ARCHITECTURAL RECORD

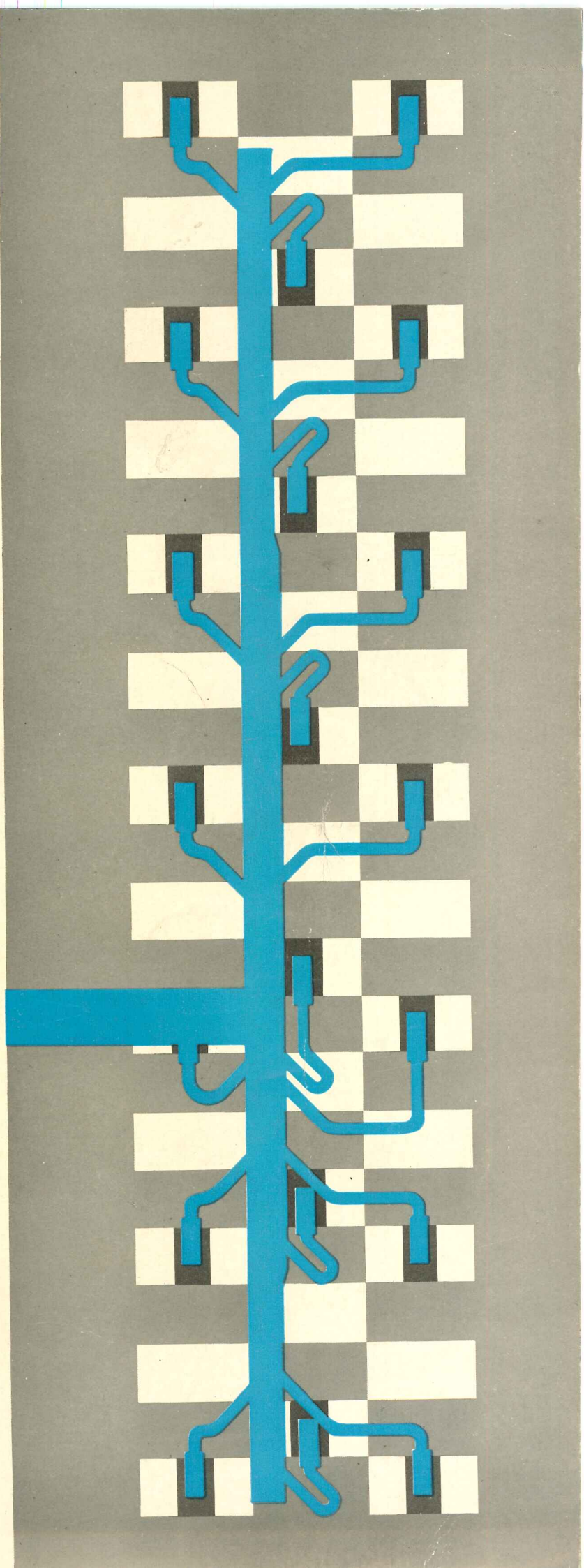
August 1961 8

Building Types Study: Office Buildings and Banks

New Techniques Integrate Lighting, Air Conditioning

"Century 21" Exposition for Seattle

Full Contents on Pages 4 & 5



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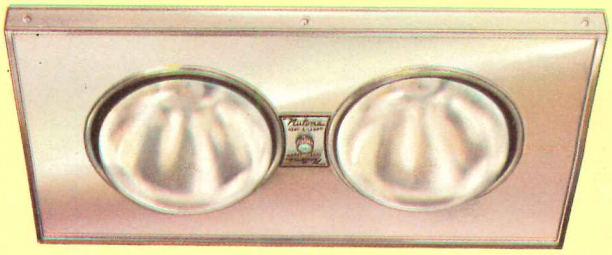

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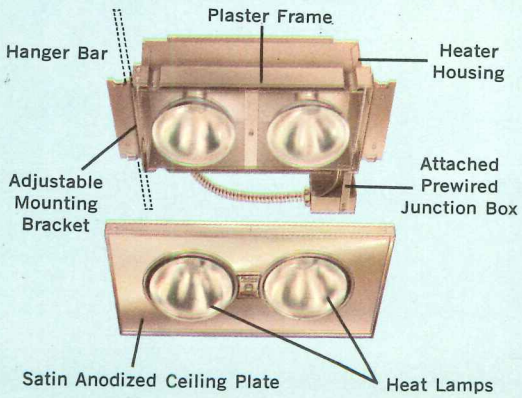

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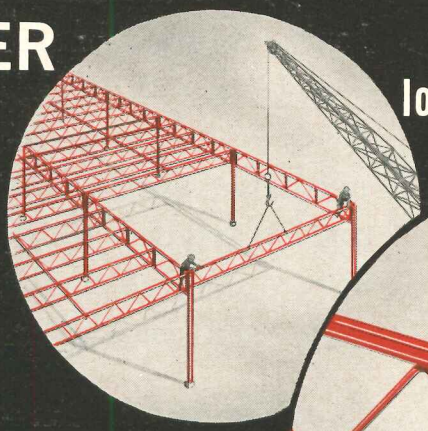

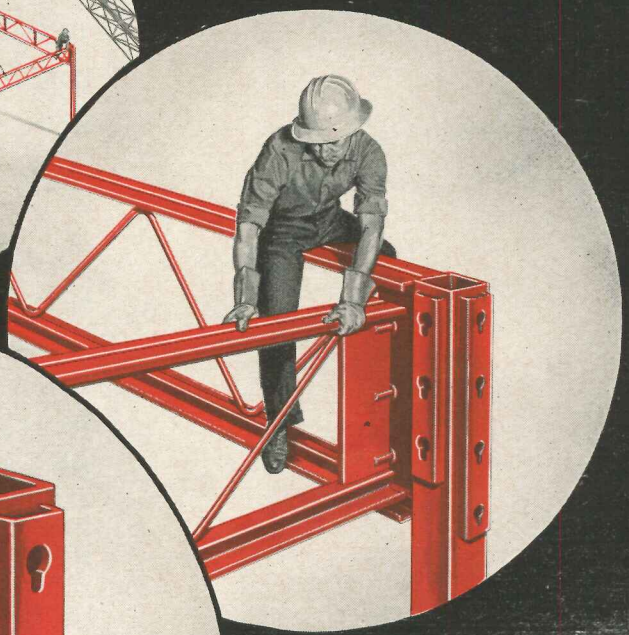

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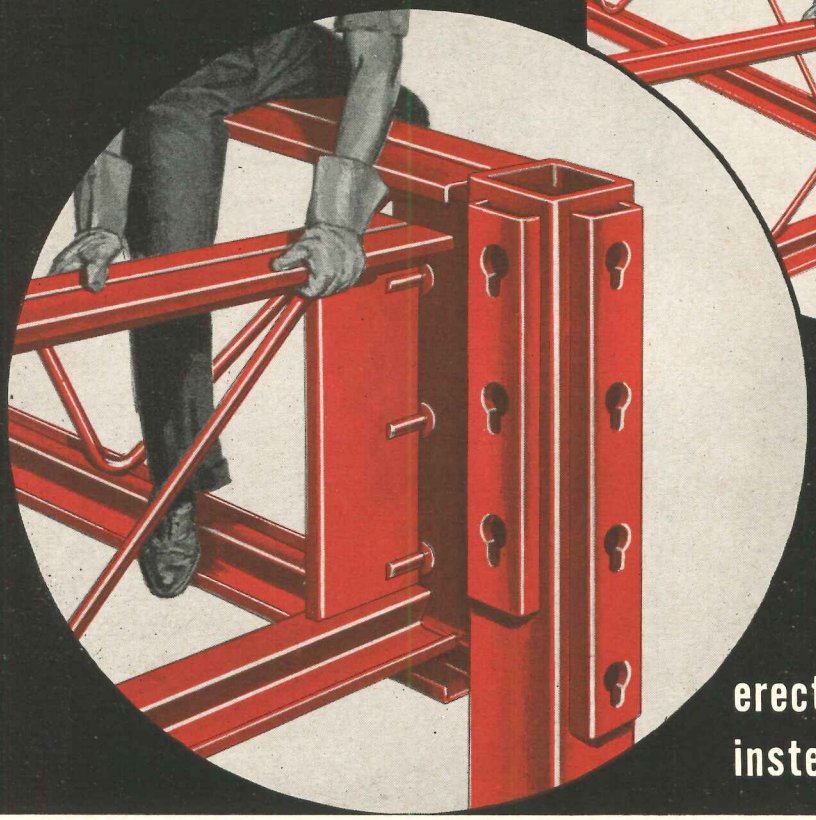

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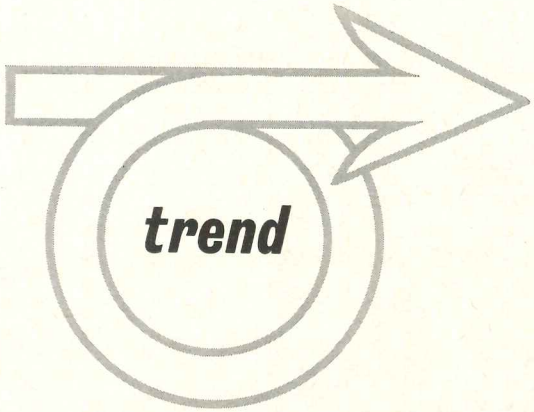

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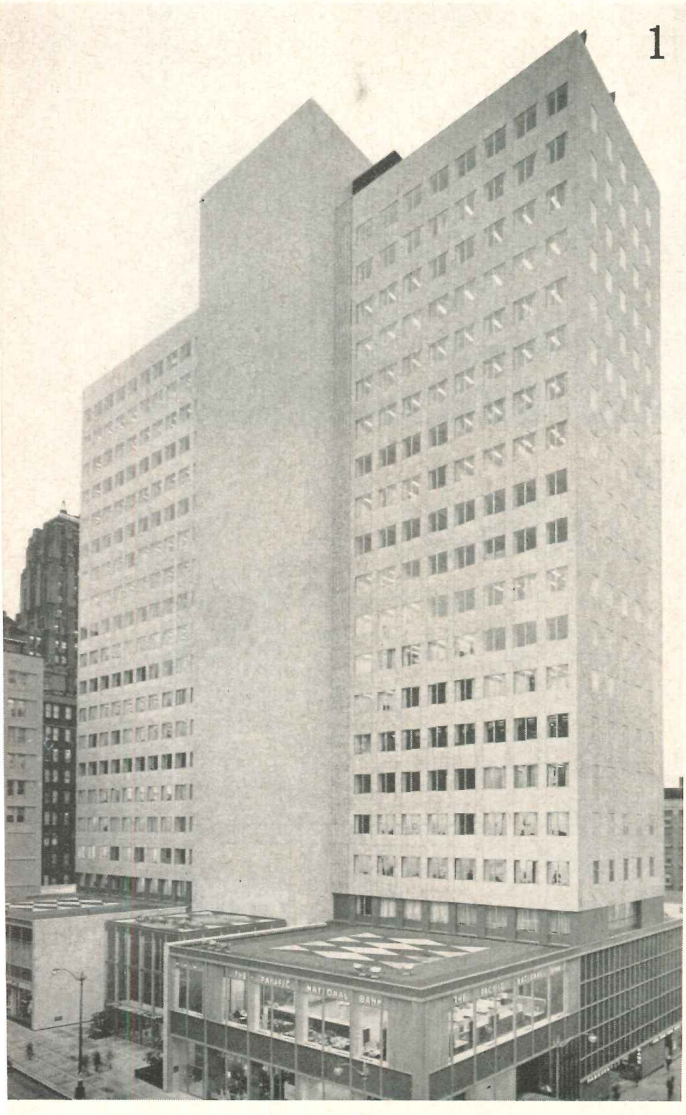

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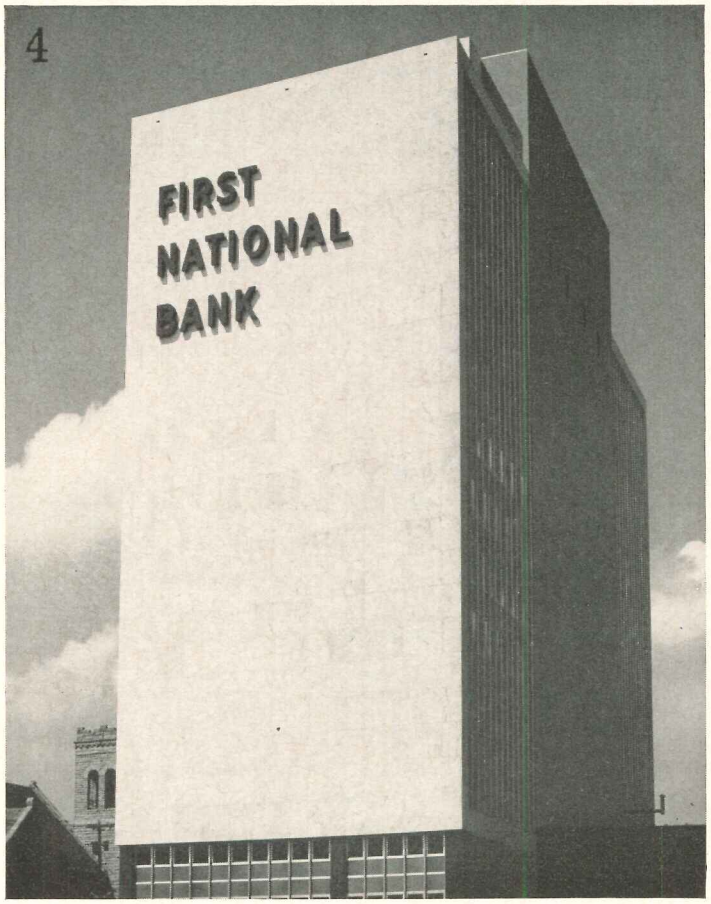


1 The Washington Building, Seattle, Washington
Architects: Naramore, Bain, Brady, and Johanson, Seattle
General Contractor: Johnson-Morrison-Knudsen Co., Bellevue, Washington
Material: White Cherokee

2 National Bank of Detroit
Architect: Albert Kahn, Detroit, Michigan
General Contractor: Bryant and Detwiler, Detroit, Michigan
Material: White Georgia

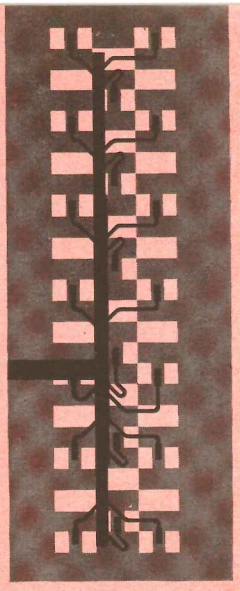
3 First National Bank of Decatur, Alabama
Architect: H. Lloyd Hill, Atlanta, Georgia
General Contractor: Pearce & Gresham, Decatur, Alabama
Material: Rockwood Imperial Veined Alabama Limestone

4 The First National Bank of Atlanta, North Avenue Branch, Atlanta, Georgia
Architect: Francis P. Smith & Henry H. Smith, Atlanta, Georgia
General Contractor: Daniel Construction Co. of Georgia, Atlanta, Georgia
Material: White Cherokee

5 First Federal Savings & Loan Association, Augusta, Georgia
Architect: Kuhlke & Wade, Augusta, Georgia
General Contractor: Clarence Mobley Contracting Co., Augusta, Georgia
Material: White Georgia

6 Fulton Federal Savings & Loan Association, Buckhead Branch, Atlanta, Georgia
Architect: Thompson, Hancock & Hackworth, Atlanta, Georgia
General Contractor: Jiroud Jones & Company, Atlanta, Georgia
Material: White Cherokee Split Face, 4½″ rise

Architectural Engineering



Cover:

Combination of lighting—air conditioning units for the ceiling of the Water and Power Building in Los Angeles by Albert C. Martin and Associates, Architects and Engineers. See "New Techniques Integrate Lighting, Air Conditioning" 142

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ARCHITECTURAL

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RECORD

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August 1961

Building Types Study 297: Office Building and Banks

An across the country look at thirteen examples of good design in a building type that spells opportunity for architects—prefaced by an economist's survey of this category's considerable activity

Coming in the Record

ARCHITECTURE: BIG, BIGGER, BIGGEST

The story of New York International Airport at Idlewild, told so far only in segments, is one of the biggest architectural stories of all time; and next month's presentation in the RECORD *will give it attention on a scale commensurate with its significance. It is not (why not?) a story of architecture in control, or of architecture (in the highest sense) triumphant: but it is the story of how and why the world's biggest jet airport, a highly complex example of the "comprehensive architecture" of our time, came to be; and of the role of architects, and engineers, in its evolution.*

BUILDING TYPES STUDY: H(M)OTELS

At a time when the old concepts of "hotel," "motel" and "motor hotel" are gradually obsolescing (and remember the "tourist court"?) the RECORD *presents a major study on the emerging H(M)otel—i.e., a hotel designed with the realities of our era (automobiles among them) and the owner's (highly variable) purposes all in mind. Some very practical testimony from the vast experience of architect William Tabler, and examples from around the world of the emerging "type."*

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Pier 40 Superstructure (Holland-America Line). Owner: City of New York, Department of Marine and Aviation; Architects and Engineers: Roberts & Schaefer Co., Inc.; General Contractor: Corbetta Construction Co., Inc. (all of New York).

