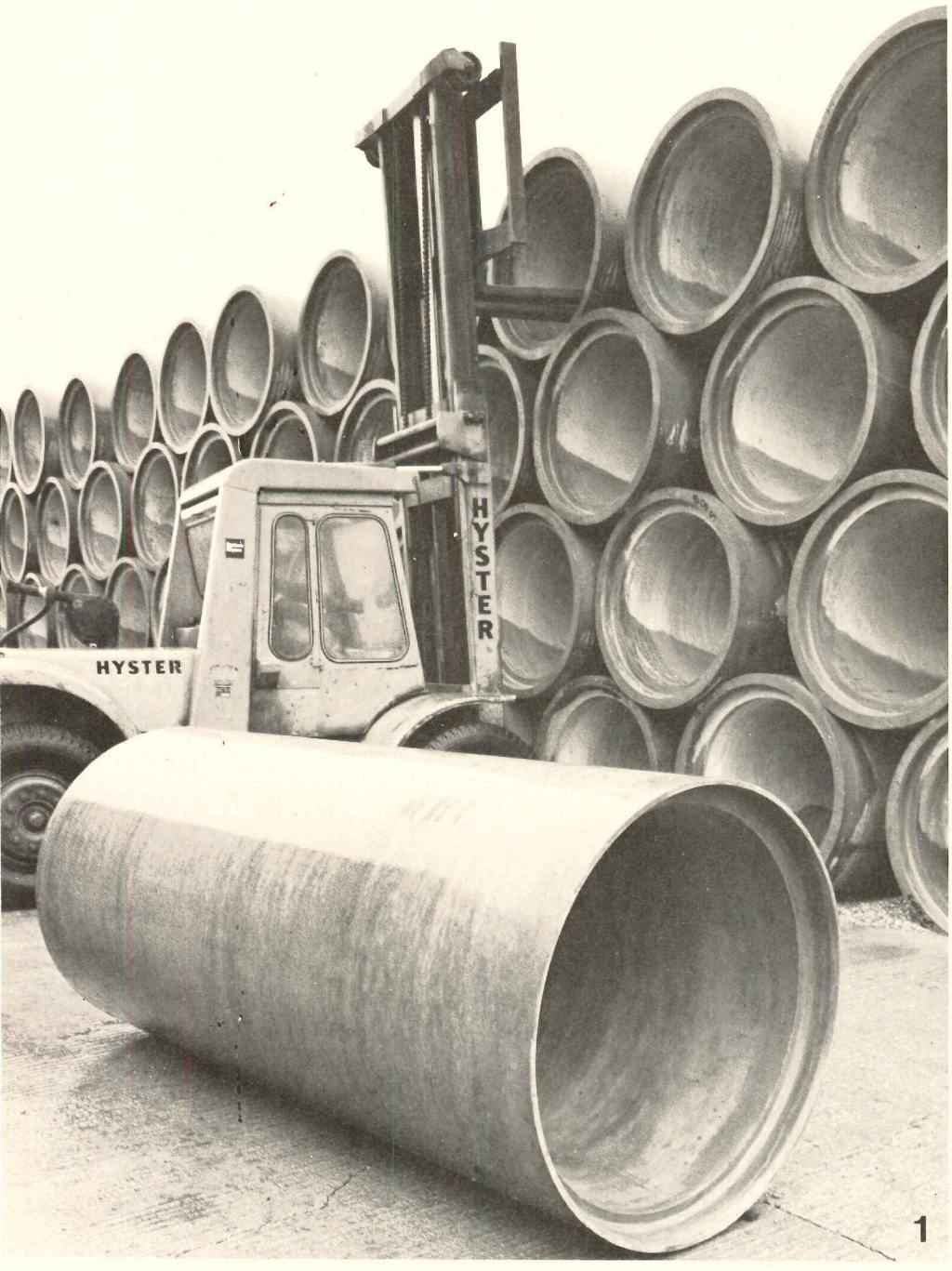

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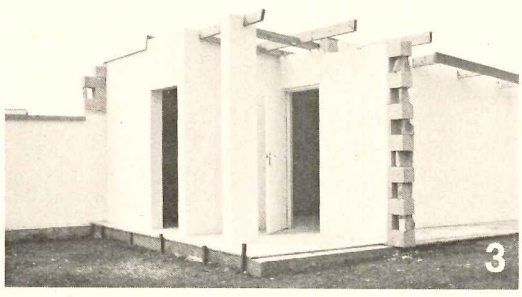
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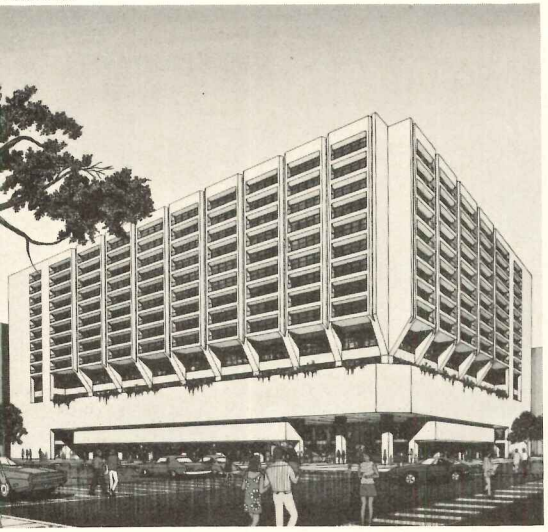
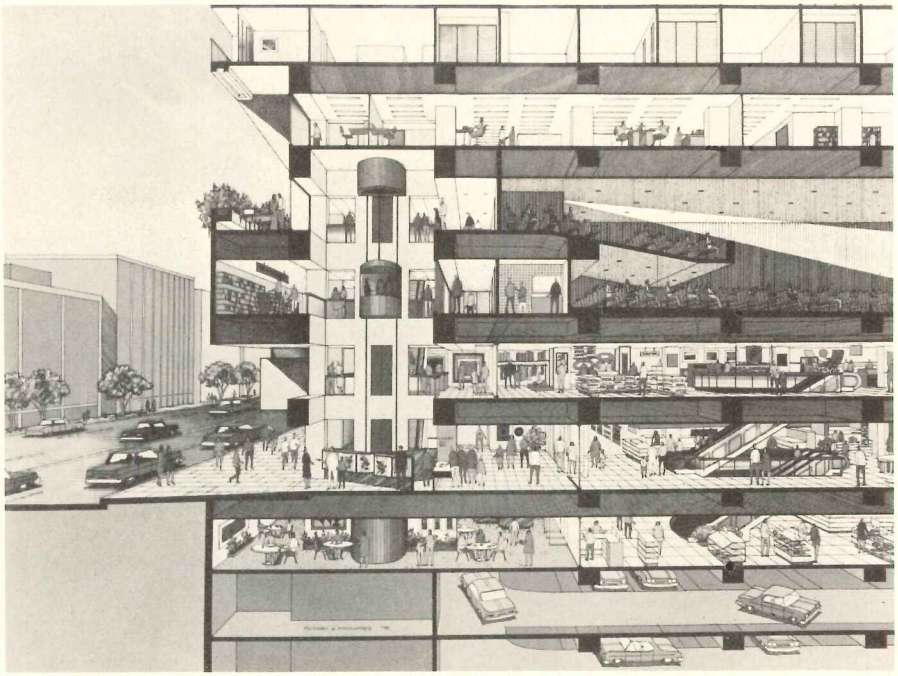


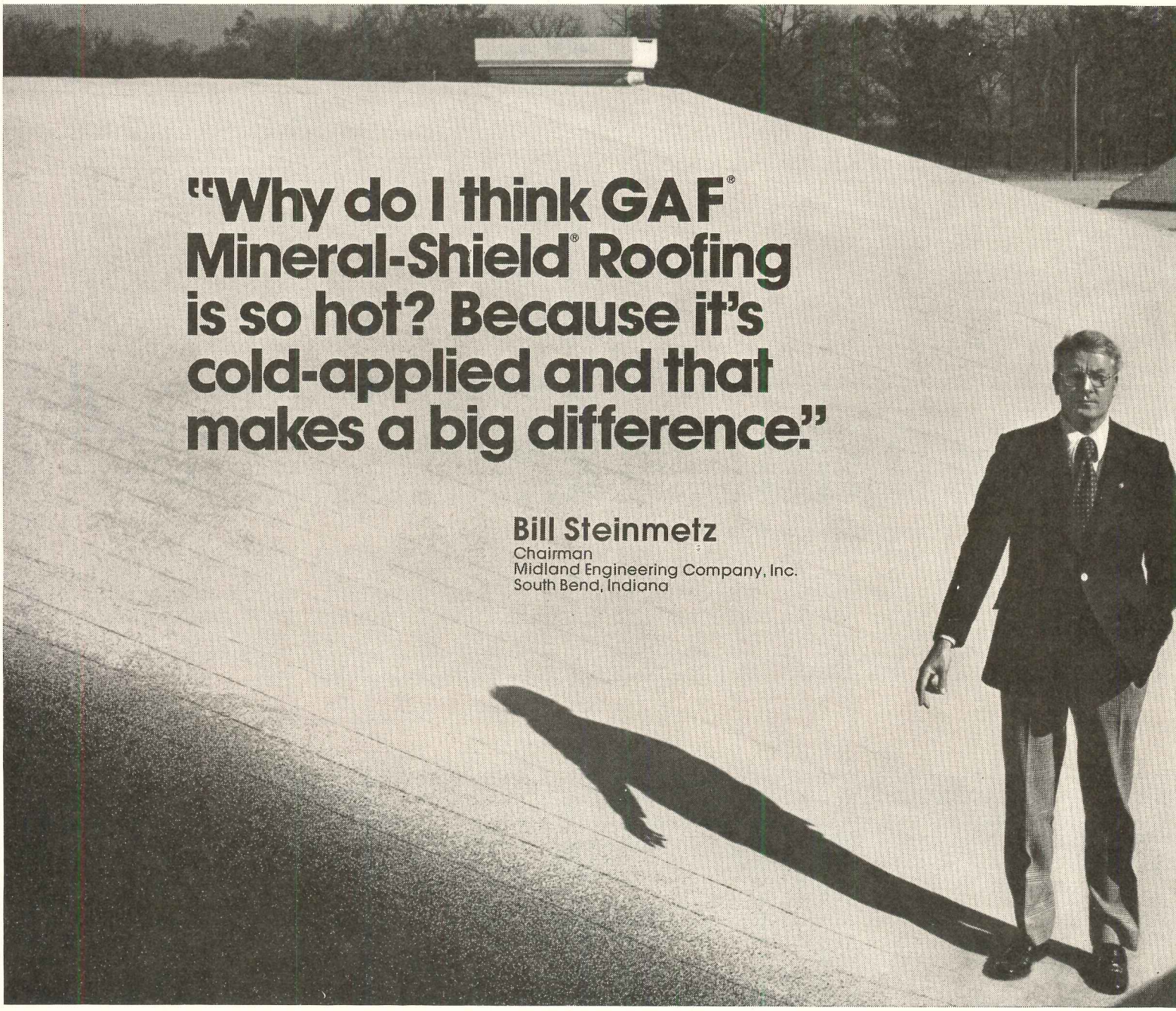


## use structure to go up in Taiwan's bustling capital city

burgeoning with new
s, will soon be getting
o-the-minute, multi-use
rcial and residential
x, designed by Y. H.
Associates. Served by
ain entrances (two end ones for apartments and the central one for commercial use), the L-shaped building will contain: 1) three basements, the two lower for parking and the top for a supermarket and bakeries; 2) four commercial floors, the lower two housing a department store and small shops and the upper two including an 800-seat cinema, a small music house and several restaurants and clubs; 3) an office floor for shop owners on the fifth level, and 4) ten upper floors of apartments. A four-story-high vertical lobby, with a glass elevator and a series of escalators, will interconnect the four activity floors. Due to the long span requirements of these lower levels, the structure changes at the fifth floor: supported by brackets at the exterior bay, the level is designed as a Vierendeel truss. The exterior is hand-chiseled exposed concrete.

## Joint Venture III designs new Hyatt complex

A new 500-room Hyatt Regency Hotel and two 16-story office buildings make-up the Merchants Plaza Complex, to be built in Indianapolis. Designed by Joint Venture III (Koetter, Tharp & Crowell; Caudill Rowlett Scott; Neuhaus + Taylor), the three buildings are juxtaposed diagonally, their walls creating a natural atrium that, glazed and roofed, will serve as the major entrance, in Hyatt's typical grand style, to all the complex. The lower three levels of the hotel are approximately one-half retail space, with small shops and restaurants on the ground floor. The skating rink shown at left has been deleted for financial reasons but will be replaced by a raised lobby bar. An escalator zigzags up the atrium space, carrying passengers to the second floor where they cross the atrium via a bridge and continue the ride to the next level. Another lobby bar, landscaped with live trees and plants, is located here. The complex contains 1,325,000 square feet.



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Chairman
Midland Engineering Company, Inc.
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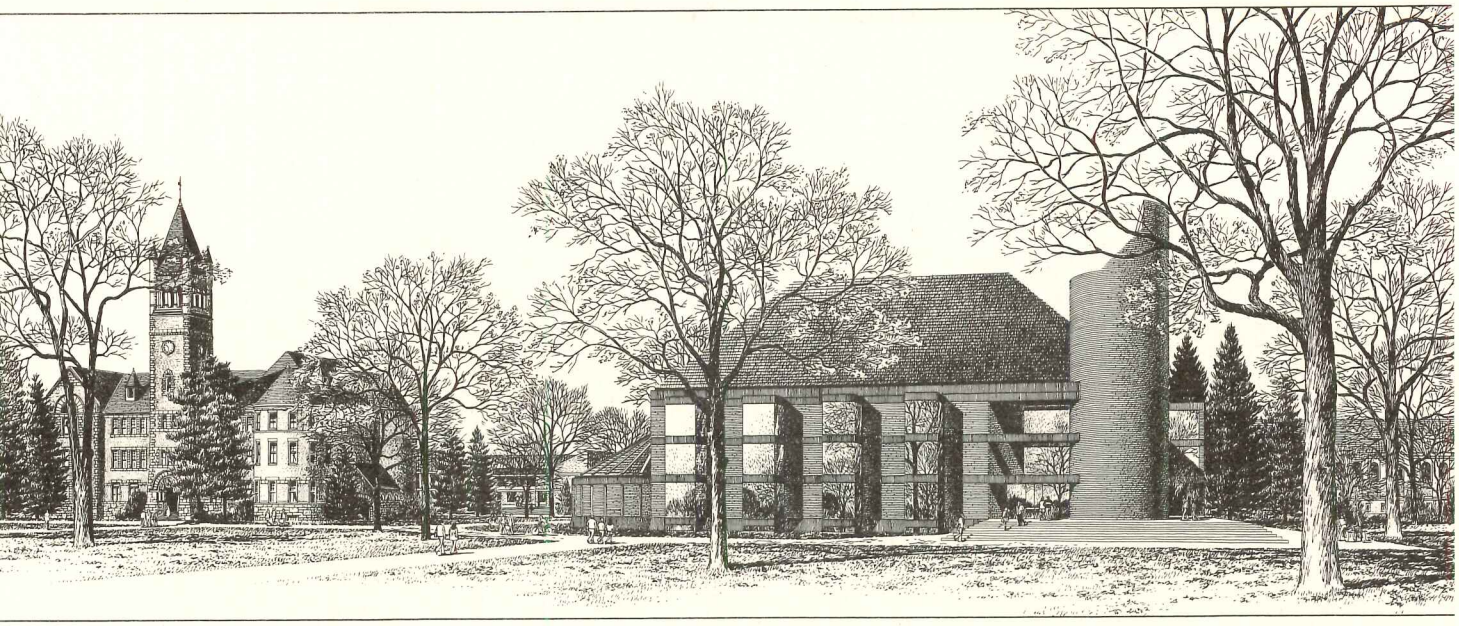


## burg campus to get new library by Jacobsen

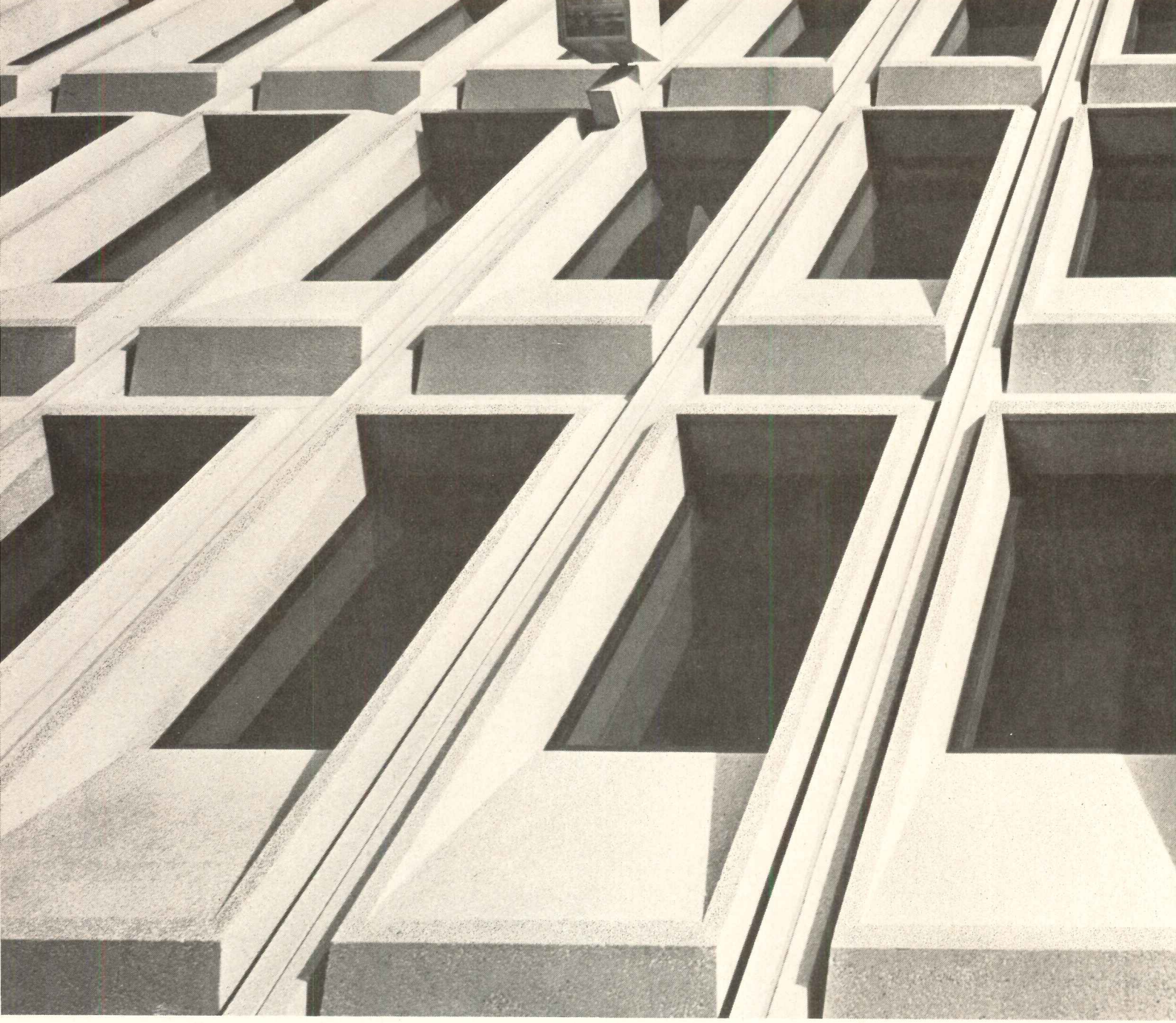
Gettysburg College in Pennsylvania has plans for a new centrally located library that, though contemporary, will harmonize with its early-nineteenth-century environs. Using pitched slate roofs, burgundy-colored brick, and broad, gently-pitched entry steps, architect Hugh Newell Jacobsen designed the building to blend with the campus' traditional character and scale. The interior design is open-plan, and includes tinted glass bays that provide broad vistas to surrounding lawns and buildings as well as a rhythmic facade.

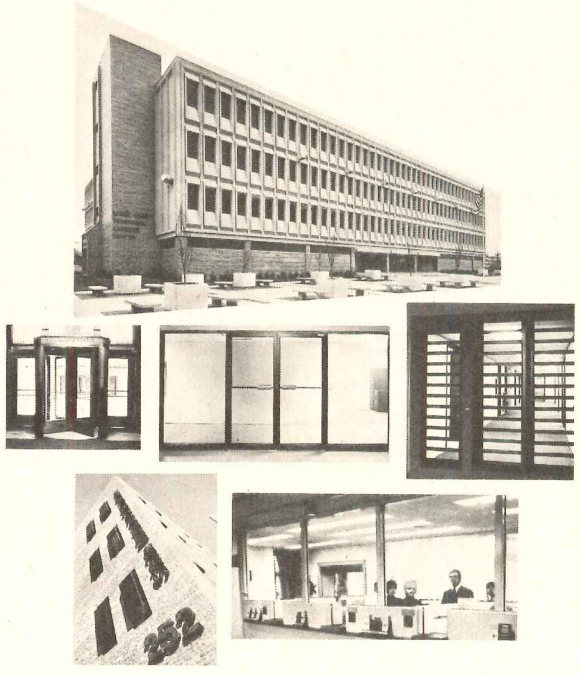
## lental center to be built in Rochester

w Eastman Dental Cen- relocated on a site ad- to the University of er Medical Center was d with an emphasis on -faceted exterior to re- interior functions. Ar- Richard Foster and Mi- orstl, in designing this that houses clinics, g facilities, and experi- laboratories, placed the intense use such as the n's section and audito- earest to the entrance. d walls, colors, con- temporary furniture, innovative lighting and foliage such as that in the center of the circular clinics diminish the traditional "medical" atmosphere. Other major clinics are also on the ground floor, with adult and staff facilities on the second floor. For the economy of locating mechanical services vertically, laboratories were placed on four smaller floors that form a tower over the lobby area. The angling and height of this tower makes it the focal point of the surroundings.

## Minneapolis bank gets an indoor "oasis"

This indoor tropical garden in Minneapolis, designed by Lawrence Halprin & Associates as a "year-round oasis," has replaced the 3½-story-high main banking floor of the old Federal Reserve Building. Located on what is now the second floor of the National Bank Building, the public Garden Court is accessible from outside via an elevated walkway. Replete with plants, waterfalls, and running brooks, the 500-sq-ft garden is completely dependent on artificial light. Design of the garden required demolishing the existing interior of the Reserve's lower floors. In addition, the bank's vault—3-ft-thick concrete reinforced with armor plates and steel bars—had to be cut through.





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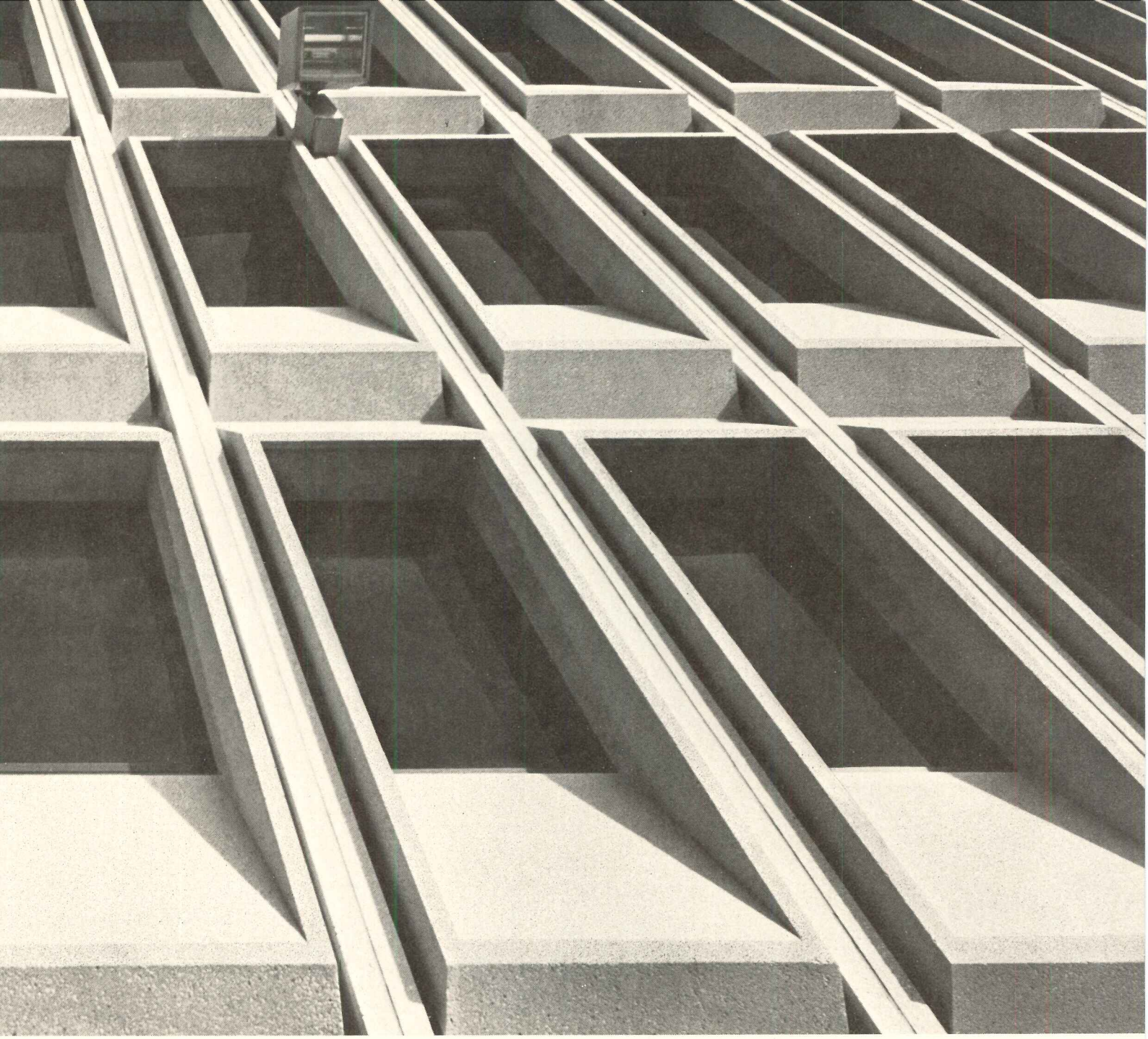

Essex County Technical Careers Center, Newark, N.J. Robert Moran, Architect

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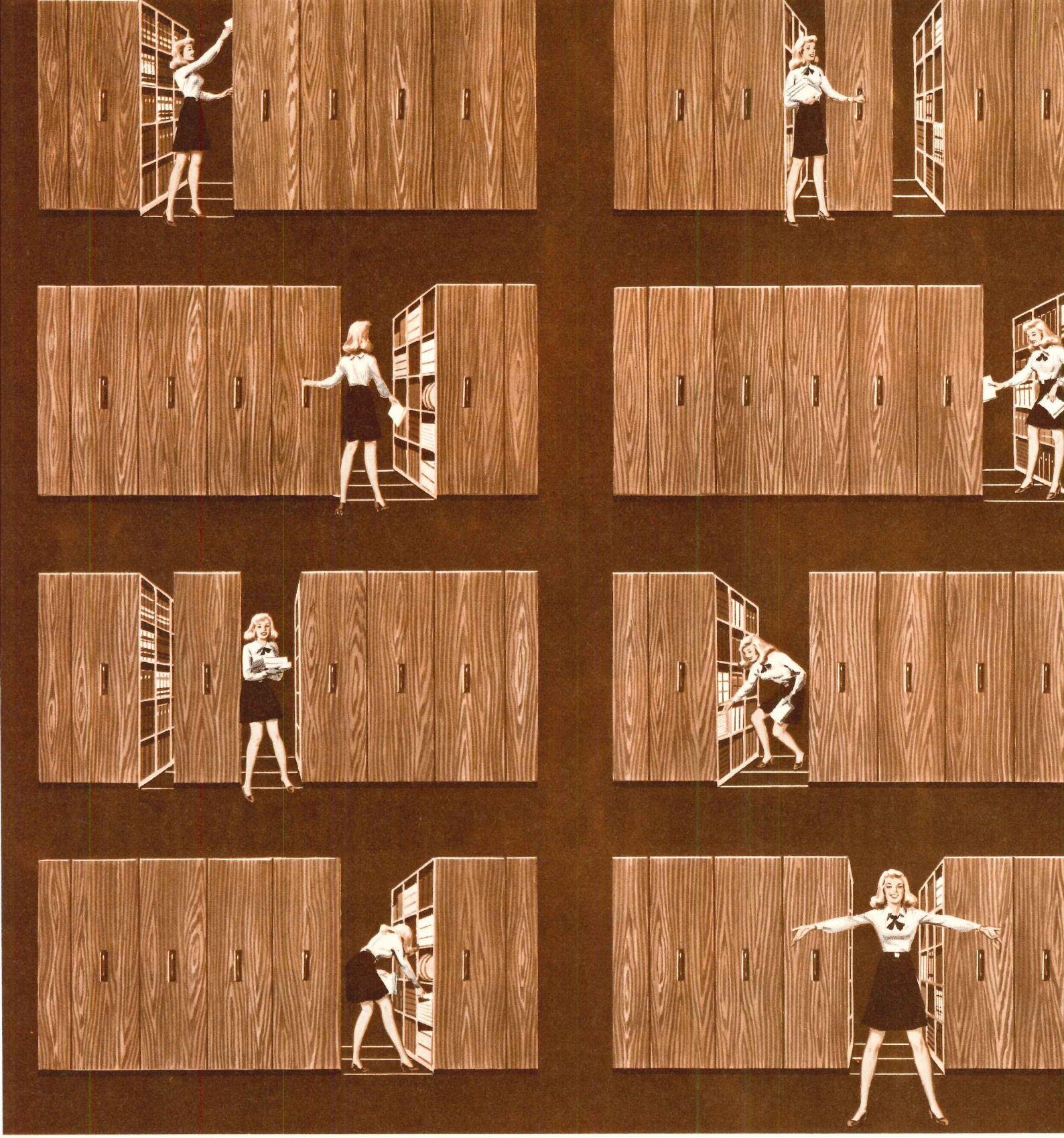

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## tale of two cities

*0 Years of Architecture in Chicago,* by Oswald W. ube, Peter C. Pran, and Franz Schulze; J. Philip Hara, Chicago, 1976, 191 pages, $17.50.

*cago Architects,* by Stuart Cohen, with an introtion by Stanley Tigerman; The Swallow Press, , Chicago, 1976, 120 pages, $6.95.

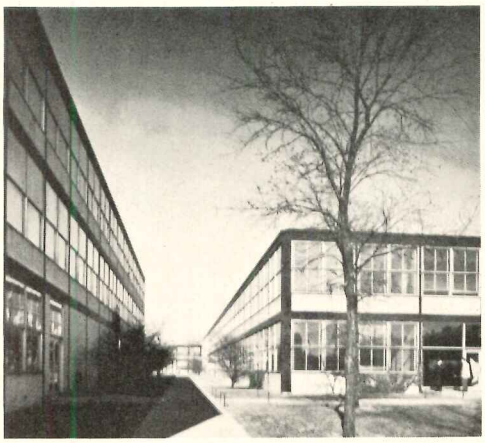
*iewed by Richard B. Oliver*

o recently published exhibition catalogs ch describe a rich architectural scene in a able American city. In each catalog, the city question is Chicago, although a reader ght swear he was reading about two entirely ferent cities. In fact, the reader is receiving o entirely different views of the same city, d two entirely different notions about what nstitutes an architectural scene, and what nstitutes architectural history.

During the last few years what was once ind of guerrilla warfare against the impregle bastions of modern architecture has exnded into a full-fledged civil war (though a r that often resembles a chic parlor game). modern architecture dead?," as a hotly deed issue, is the clear successor to that athless question of the 1960s, "Can our es survive?" Nowhere, to my mind, have battle lines and issues of this altogether ious architectural debate been made so id and so compelling as in these two books t describe the same one hundred years of hitectural development in the same Ameri- city.

*100 Years of Architecture in Chicago,* by ube, Pran, and Schulze, is a thoroughly ordox view of Chicago architecture. The book ludes a review of all the great monuments the First Chicago School (1871-World War -the Reliance and Monadnock Buildings, Auditorium Theater, the Rookery, the Marall Field Warehouse, and others—and okes the influence of Richardson, Jenney, livan, and Wright. There is a four-page ay on Chicago architecture between the rs. The remaining bulk of the book is deted to the work of the Second Chicago hool (1938-present), which is completely minated by the presence of Mies. There is a eat emphasis on the high-rise building (both ice and apartment), and the "great hall" or niversal space." The canonical Crown Hall d Lake Shore Apartments are included, ng with the Sears Tower, the John Hancock, d the towers and plazas along Dearborn Avue. The one unswerving criterion for inclun in this book is that the form of a building must result from structural clarity, and a direct expression of function.

"Miralago," by George Fred Keck (1929)


Illinois Institute of Technology, by Mies van der Rohe (1940-72)

*Chicago Architects,* by contrast, is the revisionist view of the "young Turks." The primary bias of author Stuart Cohen has been to include a number of notable and fascinating (and perhaps great) buildings not included in the orthodox histories of Chicago. Here are works not previously appreciated because they were built between the Columbian World Exposition in 1893, and the arrival of Mies in Chicago in 1938, a period of time in which Siegfried Gideon would have us believe that the only project of value was the Gropius and Meyer submission in the *Chicago Tribune* Competition. The book is amply illustrated with such examples as the eclectic architecture of Howard Van Doren Shaw; the avant-garde (and often Internationally-Styled) projects of George Fred Keck, such as his House of Tomorrow and Crystal House at the 1933 Century of Progress Exhibition; and the Art Deco and Streamlined splendors created by Holabird and Root. There are even buildings which are Miesian, but, ironically, not a single Chicago building by Mies himself is included.

The former book is unabashedly orthodox, complete with the jargon of a party-line gone stale. The book rides a fine line between being a dull rehash and a suave recap of what almost everybody already knows (anyone, that is, whose architectural history courses featured heavy doses of *Space, Time, and Architecture*). The latter book is nothing if not *au courant,* brimming with an energetic David and Goliath air of having pulled off a coup, full of a Lewis and Clark sense of having discovered a whole new collection of *objets trouvés.* To say, however, that one book represents the "bad old guys," and the other the "good new guys" would be misleading and altogether inappropriate.

*100 Years* and *Chicago Architects* are, in fact, strongly complementary, and the chance to see one against the other is very provocative. *100 Years* sees architectural history as a Gideonesque revelation of a single primary line of development with individual examples included or excluded as a function of how well each supports the theory. *Chicago Architects* subscribes, instead, to the E. M. Forster view of history as a series of messes, and seeks to include a diverse set of works without much urge to weave a consistent tale. The former book views the Chicago scene as one characterized by a brilliant singularity of direction. The latter book views the brilliance of the scene in terms of its resonant and often crazy diversity.

Each book is curiously incomplete. What is missing from each book is most easily found in the other—two books co-existing and interdependent, like yin and yang (or a horse and carriage). Even members of the two casts of characters appear in both books. Especially fascinating is Walter Netsch, who in *100 Years* is solidly in the classicizing Second Chicago School, while in *Chicago Architects,* he appears as one of a band of eccentric romantics. Or Charles Atwood, who designed the Reliance Building in 1894, surely a seminal building in Gideon's theory, but who a year earlier designed the neoclassical Hall of Fine Arts for the Chicago Fair, a building regarded by Augustus Saint-Gaudens as the finest since the Parthenon.

Although the two books do not, in my opinion, represent "bad-guy/good-guy" positions, the books are not of equal quality. *100 Years* suffers from just plain smugness—from the tone of the text, to the steel gray and black cover, to the price tag—and from the lack of a fresh approach to familiar material. By contrast, *Chicago Architects* is so full of wonderful new material that one can ignore, and even sympathize with, an underlying tone of indignance and impatience (and even despair that Gideon will ever be routed) that pervades Cohen's very scholarly and meticulously researched essay.

hard B. Oliver is an architect who practices in New York.

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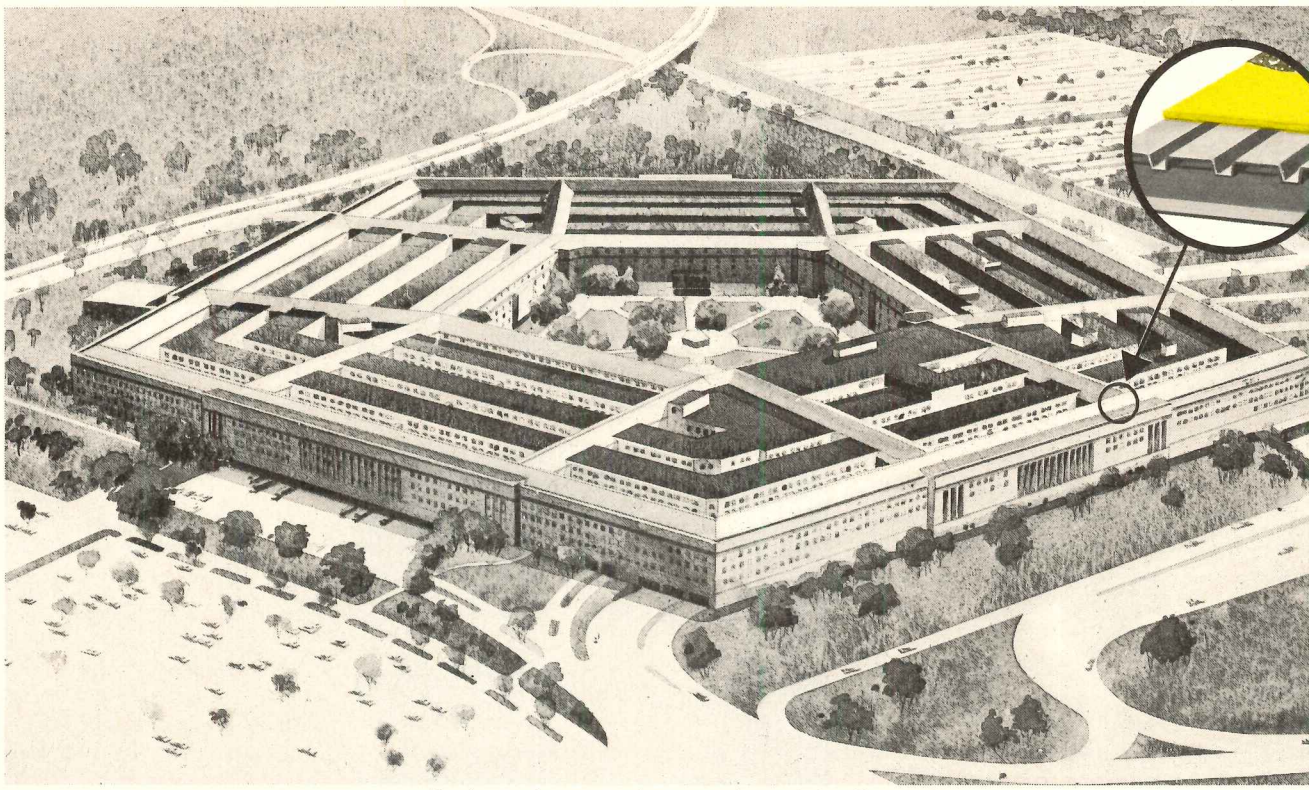

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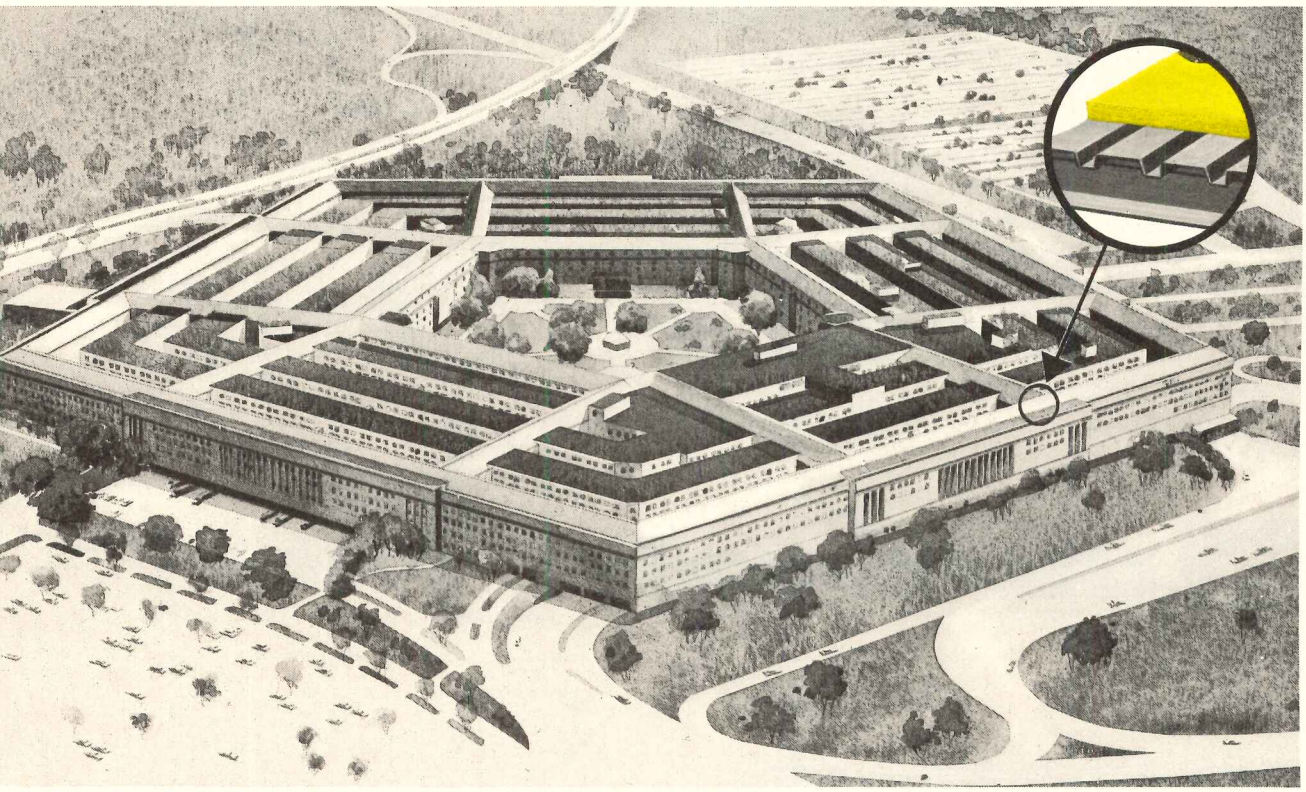

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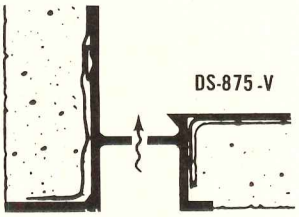


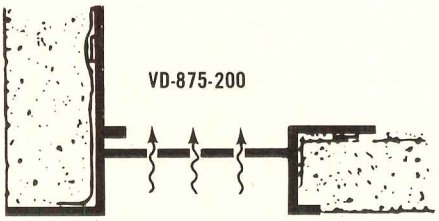


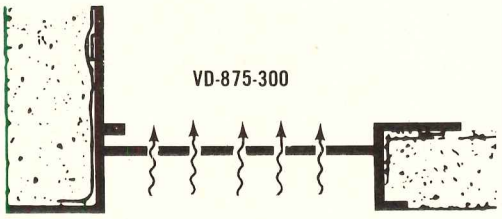


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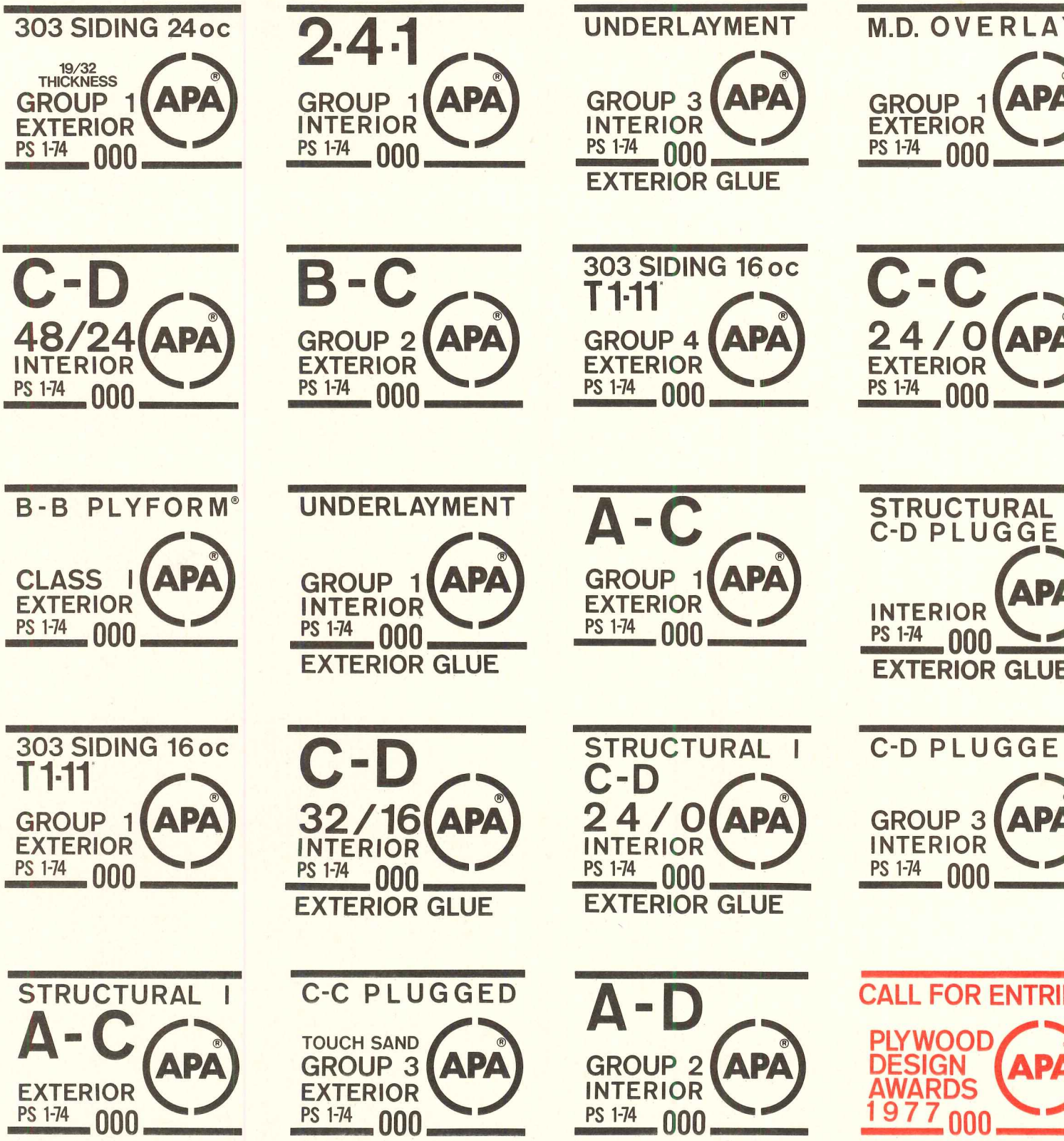


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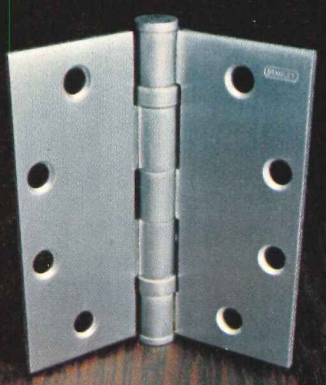

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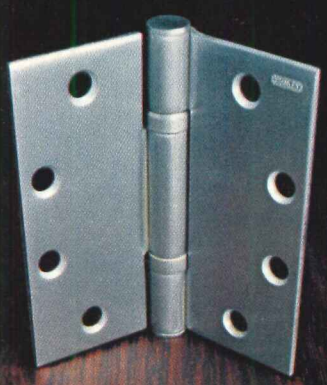

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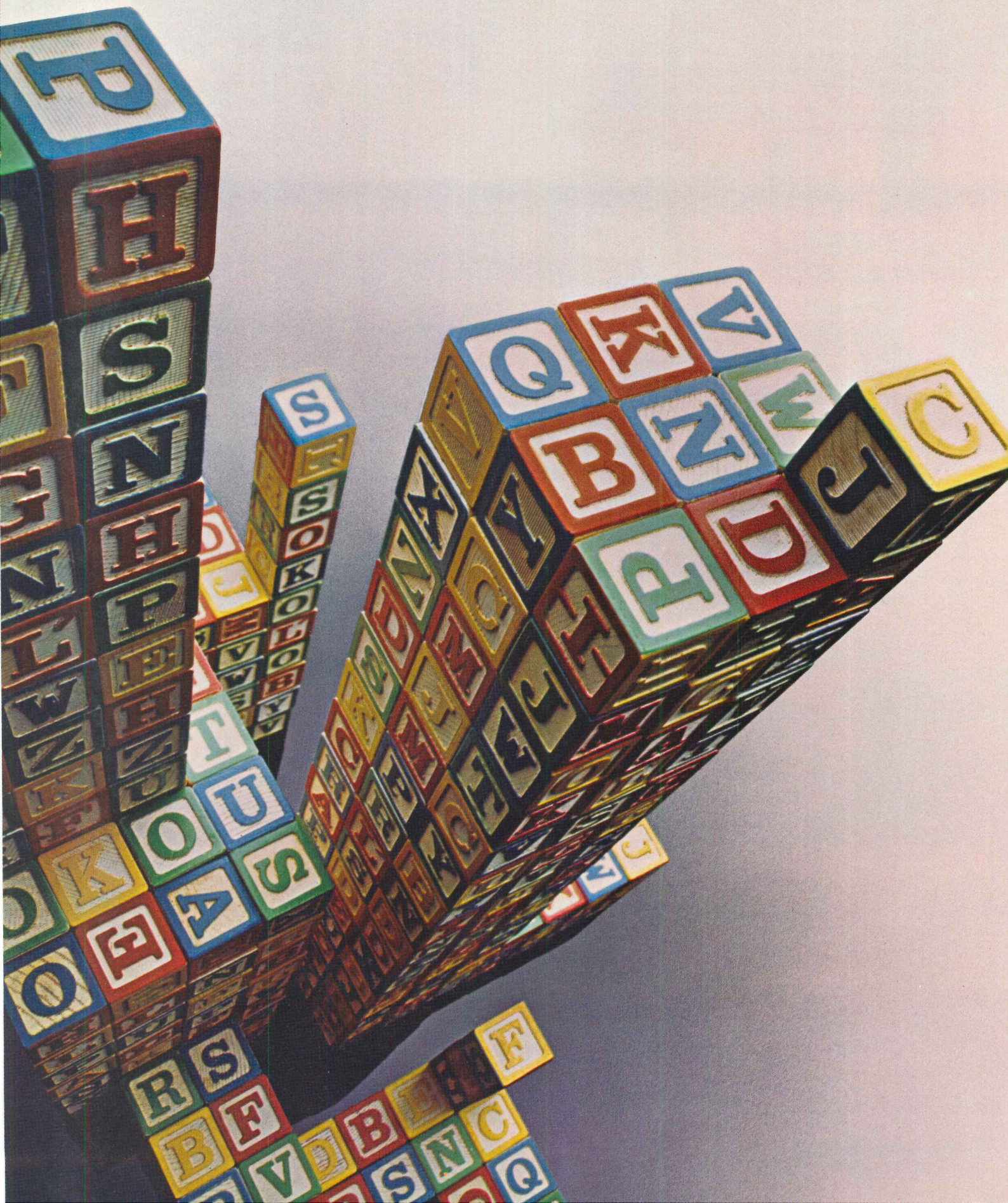

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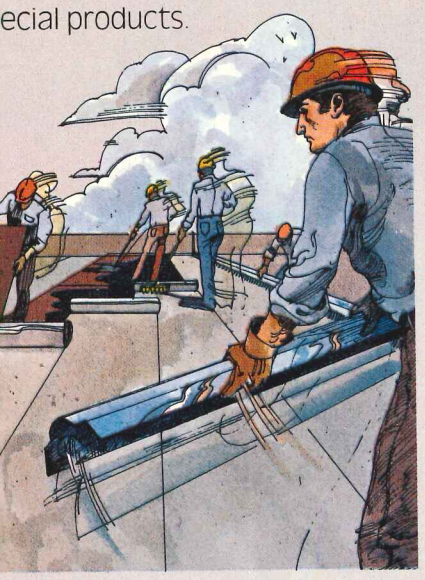

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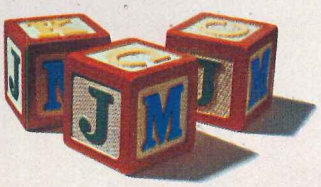


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Installing the curtainwall system in your building oes a lot more than just save you money, it also turns building into an attractive, modern structure. PBS-83 will accommodate one inch glazing through the se of standard sections and has a two and one-half nch mullion width for monumental appearance. Not nly does this system provide the architect with omplete design freedom, but it is also easy to install.

Designed specifically for high-rise applications, BS-383 uses snap-on glazing beads at the interior horizontals to provide a system that may be either interior or exterior glazed, depending on building design and job conditions.

Attractive, both money and energy saving, easy to install, and above all — an efficient thermal weather barrier, Amarlite's PBS-383 can put the "spring" back into the life of your building.

For further details about our full line of energy conserving products contact AMARLITE/ANACONDA, P.O. Box 1719, Atlanta, Georgia 30301.

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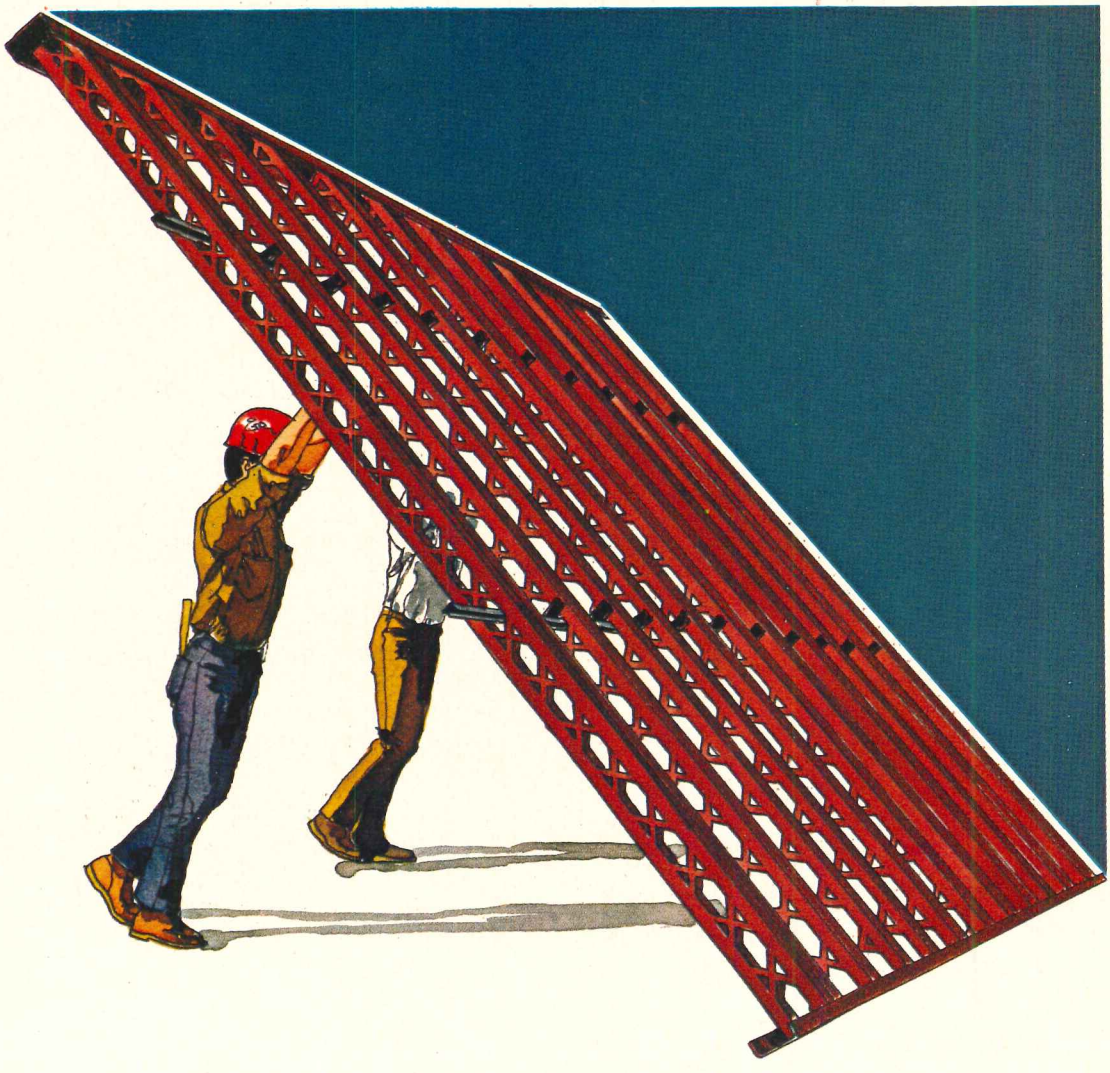
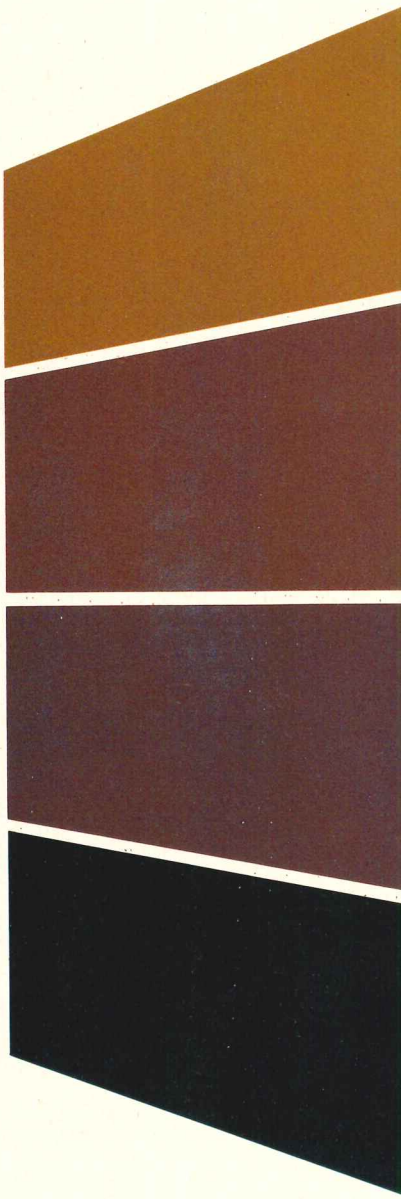
Just about any surfacing material may be used with it Interiors may be drywall, plaster over metal lath or gypsum lath, wood paneling, etc. Exteriors may have cementitious membranes—textured stucco, exposed





gregate, simulated brick or stone—or may be brick neer, metal panels, textured plywood or any other eet material.

e savings it offers may be the result of any one or a mbination of factors: easier execution of intricate signs; lower in-place cost; faster erection; reduced ndation and footings requirements because of t weight; insurance savings through incombustible ngs. Some or all of these led to its selection for use ne varied buildings shown in the accompanying otos—a small representative selection of recent yco/Milcor projects.

erever your design emphasis is concentrated—h rise or low rise; commercial, institutional or idential—Inryco/Milcor Light Gage Steel Framing stems might well provide the perfect solution to a budget problem. See our catalog in Sweet's, section 5.3/In. Or, if you'd like our representative to call and discuss how the advantages of these systems may apply to a project you are planning, please contact: Milcor Division; INRYCO, Inc.; Dept. J, 4033 West Burnham St.; P.O. Box 393; Milwaukee, WI 53201.

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One of them, that a lot of architects have depended on for years, is a Halsey Taylor water cooler.

**Exclusive design features**

It's no accident that our coolers deliver years of reliable service with very little maintenance. We've designed a lot of extras into them. Such as our exclusive automatic regulating valve that maintains a constant stream height regardless of varying line pressures; heavy-duty start capacitors that assure compressor start-up, everytime; and our efficient pre-cooler that boosts cooling capacity by 60 percent.

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Each of our welded unitized cabinets is topped by a buffed stainless steel receptor and Halsey Taylor's unique anti-squirt twin-stream bubbler. To harmonize with virtually any interior, we offer cabinets in satin finish stainless steel, PATINA bronze tone stainless, eight different Polychrome colors and a choice of vinyl clad steels. We also offer the widest selection of water coolers in the industry.

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# How-to" books that belong in the A/E's management library

/ Bradford Perkins, Llewelyn-Davies Associates

URRENT TECHNIQUES IN ARCHITECTURAL RACTICE, *Robert Allan Class, AIA and Robert E. oehler, Hon. AIA, editors; The American Institute of chitects and Architectural Record, New York, 976, 275 pages, illustrations, $25.00.*

OW TO PREPARE PROFESSIONAL DESIGN BRO-HURES, *by Gerre Jones, McGraw-Hill Book Com-ny, New York, 1976, 277 pages, illustrations, 6.50.*

vo important books have recently been lded to the rapidly growing library of man-gement literature for design professionals. ch attempts to fill a real gap in the current erature, and each partially succeeds.

My initial review of *Current Techniques in rchitectural Practice* was made as one of the structors responsible for the management ourse at City College of New York's College Architecture. No satisfactory general text xists, and my colleagues and I all wondered this book would meet our needs. Our view a qualified "yes."