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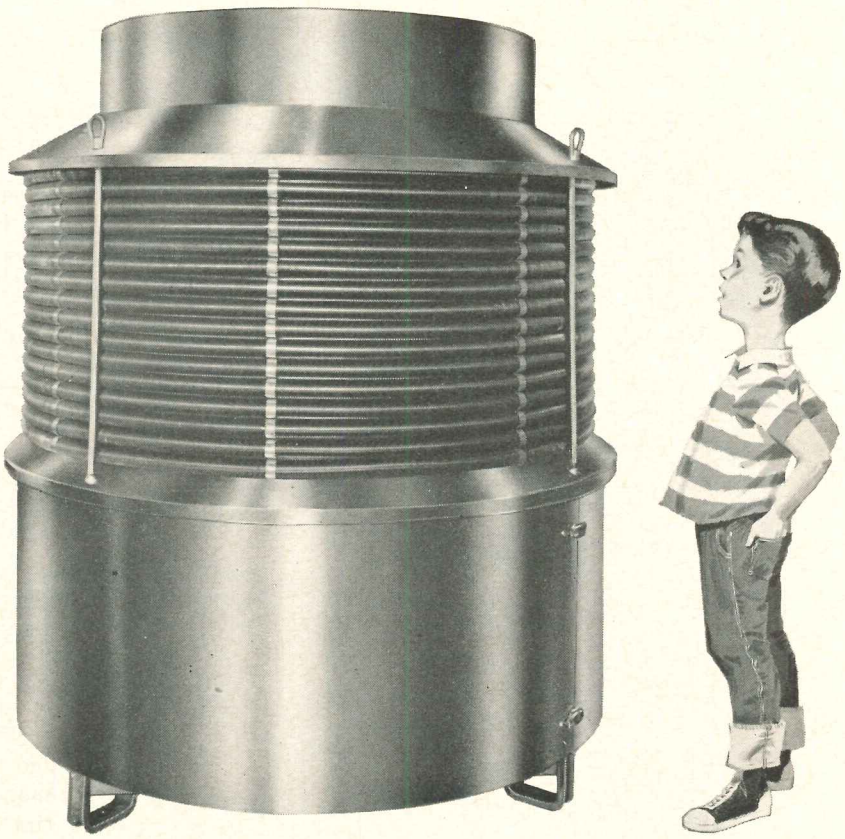

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Technology with Circumspection

Something like a year ago we dropped in on one of the R-17 seminars, known as the Sagamore conference, which dealt with technology and what should be done about it in architectural schools. We should have been happy to forget about it, as very likely many others would also, but it has a haunting quality.

The sense of unreality appeared again the other day when I read a new issue of the *Journal of Architectural Education,* in which Charles W. Moore, "scribe and editor," published his report of the Sagamore meeting, and the specter was no more pleasant for a year's lapse of time.

"Technology," writes Mr. Moore, "was approached by most of the participants with a circumspection described variously as discomfort, incomplete understanding, or just plain fear." The participants were, of course, a few score of young teachers of architecture, in two weeks isolation in the Adirondacks to examine their souls on the question of what architectural education should do about technology.

I came away with the feeling that the group had reinforced each other in a reverse sort of progression. Together, so it seemed, they strengthened each other's determination to leave technology to the nuts-and-bolts men, and stand firm on the other side of the stream.

I was there really only for a weekend, a very pleasant one, by the way, on a quiet lake in the mountain country. But, driving home Sunday evening, I was haunted by a feeling of returning to the world of man-made problems.

We had arrived on Friday afternoon, after most of the conference day had been spent in listening to and discussing—yes, and answering—the plea of Bernard Miller, of Smith, Hinchman and Grylls, for an architectural-engineering type of education. It was clear that the afternoon group discussions had been a marshalling of forces in rebuttal. There were about 80 present, and it sounded like 80 resounding "no's." But the speaker said, no, there had been several expressions on his side. There were in fact some teachers from schools which do have the architectural-engineering approach. The speaker was happy for the fact of the conference, pleased that the topic was considered important enough to be the theme.

It was by accident that I discovered the A-E group of teachers having their own cocktail session; they felt strange in the atmosphere of the main lounge. There the others were dispatching technology in a distinctly Beaux Art exuberance. There was a great feeling of dedication; for the next twenty years, they made it plain, they were the ones to be teaching architecture, and they would keep the image of the architect unsullied.

Hopefully I had thought that this spirited posture had been engendered by a special day of challenge to the group, on the use of the phrase "architectural-engineering," and that in other days they would at least have been able to talk objectively about technical aspects of architectural training. But Moore summarizes the whole meeting in this report about his fellow teachers: ". . . the rumblings of change caused little stir among most of the serious young teachers of architecture, whose developed images of things as they are included the past but excluded much of the future, chopped the problems of the world down to intramural size, and made solutions into something that would eventuate when the catalog got properly rephrased."

—*Emerson Goble.*

EDWARD LARRABEE BARNES INTERVIEWED BY ARCHITECTURAL STUDENT JONATHAN BARNETT

Certainly all of us are becoming less edgy about looking at history and sensing continuity with the past . . . a distinction between a façade put together from disparate materials and a pyramid or monolithic form . . . The "post-Miesian" approach . . .

We seem to be finding out that modern architecture is not what we once thought it was, that the old issues have blurred and shifted and are forming on new lines.

My own ideas began to change three years ago when I got the commission to design a consulate in Iran. Buildings in a Persian city are not so much individual units as a part of a single, low-lying curve of mud brick, built on top of the ruins of older cities destroyed and rebuilt over a long period of time. All the architecture becomes an extension of the environment. Much peasant architecture is like this, of course. There is a continuity, if that's the word, between the life cycle and architecture which is lacking in the life of a New York broker, torn between the pavements of Wall Street and his suburban Shangri-La.

I think that our architecture should also be responsive to its environment and humble before it. In a way this may seem contrary to the American dream. We are used to expressing our ideas about individualism and property in our buildings. Some years ago I designed houses that were set off from their sites on platforms. Today I feel that architecture is not something that ends all of a sudden; it is a part of a wider space and time relationship.

What about the relationship of a new building to its existing neighbors?

Right now I am working with a site on the Yale campus that has a mood almost as strong as a piece of music. Each of the surrounding buildings is of dark brownstone, they each have the same regal first floor height, they are all inward looking. These buildings create a mood which must be respected; however, I would like to achieve this expression without ending up on the Romantic side of the fence. One cannot let one's approach become too literal. There are certain things that are timeless: material, light, shadow, and scale; and there are other things that are purely motifs. There is a clear point where you stop being genuine and become derivative; although I dare say every architect would draw the line at a different place. Certainly all of us are becoming less edgy about looking at history and sensing continuity with the past.

I notice, however, that you don't draw a line between functional architecture and other kinds of architecture.

I don't know whether other architecture is so unfunctional. One shouldn't be too narrow about interpreting function. I think there must be a solid functional basis for every building. The new dormitories I am doing for St. Paul's have become an expression of the boy-master relationship, groups of one-story student rooms spilling across the site with the master's houses set above them. You will find a prototype in Thomas Jefferson's buildings for the University of Virginia. They do all sorts of things that classic buildings should not do, and yet they appear very classical.

I was talking with Eudora Welty recently about the way people always want to hear the idea of a book—what it is about. I think I'm afraid these ideas always sound banal when put into words. The conical sight lines of a theater, the broad corridors and flights of steps that form the backbone of a school—with such an architectural idea, the building almost seems to design itself. Form follows function, or as Novicki stressed, function also follows form. The two are related and completely interwoven.

If I may ask a loaded question, how does a modern architect go about designing a monument?

Of course, we have been working with just this problem in our design for the Roosevelt Memorial competition.

I know. That's why I was afraid that my question was loaded.

Well, my only answer is that again there has to be an architectural idea. I don't think many of the entries in the Roosevelt competition really had one. They looked superficial to me, as if done in a hurry.

There are people who say that our highway system and great engineering works are the truly monumental structures of today.

I would say that our modern highways are on about the same level of achievement as a Roman aqueduct or the Chinese wall. That's a long way from Phidias or a Gothic cathedral.

We have been talking about only one phase of recent architecture. There is another trend: the use of a single material, bolder forms, and a rougher approach to detailing.

Don't you think there is a certain contradiction in the continued use of an essentially craft material like poured-in-place reinforced concrete? Is this the art of the machine we've all heard so much about?

I didn't mean boldness in quite that sense. I am making a distinction between a façade put together from disparate materials and a pyramid or monolithic form.

This new simplification seems to me an opening; it is not brutal, and not necessarily crude. Scale in this new type of architecture has to be completely rethought. I also think recent architecture has tended to ignore the roof. Too often it is expressed as a sheltering element only. The roof has more in common with the walls than it has differences. In all buildings there is a difference between floors and walls; but I don't see why the tops of buildings don't look more wall than floor. There are many new relationships possible. When I first saw the Ankor Wat, I thought it was too alien, too barbaric. Now suddenly it seems relevant.

The "post-Miesian" approach involves the use of one material, larger, simpler spaces, bolder details, but not crude and overpowering. Take Kahn's buildings; those blank, brick

continued on page 194

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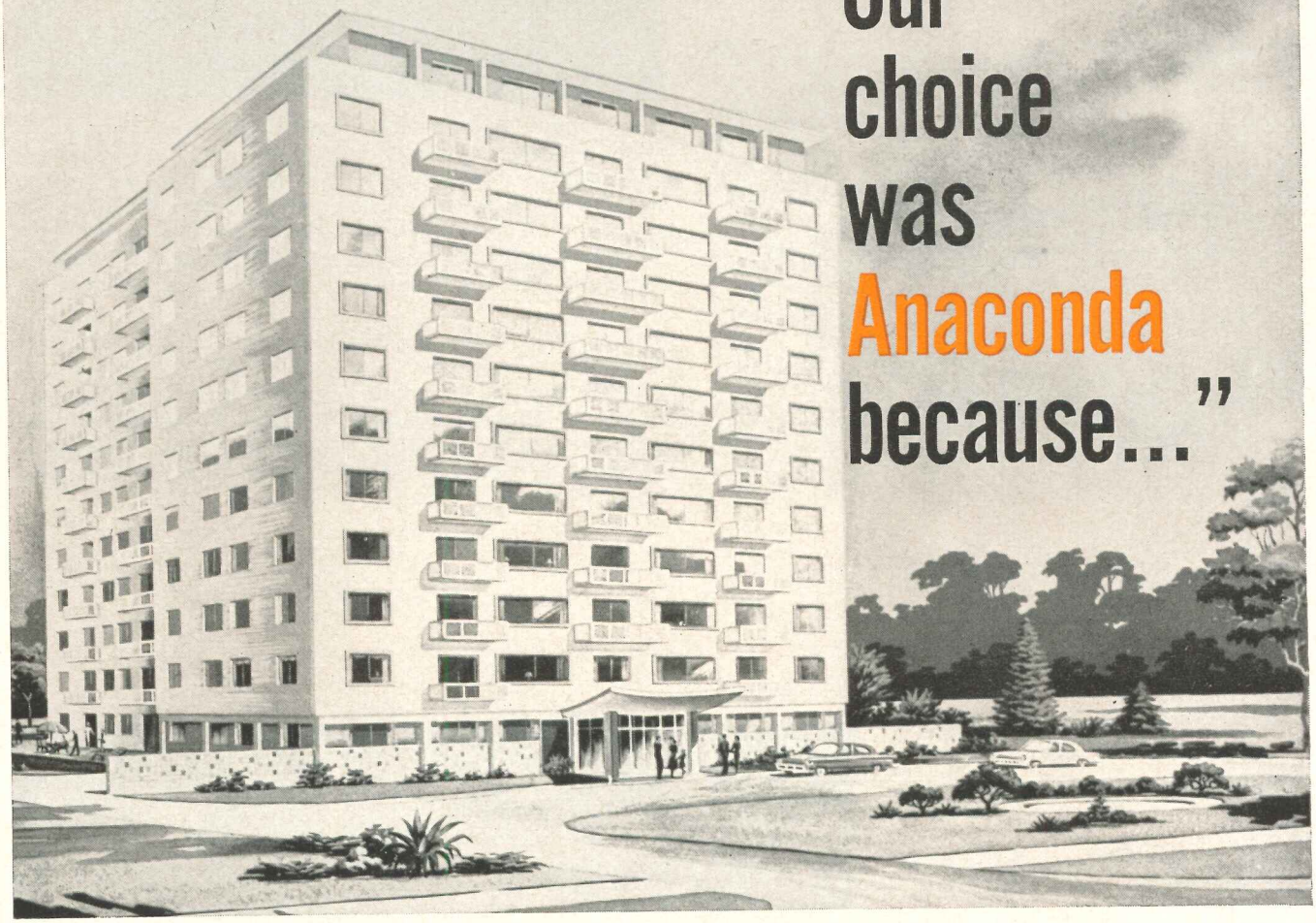
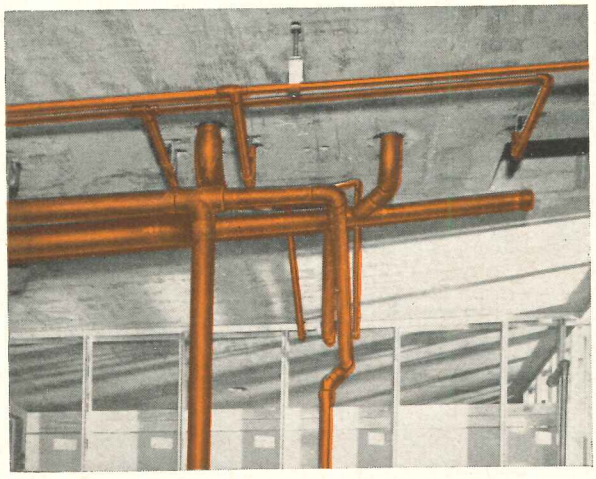


IMPERIAL GARDEN APARTMENTS, Syracuse, New York. Architect: Edward C. Roock; General Contractor: Wm. C. Pahl Construction Co.; Plumbing and Heating Contractor: Robert Pearson Co., Inc.; Distributor for Anaconda: Syracuse Heating Supply Co.



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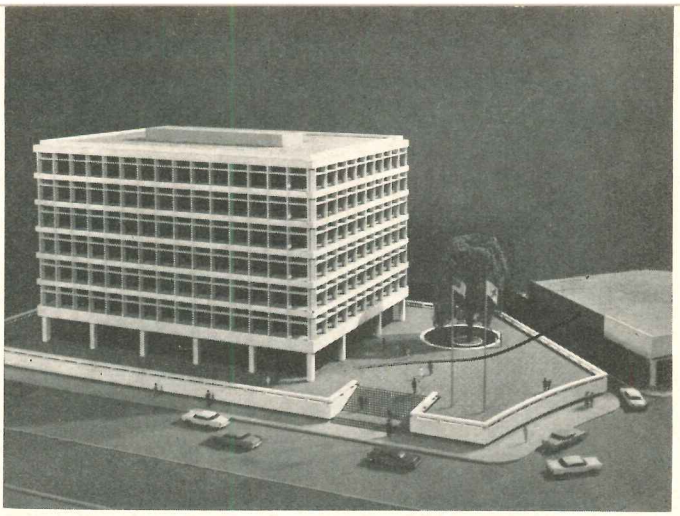
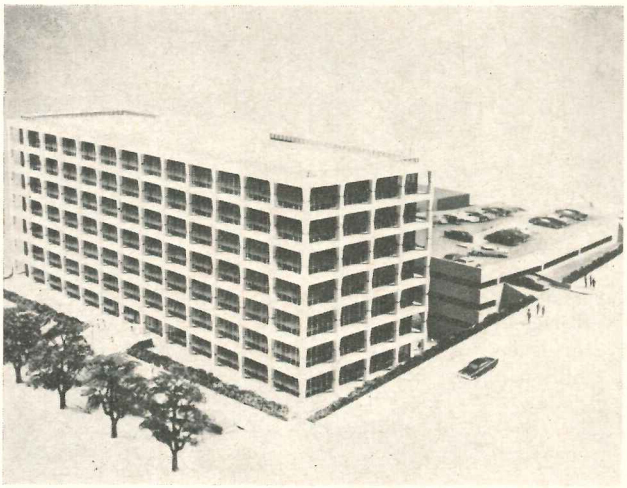


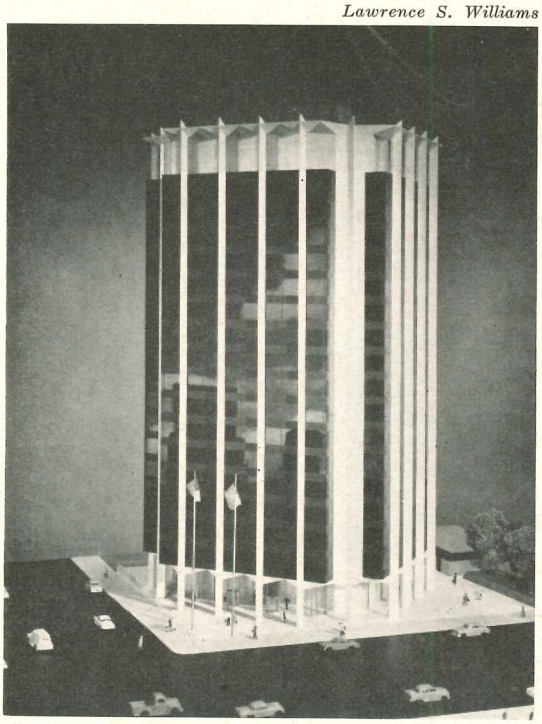
New Orleans (above)—Office building for John Hancock Insurance Company will be completed this fall. The 7-story concrete structure will have exterior grillage for sun control, more than 60,000 sq ft of office space. Architects: Skidmore, Owings & Merrill; associates: Nolan, Norman, Nolan, New Orleans; structural engineer: Paul Weidlinger; mechanical engineers: Syska & Hennessy. Contractor: R. P. Farnsworth



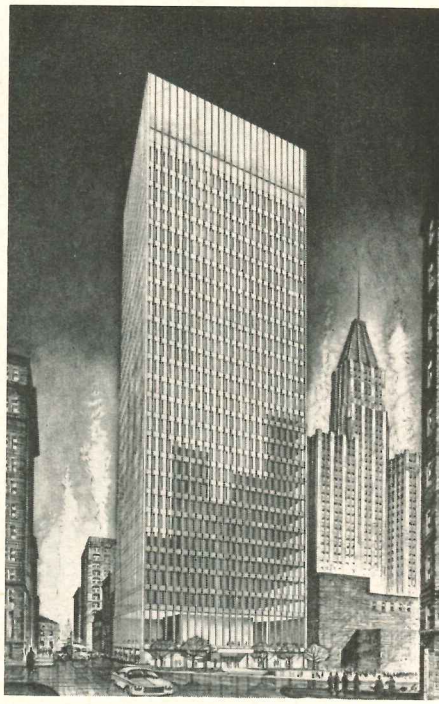
Kansas City (left)—Another new office building for John Hancock, to be completed by spring 1962, has, with 4-level garage, structure of precast concrete. Architects: Skidmore, Owings & Merrill; associate: Edward W. Tanner, Kansas City; associated structural engineers: Paul Weidlinger, Weiskopf & Pickworth; mechanical engineers: Syska & Hennessy. Contractor: Long Construction Co.

THREE NEW OFFICE BUILDINGS

Lawrence S. Williams

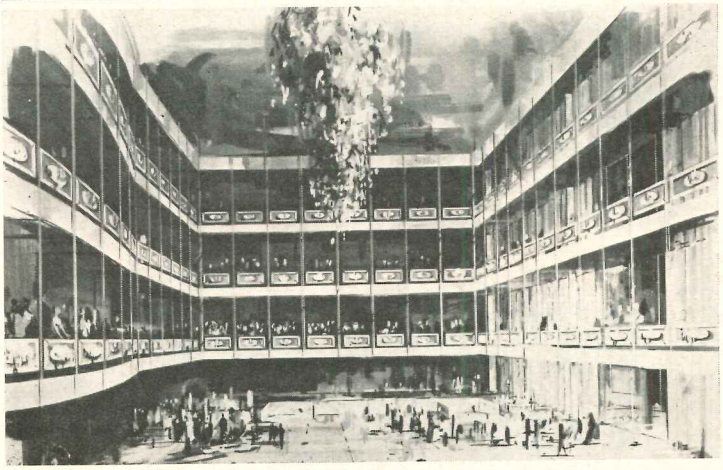


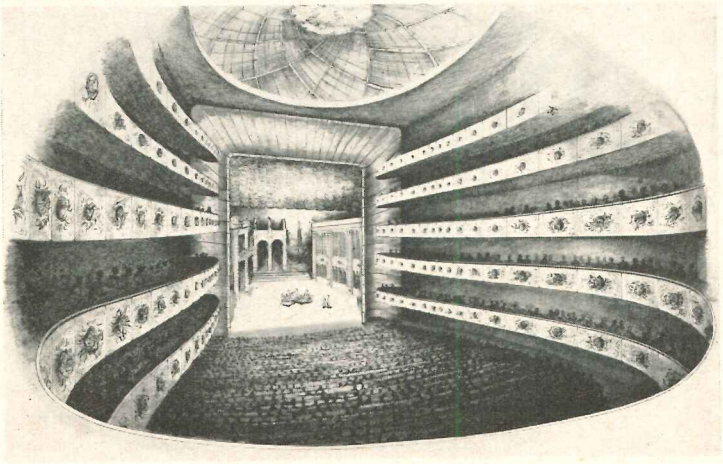
(Right) Vincent Kling designed this 28-story square office building for Baltimore. To be completed by fall 1962, the 360-ft-high structure comprises approximately 400,000 sq ft. Exterior metal and glass wall provides deeply splayed window jambs for built-in sun control. Developers: Blaustein and McCloskey & Co.



(Far right) United States Gypsum Building, Chicago, designed by Perkins & Will, is diagonally placed on site, providing space for street-level plaza. Each face of 17-story building has four white masonry material columns with black spandrel area between each floor. Completion is slated for early 1963

Scheduled for 1963 completion, the $10,937,669 New York State Division of Employment headquarters building will be located on 450-acre compus site near Albany. The 5-story steel structure will accommodate 3000 employes. Architects are Eggers & Higgins; contractors: Foster-Newman, Inc., Rosoff Bros., Inc.





NEW YORK STATE THEATER AT LINCOLN CENTER

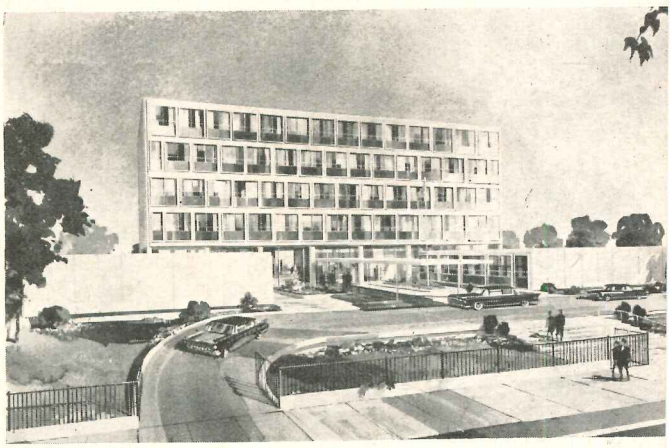
(top) Model shows the façade of the New York State Theater designed by Philip Johnson Associates for Lincoln Center. Like the Metropolitan Opera House on the right, the concrete structure will be faced with tan-colored Roman travertine. The façade is divided into bays by four pairs of columns, and this treatment echoed on each side of the building. Approximately nine stories high, the air-conditioned, 2801-seat theater is estimated to cost between $17 and $18 million. Construction will begin this summer

(center) The Grand Foyer on the first balcony level (195 by 60 ft) will be used for exhibitions, official receptions, state, civic dinners. Three levels of balcony promenades are suspended around the 45-ft-high room

(left) Drawing of the theater's festive interior shows the wide horseshoe-shaped auditorium with five tiers of shallow balconies above the orchestra level. The theater was designed especially for dance and operetta performances, although it will also be available for drama, opera, film showings and lectures

TWO NEW U.S. EMBASSIES ABROAD

New U.S. Embassy in Quito, Ecuador, designed by Vincent G. Kling, has won that city's Gold Medal as best "private building for public service" erected there last year. Four-story building at right contains offices; at left is 250-seat auditorium for U.S. Information Agency



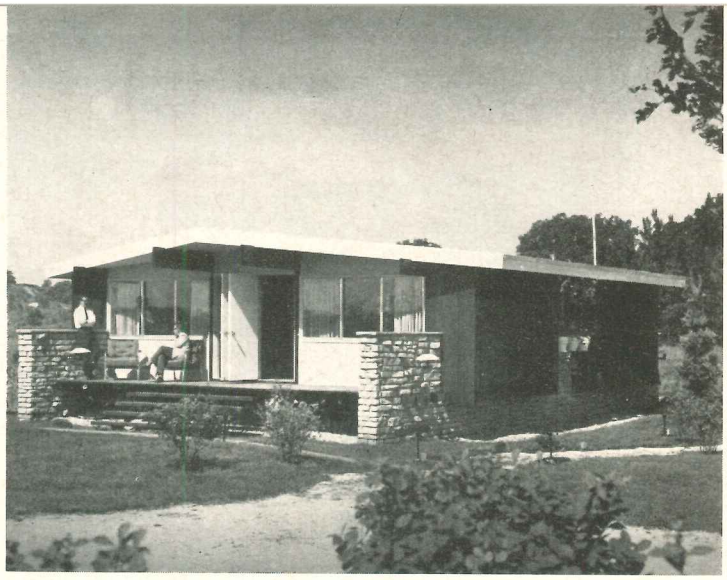
Welton Becket and Associates designed this $2 million U.S. Embassy in Warsaw, Poland, now being constructed of reinforced concrete with native granite facing. A four-story tower rests on a one-story structure U-shaped around a courtyard. Staff housing unit may be built later

5 ARCHITECTS DESIGN "GOLD MEDALLION HOMES" FOR WESTINGHOUSE

In Westinghouse Electric Corporation's 1960 program, five leading residential architects were commissioned to design 16 "Total Electric" homes. The architects were: Bassetti & Morse, Seattle, Wash.; A. Quincy Jones-Frederick E. Emmons, Los Angeles, Calif.; Robert A. Little & George F. Dalton & Associates, Cleveland, Ohio; Satterlee & Smith, Washington, D. C.; and George Matsumoto, Raleigh, N.C.

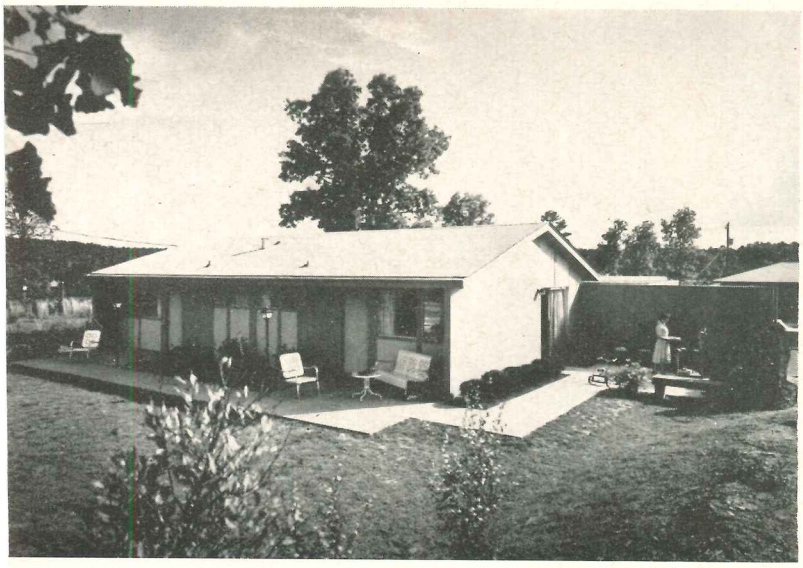
Ten of the completed houses are shown on these pages. A house designed by Jones & Emmons has been built in Waco, Texas. The remaining five will be completed in the future.

These Westinghouse Gold Medallion Homes, in which electricity is used as the only source of energy, are intended to be adaptable to a wide price range and a wide range of family needs. They were designed to suite various sites, climates and geographical locations.

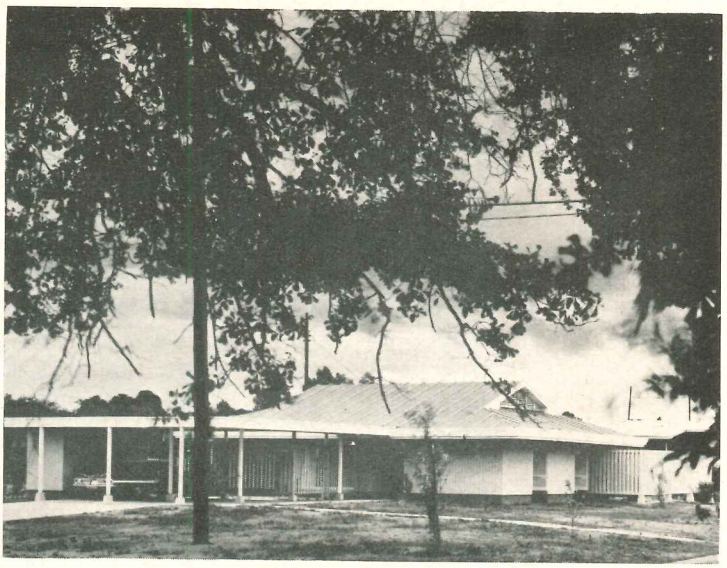


Architects: Little & Dalton & Associates, Cleveland. Location: Cary, Ill. Builder: Ladd Enterprises, Inc., in cooperation with Commonwealth Edison Company

Architects: Bassetti & Morse, Seattle. Location: Bellevue, Wash. Builder: Robinson & Stewart, Inc., in cooperation with the Puget Sound Power & Light Company



Architect: George Matsumoto, Raleigh, N.C. Location: Little Rock, Ark. Builder: Lewis S. Block Jr., Little Rock Builders, in cooperation with Arkansas Power & Light Company

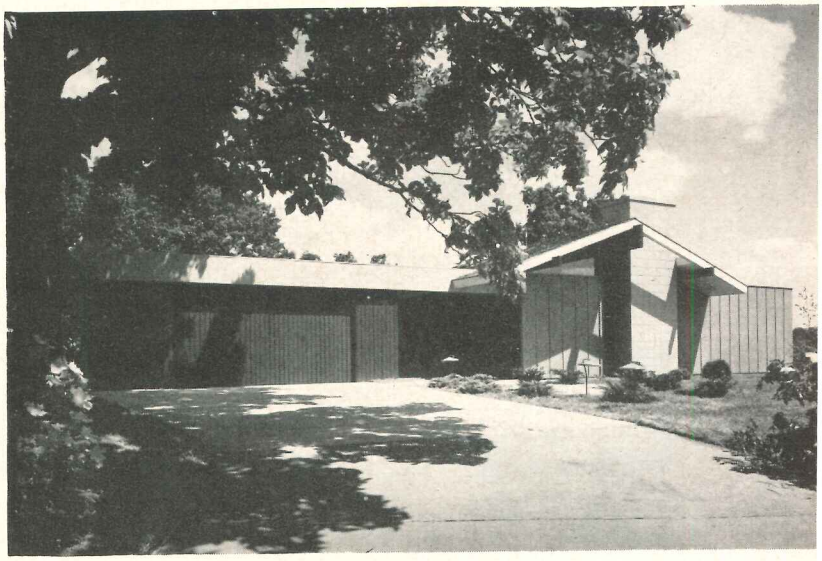


Architects: George Matsumoto & Associates, Raleigh, N.C. Location: Jackson, Miss. Builder: J. B. McGehee, McGehee Realty Company, in cooperation with Mississippi Power & Light Co.