The book has chapters on 20 topics di-ded into four categories with rather general les: Organization and Delivery, Business anagement, Project Management, and Man-gement and Production Tools. Within these tegories there are chapters—each by a fferent author—on such topics as: "The Pro-ssional Organization," "The Client," "Finan-al Management," "Construction Cost Con-ol," "Office Machines," "Drawings," Specifications," and "Trends in Architectural ractice." Individual authors are: David R. ibner, Philip J. Meathe, Harold L. Adams, acDonald Becket, Peter Piven, David M. owen, Bernard B. Rothschild, Richard G. Jac-ues, Charles R. Sikes Jr., Herbert McLaughlin, mes Y. Robinson Jr., Peyton E. Kirven, arold J. Rosen, Robert F. Mattox, Jack D. rain, James J. O'Brien, Ned H. Abrams, and aul Heineman.

Because it is a loosely edited anthology of 0 authors' views on 20 related topics, the ook suffers from the common problems of uch books: inconsistent writing styles, skills, ewpoints and levels of detail; redundancy; nd occasional detours from the central theme. hese problems are mitigated somewhat be-ause most of the authors are well-qualified to rite on their assigned topics. But because it is compendium it is necessary to review the haracteristics of the parts as well as the hole:

1. It has a number of excellent chapters, which are major contributions to the available literature, such as Bernard Rothschild's chapter on "Insurance Management" and David Bowen's on "Personnel Management." Unfortunately many others, including the ones on the client and computing, are disappointing given the authors' recognized knowledge.

2. There is a great disparity in viewpoints and level of detail. Some chapters such as the ones on personnel insurance and financial matters would be of interest to the practicing professional while others such as the ones on codes, project delivery, and project management seemed to be written for laymen.

3. The traditional complaint about most management literature that it is big-firm oriented can probably be applied to this book as well. Parts of the book are relevant to any design professional, but many of the specific techniques are not. No real effort is made to deal with the specific issues facing the average-size (10 people) architectural firms.

4. The book also tends to proselytize for the AIA in a few areas. The chapter on construction cost control references the AIA's theories on cost information, and several other chapters refer to the AIA financial management system. The AIA has made some contribution in both areas, but far better references exist.

5. The book is missing some important material. As a whole, it barely deals with such topics as legal methods of compensation, managing consultants, managing growth and change, and starting a new office.

In spite of these flaws, however, this is a good book. It certainly does not justify the flyleaf's accolade that "This book will doubtless emerge as *the* critical tool for managing an architectural practice in the '70s." It is, however, a useful addition to the literature relevant to both students and the practicing professional.

**And about those brochures**

McGraw-Hill has recently published the second in Gerre Jones' series of marketing texts. As with his book *How to Market Professional Design Services, How to Prepare Professional Design Brochures* is clearly the effort of a person who knows his subject, has a point to make, and writes well. But, as was also the case with his first book, this book is not the final word on the subject.

Before noting some of the flaws, I should state three basic facts concerning this book:

1. The subject is important to any firm's marketing effort. The book includes the results of a survey that a large number of project interview lists are made up from brochures, and a good brochure will have an influence on whether one makes the list.

2. Most firms prepare mediocre brochures. In spite of the fact that most recipients look upon brochures as repesentative of a firm's best effort, according to the author, most brochures are badly done. A client survey gave the architect/engineer brochures reviewed an average score of 4.2 on a scale of 10.

3. This book is well worth buying and reading. Not only is it a small investment to make to help improve the result and reduce the effort to achieve better results, but it is also the only text on this subject directly relevant to the design professions.

The book deals in exhaustive detail with the mechanics of brochure preparation. What is curious, however, is that the depth in the discussion of mechanics is not matched with a similar depth in what makes a good or a bad brochure. For example, there is a whole chapter on writing styles, but the examples used are almost entirely drawn from entertaining but irrelevant publications. Throughout the book the actual subject—the design professional's brochure—is only infrequently used as the source of illustrations. Because of the shortage of brochure examples and discussion of specific design firms' brochure experience, I found less than I had hoped in the topics that mattered the most to me, such as:

1. "What can we do for $2000, for $3000, for $10,000?"

2. "How do I present my experience in such a way that it is relevant to the maximum number of clients?"

3. "How do I relate my brochure to my over-all marketing effort?"

Nevertheless, this book does give solid answers to such questions as:

1. "What are the tasks that must be accomplished in producing a brochure?"

2. "What major decisions must be made during each step?"

3. "What technical aids are available in achieving the desired result?"

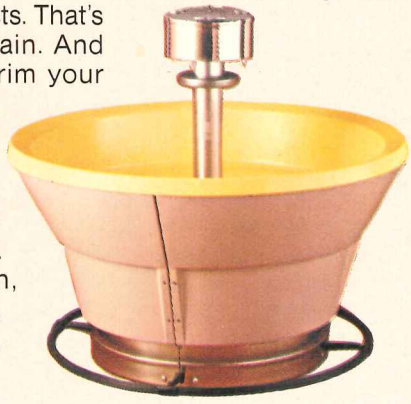
These and many more questions are well handled. Hopefully, though, enough people will buy this book to permit Mr. Jones to expand it in future editions so that it reflects more of his extensive personal and consulting experience with the specifics of design professionals' brochures.

# Construction costs. The Battle of the Bulge.

Time. Labor. Materials. The high cost diet that'll bulge a construction budget. Trimming that costly bulge in washroom construction is the beginning of Bradley Washfountain savings.

Bradley Washfountains save time with rapid delivery for remodeling and fast track schedules. Only 3 plumbing connections to provide washing capacity for 2 to 8 people. Uncomplicated, fast installation that cuts the high cost of labor. And a Bradley equipped washroom has lower component and material costs than a lav-equipped washroom with the same capacity. It all adds up to a total savings of 46% to 73% on construction costs. Plus reducing the amount of space needed for washing facilities by an average of 25%.

Increasing washroom efficiency and decreasing washroom construction costs. That's a Bradley Washfountain. And that's how you can trim your construction costs. By contacting your local Bradley representative. Or write for more information on the complete Bradley line. Bradley Corporation, 9107 Fountain Blvd., Menomonee Falls, Wisconsin 53051.



**Bradley** BRADLEY **Cuts down on costs.**

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# ome pertinent reminders on contracts

*Charles D. Maurer, Jr.*

ommon pitfall of design professionals is r failure to reduce to writing the agree- ts they have reached with their clients, n on those smaller construction jobs (under 0,000).

Of course, a well-written contract pro- s a clear definition of the responsibilities relationships of the parties. For instance, ss unequivocally defined in writing, the gn professional and the client may have pletely different opinions concerning ther the design professional is a guarantor is work. Clearly, the design professional in- ls no such guarantee, as he recognizes the ts of his ability and the state of his art. Nev- eless, the client may assume such a guar- ee, even to the extent of seeking to establish court of law that such a guarantee exists.

Naturally, allocating responsibilities of ies is also more clearly accomplished in a tten contract than in an oral one. The par- can expressly delineate who will bear the onsibility for loss or destruction of material ng construction; who will be responsible job site safety and supervision. In the ab- ce of a written contract, the law may allo- these responsibilities in a variety of ways, y of which could be detrimental to the de- professional.

**e law requires written contracts**

tain types of contracts are required to be in ing by state law. The law imposing this re- ement, like that of its English counterpart, alled a Statute of Frauds because its pur- e is, obviously, to prevent fraud. The Stat- of Frauds varies among states, however, cal contracts required to be in writing by Statute in virtually all states are: 1) con- ts which cannot be performed in one year ontracts for the sale of land, and 3) con- ts for the sale of goods in excess of $500. ough the design professional does not gen- ly contract for the sale of land or goods, his ices might well be incapable of comple- within one year, thereby necessitating a tten contract. Reference should be made to applicable state law to determine which tracts are required to be in writing. Con- ts which do not comply with the Statute of uds are void or unenforceable, and a void unenforceable contract may leave the de- professional without a remedy for collect- his fee.

**Obtaining payment from an estate**

A second type of statute which may prevent a design professional from collecting his fee, is called a Dead Man's Statute. This type of statute prevents parties in an action against a decedent's estate from testifying concerning transactions with the deceased person. Simply stated, the death of a client can prevent proof of the oral agreement with him, and thereby deny the design professional compensation for his services from the decedent's estate. A written contract will help eliminate this risk.

Another general rule of law pertinent to written contracts is the Parole Evidence Rule. The purpose of this law is to lend stability and finality to a written contract, which the parties intend to be the final, complete, integration of all their negotiations. Once a court is satisfied the parties had such a final, complete, written contract, it will not consider any other evidence of prior or contemporaneous agreements or negotiations, which would alter or vary the terms of the written contract.

This rule alone should compel the design professional to seek a comprehensive written contract. It is important to recognize, however, that many jurisdictions will allow extrinsic evidence to prove a contract was not intended to be a complete integration of the parties' agreement. To protect against this circumvention of the Parole Evidence Rule, the parties should include a clause stating the written contract is the complete expression of the agreement.

**Know who may legally sign**

Since the legal status of a contracting party is important to the validity and enforceability of the contract, a written agreement is preferred to an oral agreement. Whether a contracting party is an individual, minor, corporation, public agency or married person affects the entire complexion of the contract, including its validity and enforceability.

Public agencies and corporations are limited by legislation and articles of incorporation to contract for certain purposes. Contracts beyond those purposes may be unenforceable. Additionally, the persons signing the contract on behalf of the agency or corporation must have the power to bind that entity if the contract is to be enforceable.

For instance, if a contract names Ajax Investors as owner and John Doe signs as owner, the design professional should ascertain the legal status of both before signing himself. Here, it is unclear whether Ajax is a sole proprietorship, partnership or corporation. It is also not clear if Ajax has the power (if Ajax is a corporation) to enter into the contract. Lastly, it is not clear if John Doe has the authority and power to bind Ajax. An express provision in a written contract stating the legal status and authority of the parties to enter into the contract reduces the likelihood of a successful attack upon the enforceability of the contract.

A court faced with enforcement of a contract has much less difficulty interpreting a written, as opposed to an oral, contract because its terms are physically before the court, rather than lodged in testimony and bits of evidence through which the court will have to search for the elements of the agreement. Standard form contracts (e.g. AIA, NSPE, ACEC) increase the ease with which a written contract can be enforced because the language of such contracts has acquired special definition within the profession through widespread use. This aspect of standard form contracts is especially helpful in the event contract rights are assigned or duties delegated.

**Written contracts reduce financial risk**

One of the most often overlooked advantages of reducing a contract to writing is the opportunity afforded the design professional to advance his own interests by incorporating specific safeguards against his own financial exposure. Such safeguards might include liquidated damages provisions, provisions holding the design professional harmless from liability (e.g. provisions holding one design professional harmless from liability arising out of the professional acts, errors or omissions of a joint venturer) and provisions limiting the design professional's liability. Although such provisions may be subject to attack as offending public policy, their value does not depend solely on their enforceability. More importantly, the negotiations attendant to the inclusion of such provisions provide a clear understanding of the design professional's capabilities and erase unreasonable expectations which might otherwise have been the basis of a lawsuit.

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Mr. Maurer is an attorney admitted to the practice in California, Washington and Arizona. He is associated with Risk Analysis & Research Corporation in San Francisco, which counsels architects and engineers on professional liability.


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### ding type: fire stations

| ng systems | Average $/SF | Average %TOT | High average $/SF | High average %TOT |
|---|---|---|---|---|
| ations | $ 1.78 | 4.7 | $ 1.88 | 4.5 |
| ucture | 1.03 | 2.7 | 1.09 | 2.6 |
| structure | 5.07 | 13.4 | 5.36 | 12.7 |
| or closure | 7.88 | 20.9 | 9.08 | 21.6 |
| ng | 0.85 | 2.3 | 0.89 | 2.1 |
| ons | 2.24 | 5.9 | 2.68 | 6.4 |
| inishes | 1.29 | 3.4 | 1.56 | 3.7 |
| finishes | 1.22 | 3.2 | 1.46 | 3.5 |
| g finishes | 1.03 | 2.7 | 1.24 | 2.9 |
| lties | 1.65 | 4.4 | 1.74 | 4.1 |
| eying systems | 0.23 | 0.6 | 0.24 | 0.6 |
| oing | 1.51 | 4.0 | 1.68 | 4.0 |
| rotection | 0.19 | 0.5 | 0.21 | 0.5 |
| | 4.16 | 11.0 | 4.62 | 11.0 |
| ical | 4.66 | 12.3 | 5.18 | 12.3 |
| ral conditions | 2.19 | 5.8 | 2.31 | 5.5 |
| uilding cost | 36.98 | 97.9 | 41.22 | 97.9 |
| ment | 0.79 | 2.1 | 0.87 | 2.1 |
| building cost | 37.77 | 100% | 42.09 | 100% |
| ork | 2.21 | 5.9 | 2.44 | 5.8 |
| ruction cost | $39.98 | | $44.53 | |

### ding type: court houses

| | | | | |
|---|---|---|---|---|
| ations | $ 3.28 | 5.8 | $ 3.47 | 5.5 |
| ucture | 0.73 | 1.3 | 0.77 | 1.2 |
| structure | 4.32 | 7.7 | 4.56 | 7.2 |
| or closure | 13.11 | 23.4 | 15.18 | 24.0 |
| ng | 1.14 | 2.0 | 1.20 | 1.9 |
| ons | 3.83 | 6.8 | 4.57 | 7.2 |
| inishes | 6.10 | 10.9 | 7.19 | 11.4 |
| finishes | 2.85 | 5.1 | 3.42 | 5.4 |
| g finishes | 1.34 | 2.4 | 1.61 | 2.5 |
| lties | 0.27 | 0.5 | 0.29 | 0.5 |
| eying systems | 2.03 | 3.6 | 2.14 | 3.4 |
| oing | 1.26 | 2.2 | 1.40 | 2.2 |
| rotection | 0.09 | 0.2 | 0.10 | 0.2 |
| | 4.28 | 7.6 | 4.72 | 7.5 |
| cal | 3.30 | 5.9 | 3.66 | 5.8 |
| ral conditions | 3.00 | 5.3 | 3.17 | 5.0 |
| uilding cost | 50.93 | 90.8 | 57.45 | 90.9 |

### INDEXES: September 1976

1941=100.00 (except as noted)

| Metropolitan area | Cost differential | Current Indexes non-res. | residential | masonry | steel | % change last 12 months |
|---|---|---|---|---|---|---|
| U.S. Average | 8.5 | 540.1 | 507.4 | 533.6 | 519.9 | + 9.1 |
| Atlanta | 7.5 | 612.9 | 578.0 | 605.8 | 594.2 | + 3.2 |
| Baltimore | 8.5 | 623.2 | 586.0 | 611.5 | 597.2 | +13.1 |
| Birmingham | 7.3 | 477.1 | 443.8 | 464.4 | 457.9 | + 6.7 |
| Boston | 9.0 | 545.7 | 515.7 | 552.7 | 531.3 | +10.6 |
| Buffalo | 9.1 | 579.6 | 543.4 | 570.6 | 553.8 | + 6.5 |
| Chicago | 8.3 | 571.2 | 543.2 | 552.9 | 545.0 | + 3.9 |
| Cincinnati | 8.8 | 613.8 | 577.7 | 603.5 | 588.2 | +16.3 |
| Cleveland | 9.0 | 589.9 | 555.1 | 580.1 | 563.2 | +12.0 |
| Columbus, Ohio | 8.2 | 525.9 | 494.0 | 522.4 | 506.4 | + 3.2 |
| Dallas | 7.9 | 513.7 | 501.5 | 507.1 | 495.9 | + 3.6 |
| Denver | 8.4 | 589.8 | 554.9 | 585.0 | 572.0 | + 9.4 |
| Detroit | 9.8 | 625.0 | 596.0 | 634.4 | 610.1 | +10.9 |
| Houston | 7.4 | 508.2 | 477.3 | 497.1 | 488.3 | +11.6 |
| Indianapolis | 7.8 | 482.7 | 454.4 | 475.2 | 464.8 | + 8.2 |
| Kansas City | 8.7 | 533.6 | 504.3 | 525.5 | 511.3 | + 8.8 |
| Los Angeles | 8.5 | 615.4 | 562.7 | 599.7 | 585.9 | + 9.5 |
| Louisville | 7.6 | 514.7 | 483.4 | 502.7 | 492.9 | + 6.9 |
| Memphis | 8.4 | 547.9 | 514.5 | 529.6 | 518.4 | + 7.5 |
| Miami | 7.9 | 598.2 | 570.0 | 596.2 | 587.4 | +17.6 |
| Milwaukee | 8.7 | 619.6 | 581.9 | 615.1 | 594.4 | + 9.5 |
| Minneapolis | 8.9 | 557.4 | 524.5 | 550.5 | 537.7 | + 6.7 |
| Newark | 9.0 | 501.7 | 471.2 | 498.6 | 485.5 | + 2.5 |
| New Orleans | 7.5 | 532.6 | 502.8 | 524.4 | 512.6 | +12.7 |
| New York | 10.0 | 554.8 | 516.0 | 545.1 | 533.6 | + 2.9 |
| Philadelphia | 9.1 | 591.3 | 563.4 | 592.6 | 573.9 | + 9.4 |
| Phoenix (1947 = 100) | 8.2 | 318.0 | 298.7 | 314.1 | 305.9 | + 8.6 |
| Pittsburgh | 8.9 | 517.1 | 486.6 | 516.9 | 499.7 | + 7.0 |
| St. Louis | 8.7 | 552.8 | 521.9 | 547.8 | 535.4 | + 9.0 |
| San Antonio (1960 = 100) | 7.6 | 216.7 | 204.3 | 212.9 | 207.5 | +14.3 |
| San Diego (1960 = 100) | 8.7 | 252.5 | 237.2 | 250.1 | 248.5 | +19.8 |
| San Francisco | 9.6 | 810.8 | 741.2 | 804.2 | 777.8 | +10.3 |
| Seattle | 8.6 | 542.6 | 485.8 | 533.0 | 515.0 | +11.2 |
| Washington, D.C. | 8.4 | 526.9 | 494.8 | 519.3 | 504.4 | + 7.3 |

Cost differentials compare current local costs, not indexes, on a scale of 10 based on New York

*Tables compiled by Dodge Building Cost Services, McGraw-Hill Information Systems Company*

### STORICAL BUILDING COST INDEXES—AVERAGE OF ALL NON-RESIDENTIAL BUILDING TYPES, 21 CITIES

1941 average for each city = 100.00

| tropolitan a | 1966 | 1967 | 1968 | 1969 | 1970 | 1971 | 1972 | 1973 | 1974 | 1975 (Quarterly) 1st | 2nd | 3rd | 4th | 1976 (Quarterly) 1st | 2nd | 3rd | 4th |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| nta | 329.8 | 335.7 | 353.1 | 384.0 | 422.4 | 459.2 | 497.7 | 544.8 | 575.0 | 583.8 | 585.3 | 597.2 | 598.7 | 602.6 | 604.1 | | |
| timore | 280.9 | 295.8 | 308.7 | 322.8 | 348.8 | 381.7 | 420.4 | 475.5 | 534.3 | 538.7 | 540.2 | 579.6 | 581.1 | 609.7 | 611.2 | | |
| mingham | 270.7 | 274.7 | 284.3 | 303.4 | 309.3 | 331.6 | 358.3 | 402.1 | 421.2 | 438.6 | 440.1 | 447.4 | 448.9 | 469.0 | 469.5 | | |
| ton | 262.0 | 265.7 | 277.1 | 295.0 | 328.6 | 362.0 | 394.4 | 437.8 | 462.5 | 484.1 | 485.6 | 511.7 | 513.2 | 535.7 | 537.2 | | |
| cago | 320.4 | 328.4 | 339.5 | 356.1 | 386.1 | 418.8 | 444.3 | 508.6 | 529.6 | 539.2 | 540.7 | 558.6 | 560.1 | 560.3 | 561.8 | | |
| cinnati | 278.3 | 288.2 | 302.6 | 325.8 | 348.5 | 386.1 | 410.7 | 462.4 | 500.1 | 518.0 | 519.5 | 549.1 | 550.6 | 602.9 | 604.4 | | |
| veland | 300.7 | 303.7 | 331.5 | 358.3 | 380.1 | 415.6 | 429.3 | 462.2 | 509.5 | 516.6 | 518.1 | 529.5 | 531.0 | 578.7 | 580.2 | | |
| las | 266.9 | 270.4 | 281.7 | 308.6 | 327.1 | 357.9 | 386.6 | 436.4 | 477.9 | 488.3 | 489.8 | 498.1 | 499.6 | 506.1 | 507.6 | | |
| nver | 297.5 | 305.1 | 312.5 | 339.0 | 368.1 | 392.9 | 415.4 | 461.0 | 510.0 | 530.4 | 531.9 | 552.1 | 553.6 | 580.3 | 581.8 | | |
| roit | 296.9 | 301.2 | 316.4 | 352.9 | 377.4 | 409.7 | 433.1 | 501.0 | 538.7 | 554.4 | 555.9 | 596.0 | 597.5 | 615.1 | 616.6 | | |
| sas City | 261.0 | 264.3 | 278.0 | 295.5 | 315.3 | 344.7 | 367.0 | 405.8 | 444.9 | 481.1 | 482.5 | 507.6 | 509.1 | 523.8 | 525.3 | | |
| Angeles | 302.7 | 310.1 | 320.1 | 344.1 | 361.9 | 400.9 | 424.5 | 504.2 | 531.8 | 546.7 | 548.2 | 592.6 | 594.1 | 599.1 | 600.6 | | |
| mi | 284.0 | 286.1 | 305.3 | 392.3 | 353.2 | 384.7 | 406.4 | 447.2 | 485.5 | 499.5 | 501.0 | 557.4 | 558.9 | 588.1 | 589.6 | | |
| nneapolis | 289.4 | 300.2 | 309.4 | 331.2 | 361.1 | 417.1 | 412.9 | 456.1 | 488.6 | 513.9 | 515.4 | 536.5 | 538.0 | 548.3 | 549.8 | | |
| w Orleans | 259.8 | 267.6 | 274.2 | 297.5 | 318.9 | 341.8 | 369.7 | 420.5 | 442.1 | 463.5 | 465.0 | 493.2 | 494.7 | 522.8 | 524.3 | | |
| w York | 304.0 | 313.6 | 321.4 | 344.5 | 366.0 | 395.6 | 423.1 | 485.3 | 515.3 | 524.1 | 525.5 | 532.0 | 533.5 | 539.4 | 540.9 | | |
| ladelphia | 286.6 | 293.7 | 301.7 | 321.0 | 346.5 | 374.9 | 419.5 | 485.1 | 518.5 | 531.5 | 533.0 | 566.0 | 567.5 | 581.8 | 583.3 | | |
| sburgh | 271.1 | 275.0 | 293.8 | 311.0 | 327.2 | 362.1 | 380.3 | 424.4 | 465.6 | 475.2 | 476.7 | 508.0 | 509.5 | 508.5 | 510.0 | | |
| Louis | 288.3 | 293.2 | 304.4 | 324.7 | 344.4 | 375.5 | 402.5 | 444.2 | 476.7 | 497.5 | 499.0 | 527.4 | 528.9 | 542.7 | 544.2 | | |
| Francisco | 386.0 | 390.8 | 402.9 | 441.1 | 465.1 | 512.3 | 561.0 | 632.3 | 672.5 | 716.0 | 717.5 | 751.8 | 753.3 | 790.1 | 791.6 | | |
| ttle | 275.0 | 283.5 | 292.2 | 317.8 | 341.8 | 358.4 | 371.5 | 424.4 | 450.2 | 472.5 | 474.0 | 513.6 | 515.1 | 525.9 | 527.4 | | |

sts in a given city for a certain period may be compared with costs in another period by dividing one index into the other; if the index for a city for one period (200.0) divided the index for a second period (150.0) equals 133%, the costs in the one period are 33% higher than the costs in the other. Also, second period costs are 75% of those in the t period (150.0 ÷ 200.0 = 75%) or they are 25% lower in the second period.

# Only galvanizing protects around corners

# to guard this cut edge against rust for over 4 years

Other coatings, such as paint or plastic, protect only the surface they cover—and only for as long as they cover it. When you cut, drill or scratch through the coating, you open the door to destructive corrosion which eats into the exposed surface and underneath the adjacent coated areas.

The magnified color photo above shows proof that the electro-chemical sacrificial action of the zinc coating can go around corners to protect cut and drilled edges. What you're looking at is the top surface and cut edge of a 22 gauge, regular G90 mill-galvanized steel sheet which has been outdoors in the industrial environment near Pittsburgh for four years. The sheet was exposed to the elements on September 20, 1971 and the photo was taken on September 20, 1975. As corrosion attacked, the galvanized coating on the top surface has given up some of its zinc to be deposited by electrochemical action as a tough crust of zinc oxide on the cut edge. After four years, the only hint of rust is the slight yellowish spot on the right side of the photo.

Another advantage of galvanizing versus any surface coating is that the protective layer of zinc is metallurgically bonded **into** the steel. It won't peel off of the steel because it's actually **a part** of the underlying metal.

If you'd like to know more about the protective capabilities of galvanizing, write on your letterhead for our galvanizing booklets.

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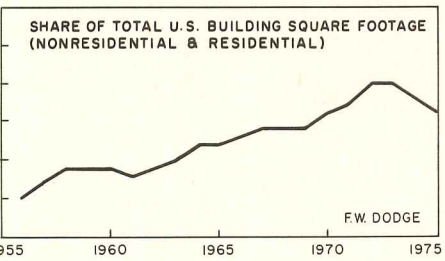
# ne South: cooling off

nstruction activity in the South has contrib- to the exuberance and vitality of the thern economy in recent years, and within short decades, economic development e caught up with the industrialized North. nstruction activity swelled also and be- en 1956 and 1975 the South increased its ket share of total square footage of new struction from 25 per cent to 36 per cent. e chart)




When expansion accelerated, constant ing of the construction process was bound produce the overheating that occurred ard the end of the sixties. Market share took upward turn between 1969 and 1973 be- dropping sharply in 1974 and 1975—the such decline in two decades.

The Southern economy has been the fas- growing of the four regional economies ce World War II. Aggressive overtures on part of local chambers of commerce were rmously successful in luring manufac- res to the South, offering the enticements and, tax abatements, and a non-unionized or force. Manufacturing employment in- ased at a faster rate than in the Northeast the Midwest as a result. White-collar jobs reased as well, as large corporations estab- ed headquarter offices in major Southern es.

Further stimulus came from Federal gov- ment outlays in the South. The manned- ce programs and many military installations he post-war period resulted in the rapid ex- sion of Southern cities and the creation of ny civilian jobs.

On top of everything else favoring the re- n, the South is the ideal place for the devel- nent of retirement communities as the portion of the retirement age population in United States increases.

Now let us take a look at the future of con- uction in the South, and consider two possi- ble paths for its aggregate market share to take through 1980:

1. Extrapolation of the trend of the last two decades results in a level of 41 per cent by 1980.

2. Below-trend growth during a cooling-off period puts market share at 37 per cent by 1980.

There are two reasons, at least, to believe that the industry will proceed along path number 2. One is that a readjustment to a lower level is already taking place following the overheating of the 1969-1973 period, which resulted in high vacancy rates in office and residential buildings. The second is that the Midwest and the West, and to a lesser extent, the Northeast, are expected to strengthen their market positions over the next few years. (RECORD, May, June, July, 1976)

**Nonresidential construction**

*Manufacturing:* Industry in the South is diversified and growing. Capital expenditures in Florida and Texas, for example, tripled and doubled, correspondingly between 1958 and 1972. Between 1956 and 1975, market share of manufacturing construction increased from 21 per cent to 31 per cent along a saw-toothed upward sloping path. In recent years, market share growth has been above the long-term trend, but a readjustment to a lower level is forecast for the near future. A 29-30 per cent level is projected for the end of the decade.

*Commercial building:* The South's share of commercial building hovered around 30 per cent between 1956 and 1968, and then, soared to 39 per cent in 1973 before falling back in 1974 and 1975. A 36 per cent increase in white-collar employment between 1966 and 1974 explains the surge in office building in the seventies. Market share of office building construction is expected to be at the 31 per cent level by the end of the decade, supported by anticipated higher levels of employment in the South.

Since 1966, the South has had an increasingly large share of the stores and shopping centers market, paralleling the growth in residential construction. Market share climbed from 31 per cent in 1966 to 39 per cent in 1973. The projected 36 per cent level by 1980 is in line with the long-term trend in residential construction.

*Institutional building:* The region's share of the institutional building market was growing very slowly through 1970, and then the South's share rose sharply from 27 per cent in 1970 to 34 per cent by 1975. Construction of educational facilities has not fallen off as sharply as in other regions in recent years, and as a result the South's share has risen almost 10 percentage points over the last five years. Hospital construction has also contributued to the increase in market share along with construction of public buildings. The region is expected to maintain its market position and be at the 33 per cent level in 1980.

**Residential construction**

*Single-family housing:* The sustained boom in single-family housing in the South was caused by population, income, and employment growth in the last two decades, as well as the comparative cost advantages enjoyed by the region because of climate and labor costs.

The region's share of single-family housing increased along a steep upward trend between 1956 and 1975. Market share rose from 26 per cent in 1956 to a peak of 44 per cent in 1972. The South is expected to retain its dominant role in the single-family housing market as population, income, and employment continue to grow beyond the present decade. Market share, however, will remain below the trend in the second half of the decade but is expected to resume an upward trend in 1978 reaching a level of over 40 per cent by the end of the decade.

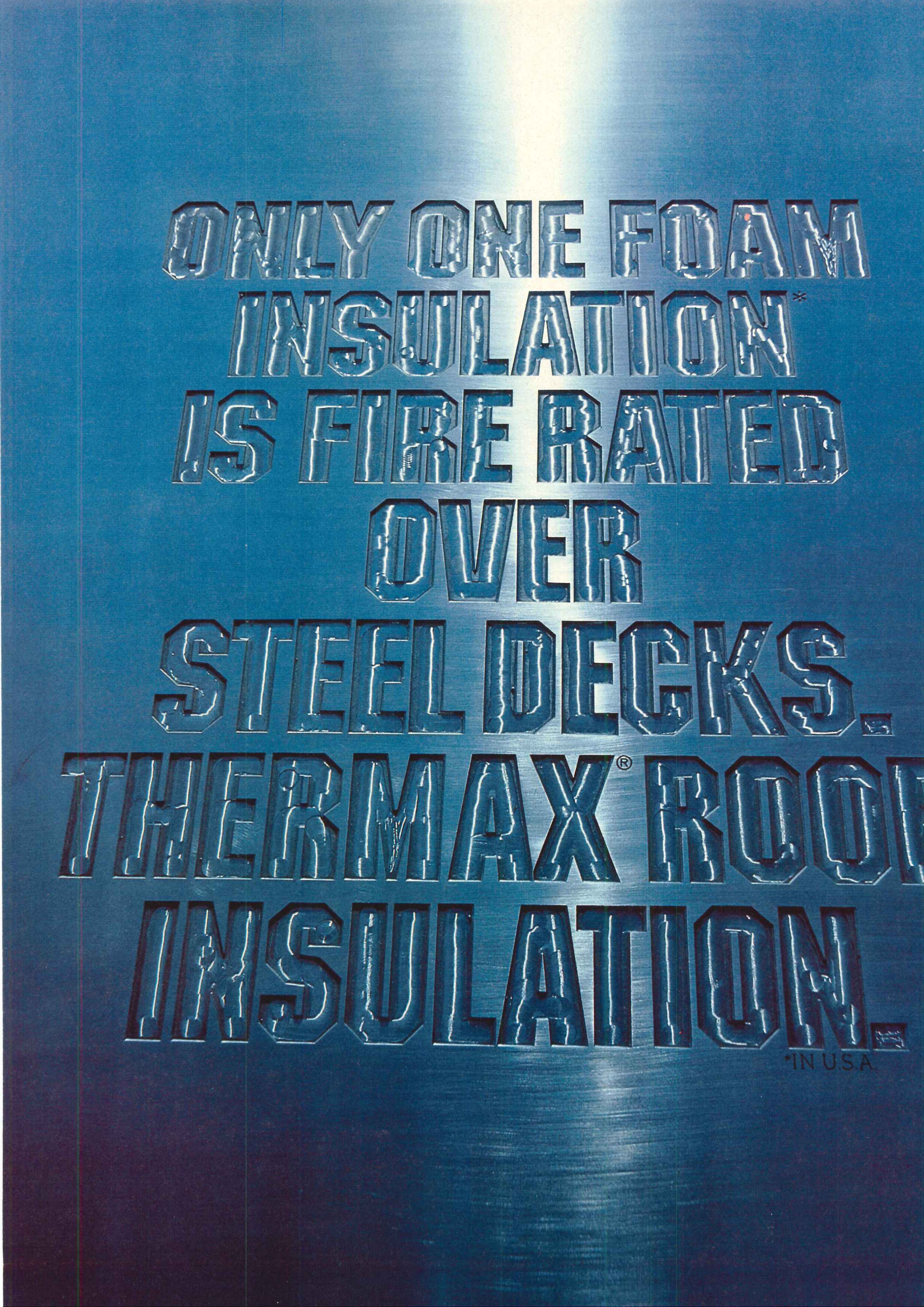
*Multi-family housing:* During the multi-family housing boom of 1972-1973, the South had 44 per cent of the market compared with only 16 per cent in 1956. In 1961, the region's share began an uninterrupted climb to the 1973 peak before crashing to 25 per cent in 1975.

Both public and private construction drove up market share in the sixties and seventies. Over-expansion in the face of rising costs produced the highest vacancy rates in the nation. Market share is expected to remain relatively low but is expected to begin rising by the end of the decade and reach a level of 34 per cent by 1980.

In summary then, a cooling off period is expected to follow the overheating of recent years. During this period, the South's share of total square footage of new construction is expected to remain high, but will lie below the long-term trend line of earlier years. By the end of the decade market share will be rising again and a level of 37 per cent is forecast for 1980.

*Jeanne A. Grifo, senior economist*
*McGraw-Hill Information Systems Company*

e: This is the last in a series of four articles on regional struction trends. The others appeared in May 1976, June 6, and July 1976.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It's a roof insulation board never before available. One with all the advantages of urethane: thin profile, lightweight, ease of handling, meeting all of today's more exacting requirements for insulating values. And with a Class 1 fire rating.

**Celotex Thermax® Roof Insulation.** It is a strong, lightweight roof insulation board with a foam core (reinforced with glass fibers) sandwiched between two asphalt-saturated asbestos facer felts.

It gives you the high insulation values of urethane, plus fire rating, without requiring a second product like perlite, foam glass or fibrous glass between it and a steel deck.

**Superior insulating efficiency.** 1.2 inches - thick Thermax Roof Insulation boards give approximately the same insulation value as 3 inches of cellular glass, 2½ inches of perlite or 1⅝ inches of fibrous glass. Because of this insulating efficiency, Celotex recommends Thermax Roof Insulation be applied in single thickness.

**Lightweight.** Compared with other FM-rated roof insulating materials providing the same insulation value, Thermax boards are 3 to 6 times lighter. That's up to 75% less deadload factor. The advantages are obvious: you can reduce the size and gauge of roof supports, have greater flexibility in choosing heating and air-conditioning equipment, reduce the size of metal or wood facia around roof perimeters. And still have that Class I fire rating.

**Are there any disadvantages?** No. It does not cost any more, it is easy to cut and handle, gives more footage per truckload, uses less warehouse space and requires less handling.

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# Antron® II nylon. Th
# known for its lastin

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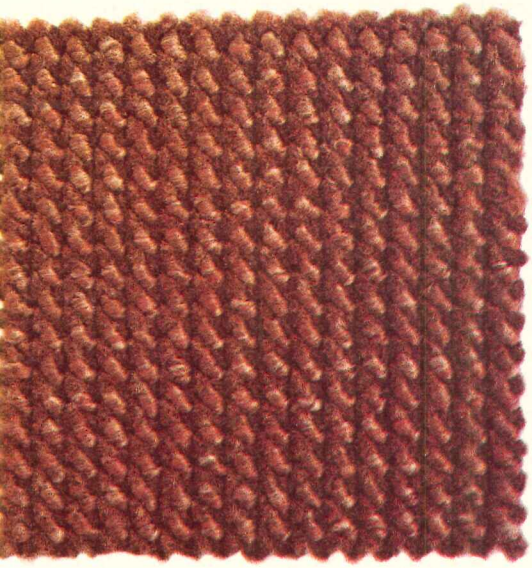
# uPont carpet fiber ood looks. At A.T.&T.

**new A.T.&T. Administration Building, king Ridge, New Jersey.**

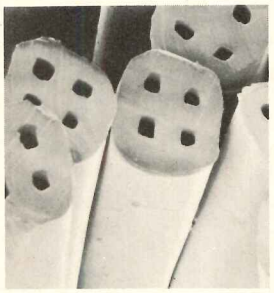
carpet-all 150,000 square yards-is a special en construction with pile of Antron* II nylon. ron" II was selected for its outstanding -term appearance-retention qualities.



**"Antron" II?** "Antron" II nylon is designed ask the presence of soil. And, because it is a nylon, it's the most abrasion-resistant of all carpet fibers. In addition, "Antron" II has a pleasant, subdued luster, unlike bright or sparkle-luster fibers that can dull rapidly in contained high-traffic areas. Cleanability and texture retention are excellent.

These are the properties most specifiers expect from "Antron" II, the fiber known for its lasting good looks. And they are among the reasons why it is the leading contract carpet fiber brand.

**How "Antron" II masks soil.** Here in this 250X electron micrograph, you can see the remarkable four-hole fibers of "Antron" II. The four microscopic voids scatter light to mask soil and help blend soil concentrations into the overall carpet look. The smooth exterior shape minimizes soil entrapments, making cleaning more effective than irregularly shaped fibers.



**"Antron" III nylon** for durable, effective static control is available in most styles in "Antron" II.

**Specifier's Information Kit.** For more information—a carpet manufacturers' resource list, a specification guide for commercial office buildings, and a maintenance manual—write: Du Pont Contract Carpet Fibers, Centre Road Building, Room AR, Wilmington, DE 19898.

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# Now... for large fixed window applications

# Pella's new Clad Pivot Window

## he high erformance vot window ith the beauty f wood inside

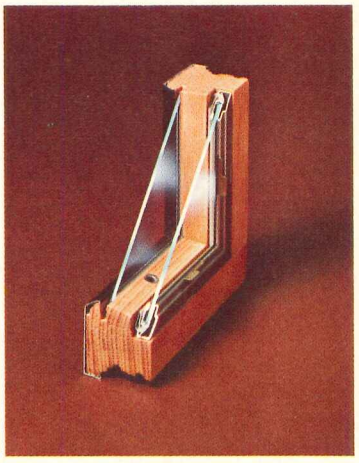
It's the newest addition to the Pella Clad System, and like the rest of the system, it's designed to be virtually maintenance-free. The exterior is protected by a skin of able aluminum with an acrylic enamel finish that won't chip or peel. To help cut maintenance costs even further, it pivots to permit exterior glass to be washed from inside the building.

But what really makes this new Pivot Window unique is its wood construction. Wood not only contributes a rich, warm look inside, but its unsurpassed insulating value makes it a wise choice in today's energy-short economy.

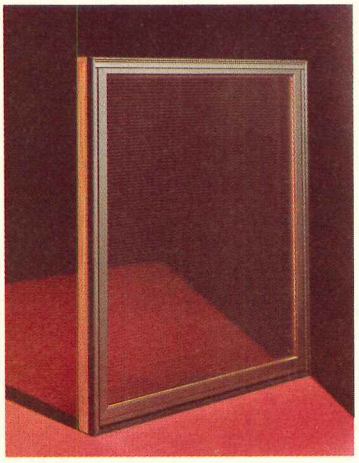
Two different models are available — Pivot, with a single sash, and Pivot Contemporary which includes two sash within a single frame, the upper one pivoting and the lower one fixed. Keylocks, standard on all units, prevent unauthorized operation but allow opening for washing and emergency ventilation. All units can be equipped with Pella's Double Glass Insulation System and Pella Slimshades®.

For complete specifications fill in and mail the coupon today.

sash brings outdoor glass sur- inside for fast and economical tenance. When pivoted, the is held in washing position by ch.



Pella's *Energy-Tight* Double Glass Insulation System has 13/16" dead air space between panes—provides maximum insulation at lowest costs. Insulating glass also available.



Optional Pella Slimshade® fits in the dust-free space between the panes of the Pella Double Glass Insulation System and provides privacy and light control at the touch of a dial. Helps reduce heat loss and solar heat gain, as well.

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Architect: The Grad Partnership, Newark, N.J.

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# Now you can create ceilings that work as beautifully as they look.

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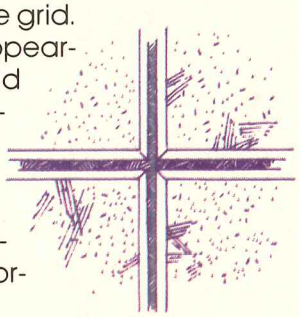
Our wide choice of attractive ceiling configurations allows you the kind of design freedom you want. And we've combined these with lighting, sound control and air handling options—all from one manufacturer—for a truly integrated ceiling system.

**Attractive modular grid intersection.**

Until now, modular ceiling grids have rarely been the object of aesthetic praise. We're introducing one that will be, with mitered flanges and a thru-regress at all intersections.

And, it's versatile. Air boots go anywhere on any runner. Telephone and electrical wiring is easily dropped through the grid.

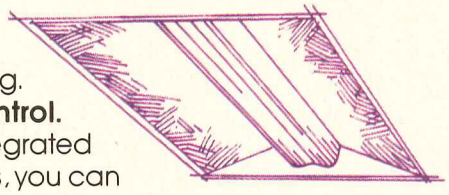


Besides outstanding appearance and versatility, the grid shape offers superior structural properties. It's roll-formed from 25-gauge steel and locks together in three planes to accommodate vertical, lateral and torsional loads.

**Efficient distribution of light.**

J-M Integrated Ceiling Systems feature Holophane luminaires, backed by 75 years of experience and technical leadership in providing energy-efficient lighting solutions. Our luminaires provide visually comfortable illumination, too. Even the new energy-saving HID lamps may be used without creating brightness problems.

We also offer computer-aided evaluations of lighting layouts for your project planning.



**True sound control.**

With J-M Integrated Ceiling Systems, you can select the acoustical material most appropriate for your requirements. Whatever the criteria—NRC, STC, durability, appearance or fire endurance—you have a choice of J-M acoustical products.

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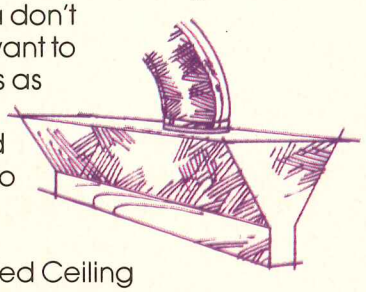

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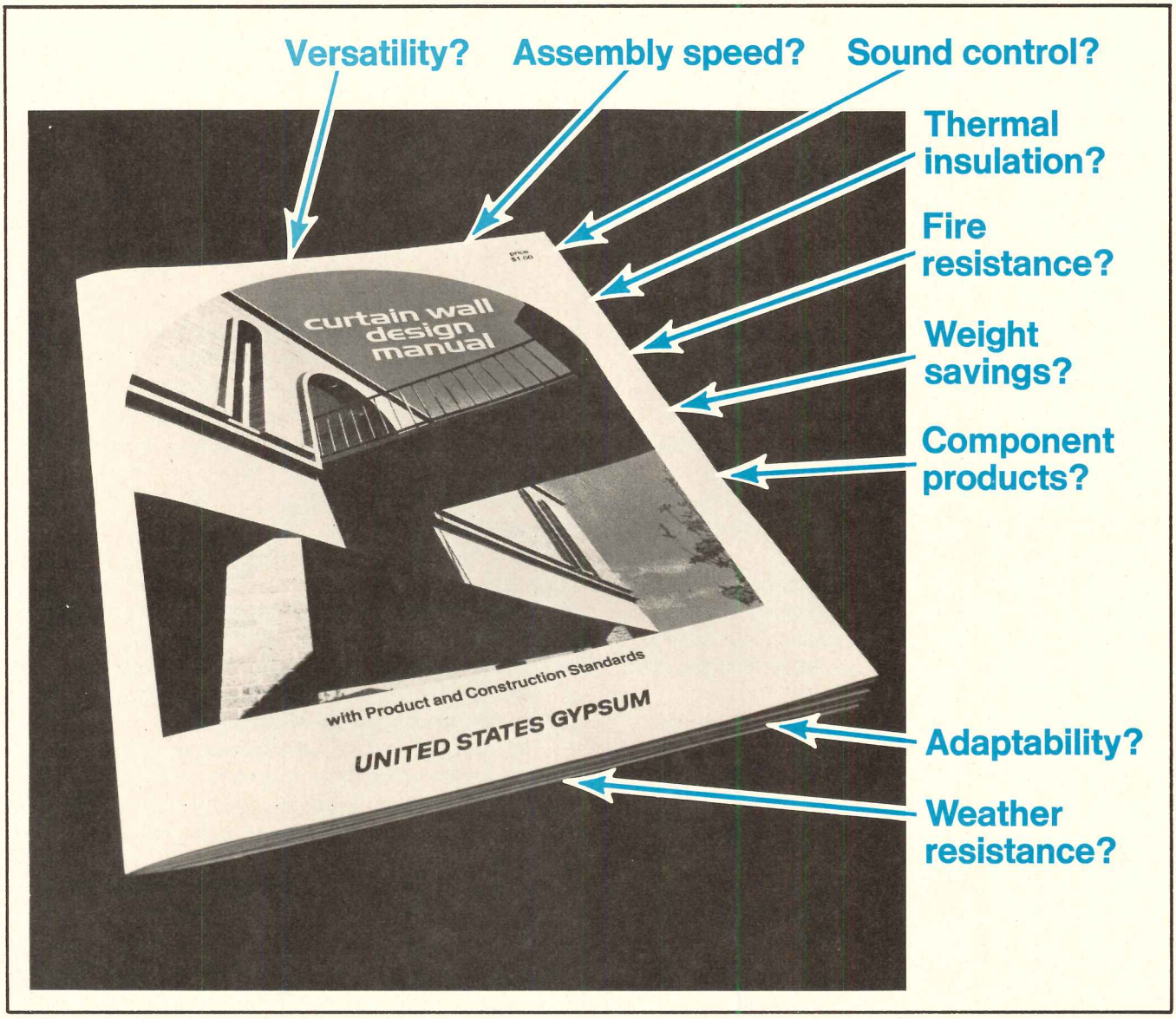


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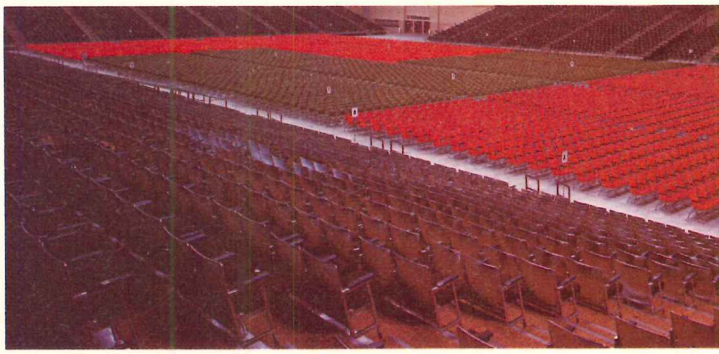
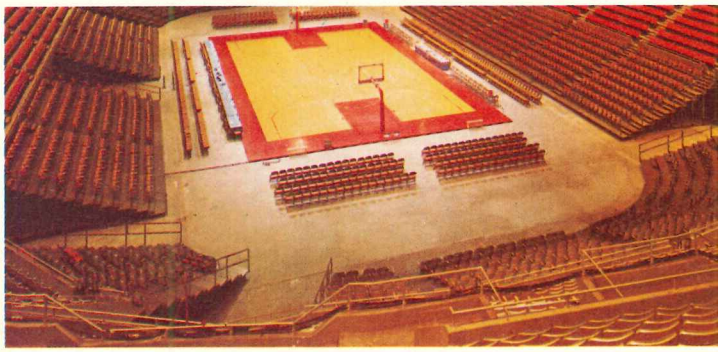


Everett R. Cook Civic Center—Memphis, Tenn.

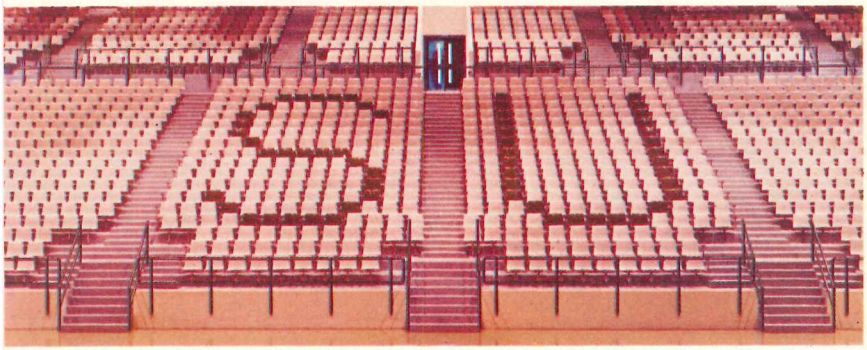
Dothan Civic Center—Dothan, Ala.



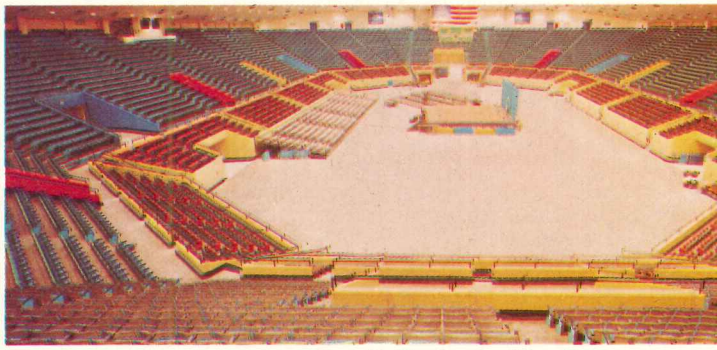
Nassau Coliseum—Uniondale, L.I.

North Texas State University—Denton, Texas

Dayton Exposition Center—Dayton, Ohio



Stetson University—Deland, Fla.



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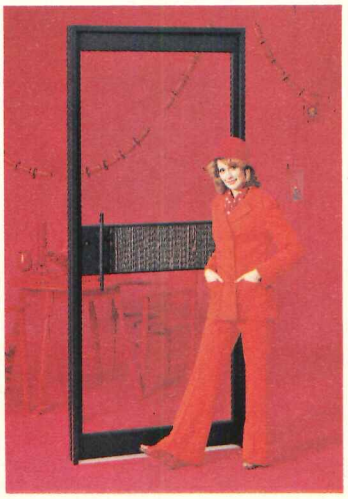

I-Line series 3000 door in Permanodic Black finish with tapered pull and Stria textured panel in Pewter finish.

I-Line 4000 Series entrance in clear anodized aluminum finish, with panels of Quarry texture in Pewter finish and a cast aluminum pull handle.

# by Kawneer

And yet, behind this wide variety available in Kawneer entrances is only one standard of engineering and construction: The very best. Each Kawneer Entrance System is a total performance combination of door, frame, and hardware that will stand up to the demands of traffic volume and building usage. The excellence of engineering and rugged construction is backed by a continuing program of testing which assures the user that Kawneer Aluminum Entrance systems will provide efficient performance for years and years. No matter what the variety.


A helpful, 28-page guide to entrance systems is available from Kawneer. Write for your copy of *Aluminum Entrances by Kawneer*. Kawneer Product Information, 1105 North Front Street, Dept. C, Niles, Michigan 49120.

"190" door in Clear anodized aluminum finish with F-2 style hardware.

**KAWNEER**
ARCHITECTURAL PRODUCTS
1105 NORTH FRONT ST., NILES, MICHIGAN 49120

# This building ha laughs, cries and fal

**That heat source is people. And the efficiency of Vari-Tran® helps make it all possible.**

There is nothing conventional about the use of energy at the Ontario Hydro Building in Toronto. The building operates at a comfortable temperature year round without a standard heating system. Climate control is maintained by recycling the heat generated from the building's lights, equipment—even people.

The result is a building that operates using less than half the energy of a conventional structure of equal size.

With the help of Vari-Tran coated glass, the Hydro Building has become an architectural Mecca for energy efficient construction. Monolithic Vari-Tran 1-114 fabricated into insulating units was specified as an integral component in the building's sophisticated mechanical design.

We want you to know the energy and dollar savings LOF high performance glass can mean for your clients. Contact one of our architectural representatives or Marty Wenzler at Libbey-Owens-Ford Company, 811 Madison Avenue, Toledo, Ohio 43695. They'll be glad to put our computer to work on a spec sheet for a building you have in the works.

For more detailed information on our products, please refer to the LOF Sweet's Catalog, "Glass for Construction."

# heat source that
# love.

Hydro Place, Toronto, Canada
nada Square Corporation
Architects: K. H. Candy, Chief. Arch.—Ontario Hydro, and
n Assoc., Toronto, Ontario
K. R. Cooper, Toronto, Ontario
ntractor and fabricator of insulating units: Pilkington Glass Ltd.


*For more data, circle 58 on inquiry card*

# There are times when you want a feeling of warmth.

Weyerhaeuser wood doors warm up any room.

We manufacture the broadest line of architectural wood doors in the industry. Stave lumber core. Particle core. Fire. Sound retardant. X-ray. All with the natural warmth of domestic hardwood veneers. Or you can specify MDO or plastic laminate faces.

Our complete line of custom services includes factory finishing, special detailing and beveling, machining for hardware and security devices, moisture protection, computerized estimating and coordinating production to your job schedule.

And for warm doors that also stay cool, specify Weyerhaeuser wood fire doors.

After 30 minutes in a fire, a hollow-core metal door can reach almost 1000°F on the side opposi the fire.

Under the same conditions, Weyerhaeuser wood fire door w increase in temperature less tha 250°F. That's a 750-degree marg of safety.

Our wood fire doors are rated 90, 60, 45, 30 and 20 minutes. Th meet or exceed all major buildi codes. And have been independen

# And there are times you don't.

ested by Underwriters Laboratories, nc.

Every architectural door we make arries a full performance warran- y and, where applicable, the U.L. abel.

There's no better guarantee in ne industry.

So, when you're thinking doors, hink warm. Or think cool. But think Weyerhaeuser.

## Architectural Doors

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Send us this coupon for complete information on our entire line of wood doors. We'll also send you our new door poster. It provides a comprehensive look at our line, plus valuable code information at a glance.

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Weyerhaeuser

# IF OUR FREE SPECIFICATION GUIDE DOESN'T ANSWER ALL YOUR QUESTIONS ABOUT ACRILAN® ACRYLIC CARPET FIBER, OUR SPECIALISTS WILL.

Acrilan® Plus Monsanto

Monsanto 2000+

## ANY QUESTIONS?

Write for Monsanto's new Acrilan Specification Guide. Call (404) 434-4949 for assistance from a Specification Specialist.

Dear Monsanto, AR-9
Yes, I have some questions on Acrilan I want answered. Please send me your new Specification Guide, free of charge.

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Monsanto Textiles Company
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# Yesteryear...

*Yesterday's look . . . today's materials and energy saving light sources. This cast aluminum lantern duplicates the appearance of hand wrought Swedish black iron. It's the latest in AAL'S NOSTALGIA line. A variety of finishes, lamps, and lenses available. Matching wall mount brackets, too. For complete information and color brochure, write on your letterhead.*

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Santa Fe Springs, Calif. 90670
SUBSIDIARY OF LCA CORPORATION

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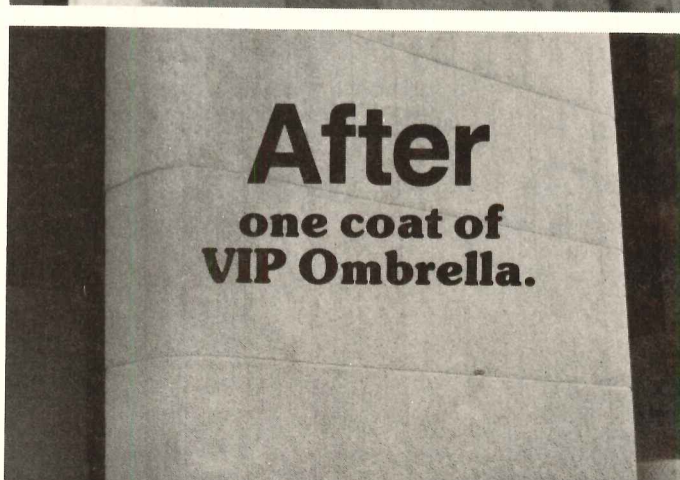


**"Ombrella exceeded our expectations. All color imperfections have been blended out and the towers appear to be 10 stories of monolithically poured concrete"**
**...John P. Fullerton, A.I.A.**
**Nichols, Fullerton, Py & Vavra**

Now, for the first time, you can waterproof natural concrete or masonry and do away with stains, form marks and patching without streaking or lapping. Simply apply VIP Ombrella semi-opaque.

If your concrete or masonry looks great, protect it with VIP Ombrella clear. You'll be protecting your client, too.


**The first semi-opaque coating that waterproofs but won't streak, run or show lapp marks. And our clear has 26% solids–the highest in the industry.**

VIP Waterproofing Systems, 7245 N.W. 43 St., Miami, Fla. 331
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VIP ter-polymer coatings–smooth and high-tex
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*For more data, circle 64 on in*

# About the only way to pick this lock is to select it.

Emhart High Security Locking System. A major advance in positive protection for buildings that breaks dramatically with traditional lockset design. Unique cross-cut key bit* and interlocking tumbler pins create astronomical odds against picking.

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HARDWARE DIVISION, EMHART CORPORATION
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# BECAUSE OF MASONRY FIRE WALLS, THE ONLY THING THAT SPREAD FROM SUITE 503 WAS NEWS THAT THE FIRE WAS OUT.

When fire breaks out in a building, the critical concern is control. Smoke detectors and sprinklers may help. But a sure way to prevent the spread of fire and protect lives and property is with masonry fire walls, designed and built between rooms, suites and apartments for just that reason.

Masonry fire walls insure that fire will stop where it starts. And assure a flame-free exit for occupants and approach for firemen. There are no "working parts" to malfunction; yet masonry fire walls are always working to provide sound barriers and structural support even when they aren't needed to stop a blaze cold. And because they stand up to extreme water pressure, masonry's fire rating is waterproof, too.

Despite all preventive measures, fires do break out in buildings. So design and build for maximum fire control with masonry. No matter what type of building you're designing or erecting.

It could mean the difference between a five alarm fire and very little cause for alarm.

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Suite 1001, 823 15th Street, N.W., Washington, D.C. 20005 (202) 783-3908

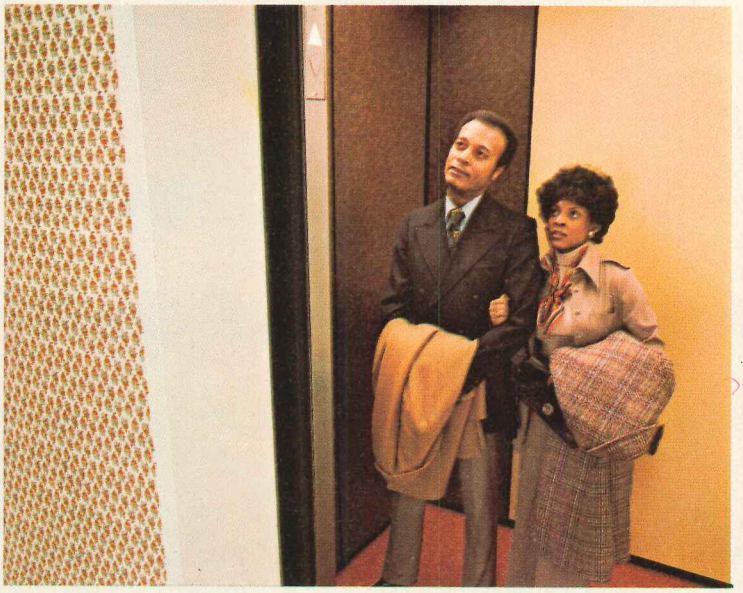
*For more data, circle 65 on inquiry card*

THE MASON CONTRACTORS AND BRICKLAYERS UNION OF CANADA & THE U.S.A.

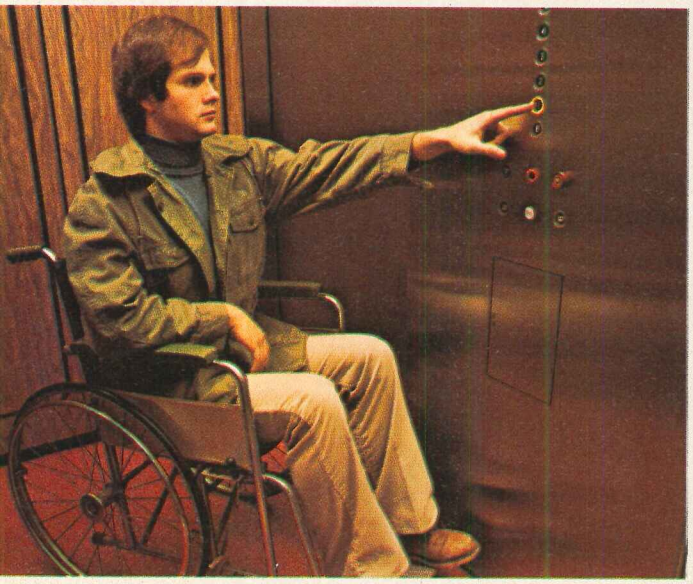
# ou told us what you wanted in a pre-engineered levator system...and the price you needed for oday's market.

# he Otis GO-LINE has it, and much more.

asked for a wide choice of carrying capacities so could precisely satisfy your building's needs. We e you eleven different selections to choose from. wanted off-the-shelf delivery and fast, efficient allation by experienced crews to prevent a lot of blems. The GO-LINE has it.