Architect: George Matsumoto, Raleigh, N.C. Location: Atlanta, Ga. Builder: Arthur M. Morris, in cooperation with the Georgia Power Company

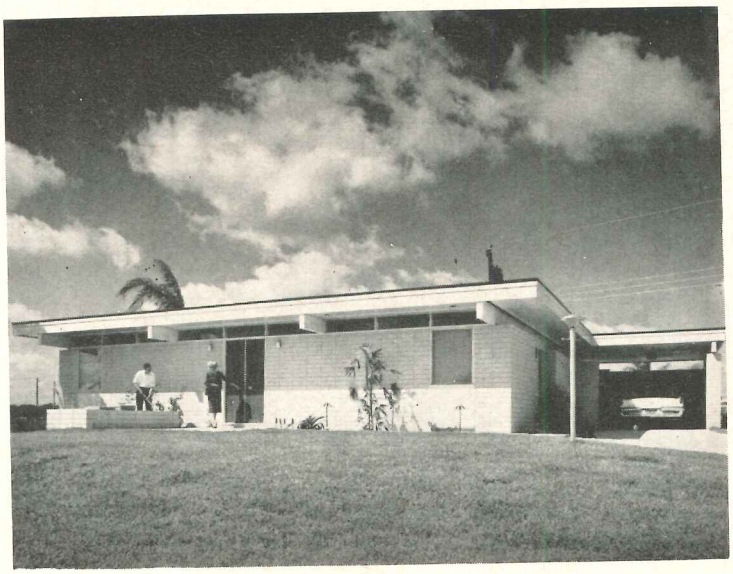
Architects: Bassetti & Morse, Seattle. Location: North Canton, Ohio. Builder: J. R. Wilkin, in cooperation with the Ohio Power Company

Architects: Satterlee & Smith, Washington, D.C. Location: Roanoke, Va. Builder: Leon Kytchen, Mill Mountain Estates, in cooperation with Appalachian Power Company

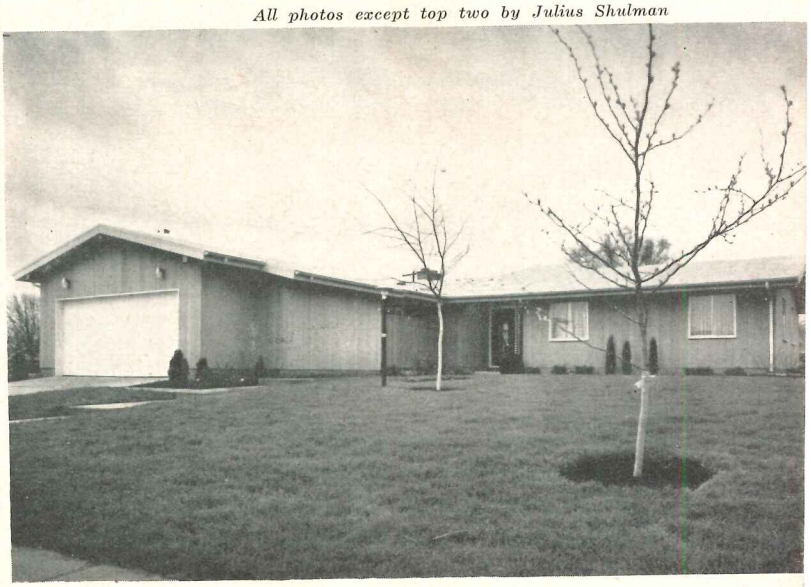


Architects: Jones & Emmons, Los Angeles. Location: Cedar Rapids, Ia. Builder: Waldo Berger, Berger Construction Co., in cooperation with Iowa Electric Light & Power Company

All photos except top two by Julius Shulman

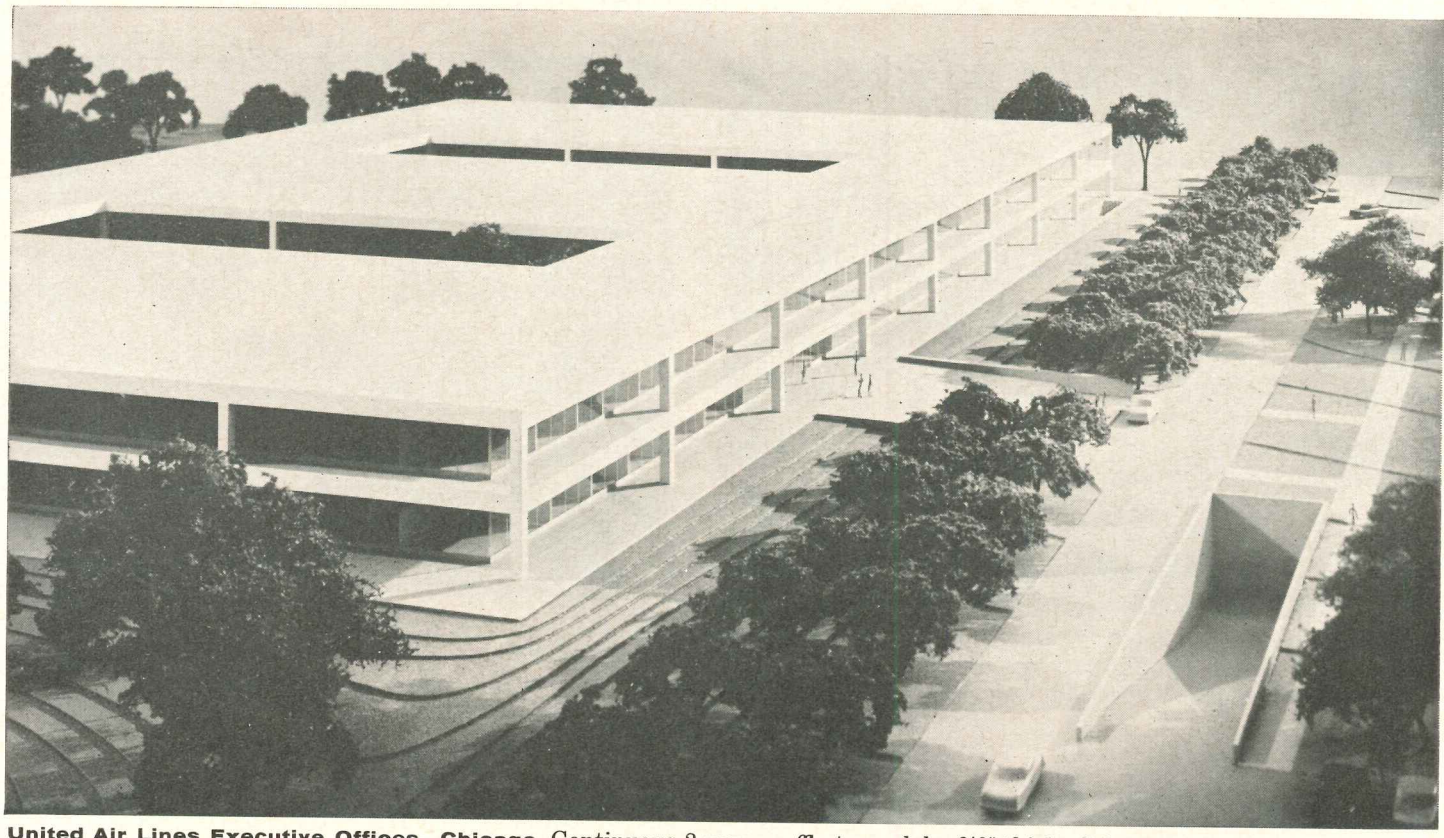


Architects: George Matsumoto & Associates, Raleigh, N.C. Location: Tampa, Fla. Builder: L. G. Michaelson, L. J. Michaelson Construction Company, in cooperation with Tampa Electric Co.

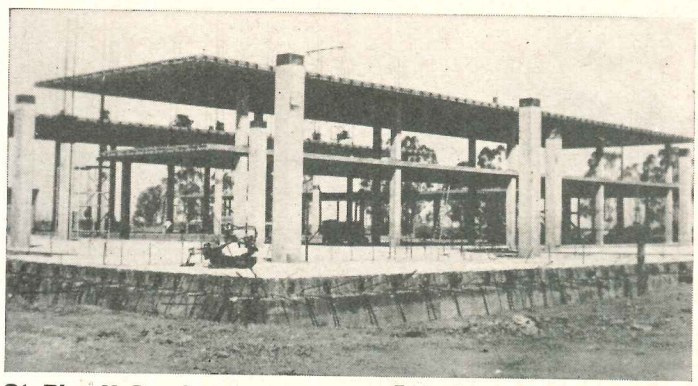


Architects: Satterlee & Smith, Washington, D.C. Location: Ft. Wayne, Ind. Builders: Lebrato Brothers, Inc., in cooperation with Indiana & Michigan Electric Company

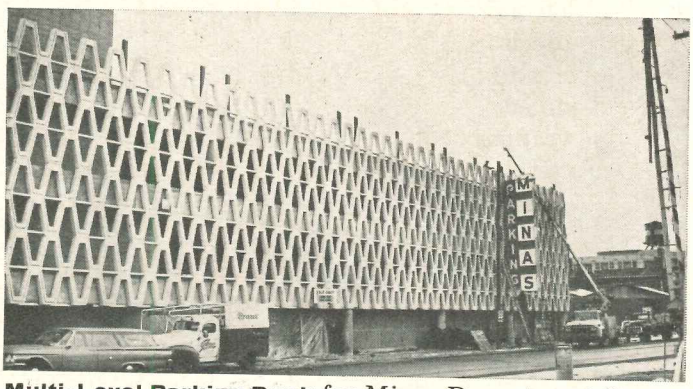
NEW...IN PRESTRESSED CONCRETE
these dramatic projects post-tensioned by Ryerson



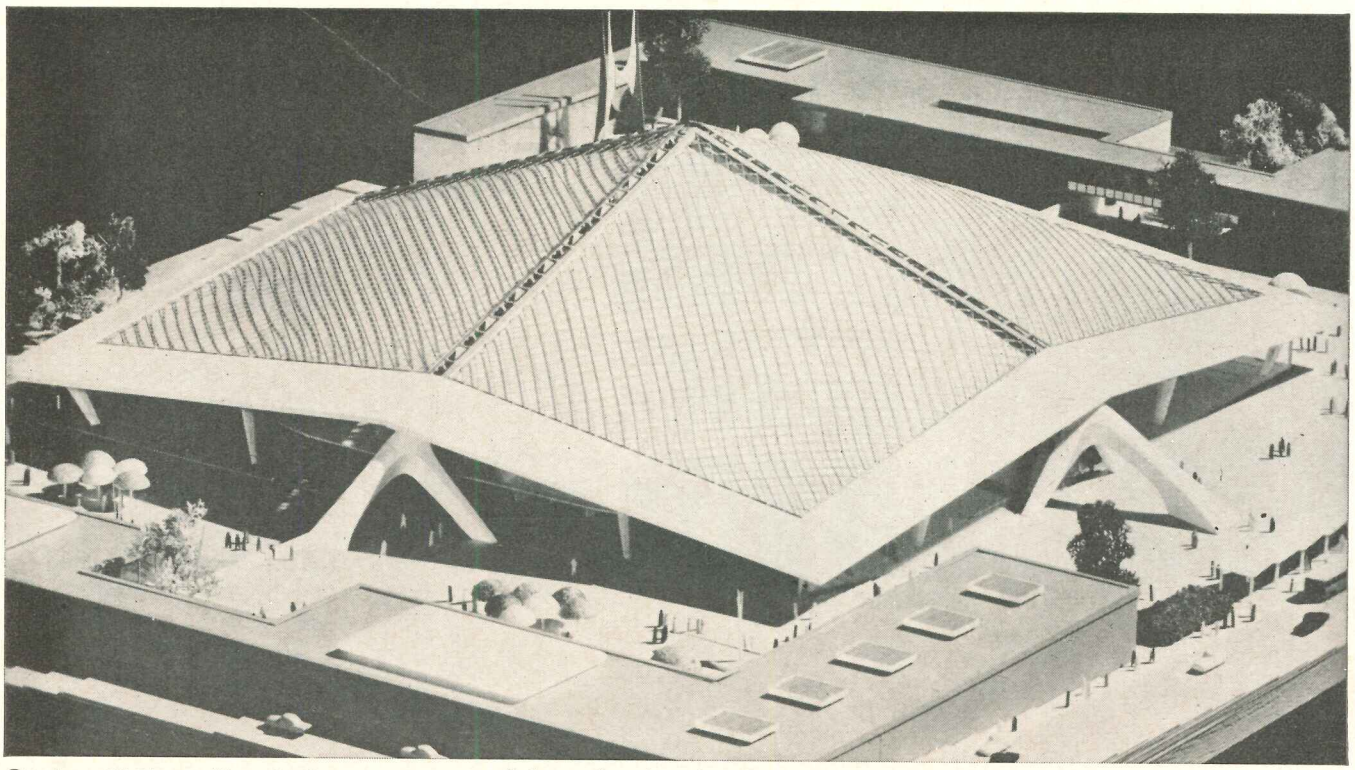
United Air Lines Executive Offices—Chicago. Continuous 2-way, waffle-type slabs 2′6″ thick. Column spacing 60′x66′. Now under construction. **ARCHITECT:** Skidmore, Owings & Merrill. **CONTRACTOR:** Gust K. Newberg Construction Co.



St. Pius X Seminary—Galt, Calif. Lift-slab construction. 9″ flat slab and approximately 30′ column spacing. **OWNER:** Roman Catholic Diocese of Sacramento. **ARCHITECT:** Harry J. Devine. **ENGINEER:** Ernest Francis. **GENERAL CONTRACTOR:** Continental Construction Co. **LIFT-SLAB CONTRACTOR:** Vagtborg Lift-Slab Corporation, Los Angeles, Calif.



Multi-Level Parking Deck for Minas Department Store, Hammond, Indiana. Non-structural 2″ to 6″ topping on precast T beams post-tensioned two ways to provide crack-free weatherproof slab. Edge beams cast in place with conventional reinforcing. **BUILDER:** Triangle Parking Corp. **ARCHITECT & ENGINEER:** DeLeuw, Cather & Co. **CONTRACTOR:** Roy C. Clark, Inc.



Century 21 Exposition Coliseum—Seattle. Column-free interior 400′ square, 115′ high. Edge beams are post-tensioned and aluminum roof panels are supported by tensioned cables of galvanized wire. **BUILDER:** State of Washington, Dept. of Commerce & Economic Development. **ARCHITECT:** Paul Thiry. **CONTRACTOR:** Howard S. Wright Construction Co.

Presents new opportunities

As use of prestressed concrete gains momentum, Ryerson continues to set the pace with a complete service for this type of construction. Using the BBRV system, Ryerson post-tensioning service makes prestressing more practical and economical than ever—and presents new and dramatic construction opportunities such as those illustrated here.

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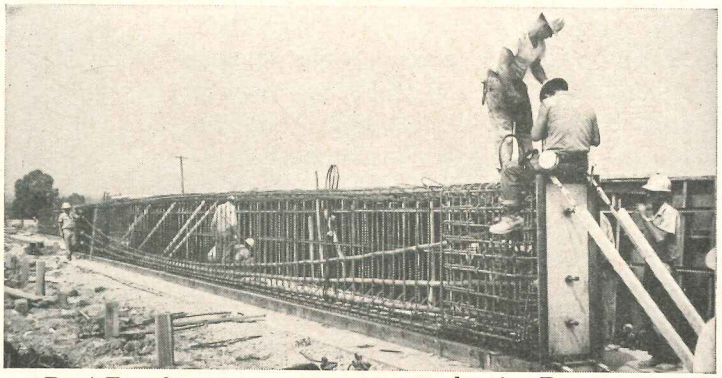
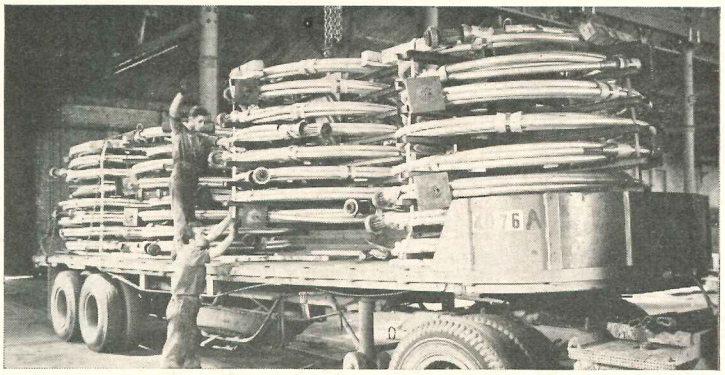
For further information on post-tensioning and other Ryerson products and services for the construction industry, contact your nearby Ryerson plant.



Post-Tensioned Precast I-Beam—showing Ryerson assembled tendons and reinforcing in place.



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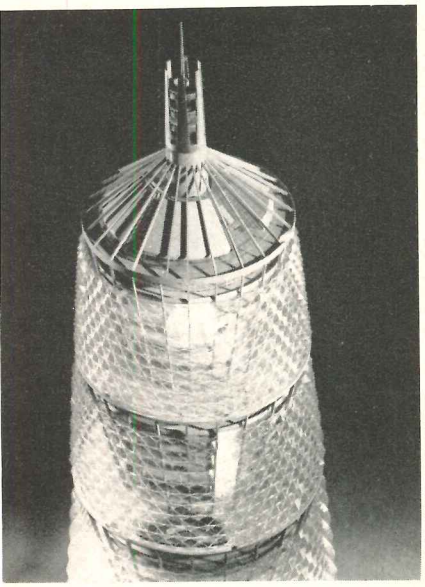
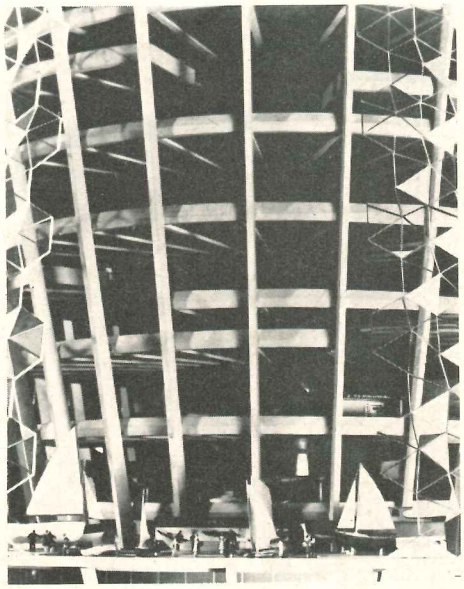




(far left) Leaning against the building's core, the wigwam roof in precast columns would shelter a diameter of 154 ft, would house cocktail lounges, restaurants, conference halls, cinemas, banquet hall, open viewing platform. Above the roof will be three floors of 16-seater dining rooms; at top, an open platform
(left) Interior view of one of five exhibit halls shows main circular floor with overlapping segmental floors behind, descending to base of hall by building core

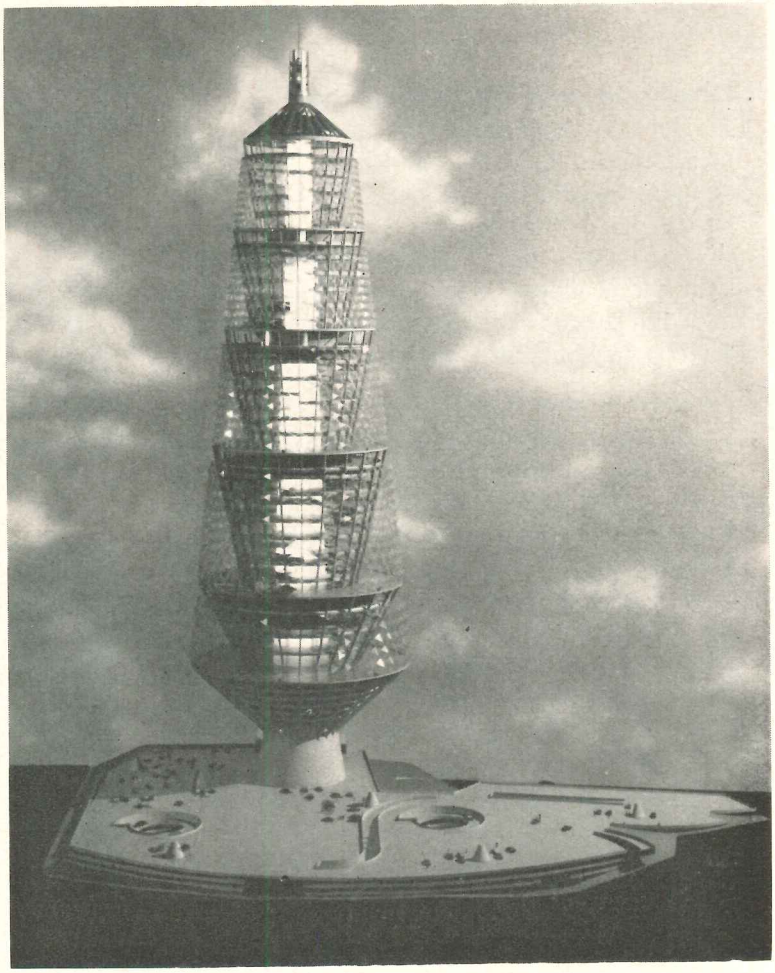
NEW "CRYSTAL PALACE" PLANNED FOR LONDON

A new "Crystal Palace" called "Crystal 61" after the original built in 1851 has been designed as a London industry showcase by structural engineer Ove Arup and G. A. Jellicoe, with John Martin of Ove Arup and Partners, and Hal Moggridge of Jellicoe, Ballantyne & Coleridge. Commissioned by the Glass Age Development Committee which was convened by Pilkington Brothers Ltd., the 1016 ft tapering glass-wrapped tower of circular plan is constructed like a "tree" in concrete, with a central core supporting all floors.

The total area of usable space, 569,000 sq ft, exceeds that of London's two chief exhibition halls. The space is to be divided among five separate halls contained in five drums up the building, hence could be used for one exhibit or several simultaneously.

Each of the five main floors will be a complete circle, intermediate floors segments of a circle. Floors will be of precast concrete planks supported by beams radiating from the core and at their outer ends by columns connected by a perimeter beam.

Longest vertical distance from floor to ceiling of the five halls is nearly 200 ft. A glazing system was evolved to enclose each hall in one unbroken span supported only at the feet and eaves. By using a steel tube space frame of hexagonal units composed of triangular frames at different planes to one another, the glass curtain will be faceted, not a smooth conical drum.



"Crystal 61" will contain five exhibition halls. Of almost 1,000,000 sq ft of floor space, the $30 million project allows a total of 569,000 sq ft of exhibit area. Entrances for goods and visitors are underground into high speed elevators through the building core. A four-floor podium covering about four acres will contain parking for 4500 cars

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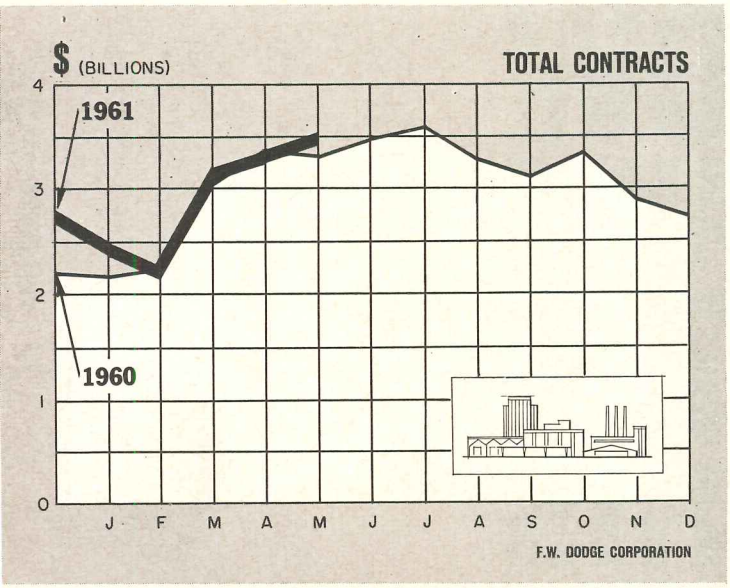
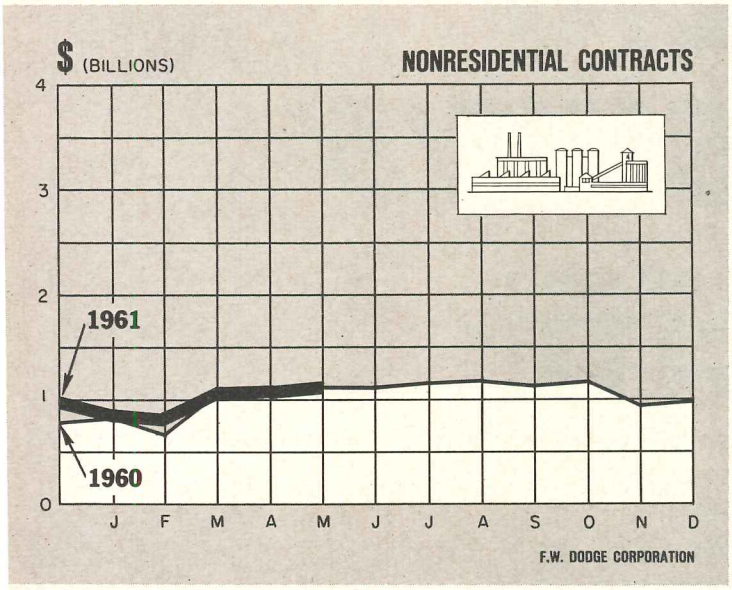
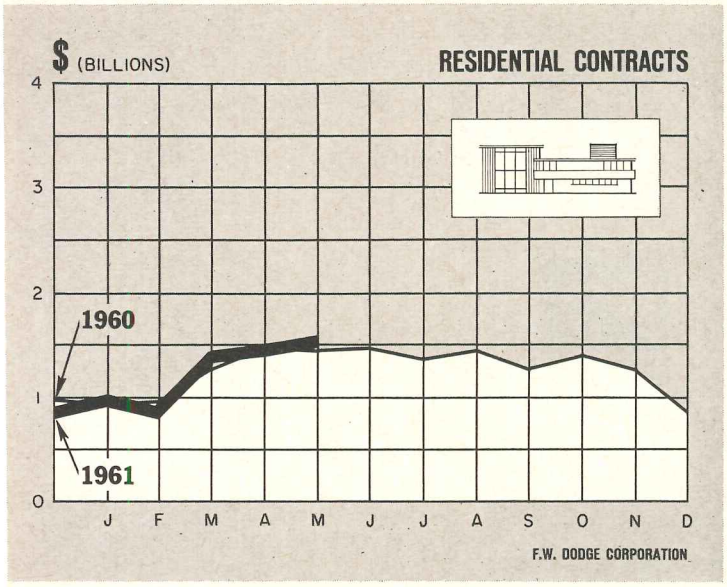


Total contracts include residential, nonresidential, heavy engineering contracts





ACTIVITY LEVEL CONTINUES HIGH

SO FAR THIS YEAR, most of the major construction categories have turned in performances very close to earlier expectations. Contracts for future construction in the first five months of 1961 rose four per cent above the comparable 1960 months and totaled $14.6 billion. All three principal sectors (non-residential building, residential building, and heavy engineering construction) shared in the gain, although not equally by any means.

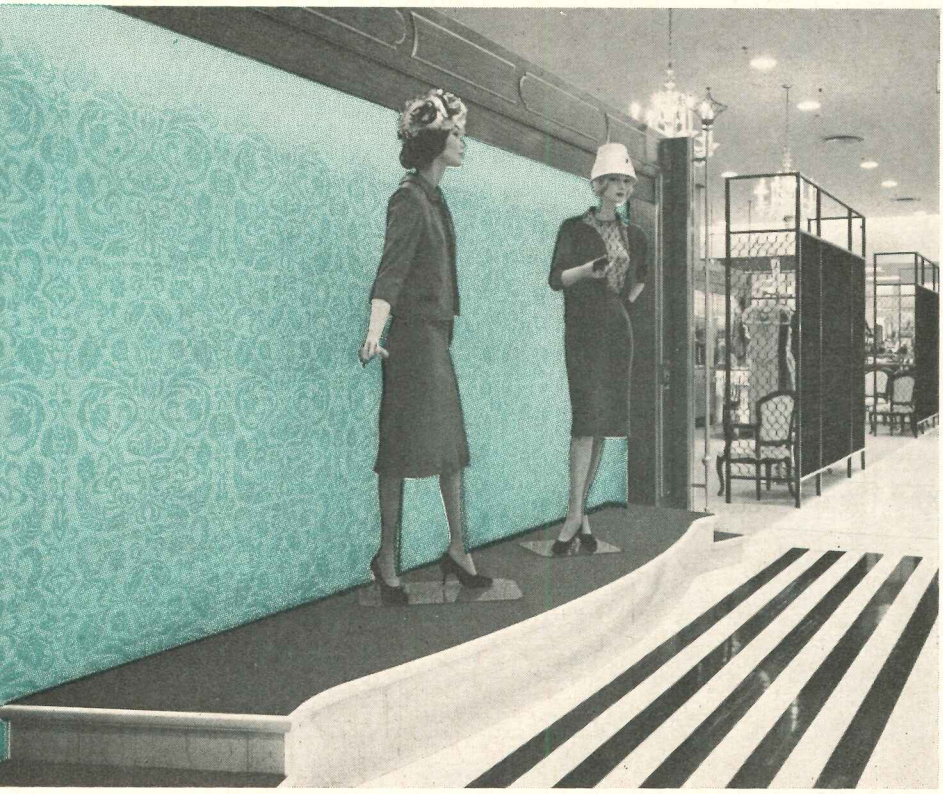
NON-RESIDENTIAL BUILDING contracts in the January through May period rose two per cent to $4.8 billion. Contracts for commercial buildings have shown surprising strength so far, with the five-month total running some nine per cent ahead of last year. Within the commercial category, both office buildings and stores were up sharply. As we pointed out last month, another area which has been very strong is educational building. School building contracts in the first five months were at record levels, some six per cent ahead of the comparable period last year. In addition, contracts for hospitals scored a 20 per cent increase, while public buildings and religious buildings were up moderately. In contrast, and in line with earlier predictions, contracts for manufacturing buildings fell off rather sharply, and at the end of five months were down 19 per cent from last year. Recreational building contracts dipped five per cent from a year ago despite a substantial pick-up in May.

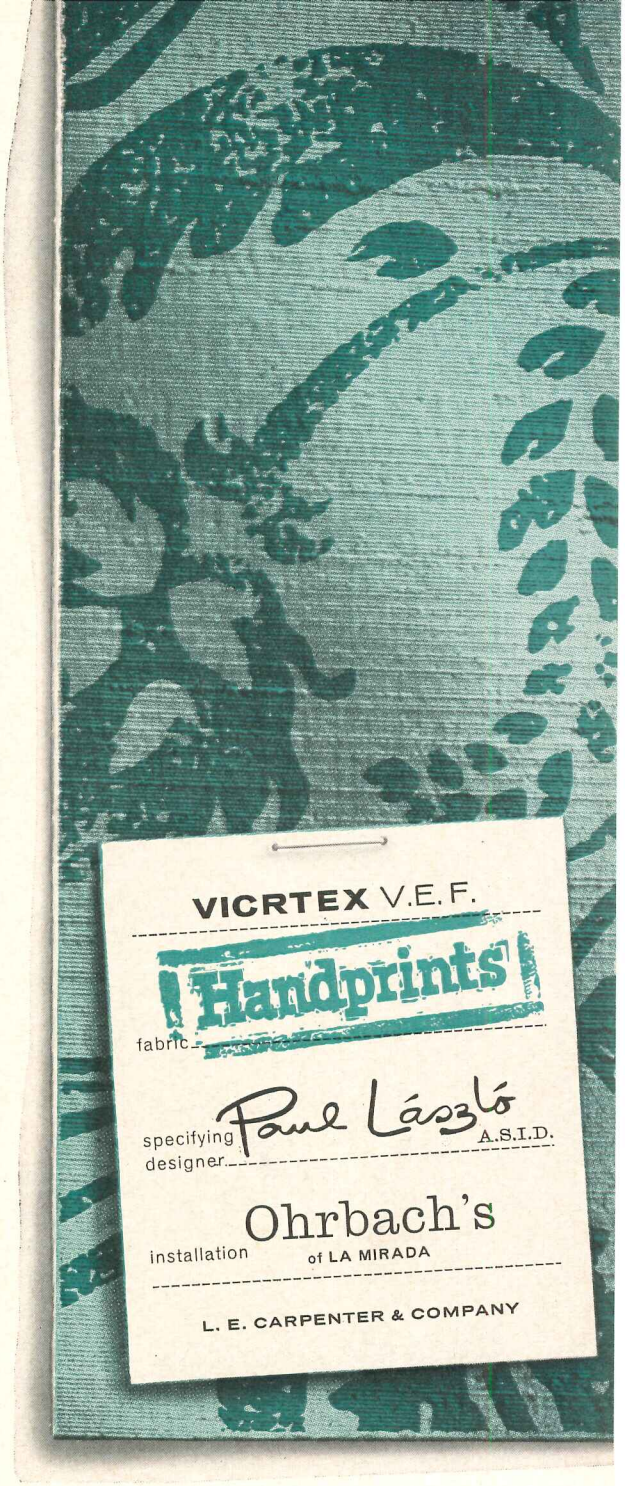
RESIDENTIAL BUILDING contracts in the first five months edged slightly ahead of last year, rising one per cent to $6.2 billion. Most of the strength so far this year has come from the apartment building sector where contracts showed a dramatic gain of 30 per cent. Single family houses have scored some gains in the most recent months but for the five-month period were down six per cent. The non-housekeeping sector helped to boost the residential total, with contracts for hotels and dormitories showing sharp increases over a year ago.

HEAVY ENGINEERING contracts provided the main upward push in the first five months, exceeding comparable year-earlier levels by 11 per cent. Chief factors in the rise were a 40 per cent gain in electric light and power system contracts, plus a fairly strong showing in contracts for highways, sewerage systems, water supply systems and pipelines.

THE HIGH LEVEL of contract awards early this year implies continued strength in construction activity for many months to come.

EDWIN W. MAGEE JR., *Economist*
F. W. Dodge Corporation
A McGraw-Hill Company





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Construction Cost Indexes

Presented by Clyde Shute, Director of Statistical Policy, Construction News Div., F. W. Dodge Corp., from data compiled by E. H. Boeckh & Assoc. Inc.