You requested large, digital readout fixtures inside the car so passengers can position themselves for prompt exit at desired floors. You wanted highly visible directional lanterns, located in both car entrance columns, combined with an audible signal to alert waiting passengers. The GO-LINE has it.



told us you wanted fast, positive door operation instant door reversal to protect entering and exit- passengers. You specified solid state control to rove equipment reliability. You wanted control els designed for easy accessibility by wheelchair ng passengers. The GO-LINE has it.

You wanted the option of adding special emergency equipment, emergency lighting and power, telephones, intercoms and key switch control. You asked for a wide choice of easy-to-maintain wall panels, with a variety of carpet and ceiling colors to match your building's decor. The GO-LINE has it.

d you asked us to maintain the traditional Otis quality...at a price you can live with.
did what you asked. The GO-LINE has it all.

**Otis**
Elevator Company

# Technical service and practical design aids ease design of this Weathering Steel parking structure.


*Client:* Virginia Department of Highways & Transportation; *Owner:* Town of Grundy, Va.; *Designers:* Higgs & Higgs, Inc., Vienna, Va.; *Consultant Architect:* James W. Ritter, Springfield, Va.; *Contractor:* Wiley N. Jackson Company, Roanoke, Va.; *Fabricator:* Structural Steel Company, Inc., Roanoke, Va.; Structural steel furnished by Bethlehem Steel Corporation.

The depth of the mountainside excavation, which greatly influenced the cost of the project, dictated the need for a long (240 ft), narrow (63 ft) structure.

# depend on Bethlehem

ate road-widening project through Grundy, Va., eliminated many of the 's Main Street parking spaces. And because of the area's steep terrain, lternative off-street parking sites were available.

tion: build a three-level, 144-car parking structure into the side of a ntain to replace the spaces eliminated by the construction.

difficult nature of the site immediately suggested the use of structural steel ing. It could provide the required column-free long spans. And it could be ted rapidly.

**s Engineering service valuable.** "Bethlehem Sales Engineering personnel e very helpful in furnishing us with technical publications and advice," rts Mr. Gerry E. Higgs, president, Higgs & Higgs, Inc., designers of the cture. "Two slide presentations, featuring steel-framed parking structures the use of Weathering Steel in construction, were given to our engineer- staff. It was also on the advice of Bethlehem's Sales Engineer that we sidered Weathering Steel for the interior, as well as the exterior framing e structure."

**Weathering Steel?** The designers decided on ASTM A588 Weathering l for both the exterior and interior framing for two reasons: (1) it provides ry rustic appearance which, when fully matured, will blend well with the oundings of this rural coal mining community; and (2) its low maintenance will minimize future financial burdens on the town.

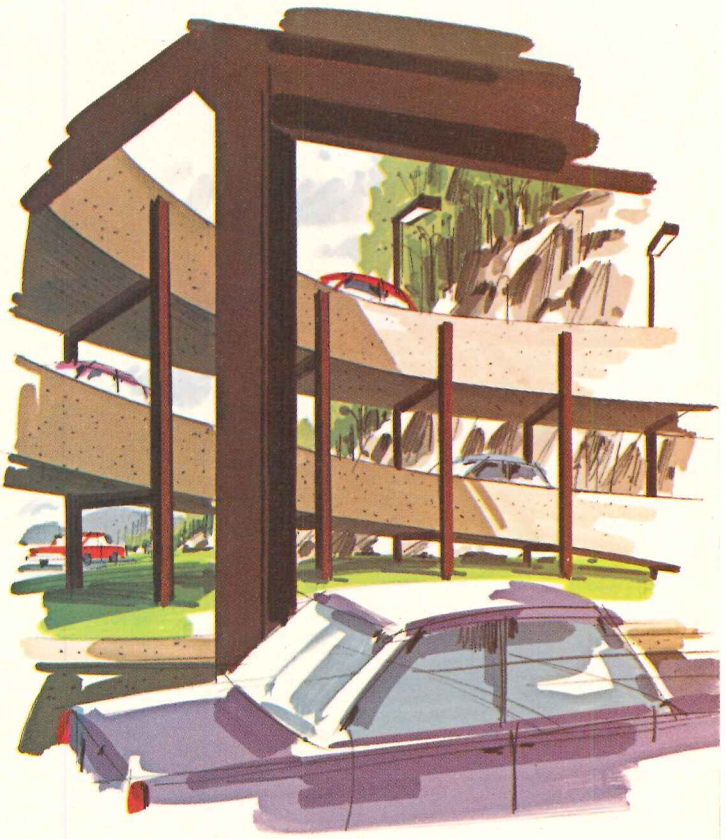
eral special design details are employed to minimize staining during the thering process. Open slots are placed in the concrete slabs around all mns to avoid runoff from the columns onto the slabs. At grade level, gravel kets surround all the column bases.

**hitectural considerations.** A low-profile parking structure was desired in er to avoid overpowering the neighboring one- and two-story buildings. design features an open structure with exposed steel framing, partially d with sand-blasted precast panels.

et of ramps at the south end provides entrance and exit to the parking ls. One of the ramps also serves as the entrance and exit right-of-way for property on the mountainside above the parking garage. The system of ular and straight ramps allows one-way traffic to be maintained on all king levels. Stair towers, located at each end of the structure, control estrian flow.

**hnical and advisory services available.** Bethlehem's Sales Engineering sion offers a wide variety of services to help make it easier for you to gn in steel. Our Preliminary Framing Analysis can provide you with budget t information for the total "systems package" of a structure under study . . . our advanced engineering group can assist you with technical evaluations.

more information, just call the Bethlehem Sales Engineer at the Bethlehem s office nearest you. His number is listed below.



A circular ramp at the north end permits traffic flow from the level below to the one above.

**Bethlehem** BETHLEHEM STEEL

## Phone:

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| Atlanta (404) 522-4918 | Los Angeles (213) 726-0611 |
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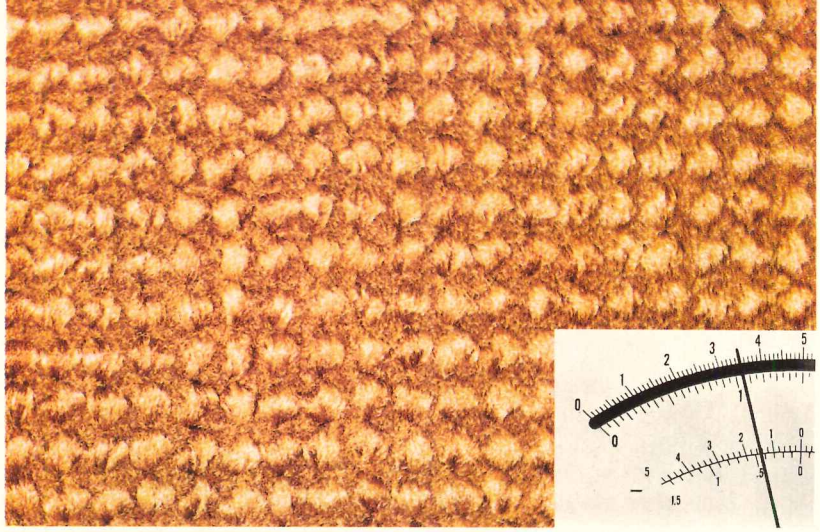
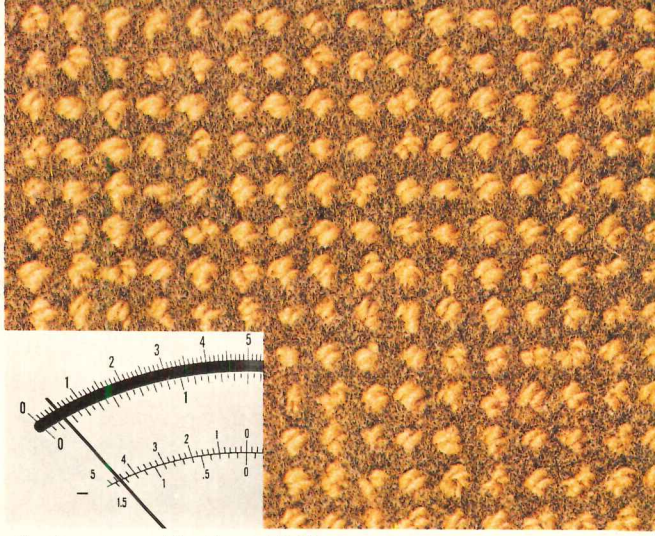
*Ask for Sales Engineer*

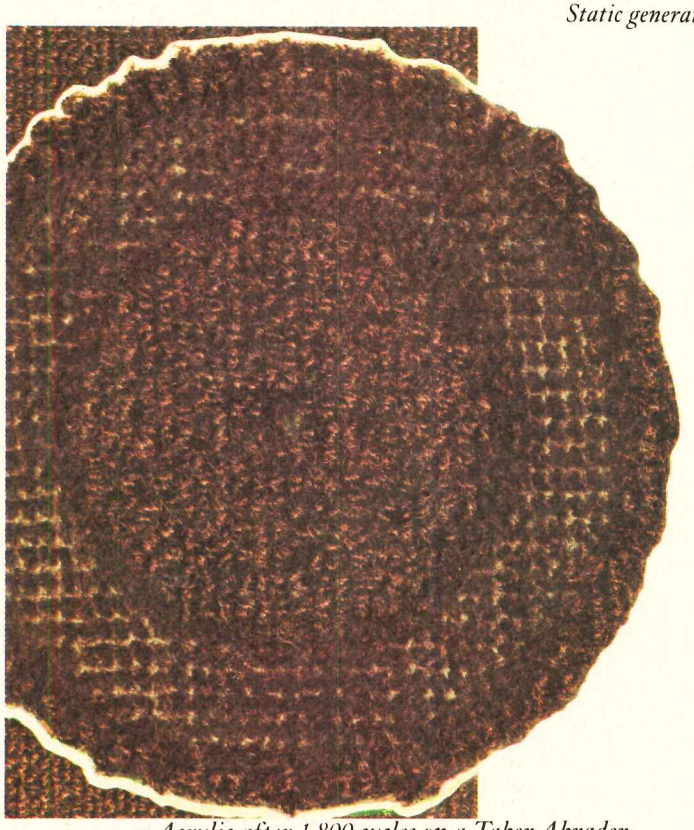
Slide presentations, as well as numerous Bethlehem publications and design aids, provided valuable assistance to Higgs & Higgs, the project's designer.



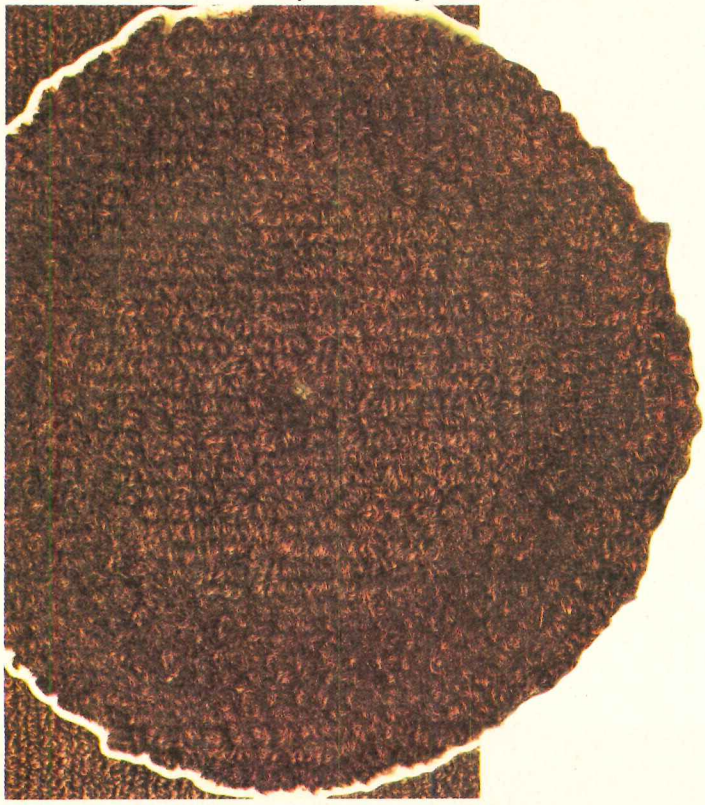
*Static generated by nylon.*



*Static generated by Fortrel PCP.*



*Acrylic after 1,800 cycles on a Taber Abrader.*
*Fortrel PCP after 1,800 cycles on a Taber Abrader.*



# Which carp

You're looking at photos of the actual results of t
tests conducted by Certified Testing Laboratories, Inc
carpets of Celanese Fortrel PCP producer colo
polyester, and commercially available carpet
similar construction in different fib
Fortrel PCP outperforms them

**More Durable.**

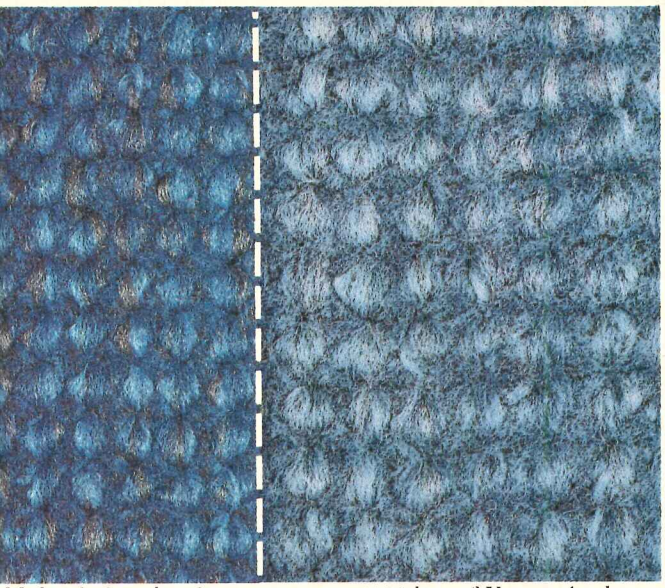
After only 1,800 cycles on a taber abra
(taber abrasion test ASTM D-1175), the carpe
acrylic fiber reached the breaking point (abraded to
backing) and registered a pile weight loss of 11.6%.
carpet of Fortrel PCP polyester didn't reach the breal
point until 22,000 cycles! And didn't
11.6% of its pile weight until 29,900 cyc

**Less Static.**

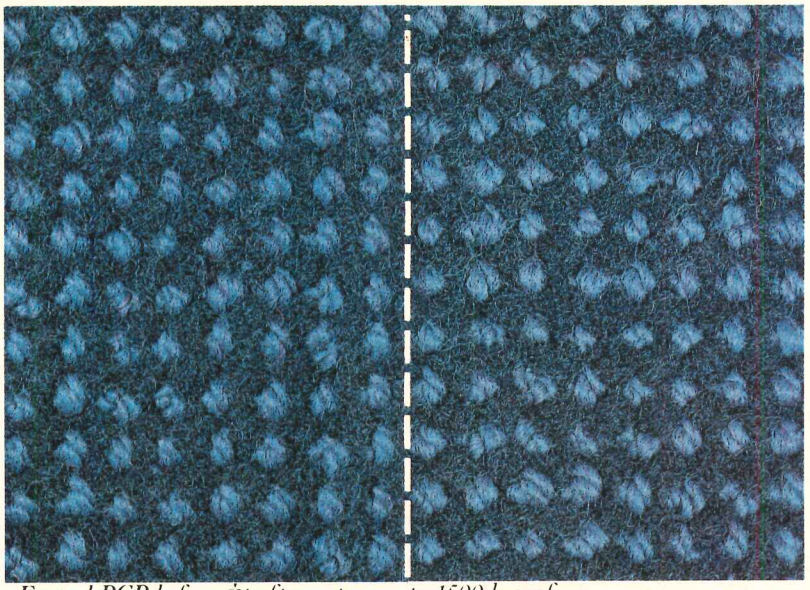
In checking static generation, the AAT
Walk Test with Neolite Soles (134-1969) was conduc
Carpet of Fortrel PCP polyester generated a me
kilovolt, well below the threshold of human sensiti
(Even below the level necessary for such deli
applications as computer rooms and hospitals.) The ca
of Antron II, even with metallic protection, gener
seven times as much static—3.5 kilov

**No Fading.**

In the AATCC Colorfastness to Light
(Test Method 16E), the carpet of Fortrel PCP polye
showed no evidence of fading or color change a



*Nylon before & after exposure to 1500 hrs. of Xenon-Arc lamps.*



*Fortrel PCP before & after exposure to 1500 hrs. of Xenon-Arc lamps.*

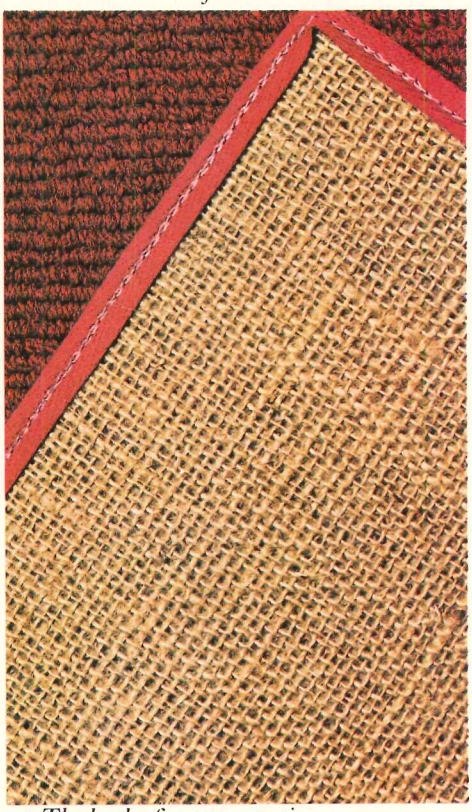
# o you want on your floor?

0 hours of exposure to Xenon-Arc lamps. (That's imes the industry standard.) The carpet of nylon faded substantially well before 1500 hours.

**Vear Guaranteed.**

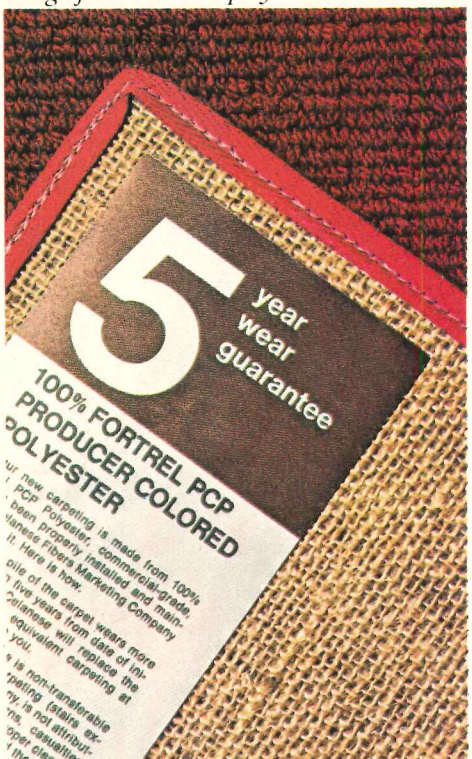
These are only three of twelve cting standards that every carpet of Fortrel PCP yester must meet before it is awarded our five-year r guarantee. It's the *only* wear guarantee available where on contract grade polyester carpeting it guarantees that "if the surface pile of the carpet wears re than 10% within five years m the date of initial installation, Celanese will replace affected area with equivalent carpeting bsolutely no cost to you."

Now you can be sure which carpet you want on your or. The one that resists static, fading, wearing, ning, soiling, and mold. And has only five-year guarantee around. ortrel PCP.



*The back of most carpeting.*

*The back of carpeting of Fortrel PCP polyester.*




f your new carpeting is made from 100% Fortrel PCP polyester, commercial-grade, and has been properly installed and maintained, anese Fibers Marketing Company guarantees it. Here is how.

f the surface pile of the carpet wears more than 10% within five years from date of initial installation, Celanese will replace the affected with equivalent carpeting at absolutely no cost to you.

Note that the guarantee is non-transferable and applies only to carpeting (stairs excluded) for which wear, if any, is not attributable to ligence or burns, casualties, cuts, pulls, and the use of improper cleaning methods or other causes beyond the control of Celanese.

This guarantee applies only to commercial-grade carpet as defined in Fortrel Polyester Carpet Performance FT-207. CELANESE

el PCP is a trademark of Fiber Industries Inc., a subsidiary of Celanese Corporation. Celanese Fibers Marketing Company is a division of Celanese Corporation.

**Your next five years are guaranteed with:**

**FORTREL PCP**

# This time do it right.

Floor Coverings Department, Celanese Fibers Marketing Co., 1211 Avenue of the Americas, New York, N.Y. 10036, (212) 764-7640.

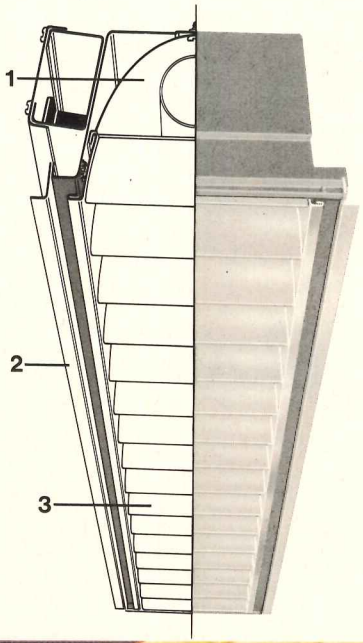
# The beauty of Alcoa Coilzak in parabolic luminaires is the beautiful way it controls light.

Parabolic luminaires are esthetically pleasing, in the design of the fixture and in the type of light they dispel. This is particularly important where people work, read or shop, where low visual brightness contributes to a comfortable atmosphere. The secret is precise light control, made possible because the reflective material in quality parabolic systems is Alcoa* Coilzak lighting sheet. Note that we said *lighting sheet.* In a properly designed luminaire, reflectivity is only part of the story. Controlled image clarity and reflective diffusion are just as important. Alcoa Coilzak sheet is an Alzak®-finished reflector material that meets precise reflectivity and gloss standards.

Operating costs of a parabolic lighting system can be low. Because of its efficient light distribution, a properly planned system may require fewer luminaires, resulting in low electrical loadings. Savings in cleaning maintenance are possible also. Parabolic luminaires do not require a lens and the unique design, plus the static-free Coilzak louvers, resists soil and dust accumulation.

For more information on the many beautiful advantages of Coilzak lighting sheet in parabolic luminaires, write Aluminum Company of America, 551-J Alcoa Building, Pittsburgh, PA 15219.

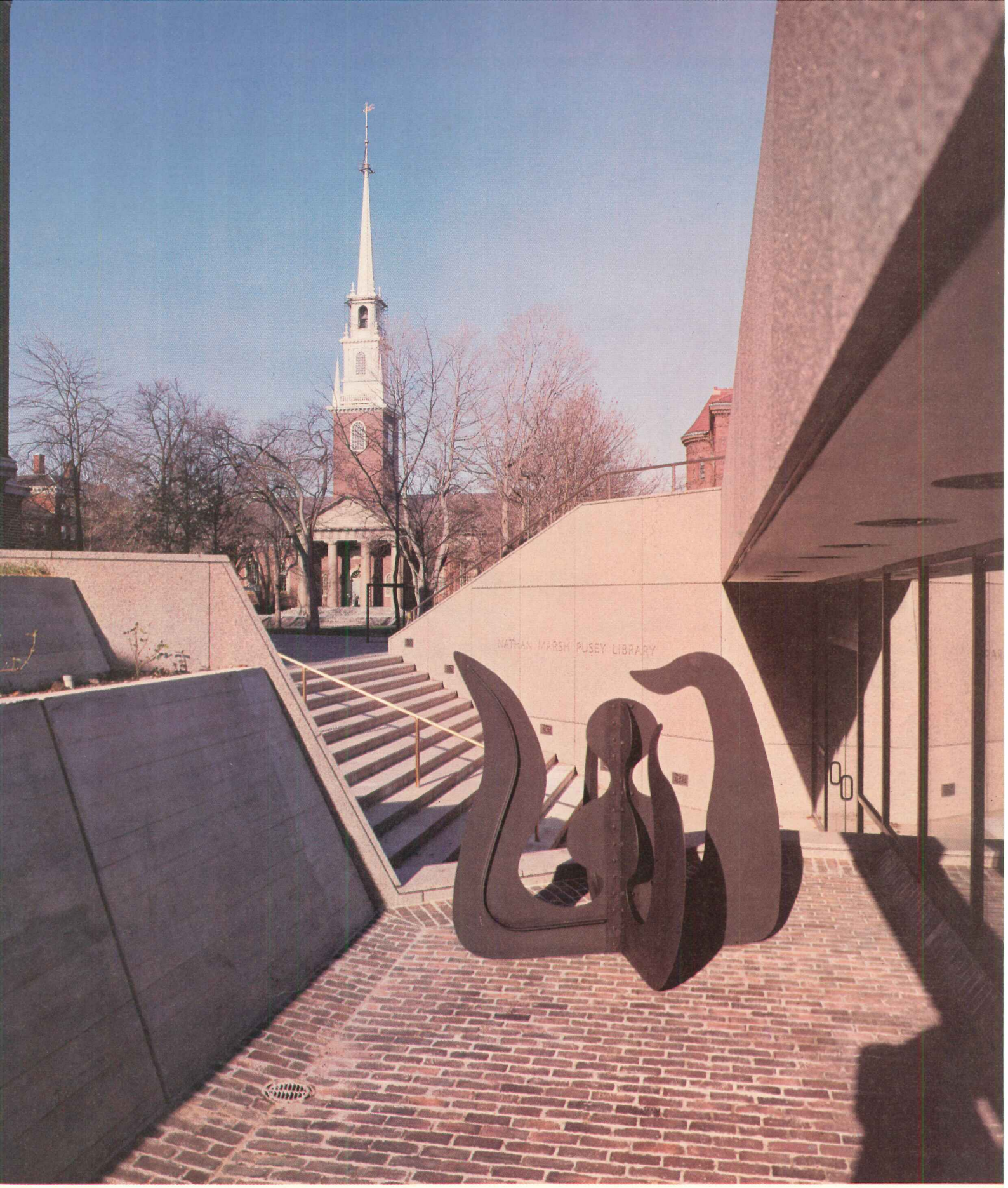
**Registered Trademarks of Aluminum Company of America*




**1. One-piece constructed Coilzak reflector with accurately controlled parabolic shape.**
**2. Extruded aluminum trim.**
**3. Coilzak parabolic baffle assembly.**

**Change for the better with Alcoa Aluminum**

ALCOA




# IN DEFERENCE TO ITS ENVIRONMENT IE PUSEY LIBRARY WAS BUILT BENEATH HARVARD YARD

By partially burying this three-level library underground and covering its roof with grass, planting, and paths which reinforce the existing circulation patterns of Harvard Yard, architects Hugh Stubbins and Associates have added an essential structure while preserving open space. Glass windows, concealed by sloping berms along two sides of the exterior and a central light court introduce natural lighting to staff and reader areas. Shown above is the principal entrance. The mobile in black steel is Alexander Calder's "The Onion."

The most recent addition to Harvard Yard is a courteous and restrained new library. It is a background building constructed for the most part below grade on a site that was too constricted for a building above ground. Harvard Yard, of course, is a place of great historic interest, a museum of native American architecture of every period and an environment revered by generations of Harvard students, Cambridge citizens, and lovers of campus architecture.

Before being asked to design the Pusey Library, Hugh Stubbins Associates had been engaged to survey the entire twenty two-acre Yard with the object of improving access and services.

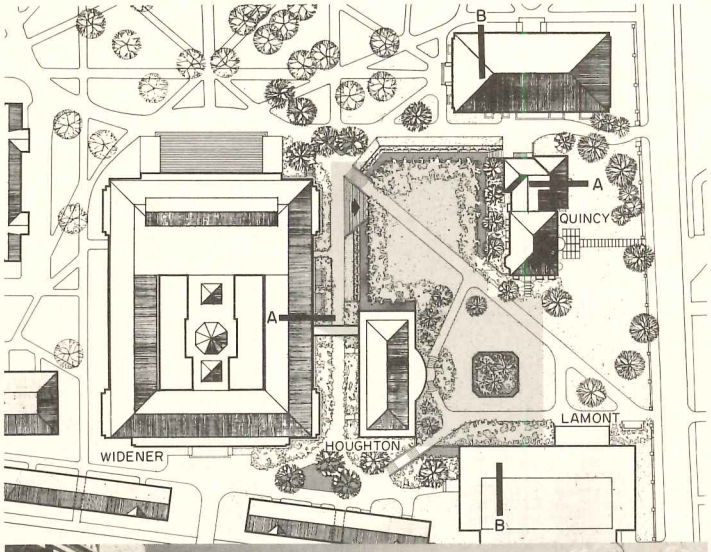
After careful observation of the patterns of activity and circulation within the Yard, the architects proposed that it be completely closed to automobiles and parking except for service and emergency access. This was implemented by the university.

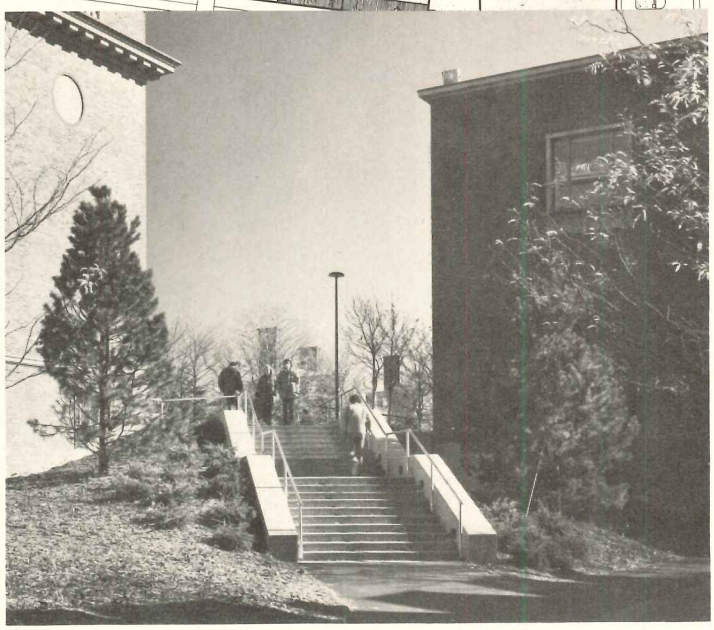
Originally it had been thought that the proposed library should be completely subterranean, but new concepts of landscaping led to the idea that the building could emerge at least slightly above ground. The architects foresaw an opportunity they have since effectively capitalized upon—that of designing the library in a way that would open up new vistas within the Yard as seen from the inside of the new structure, or from its landscaped roof. Just as importantly, allowing the building to surface brings daylight into the interiors.

From the beginning, the Pusey Library was seen as an interconnecting link among three existing libraries — Widener, Houghton and Lamont (see site plan right), and an extension of each. Its roof has become a link as well, its paths and landscaping reinforcing the existing circulation network in the Yard. Inside the library, the principal circulation corridor is directly beneath the main diagonal path on the roof. The three major entrances to the new library are at important campus nodes. The principal entrance is directly to the east of the grand staircase of the Widener Library; the second is at the corner formed by Houghton and Lamont; the third is adjacent to 17 Quincy, the former official residence of the president of the university, now used for miscellaneous functions.

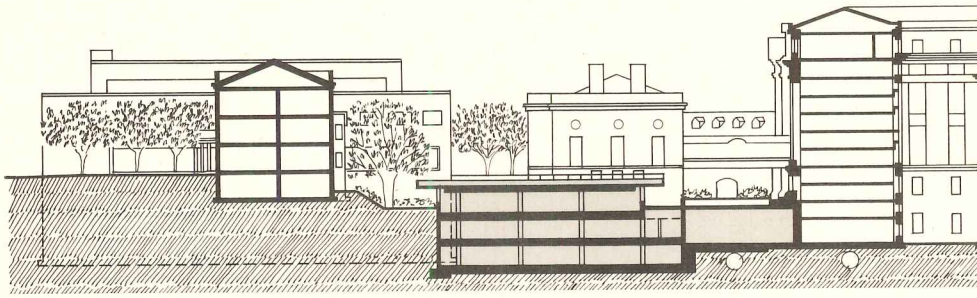
The new structure, which has been so precisely and definitively attached to its neighboring build-

The view across the landscaped roof of the new library (right) is as seen from the front of the Widener Library. The steps lead to the principal diagonal path, which connects with the circulation system of the Yard. The main entrance of Pusey is below grade at the foot of a staircase to the right of this stair. The stairway (below) also leads to the landscaped roof of Pusey. It is located between Houghton Library and Lamont Library.



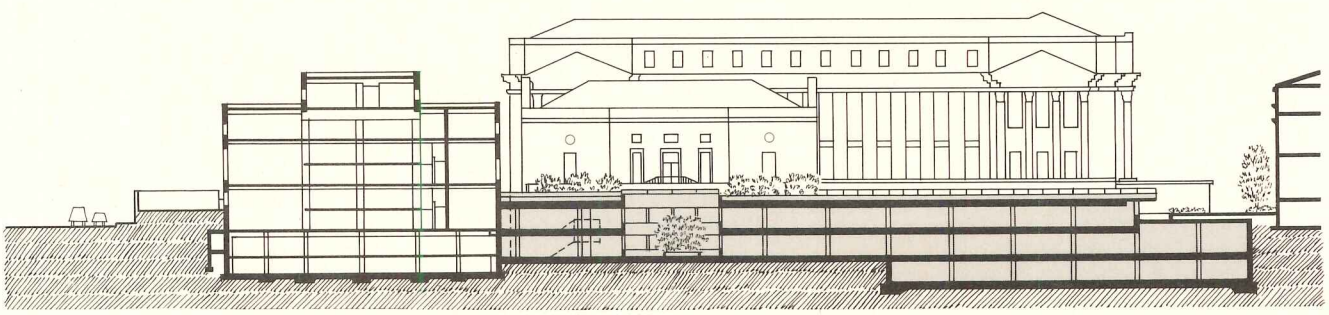



© Steve Rosenthal



SECTION A-A

Edward Jacoby



SECTION B-B

ings and to the campus infrastructure, adds 87,000 square feet to the buildings that comprise the Harvard College Library, which is a subdivision of the Harvard University Library, the largest university library in the world. Of the eight libraries within the College Library, three required their own reading rooms and better conservation of their priceless collections. These are the Harvard Theatre Collection, the Harvard University Archives and the Harvard Map Collection. The memorabilia of President Theodore Roosevelt needed adequate storage and display. Since, with the passage of time, books once regarded as commonplace have become rare, space had to be created that would allow such books to be kept at a temperature and humidity protective of their paper and bindings. Finally, as in all college libraries, the variety of services had increased and the collections were growing at rapidly accelerating rates. The new library accommodates the expanding general collections of Widener Library and the manuscript collections of Houghton.

In visible exterior form, the Pusey Library is a slanting grass-covered embankment as can be seen in the photos at right. Its roof is a stone-rimmed platform of earth containing a lawn, trees and shrubs, diagonally bisected by paths and stairs. On axis with the Neo-Georgian bow-front of Houghton is a square sunken courtyard (opposite page bottom right), which admits light to major interior spaces.

The portion of the building that appears above the surface is surrounded by a broad band of brick paving, which forms a moat between the berm and the window wall. At the top of the berm is a deep concrete trough planted with shrubs and vines.

Construction began on the Pusey Library in 1973 and was completed this spring at a cost of $5,653,000.—*Mildred F. Schmertz*

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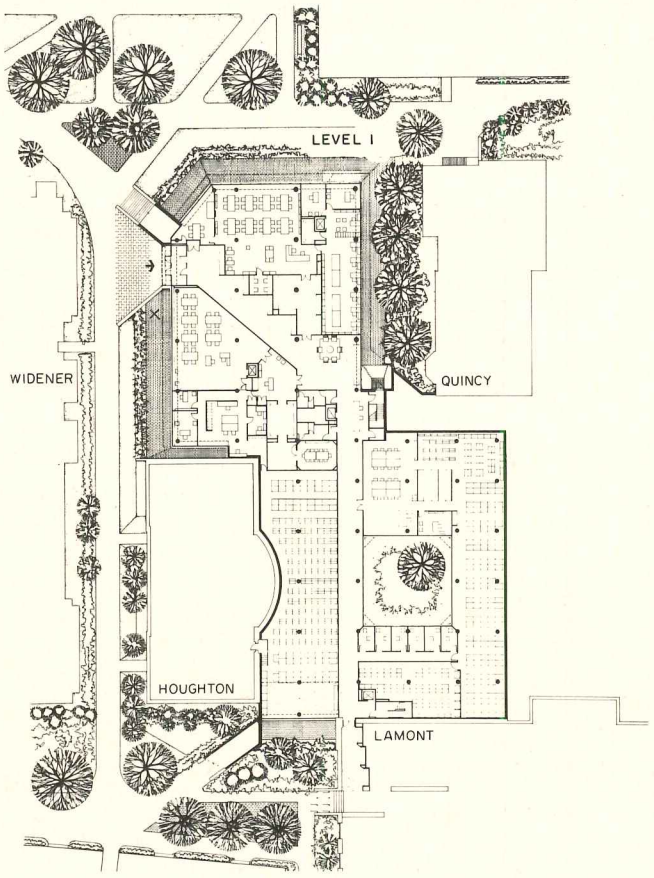
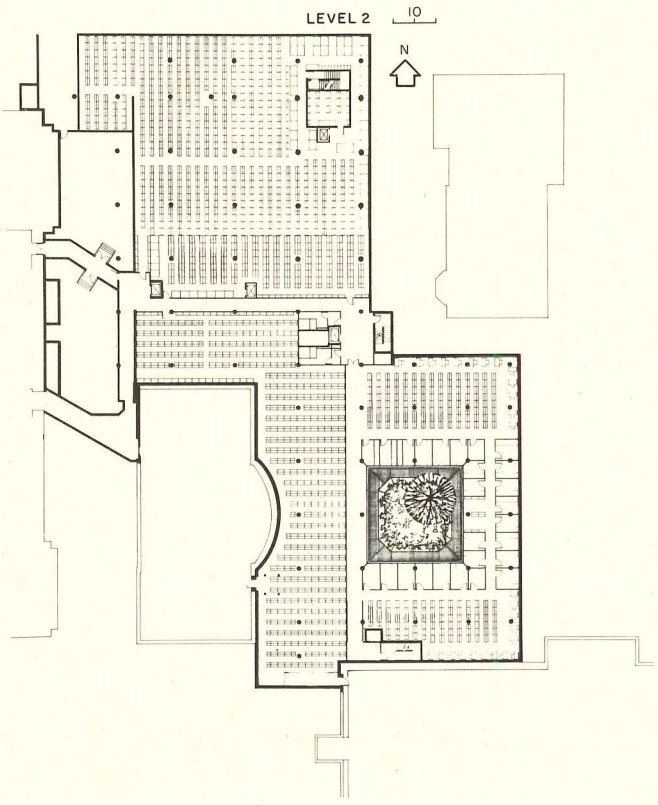
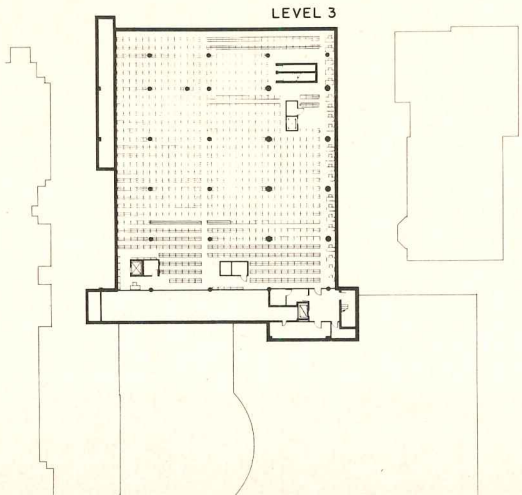
NATHAN MARSH PUSEY LIBRARY, Harvard Yard, Cambridge, Massachusetts. Owner: *President and Fellows of Harvard College.* Architects: *Hugh Stubbins and Associates, Inc.—design: Hugh Stubbins, Peter Woytuk; project architect: Merle T. Westlake; project manager: Howard Goldstein; landscape: Robert Fager; interior design: Tetsuo Takayanagi.* Engineers: *LeMessurier Associates/SCI* (structural); *Haley and Aldrich* (foundations); *van Zelm, Heywood and Shadford* (mechanical/electrical). General contractor: *The Volpe Construction Co., Inc.*

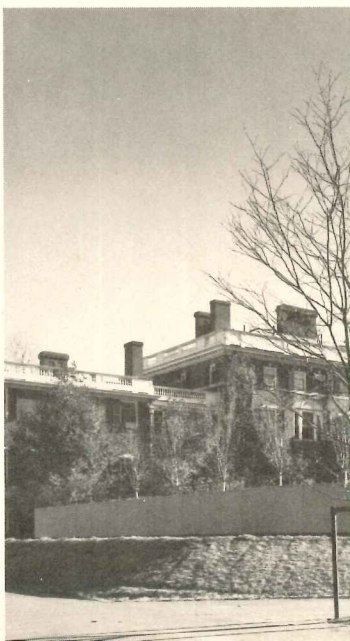


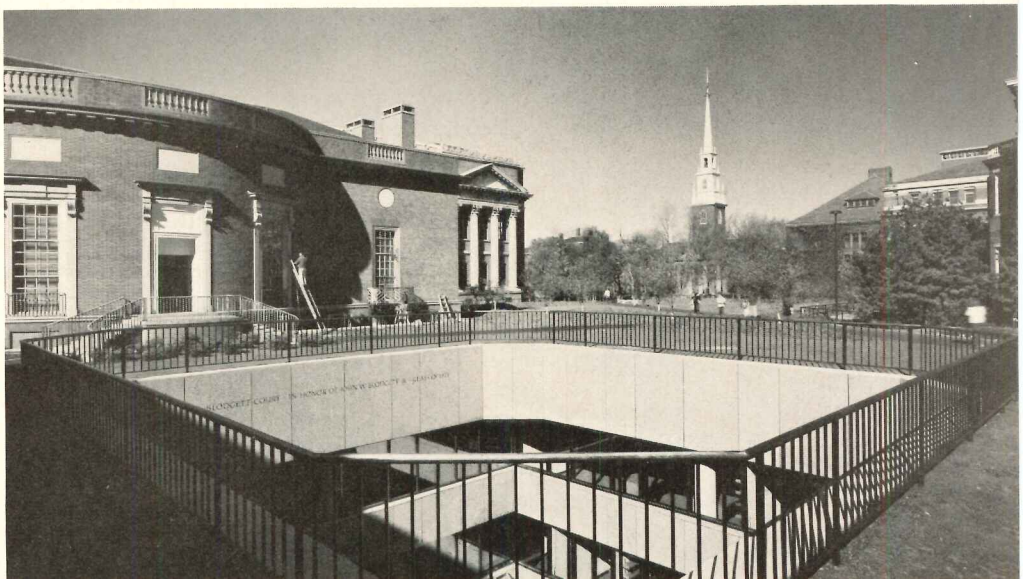

Edward Jacoby

Edward Jacoby



© Steve Rosenthal

As the main level plan (opposite page top) indicates, the library has been organized to provide good visual control from the circulation desk located just beyond the lounge adjacent to the exhibition gallery. The photograph (top) shows the degree to which the apparent bulk of the library has been minimized by the slanting berm. To the left of the photo is the corner of Emerson Hall and 17 Quincy. To the rear are Lamont and Houghton and to the right is Widener. The courtyard (right) is two levels deep. It is faced with panels of shipsaw granite alternating with bands of glass. The court is a small garden with a brick surround.



PUSEY LIBRARY

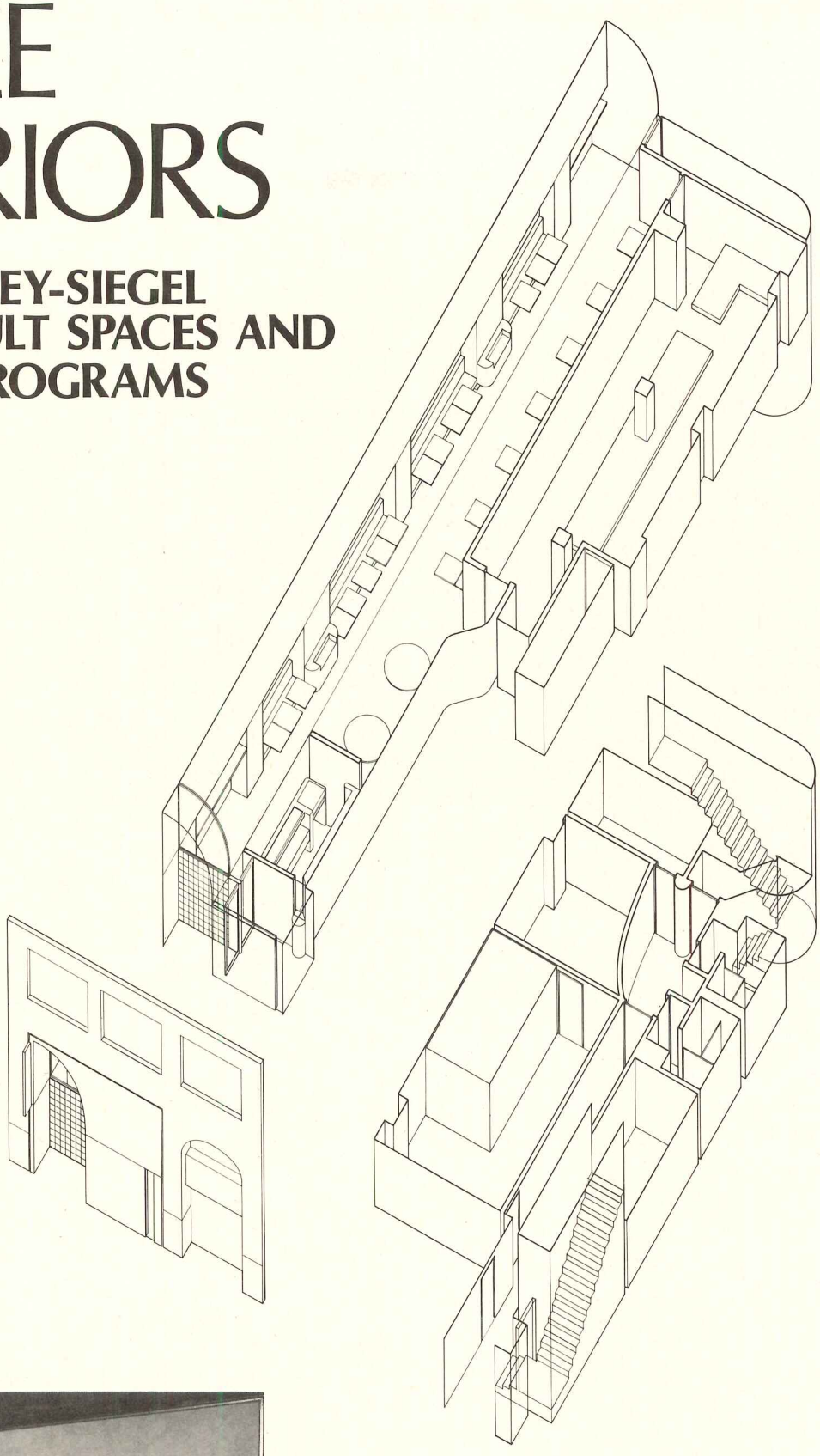
All the interiors and custom-built fixtures were designed by the architects. Nylon carpeting is used throughout except in bookstack areas. Most of the furniture is of oak, as is the trim. Walls are covered with a textured vinyl fabric with a flat off-white, non-reflective surface. The acoustic ceilings are also off-white. Chairs are upholstered in either muted tweeds or brown leather. The daylight is softened by window hangings of natural hemp in an open-weave geometric pattern. All metal, from the window mullions to the smallest door hinge, is of bronze or bronze-finished aluminum. Accent lighting is either incandescent, or fluorescent warmed by gold reflectors within the light fixtures.

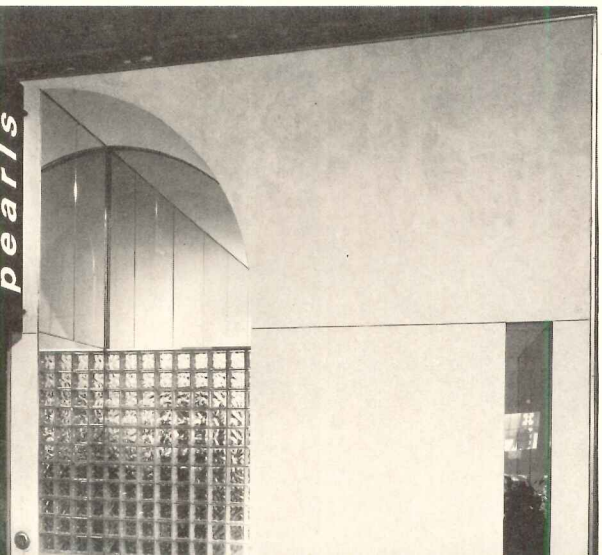
*Edward Jacoby photos*

The photo (top) is of the reading room for the theater collection. The principal corridor (middle) is an exhibition gallery. It contains four large oak framed, acrylic-fronted exhibition cases for changing exhibitions. The gallery opens into the lounge (left) with a long display case beneath the window overlooking the moat. The lounge is a hub that provides access to the theater collection and archives, as well as to the central circulation desk just visible at the edge of the picture.

# THREE INTERIORS

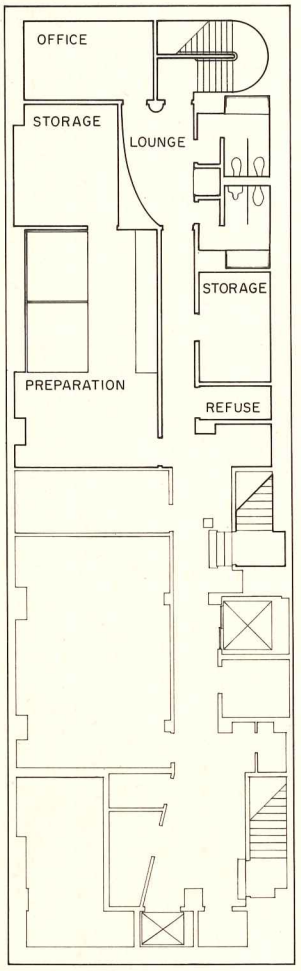
## Y GWATHMEY-SIEGEL OR DIFFICULT SPACES AND COMPLEX PROGRAMS



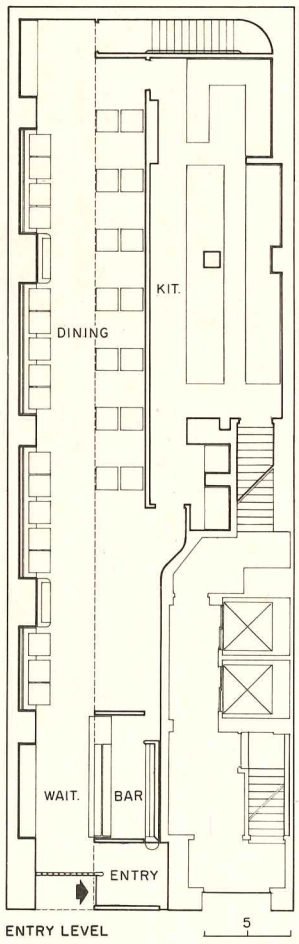



Like many other firms across the country, Gwathmey-Siegel finds an increasing percentage of its new commissions in the areas of renovation and interior design. The three shown here and on the pages that follow are in many ways typical of their recent work. Among the givens in each case was an awkwardly shaped space and a rather specific program to be accommodated in that space. Although the three projects are quite different in function, they have a similarity of scale and commonalities in architectural treatment that mark them as the work of a single firm—a firm that leaves the distinctive print of quality on all the work it does.

PEARL'S RESTAURANT: BY CAREFUL RESHAPING, SOME OF IT MORE APPARENT THAN REAL, THE VIRTUES OF LINEAR SPACE ARE SKILLFULLY EXPLOITED




CELLAR LEVEL




ENTRY LEVEL

thmey-Siegel was retained
n the owner of a well-known
urant in midtown Manhattan
forced to move to a nearby,
new location. The new space
a 14-foot-wide by 100-foot-
volume at street level. To
nteract these inhospitable
ortions, the architects devel-
l a half-vaulted section that
cted in the mirrors over the
quettes, appears to complete
along the entire length of the
e (see photos).

The front elevation reflects the section with surprising accuracy and, in so doing, gives the suggestion that the entire volume was slipped into place.

The kitchen, unexpectedly, runs parallel to the dining area and is linked by a stair to food storage areas in the cellar. A small office, for the owner, is also located downstairs.

The character of the finished interior is elegant, but there is no design overreach. Though the cuisine is Chinese, there is a notable absence of ethnic or thematic decor. The carpet is dark brown, the bar and cabinet work are white oak, the bentwood chairs are cane and white. A combination of wall-mounted and recessed lighting provides enrichment and visual accent without disturbing the restaurant's pleasant, low-key aura.

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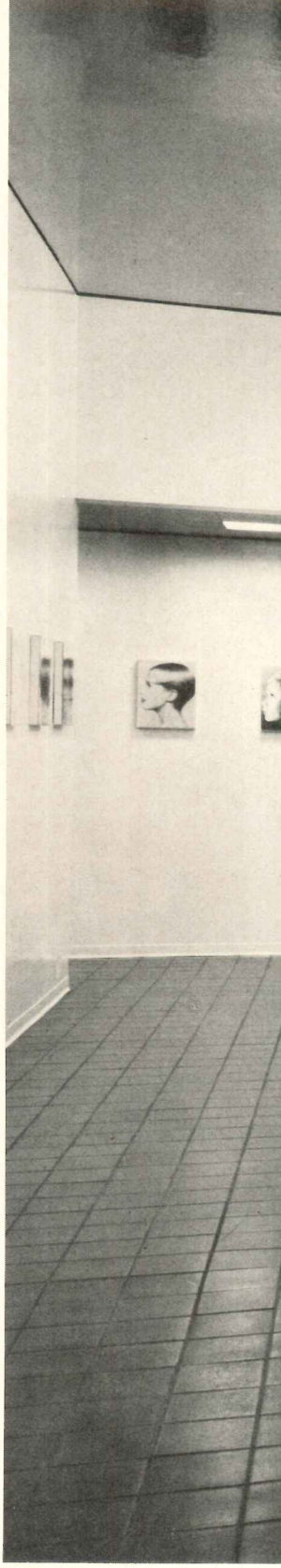
PEARL's, New York City. Architects *Gwathmey-Siegel—John Chimera, job captain.* Engineers: *Geiger Berger Associates* (structural), *Thomas Polise* (mechanical). Contractor: *All Building Construction Corporation.*

## VIDAL SASSOON: TRANSPARENCY AND GLOWING HIGHLIGHTS IN AN ELEGANT SPACE FOR GROOMING

Located in a shopping mall facing an enclosed pedestrian street, this men's and women's hair cutting salon announces its presence by means of bold signage and a rear-screen projection system visible from the street. Customers are divided at the reception area by gender, then follow two separate but orderly routes through washing, cutting and drying (see plan). The women's areas, larger because of the preponderence of female customers, are broken down into several smaller volumes to make the spaces more intimate. The areas where the ceiling has been dropped are finished in metal pan. The high-ceilinged areas are covered in mylar and, in combination with mirrors and accent lighting, give these spaces a glowing, reflective character.

Working more or less within Vidal Sassoon's standards, the architects selected other finishes that are durable and easy to maintain: dark brown quarry-tile for floors, plywood cabinets covered in plastic laminate. Colors throughout are rather subdu
a conscious effort to let the
rials rather than their colo
express the character of the s
Detailing is elegant.

The ambience is dressy
and tinged with a glamor
seems not inappropriate in a
where style is a large part of
it's all about.

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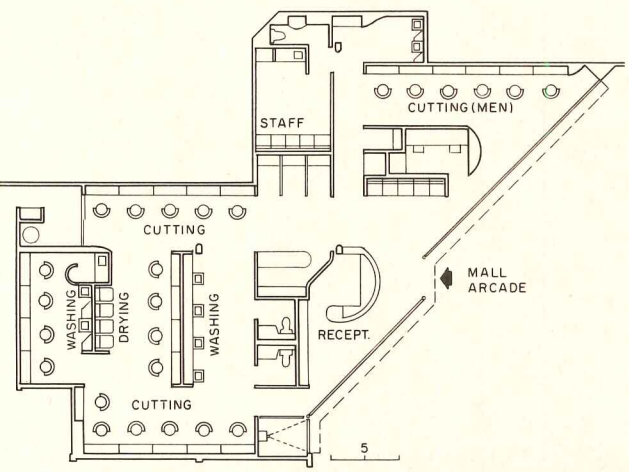
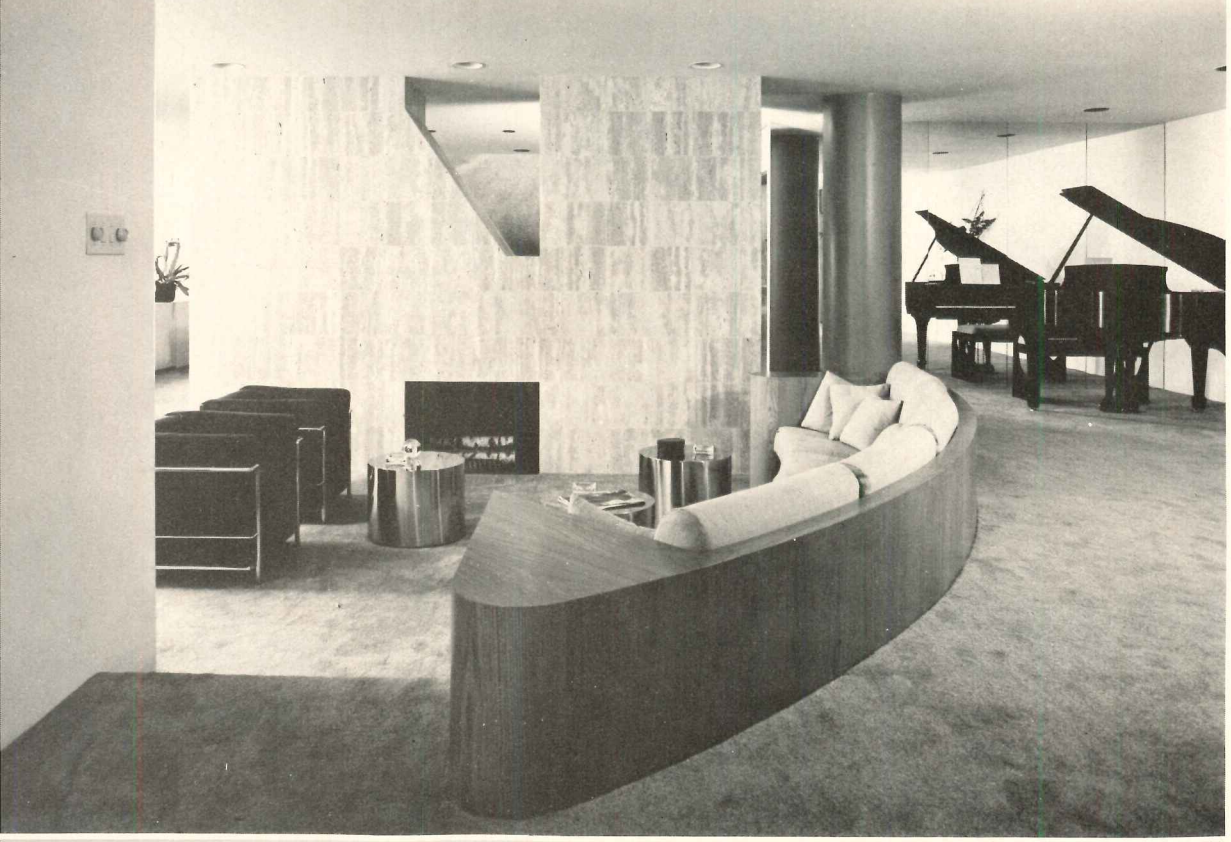
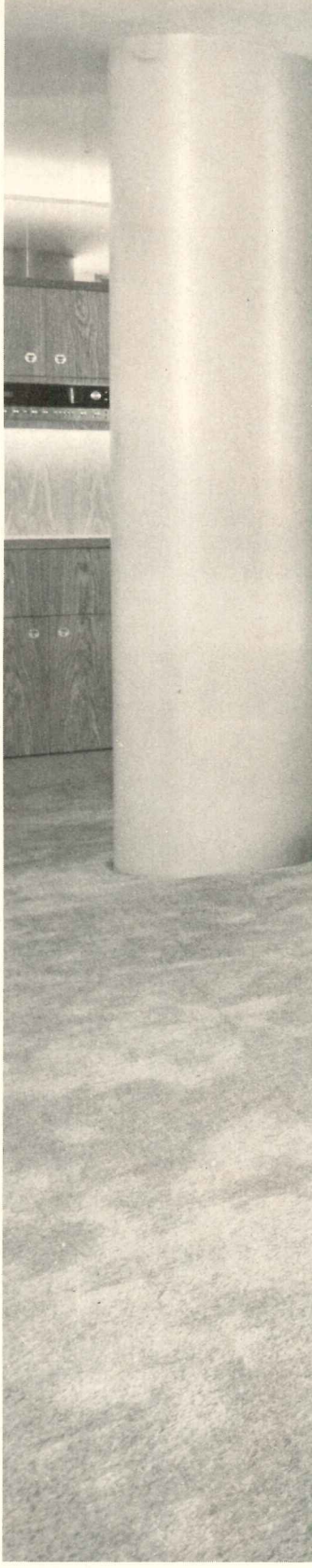
VIDAL SASSOON, Costa Mesa,
fornia. Architects: *Gwathmey-Si*
*Tsun Kin Tam, job-captain.* Me
cal engineer: *Thomas Polise.* Co
tor: *Illig Construction Company.*

Marvin Rand photos





## UNGER APARTMENT: NEW VOLUMES, NEW FINISHES, NEW LIFESTYLE

In this apartment renovation f
designer Kay Unger, the architec
had three givens: a stepped dow
living room, a northern exposur
and a regular grid of column
Within these constraints, the
were free to plan a series of inte
connected spaces that pivo
around cabinets, columns and
travertine-clad fireplace wall. Th
two-riser change of level and th
sweeping arc of the sofa back d
fine the living room but only
part of the larger entrance and ga
lery space. The private zones, i

Tom Yee photos

ıding a den that doubles as a estroom, are grouped at the artment's west end. The existing chen, next to a small studio, ıs not renovated at the request the owner.