Labor and Materials: U.S. average 1926-1929=100

NEW YORK

PERIOD	RESIDENTIAL Brick	RESIDENTIAL Frame	APTS., HOTELS, OFFICE BLDGS. Brick and Concrete	COMMERCIAL AND FACTORY BLDGS. Brick and Concrete	COMMERCIAL AND FACTORY BLDGS. Brick and Steel
1930	127.0	126.7	124.1	128.0	123.6
1935	93.8	91.3	104.7	108.5	105.5
1939	123.5	122.4	130.7	133.4	130.1
1949	243.7	240.8	242.8	246.6	240.0
1950	256.2	254.5	249.5	251.5	248.0
1951	273.2	271.3	263.7	274.9	271.8
1952	278.2	274.8	271.9	265.2	262.2
1953	281.3	277.2	281.0	286.0	282.0
1954	285.0	278.2	293.0	300.6	295.4
1955	293.1	286.0	300.0	308.3	302.4
1956	310.8	302.2	320.1	328.6	324.5
1957	318.5	308.3	333.1	345.2	339.8
1958	328.0	315.1	348.6	365.4	357.3
1959	342.7	329.0	367.7	386.8	374.1
1960	351.6	337.2	377.7	395.8	380.6
March 1961	356.5	339.9	386.6	407.7	386.0
April 1961	357.4	340.2	387.9	409.5	387.8
May 1961	362.3	342.1	396.8	422.0	396.4
	% increase over 1939				
May 1961	193.4	179.5	203.6	216.3	204.7

ATLANTA

PERIOD	RESIDENTIAL Brick	RESIDENTIAL Frame	APTS., HOTELS, OFFICE BLDGS. Brick and Concrete	COMMERCIAL AND FACTORY BLDGS. Brick and Concrete	COMMERCIAL AND FACTORY BLDGS. Brick and Steel
1930	82.1	80.9	84.5	86.1	83.6
1935	72.3	67.9	84.0	87.1	85.1
1939	86.3	83.1	95.1	97.4	94.7
1949	189.3	189.9	180.6	180.8	177.5
1950	194.3	196.2	185.4	183.7	185.0
1951	212.8	214.6	204.2	202.8	205.0
1952	218.8	221.0	212.8	210.1	214.3
1953	223.0	224.6	221.3	221.8	223.0
1954	219.6	219.1	233.5	225.2	225.4
1955	225.3	225.1	229.0	231.5	231.8
1956	237.2	235.7	241.7	244.4	246.4
1957	241.2	239.0	248.7	252.1	254.7
1958	243.9	239.8	255.7	261.9	262.0
1959	252.2	247.7	266.1	272.7	273.1
1960	259.2	253.3	274.7	282.5	278.8
March 1961	258.4	251.1	276.4	285.1	278.6
April 1961	256.8	250.1	275.2	284.0	277.6
May 1961	256.2	249.1	275.3	284.2	274.9
	% increase over 1939				
May 1961	196.9	199.7	189.5	191.8	190.3

ST. LOUIS

1930	108.9	108.3	112.4	115.3	111.3
1935	95.1	90.1	104.1	108.3	105.4
1939	110.2	107.0	118.7	119.8	119.0
1949	221.4	220.7	212.8	215.7	213.6
1950	232.8	230.7	221.9	225.3	222.8
1951	252.0	248.3	238.5	240.9	239.0
1952	259.1	253.2	249.7	255.0	249.6
1953	263.4	256.4	259.0	267.0	259.2
1954	266.6	260.2	263.7	273.3	266.2
1955	273.3	266.5	272.2	281.3	276.5
1956	288.7	280.3	287.9	299.2	293.3
1957	292.0	283.4	295.2	307.1	302.9
1958	297.0	278.9	304.9	318.4	313.8
1959	305.4	296.4	315.0	329.8	323.9
1960	311.4	301.0	322.2	337.2	329.2
March 1961	313.0	300.7	326.1	343.1	330.7
April 1961	313.6	300.9	326.2	343.3	331.0
May 1961	316.1	302.9	329.1	347.6	332.1
	% increase over 1939				
May 1961	186.8	183.1	177.2	190.1	179.1

SAN FRANCISCO

1930	90.8	86.8	100.6	104.9	100.4
1935	89.5	84.5	96.4	103.7	99.7
1939	105.6	99.3	117.4	121.9	116.5
1949	213.0	207.1	214.0	219.8	216.1
1950	227.0	223.1	222.4	224.5	222.6
1951	245.2	240.4	239.6	243.1	243.1
1952	250.2	245.0	245.6	248.7	249.6
1953	255.2	257.2	256.6	261.0	259.7
1954	257.4	249.2	264.1	272.5	267.2
1955	268.0	259.0	275.0	284.4	279.6
1956	279.0	270.0	288.9	298.6	295.8
1957	286.3	274.4	302.9	315.2	310.7
1958	289.8	274.9	311.5	326.7	320.8
1959	299.2	284.4	322.7	338.1	330.1
1960	305.5	288.9	335.3	352.2	342.3
March 1961	306.2	288.9	338.0	355.8	344.6
April 1961	306.9	289.6	338.9	355.8	344.6
May 1961	310.7	290.7	347.1	367.4	353.7
	% increase over 1939				
May 1961	194.2	192.7	195.6	201.4	203.6

Cost comparisons, as percentage differences, for any particular type of construction, are possible between localities, or periods of time within the same city, by dividing the difference between the two index numbers by one of them; i.e.:

index for city A = 110
index for city B = 95

(both indexes must be for the same type of construction).

Then: costs in A are approximately 16 per cent higher than in B.

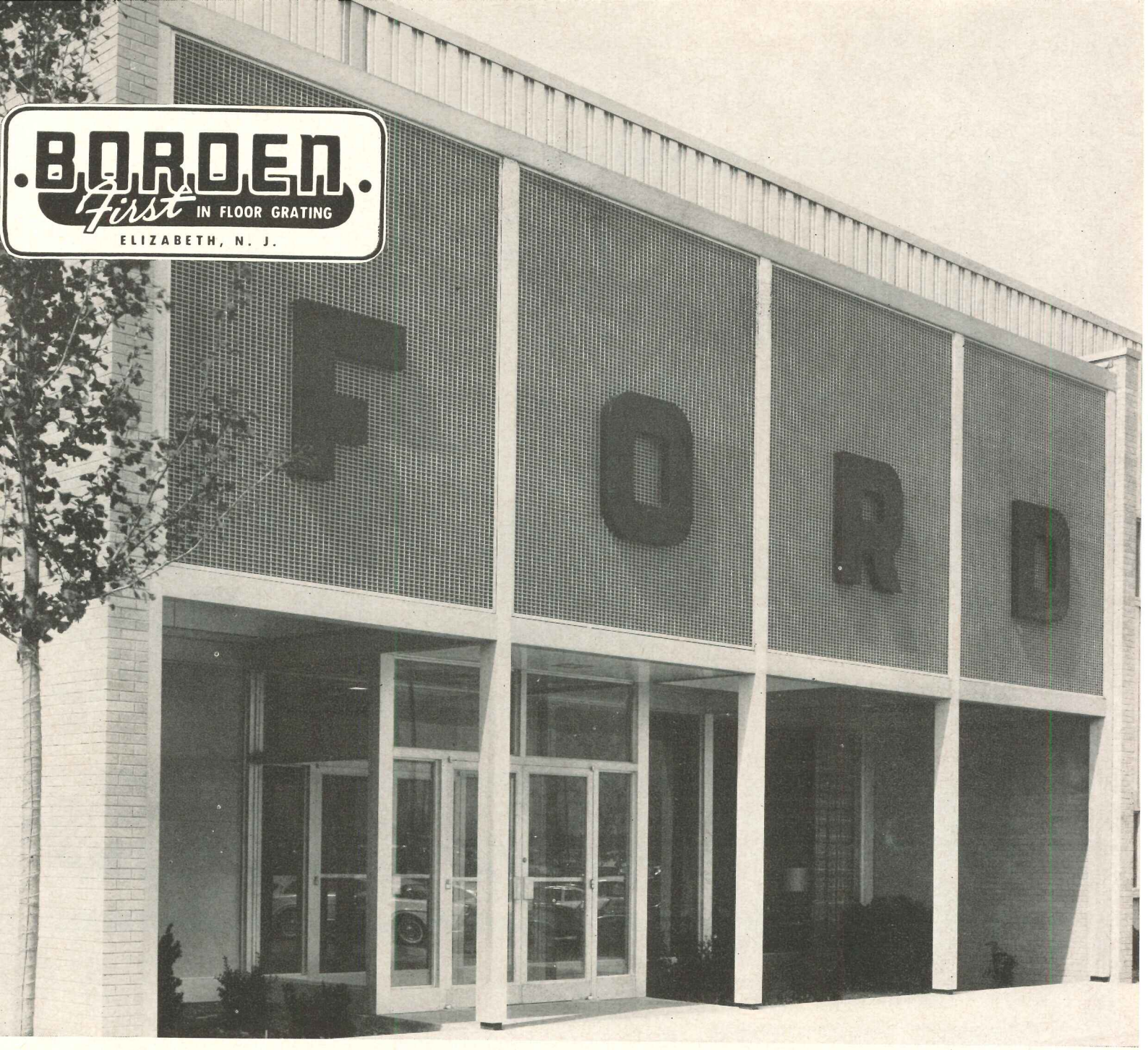
$$\frac{110-95}{95} = 0.158$$

Conversely: costs in B are approximately 14 per cent lower than in A.

$$\frac{110-95}{110} = 0.136$$

Cost comparisons cannot be made between different types of construction because the index numbers for each type relate to a different U. S. average for 1926-29.

Material prices and wage rates used in the current indexes make no allowance for payments in excess of published list prices, thus indexes reflect minimum costs and not necessarily actual costs.



BORDEN ARCHITECTURAL DECOR PANELS

Now Borden brings a new building component to the architect—durable light-weight aluminum panels which can be custom-styled in an infinite variety of forms and designs. For example, the extruded type shown here can be had with design punchings of squares, circles, ovals or combinations of curves and straight lines.

The new Architectural Decor Panels by Borden are an extremely flexible medium, allowing the architect a rare freedom of expression in designing facades to blend with the nature of the building, its setting, and the preferences of his client. The dramatic effects achieved with this new material are being discovered daily; additionally, these panels are unexcelled for sturdiness, economy, ease of handling and installation, and ventilation.

Not limited to facades, the Borden Architectural Decor Panels are used as interior partitions, grilles, window guards, stair rails, doors, entryways, sunshades, and are especially adaptable in the refacing of existing buildings.

Write today for our folder on Borden Architectural Decor Panels.

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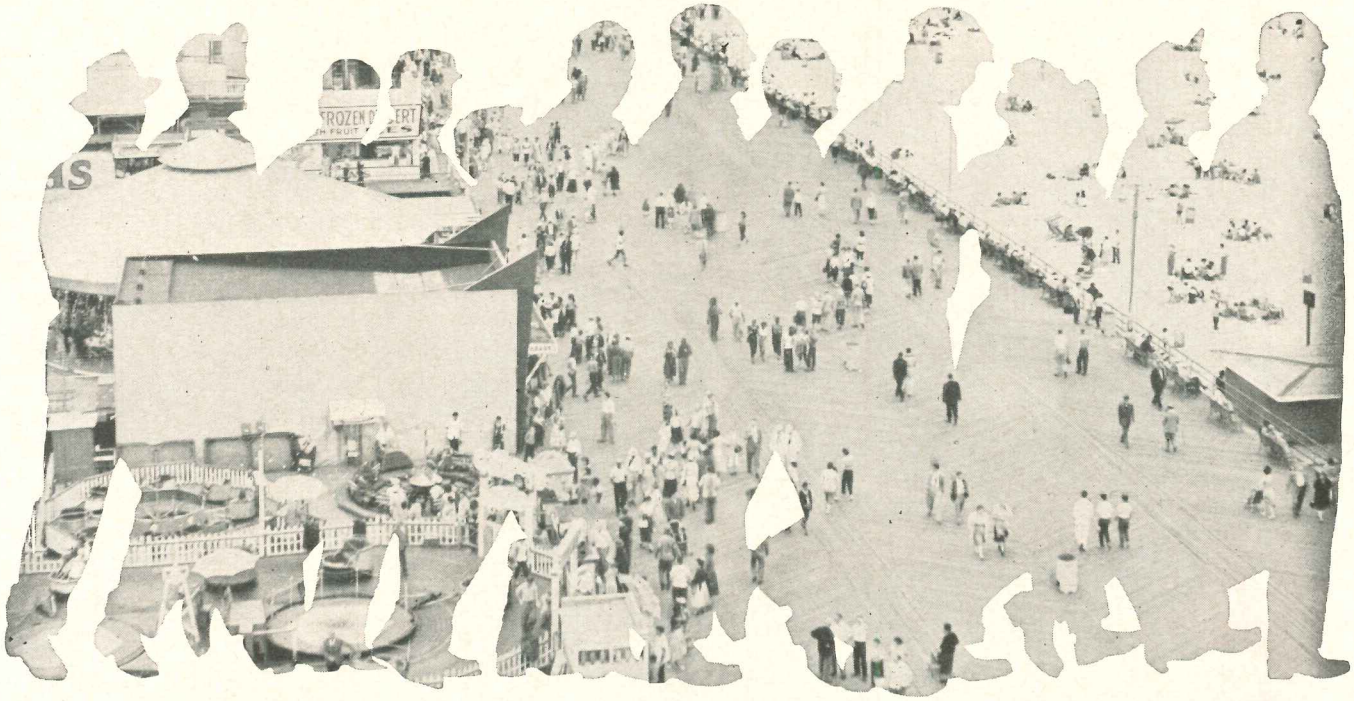
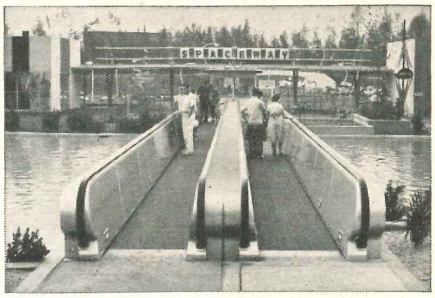
PLANTS AT: LEEDS, ALABAMA; UNION, NEW JERSEY; CONROE, TEXAS

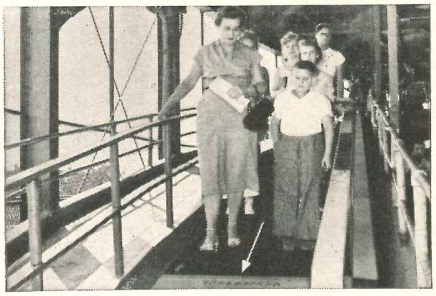
ELIMINATE PEDESTRIAN TRAFFIC PROBLEMS!





SPEEDWALK PASSENGER CONVEYOR SYSTEM
FREEDOMLAND, NEW YORK

SPEEDRAMP PASSENGER CONVEYOR SYSTEM
SAN DIEGO ZOO, SAN DIEGO, CALIF.



SPEEDRAMP PASSENGER CONVEYOR SYSTEM
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People can move smoothly, safely and conveniently in Amusement Centers via

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Modern superhighways and other convenient time-saving methods of transportation have given greater access to parks and amusement centers across the nation. Increasing multitudes of people flock to these areas for enjoyment and relaxation during their leisure hours. Now our parks and amusement centers are faced with growing pedestrian traffic problems.

SPEEDWALK (horizontal travel) and SPEEDRAMP (inclined travel) Passenger Conveyor Systems eliminate pedestrian traffic problems.

With installations from coast to coast and abroad or wherever SPEEDWALK and SPEEDRAMP Conveyors have been applied, people move smoothly, conveniently and safely from point to point. Areas of pedestrian congestion are converted into free-flowing, foot-saving avenues of transportation. Graphic examples of these applications are shown at left.

The beauty of this most modern method of pedestrian movement does not lie in the design of the units alone, but in the application itself. SPEEDWALK and SPEEDRAMP Conveyors can be easily applied to new park and amusement centers as well as to existing facilities to bring them up to date. Initial costs are 20% to 30% less than "moving-stair" type conveyances. The units operate with equal ease indoors or outside. Less moving parts assure less "downtime" and lower maintenance costs. Your planning won't be complete until you have investigated full details.

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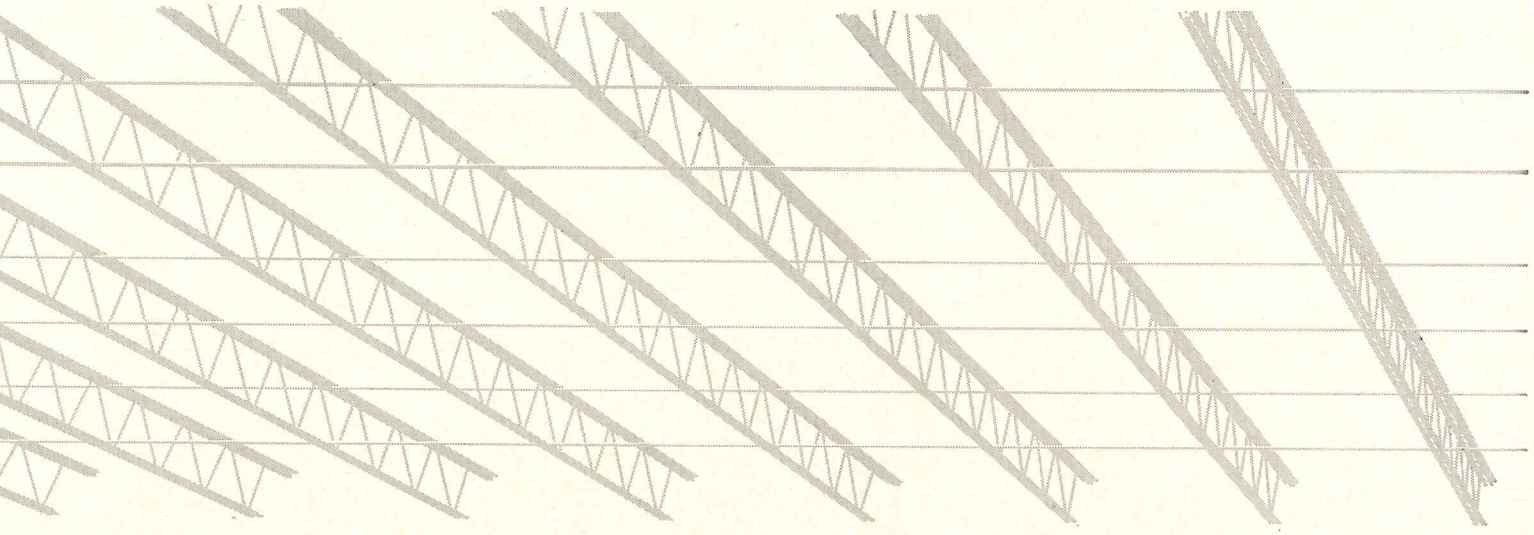
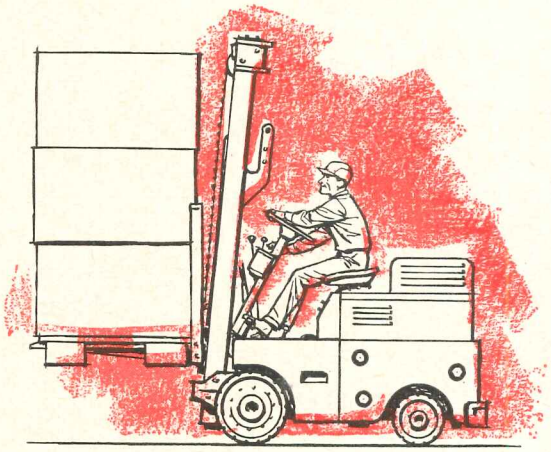


WHAT HAPPENED TO ALL THE POSTS ?