The extensive cabinet work most all of it designed by the ar-itects, is finished in white oak d detailed with exquisite care. e walls are covered in white nyl and the carpet is a soft gray-own. The selective use of floor-ceiling mirrors on one wall of e living room is echoed in the choice of polished metal window blinds that, by reflection, turn the apartment inward on itself at night.

The 6-foot by 6-foot painting of an Old Law tenement, by Hugh Kepets, a curious and ironic contrast to its surroundings, is a very strong graphic element facing the entrance.

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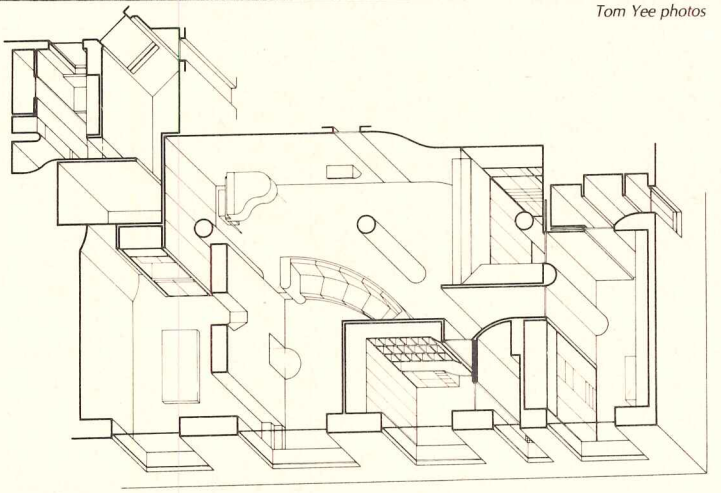
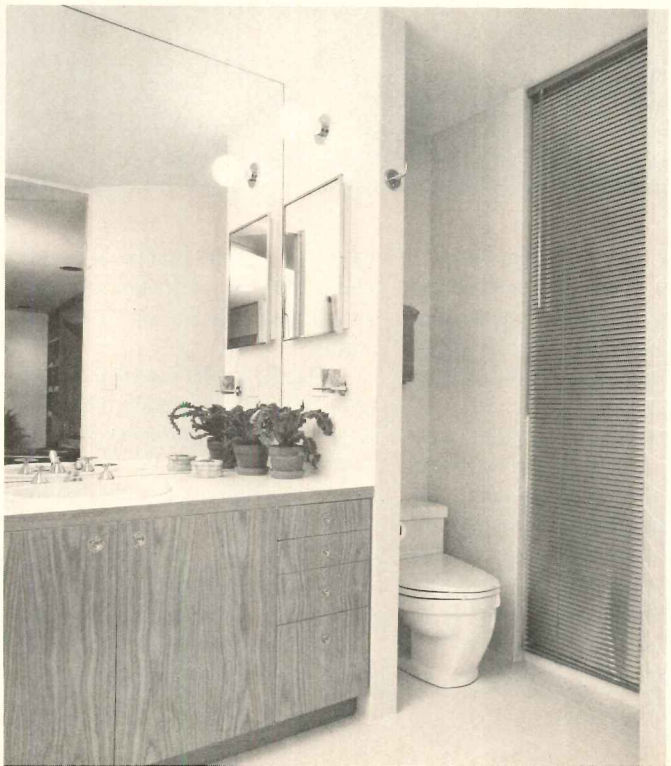
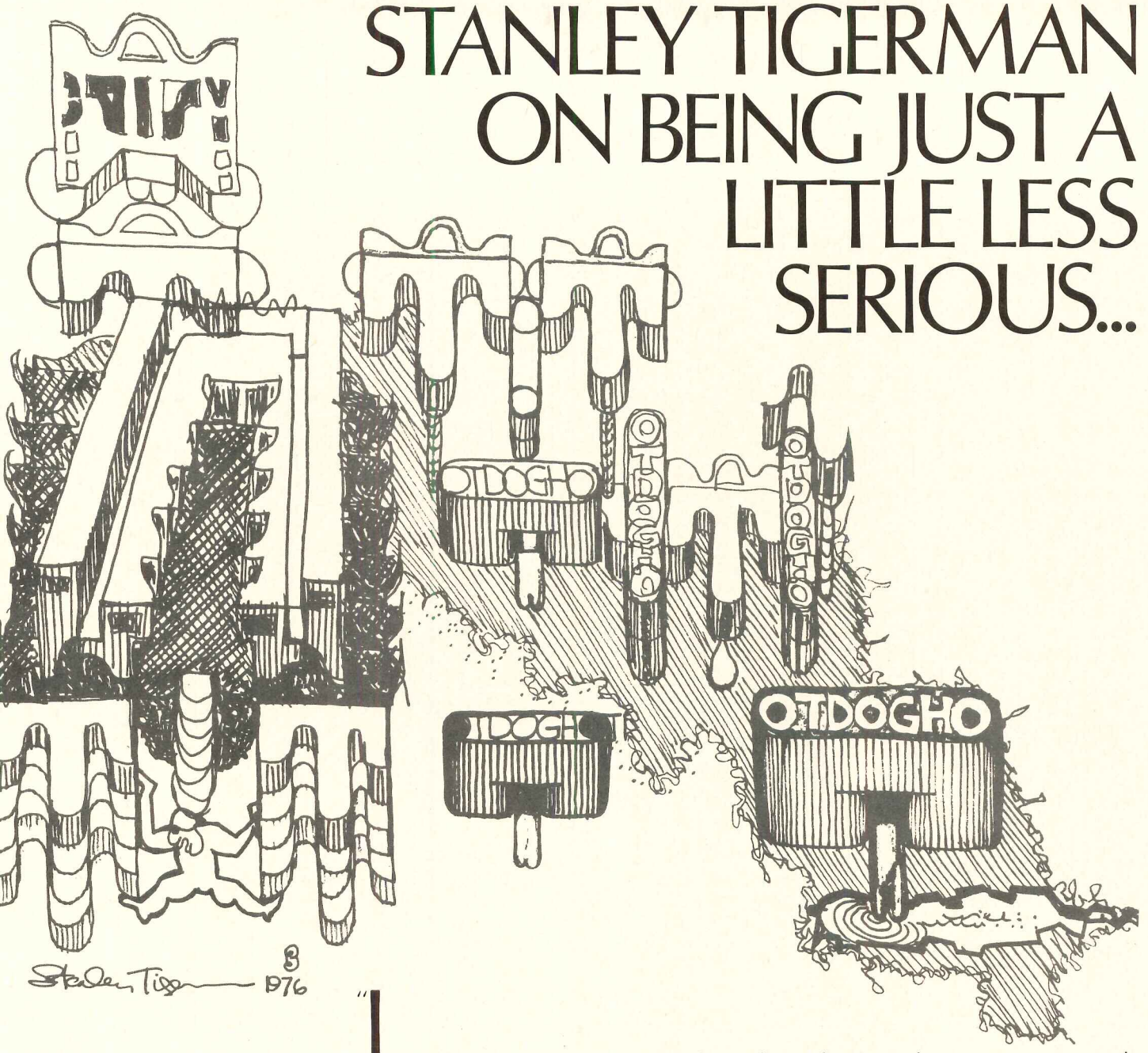
UNGER APARTMENT, New York City. Architects: *Gwathmey-Siegel—Peter Szilagyi, job captain.* Contractor: *All Building Construction Corporation.*



In the apartment's rather extensive private areas, skillfully designed and detailed cabinetwork is an integral part of the solution. Also important is the lighting, which is carefully balanced and flexible. Throughout the apartment, mirrors are used to expand the spaces in subtle—and sometimes surprising—ways.



# STANLEY TIGERMAN ON BEING JUST A LITTLE LESS SERIOUS...




"I think we take architecture seriously—at least I hope we do. But too many people have become too serious; they've become believers in some one right way. Except there is none," argues Stanley Tigerman.

Tigerman, who has done a lot of serious and important building in and around Chicago (and also around the world), has always been an explorer and an articulate exponent of alternatives. He now has an eight-man ("including the receptionist") staff all under 30 ("except for me") and is being "a little less serious. We're doing a lot of funny and wry and satirical things—work that makes people feel good and that makes us feel good.

"Architecture is pluralistic today. There are people doing boxes, people who express structure, advocacy people who do totally user-oriented design, formalists, guys who look to another time in a reminiscing way, even people who look only to themselves—self-eclectics. All of these things are possible and should be.

"We're doing something else—political, social, humorous, sardonic, of course relating to Venturi and that stuff. I think that's reasonable too. I don't think architecture needs to be cleansed anymore."

Tigerman's recent "not too serious" work—as the drawings on the pages that follow show clearly—is exploring curved shapes. It began with his studies for a library for the blind (page 116), where all of the curved shapes "have a reason." In some of the other work, the reason may be harder to rationalize, though Tigerman *has* a reason—even if its is to be purposely irrational. And if you cannot accept his reasons why, it is nonetheless difficult to answer his "why not?" —*W.W.*

The important use of curved shapes in this house is to make it as abstract as possible—although in fact it is a simple, 14- by 70-foot winterized weekend and vacation house on the prairie in northwestern Illinois built within a $35,000 budget.

The important design idea is that the house is not four-sided, but two-sided—an idea established by the rounded ends divided by a louvered vertical strip on the centerline. And beyond that, the house is intended to be a series of oppositions or inversions. On the side facing the road (bottom in drawing, upper photo) the house is totally opaque and solid, with even the front door let in with curved shapes. Tigerman sees this side of the house as a performer on a stage, or as a proscenium, with an audience of apple trees to be planted 30 feet on center. The approach is deliberately not on axis—one is intended to see the house, then have it hidden behind the trees, enter the drive, "lose focus," and then unexpectedly come upon the house with no opportunity to study it or even know how big it is. Even its cedar wall is "an opposition" to the natural trees planted in a geometric (unnatural) way.

Once you enter the house and move to the living spaces, you are immediately "thrust out of it"—with glass walls in an (unnatural) Mondrian pattern overlooking a section of the site that slopes down to a swimming pond and huge old trees beyond.

Functionally, the glass wall reflects the simple plan behind: The tall window lights the stair well, the small window adjacent is over the tub, the larger windows open to bedrooms on the upper level, dining and living spaces below. Guests sleep on curved built-in couches on the main level.

The Hot Dog House (as it is inevitably known) has 1,600 square feet of living space, for a cost of $22 per square foot.

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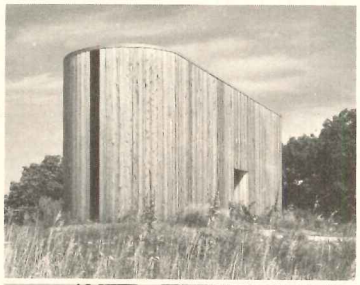
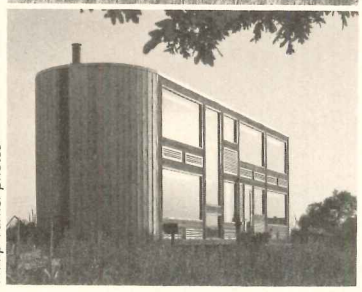
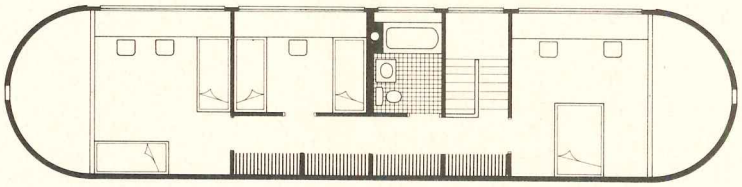
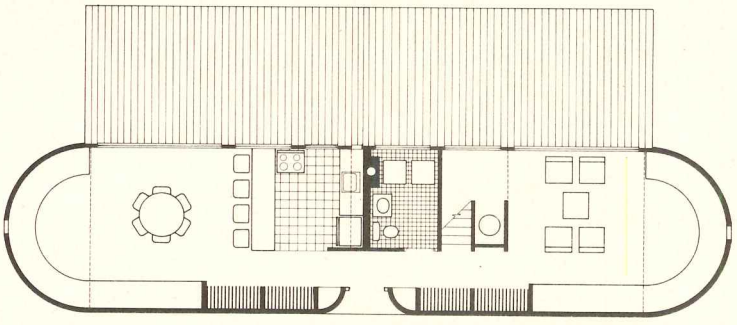
PRIVATE RESIDENCE, northwestern Illinois. Architects: *Stanley Tigerman & Associates.* Contractor: *Donald Zimmerman.*

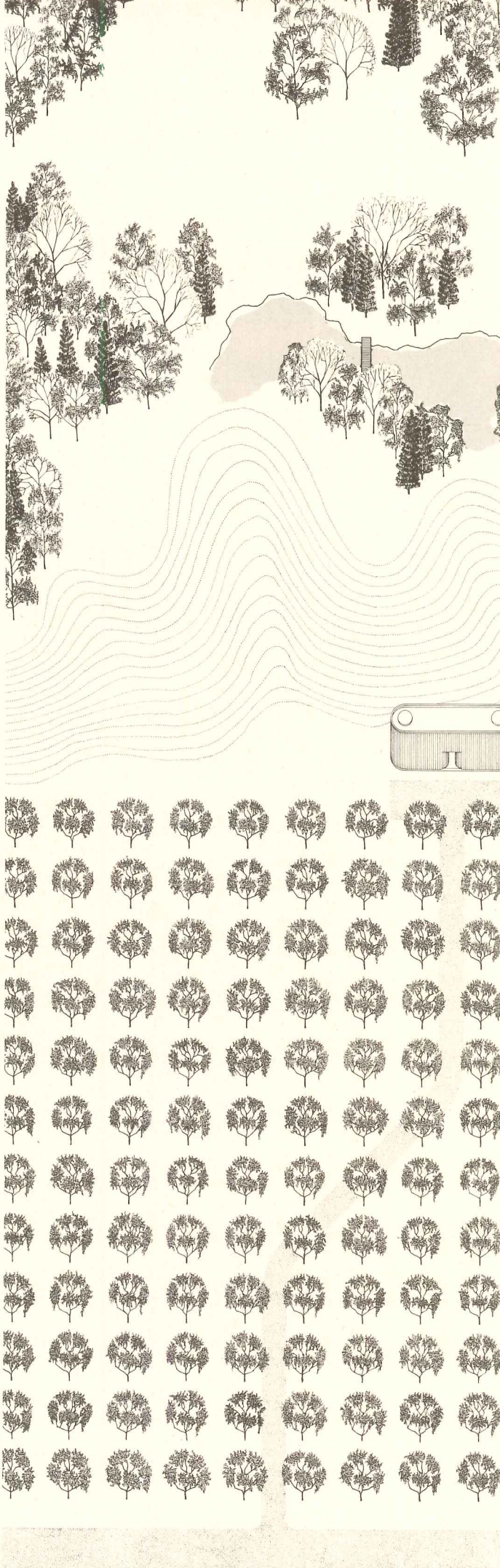




*Philip Turner photos*





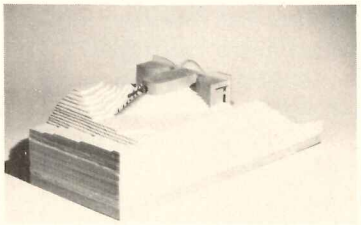


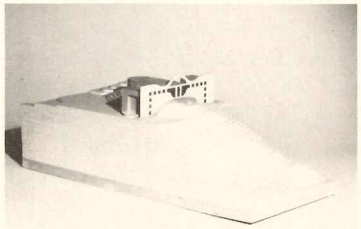
Built on a high dune overlooking Lake Michigan, this house in Indiana is a direct offshoot and elaboration of The Hot Dog House—the owner of this house saw and liked it and came to Tigerman.

For all of its varied symbolisms, from Spanish mission to male/female, the house is extremely functional and practical. The owners wanted extreme informality and got it—the front door, after a long climb up the steps of the dune, opens directly to the kitchen and a centrally-placed round kitchen table. Down a few steps—so the kitchen equipment and clutter is hidden—is the living room, which opens through large (and fancifully shaped) glass areas to a main living deck and the magnificent view down the dune to the Lake. Directly off this main space, but reached by opaque and serpentine passageways lit by curved neon tubes ("why not be unexpected, full of surprises?"), are the master bedroom and, on the opposite side, bedrooms for the family's two daughters. Stairs in both sides of the living room lead down to unprogrammed, open-grade spaces—one for the parents and one for the children—and both with decks separated for privacy by the sand dune that reaches up to the edge of the upper level deck.

The house is finished inside and out in cedar—except for the north-view wall (top elevation) which is—again—in total opposition to the rest of the house. It is white—finished in stucco both sides. While the rest of the house is windowless, this wall opens every room in the house, except the kitchen, to the magnificent view. The curves in elevation are an inversion of the plan curves in the rest of the house. Why the curves? "The owner wanted one. If you like, make it a Spanish mission. Or if you like, make it a way to call the girls in from the beach. All I know," says Tigerman, "is that the first time I showed the drawings to the client, he loved it.

"And it made him laugh. The whole thing is—in addition to being functional and workable—to make people laugh and be surprised. Why can't we sometimes do things in a humorous way?"





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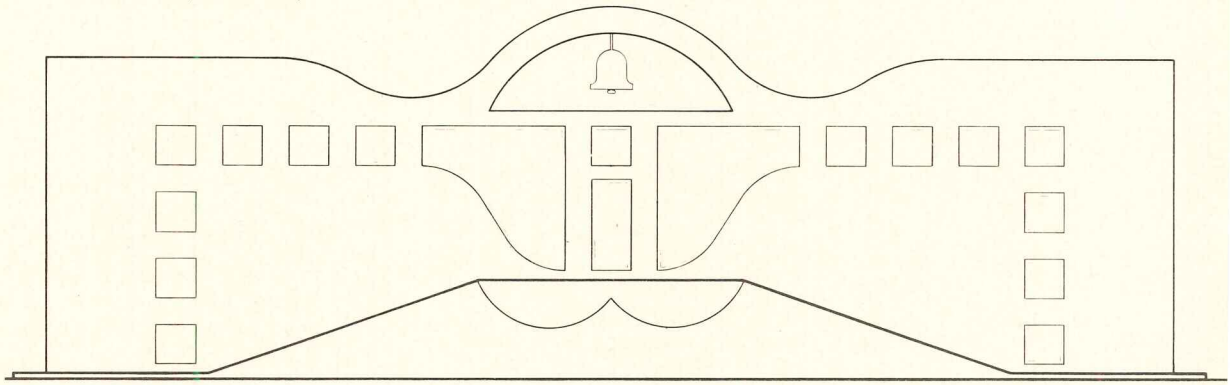
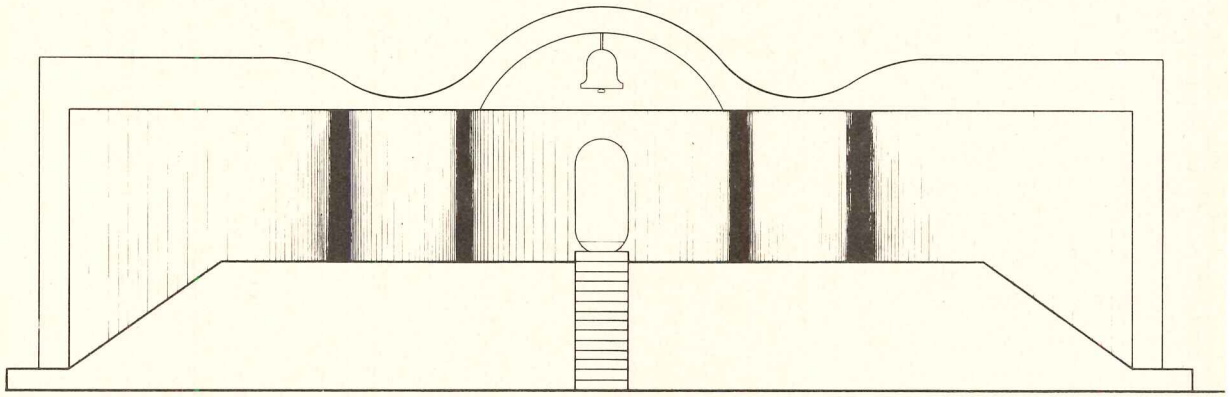
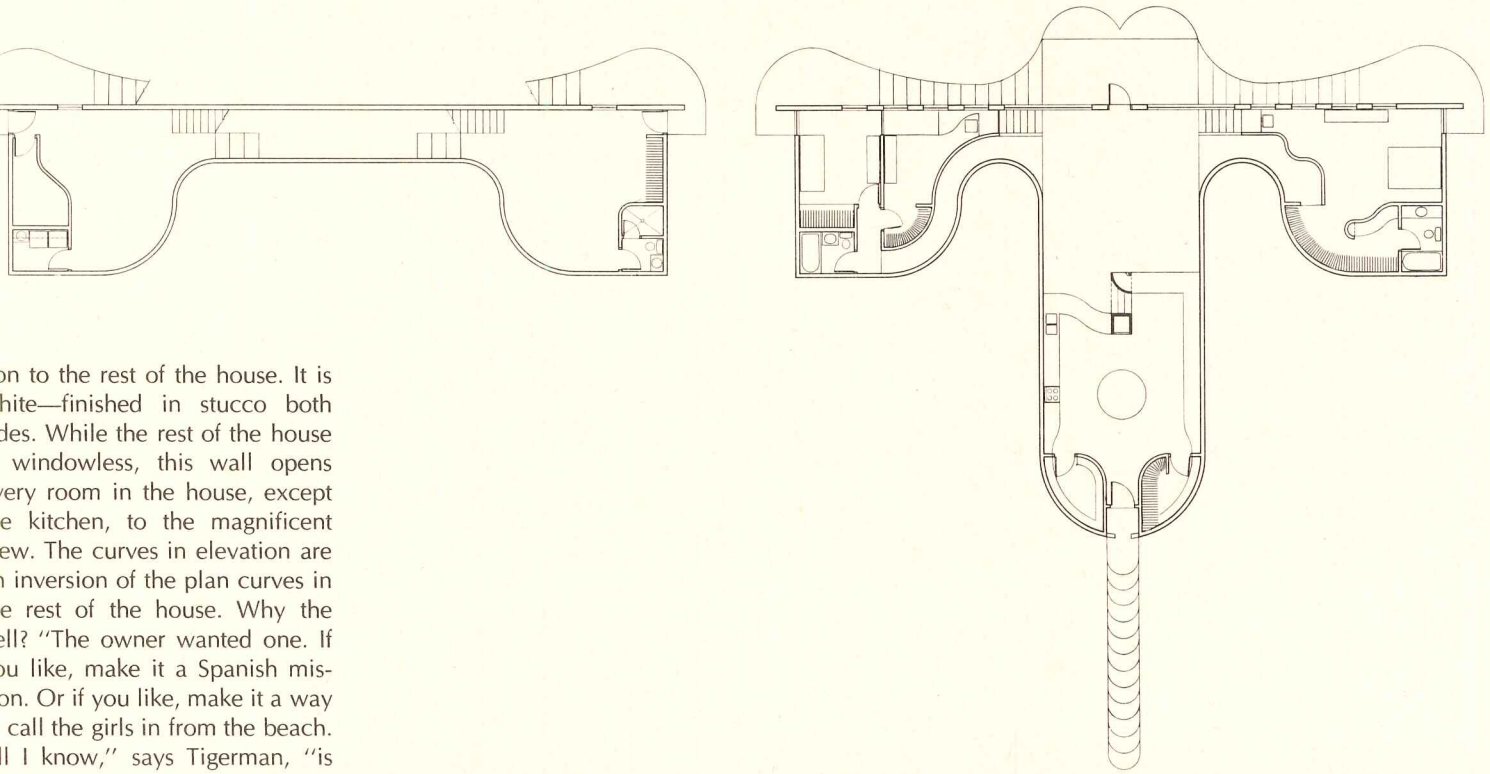
PRIVATE RESIDENCE IN INDIANA. Architects: *Stanley Tigerman & Associates—Stanley Tigerman, design; Anthony Saifuku, associate-in-charge; Dan Sutherland, assistant. Engineers: Henry Hawry (structural); Ted Skrzenta & Associates (mechanical).*







St. John's is the center of the Catholic community at the University of Illinois, Champaign-Urbana. Both the 800-seat chapel and the L-shaped Newman Foundation dormitory that wraps around it were crowded for space; and Tigerman created the needed space and a whole new circulation and organization for services and other church functions with an extraordinary "cloud room" in the U shaped by the two existing buildings.

The design scheme involves removing the stained-glass windows on the "inner" side of the chapel, creating a series of seven openings to a new, six-foot-wide cloister at the level of the chapel floor. This area is skylighted, incorporating part of the stained glass. Beyond that space is the "cloud room"—a large, essentially open space under a concrete roof that sweeps down in waves from a high point near the chapel to a low point at the wall of the dormitory. The functional explanation is simple, for the roof not only helps create a dramatic shape inside soaring upwards towards the great space of the church; it drops low enough on the Newman Hall side to avoid blocking the lowest level of dormitory windows.

This strong curve in elevation is echoed in the plan in several ways: Just outside the church and cloister, and at that level (four and a half feet above the floor of the "cloud room") are a series of confessionals and sacristies, floating in space under the "clouds"—for the concrete roof is to be blue with *trompe l'oeil* clouds.

Echoing these shapes (and best seen at the left of the new room in the plan top right), are a series of "banquette spaces" carved out of the floor of the cloud room. They are at the basement level of the church, where the priests maintain offices, a conference room, and classrooms.

The new room also creates a new circulation for the church, which is especially useful in winter. Worshipers now enter through a new entrance into the cloud room—move up to the church by processional stairways at both the narthex and altar. There are also short stairways down to the basement offices and to the lowest level of the dormitory.

This project is awaiting funding for construction.

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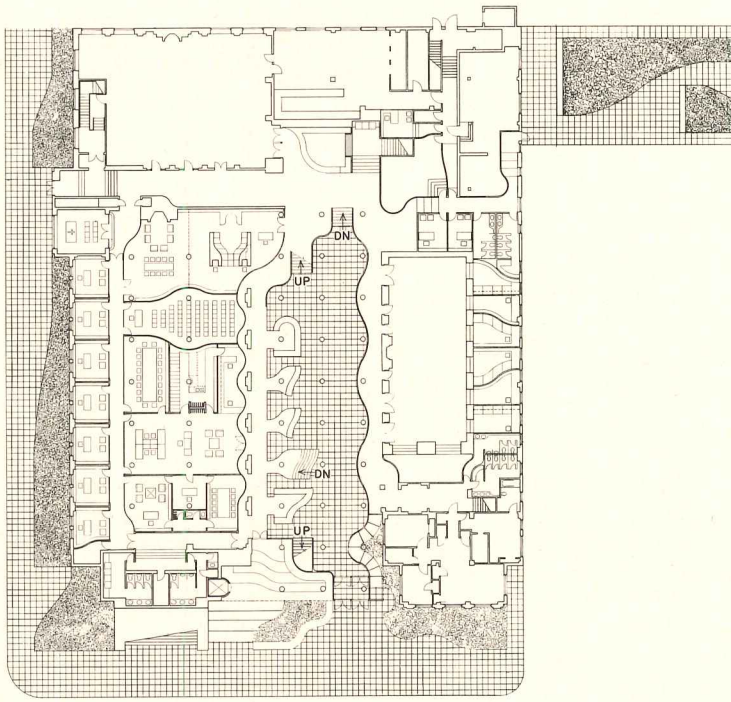
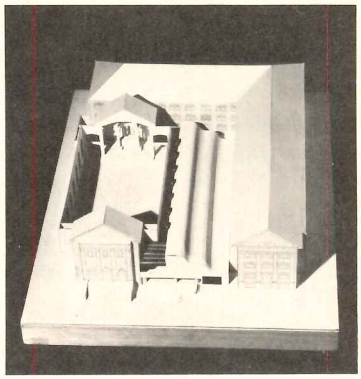
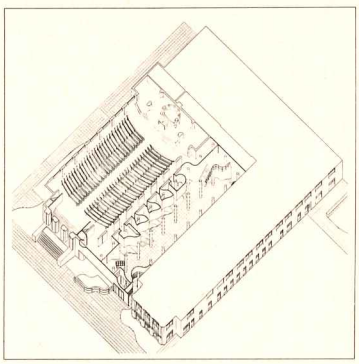
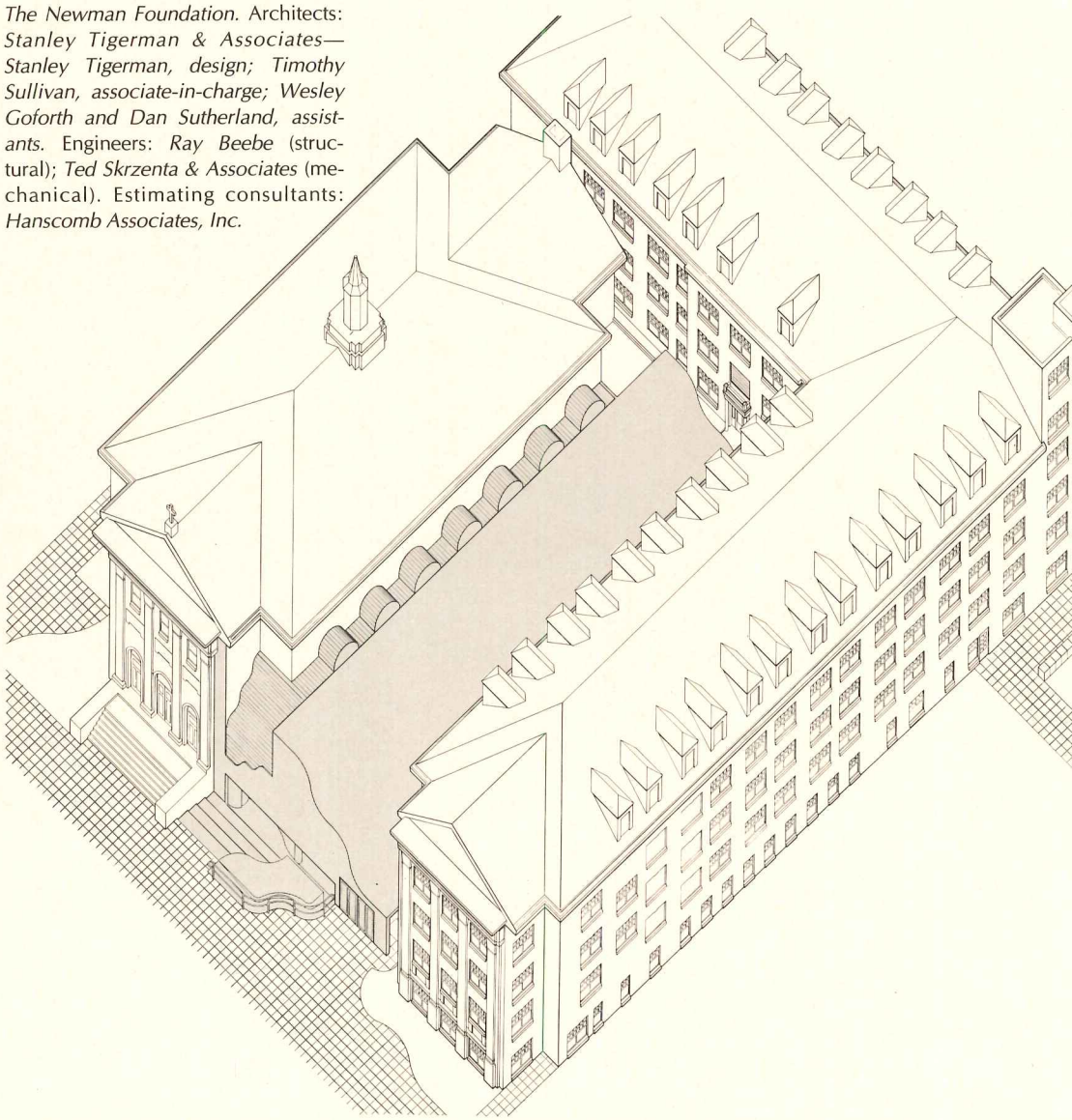
ST. JOHN'S, UNIVERSITY OF ILLINOIS, Champaign-Urbana. Client: *The Newman Foundation.* Architects: *Stanley Tigerman & Associates—Stanley Tigerman, design; Timothy Sullivan, associate-in-charge; Wesley Goforth and Dan Sutherland, assistants.* Engineers: *Ray Beebe* (structural); *Ted Skrzenta & Associates* (mechanical). Estimating consultants: *Hanscomb Associates, Inc.*

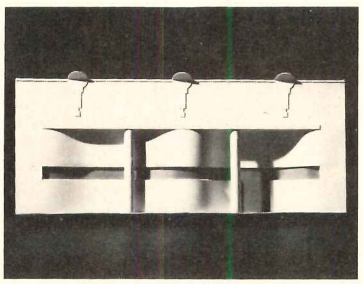






hree narrow stores on a
in Chicago's West Side are
being transformed by volun-
abor into The Ukranian Insti-
f Modern Art. The building is
ned as a meeting place for the
munity, a museum ("with
extraordinarily good art"), a
ry, and a working studio
e for painters and sculptors.
With the dividing walls re-
ed, the three stores combine
an area 50 feet wide, with
columns which—fireproofed
covered—will serve "as mod-
rs of the space," dividing the
exhibit room (lower end of
into varied exhibit and ser-
areas. The main room will
(from bottom to top in plan)
all museum "store" just in-
the entrance, a reception
and office, a conference
, toilets, and a storage area.
e left of the plan is the main
bition room, with a free-
ing projection booth for mo-
pictures or slides. At the rear
e site (top in plan), will be
a cinder-block studio space
upward acting doors opening
e alley at the rear. This space
be subdivided as needed. Be-
n the new building and the
will be an open courtyard—
arties, for drawing classes, or
culpture garden.
Again, Tigerman's curved
are everywhere. "Mainly,"
plains, "they are intended to
se and express the columns
odulators of the space." On
ont elevation, the wall sim-
ends back to expose the col-
and to begin to express what
pening inside and beyond in
ourtyard (where the columns
imply freestanding). In "a
rse kind of preservation," Ti-
an left only one narrow strip
e existing terra cotta coping,
ltered the three ornaments so
he top half of each bends for-
45 degrees—"so they now
over the street like gar-
s" in extraordinary contrast
e white stucco wall with its
d and butt-glazed strip win-
The ornaments still serve to



carry the pattern of ornament that extends the length of the block.

All interior walls, and the walls of the courtyard, will be painted white to unify the varied surfaces of block, drywall, and the brick party walls.

This project is now under construction.

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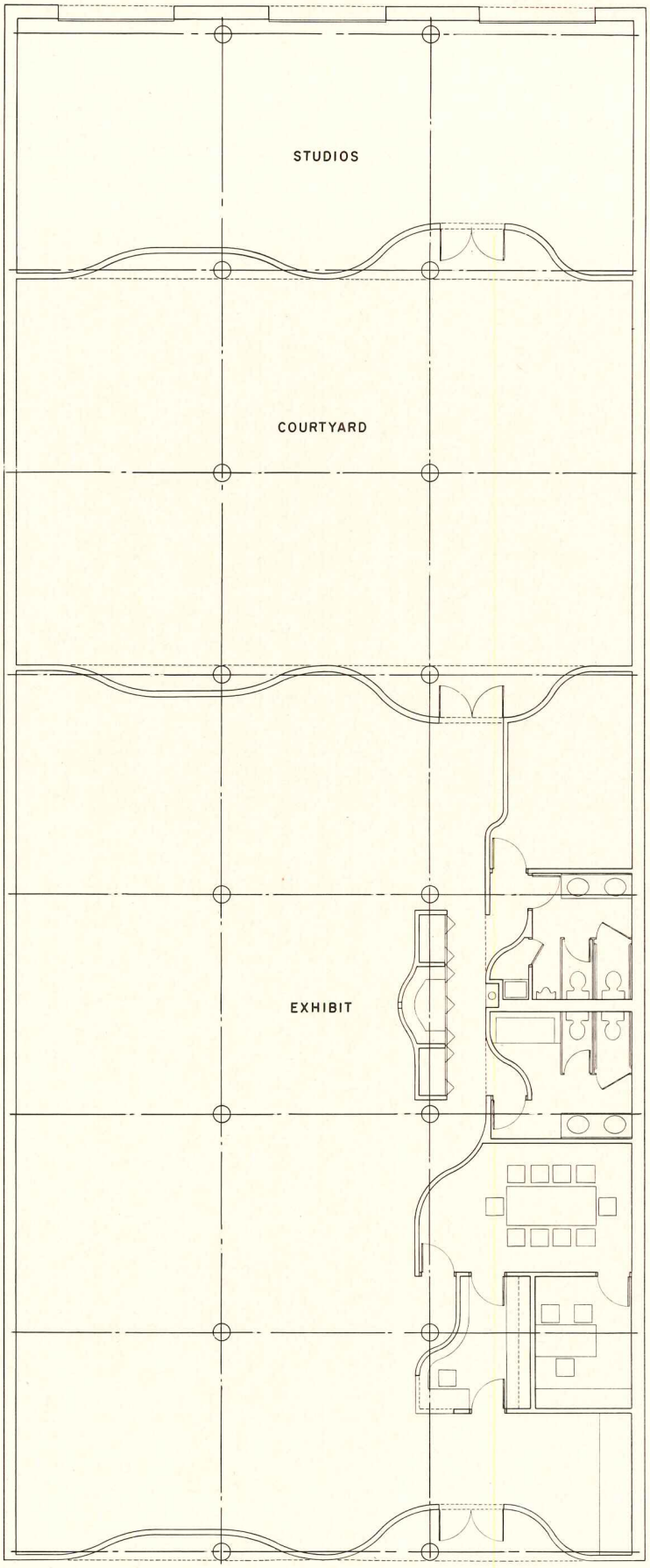
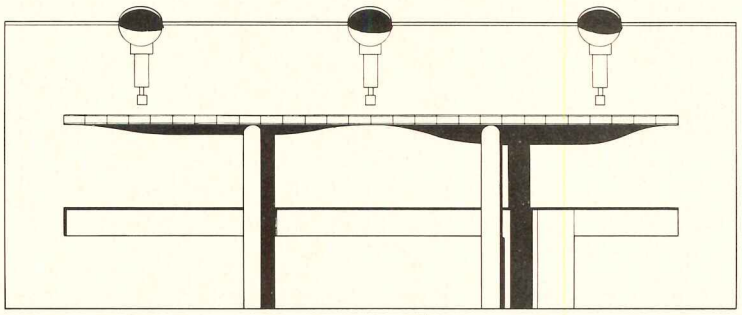
UKRAINIAN INSTITUTE OF MODERN ART, Chicago, Illinois. Architects: *Stanley Tigerman & Associates—Stanley Tigerman, design; Robert E. Fugman, associate-in-charge.*



Probably the very best building Tigerman has ever done—and surely the most sensitive—is this Illinois Regional Library for the Blind and Physically Handicapped, now under construction on Chicago's West Side near the Circle Campus of the University of Illinois.

In this building, Tigerman's curved shapes, which in other work might be considered fanciful, are completely functional, everywhere working to assist the blind or wheelchair-bound to use the library on their own with a minimum of assistance from the staff.

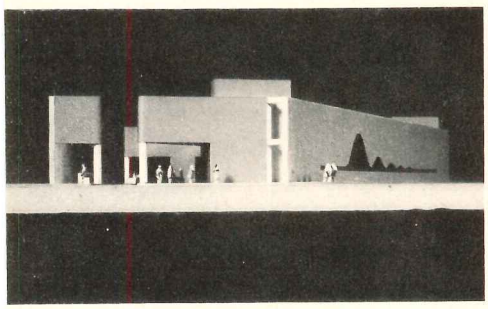
And perhaps more completely than in the other work shown in this article, Tigerman has developed his "reversals" or "oppositions and inversions." For example:

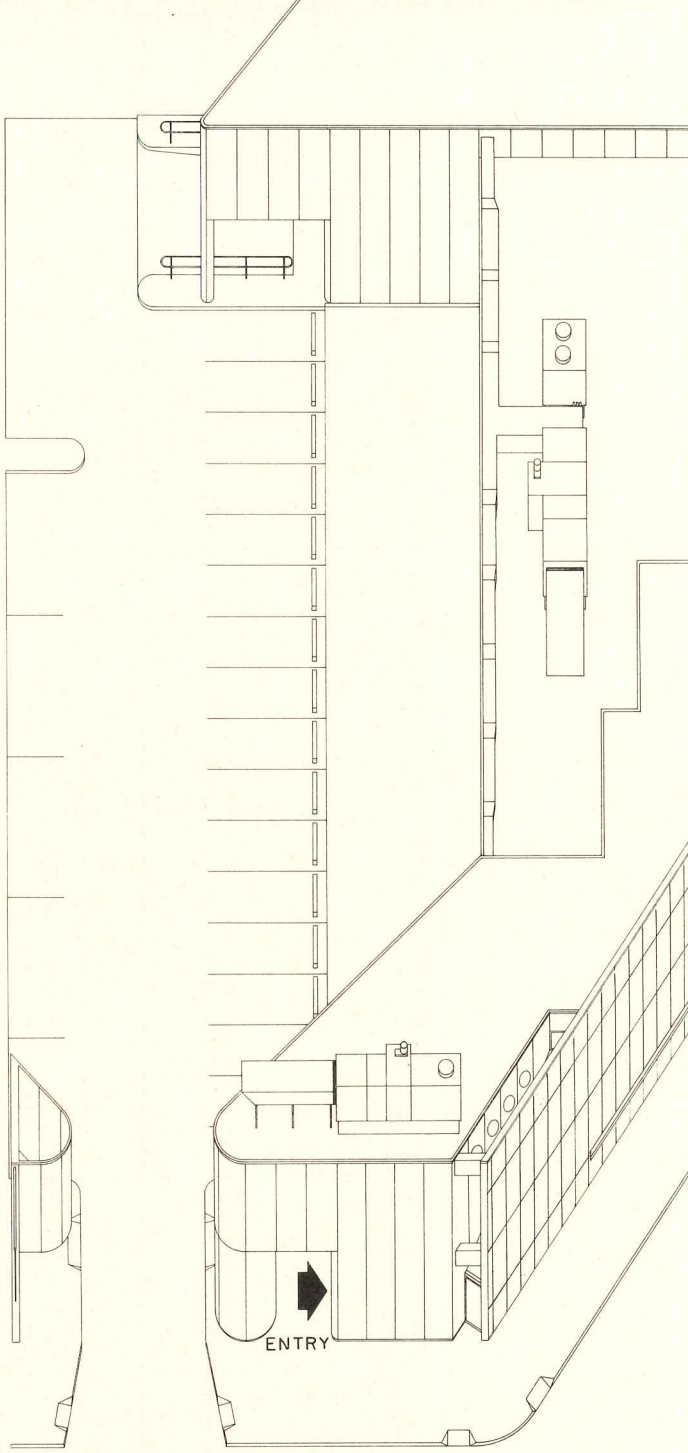
- Where the building is tallest—on the hypotenuse and short side of the triangular building—the space is in fact one story inside; a tall "people space." In the center, where it is lower, are layered three low (7½-foot-high) levels of stacks.
- The building is brightly colored inside and out. The metal exterior panels are a Mondrian-red baked finish; all structural members are painted yellow; and all of the mechanical elements, exposed inside and on the rooftop, are blue. Why the color? Tigerman gives three reasons: "Some of the users, while legally blind, are not totally blind—and light and bright colors are the only things they are able to see. It's whimsical and playful—and it's good for a library to be thought of as 'fun' instead of as 'a serious place for serious learning.' Finally, the building will be used by people with other physical disabilities, by friends and relatives of the blind, and by the community residents. I wanted to design a building that gives everyone who uses it a lift. . . ."
- The final "inversion" is perhaps the most striking: The solid portions of the wall (drawing lower right) are made of lightweight metal panels. Yet it is the one dense wall—the poured concrete wall of the longest side—that is made transparent with an extraordinary window (drawing at right). The window is 165 feet long, butt-glazed without columns or support of any kind—which of course requires the wall above the window to act as a massive beam. "This is irrational," Tigerman would agree. "But so is blindness irrational. . . ."

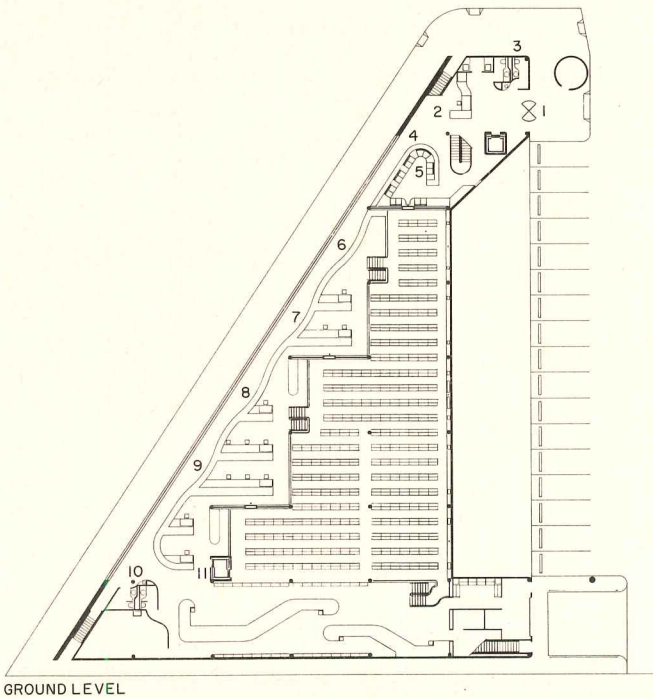
Significantly, the window is set at such a height that only those in wheelchairs and seated staff members at service desks can really see outside.

The shape of the great window reflects in elevation the beautifully thought-out circulation system just inside the window. Using the curving shapes (easier to "read" than tactile changes in surfaces), the blind visitor will be able to "feel" where he is. The circulation system is also (see caption on facing page for details) entirely linear—"easier for a blind person to remember," says Tigerman, "than any system with freestanding elements. And everything has rounded corners—there are no surprises."

The building is 32,000 square feet, will cost $1.9 million, and is slated for completion in May 1977.






GROUND LEVEL

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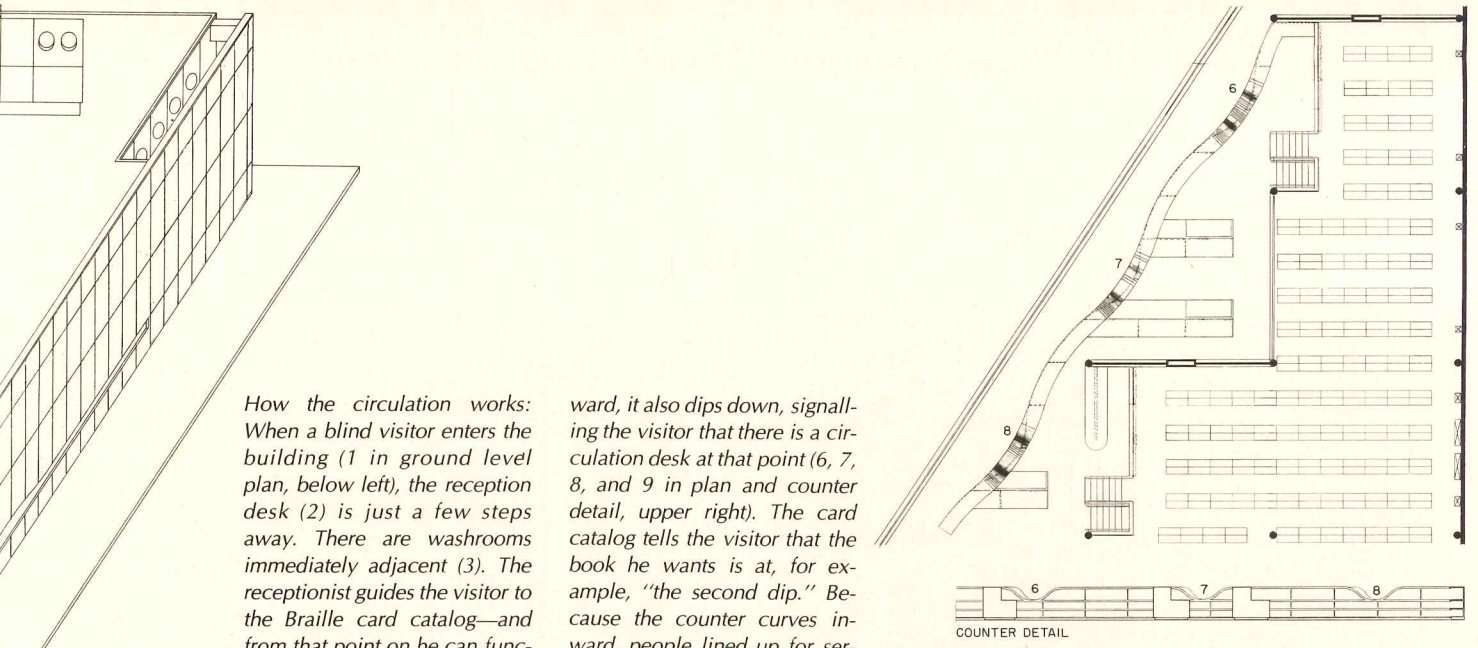
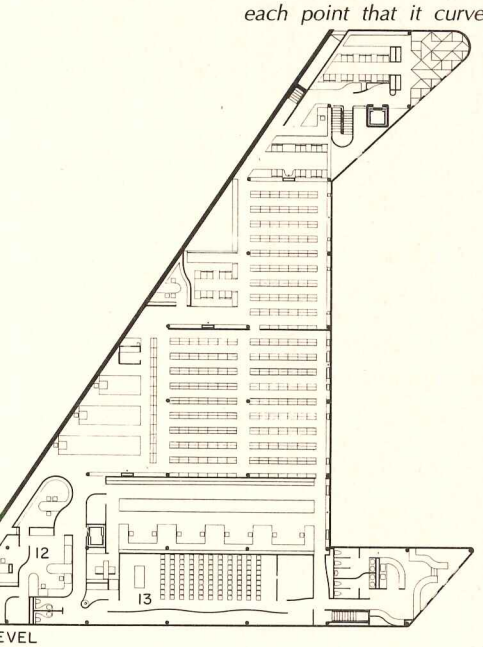
ILLINOIS REGIONAL LIBRARY FOR THE BLIND AND PHYSICALLY HANDICAPPED, Chicago, Illinois. Architects: *Stanley Tigerman and Associates* and *Jerome R. Butler, Jr., City of Chicago Bureau of Architecture—Stanley Tigerman, design; Robert E. Fugman, associate-in-charge.* Engineers: *James L. Mitchell, Inc. (structural); Wallace & Migdal, Inc. (mechanical/electrical).* Estimating consultants: *Hanscomb Associates, Inc.* General contractor: *Walsh Bros., Inc.*




*How the circulation works: When a blind visitor enters the building (1 in ground level plan, below left), the reception desk (2) is just a few steps away. There are washrooms immediately adjacent (3). The receptionist guides the visitor to the Braille card catalog—and from that point on he can function on his own. From the card catalog, the visitor can follow the wall back to a banquette area (5) for reading or use of "talking books." To get a book from the stack area, he follows along the curving counter into the library. The counter is curved not just in plan—at each point that it curves inward, it also dips down, signalling the visitor that there is a circulation desk at that point (6, 7, 8, and 9 in plan and counter detail, upper right). The card catalog tells the visitor that the book he wants is at, for example, "the second dip." Because the counter curves inward, people lined up for service are out of the main traffic pattern.*

*Finally, the visitor can continue along the counter to reach toilets (10) or the elevator to the second floor (11). On the upper level (plan left), the visitor is just steps from the librarian's office (12) or the large community meeting room (13).*



Zipper house is the inevitable "office name" for this group of 12 townhouses to be built in Evanston, Illinois. In an earlier scheme, the "zipper teeth" (best seen in the plan at right) were part of a curving wall with windows that looked down the central courtyard. When this proved too expensive at bid time, the "teeth" were redefined as on-grade planters in the central court, and as terraces off the living rooms screened from each other and the neighborhood by shaped hedges—which are in the budget.

Beyond that, Tigerman's "curved lines" are used on both elevations of what is, in essence, a very simple box. Rather more than a "decorated box," the use of two siding materials divided by the curved line is, in Tigerman's words, "a study in ambiguity." On alternate elevations, 4-inch vertical boards stained gray and 8-inch horizontal shiplap stained brown are reversed, and separated by a trim piece painted magenta. This strong line (which occurs on both front and back elevations, but is best seen in the rear elevation at the bottom of the page) not only scribes the curved line between the two sidings, but reaches up between adjacent units and then turns back around one window—but not both. Thus, in the use of two siding materials and colors, and by "sliding the windows sideways" with the magenta line, the design suggests that parts of one unit belong to the other, a confusion intended to complicate a perfectly straightforward plan. "A study in ambiguity"—and a final example of Tigerman's efforts to be a little irrational, a little humorous, and a little irreverent about "the rules of design." And even if you cannot accept his "reasons why"; it is nonetheless difficult to answer his "why not?"

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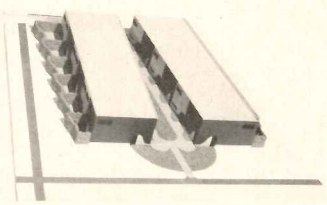
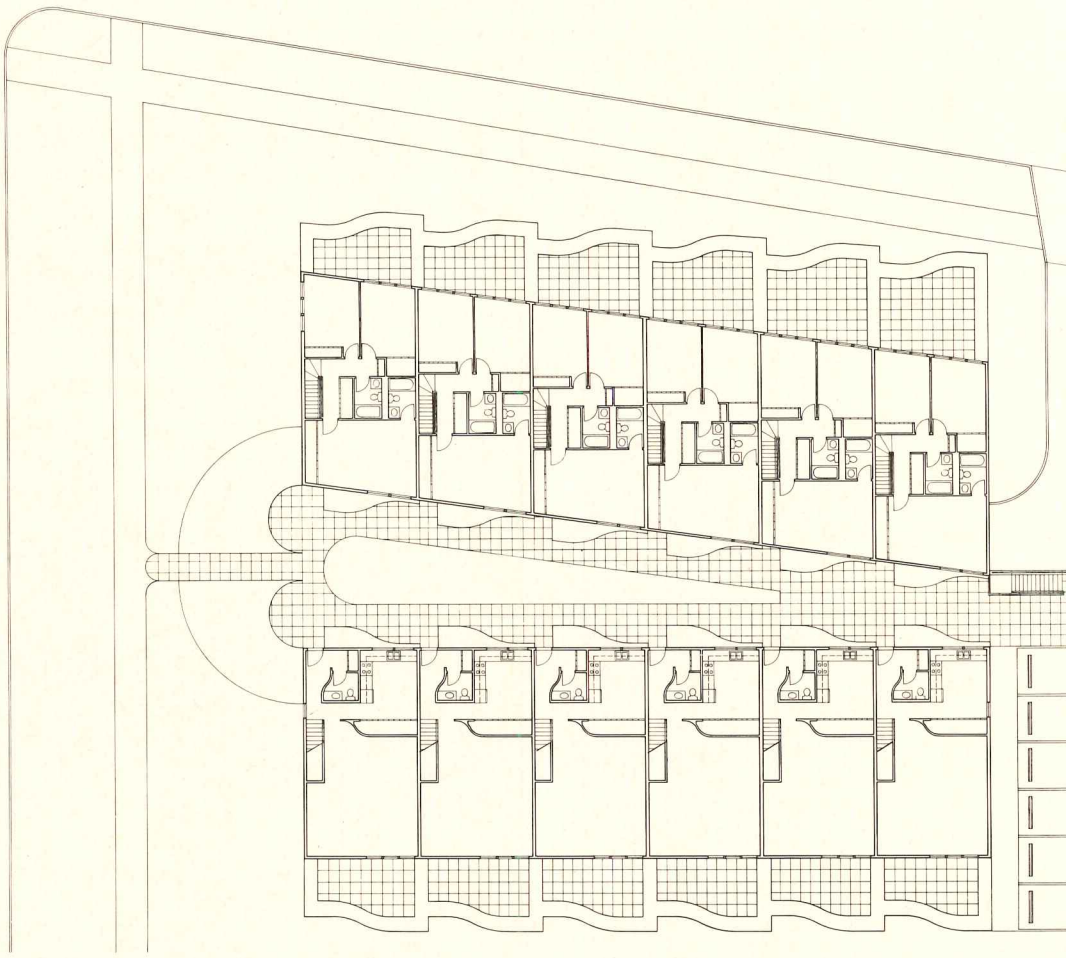
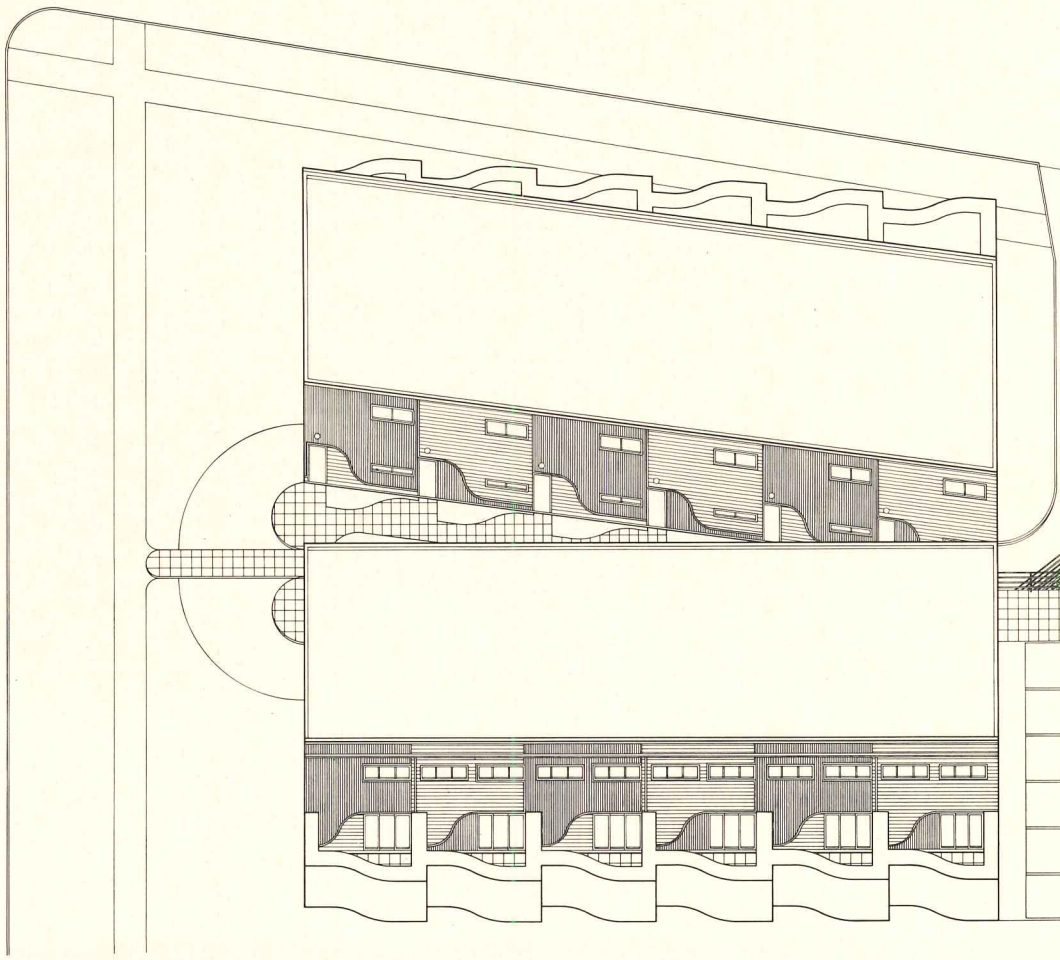
"ZIPPER" HOUSING, Evanston, Illinois. Architects: *Stanley Tigerman & Associates—Stanley Tigerman, design; Robert E. Fugman, associate-in-charge; Wesley Goforth, assistant.* Engineers: Henry Hawry (structural); Ted Skrzenta & Associates (mechanical).







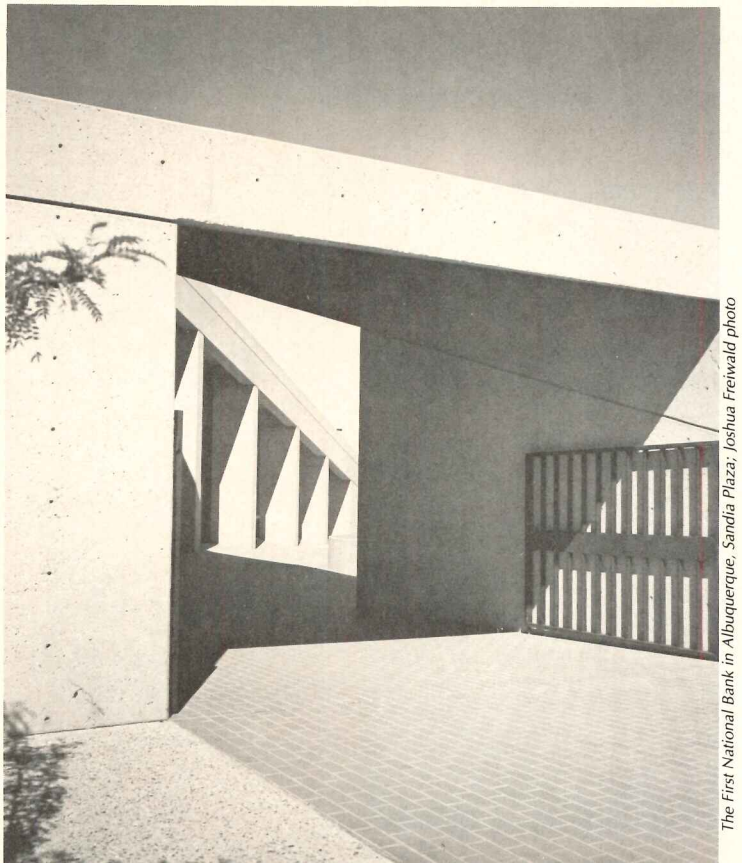
*Bank of Suffolk County; Gil Amiaga photo*

# EVEN SMALL BANKS CAN EXPRESS A REGIONAL VERNACULAR

Whenever the issue of a regional style in architectural design is raised, it can quickly become the source of controversy both among architects and among clients who may be sensitive to a feared brand of provincialism. Still, the recognition of existing surroundings and localized construction methods coupled with differing regional background influences is going to produce some important and appropriate variation—whether purposely created or not. And it may be surprising to see that one of the largest degrees of regional variation can be found in that most routinely conformist of image-conscious building types, banks.