JOISTOLOGY* ELIMINATED THEM!

In the modern school or warehouse the fewer interior supporting posts or columns, the better. Clear, unobstructed floor space means more light, flexibility and storage area.

Designers, engineers and builders have found open web steel joists the practical way to span large open areas and still keep them open. These steel joists can bear heavy loads without intermediate support, with complete safety. What's more, they're lightweight, even in the largest sizes and spans, low in cost, and extremely easy to install. They adapt themselves readily to a variety of architectural styles.

Learn more about these handy structural members. Write to the Steel Joist Institute for descriptive literature on design, performance and applications.

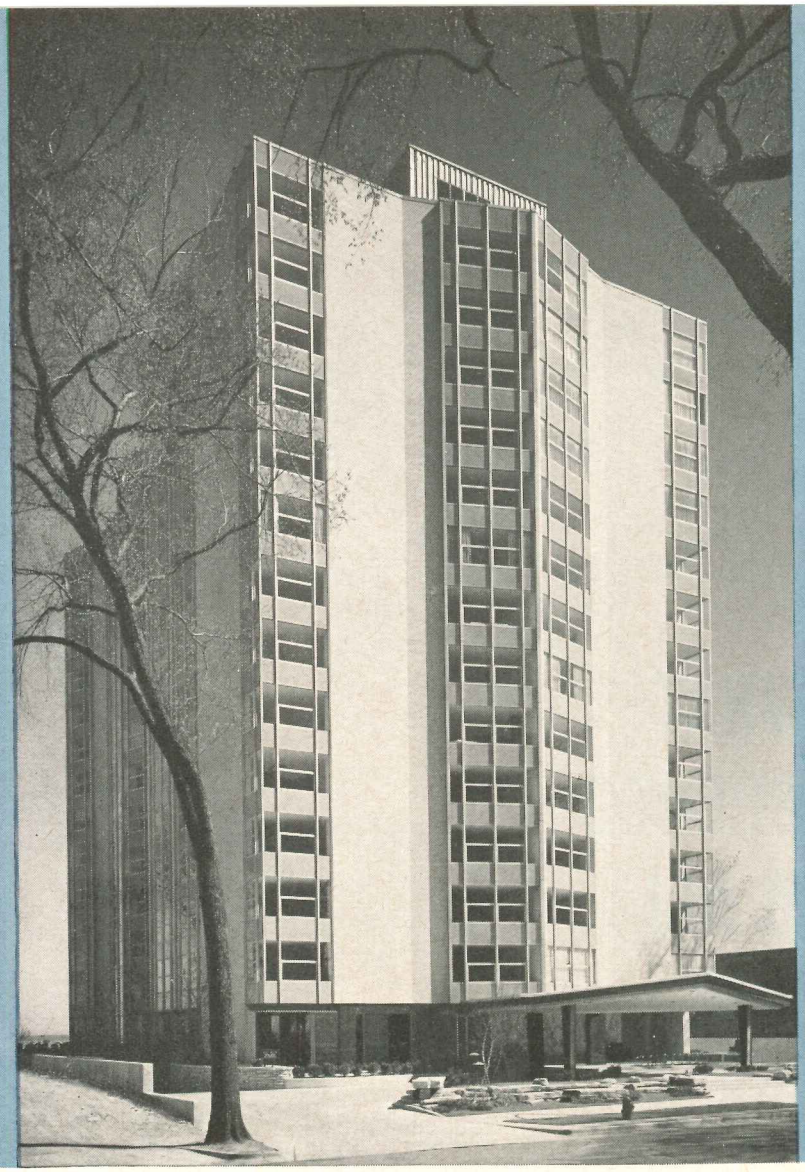
***Joist-ol-o-gy, N.** (As Webster *should have* defined it.) The art or science of designing and building more economical structures through the use of open web steel joists.

6106

STEEL JOIST APPROVED INSTITUTE

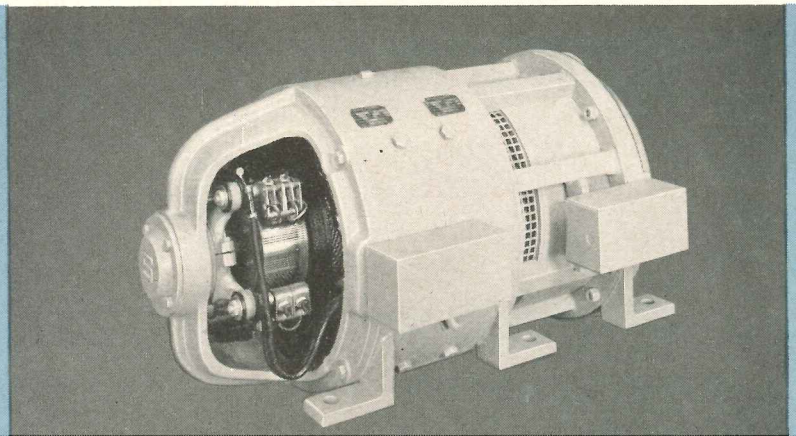
Steel

Another in a series of advertisements placed in the public interest by the STEEL JOIST INSTITUTE, DuPont Circle Bldg., Washington 6, D.C.



Attention to detail

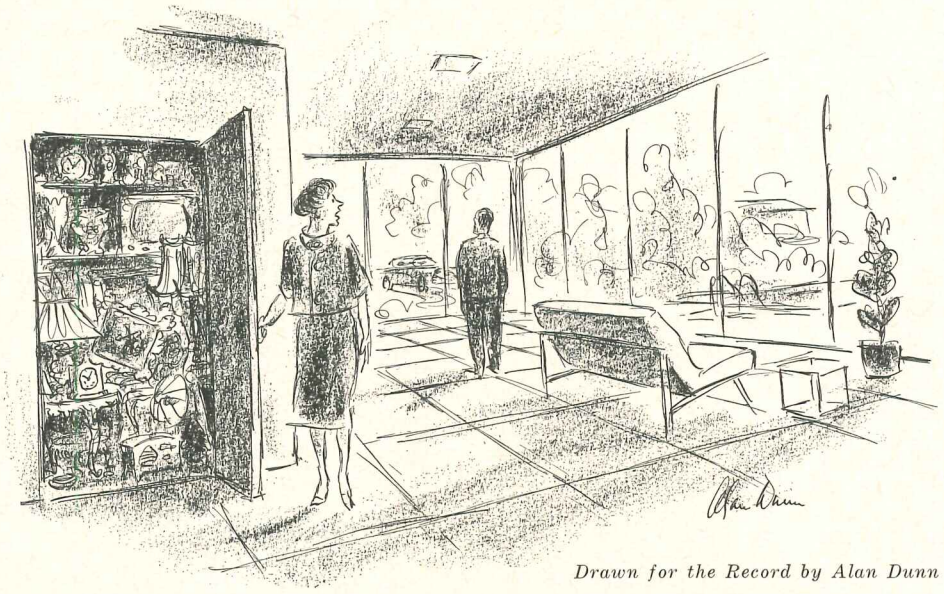
THIS elegant Milwaukee apartment building was designed to accommodate people who want and appreciate the finest. It was important, therefore, that every element be carefully considered and that materials and equipment be selected with particular attention to detail. Geared automatic elevators were supplied by Dover Corporation's Elevator Division (formerly Shepard Elevator Co.). Every major component of these modern vertical transportation systems is built with careful attention to detail to insure dependability. The Motor-Generator Set (photo below) has a dynamically balanced rotor for smooth, quiet operation plus other features developed or improved on by Dover in 100 years of elevator manufacturing experience. Give your clients the benefit of a Dover bid on your next elevator job. See our catalog in Sweet's Files or write Dover Corporation, Elevator Division, 1138 Kansas, Memphis 2, Tennessee.



DOVER ELEVATORS

FINE ELEVATORS SINCE 1861

DOVER



Drawn for the Record by Alan Dunn

"Have the photographers gone?"

N.A.A.B. Announces List of 51 Accredited Schools

According to the list of Accredited Schools of Architecture issued by the National Architectural Accrediting Board, Arizona State University has achieved provisional accreditation.

The 1961-1962 list is as follows:

Arizona State University—B. Arch. (Provisional); *University of Arkansas*—B. Arch.; *Auburn University*—B. Arch.; *University of California*—B. Arch.; *Carnegie Institute of Technology*—B. Arch.; *Catholic University*—B. Arch.; *University of Cincinnati*—B.S. in Arch.; *Clemson A. & M. College*—B. Arch.; *Columbia University*—B. Arch.; *Cornell University*—B. Arch.; *University of Florida*—B. Arch.; *Georgia Institute of Technology*—B. Arch.

Harvard University—B. Arch.; *University of Houston*—B. Arch.; *Howard University*—B. Arch.; *Illinois Institute of Technology*—B. Arch.; *University of Illinois*—B. Arch.; *Iowa State University*—B. Arch.; *Kansas State University*—B. Arch.; *University of Kansas*—B.S. in Arch.; *Massachusetts Institute of Technology*—B. Arch.; *Miami University*—B. Arch.; *University of Michigan*—B. Arch; *University of Minnesota*—B. Arch.; *Montana State College*—B. Arch.; *University of Nebraska*—B. Arch.

North Carolina State College—B. Arch.; *University of Notre Dame*—B. Arch.; *Ohio State University*—B. Arch; *Oklahoma State University*—B. Arch.; *University of Olkahoma*—B. Arch.; *University of Oregon*—B. Arch.; *Pennyslvania State University*—B. Arch.; *University of Pennsylvania*—B. Arch.; *Pratt Institute*—B. Arch.

Princeton University—M.FA. in Arch.; *Rensselaer Polytechnic Institute*—B. Arch.; *Rhode Island School of Design*—B.S. in Arch.; *University of South California*—B. Arch.; *Syracuse University*—B. Arch.; *Texas A. & M. College*—B. Arch.; *Texas Technological College*—B. Arch.; *University of Texas*—B. Arch.; *Tulane University*—B. Arch.; *University of Utah*—B. Arch.; *Virginia Polytechnic Institute*—B. Arch.; *University of Virginia*—B. Arch.; *Washington University*—B. Arch.; *University of Washington*—B. Arch.; *Western Reserve University*—B. Arch. (Provisional); *Yale University*—B. Arch.

New York State Creates Building Code Council

Governor Rockefeller has appointed six representatives of the construction industry to serve on the newly-created State Building Code Council of New York State. The seven-member Council, headed by Commissioner of Housing and Community Renewal Gaynor, will exercise the code functions formerly administered by the State Building Code Commission.

The appointments, subject to confirmation by the State senate when it reconvenes, are as follows: Allen L. Cobb, Rochester industrial safety expert; Donald Q. Faragher, Rochester architect; Charles F. Haring Jr., White Plains home builder; Thomas H. McKaig, Buffalo consulting engineer; Thomas A. Murphy, Syracuse plumbing contractor; and James A. Norris Sr., Elmira building contractor.

Hauf Leaves R.P.I., Joins Charles Luckman

Harold D. Hauf, dean of the School of Architecture at Rensselaer Polytechnic Institute, Troy, N.Y., has been named vice president in charge of design and planning for Charles Luckman Associates, Los Angeles planning - architecture - engineering firm. He will assume his duties there on July 1st.

Succeeding Dean Hauf as acting dean of R.P.I. is Professor Donald Mochon of Troy, N.Y.

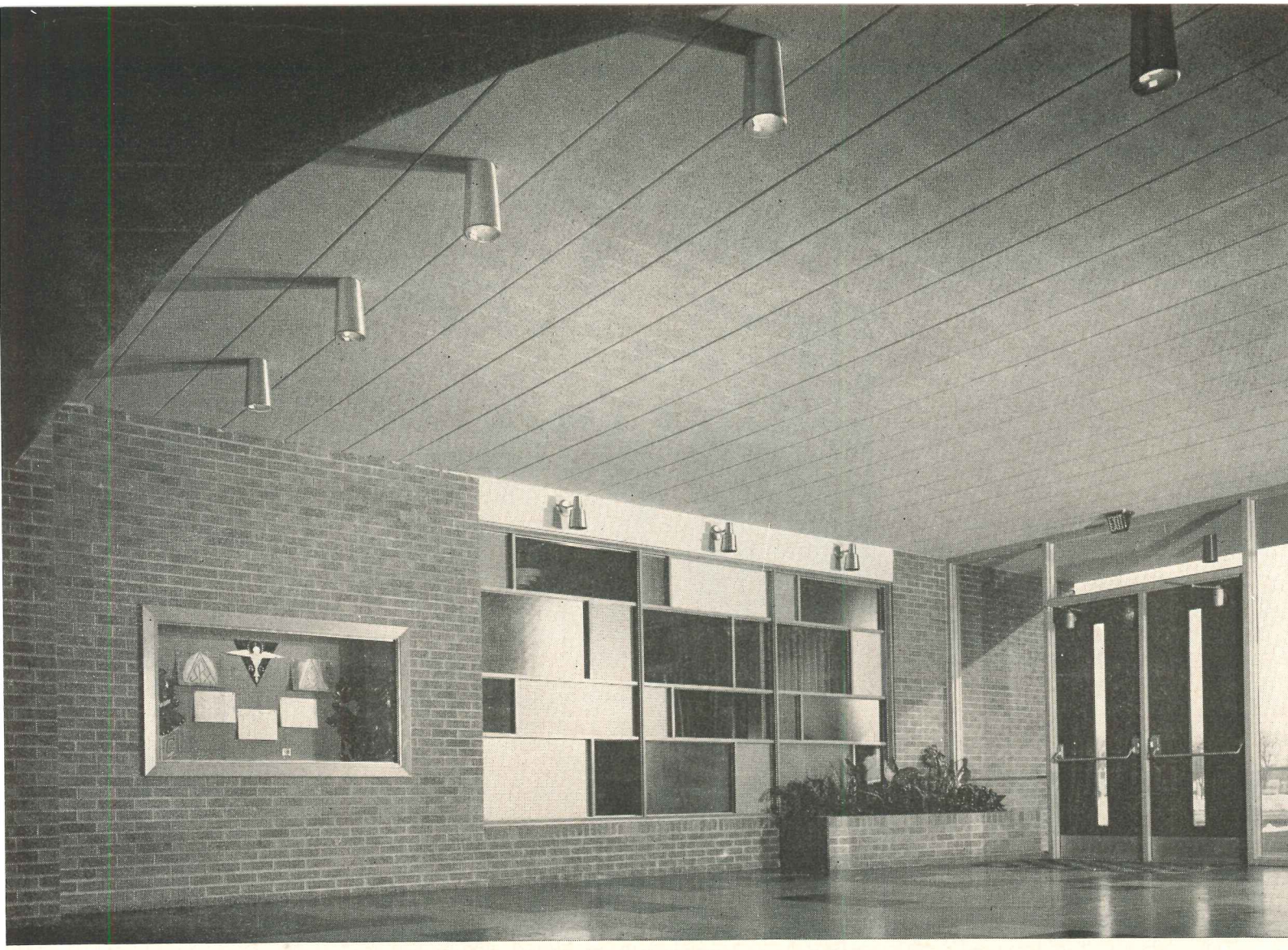
Einaudi Wins Material Service Foundation Fellowship

Robert Einaudi, Ithaca, N.Y., has won a $2500 fellowship established last year by the Material Service Foundation, a branch of Material Service Division of General Dynamics Corp., which annually finances the scholarship to further research in new uses of concrete and masonry.

A Cornell University graduate, Mr. Einaudi will begin graduate studies at the Massachusetts Institute of Technology in advanced uses of concrete. His studies will involve both the structural and non-structural value of pre-cast concrete, its uses in conjunction with masonry, as well as a thorough study of cost differences in pre-casting, erection and joining techniques.

The award was sponsored by the Chicago Chapter of the Institute and its Educational Committee who chose a jury of distinguished citizens of the building industry and architectural profession. The jury made the selection from over 50 applicants across the U.S. on the basis of high scholastic rating and their stated research aims in the field of developing new architectural forms in concrete.

continued on page 46



Flush block ceiling blends well with other masonry. Long unbroken spans.

SAFE, ECONOMICAL FLOOR AND ROOF SYSTEMS

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FIRE safe floor and roof systems of concrete block deliver safety first where safety counts—in homes, schools, hospitals and industrial buildings. Combines beauty and practicality. Construction is faster. Provides natural insulation against changing weather conditions. Assures better acoustics. Can be painted or left exposed. Your local NCMA member can give you complete information on the types of systems available.