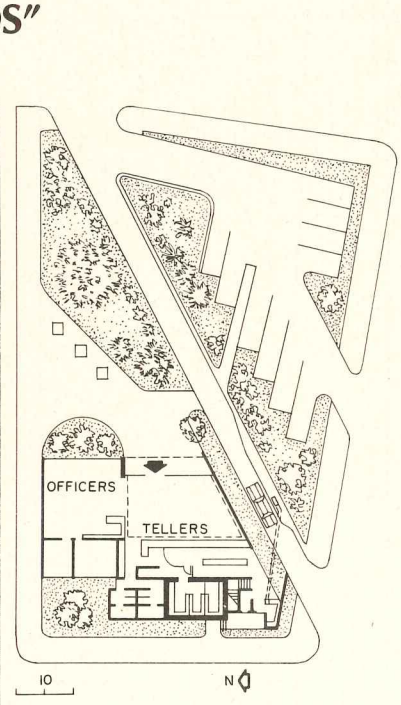
On the following pages are a group of banks in different parts of the country by local architects who were not afraid—as were not their clients—to express (intuitively or purposely) a strong sense of where they are. The resulting diversity shows an increasingly better and more confident sense of unique location than perhaps at any time since architecture took over local craftsmen's efforts. And it is certainly to be applauded in the face of much of the "sameness" that has gone before. In RECORD's August, 1974 (page 109) issue, it was pointed out that the recent proliferation of smaller banks (mainly branches) is meant to bring business geographically "closer to home." Here it will be illustrated that these businesses are now not only closer to home; they can look like they are closer to home.

*—C.K.H.*



*The First National Bank in Albuquerque, Sandia Plaza; Joshua Freiwald photo*

# A CASUAL AMBIANCE FOR THE CALIFORNIA "WILDS"




In an immediate area stripped of its natural environment by highw oriented commercial development, the Vallejo branch of the R wood Bank is an inviting reminder of distant natural forests and informal lifestyle that brought many of the present settlers in the f place. Sheathed inside and out by wood from the bank's namesa tree, the fireproofed wood-frame structure nestles low and unimpos within a surrounding grove of redwoods, which are intended to gr as a vertical contrast and as an appealing identification marker. T trees also visually shield the parking area and help to form a park-l plaza for neighborhood use at all hours (photo above). Access to drive-in teller windows also involves experiencing the natural sett by leading cars directly through it.

Within, the 5,700-square-foot building continues an appreciat for the unartificial by primary lighting from the sun through heav insulated fiber glass ceiling-roof panels and by a consequent thriv profusion of plants. Pipe standards above the panels hold lighting night-time effect. The banking facilities can be closed off from main room to allow its use during non-business hours by the comm nity (dotted line on the plan, left). They include offices on a mezzan above the tellers. Mechanical equipment and toilets are located r to the vault. In the photograph at left, the main banking room can seen with the tellers' counters, rear.

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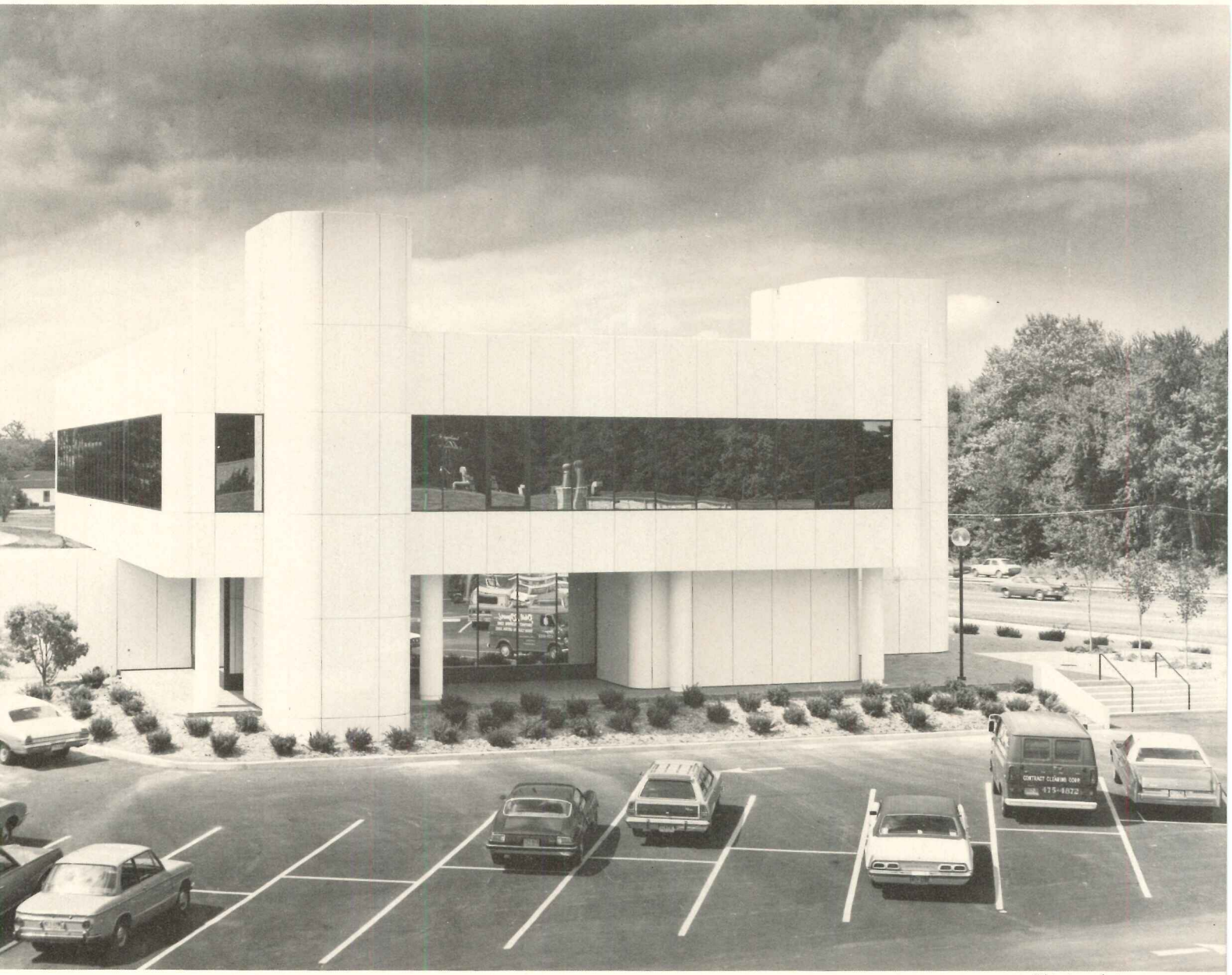
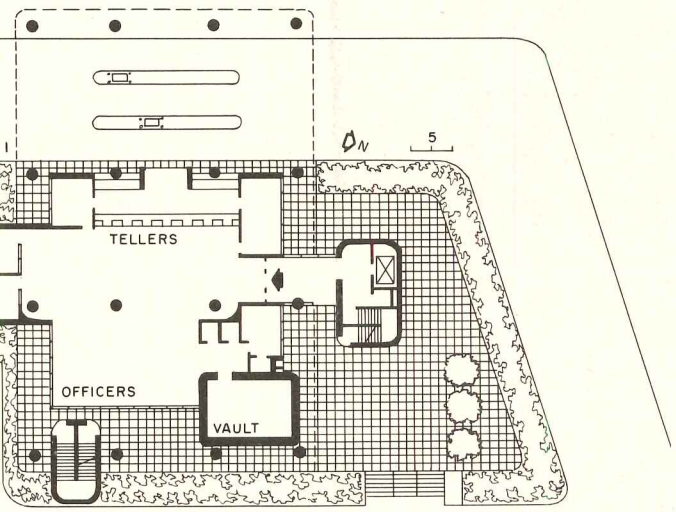
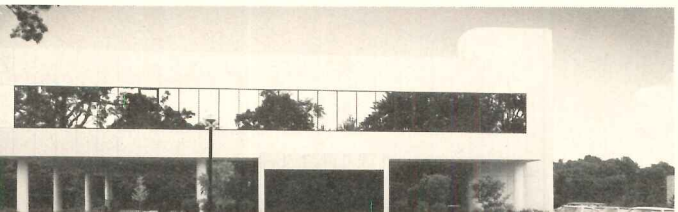
THE REDWOOD BANK, Vallejo, California. Architects: *Smith Barker Hans* Engineers: *Forell/Elsesser Engineers, Inc.* (structural); *Norris Nelson* (mech cal); *Tage Hansen* (electrical). General contractor: *Krull & Krull.*



*Gil Amiaga photos*

# BANE SCULPTURE IN A MECHANISTIC N FOR NEW YORK'S SUBURBS



Alluding to the Villa Savoye, architects Michael Harris Spector & Associates state that the Bank of Suffolk County makes no pretense of assimilating into its environment—the V-shaped intersection of two major highways. Like the Villa, it appears as a machine—but for banking instead of living. Accordingly, it is a visual extension of the much larger man-made environment of nearby New York City and—at the same time—complements by the contrast of its stark-white, porcelain-finished metal panels the surroundings of dark greenery and paving. It also projects its surroundings to passers-by through reflective-glass windows, which are gasketed into, and are flush with, the panels. Unlike those of the project on the opposite page, this bank's designers and owners clearly believe that the building itself should be highly visible to the public. Like that project, this is a well thought-out response to environmental conditioning.

The building's sculptural quality is achieved by verticality in predominantly flat surroundings and by an arrangement of elements that are composed for equal interest from any view. The banking floor is freely defined by a number of enclosed forms containing specific functions such as the vault and stairs, and it is capped by a rectangular floor of flexibly planned offices. Drive-in teller windows are located within the building.

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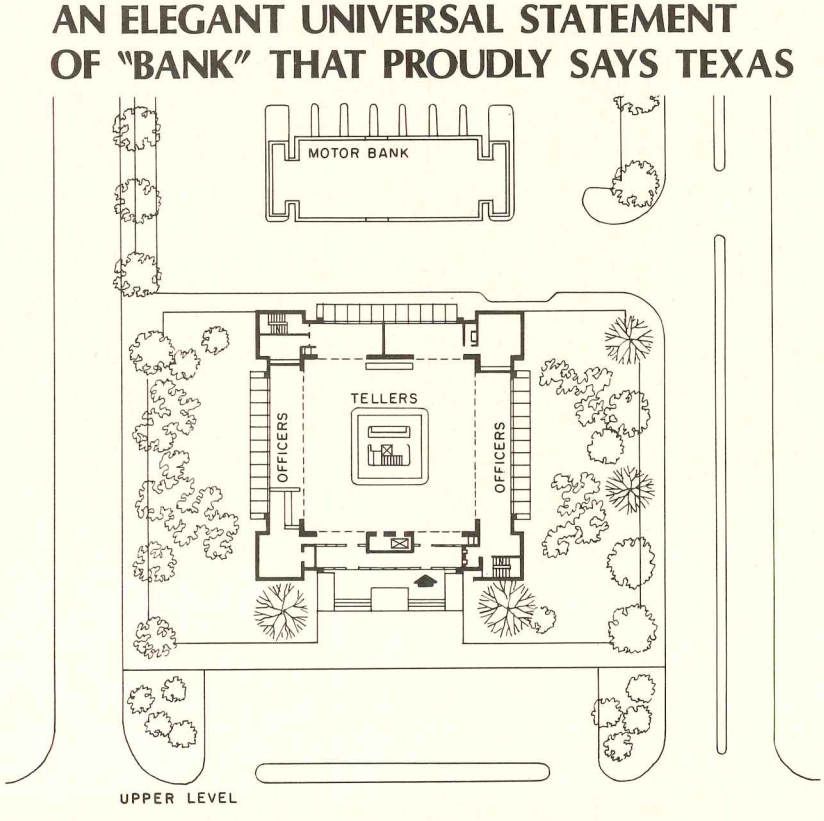
CORPORATE HEADQUARTERS, BANK OF SUFFOLK COUNTY, Hauppauge, New York. Architects: *Michael Harris Spector & Associates.* Engineers: *Thompson & Czark* (structural); *S. Limoggio & Associates* (mechanical/electrical). General contractor: *Abraham Shames.*

# AN ELEGANT UNIVERSAL STATEMENT OF "BANK" THAT PROUDLY SAYS TEXAS




UPPER LEVEL

Far from the wide open plains but recalling them in its strong hor
tality, the Northpark National Bank occupies a corner of the site o
innovative Northpark Shopping Center (RECORD, January 1976, p
135-40) in suburban Dallas. Designed by the Omniplan arch
(who were also reponsible for Northpark), the relatively small b
purposely strong proportions and white brick cladding are intend
achieve an additional objective to that of complementing the Ce
forceful horizontality. They are also intended to visually asser
bank's importance, which could have been easily overwhelmed b
massive neighbor.

A large banking room on the steel-framed main level is desi
to accommodate the demands of a planned additional three stori
banking facilities. A central teller's "island" has direct vertical a
to the bookkeeping department on the concrete constructed
below. The bank's interiors were designed by Mrs. E. G. Ham
wife of the Omniplan partner, and contain red carpeting and blu
holstered seating of unusually muted coloring. These furnishing
contrasted to white brick walls on which are hung a rotating di
of artwork loaned by Raymond Nasher, the owner of Northpark
the chairman of the bank.

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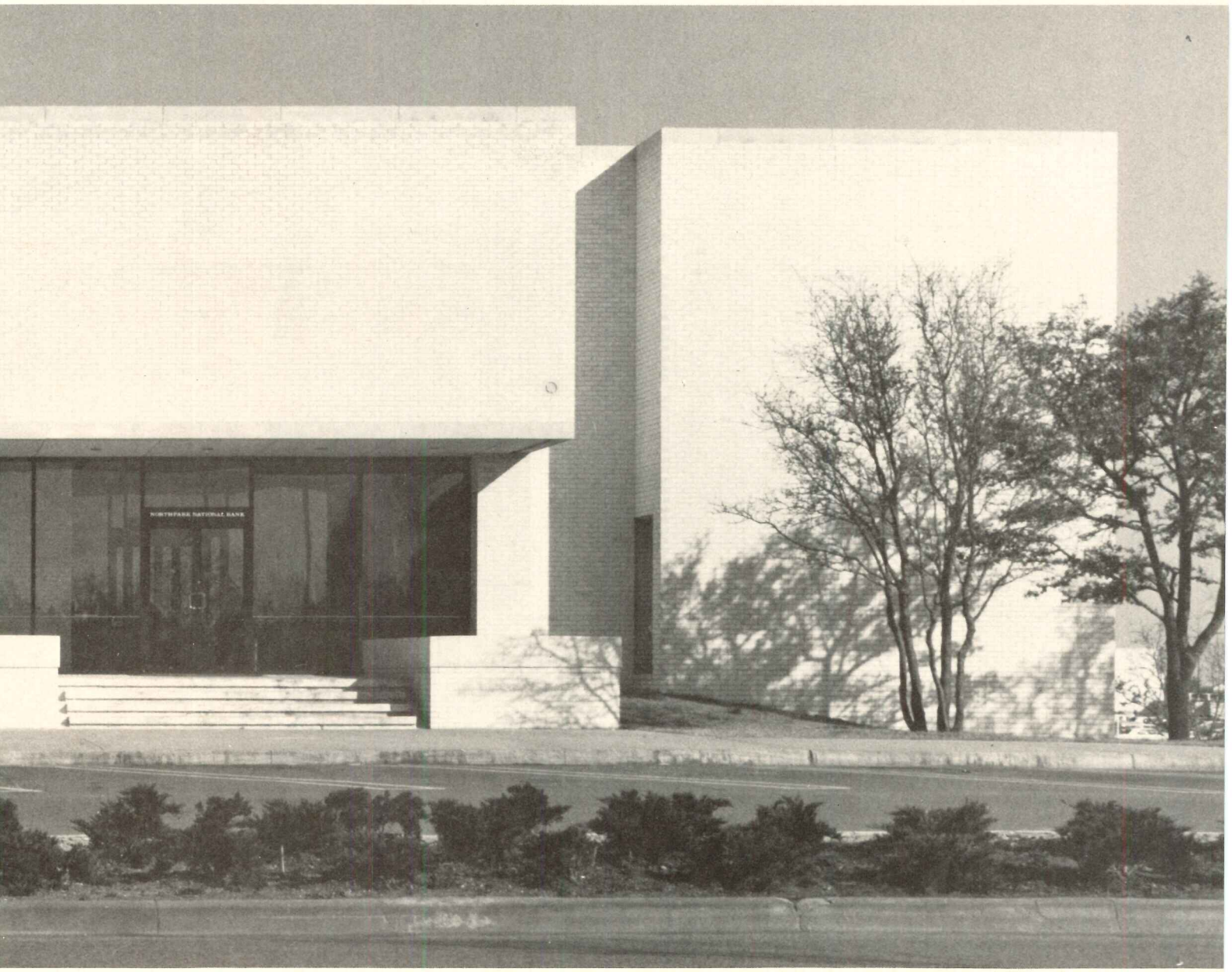
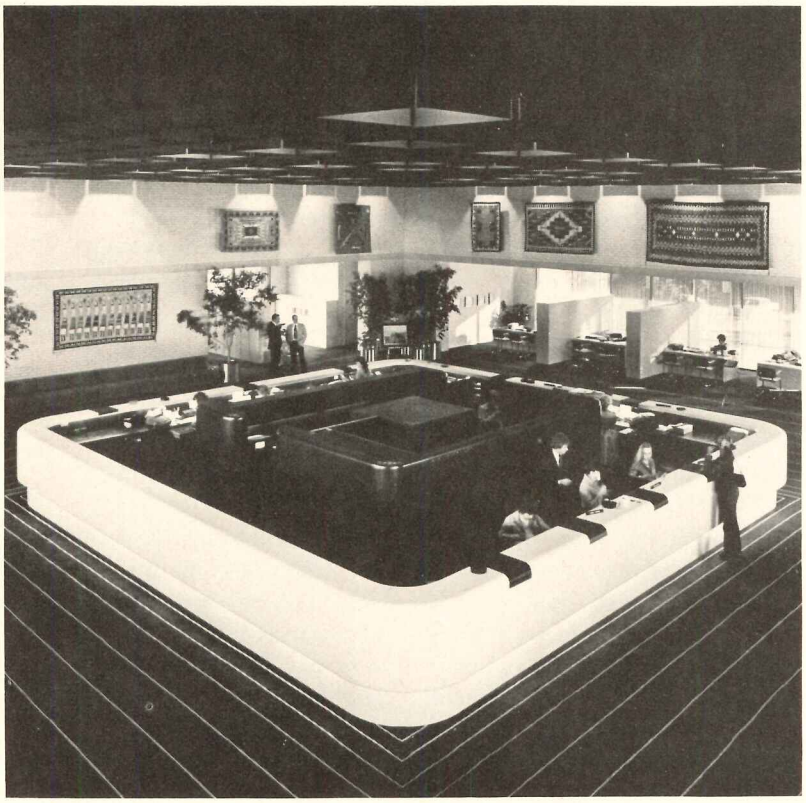
NORTHPARK NATIONAL BANK, Dallas, Texas. Architects: *Omnip
principal-in-charge: E. G. Hamilton.* Engineers: *Datum Structures Engine*
(structural); *Raymond Goodson Jr., Inc.* (soils); *William Hall & Co.* (mec
cal/electrical). Landscape architect: *Richard Vignola.* General contr
*Henry C. Beck Company.*



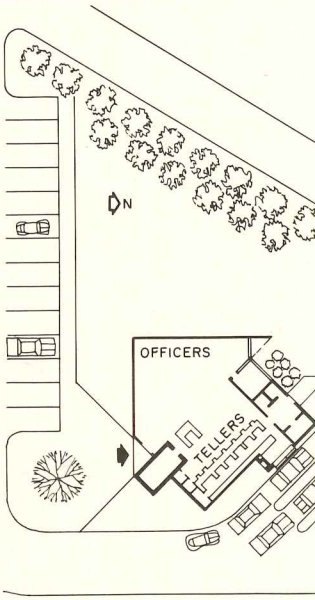

*Jeof Winningham*

*Michael Haynes*



Joshua Freiwald photos

**The Manzano branch** is located
to a shopping center. Views tov
the distant mountains are limited
surrounding commercial developr
and hence by limited fenestration.
solid volume of the building has v
that are parallel to the roads at the
trance and at the drive-in teller p
tions. A changing decorative eler
is created by the shadows of surro
ing trees on the precast and po
concrete walls.




## RUGGED FORMS BORN OF NEW MEXICAN TRADITION

Perhaps the most determined of the architects here in a search for a regional vernacular, Antoine Predock has evolved highly individual imagery in his designs for these branches of The First National Bank in Albuquerque. He sees this imagery as more of a response to environmental considerations than to a stylistic recall of indigenous architecture, although the allusion is clearly evident.

In the case of the three branches shown here, each occupies a location in a different roadside commercial area of varying appeal for the extremes of varying income groups. And each has different problems of relating to views, wind, sun—and, of course, the public. But the three share common materials such as warmly-colored, bushed-hammered concrete walls and—perhaps more importantly a certain ruggedness which speaks distinctly of the hearty Southwest. Each of the branches is essentially triangular in plan. In the case of the two on this and the opposite page, the roof—like a sheltering hat—slopes down toward the southern corner, a prow into sandstorms and the heat of mid-day. On the opposite "open" side of the building, the treatments are very different. At Manzano, the tellers occupy this focal position in a low projection from the main room, and a clerestory over them is the main source of the natural light and limits views of the pervasively commercial surroundings. The higher-ceilinged main room is devoted to a large space required by the particular prog
for a large banking consultation area. Roof-top mechanical equipr
is concealed by high parapet walls. The steel structure is clad in s
blasted precast-concrete panels, while the vault is constructed of
trasting poured-in-place concrete. The exposed walls of the vaul
carefully articulated from the panels (photo above).

At Sandia Plaza, the open side of the triangular plan is lite
open through glass walls to a court, paved with quarry tile which
tinues into the banking room and onto the sloping roofs. The ex
sive views visually extend the banking room and include di
mountains above a planted berm in the court. The berm largely
ceals the low-lying commercial development of the surrounding
gional center. The diagonal through the site made by the building
vides a convenient path for pedestrians to other locations within
center. The entire building's structure and enclosing walls are pou
in-place concrete. The walls are sandblasted, and the roof is a
tensioned "waffle" slab in which recessed lighting brightens an
biance that feels open to the outside. Two other interesting pro
shown overleaf illustrate Predock's versatility with different prog
and the purposefulness in his designs.

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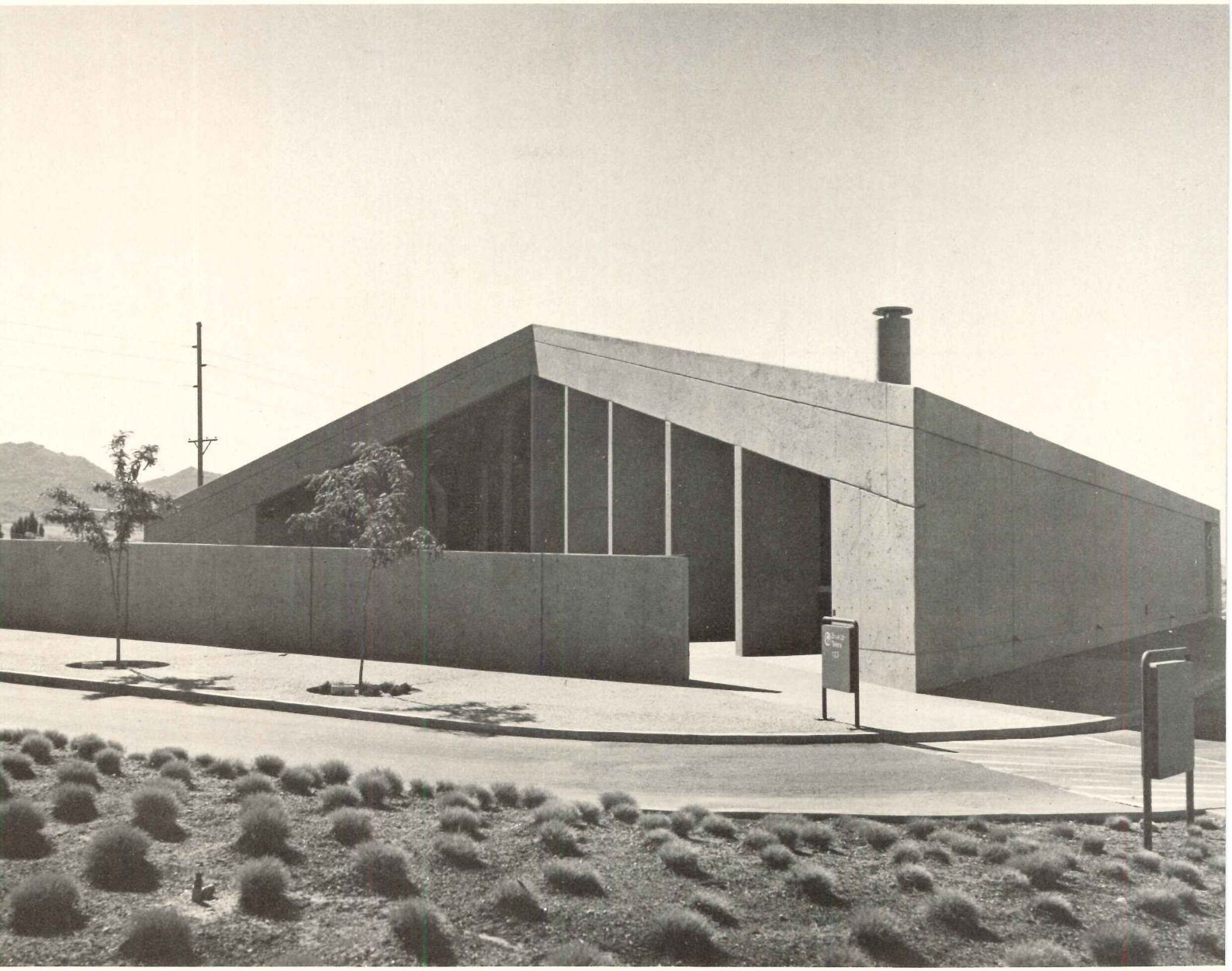
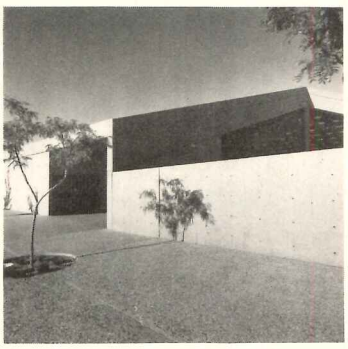
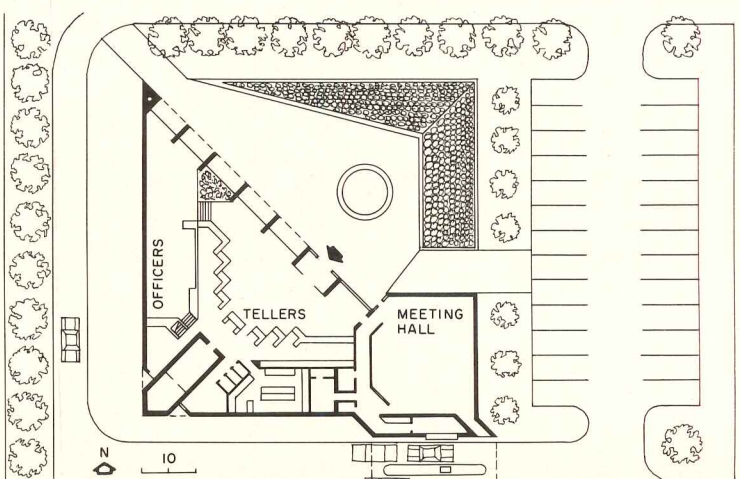
BRANCHES OF THE FIRST NATIONAL BANK IN ALBUQUERQUE, Albu
que, New Mexico. Architect: *Antoine Predock*. Engineers: *Randy Holt* (s
tural, Manzano); *Robert Krause* (structural, Sandia Plaza); *Allison Engine*
(mechanical); Don Fowler (electrical). General contractors: *Bellamah Cor
tion* (Manzano); *Lembke Construction* (Sandia Plaza).



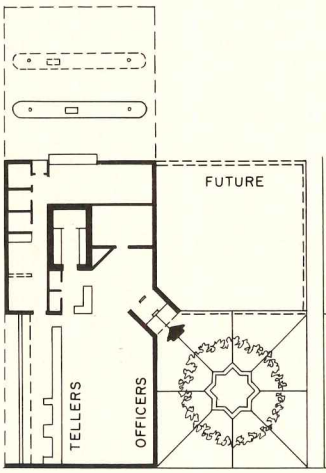
**The Sandia Plaza branch** has exterior walls that—like Manzano—are parallel to surrounding roadways, which are connected to an adjacent shopping center. However, here the resulting rectangular volume has been cut away to provide a walled court, shielded from the streets in a locally traditional fashion (photo, right) and extending the sense of space from within. Earth berms, planted with local materials, and a fountain create a quiet oasis within the walls.

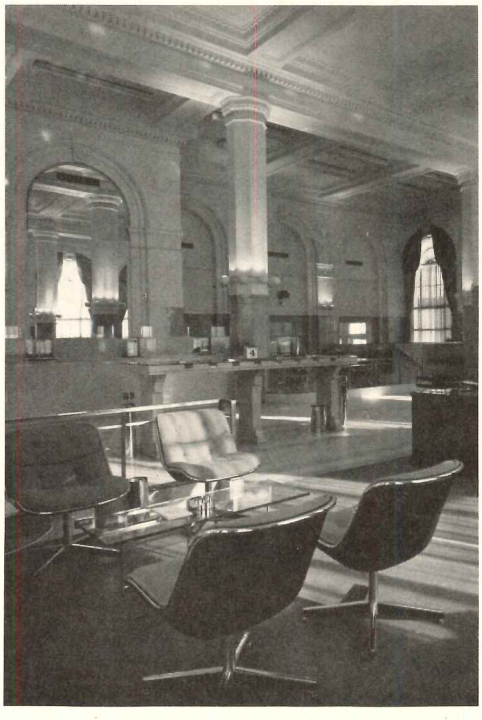




Joshua Freiwald photos

**The West Central Branch** is located the most visually and economica deprived area of the three. Acco ingly, it has its own pleasant inte environment with minimal windo The angled entrance is designed to in the juncture of the existing build and a future wing. The latter will h to contain the entrance plaza (pho left). To contribute a positive elem to the environment, the building is cated in a large lawn, which exte down an adjacent hill and cover screening berm to the east, where tant views of mountains are th framed.




**Other projects for the First Natio Bank by Predock** include a remo ing of the downtown headquart which the architect described as a viously badly abused neoclassic bu ing. In a shift from his design for new buildings, he has restored building to its former character. At other end of the spectrum are st frame mobile branches, which can pulled from temporary site to tem rary site on wheels. The wheels sunken below grade during the u stay in one place. These units are pected to be replaced by the struction of permanent branches. steel framing and decking is expo on the interior.

Gordon H. Schenck, Jr.

James N. Boorn

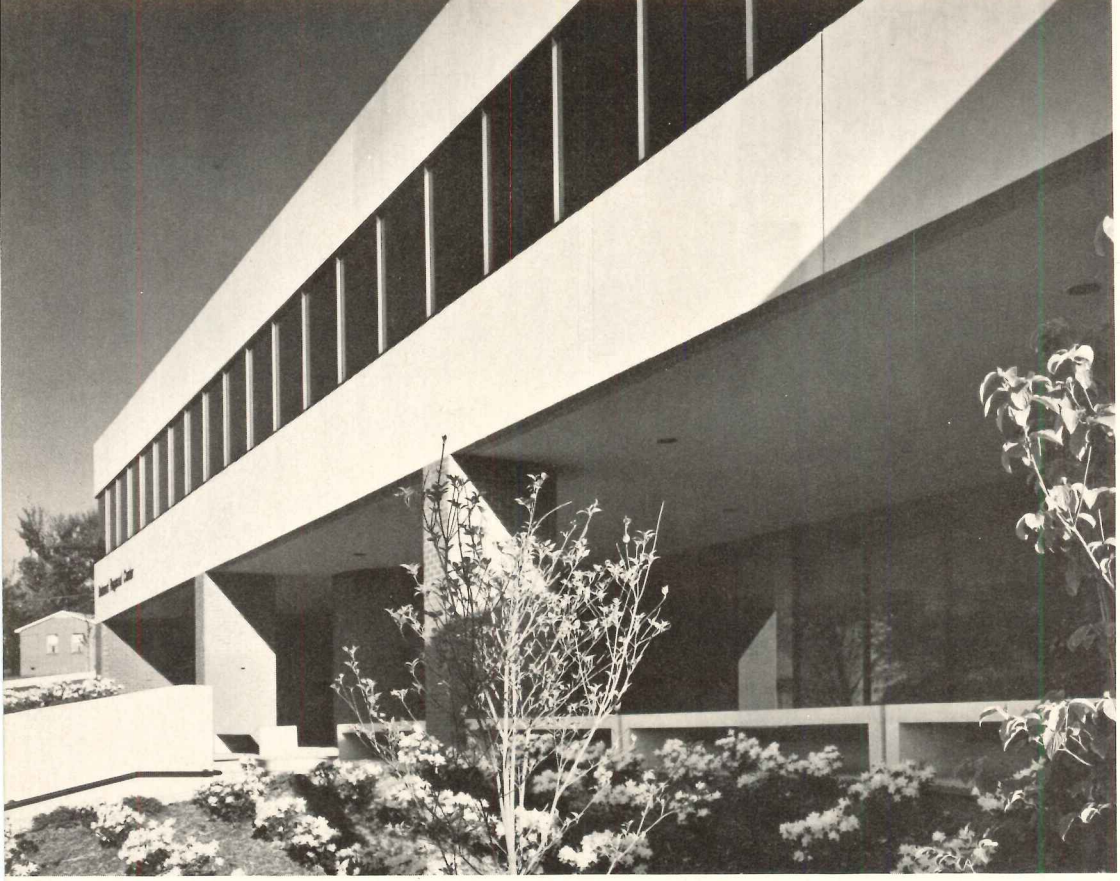

Scott Garner


Ronald Carriker

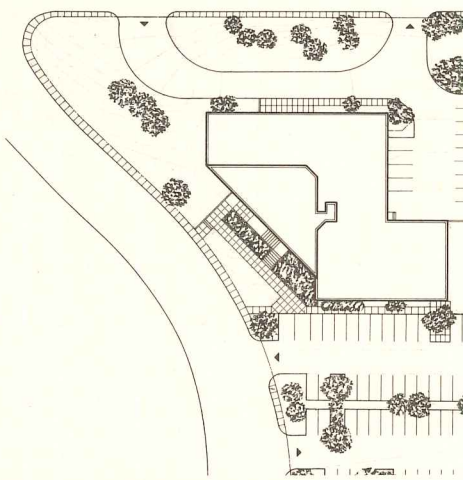
BUILDING TYPES STUDY® 493

# PUBLIC ADMINISTRATION BUILDINGS

How well are we designing for the public realm? The question of the quality and the efficiency of our public architecture has become a subject of increasing concern to professional architects, who design these buildings, and to the governmental entities who commission them and use them. Here is a portfolio of recent successes—focusing on medium-size buildings in medium-size towns, the kind most architects find themselves working with.




# BELMONT REGIONAL CENTER



*Gordon H. Schenck, Jr. photos*

s building is a 25,000-square-foot neigh-hood center in Charlotte, North Carolina, its facilities include a day care service, a nch of the Charlotte Public Library, office ce (designed to be flexible) for various so--service agencies including the county lth department, a multi-purpose audito-n, classrooms, and meeting rooms. Out-e, the day care facility has an enclosed play d, and there is also extensive parking space the site and drop-off and pick-up areas for es and cars.

The site (see plan on the left) is in the pe of a trapezoid, and it slopes downward roximately 35 feet from its highest point to small creek (which is at the bottom of the plan). The architects decided that the building should be multi-level, and it should be located near the highest point on the site. Parking is located nearer the creek, and partially within its flood plain (large photograph above).

The main entrance to the building (photographs opposite) faces the main street and the passing traffic, thus announcing itself to passers-by, and also being accessible for entry from the adjacent parking lot. A secondary entrance, with convenient drop-off and pick-up points for buses and cars, is located off the secondary street (at the top of the adjacent site plan, and shown in the large photograph on the following page).

The lowest level of the Belmont Regional

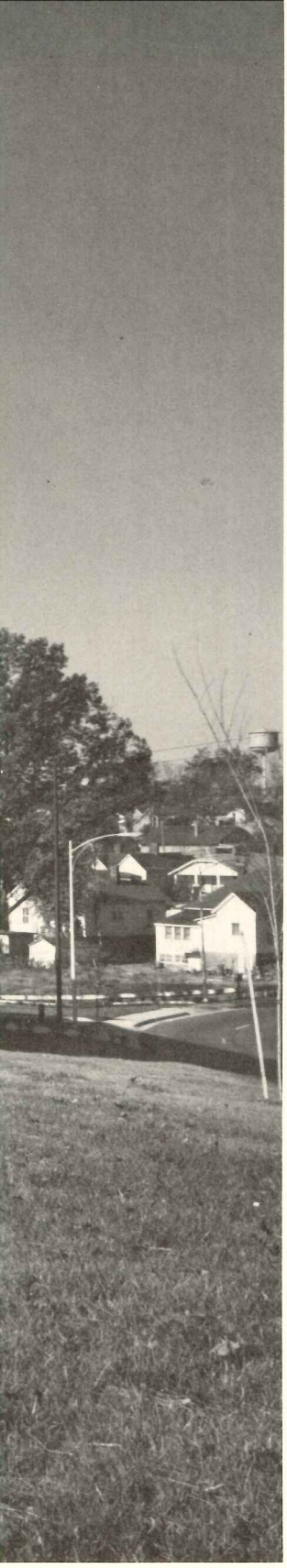
Center houses the day care facility, which has its own entrance from the parking lot (extreme right of the three plans on the opposite page). The main floor of the building (center plan opposite) contains all of the social-service and educational facilities, which are grouped around the public lobby, shown in the photograph on the opposite page. Circulation through the lobby is accomplished by ramps, one of which can be seen in the background of the photograph opposite, behind the receptionist, who from her central position has visual control of the entire area.

The upper, or mezzanine, floor of the building houses the administrative offices for the center; above it, clerestory windows allow sunlight to flood into this area and into lobby below.

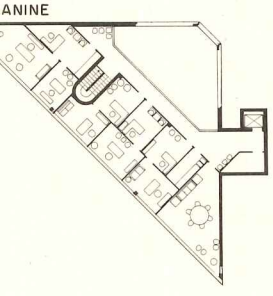
The structural system for the building sists of one-way poured-in-place con slabs for the upper floors, and concrete umns, beams, and slabs on grade. The ext walls are of red brick on block, with exp concrete spandrel beams. The windows bronze tinted glass which are house bronze anodized frames.

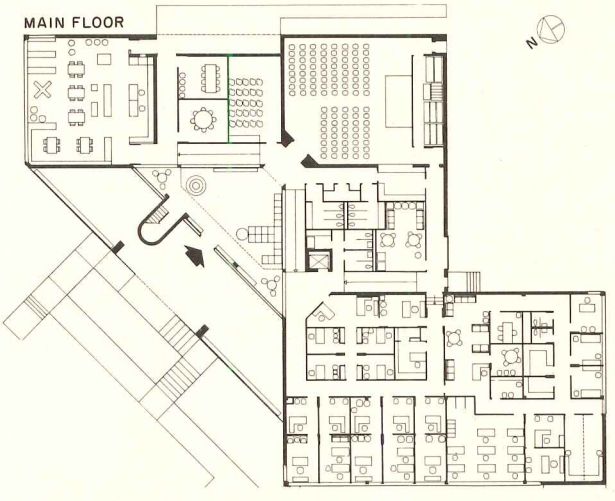
---

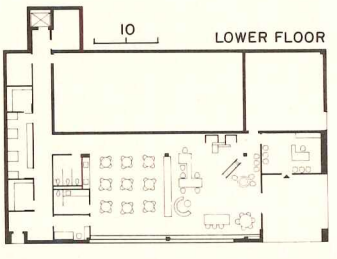
BELMONT REGIONAL CENTER, Charlotte, Carolina. Architects: *Gantt/Huberman Associa project architect: Scott Garner.* Engineers: *Fran Hicks* (structural); *McKnight Engineers, Inc.* chanical); *Ben Weinreb, P.E.* (electrical). Ge contractor: *Gates Construction Company.*



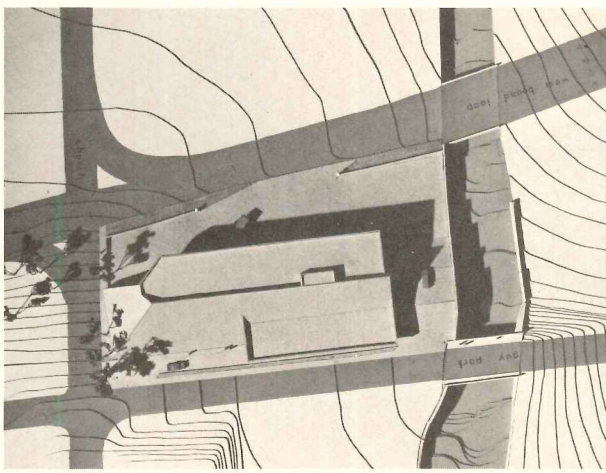
*Gordon H. Schenck, Jr. photos*

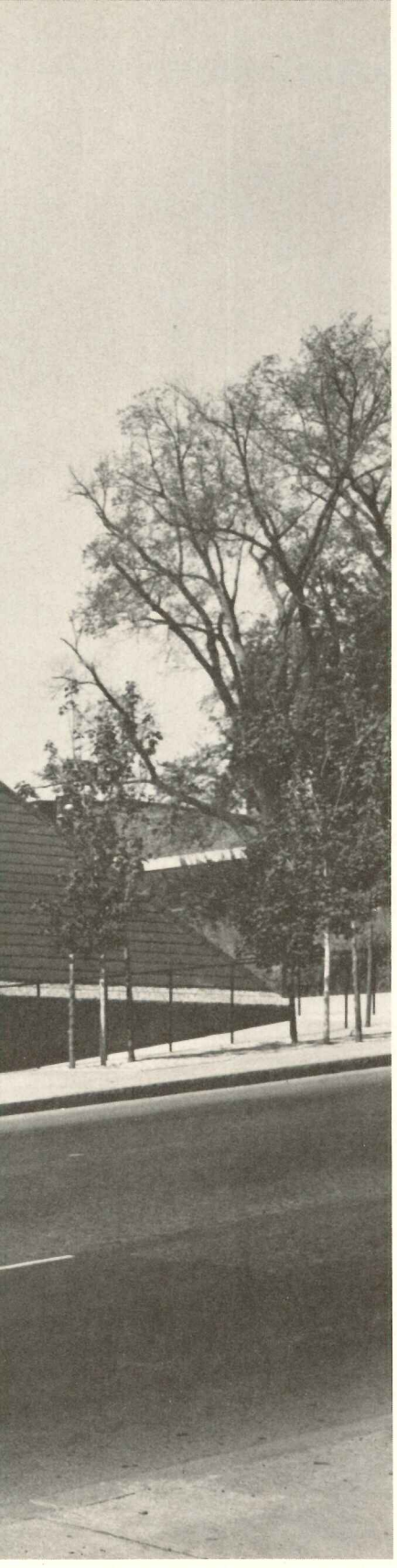


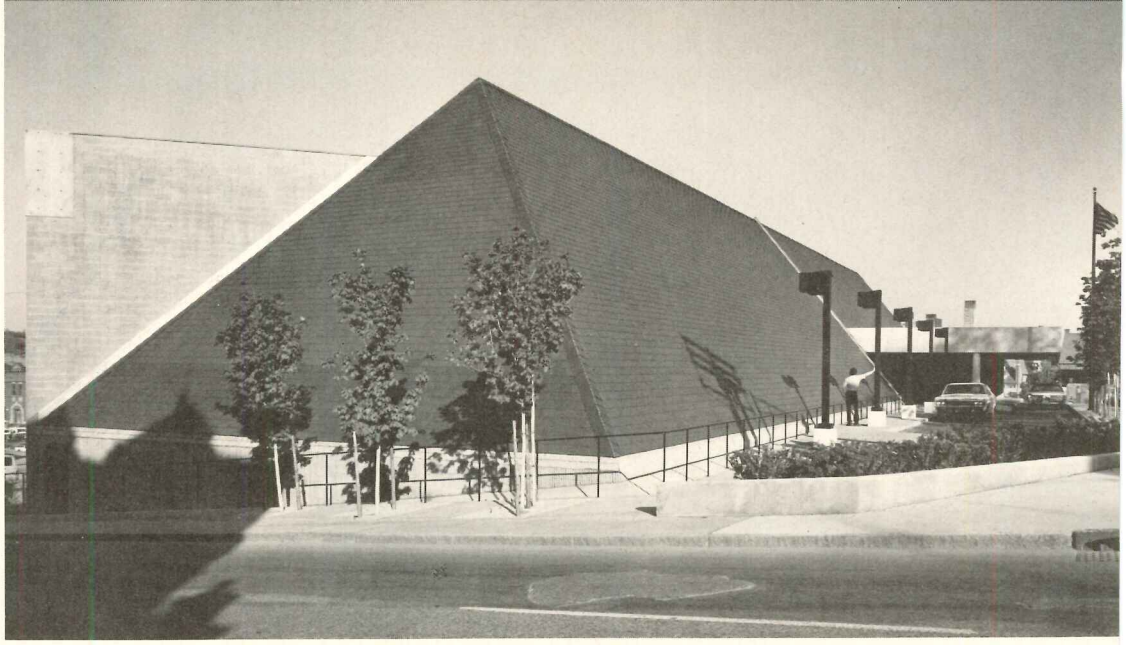



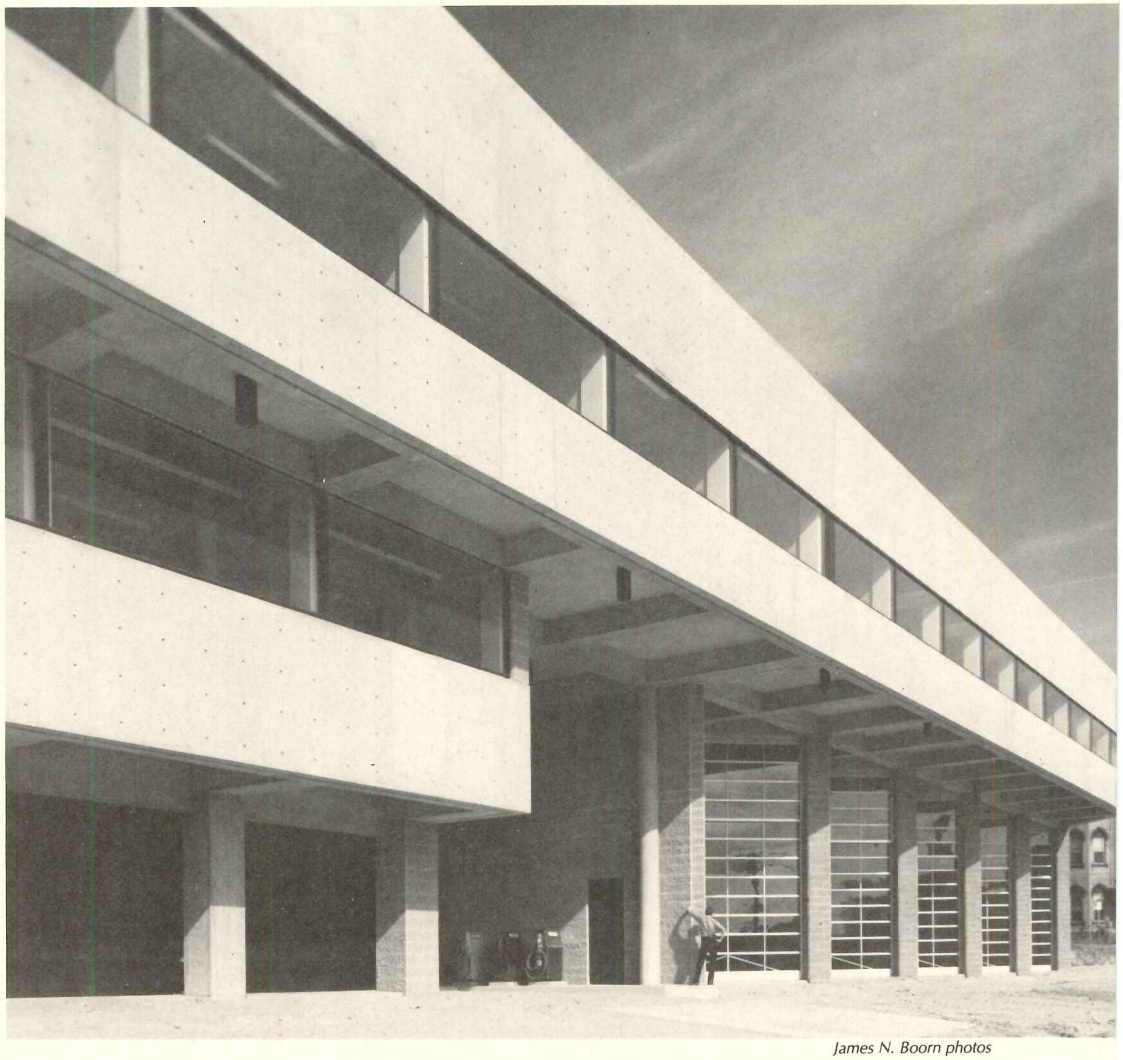



# AMSTERDAM PUBLIC SAFETY BUILDING









*James N. Boorn photos*

terdam, New York, is a small industrial
that lies on a steep bank of the Mohawk
in upper New York State. The town was
t to lose its police station and central fire
on—each in separate buildings and both
equate—to a major downtown urban re-
al project. In the face of this, the town's
council decided that it would make sense
ouse both of these public services in a
e new building—dubbed the Amsterdam
ic Safety Building. Doing this, the council
oned, not only would save money on con-
tion, but it would also give the new build-
the chance to be big enough, visible
gh, and public enough to provide an im-
ant cornerstone, a landmark, for the ambi-
tious rebuilding that was contemplated for the center of the town.

The cleanliness of this logic seems evident. But so, too, is the fact that—even though both fire protection and police services are conceptually similar as public safety operations—they in fact have almost nothing to do with each other in terms of actual operations. So to the architects fell the task of developing a clear separation of these two operations within a single building.

The architects in this case are Feibes and Schmitt of Schenectady (RECORD, June 1974, pages 136-37), and their design depends heavily on the peculiar nature of the new building's site, which is shown on the left. It is a long and

*James N. Boorn photos*

narrow piece of land hemmed in on its two long sides by limited access state roads. One of the roads is 16 feet higher than the other, resulting in a steeply sloping site. Its short sides are stopped on one end by a creek and on the other by a steep street.

Thus the Amsterdam Public Safety Building is long and narrow and three-stories-high, nudging itself into the hill. The main entrance, which is shown in the large photograph above, is reached from the road on the upward side of the site, and it is on the middle of the building's three levels (see plans on the opposite page). Access for fire engines and police cars is on the downward side of the site. The main lobby separates the police services, which are on one side (and which contain the small courtr shown opposite), from those of the fire dep ment, which are on the other side. The bu ing, according to the architects, is mean seem like it is growing out of the hill in le like the natural ledges on which it is built. the floors cantilever outwards on the dow side, and on the uphill side they form a s ing, pyramidal shape, as shown in the tograph on the previous page.

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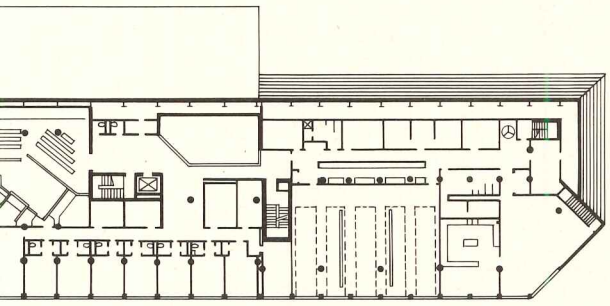
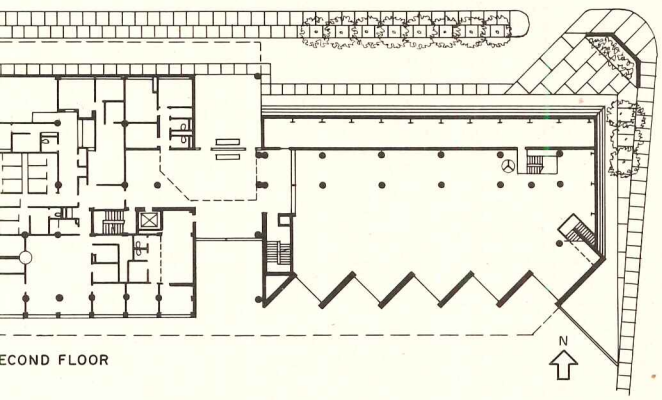
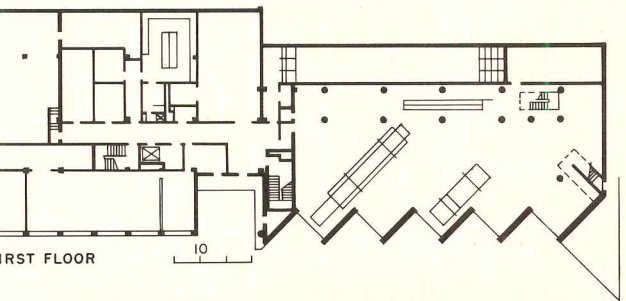
AMSTERDAM PUBLIC SAFETY BUILDING, Am dam, New York. Architects: *Feibes and Schmitt* gineers: *John T. Percy and Associates* (structu *Rist-Frost Associates* (mechanical/electrical). eral contractor: *Sweet Associates, Inc.*



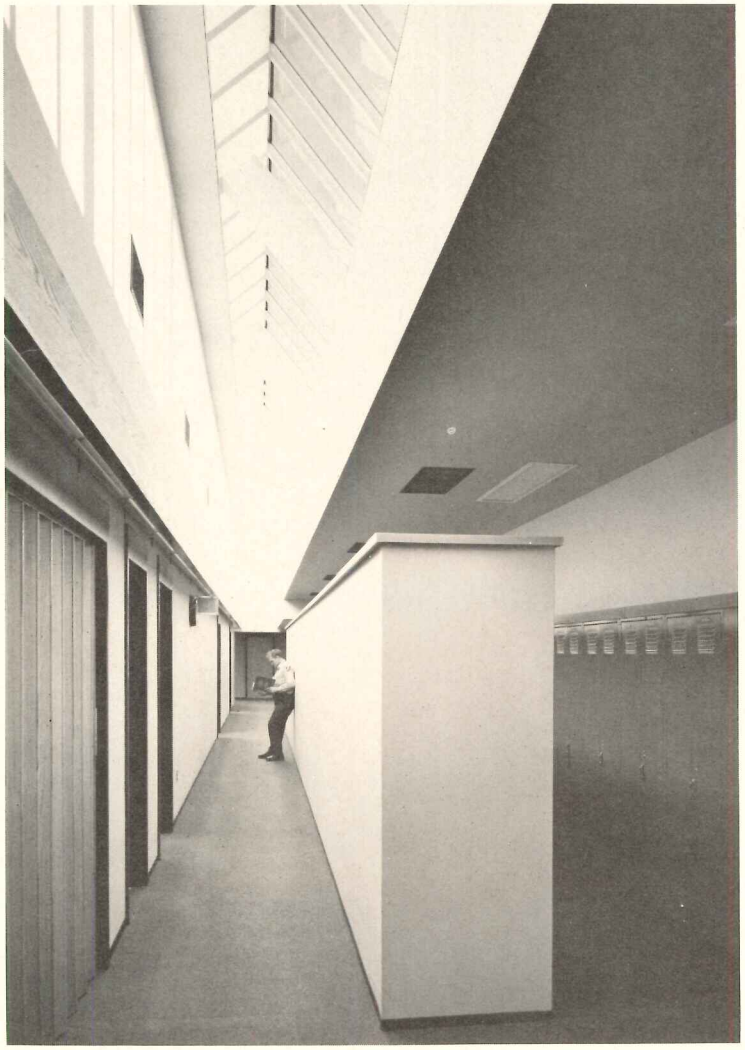
HIRD FLOOR



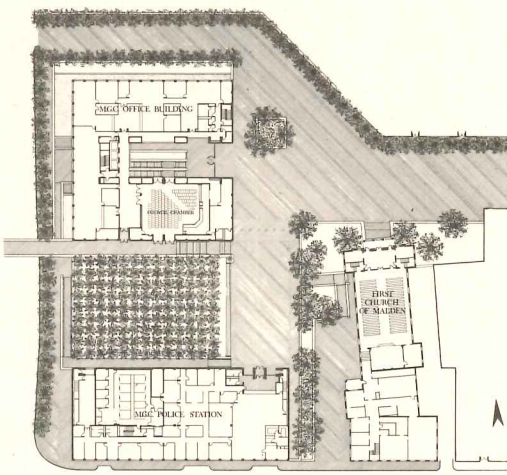

ECOND FLOOR

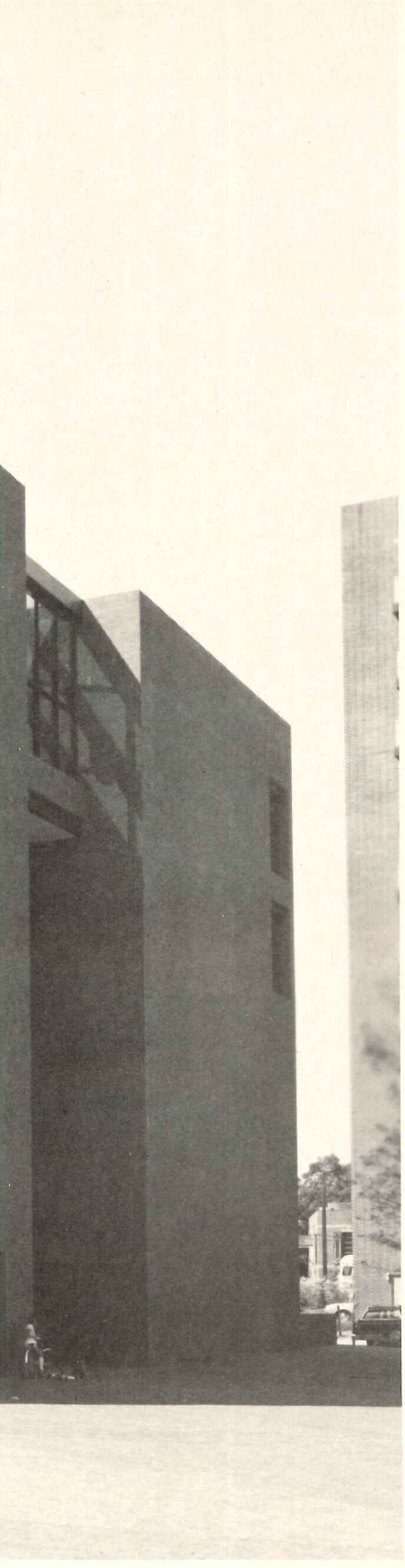


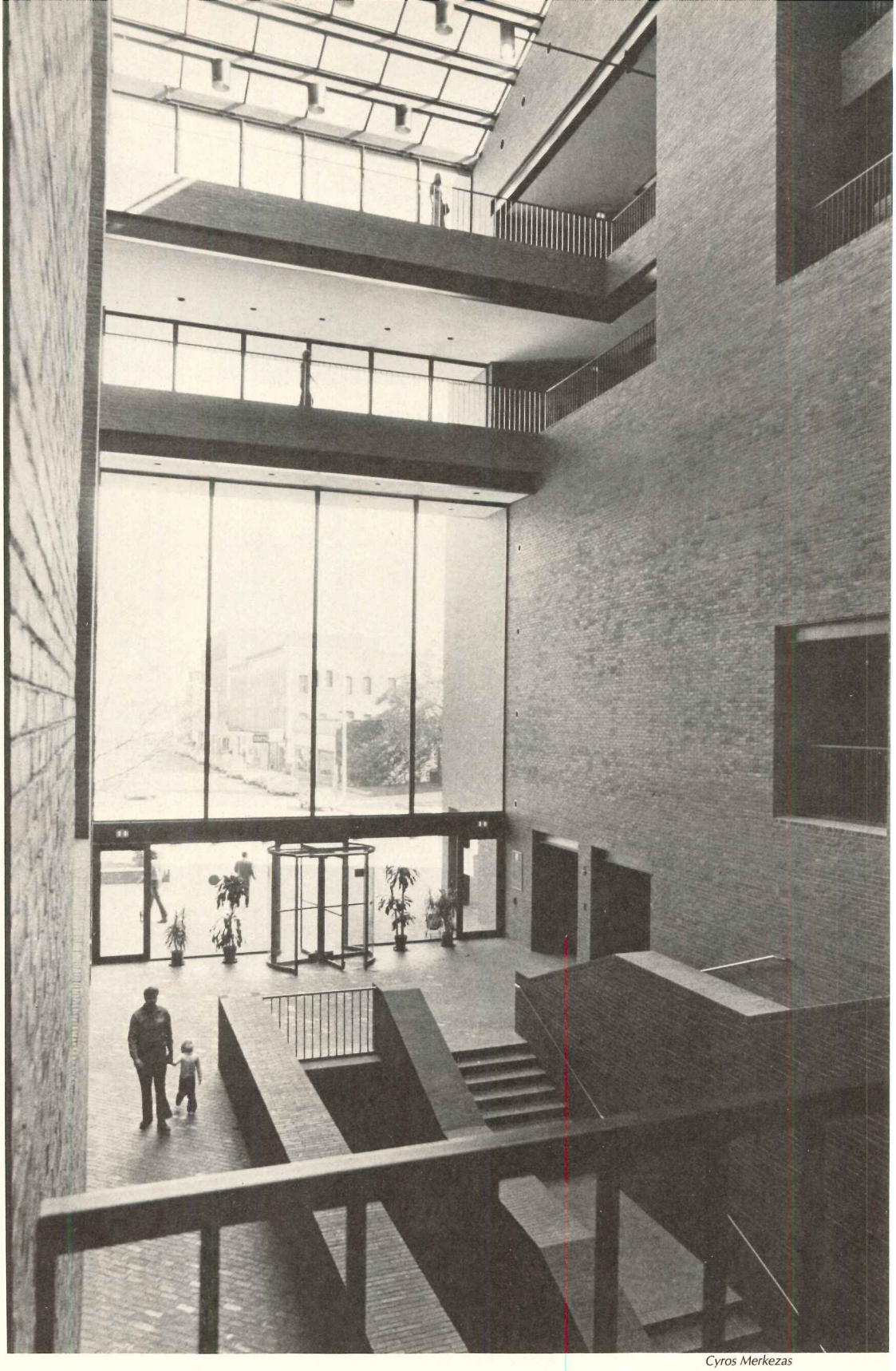

IRST FLOOR



# MALDEN GOVERNMENT CENTER



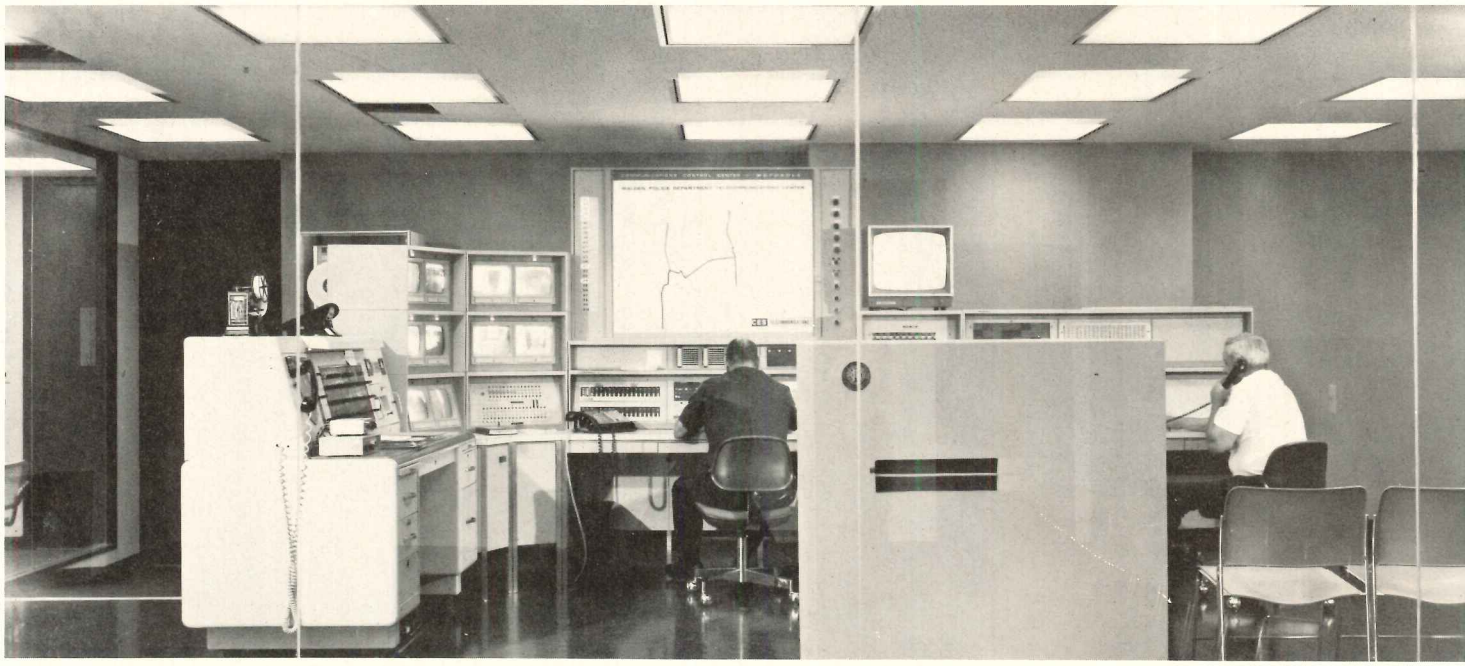




Cyros Merkezas

town of Malden, with a resident popula- of 55,000 people, is adjacent to Boston is a separate municipality. The firm of Dox- s Associates had been retained by the Mal- Redevelopment Authority to plan the re- val of Malden's downtown—which, if ev- hing goes according to present plans, will ntually involve turning the main thor- hfare into a mall. Doxiadis Associates sub- uently became involved in the design of den's new Government Center. It replaces old city hall with a handsome and more cious building, which also includes new rters for the police department. Flexible open planning is the basic interior concept he Malden Government Center, since gov- ernment operations, local or otherwise and no matter what particular kind they are, change over the course of time, requiring the redis- tribution of a building's space. The most strik- ing feature of the Malden Government Center is the full-height atrium in its center (pho- tograph above). Its glass roof allows sunlight to pour into the center of the building, and on every floor there is a wide landing all around the atrium. Offices in turn open onto this atrium, and it is hoped that the atrium will be- come a focus for openness and social interac- tion among the building's residents.

There are virtually no private offices in the new building—with the exception of the office for the mayor, which is private, and which has



one wall that opens up to make the offic
part of a conference room, as is shown in
two photographs above right. The other offi
are in open areas.

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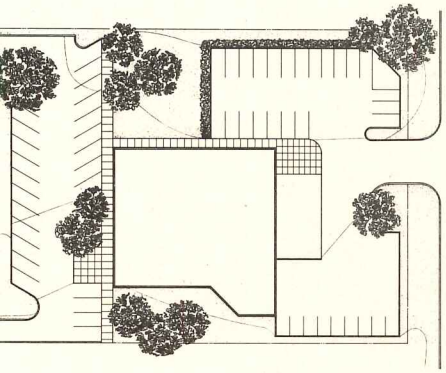
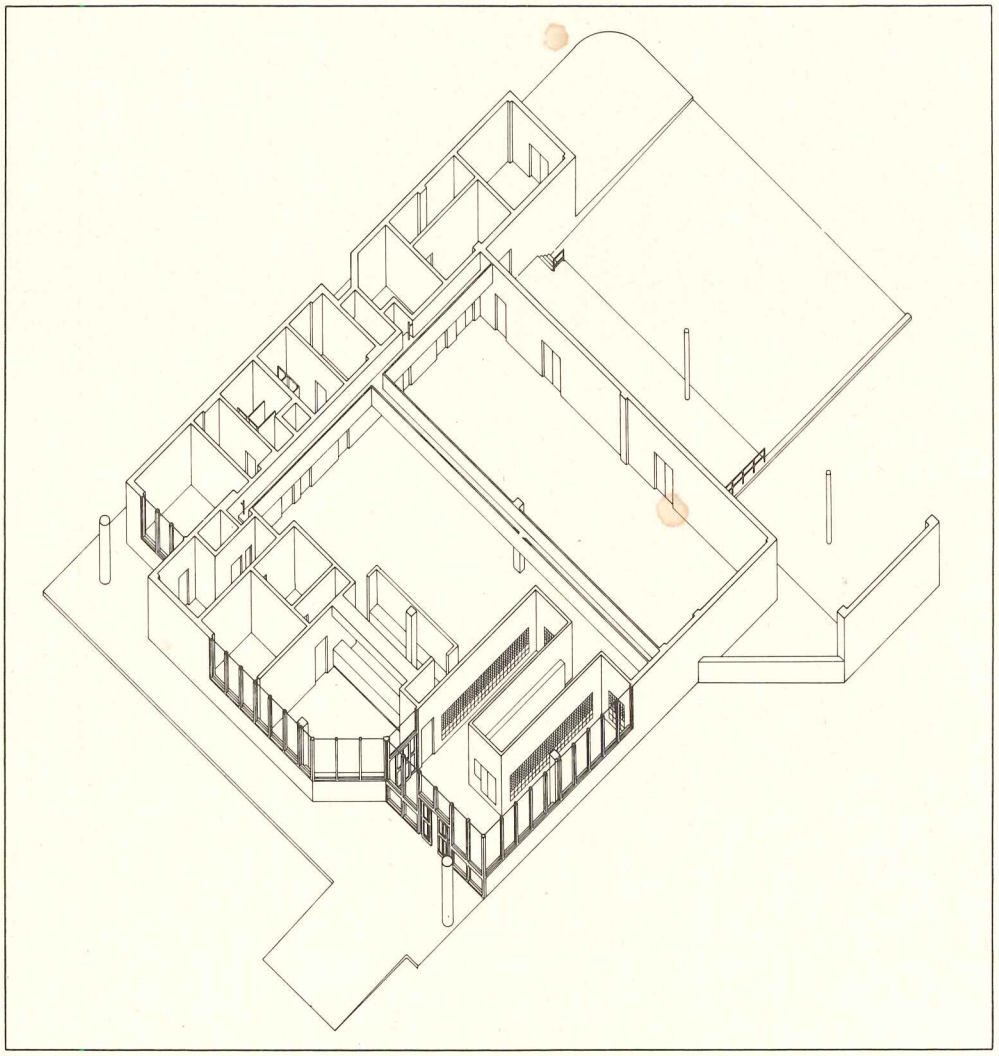
MALDEN GOVERNMENT CENTER, Malden, Ma
chusetts. Architects: *Doxiadis Associates, In*
*architects-in-charge: Constantin B. Maniotes, I*
*neth D. B. Carruthers; project manager: Jame*
*Maltby; project team: Cyros G. Merkezas, Jos*
*Stephenson, Andre Houston, Peter Rosen; assoc*
*architect: Robert J. Lynch.* Engineers: *Colin and*
*cardi* (structural, mechanical, and electrical). C
sultants: *Everett Spurling* (specifications); *Sasaki*
*sociates, Inc.* (landscape); *Emily Malino-Doxi*
*Associates, Inc.* (interiors). General contractor: *C*
*White Construction Co., Inc.*


Ronald Carriker photos





## HOSKIE POST OFFICE

The building shown here is a small post office for a small community in eastern North Carolina. Here, as with the post office in Winston-Salem shown on the following page, the architectural conviction is that simplicity will best carry the day. Customer parking and the main entrance to the building are directly in front, and employee parking and loading and unloading docks are in the back, reached from a secondary street. The color and scale of the new post office building, together with some additional planting and the retention of several old trees on the site, are all meant to create an effect that is harmonious with the surroundings—which are residential in character, with small wood-frame or brick buildings. The floor plan of the building is derived directly from the Postal Service's work flow requirements; the only public areas are the small lobby which contains the lock boxes and which is open 24 hours a day and the service lobby, which is open only during normal business hours. These areas achieve a sense of openness by the use of glass, which is tinted gray and mounted in black aluminum frames.

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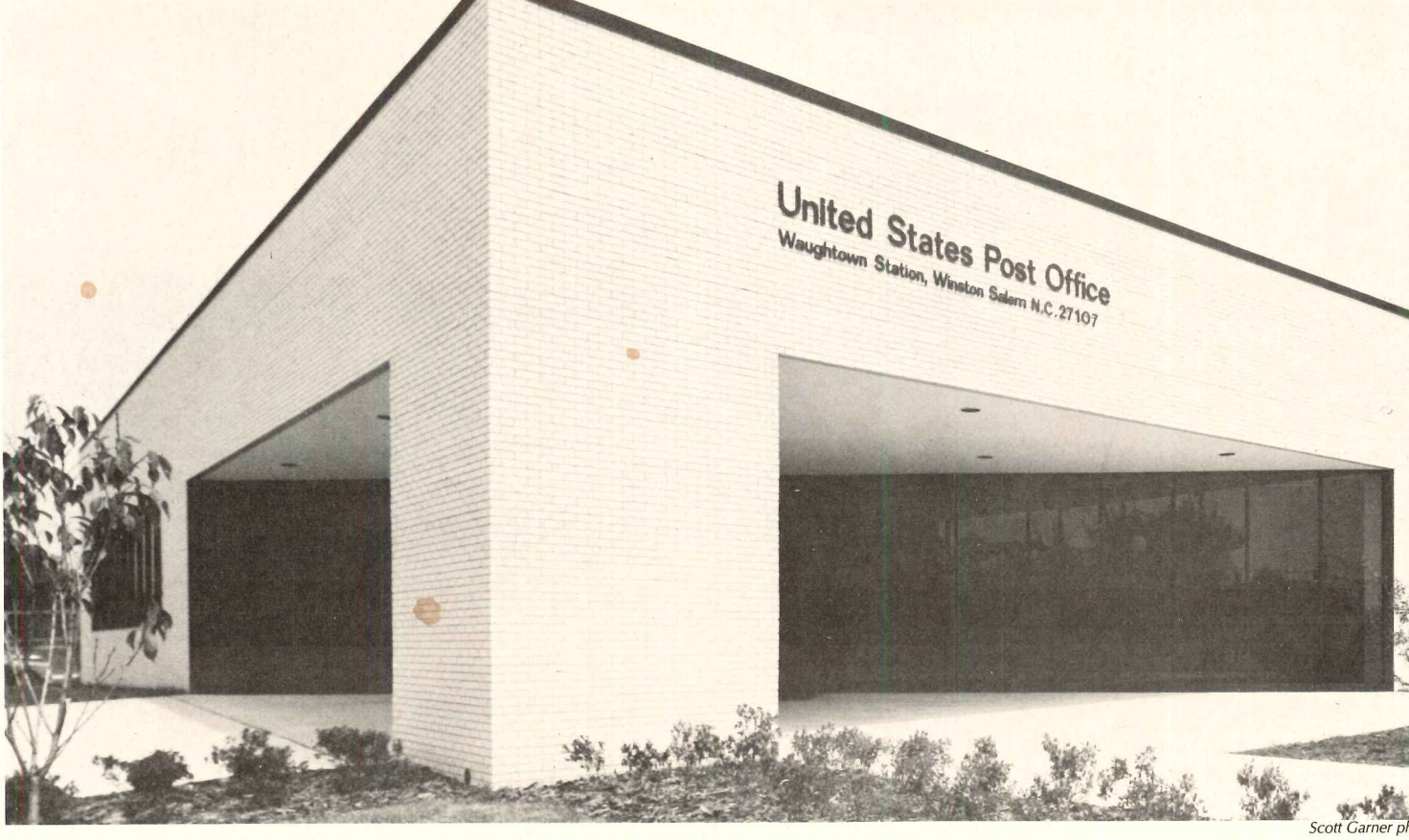
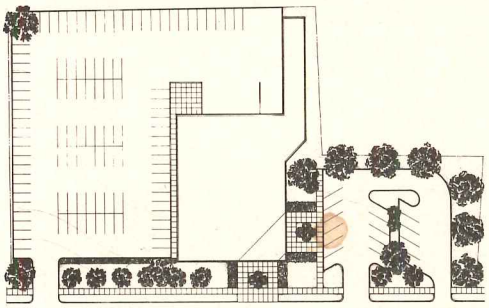
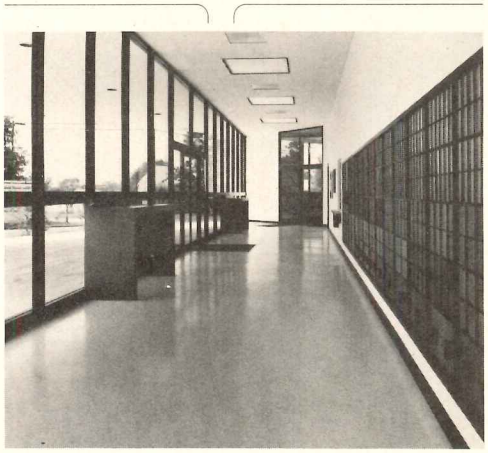
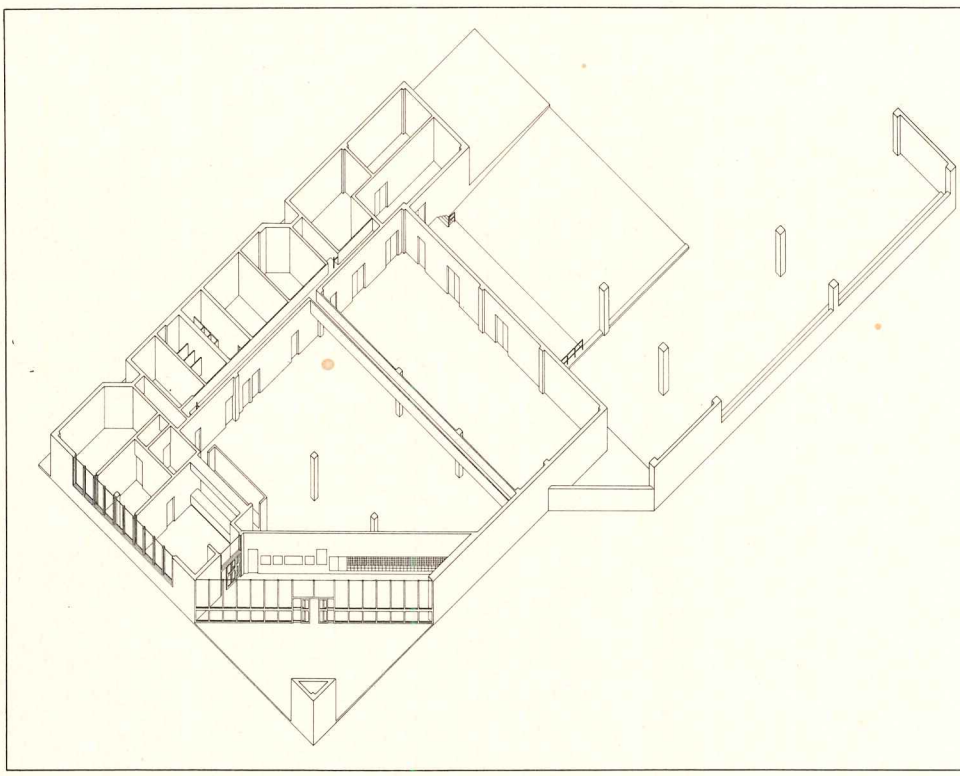
UNITED STATES POST OFFICE, Ahoskie, North Carolina. Owner: *United States Postal Service, Southern Region.* Architects: *Gantt/Huberman Associates.* Engineers: *Frank B. Hicks Associates* (structural); *McKnight Engineers, Inc.* (mechanical); *Bullard Associates* (electrical). General contractor: *C. D. Mixon & Co.*




Scott Garner ph







# WAUGHTOWN STATION POST OFFICE

This is a small branch post office in a transitional neighborhood in Winston-Salem, North Carolina, and it is built on a site that was formerly the parking lot for an adjacent industrial building. The design of the building is intentionally simple and intended to act as a billboard to signal the postal presence. It has a strong 45-degree portico to indicate its public entrance—which serves people who walk straight in and those who arrive by way of the parking lot as well.

All of the parking for employees is located on the side and in the rear—the part of the site that is adjacent to the industrial facilities and out of the sight of the neighboring small wood-frame houses.

The building, like its design, is sim with an on-grade concrete slab floor, steel umns and beams, bar joists, and metal decking. Exterior walls are of wire-cut b and block back-up, and the windows are g tinted glass with black anodized alumin frames. Inside, the public lobby has vinyl ric walls and a concealed spline ceiling, w the work areas have standard finishes.

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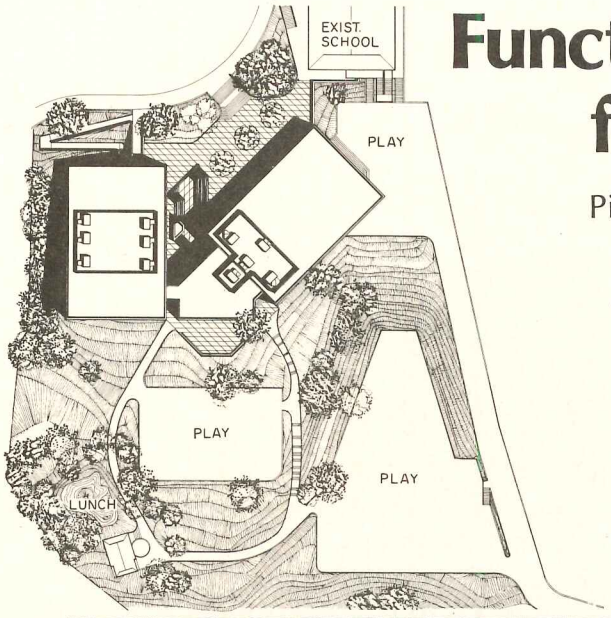
UNITED STATES POST OFFICE, Waughtown tion, Winston-Salem, North Carolina. Ow *United States Postal Service, Southern Region.* Ar tects: *Gantt/Huberman Associates.* Engineers: *F B. Hicks Associates* (structural); *McKnight Engine Inc.* (mechanical); *Bullard Associates* (electri General contractor: *R. K. Stewart & Son.*




# Functional simplicity in design for earthquake resistance

Piedmont Junior High School, located in the San Francisco Bay Area, replaces an older complex of buildings that could not be economically upgraded to meet California's earthquake resistance codes. While only one example of such school development now occurring throughout the state, it is particularly a design of refined simplicity —and ultimately of economy.—*Janet Nairn*

*Gerald Ratto photos*

Prompted by what is commonly known as the Field Act—an act which outlines the minimum structural requirements for design, construction and reconstruction of all California public schools for earthquake resistance—the Piedmont Unified School District ordered examination of all its schools by local engineers, and found the junior high school unsafe. It became evident that a new school building would be more economical to construct than structurally reinforcing the existing complex.

The Field Act was passed by the state legislature on April 10, 1933 (one month after the Long Beach earthquake in which many schools suffered damage). Amended through the years, it stands in the forefront of California's attempts to set minimum requirements for public safety specifically due to earthquake hazards. In 1967, an amendment to a related act required that all schools built prior to 1933 be brought into conformance with the Field Act, thus including the Piedmont Junior High School, built in 1924. Piedmont capitalized on state assistance, so much so that the school was 100 per cent paid for with state aid.

The school is located, along with elementary and senior high school buildings, in an area adjacent to community and recreational facilities, encircled by private residences. The key to its design is simplicity. The configuration of the buildings is a V-shape, with two classroom wings (of equal dimensions: 73 by 115 feet) connected by a triangular building—all conforming to the contour of the hillside. Rather than designing a traditional classroom scheme with rooms branching off a central corrdior, the classrooms were placed in the center with a corridor on the perimeter. This permitted mechanical and electrical systems to circle the classroom core and extend into each room. This core was designed for maximum flexibility, for it was open-planned with sliding wall partitions on a 15-square-foot grid pattern. To facilitate the handicapped, a ramp connects the street with the main classroom wing and an elevator is provided.

Specific structural construction for earthquake resistance was entirely by addition of symmetrical shear walls at each corner of all buildings, to restrict horizontal movement due to the expected lateral forces of an earthquake. Extensive geological studies—specifically of the site in relation to the nearest earthquake fault—were conducted, substantiating the engineering solution in use of shear walls.

It is a combination of the buildings' configuration, use of perimeter corridors, classroom grids and engineering solution for earthquake resistance that also make the design of this school extremely economical.

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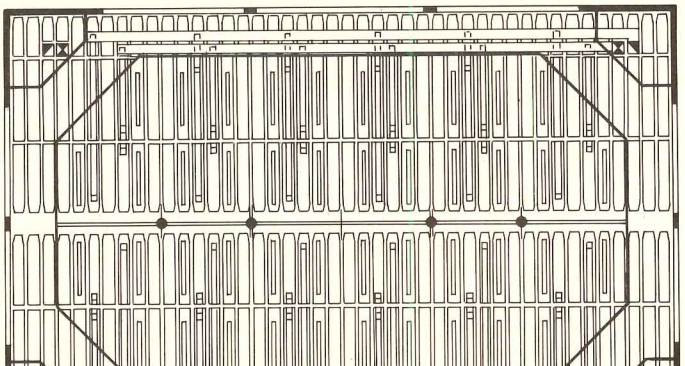
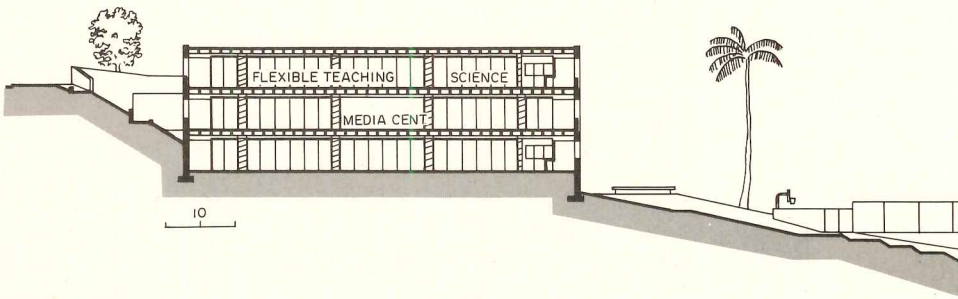
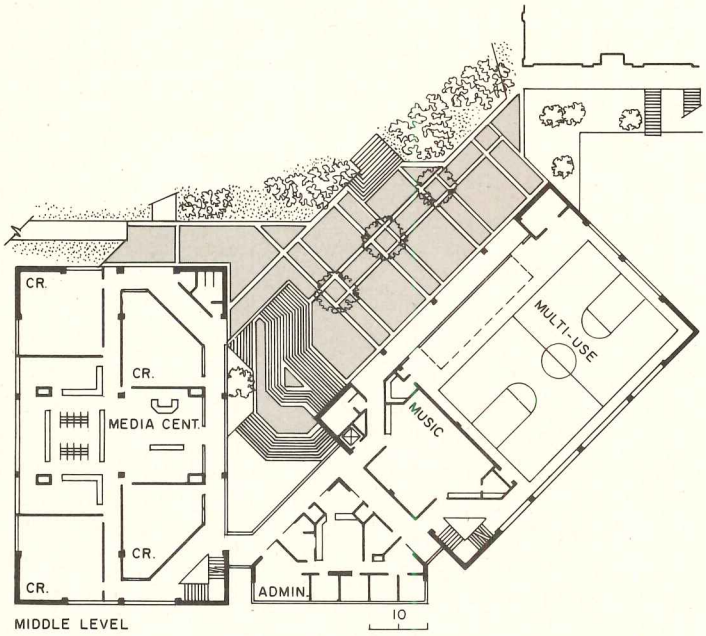
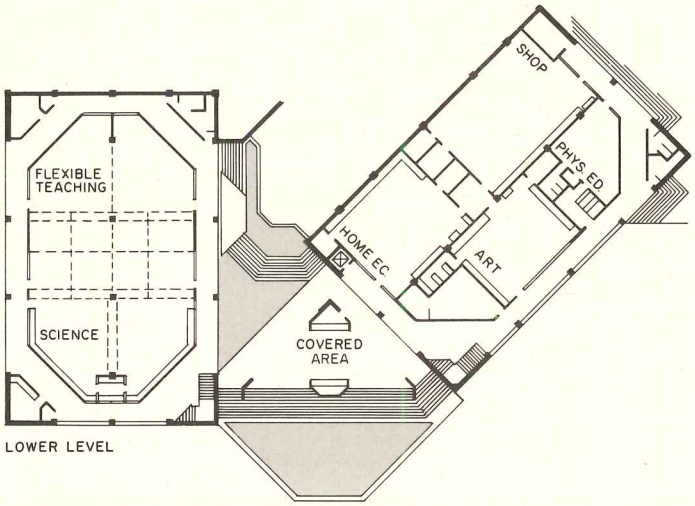
PIEDMONT JUNIOR HIGH SCHOOL, Piedmont, California. Architect: *Chester Bowles, Jr., of Marshall & Bowles.* Engineers: *Forell Elsesser Engineers* (structural); *Woodward-Clyde Consultants* (soils); *Marion Cerbatos & Tomasi—Ivan Tomasi, principal-in-charge* (mechanical); *Stanley H. Anderson* (electrical). Consultants: *Fitzroy-Dobbs* (acoustical); *Henry Chapot* (cost); *William H. Knight, Louis Ferry, Alton Sprague* (education). Interiors/graphics/landscaping: *Marshall & Bowles.* Contractor: *Charles J. Branagh, Inc.—Peter Rocereto,* job superintendent.

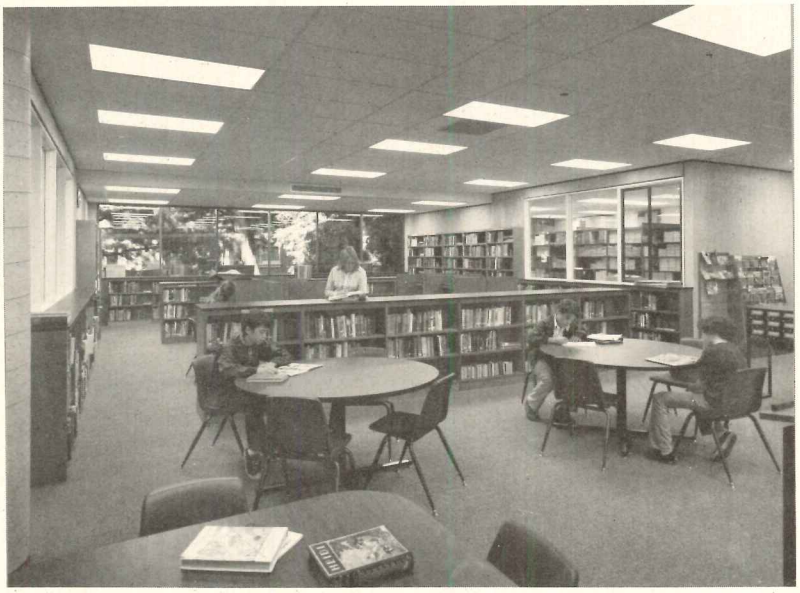


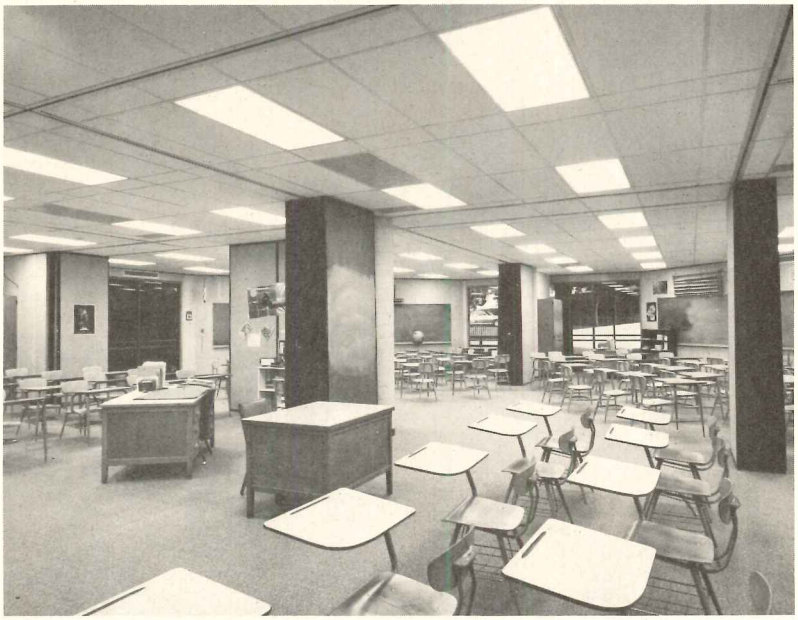
Simplicity in design is expres
in all the school's aspects,
cluding the straightforward
economic solution for ea
quake resistance in the pl
ment of shear walls on e
corner of all buildings (
left). A full view of the build
(top right) can only be seen f
the lower portion of the hills
The angle formed from the
shaped configuration of
complex was developed
large, open plaza (bottom r
that allows students a gathe
place and permits a nearly l
entry onto the school groun







While the perimeter corridors are important in allowing for open-planned classroom space and efficient circulation, they also—especially through angular corners—guide views in one direction to the open plaza, and in another direction to the play areas on the lower portion of the hillside and to San Francisco in the distance. Teachers' private offices and work rooms are located in the corners (plans page 142). An open walkway under the complex (top) connects the plaza and play areas. A need for flexible space on the two-acre site necessitated an open-planned classroom core (bottom), which creates a maximum of 12 rooms on each of the first and third floors of the main classroom wing. A multi-media center and library are combined on the second floor (middle); and the gymnasium (not shown) serves a dual purpose as auditorium, having an acrylic plastic window wall (nearly unbreakable), tinted to filter strong light from the south. During construction, most trees on the site were saved, including a row on the northwest seen from the library.

# EVERYTHING YOU WANT in one roof insulation board...

## Permalite® Pk® perlite/urethane rigid roof insulation

### ombines the fire resistance of perlite with the superior insulation of urethane!

**ew treated top surface.**
ew asphalt-impregnated skin permits iform cure of urethane during anufacture, provides superior bond built-up roof to top surface of sulation and improves ability of top rface of urethane to withstand appli- tion of bitumen heated to 500°F.

**ore insulation, less thickness.**
ethane with a k factor of .13 ovides highest insulation efficiency. rlite is dimensionally stable, oisture-resistant, fire-rated, easy to ork with, non-irritating. Together— as one composite product—they provide more insulation with less thickness and save both fuel and mechanical costs.

**Full rating-bureau approvals.**
Permalite Pk rigid roof insulation meets requirements for UL and FM ratings not possible with urethane alone. Permalite Pk provides the way to use urethane insulation on a metal roof deck and get an acceptable fire rating. Insurance people love it. Write now for sample and technical data.

To meet other roof insulation needs, GREFCO also offers Permalite® Sealskin® perlite insulation board.

**Permalite® Pk**

The roof insulation board designed to keep heating and air conditioning costs down as the cost of fuel goes up!

Grefco *A subsidiary of General Refractories Company*

GREFCO, Inc./Building Products Division
Oak Brook, Illinois 60521—(312) 654-4500

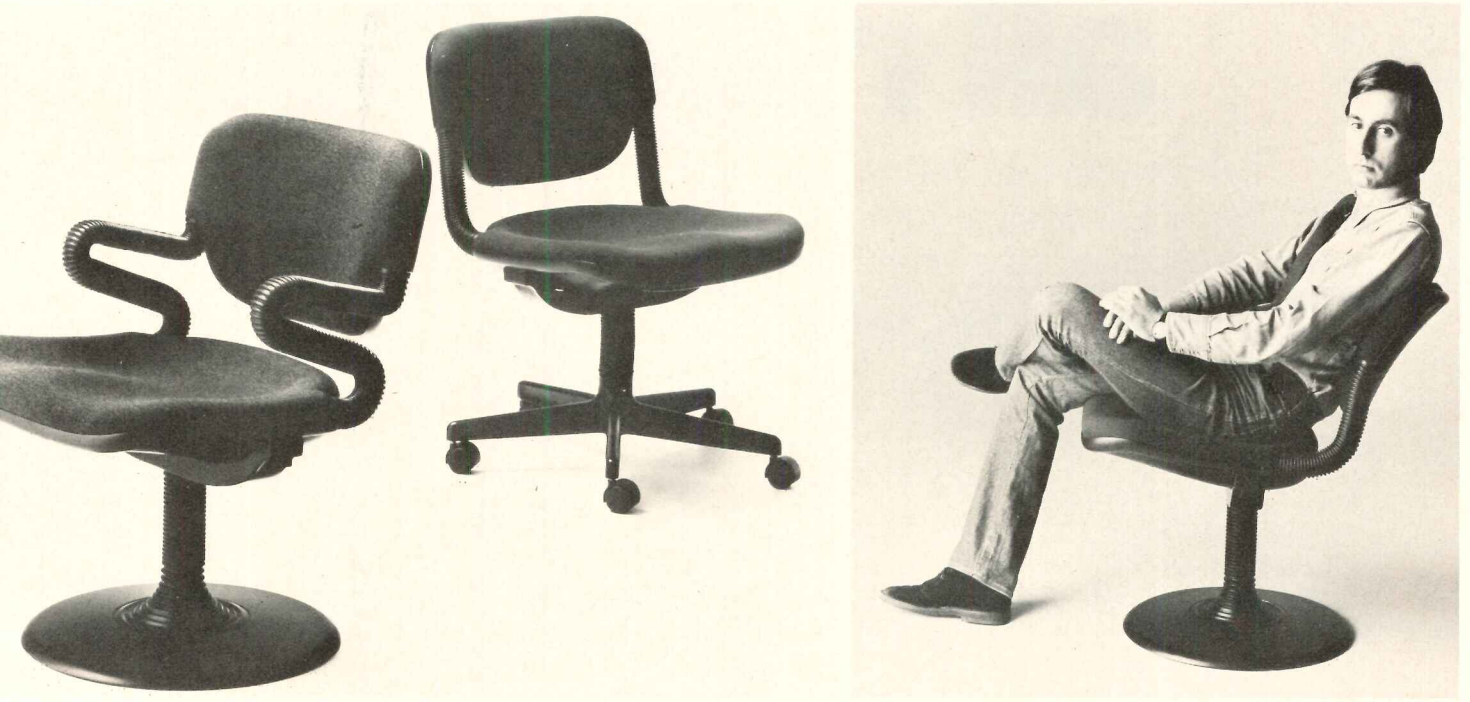
# Cookson Rolling Grilles. The best way to close an openin

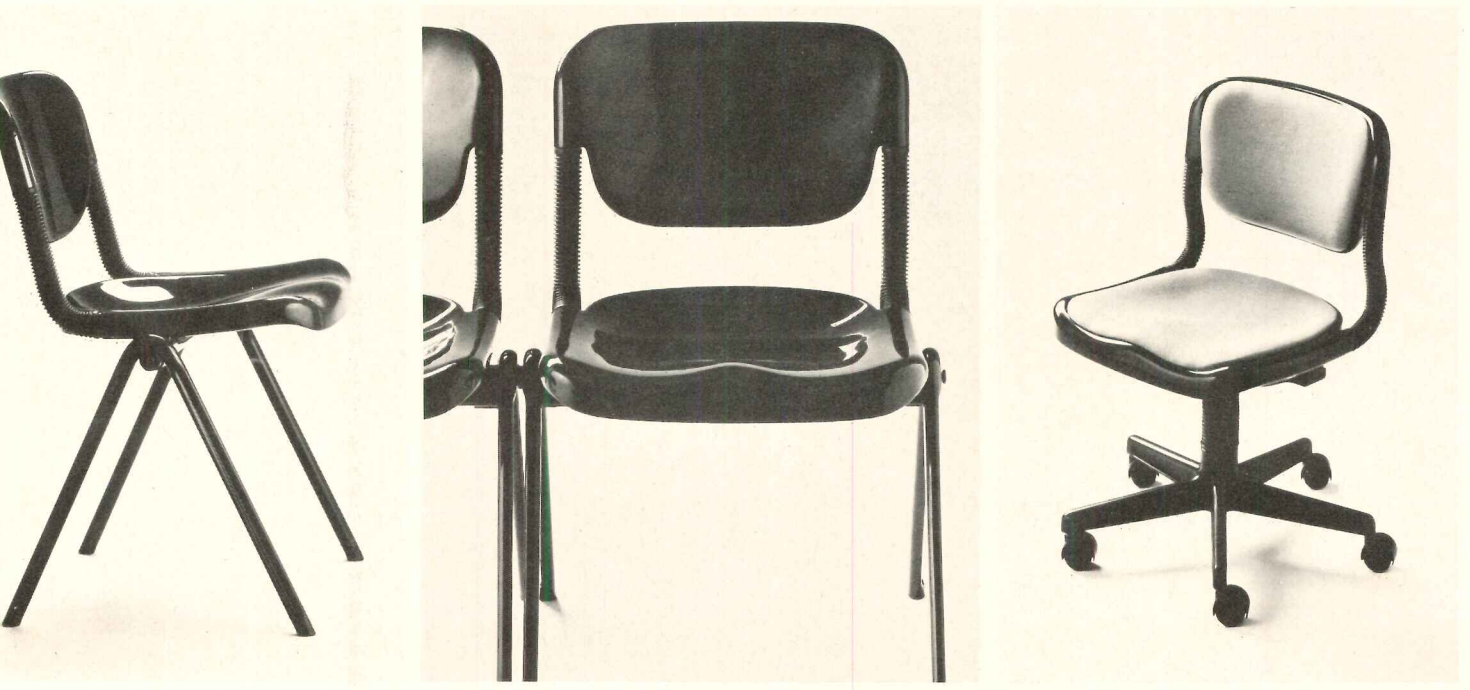
Specified nationwide by architects who demand dependability, superior craftsmansh and outstanding performance. For information on our custom-engineered rolling doo grilles and counter doors, consult our catalog in Sweet's (8.7/Co) or send for your ov copy. The Cookson Company, 700 Pennsylvania Avenue, San Francisco, CA 941(

COOKSON

*For more data, circle 70 on inquiry card*

*information, circle item numbers on*
*ervice Inquiry Card, pages 217-218.*





## *ra* seating offers automatic response to changes in sitting position

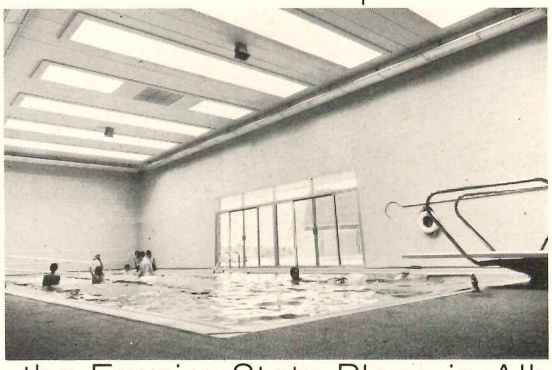
up of office chairs, de- by Emilio Ambasz and o Piretti, incorporates mechanisms permit- backrest to tilt back- d the seat to slide for- hen the user sits up, ward, etc. There are no adjustments of any Another mechanism under the seat of pedestal base chairs provides forward tilt for work situations. Some of the mechanisms are concealed by rubber bellows, forming the arms on some models. All mechanisms work independently of each other, resulting in seating that is adaptable to a wide variety of working positions and job functions, according to the company. *Vertebra*'s ergonomic design is recommended for mass seating, classrooms, waiting rooms and executive suites, to name a few. Seat and backrest components are dark molded ABS with complementary finishes on the pedestals. A black finished disc base is also available. Four distinct groups comprise the line. Institutional seating (lower left) is 48 cm wide, and has stack chairs with black tubular steel frames, with or without arms and tablet arms. Operational seating (lower right) is also 48 cm wide, but features pedestal bases. Both have upholstered options. Managerial seating is 54 cm wide, while executive seating (upper left) is 60 cm wide. Both are offered with or without arms, fully cushioned and upholstered, and have pedestal bases. ▪ Krueger, Green Bay, Wis.

*Circle 300 on inquiry card*

more products on page 153

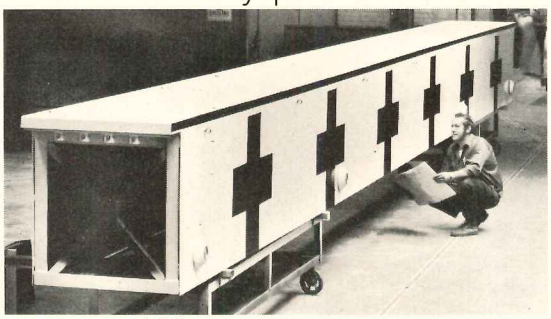
# Overly makes pools for all reasons

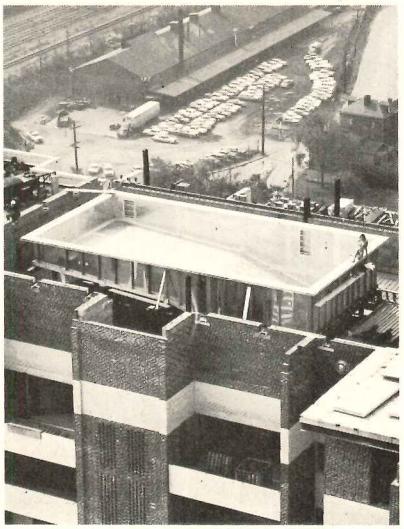
You name the type of aluminum or stainless steel pool you need and Overly will design, fabricate and install it. We specialize in indoor, outdoor and rooftop swimming pools, in custom-designed therapy pools, executive exercise pools and movable bulkheads to add flexibility to pool use. A variety of water filtration systems is also available.



We can do the big jobs, too. One of our most recent installations was the fabrication and installation of over 100,000 square feet of shallow, reflecting pools at the Empire State Plaza in Albany, N.Y.

Overly pools have many distinct advantages. They resist damage from earthquakes far better than ordinary pools. They won't rust, helping to keep maintenance to a minimum. And there's no grouting, caulking or sealing to fail.



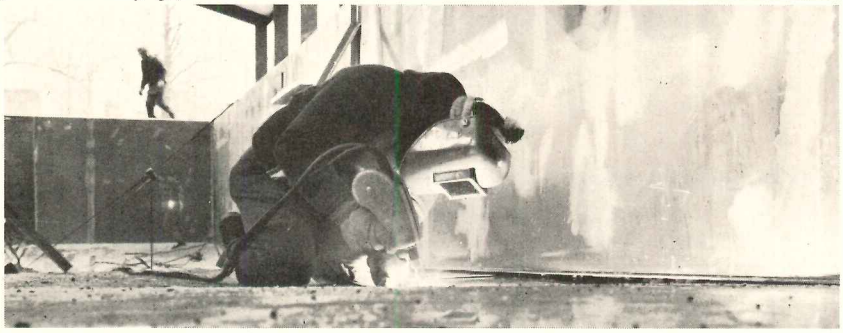


We warrant our pools for five years as to workmanship and leakproof performance. And all welds are vacuum tested.

Our design, fabrication and installation capabilities are detailed in our new brochure, Overly Pools. Write for your copy, or see us in Sweet's Catalog.

Overly Manufacturing Company, 574 West Otterman Street, Greensburg, Pa. 15601

**overly**
MANUFACTURING CO.
**DOES WHAT OTHERS DON'T**



*For more data, circle 71 on inquiry card*

*nore information, circle item numbers on*
*er Service Inquiry Card, pages 217-218.*

**TE** / The labor-saving advantages of butt joint set- of slate—no need for grouting or acid wash—are n in a detailed brochure. The joint-free, mono- appearance is made possible by the uniform of the slate 7 by 14 in., permitting a butt joint llation over adhesive on either floor or wall. Ar- cts' comments and references are given. ermont Structural Slate Co., Inc., Fair Haven, Vt.

*Circle 400 on inquiry card*

**L JOISTS** / The 48-page 1976 edition of "Stand- Specifications and Load Tables for Open Web, span and Deep Longspan Steel Joists" is now able. J and H-series joists are covered in each gory. Data on mechanical properties, unit stress, ections, camber, paint, bridging, and spacing, an eight-page "Code of Standard Practice" are ded. ▪ Steel Joist Institute, Arlington, Va.

*Circle 401 on inquiry card*

**ANT** / *Side-Lap Sealant* is specifically formu- for metal building applications, according to a page brochure on this sealing material. The uct's ease of application and low-waste benefits resented, along with placement and selection ▪ Construction Fasteners, Inc., Wyomissing,

*Circle 402 on inquiry card*

**Y EQUIPMENT** / More than 50 items of wooden rn-through-play" equipment for preschool and -elementary age children are presented in a catalog. Shown are units for building and mbly projects, homemaking play, work tables, s, and storage and display units. Price sched- construction and finish details, and guarantee mation are given. ▪ SturdiBuilt, Inc., Monroe,

*Circle 403 on inquiry card*

**LLCOVERINGS** / "National Pride" is this firm's 1976 line of contemporary contract wallcover- fully described in a 70-page binder. The collec- includes vinyls, mylars and fabrics, many suit- for both wallcoverings and upholstery. Most rns meet Federal specifications. ▪ Boyd Archi- ral Wallcoverings, City of Industry, Calif.

*Circle 404 on inquiry card*

**ORING ACCESSORIES** / A full-color eight-page hure presents a complete line of vinyl and rub- looring accessories. Featured are vinyl and rub- cove base, stair treads, nosings, carpet acces- s, and corner bumper guards, plus a section on sives. ▪ The Johnson Rubber Co., Middlefield, .

*Circle 405 on inquiry card*

**LING GRILLES** / Steel rolling grilles for installa- in shopping malls, office buildings, banks, stadi- etc. are detailed in a full-color brochure. Ex- ed are a two-piece bottom bar feature that its security even where floors are slightly out-of- ; a patented emergency opening device allows grille opening even if electrical power is cut. dard features include $^5/_{16}$-in. steel rods encased uminum tubes that are continuous from jamb to . ▪ Jim Walter Doors, Tampa, Fla.

*Circle 406 on inquiry card*

**CETS** / An envelope-size folder on decorator fau- for kitchen and bath shows styles in cast brass, noplastic, vitreous china; bright or brushed gold hrome, gold, avocado, white, and special ac- s. ▪ Bradley Faucets, Menomonee Falls, Wis.

*Circle 407 on inquiry card*

**FIRE DETECTION SYSTEMS** / An eight-page brochure illustrates and describes a full line of fire-detection devices and alarm systems. Most models are intended for industrial and light commercial applications, though a single-station ionization detector/intrusion alarm unit for residential use is included in the catalog. ▪ Pyrotronics Div. of Baker Industries, Inc., Cedar Knolls, N.J.

*Circle 408 on inquiry card*

**AUTOMATIC SPRINKLER/STANDPIPE** / Two recent publications from the National Fire Protection Association deal with sprinkler systems. The first volume in a projected textbook series is "Automatic Sprinkler and Standpipe Systems" by Dr. John L. Bryan of Maryland. He presents the basic concept and principles involved in design, installation and function of standpipe and sprinkler systems. Chapters deal with such topics as: fire department procedures; the automatic sprinkler head; wet pipe, dry pipe, deluge, preaction and specialized automatic sprinkler systems; and exposure sprinkler and water spray systems. The text is fully illustrated, with bibliographies for each chapter. (400 pp.; $14.95) Sprinkler installation standards for one- and two-family dwellings and mobile homes are now available in NFPA 13D, with Tentative Interim Amendments printed near the text to which they apply. Included in NFPA 13D are sections on system design for both wet- and dry-pipe; sample hydraulic calculations and layouts; water supply, pipe, and fitting requirements for home sprinkler systems. (40 pp.; $2.50) Both, from the NFPA Publications Sales Dept., 470 Atlantic Ave., Boston, Mass. 02210.

**MEDICAL WALLS** / An illustrated 24-page bulletin is available for the professional involved in the design of medical care facilities. It describes a new series of "Modular Medical Walls" intended to increase medical attendant efficiency in patient care. Major features, technical characteristics, installation steps and a design guide are included. ▪ Square D Co., Oshkosh, Wis.

*Circle 409 on inquiry card*

**BUILDING SYSTEMS** / Included in this brochure is information on space frame and glazing, an integrated modular system with multi-story capability, a system with large, open bays, straight columns, open web trusses and standing seam metal roof that augment the standard rigid frame product line. ▪ Butler Mfg. Co., Kansas City, Mo.

*Circle 410 on inquiry card*

**CHAIRS, TABLE BASES** / Ten accent chair designs, plus a table base series, are introduced in a six-page catalog supplement published by the contract division of the company. Nine of the 10 chairs shown are pedestal models, three with Mediterranean-style bases featuring wrought iron trim. Also shown is a new "6-Series" chrome table base, coordinated in design to a new sled chair frame and offered in a range of sizes. Included are general specifications for all new products pictured, as well as price list. ▪ B. Brody Seating Co., Chicago, Ill.

*Circle 411 on inquiry card*

**TERMINAL HVAC** / This is an updated publication on the company's line of heat/cool "thru-the-wall" air conditioners. The six-page color illustrated publication presents ratings and specifications on 16 models for 230/208- or 265-volt operation in cooling capacities from 6,000- to 15,000-Btuh, with electric heating from 2.0- to 5.0-kW. ▪ General Electric Co., Louisville, Ky.

*Circle 412 on inquiry card*

# *Two good names...*

**Acrylite®**
ACRYLIC SHEET
MOLDING COMPOUNDS

# *and*

# XT® polymer

# *and now another*

# CY/RO
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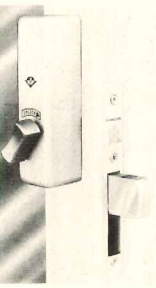
***A new company, a new name, a new world of exciting possibilities in transparent plastics. A partnership of the experience and know-how of American Cyanamid and Rohm GmbH. Integrating the highest standards of quality of the United States and Europe. Bringing you Acrylite® acrylic sheet and molding compounds–and XT® polymer–as you know them . . . American technology and invention . . . expertise in production, marketing, and distribution. The quality and service you've learned to rely on from Cyanamid. And more–much more. The Continental leadership, research tradition and creative design which are the hallmark of Rohm GmbH. A combined commitment to innovation in transparent plastics, seeking out the most demanding applications for high performance plastic products. Synergizing to create broad new spectrums of properties . . . new solutions for unfulfilled needs. New conceptions . . . enabling new departures for industry, new lifestyles for individuals. Let CY/RO help you design the future. CY/RO Industries, Wayne, New Jersey 07470***

***CY/RO is the news in transparent plastics.***

CY/RO INDUSTRIES
A Partnership of Cyanamid Plastics, Inc. and Rohacryl, Inc.

*For more data, circle 73 on inquiry card*

**OTE-CONTROLLED DEADLOCKS** / This electric actuator combines an electrically-controlled strike with a secure long-bolt deadlock. "Series 7600" actuator can be installed in any narrow-stile commercial door; operation of the *M.S.* deadlock is by 24 volt DC current. Options include a thumb-turn opener for egress in of power failure; status-signaling diodes in the of the unit, and keyboard or card-actuated ss control systems. ▪ Adams Rite Mfg. Co., City dustry, Calif.



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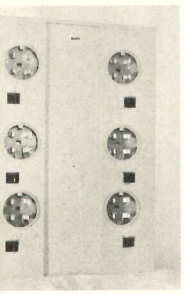
**TRIC METERS** / Group metering boxes of up to six units are now available for garden apartment installation. The enclosure is rated for 600 amps; the meter/breaker modules are removable. After the branch circuit wiring is pulled through, the units are reinstalled; separate covers completely enclose the unmetered bus the meter/breaker units. Group metering comes -, 4-, and 6-meter models; sockets are rated for 150, and 200 amps. ▪ Anchor Electric, Manter, N.H.



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**THANE FOAM COATINGS** / The "Weather/Flex Plus" coating system for protecting rigid urethane foam exposed to sunlight, water, pollutants, etc., is now available in five colors: white, tan, gray, green and blue; with custom shades for large orders. The finish is a two- breathing system applied by airless spray, and is to produce a color-stable, nearly-maintece-free protective surface regardless of configun. ▪ Irathane Systems, Hibbing, Minn.


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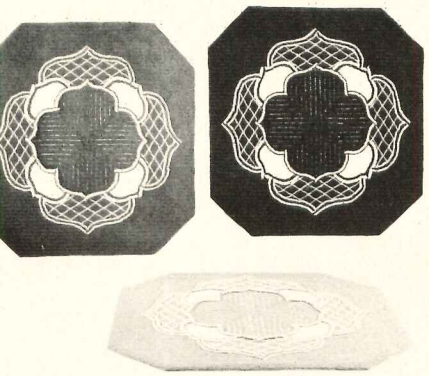


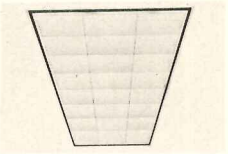
**CENT RUGS** / Intended for use as area rugs or as orative wall hangings, this fall 1976 line includes ew designs. Pictured is octagon-shaped "Medal-," designed by Marie Creamer and based on a ese lotus blossom motif. Other patterns are lyssey," a contemporary circled-square sun-t; and "Cloud Bands," a one-color, textured fret-k pattern. All rugs are 100 per cent nylon. egal Rugs, Inc., N. Vernon, Ind.

*Circle 304 on inquiry card*

**GAS/MICROWAVE RANGE** / This cooking unit combines a top-mounted microwave oven, with timer dials and selector control; four surface burners with pilotless electric ignition; and a 25-in., continuous cleaning lower oven with roll-out broiler underneath. Both ovens have see-through black-glass windows with interior lights. Model "76-4886" is available in white, avocado and gold colors. ▪ Tappan Appliances, Mansfield, Ohio.

*Circle 305 on inquiry card*

**RECESSED FIXTURES** / Six different housing sizes and a wide range of lens cell configurations are features of the new *Paralouver II* series of low brightness recessed fixtures for static/air supply or heat transfer/air supply functions. One-, two- and three-lamp models are available; all are said to provide good light control, high co-efficients of utilization, and favorable light loss factors. Louvers are either natural aluminum or gold finish; the black reveal gives a floating appearance. ▪ Day-Brite Lighting Div., Emerson Electric Co., St. Louis, Mo.



*Circle 306 on inquiry card*

*more products on page 155*

# Plaster in a roll the no problem heavy duty wallcover that covers problem walls ...including concrete block!

Plaster in a Roll™ goes up like wall paper over every conceivable surface including *poured masonry, concrete block, plaster, gypsum board, expanded foam, metal, glass, wood* and *plastic.*

Easily installed by any wall covering applicator, this unique *gypsum impregnated jute* product bridges small voids, hides blemishes and bumps. An optional *anti-graffiti* protective coating provides a tough, clear, low-gloss finish, highly resistant to most common stains.

If you're involved in renovation or construction in *hospitals, hotels, motels, schools, apartments, public buildings* or any *high traffic area*...if you're looking for *lead paint hazard elimination* or want a one-step process that takes you from a problem to a finished wall...take a look at *Flexi-Wall* covering systems.

We're a one-step time and money saver which can turn your problem walls into a decorator's dream. Specify Flexi-Wall Plaster in a Roll™ wherever you would use Type III heavy duty vinyl wall-covering.

## Call (803) 855-0500

For complete architectural data and swatch book, write Flexi-Wall Systems, P.O. Box 477, Liberty, South Carolina 29657.

(Sweet's Architectural and Interior Design Files #9.13/Fl., Spec/Data File, Section 9/Wall Coverings. Means Building Construction Cost Data/Wall Covering Gypsum.)

**FLEXI-WALL®**
**Plaster in a Roll™...**

PRODUCT REPORTS *continued from page 153*

**AUTOMATIC DISHWASHERS** / Functional improvements, options for energy conservation and more decorating flexibility are featured in this 1977 line of residential dishwashers. Six undercounter and four portable models are included, all with an adjustable upper rack, new pump impeller and filtering system, and concealed door latch. Each unit is insulated for noise reduction. An optional "dry selector" switch permits the user to air dry dishes without extra heat. ▪ Whirlpool Corp., Benton Harbor, Mich.

*Circle 307 on inquiry card*

**THERMAL WINDOWS** / The "E-series 560" picture window shown is a new addition to this line of insulated glazing. Its "thermal-break" design incorporates a closed-cell vinyl foam insulation to resist shock, racking and twisting, as well as providing noise-deadening qualities. A "zero" air infiltration feature is said to seal the entire window against temperature change, dust and dirt. Fin windows with colonial lines and snap-on exterior box frame trim are available for residential, commercial and institutional construction. ▪ Capitol Products Corp., Mechanicsburg, Pa.

*Circle 308 on inquiry card*

**POOL LIGHTING** / A new line of incandescent lamps is especially designed for use in swimming pool areas. The moisture-resistant lights have a rugged *Pyrex* envelope and heavy-duty filament construction for shock and vibration resistance. Most of the lamps can operate in any burning position; outputs range from 100 to 500 w. ▪ North American Philips Lighting Corp., Hightstown, N.J.

*Circle 309 on inquiry card*

**OFFICE SEATING** / "CAS Series" chairs feature a short arm and base design for easier maneuverability and good posture support. The frames are cast aluminum alloy available in six colors; seats and backs are finished in a smooth nylon. The line comes in seven models designed for managerial through secretarial functions. ▪ Sunar Ltd., Waterloo, Ont.

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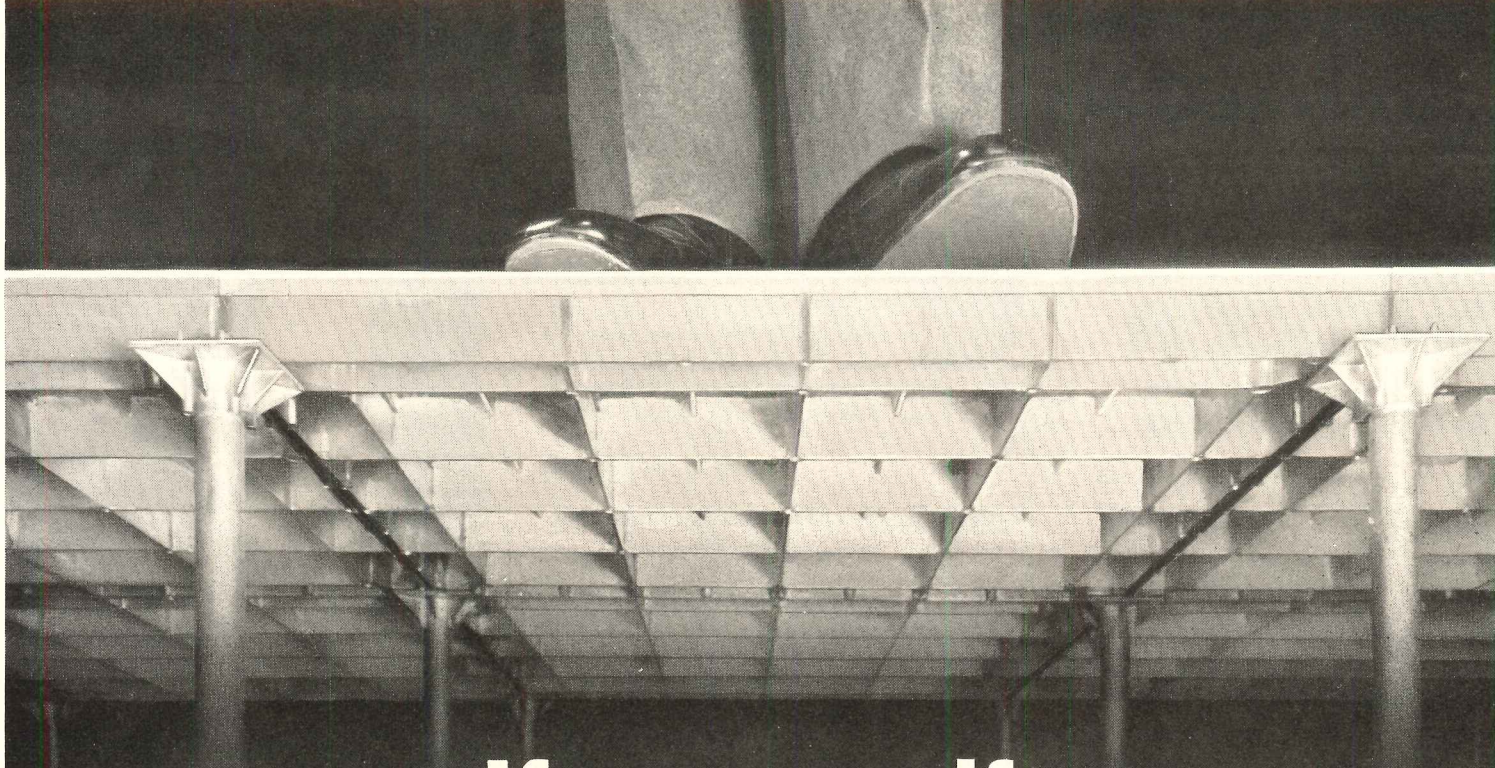
*more products on page 157*



# If you specify any computer floor but aluminum, it's a bad compromise!

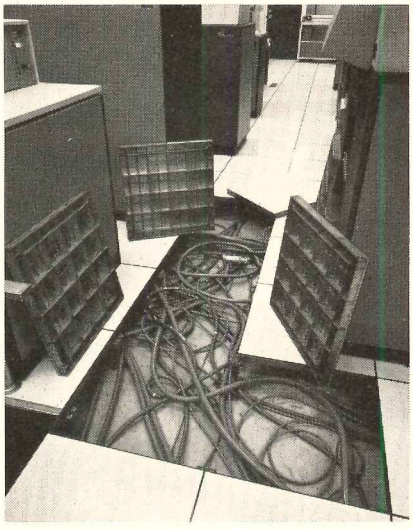
Truth is that in 1956 when the need for raised flooring in computer rooms became apparent (with function the chief design criteria) a stringerless floor made up of pedestal mounted die-cast aluminum panels was the choice. That's how the Floating Floor System was developed. Since then, Floating Floors® have been providing trouble-free service in thousands of computer rooms.

Stringerless design makes Floating Floors the only true infinite access floor system. Male and female locking devices, at four corners of each floor panel, provide the highest lateral stability. In fact, Floating Floors meet Federal specifications for seismographic zone #3 (San Francisco).

The sad truth is that in order to compete with Floating Floors, other manufacturers have had to promote floor systems of inferior materials and design such as stringer-supported wood and steel. While costing a little less initially, these other floor systems can represent a very bad investment over the long term.

*Computer downtime* due to electrostatic build-up or magnetic dust may result from one of these wood or steel stringer-supported floors. Costly delays are often caused by the inconvenience of working under stringers, or disassembling and re-assembling them.

Floating Floors on the other hand have proven to be problem-free even after as many as 20 years of service. Monolithic construction with aluminum ensures dissipation of static electricity. And since aluminum is non-magnetic and does not require painting, iron rust and paint flakes are not present to enter the air and interfere with computer operation. Aluminum will not of course, rust, warp or burn.



The Floating Floor system is designed to meet future expansions and changes. Components can be easily changed around since precision die cast and milled alluminum floor panels ensure a uniformity in size (machined to +.005 — .000) not found in hand assembled products. And there is plenty of strength for the installation of new equipment.

In fact, the overall quality of Floating Floors is so good that we are able to give a FIVE YEAR UNCONDITIONAL GUARANTEE AND BUY-BACK PROGRAM with every floor installed.

For more complete information refer to Floating Floors bulletin 10.27 FL as shown in SWEETS under Specialties — Access Flooring. Call us for assistance.

FLOATING FLOORS, INC.
6955 Wales Road, Toledo, Ohio 43619
Tel: (419) 666-8750

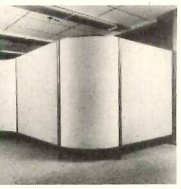
IN CANADA: Bruce (EDP) Services Ltd.
3650 Weston Rd.
Weston, Ontario
Tel: (416) 741-0854

*For more data, circle 78 on inquiry card*

**FLOATING FLOORS, INC.**

*Available World-wide from Licensees and Distributors • Installations Coast to Coast*

**USTICAL PANELS** / The tight curved corner shown is a new addition to this line of interlocking acoustical panels. With a 24-in. radius, the new corner unit is suitable for aisles, exits, and other traffic areas where space ited. It has a sound adsorption rating of .55 and ompatible with other components of the opanel" line. ▪ Rosemount Partitions, Inc., ville, Minn.



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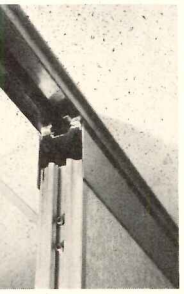
**/ABLE PANEL WALLS** / Multi-directional movable panels look and perform like fixed partitions when set in place, according to the manufacturer. The "Pathfinder" walls operate in ceiling tracks, which allow panels to navigate freely through T, L, or cross intersections without the use of switching devices or curves. An ator handle in the edge of each panel lowers it firmly on the floor, at the same time raising a anical flange on top of the panel to form an stical seal with the ceiling track. In-place wall ls have no hanging weight; will not sway with g drafts; and can be leaned against without ement. The last panel in each series has a lever to seal the panel against the adjacent wall, and to create an opposing force to seal all other ls together. Work surfaces—chalkboards, proon screens, shelfing, etc.—can be built-in or ped-on via slots in the panel edge extru- . ▪ Hough Mfg. Co., Janesville, Wis.



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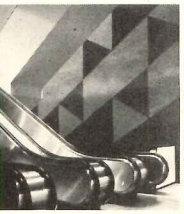
**PETING** / The "Tretford Carpet System," a fusion-bonded carpeting suitable for continuous installation, is now offered in nylon. The Irish-made carpeting is said to be especially suitable for such extreme high-traffic areas as subway cars, s, supermarkets and schools. The concentric d surface, bonded into a PVC sound-insulating helps hide seams. The carpet may be cut on the -face, as in the escalator bank application n, and can be fitted around columns or struc- elements. ▪ Eurotex, Inc., Philadelphia, Pa.



*Circle 313 on inquiry card*

**SUM PANELS** / "Custom Granada Cork" is a new addition to the *Textone* line of vinyl-faced gypsum panels for permanent or movable partition requirements. The scuff- and wear-resistant patterns are factory-laminated to fire resistant *Sheetrock*. *Textone Firecode* panels meet Federal specion SS-L-30C, Type 111. Also, "Custom Stip- (not shown) now comes in four colors—orange, n, yellow and blue. ▪ United States Gypsum Chicago, Ill.

*Circle 314 on inquiry card*

*more products on page 159*

# Introducing the CLEANLINE® Sprinkler.

## A beautiful way to help save lives.

Now there's a new way to design in fire protection for life safety in modern high rise and other buildings without intruding upon design aesthetics. Grinnell's new CLEANLINE® Recessed sprinkler is so unobtrusive, so trim and compact, once it's installed you'll hardly know it's there.

But don't let CLEANLINE's quiet good looks fool you. Beneath that attractive closure you'll find one of the most reliable sprinkler heads in the industry. When room temperature reaches a predetermined level, the attractive closure falls away, exposing the *fast*-response Duraspeed sprinkler. As a second predetermined temperature is reached, the sprinkler activates, distributing a uniform water spray to put down a fire.

The standard finishes available are satin chrome and white. CLEANLINE Sprinklers are also offered in a variety of finishes to match any decor. All metallic finishes are UL-listed.

There's a lot more to tell about CLEANLINE. For more information and complete specifications, call your nearest Grinnell district office listed in the Yellow Pages, or write Grinnell Fire Protection Systems Company, Inc., 10 Dorrance Street, Providence, Rhode Island 02903.

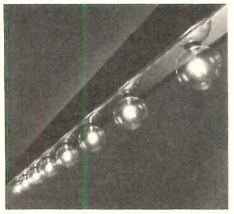
GRINNELL

GRINNELL FIRE PROTECTION SYSTEMS COMPANY, INC.

PROTECTING LIFE AND PROPERTY SINCE 1850.

*For more data, circle 80 on inquiry card*

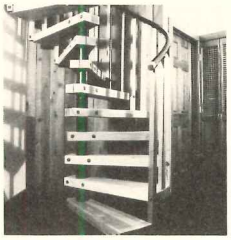
**STRIP LIGHTING** / "Counterpoint" uses standard



lighting components to produce highly individual strip lighting effects, according to the manufacturer. Single- or continuous-mounting uses standard 90 deg inside and outside corners for lighting patterns. The decorative closure, in mirror chrome, gold, black or white finishes, snaps into the extruded aluminum housing. Standard units come in lengths up to 96-in., and widths of 2½, 5-, 12-, and 24-in. Clear or colored lamps are available on 4- or 6-in. centers. ▪ Neo-Ray Lighting Systems, Inc., Brooklyn, N.Y.

*Circle 315 on inquiry card*

**SPIRAL STAIRCASES** / A competitive price is



claimed for this line of wood spiral staircases. The treads are made of 3-in.-thick split hardwood that resists loosening; wooden balusters are 2-in.-thick. The installation shown is one of 45 produced for a condominium development in Vail, Colorado. ▪ Scott Douglas Design Inc., Gulfport, Fla.

*Circle 316 on inquiry card*

**SIGNAGE SYSTEM** / Combining words and graph-


ics for fast recognition, this pictographic signage system uses individual 6½- by 6½-in. plaques. These signs, said to be both tough and lightweight, can provide a uniform method of identification throughout a variety of buildings, and include both general information and special subject signage. Standard colors are white against dark brown, with custom colors available. ▪ The Letter Factory, Minneapolis, Minn.

*Circle 317 on inquiry card*

**MULTI-MEDIA CARRELS** / "4-Plex" is one of a series of student study carrels available in trapezoidal, round or rectangular configurations. All panels are interchangeable and can accommodate such audio-visual equipment as slide projectors with integral rear-projection systems; synchronized cassette players; 8- and 35-mm projectors; and TV receivers and players. Plastic laminate panels can be surfaced with acoustical carpeting, chalkboard, pegboard, etc. ▪ Monroe Industries, Inc., Wichita, Kan.

*Circle 318 on inquiry card*

*more products on page 161*

## Another Paddock First

# A SURGE CONTROL RECIRCULATION SYSTEM THAT WORKS AUTOMATICALLY AND INSTANTANEOUSLY

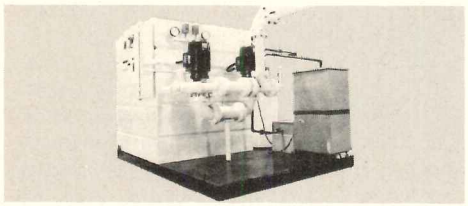
### Revolutionary New System Activated By Number of Swimmers and Type of Activity

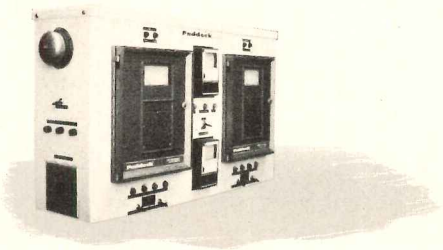
The Paddock SCRS® Perimeter System responds automatically to dynamic impulses activated by the swimmers in the pool. The following recirculation phases are maintained continuously and automatically for the life of the pool:

- Pool water level to provide a constant minimum flow rate from pool surface at all times.
- Surge weirs that open and close as use dictates to provide instantaneous "in-pool" surge capacity when required.
- Action of main drain for most efficient channel flow.
- Increase or decrease recirculation rate to prevent gutter overflow.
- Push button water level control for competitive swimming.

In addition to automatic control, the Paddock SCRS System also provides surge containment capacity and flow rates up to 3,000 gallons per minute right in the pool wall.

Check out Paddock's new surge control recirculation system for new construction or renovation today. It offers untold economies and efficiencies now and for the life of the pool. Write Vice President, Marketing; Paddock Pool Equipment Company, Inc., P.O. Box 511, Rock Hill, So. Carolina 29730.





▲ *Paddock's Hydro-Analyzer automatically controls pH level and chlorine residual in your pool and saves you thousands of dollars annually.*

◀ *Paddock can supply the total Mechanical Package—skid mounted and pre-wired—eliminates field errors.*

**Paddock**
**OF CALIFORNIA, INC.**

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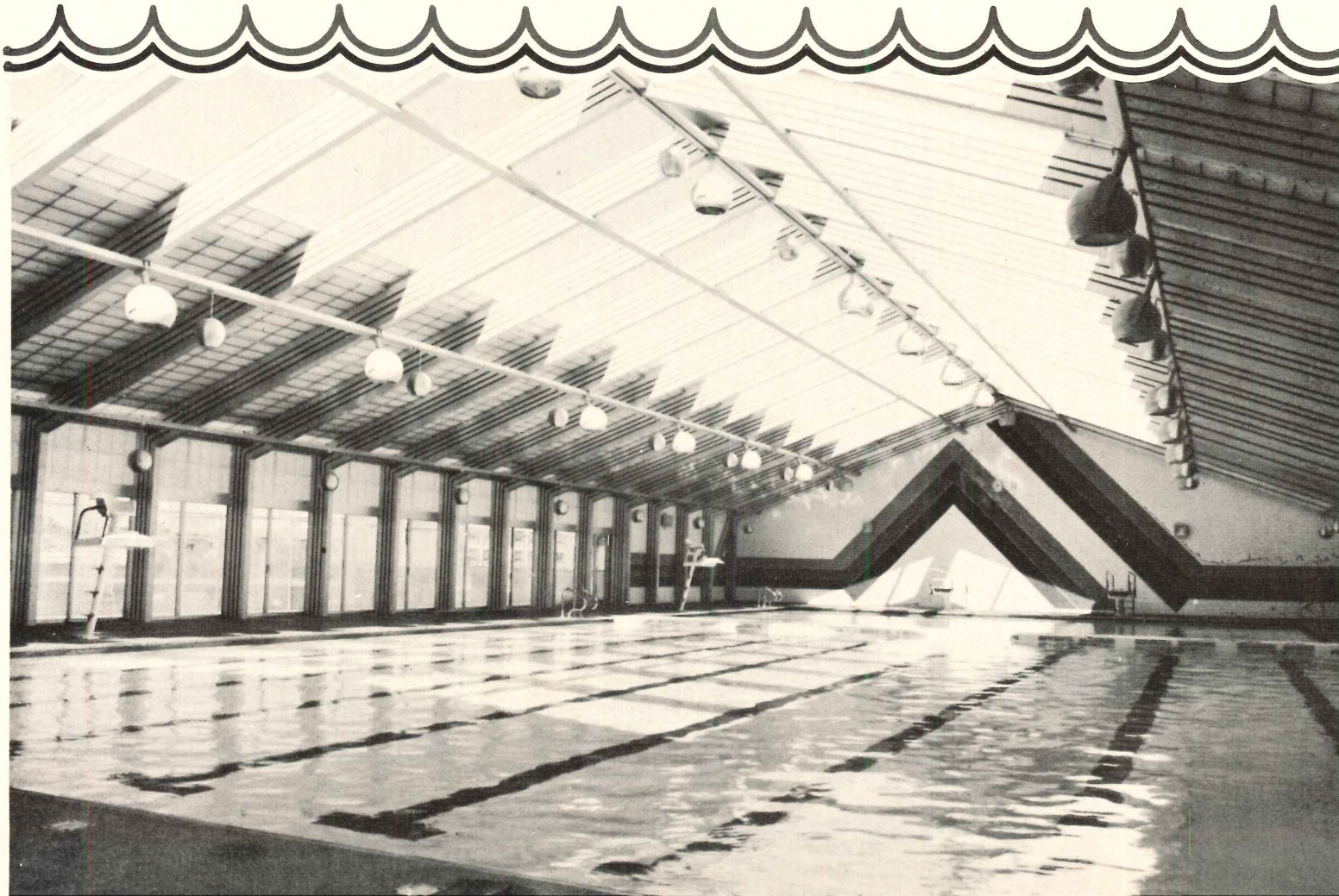
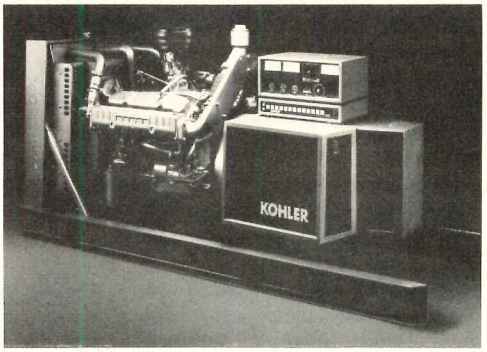


PRODUCT REPORTS *continued from page 159*




**STANDBY POWER** / The new "Fast Response" power systems, ranging from 30- to 250-kW capacity, are said to have a recovery time of 0.05 second or less from load transients. These generators also have an increased short circuit capability: under such conditions, the current output initially reaches as high as 1000 per cent of rated current, and is able to sustain 300 to 500 per cent capacity. This high amperage trips breakers connected to the short, permitting quick return of power to unaffected circuits. The generator is described as having no voltage collapse point. A standard programmable electronic controller, the "Decision Maker," governs instrumentation and fault lamps for all units in the line. ▪ Kohler Co., Kohler, Wis.

*Circle 319 on inquiry card*

**WASTE TREATMENT** / Pictured is a 50,000 gallon-per-day capacity physical/chemical process packaged waste treatment system now in use in Florida. The highly-automated installation processes domestic wastewater to produce an effluent meeting EPA standards. It is not affected by toxic substances in the sewage, making the "Package Waste Treatment System" suitable for marinas, recreational vehicle dumping stations, airports, etc., as well as the typical apartment development. A 100,000-gpd model is also available; units can be combined into larger systems to process any desired volume of wastewater. The power required is 230 VAC, 60 Hz, 3 phase; necessary chemicals are said to be readily available ▪ General Electric Co., Re-entry and Environmental Systems Div., Philadelphia, Pa.

*Circle 320 on inquiry card*

**ICE MAKER** / A compact mini-cube ice maker designed for low-volume requirements, model "SC70-30" can be put in a space 18½ in. (47.0 cm) wide and 25½ in. (64.8 cm) deep. Its height is 38 in. (96.5 cm) without legs. The unit can produce 70 lbs (30 kg) of small, 11-sided cubes in 24 hours and stores up to 30 lbs. (13 kg.) ▪ Liquid Carbonic Corp., Chicago, Ill.

*Circle 321 on inquiry card*

*more products on page 163*


# Economical steel joists provided flexibility in installing mechanical, electrical and telephone systems for Mission State Bank.

For the Mission State Bank, Mission, Kansas, economy and flexibility were just two of many good reasons for selecting steel joists. Steel joists also facilitated installation of the bank's versatile bronze glass curtain wall. Erection during the winter months was made easier by the use of steel joists.

The attractive five-story bank used H-Series joists, mostly 16 and 18 inches deep. The general contractor was John M. Fogel Construction Company. The Architect was William M. Conrad, A.I.A., of Team 1—Architects, Engineers, Planners. The steel fabricator was The Bratton Corporation.

Aside from economy, flexibility and ease of installation, steel joists aid fast occupancy and design flexibility in construction.

Send for Specifications and Load Tables for Open Web Steel Joists, Longspan Joists and Deep Longspan Joists.


STEEL JOIST INSTITUTE
2001 Jefferson Davis Hwy.
Arlington, Virginia 22202

Please send me your new copy of Specifications and Load Tables.

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Arlington, Va. 22202

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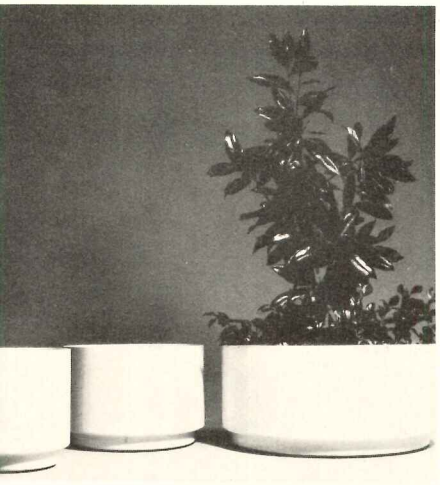

**NTERS** / A series of three round plastic planters, ing in sizes from 7½ to 12¾-in. in diameter are pped with casters. ▪ Beylerian Ltd., New York

*Circle 322 on inquiry card*

**ETY RAILING** / A prefabricated railing system for outside or inside commercial and institu- l crowd-control safety applications is made of ision-formed sheet metal components fabricated together quickly. Horizontal rails are 2 by 2⅜ nd stocked in sizes 42 to 120 in. long. Posts e 3 by 3 by 42 in. high. ▪ Equipto, Aurora, Ill.

*Circle 323 on inquiry card*

**ITING/CEILING SYSTEMS** / The company offers distinct lighting/ceiling systems with replace- and interchangeable modular suspension com- nts. The "Vaulted Linear" (VL60), "Vaulted Directional" (VN60), and "Flat Linear" (FL60) are the same basic 5-ft sq ceiling planning mod- Each module can be rotated 90 degrees and is de- d to accommodate its own lighting, partitioning, stic, air distribution, sprinkler penetration and y access. Unlighted modular choices are avail- ▪ Conwed Corp., St. Paul, Minn.

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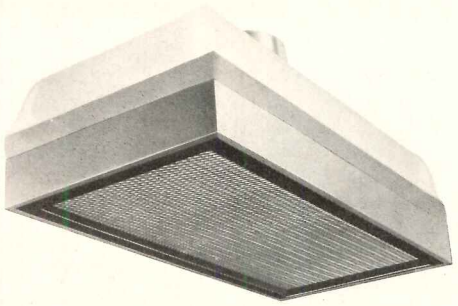

**CEILING MODULE** / A high-efficiency filter unit for clean room applications is capable of delivering up to 99.99 per cent efficiency in the sub-micron particulate size range and true laminar air flow characteristics, meeting or exceeding requirements for Class 100 clean rooms in engineered system installations. ▪ Comp-Aire Systems Inc., Grand Rapids, Mich.

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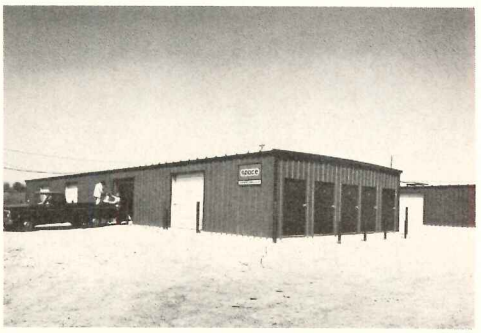

**MINI WAREHOUSES** / A building system for construction of mini warehouses is available in standard 5-ft width increments from 20 ft to 35 ft spans. The buildings feature metal roofing with ¼-in. per ft slope. Eave heights up to 16 ft are a standard feature and integrated wall panels are offered in various color options. ▪ Butler Mfg. Co., Kansas City, Mo.

*Circle 326 on inquiry card*

# Shock-absorbing Acrovyn® Handrails

## Look like a million. Wear like iron. Cost less than wood.

Cut maintenance costs with vinyl-acrylic handrails. Installed on a free-floating aluminum retainer system, they shrug off impacts that would seriously damage unprotected walls. Easily-cleaned HRB-2 and HRB-4 are available in 7 integral colors.

Write for your Acrovyn Handrail Catalog today.

**CONSTRUCTION SPECIALTIES, INC.**

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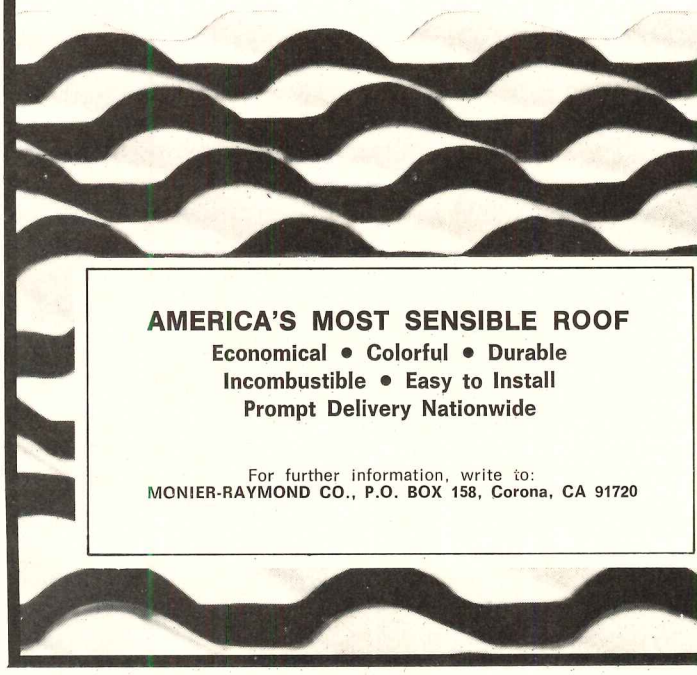
ROOF TI



**AMERICA'S MOST SENSIBLE ROOF**

**Economical • Colorful • Durable**
**Incombustible • Easy to Install**
**Prompt Delivery Nationwide**

For further information, write to:
MONIER-RAYMOND CO., P.O. BOX 158, Corona, CA 91720

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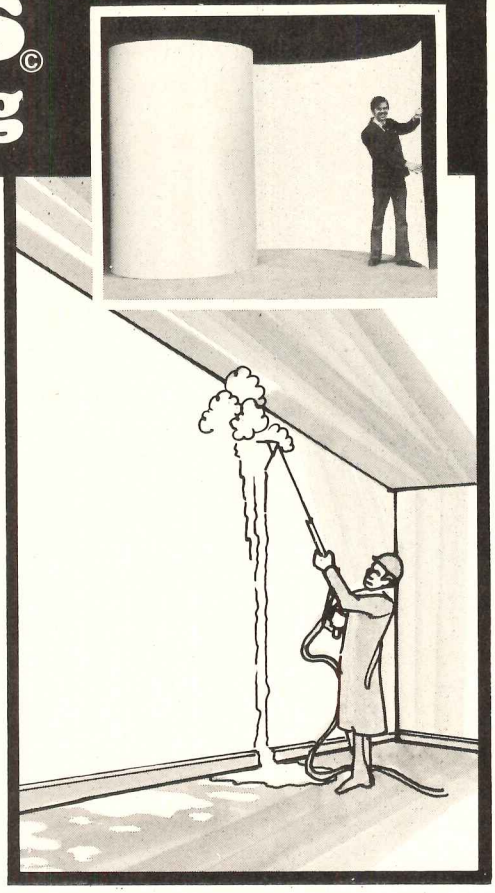
# NO-SEAM WALLS© mean easier cleaning



## New King Size Glasbord® frp paneling eliminates seams

...seams that catch dirt, break open, cause refrigeration loss, deteriorate. Rooms under 9 ft. high can now have seamless walls — *no seams* — curb to ceiling or corner to corner. There are *no seams* to fail, *no seams* to harbor bacteria. Walls can be cleaned quickly and easily by ordinary methods. Material is accepted by U.S.D.A. and meets applicable requirements of F.D.A.

Glasbord paneling is a tough, durable fiber glass reinforced plastic (frp) wall lining. It will not dent like metal or chip and flake like paint. The hard, embossed surface resists scratches and abrasion. It stands up to impacts encountered in daily plant operations. Panels are available 3/32", 1/8", and 3/16" thick and in sizes up to 8'- 4" wide by 40' or more long.

*Get the full story on no-seam walls today.*
*Write for sample and literature.*

kemlite®

**KEMLITE CORPORATION**
P. O. Box 429, Joliet, Illinois 60434

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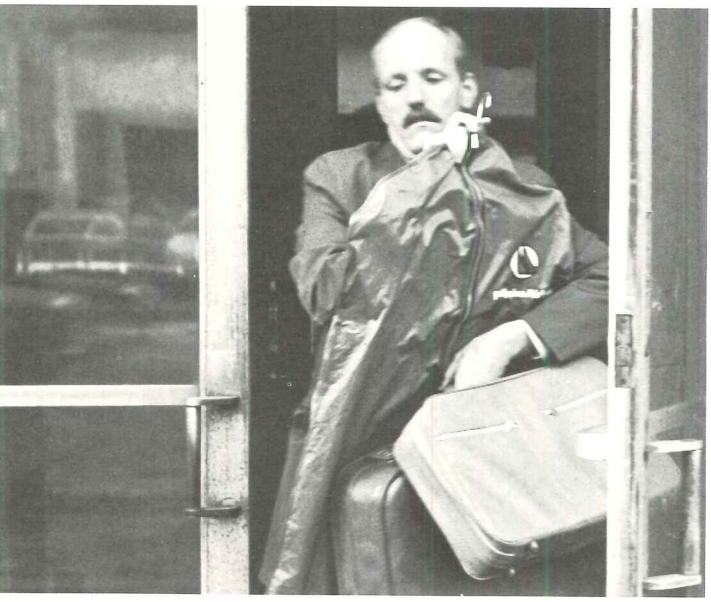
# Sooner or later, everyone needs an extra hand.



Think about it. Next time you approach a building door with your arms full, think what you go through, just to *get* through. Think how often it happens to you. To everybody.

Then think about how a Stanley Automatic Entrance is indeed a helping hand. How it keeps traffic moving. Enhances the look of the building. Makes things just a little bit easier for the people who use your building.

The Stanley Magic-Door® people — who originated the whole idea of automatic entrances some forty-five years ago — are ready to give you a hand on your next project. Just ask. Stanley Door Operating Equipment, Division of The Stanley Works, Farmington, Connecticut 06032.

**STANLEY®**
**helps you do things right**

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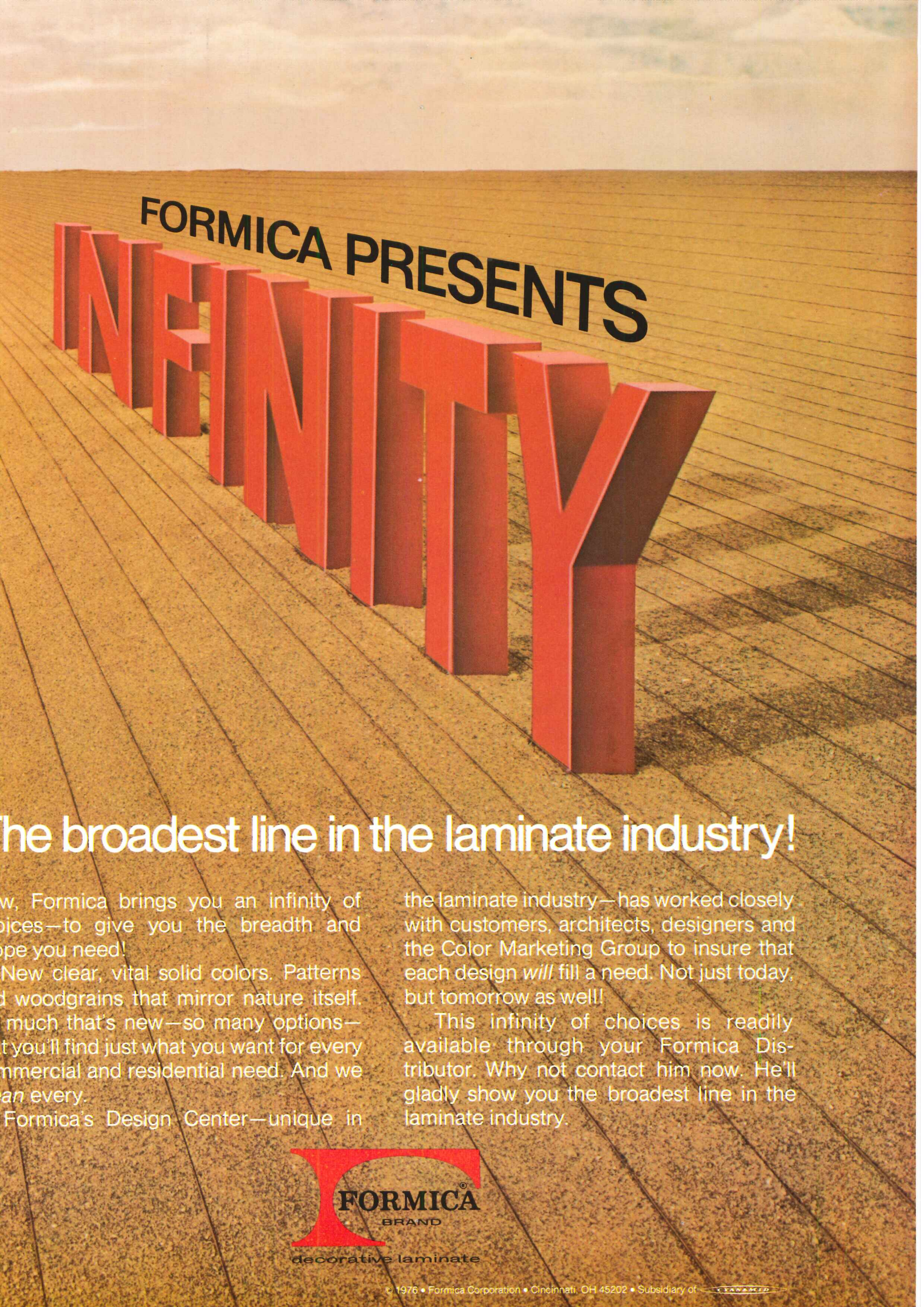


# The broadest line in the laminate industry!

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New clear, vital solid colors. Patterns d woodgrains that mirror nature itself. much that's new—so many options—t you'll find just what you want for every mmercial and residential need. And we *an* every.

Formica's Design Center—unique in the laminate industry—has worked closely with customers, architects, designers and the Color Marketing Group to insure that each design *will* fill a need. Not just today, but tomorrow as well!

This infinity of choices is readily available through your Formica Distributor. Why not contact him now. He'll gladly show you the broadest line in the laminate industry.

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decorative laminate

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# A howling success at securing exits


Nobody makes the same mistake twice when emergency exits are guarded by Detex Exit Control Locks. Let an unauthorized person misuse the door and all bedlam breaks loose.

Can't say we didn't warn him. When the clearly marked panic bar is pushed, two loud battery-powered horns erupt and a unique dead-locking latchbolt releases to allow exit. Available with 2 or 4 lock/unlock control modes.

ECL-230—for heavy-duty deterrent in isolated areas

**DETEX**

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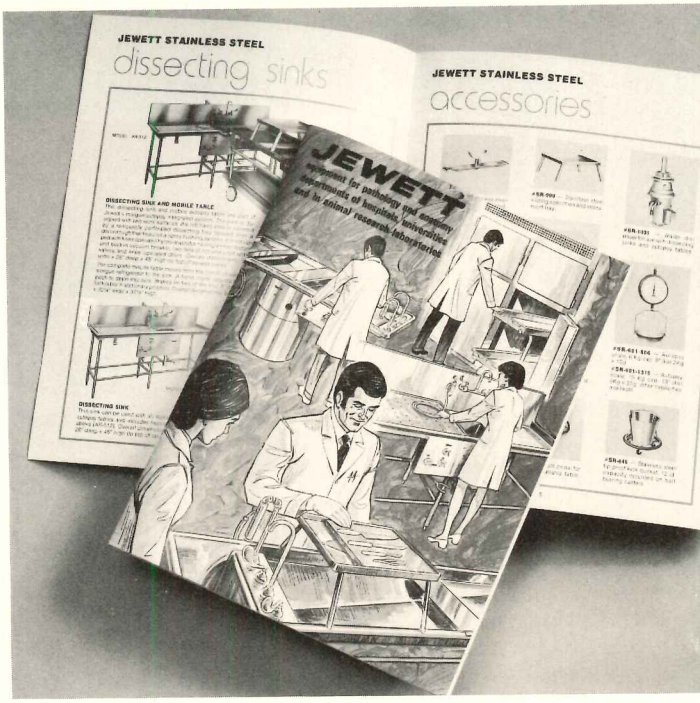


## Jewett offers morgue/autopsy planning service

Whether you are planning a new morgue/autopsy facility or modernizing and equipping present facilities, Jewett specialists provide expert design counseling. Jewett will analyze your requirements with you and your architect or consultant and will send you plans of the complete layout including equipment specifications. Jewett's morgue/autopsy planning services can save you time and costly mistakes. Your new construction or renovation project will not only be right for your current needs, it will also allow for future growth. Send for 16 page equipment catalog.

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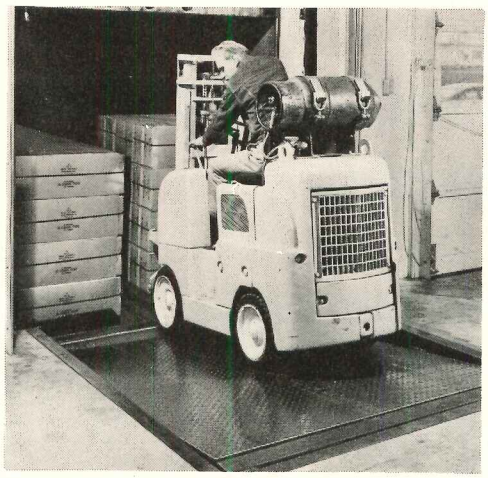
# ponded water is for fish.

# Don't Let Your Clients Accept Substitute Docklevelers



With today's high labor costs and safety emphasis you design loading docks to include permanent docklevelers. Facts prove they can easily pay for themselves in one year. However, to assure maximum return on investment, specify genuine Kelley Docklevelers of the right type, size and capacity. Docklevelers with patented automatic safety features and a predictable life span to stand-up to high volume use year-after-year. Choose hydraulic or mechanical, standard heavy duty or extra-heavy duty models. Kelley Docklevelers cost about the same, or even less. So there's no reason to accept substitutes. Get the complete facts from your Kelley Representative or contact:

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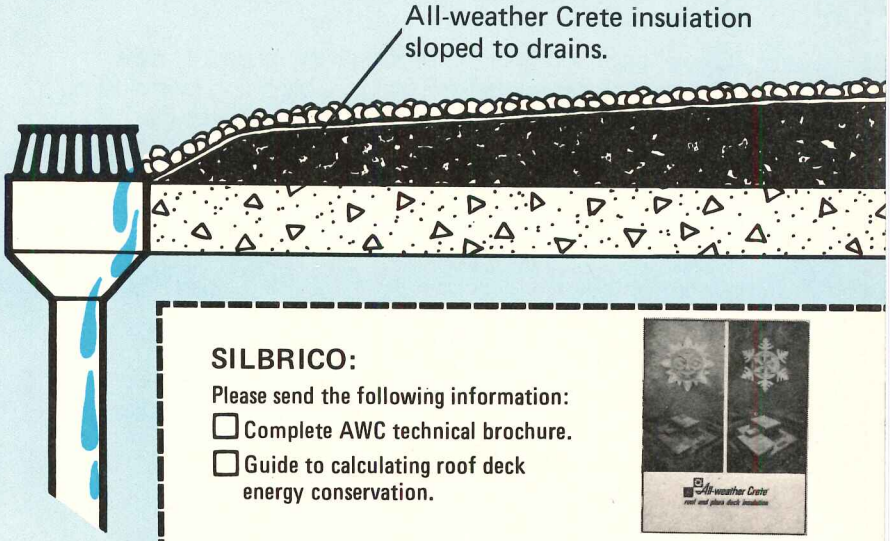
# .not roof decks!

of the most devastating elements contributing oof membrane deterioration is ponded water. tive slope to drains is the most effective ns of solving this problem — no man-made nanical device — just non-failing gravity! veather Crete sloped to drains is the answer. unique insulation not only offers a completely less deck application with excellent thermal ection, but it's ability to be contoured can ide positive slope to drains. Why "fish around" insulations that only insulate? Use the one also helps increase roof life, can be applied for a thermal protection and sloped to drains. All-weather Crete! Silbrico Corporation, ) River Road, Hodgkins, Illinois 60525, ne (312) 735-3322.




**SILBRICO:**
Please send the following information:
☐ Complete AWC technical brochure.
☐ Guide to calculating roof deck energy conservation.



Name _____ Title _____
Company _____
Address _____
City _____ State _____ Zip _____

All-weather Crete®
OF AND PLAZA DECK INSULATION

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# Seal out moisture, dirt and stains.

# Seal in beauty.

# Protect the terrazzo and tile floors you specify with Hillyard Onex-Seal II®.

Onex-Seal II will penetrate and fill the pores. It helps prevent the rising of efflorescence, bleeding and dusting. It brightens the natural colors of the tile. Keeps them bright and true.

Onex-Seal II leaves a hard, high-gloss, non-flaking, non-tracking, mirror-type finish. It resists traffic wear. Onex-Seal II is the type of seal recommended by the National Terrazzo and Mosaic Association. You can have confidence in it.

What's more, floors finished with Onex-Seal II are easy to maintain. Dust daily and buff periodically. Custodians may refinish after thorough cleaning, without stripping because Onex-Seal II won't "build-up". Reapplication of Onex-Seal II bonds to the old seal to become one integral film. This adds up to a substantial savings in labor costs.

Onex-Seal II is U/L classified as to slip resistance. When you specify terrazzo and tile floors, be certain to give them the best chance for a long and beautiful life. Recommend Onex-Seal II.

A trained Hillyard representative will provide you with fu details. Or look up our specifications manual in SWEET's.

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Quality products for professional floor care

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# Ceco forms floor slabs for world's tallest hotel

## Just one more example of Ceco's forming services designed to save time and money

Ceco is forming nearly a million square feet of concrete slabs in Atlanta's new 70-story Peachtree Center Plaza, world's tallest hotel. Work on this project includes all floor slabs and ramps for the base buildings above and below grade, as well as all slabs for the 70-story cylindrical tower.

For more than half a century, Ceco has helped contractors by developing better ways of forming concrete slabs and providing lump-sum prices that represent cost savings to them and building owners. Consequently, Ceco's forming services are used on hundreds of projects every day.

Ceco's field crews are the country's leading specialists in placing and removing formwork for rib-slab, waffle-slab and flat-slab floor construction. For more facts, refer to Sweet's or your nearest Ceco office.

*Peachtree Center Plaza, Atlanta, GA*
*A Western International Hotel*
*Developer:*
*Portman Properties*
*Architect:*
*John Portman & Associates*
*General Contractor:*
*J. A. Jones Construction Company*

CECO concrete forming services

The Ceco Corporation • General Offices
5601 West 26th Street • Chicago, Illinois 60650

*For more data, circle 101 on inquiry card*

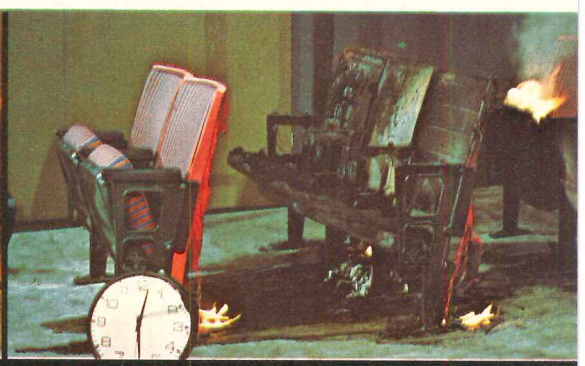
**TEST ONE: DU PONT NEOPRENE**
Time: 1 minute, 30 seconds after ignition.

Time: 3 minutes, 00 seconds.
Center chair involved.

Major flames out. Time: 6 minutes, 00 seconds.
Damage: 1 chair involved, fabric melting and smoldering on two adjoining chairs.

**TEST TWO: HR POLYURETHANE**
containing flame retardants.
Time: 1 minute, 30 seconds after ignition.

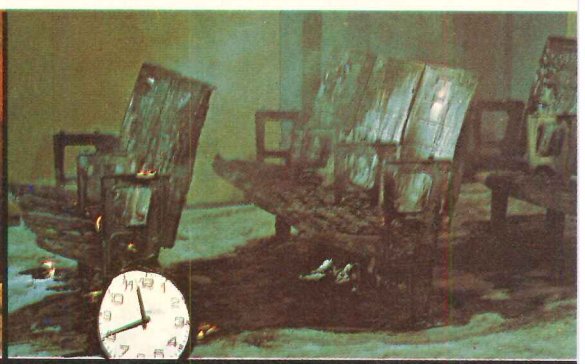
Time: 3 minutes, 00 seconds.
Five chairs in two rows involved.



Major flames out. Time: 29 minutes, 30 seconds.
Damage: 5 chairs in two rows involved.

**TEST THREE: STANDARD POLYURETHANE**
Time: 1 minute, 30 seconds after ignition.

Time: 3 minutes, 00 seconds.
Five chairs in two rows involved.



Major flames out. Time: 40 minutes, 00 seconds.
Damage: All seven chairs involved.

# We tested theatre seats against fire. Neoprene cushioning foam performed best.

We conducted three burn tests at Factory Mutual's Test Center.

In each test we used seven theatre chairs in an environment intended to simulate that found in a typical theatre or public auditorium. Our fuel source in each case was typical theatre trash—popcorn boxes, drink cartons, cups and napkins—placed under the center chair.

As the photographs above show, there was considerably less flame damage among the chairs cushioned with deep foam of Du Pont Neoprene than among those cushioned with other common cushioning foams.

### The Test Chairs

Test #1 used cushions of Neoprene deep foam. Test #2 used cushions of high resiliency (HR) polyurethane foam containing flame retardants. The chairs in these two tests were otherwise identical, with upholstery fabric and plastic seat backs containing flame retardants.

Test #3 was conducted with a standard type polyurethane cushioning foam in chairs with untreated components.

### Smoke Obscuration

During each test, light obscuration by smoke was measured by photo cells six feet from the floor. Data gathered show the chairs cushioned with Neoprene produced less total smoke because only one chair was consumed by the fire.

Combine the results of these tests with the resilience and comfort of Neoprene foam, and it's easy to see why this versatile, durable material has been widely specified wherever public safety is at a premium.

For complete test data, plus information on suppliers of Neoprene foam cushions or finished seats, write:
Du Pont Company, Room 24402C,
Wilmington, DE 19898.

## Cushioning Foam of DuPont Neoprene

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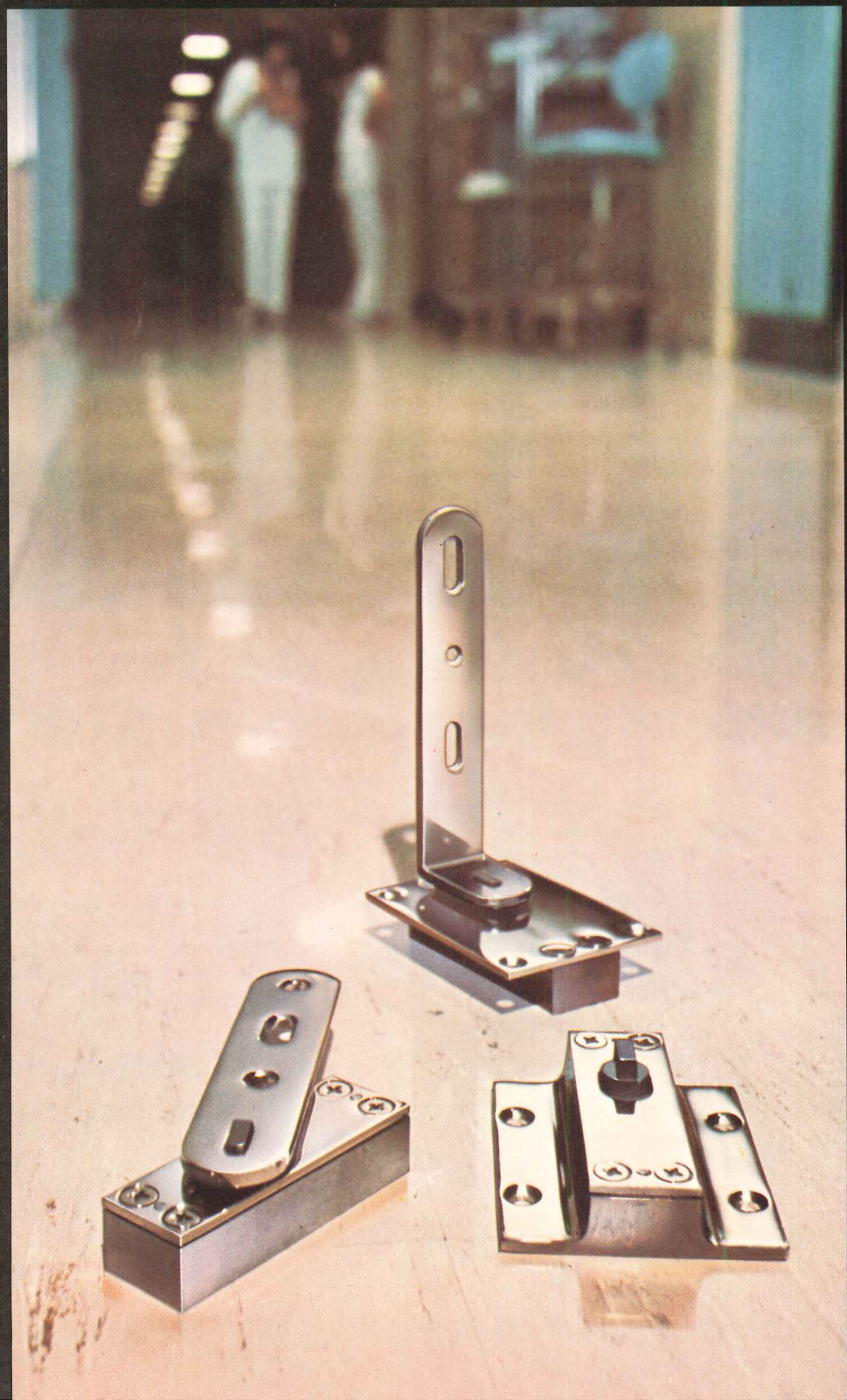

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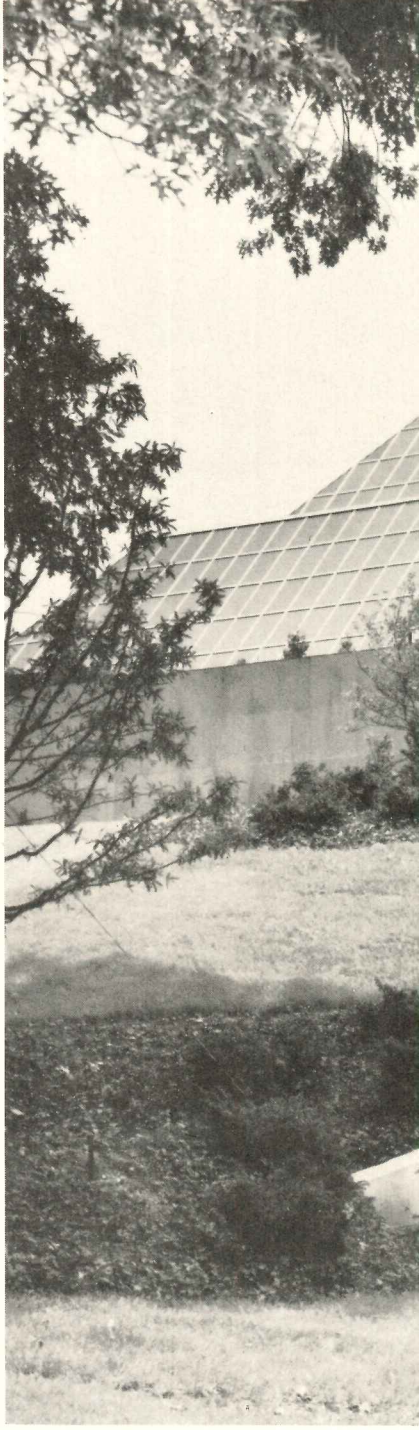
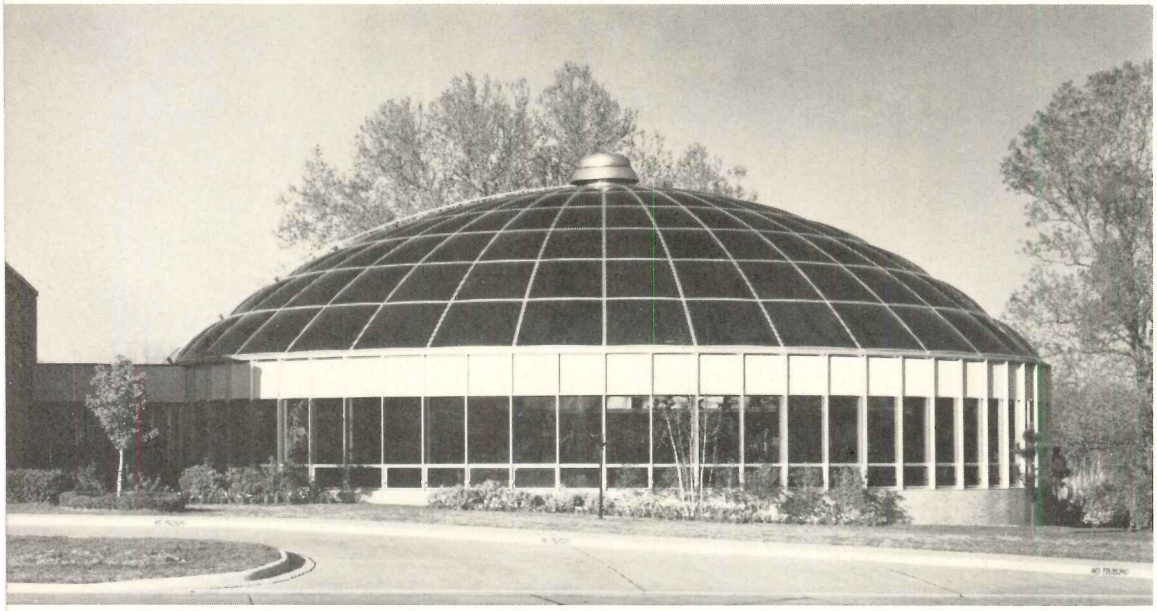
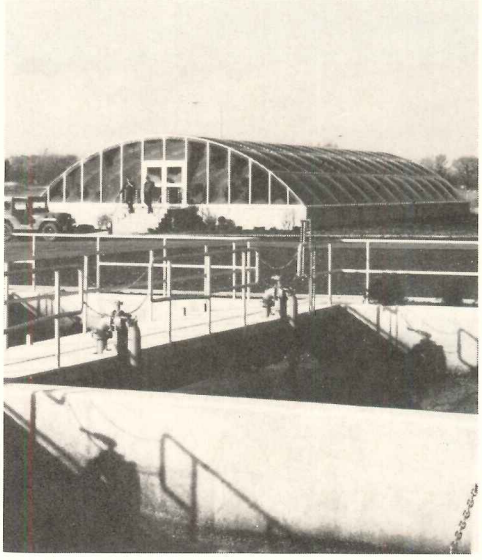
NATURE CENTER, Kalamazoo, Michigan



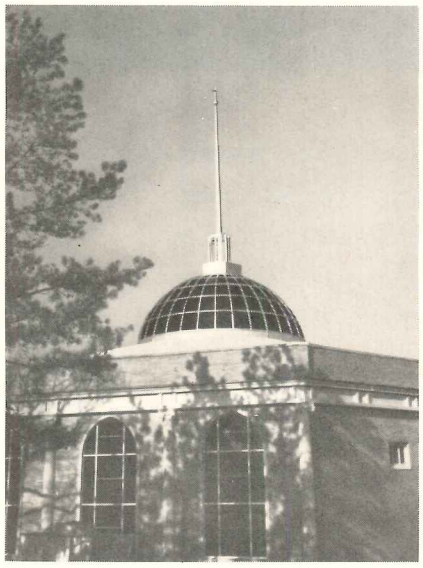
LEHMAN WING, METROPOLITAN M



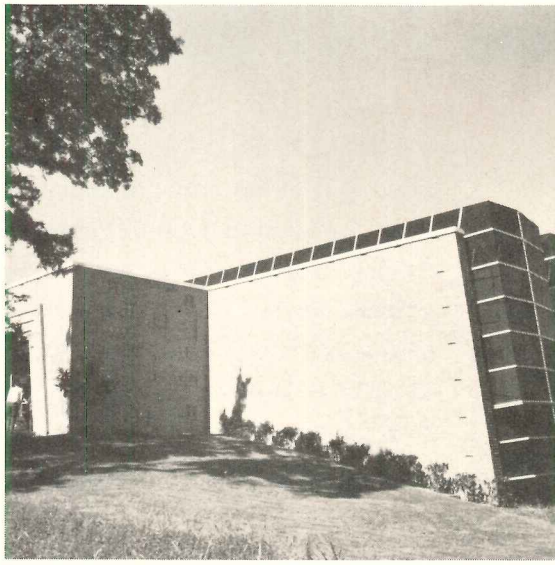
BARNWELL GARDEN AND ART CENTER, Shreveport, Louisiana



WATER TREATMENT PLANT
Crystal Lake, Illinois



MOUNT CARMEL CHRISTIAN CHURCH, Decatur, Georgia



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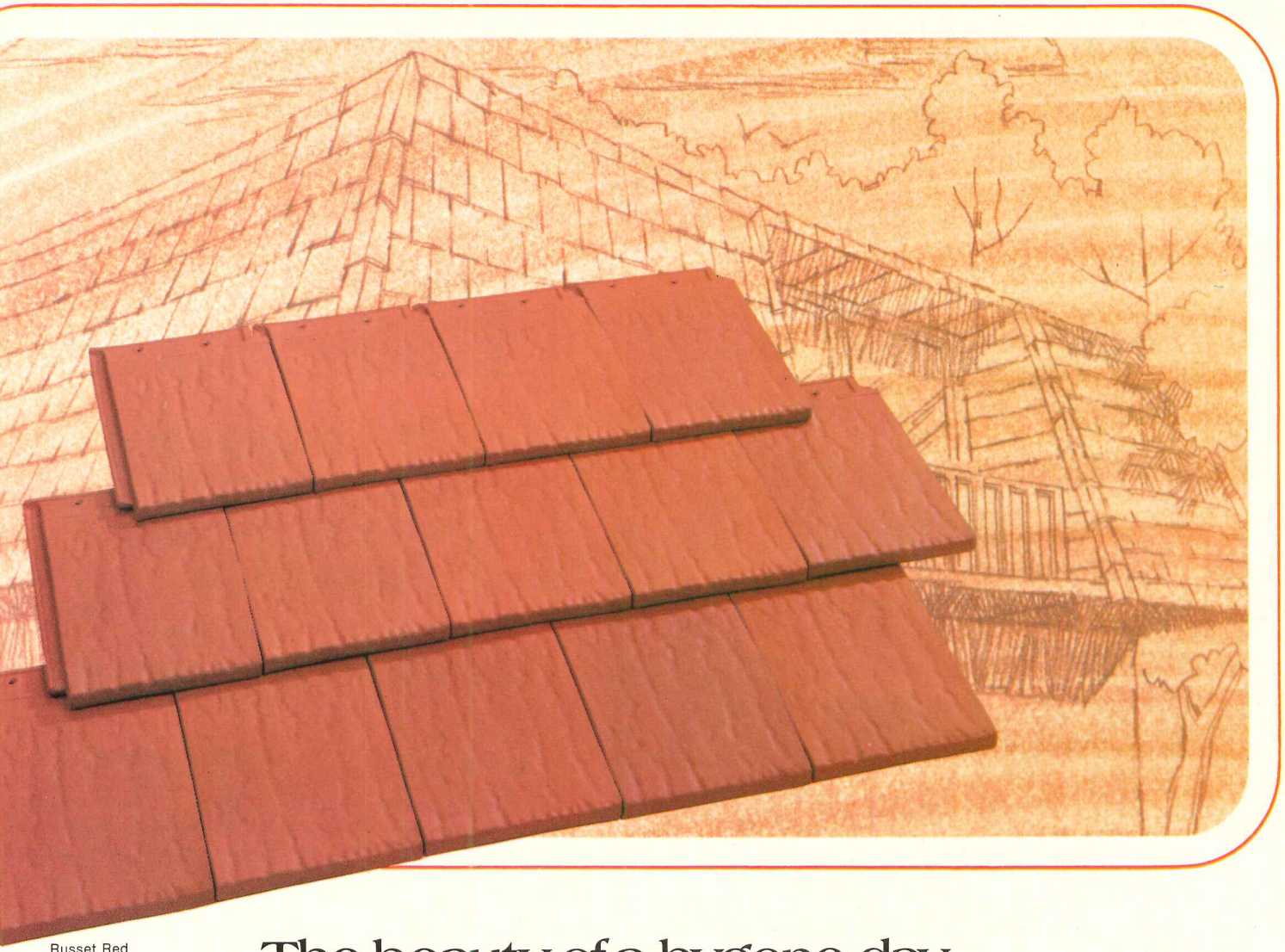

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Beautiful and lasting as Americana and other Ludowici tiles are, they often cost no more—and frequently less—than fire-resistant wood shakes, slate or other premium priced roofing materials.

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If you want a really handsome sidewall, Red Cedar shakes or shingles will give you a first-class job. But for a 500 square foot sidewall you'd end up handling a lot of materials. Like 840 shingles, another 840 undercourse shingles, over 50 8-foot lengths of nailing strips, and more than 3,500 nails.

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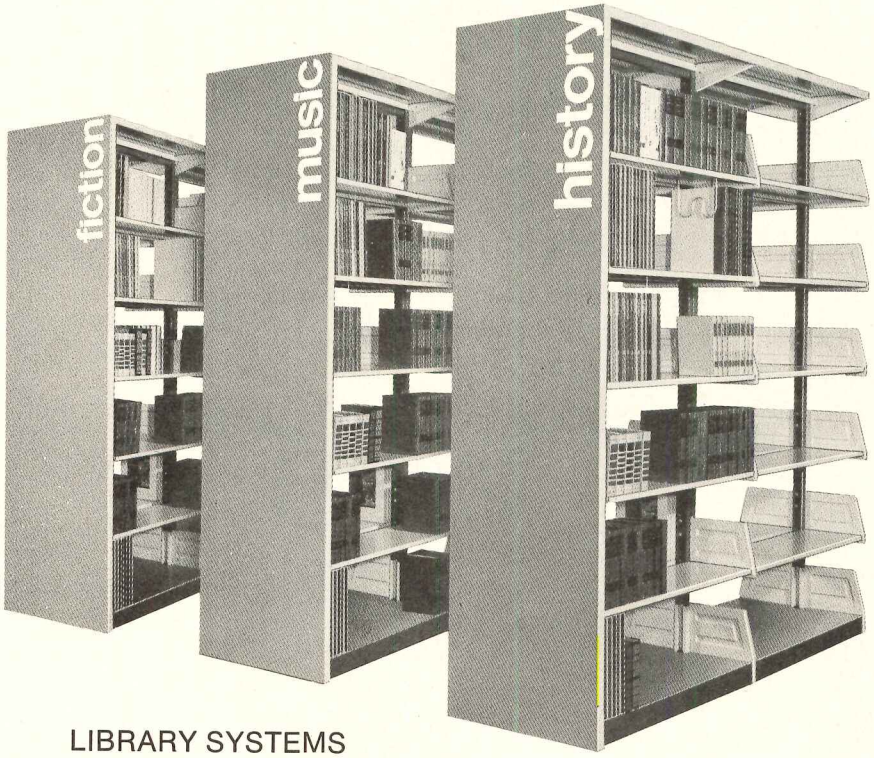
In Canada: Bestwood Industries, Ltd., Box 2042, Vancouver, B.C. V6B 3R6

# How to use classroom and library space more efficiently with MEG EDUSPACE storage systems.




## LIBRARY SYSTEMS

Now, from a single source, you can specify a wide array of high-quality, space-saving storage systems that provide the ultimate in interior planning and design, deliver the optimum in efficiency and operation.

EDUSPACE systems by MEG includes: Library Systems; Space-Mobiles; Roll-Shelf; Fixed Casework, and DECOR-GRAPHICS...an original MEG concept that directs readers, students, technicians and teachers to the books and materials they need—quickly.

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EduSpace by MEG
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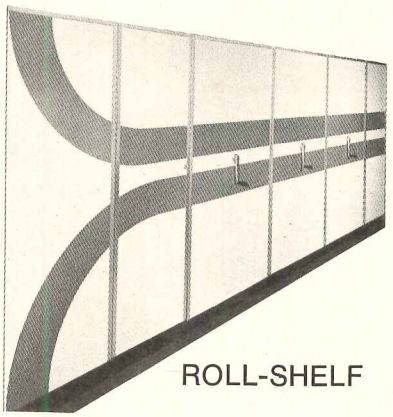

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**ROLL-SHELF** is high-density storage shelving on wheels. The shelving glides effortlessly on wheels along steel tracks. It adds up to 80% more storage capacity to existing areas, without increasing floor space! One aisle does the job of four, five or more. Interiors take on a new look with DECOR-GRAPHIC designed end panels. Materials, books and equipment are easier to find.

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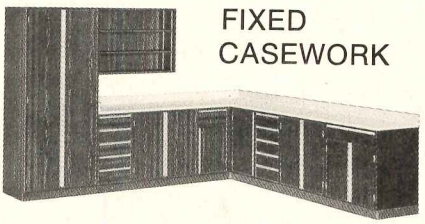

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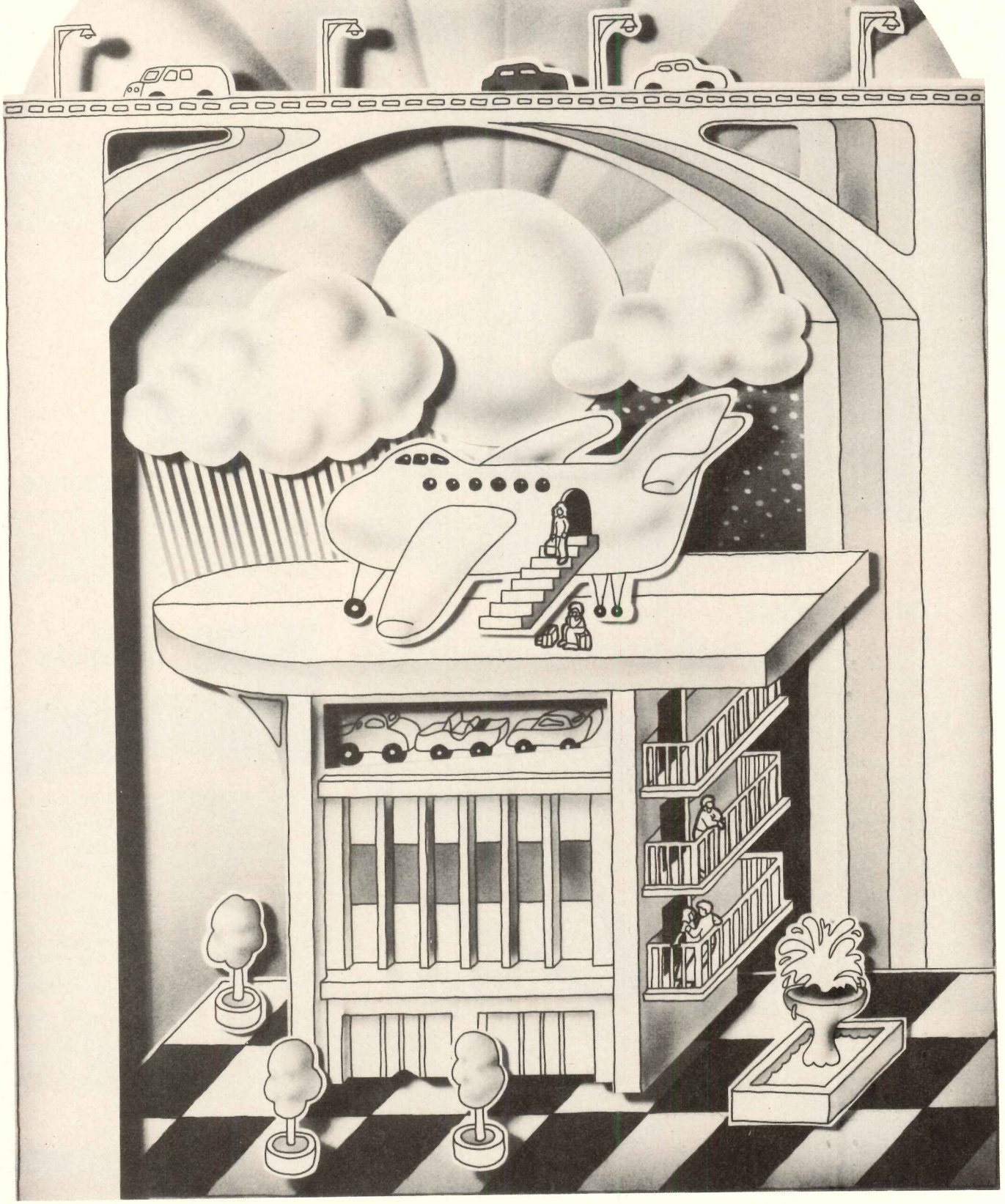
# There are many different waterproofing conditions. That's why there are many different Tremco waterproofing systems.



You know that many factors have to be considered when you design a waterproofing system. For example, some will be on grade, some below, some above grade. You may be looking for products with special qualities, such as quick adhesion to damp or green concrete, or surface finishes that are rougher than usual. Some systems will be limited by tight budget.

When you work with Tremco, there's one factor you don't have to concern yourself with: the quality of the system you choose. Just tell us your waterproofing requirements and you can count on us to recommend a proven Tremco system that will do the job effectively. To help you get the most out of the system, we'll work with you from drawing board to job-site application instruction.

Tremco offers a broad line of the best of both hot- and cold-applied liquid membranes that will help you meet most conditions.

## A versatile hot-applied system

Say, for example, the job has to be done under a wide range of temperatures and the concrete surface finish may be a little rougher than usual. TREMproof 150 is an excellent choice, particularly for unexposed waterproofing applications such as bridge decks, parking garages and plaza decks.

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## High-performance cold-applied systems

Tremco gives you a range of job-proven cold-applied systems to meet a broad range of two-course concrete construction techniques, plus critical areas (planters, reflecting pools, etc.) Take TREMproof 50. This two-part bitumen modified moisture-curing urethane provides a high-performing, flexible rubber-like seamless blanket that becomes an integral part of the structure. It can withstand constant water submersion. And because it's highly elastomeric, a 60-mil application provides up to 90% recovery. Service temperature range is —40°C (—40° F.) to 65.6°C (150° F.). It can be used on both vertical and horizontal surfaces and can be applied with trowel, squeegee or spray.

TREMproof 90W is a unique rubberized polymeric emulsion modified with asphalt. The system sprays on quickly and easily and cures within 15 minutes which prevents wash-off. It can be safely applied to green or damp concrete.

When you need a system for waterproofing traffic-bearing surfaces such as plazas, balconies, terraces, interior floors, etc., TREMproof 850 will do the job. This decorative liquid polymer cures to a flexible seamless blanket then becomes an integral part of the structure and provides excellent resistance to abrasion, chemical spillage and ponded water.

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## One source for all systems

That's the beauty of working with Tremco. One convenient source that can supply any system you need. Tremco meets special waterproofing challenges head-on.

So remember. There are all kinds of waterproofing conditions and all kinds of waterproofing systems. But there's only one company that can offer you job-proven systems plus 45 years of on-site experience. And that's Tremco. Let us work with you on your next waterproofing job. Tremco, Cleveland, Ohio 44104. Toronto, Ontario M4H 1G7.

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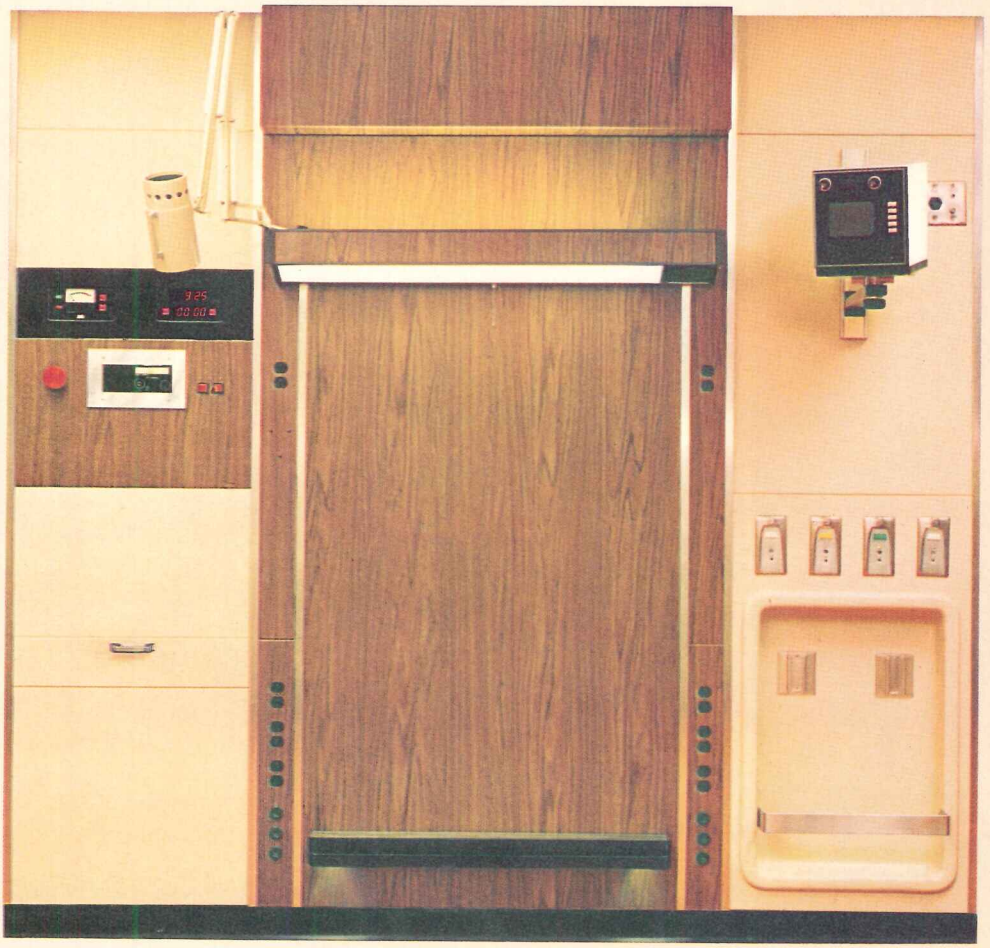

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was completely remodeled
n the ground up and from the
de out.
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It's a beautiful, modern office building. And PPG Solarban® 480 Twindow® reflective insulating glass played an important part in the transformation.

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Not all old buildings can or should be remodeled. They shouldn't all be destroyed either. Some, like the Skirvin Tower Hotel, present a genuine architectural opportunity. Not to mention a challenge.

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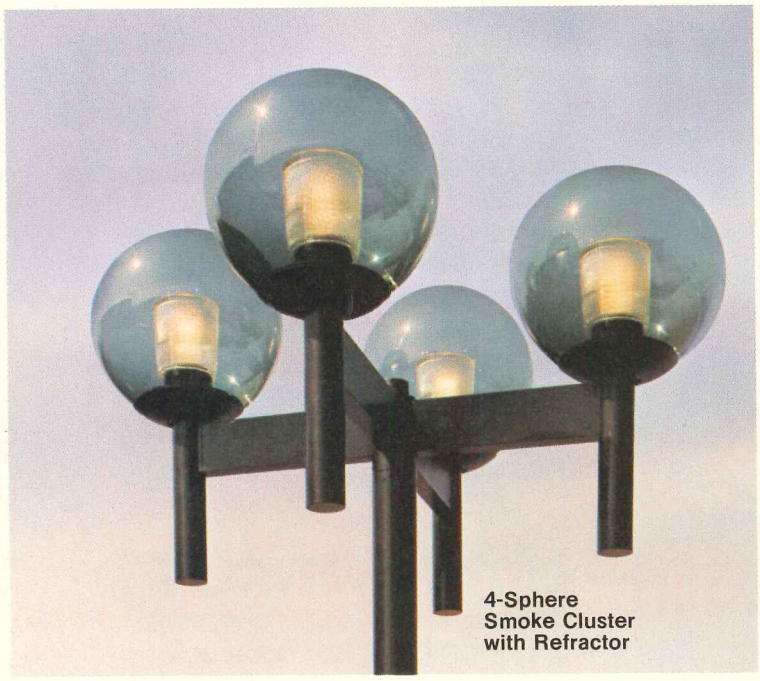
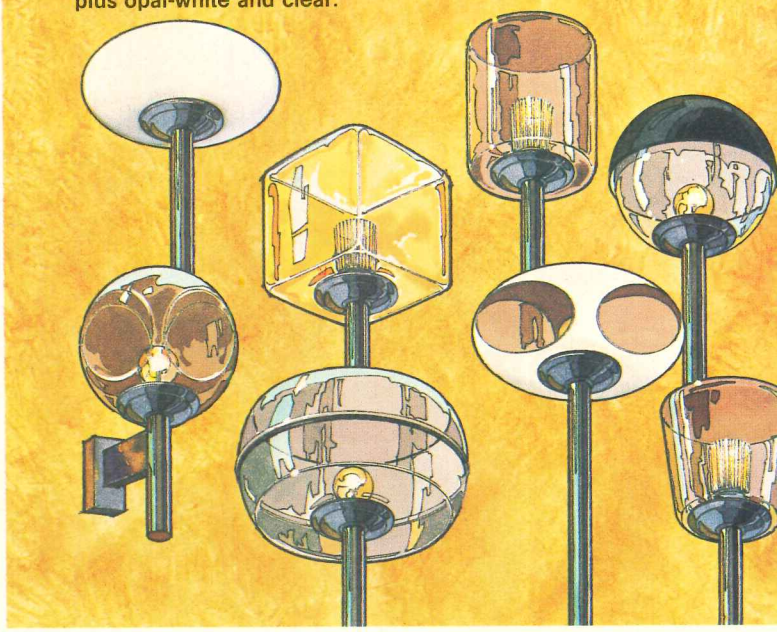
Clear Diffuser
with G40 Lamp



4-Sphere
Smoke Cluster
with Refractor

Additional diffuser shapes. . . available in bronze and smoke tints, plus opal-white and clear.



# APPLETON GLO-METRICS™

## Contemporary, modular-design outdoor luminaires for visually exciting lighting systems—day and night.

You can achieve a variety of architectural lighting effects in a visually unified system with Appleton Glo-Metrics luminaires.

The Glo-Metrics luminaire system is modular, offering unusual flexibility in lighting design. There are nine striking acrylic diffuser shapes in a choice of sizes . . . in transparent bronze and smoke color tints, plus clear and opal-white. Each design is offered for individual pole-top or wall mounting, or with bracket for pole-top cluster mounting in groups of 2, 3, or 4 luminaires. And they are all available for a choice of lamp types and wattages (with prismatic refractors where appropriate), providing various lighting levels and aesthetic effects.

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Outstanding Glo-Metrics luminaire features: a double-locking system for securely attaching diffusers to their smooth, cast aluminum fitters; prewired, crisply styled extruded aluminum mounting arms; luminaire stems with clean, symmetrical lines; ultraviolet-resistant acrylic diffusers, and integral "in-pole" constant wattage ballasts for mercury and high-pressure-sodium lamps. The finish is attractive, durable acrylic enamel.

Ask your Appleton distributor, or write for the Glo-Metrics Catalog. Appleton Electric Company, 1701 Wellington Ave, Chicago, Ill. 60657.

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When roof specifications call for a vapor barrier over steel decks, it makes sense to install the best.

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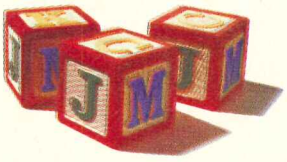
For more information on Asbestogard or the J-M single-source built-up roofing system, call Dick Ducey, Johns-Manville, P.O. Box 5108, Denver, Colorado 80217, 303/770-1000.

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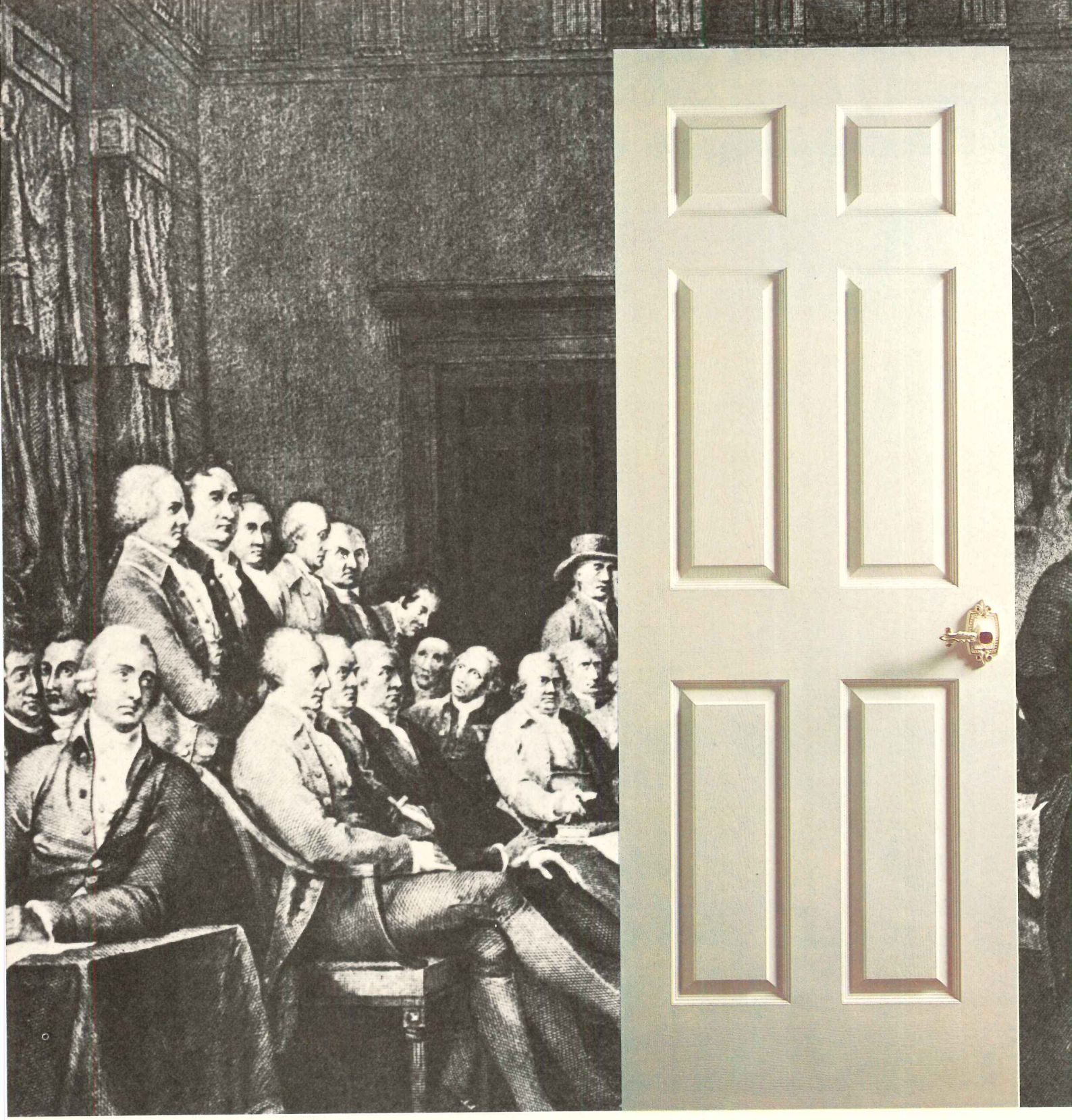
JA 76-8L 2



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John Hancock

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We must count ourselves fortunate that Colonist the work of honest men. Seeing how they've captured the look of wood stile and rail doors, I give thanks they turned not their skills to counterfeiting money.

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Francis Lightfoot Lee

Sam'l Adams

Benj. Franklin

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George Wythe

Th. Jefferson

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Colonist surpriseth me not. For who else might best be expected to raiseth the art of embossing hardboard to this perfection but the very people who hath invented the material...Masonite Corporation.

Thos.

Geo. Ta

# 'Tis a Unanimous Yea! ...for COLONIST®

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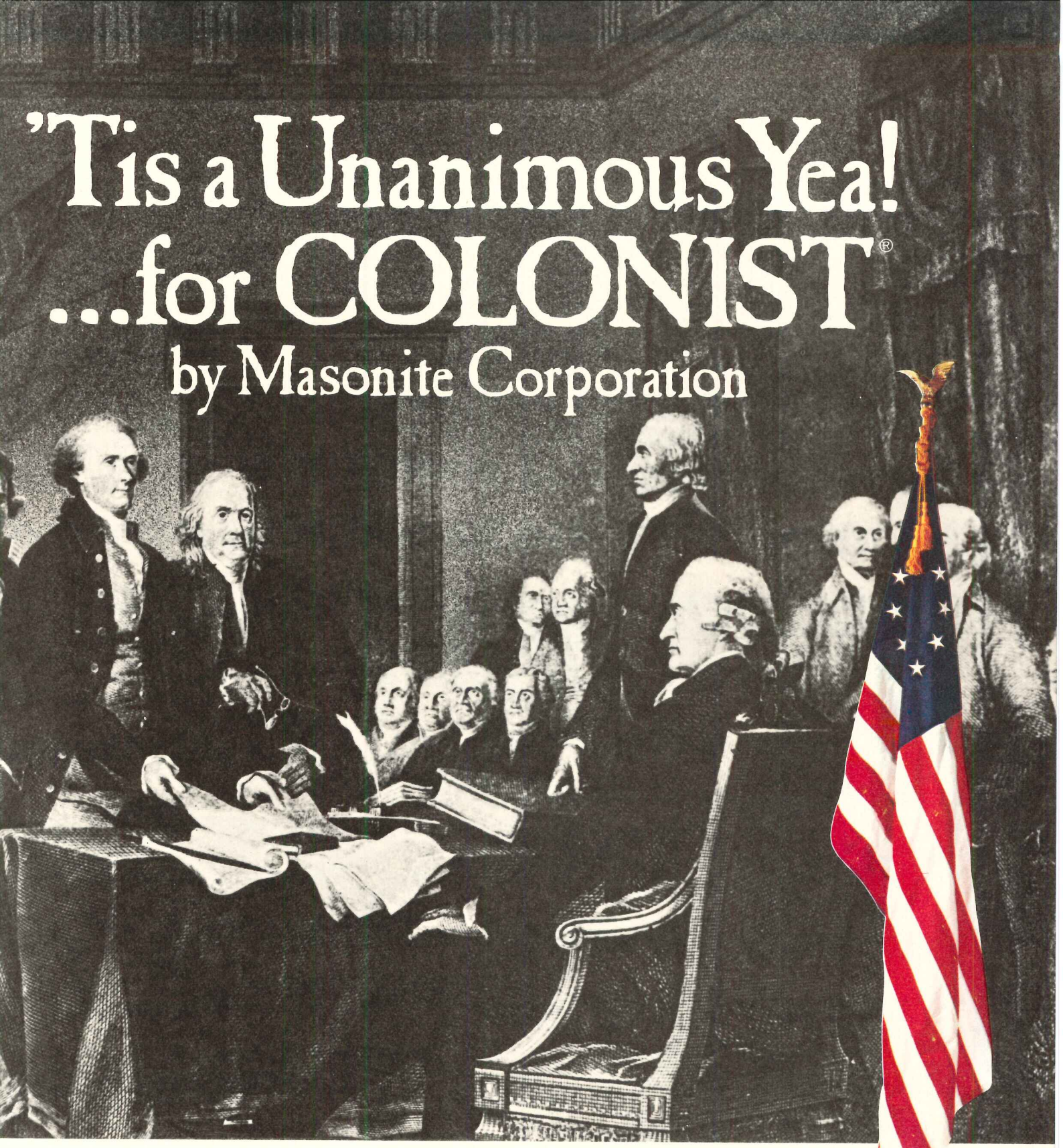

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citizens but also lend pleasure to
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ard this end.

*n Adams* *Wm Whipple*

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*Robt Treat Paine*

*Arthur Middleton*

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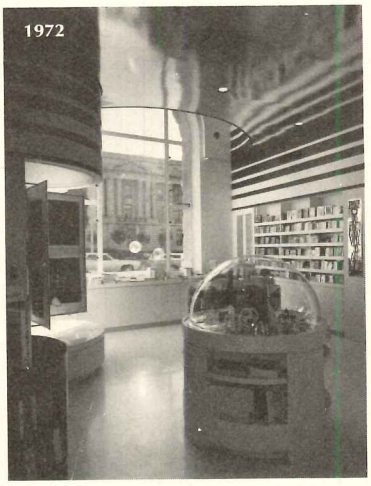
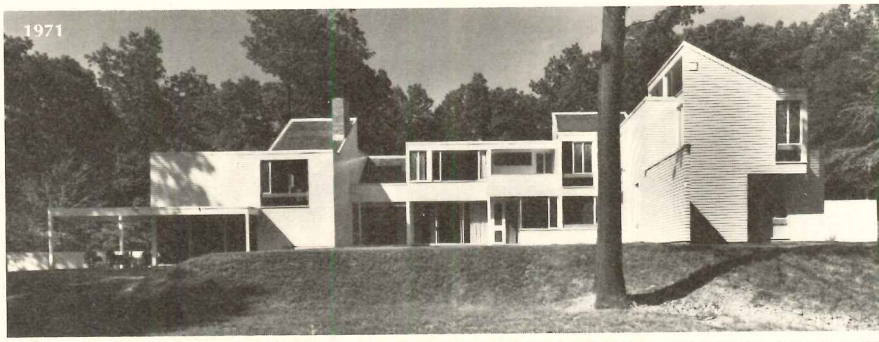
1975

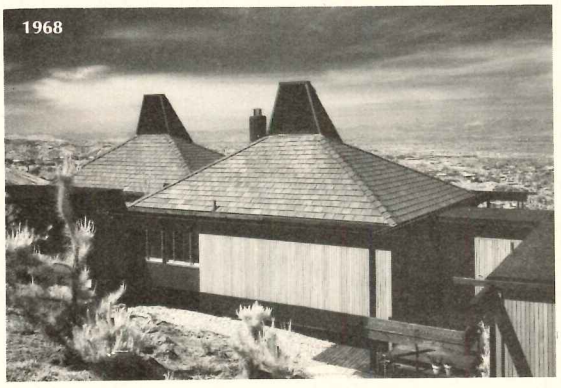

1972

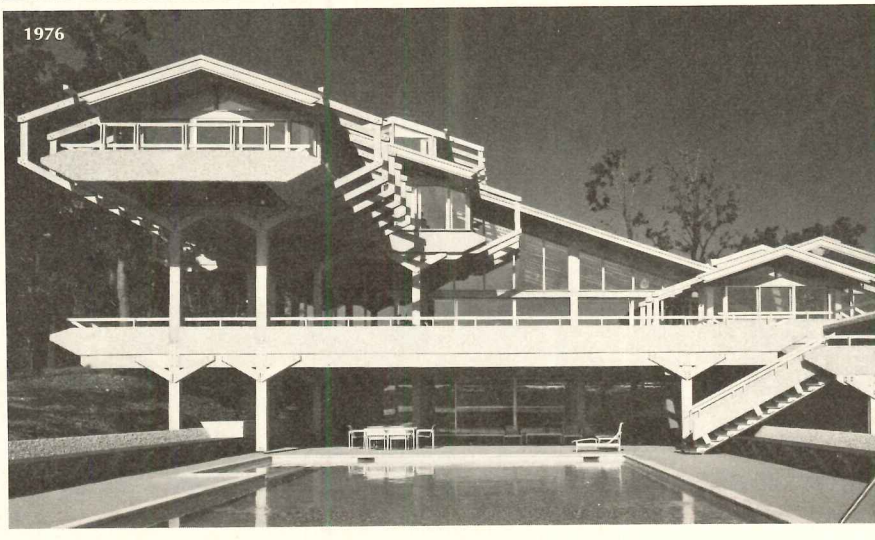

1975

# RECORD INTERIORS • RECORD HOUSES and APARTMENTS


1971


1971


1968


1976

Both award programs are open to any architect registered in the United States and submissions of unpublished work will be welcome for Record Interiors until October 1,1976 and for Record Houses and for Apartments until November 1, 1976.
No formal presentation requirements are made, though materials submitted should include plan(s), photographs, and a general description of the project. Submissions will be returned but not before date of publication.

**For more information:**

Barclay F. Gordon, Architectural Record
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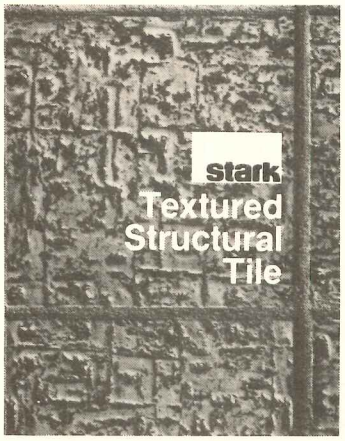


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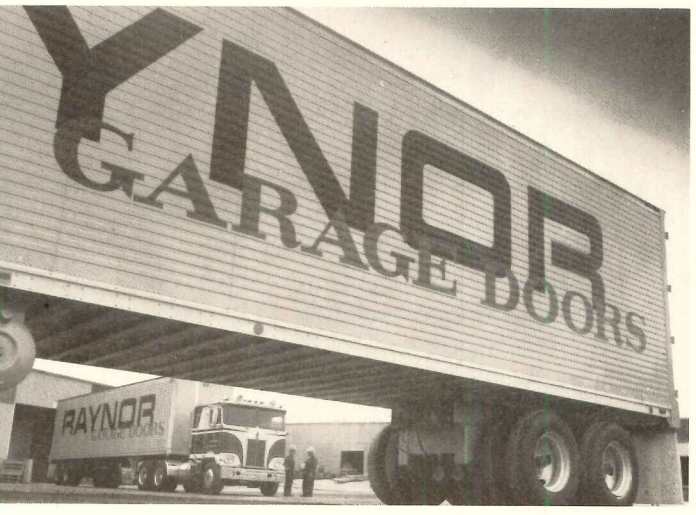


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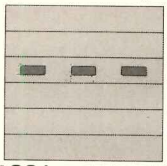

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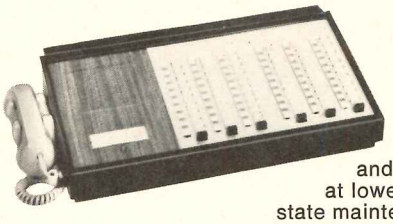

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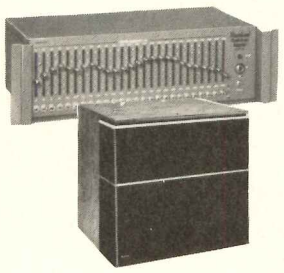

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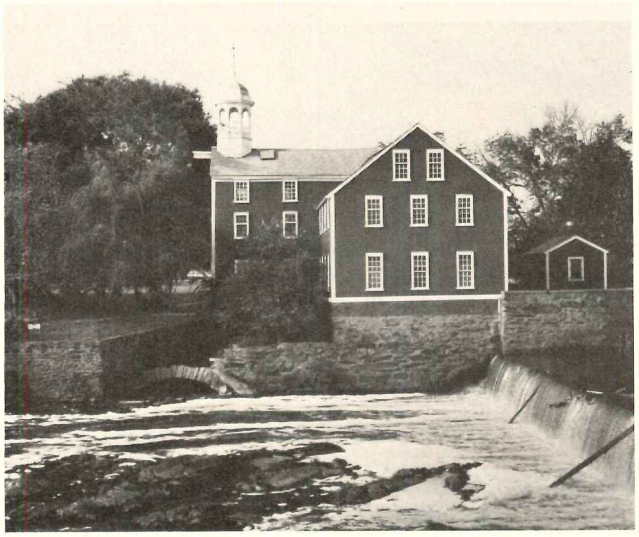

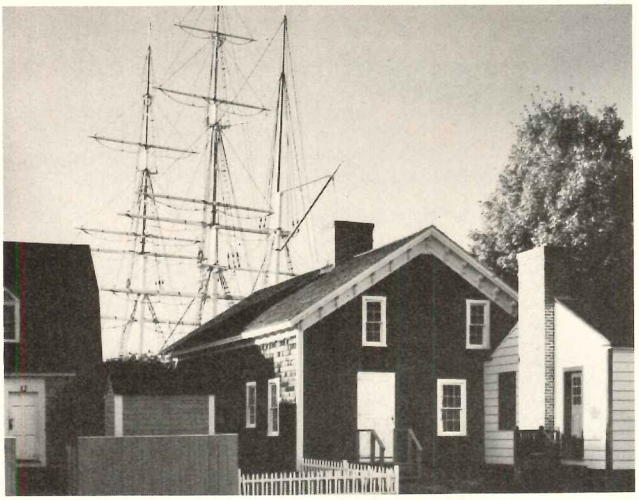

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- The day Michelangelo began painting the Sistine Chapel
- The day Thomas Jefferson insured Monticello—for $6300
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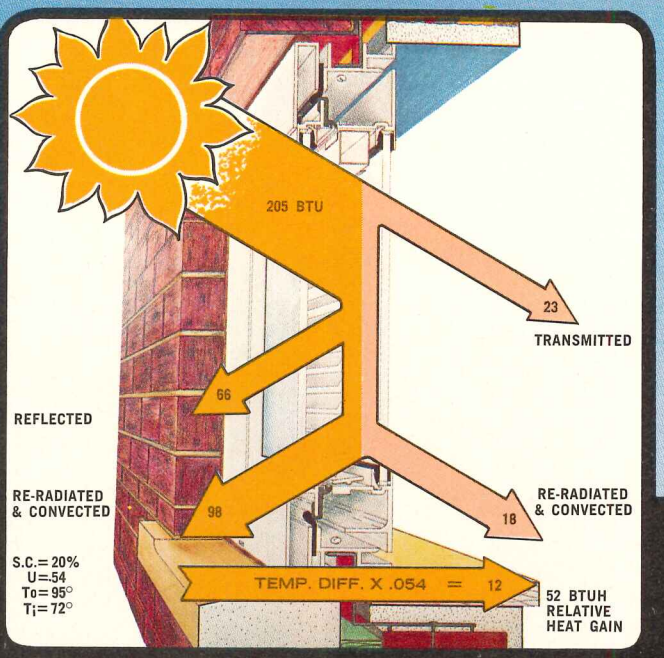


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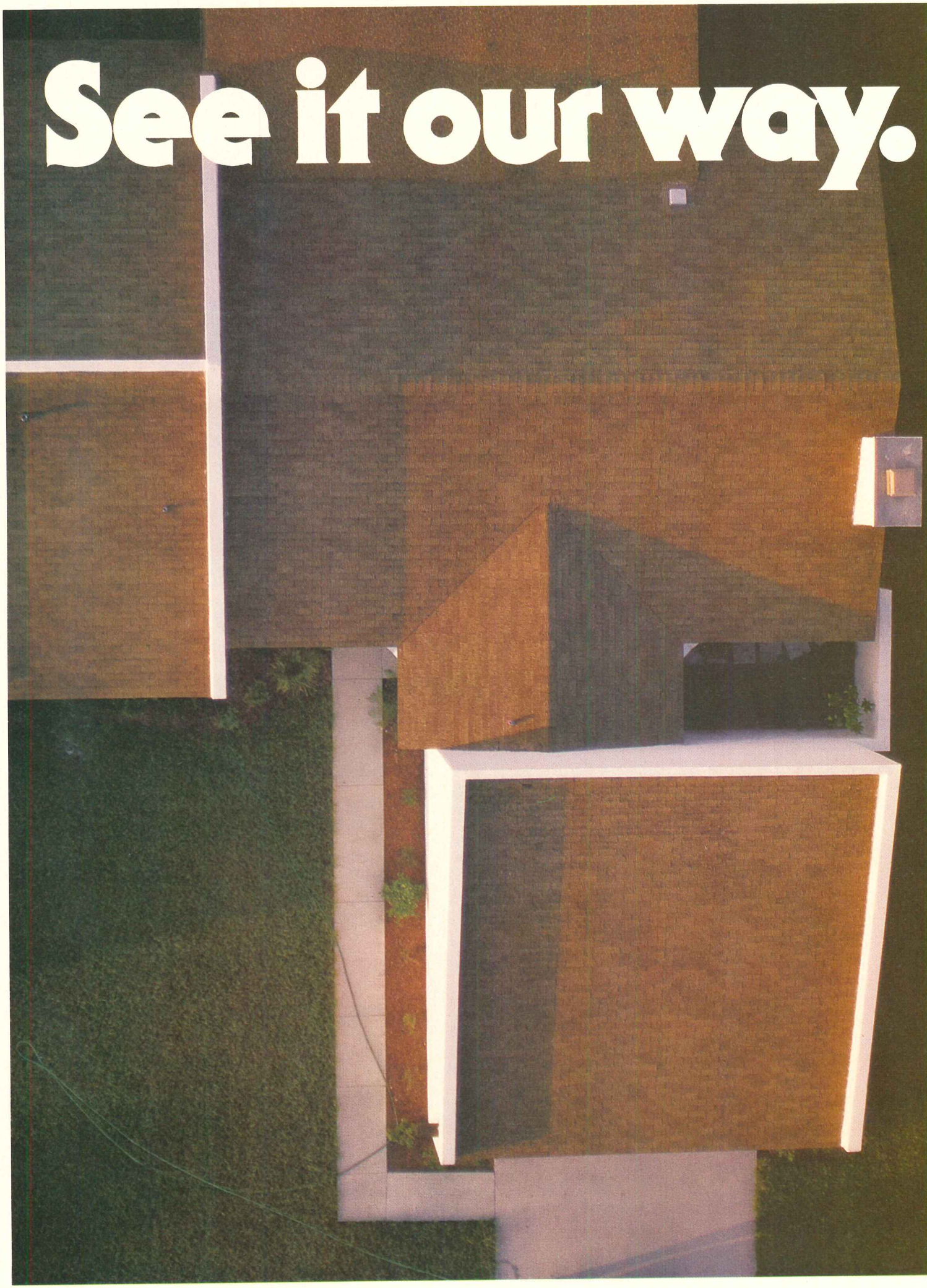
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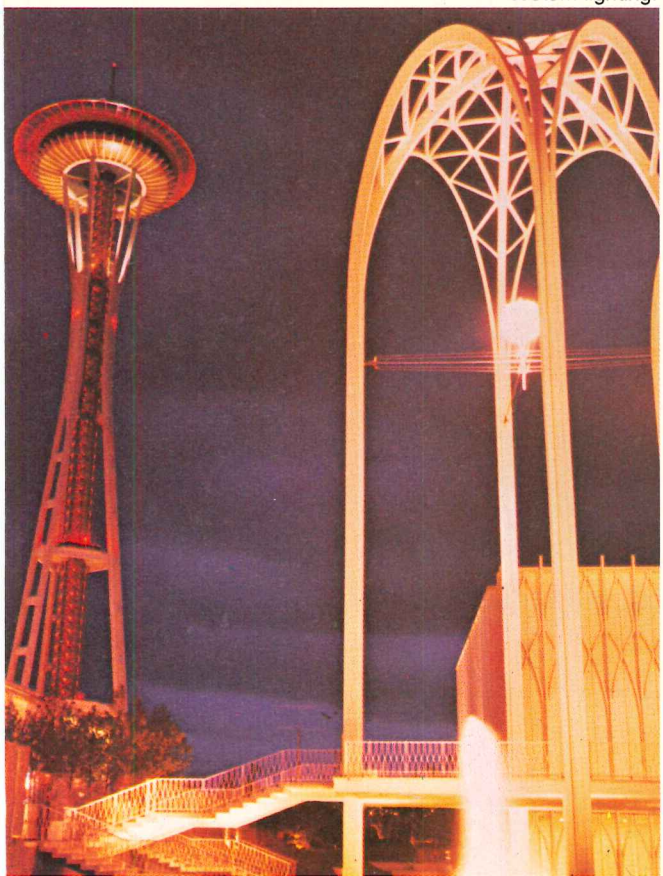

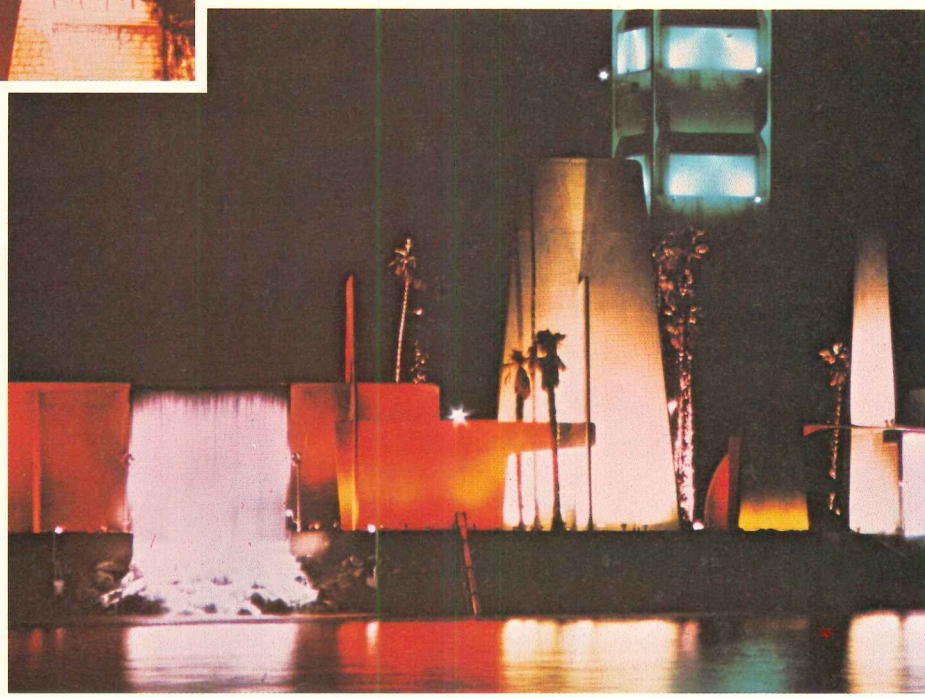

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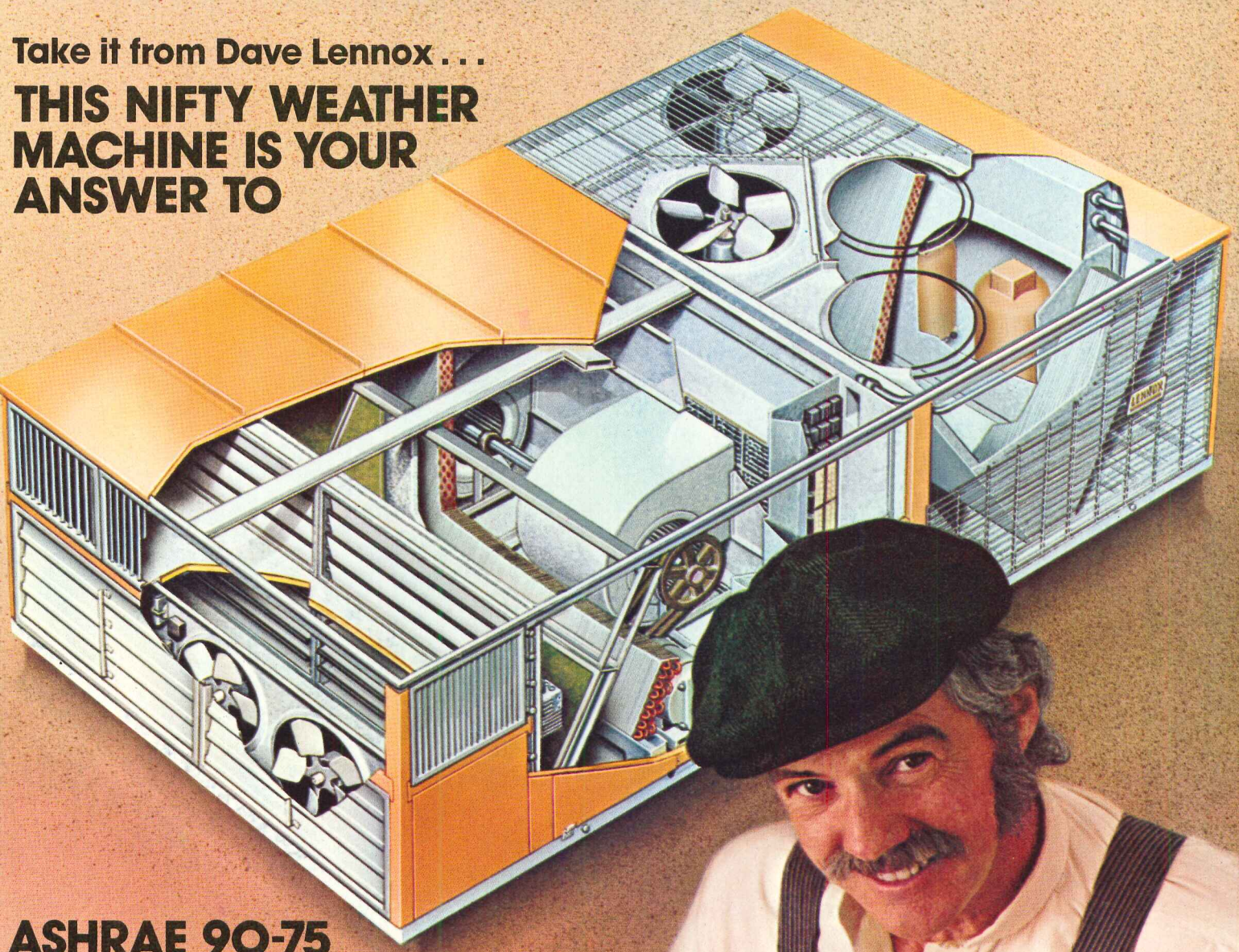

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**University of Petroleum & Minerals-Dhahran,** Saudi Arabia- A newly established Architectural Engineering Department at the University of Petroleum & Minerals, Dhahran, Saudi Arabia, has a faculty position opening for an architect or architectural engineer with teaching and/or practical experience in architectural design. Minimum two-year renewable contract, competitive tax free salaries plus housing, transportation to and from Dhahran each two-year tour with annual two months' paid vacation plus other allowances and benefits in policy. Apply immediately with complete resume indicating marital status, age, nationality, home and office addresses and telephone numbers to: Dean of Faculty & Personnel Affairs, University of Petroleum & Minerals, Dhahran, Saudi Arabia.

**Architect-Engineer firm, nationally ranked in** top 400, seeking experienced person or persons, with established contacts and proven track record at marketing Architect-Engineer services for its southeastern regional office. Clientele desired includes full scale industrial and broad range of architectural. Reply with resume, P-1519.

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**Architect: Position available with well es**tablished, 100 man and growing, midwestern A/E firm as lead designer. Responsibilities would include development of design concepts, directing the architectural design effort of the entire firm and minor participation in marketing efforts. National, regional, or at least, high level local recognition for past work considered essential. Experience would ideally include a similar position with a smaller firm or an immediate subordinate position in a larger firm. Equal Opportunity Employer. Write KZF Environmental Design Consultants, Inc., 2830 Victory Parkway, Cincinnati, Ohio 45206.

**Head, School of Architecture—Oklahoma** State University. Nominations and applications are sought from architectural educators and practicing architects interested in providing educational leadership to approximately fifteen faculty members and three hundred students. Applicants should submit complete addresses. Closing date is October 31, 1976. Send inquiries and materials to Professor Alan W. Brunken, School of Architecture, Oklahoma State University, Stillwater, Oklahoma 74074. The University is an equal opportunity/affirmative action employer.

**Lead Architect for inter-disciplinary firm in** Midwest University community. Associate status available to right man on a proven basis. Send complete resume, present earnings and personal objectives to P-3053, Architectural Record.

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**Leading career education center has im**mediate opening for faculty in AIA-approved architectural technology program. Baccalaureate degree in architecture and office experience necessary; registration and teaching experience desirable. Curriculum includes drafting, graphics, history, working drawings, design, engineering, estimating and specifications. Send resume to: Dr. Eleanor Bushee, Associate Dean for Academic Affairs, School of Technical Careers, Southern Illinois University at Carbondale 62901. An equal opportunity employer.

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**Financial Executive—Heavyweight—Listed** co. V.P., Controller—CPA (Big 8 exp.)—Attorney—Acquisitions, financial controls, taxes, Exp'd. real estate, construction industries. Combines technical skills with imagination. $28-32,000 required. For resume: PW 3080 Architectural Record.

**Architect, 36—NCARB, 12 years diversified** experience in design, production and office supervision, seeks permanent and challenging position anywhere in the U.S. Conscientious, highly productive and personable. Some travel o.k. Reply to: PW-3082, Architectural Record.

**Architectural Management Consultant. Busi**ness degree, experience in all phases of architectural practice. Seeking management position in medium to large size firm. For resume: PW-3031, Architectural Record.

**Registered Iowa Architect desires position** with challenge and responsibility, all types of projects from client contact to completion. PW-2016, Architectural Record.

**Architect: Former principle, small firm, 15** years experience in client contact, design, office management, project coordination, and field supervision—all phases of construction, seeks challenging career opportunity. Portfolio. Will relocate. PW-3017, Architectural Record.

**Architect, Registered, with excellent design** capabilities and 6 years of diversified experience, seeks position as Project Architect/Designer. Will relocate, for particulars reply: PW-2985, Architectural Record.

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## ARCHITECTURAL ARTS

**Architectural Arts—Ink drawings—presenta**tion renderings/perspectives. Color schemes —finishes. Models. David 1-819-684-8320. Ottawa

## BUSINESS OPPORTUNITY

**Architect—To manage Elizabethtown, Ken**tucky office. Must have construction experience and willing to relocate. Will consider limited partner. Cox & Associates—Architects 502-267-8746, 3309 College Drive, Louisville, Kentucky 40299.

## OOKS

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# OFFICE NOTES

### Name changes, new firms

**Christopher D. Craiker** and **David C. Hanchette,** planners and architects, announce the opening of their office in the Shelter Bay Office Complex at 655 Redwood Highway, Suite 301, Mill Valley, Calif.

**Gensler and Associates** architects have moved to larger facilities located at 248 Battery St., San Francisco, Calif.

The architectural firm of **Barry E. Milowitz, architect, p.c.,** has relocated its offices to three new locations: 455 Central Avenue, Scarsdale, N.Y., 277 Northern Blvd., Great Neck, N.Y., and 405 Lydell Ave., Rochester, N.Y.

**Armand Bartos and Associates,** architects, have moved their office to 10 East 40th St., New York, N.Y.

**Frost Associates Architects, Frost Interior Design, Inc.** announce the opening of a Westchester office at 503 Grasslands Road, Valhalla, N. Y.

**Cohos, Evamy & Partners,** architects, engineers, planners, interior designers, announce the relocation of their offices to 902-11th Ave., S.W., Calgary, Alberta T2R OE7.

John H. Hadley, Jr., AIA, has formed his own firm, **Hadley/Architects,** headquartered at 335 N. La Cienega Blvd., Los Angeles, Calif.

**C. Randolph Wedding, AIA,** St. Petersburg, Fla. architectural/planning firm, and **Allott and Lomax,** consulting civil engineering firm, Manchester, England, have formed a professional association offering their combined architectural/engineering services.

### New associates, promotions

The Perkins & Will Partnership, architects, have appointed **Stanley Pinska** and **Richard S. Thomas** as associates.

The Kling Partnership, architectural, engineering and planning firm, have announced the appointment of **Berdell Buckley** as director of business development.

**Philip A. Nicholas, AIA,** has joined Albert Kahn Associates, Inc., architects and engineers, as manager of marketing.

Stone, Marraccini and Patterson, architects, planners and health planning consultants have announced that **Dr. Robert H. Chapman, AIA, AAHC,** will assume major responsibilities in development of the firm's health planning and health facility projects.

**Edward R. Jones, Jr., AIA,** and **Richard C. Niblack, AIA,** have been named senior vice presidents and members of the executive committee of Charles Luckman Associates.

Poor, Swanke, Hayden & Connell Architects, announce that **Der Scutt AIA** has become a partner in the firm and that **Ralph A. Krass AIA** and **Susan Podufaly Schaub AIA** have become associates.

**John S. Crane, James B. Gwin, Jr.,** and **Allen Rice** have been named partners in the firm of Golemon & Rolfe, architects.

### Erratum

On page 61 of the July 1976 issue, we neglected to indicate that the second set of cost figures published for "Warehouses" refers to "Refrigerated Warehouses."

# ADVERTISING INDEX

Prefiled catalogs of the manufacturers listed below are available in the 1976 Sweet's Catalog File as follows.

A Architectural File (green)
I Industrial Construction File (blue)
L Light Construction File (yellow)
D Interior Design File (white)

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# Park Ridge Hospital prevents epidemic of slapped-up signs with integrated signage system.

The interior of Park Ridge Hospital —a warm, harmonious blend of wall colors, textures and carpeting—is therapy in itself.

Located in Greece, New York, and serving the Greater Rochester area, the hospital was dedicated in September 1975. A two-building complex, it covers approximately 300,000 sq. ft. The medical building contains 194 patients' rooms—all private—in addition to offices, conference rooms, labs, therapy departments, etc. It is connected to the adjoining Supply, Processing and Distribution building via a glass-enclosed walkway.

**Signage as a subsystem**

A hodge-podge of signs, slapped up as an afterthought to construction, would have seriously marred the hospital's handsome interior. But the architects and hospital administrators, aware of the need for an efficient traffic moving system, wrote a complete signage program into their initial plans.

Matthews was called in a year before the building completion date to design and fabricate a total, integrated signage system for both interior and exterior traffic control.

Over 300 individual signs—interior and exterior—were installed. Most were fabricated of damage-resistant NOMAR fiber reinforced polyester. All of the signage is tastefully understated but highly functional, with complete continuity of color and letter style.

Matthews. Total responsibility for total signage systems. Write for further details to Jas. H. Matthews & Co., 1315 West Liberty Ave., Pittsburgh, PA 15226.

**Architect:** Stevens, Bertin & O'Connell, Rochester, NY
**Construction Mgmt. Firm:** John W. Cowper Buffalo, NY
**Signage Contractor:** Empire Sign Co., Inc. Rochester, NY

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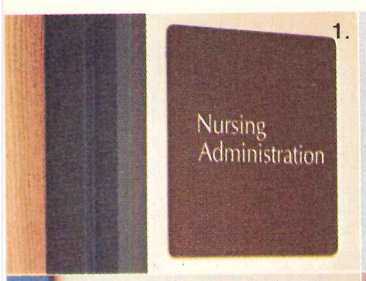
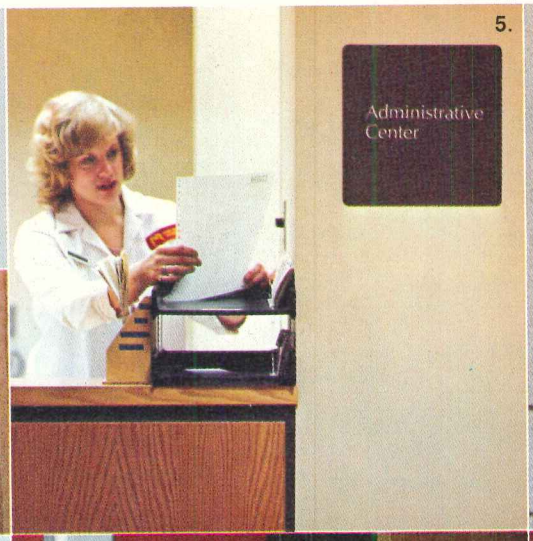
**1.**, **2.**, **3.**, **4.**, **5.** and **9.** NOMAR with screened graphics embedded. **6.** Cutout aluminum logo. **7.** NOMAR post and panel assemblies with surface applied reflective pressure-sensitive legends. **8.** Reverse screen process on acrylic identifies patients' rooms. Slide-in cards and strips for adaptability.













*Owner:* The Showboat Hotel & Casino, Inc., Las Vegas, Nevada.
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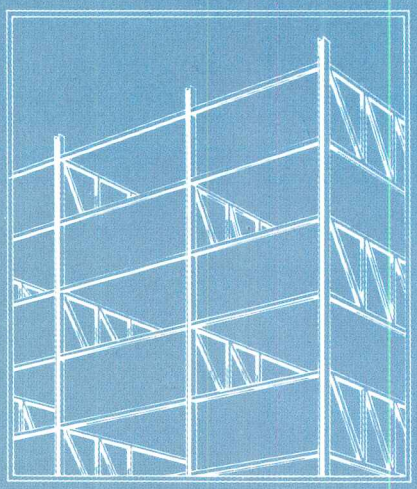

# Staggered Truss Steel framing system saves 45 working days in Las Vegas hotel expansion.

The Showboat Hotel and Casino, one of Las Vegas' most popular spots, has recently undergone a $6 million expansion program. Nine new floors and 198 new guest rooms—as well as larger banquet facilities—have been added to the existing nine-story, 154-room structure.

The choice of Staggered Truss Steel Framing for this new construction provided several benefits to the owners: (1) It conformed with the existing framework and permitted identical elevation treatment within original foundation load limits. (2) By eliminating interior columns, it provided unobstructed floor space for two column bays the entire width of the building. (3) Preassembly of the trusses in the fabricator's shop allowed construction to proceed without interrupting service or creating undue disturbance in the guest area immediately beneath the new addition. (4) It shortened the erection time of the steel frame to only five weeks, saving 45 working days, and permitting earlier occupancy.

In this project, and many others, Staggered Truss Steel Framing—developed by M.I.T. under a grant from U.S. Steel—proved to be the most practical and economical construction system. For more information on the design of Staggered Truss structures, contact a USS Construction Representative through your nearest U.S. Steel Sales Office. Or write for our booklet, "Staggered Truss Framing Systems for High Rise Buildings" (ADUSS 27-5227-02), to U. S. Steel, P.O. Box 86 (C600), Pittsburgh, Pa. 15230.

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