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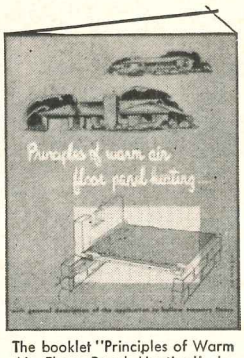
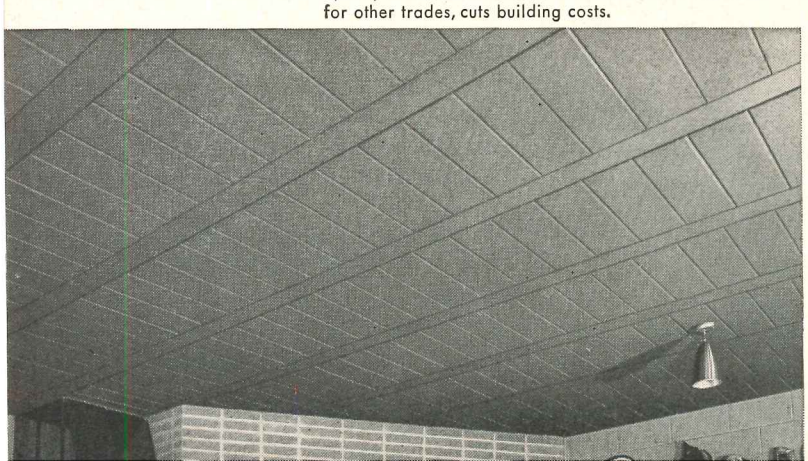
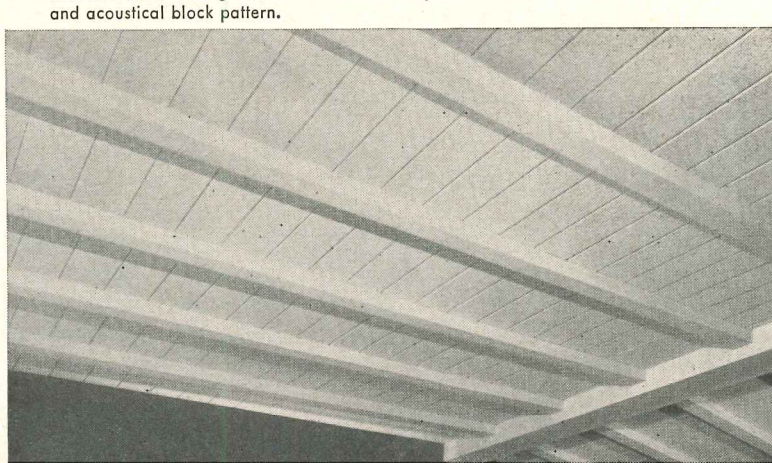


The booklet "Principles of Warm Air Floor Panel Heating" describes how heating systems are particularly adaptable to concrete block floor and roof systems. For your copy, write us direct, enclosing 20c to cover postage and handling.

Speedy erection immediately forms a dry working area for other trades, cuts building costs.



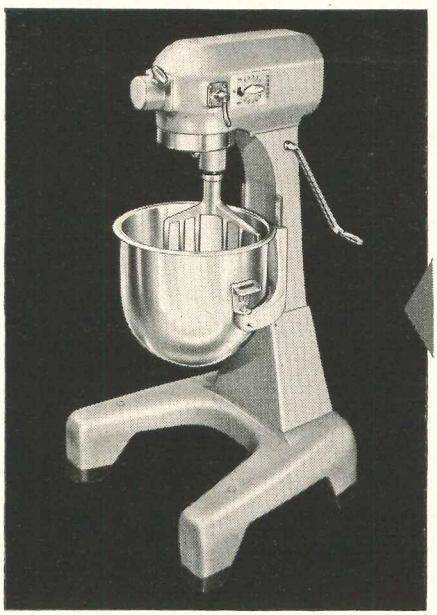
Recessed block ceiling delivers a handsome exposed beam and acoustical block pattern.



MORE NEW

PRODUCT DEVELOPMENTS by Hobart

Here are the newest kitchen machine developments by Hobart, all field-tested and perfected to deliver greater savings per serving. They are the result of the constant market and engineering research and product progress that make Hobart machines a wise specification for food-service efficiency.

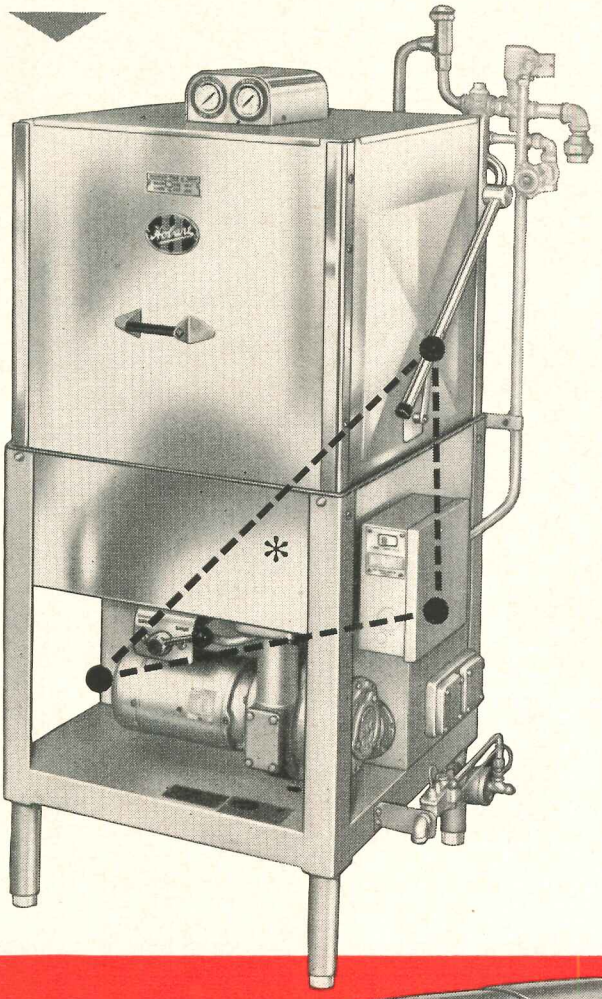


NEW 20-QUART FLOOR TYPE MIXER. The most popular bench mixer ever built is now also available as a floor-type mixer—the Hobart A-200-F. Here is efficient working height with the space-saving and convenience of floor operation, plus the Hobart 20-qt. mixer.

The new A-200-F incorporates all the performance-proved Hobart mixer features—positive drive, positive speeds, positive Hobart planetary action—that assure positive results. Clean-lined design assures the utmost in sanitation. All controls centralized. This mixer is also available with timed operation and stainless metal finish.

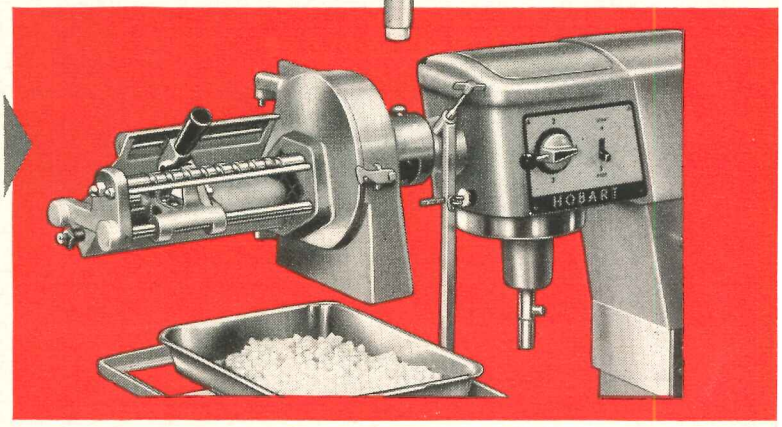
NEW AM SERIES DISHWASHERS WITH THE TimeSaver Triangle *

A new high in dishwashing performance and convenience. Revolutionary door lift—no chains, pulleys or door weights inside or out. You can raise the doors with your finger tips—it's that easy. Drain control is raised to convenient working height—stooping is part of the past. Waist-high wash-and-rinse control switch completes the TimeSaver Triangle—making operation faster and easier. Many more features, such as removable stainless steel rack tracks, sanitary legs, eye-level thermometers, high-efficiency motor and pump, and more. The biggest surprise: the low original and ultimate cost. Available for straight-through or corner installation.



NEW POWER DICER ATTACHMENT. Here's new versatility for a Hobart mixer or food cutter—the new Power Dicer attachment. Now vegetables can be diced (also firm fruits like apples) and French fries cut as efficiently as with machines costing hundreds of dollars more! Top dicing quality and productivity—without sacrificing valuable work space. Several sizes of grids available—readily adaptable for ½", ⅜", or ¼" dicing or slicing. Smooth lines make cleaning easy.

ATTACHMENT TRAY SUPPORT. Available for use on Hobart mixers and food cutters when using attachments. Attaches and detaches in seconds, stores easily out of the way.



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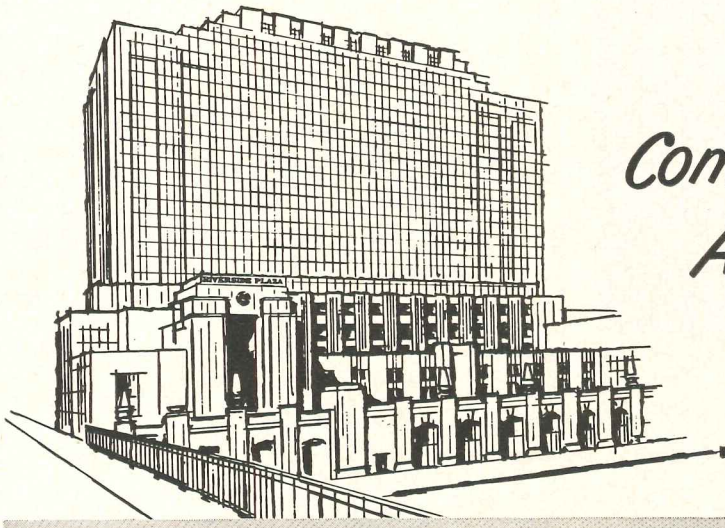
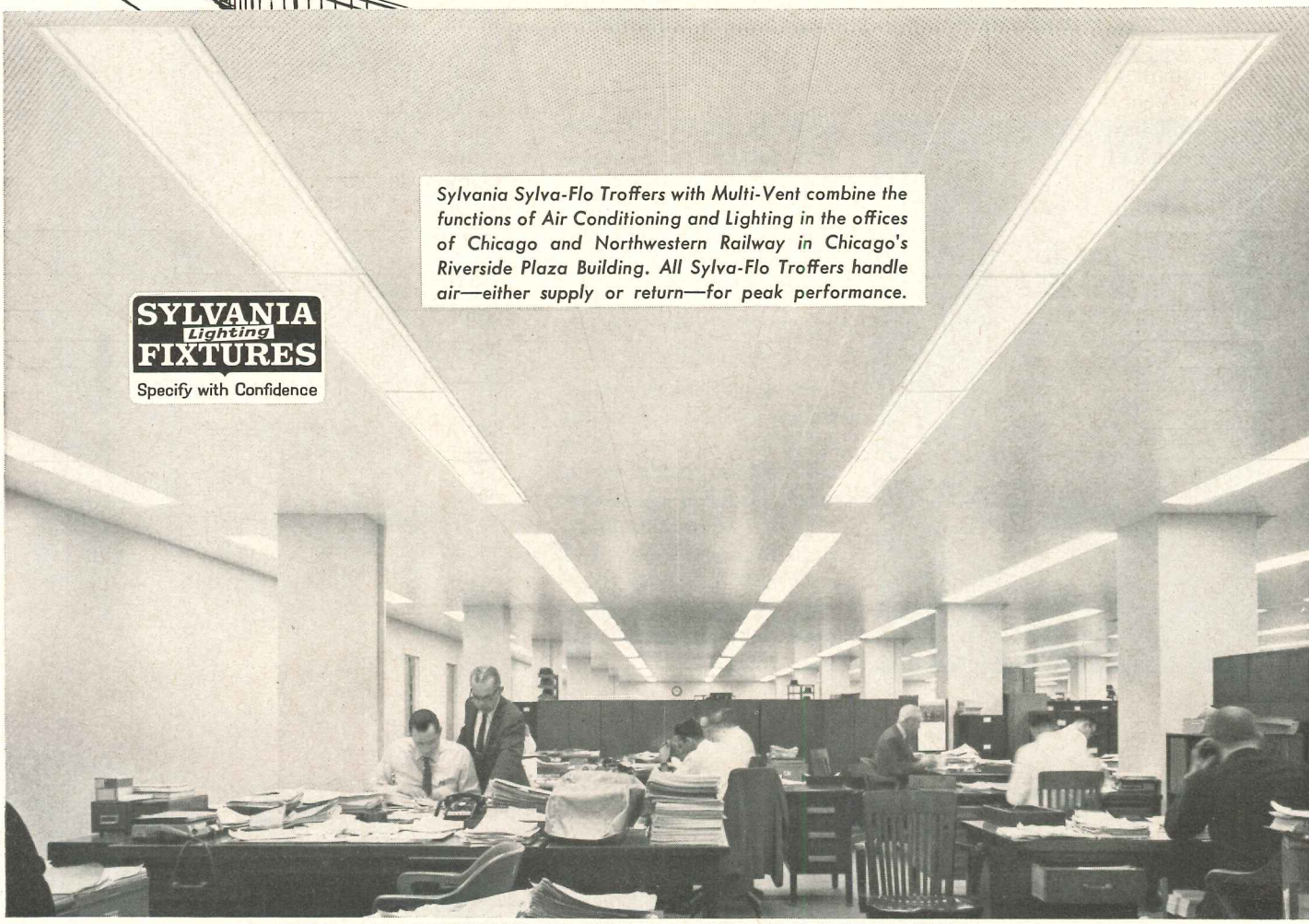


Combining Lighting and Air Conditioning from One Efficient Unit....



Sylvania Sylva-Flo Troffers with Multi-Vent combine the functions of Air Conditioning and Lighting in the offices of Chicago and Northwestern Railway in Chicago's Riverside Plaza Building. All Sylva-Flo Troffers handle air—either supply or return—for peak performance.

SYLVANIA Lighting FIXTURES
Specify with Confidence

DATA AND HIGHLIGHTS OF SYLVANIA SYLVA-FLO INSTALLATION

Name of Installation	Riverside Plaza Building, Chicago
Size of Installation	26 Floors (536,000 sq. ft.)
Number of Sylva-Flo units	Over 10,000
Function of Sylva-Flo Troffers	Lighting, Cooling, Temperate Heating
Ceiling Type	Metal Pan Acoustical
Ceiling Height	8′ 0″
Lamps per Troffer	Two 40-watt Rapid Start, Cool White
Shielding	Skytex Glass
Troffer Spacing	7′ 0″
Number of "Supply" Troffers / Number of "Return" Troffers	Ratio is approximately one "Supply" to one "Return."
Average Lighting Level (Measured)	70 Footcandles
Air handled by each unit	Interior units—72 CFM; Perimeter units—80 CFM
Architect-Engineer	Graham, Anderson, Probst & White, Chicago
Architect	William Heinkel
Mechanical Engineer	John Maras
Electrical Engineer	K. R. McGinnis
General Contractor	Sherman Olson Inc., Chicago
Electrical Contractor	Hyre Electric Co., Chicago
Mechanical Contractor	O. A. Wendt, Chicago

Sylvania's SYLVA-FLO Troffer with Multi-Vent to Provide All-Round Comfort for 25,000 Persons in Chicago's RIVERSIDE PLAZA OFFICE BUILDING

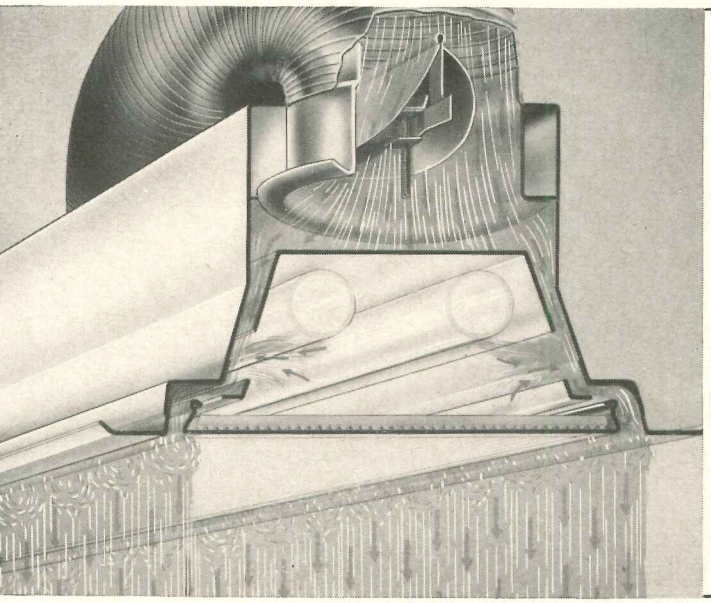
Occupants of Chicago's newly-remodeled Riverside Plaza will work in a quiet, well-lighted, comfortable atmosphere . . . thanks largely to Sylvania's Sylva-Flo Troffers with Multi-Vent. The 26 floors of this handsome office building will have lighting and air conditioning provided by Sylvania's efficient, attractive combination troffers.

All persons concerned with this installation have expressed satisfaction with the Sylva-Flo Troffers—the architect-engineer because of the appearance and effect in the completed offices; the contractors for the ease of installation and balancing air; and the building owner because of the economical cost and the all-round 'fresh air' comfort and balanced lighting.

Use this installation as a guide and check into the advantages of Sylvania's Sylva-Flo Troffers for your next new or remodeling project. Ask to see a sample unit. See for yourself the special features that make this fixture so advantageous from the standpoint of architect, engineer, contractor and user.

These features are completely discussed and illustrated in our new 20-page "Sylva-Flo" booklet. For your free copy, simply write to:

SYLVANIA LIGHTING PRODUCTS
A Division of SYLVANIA ELECTRIC PRODUCTS INC.
One 48th Street, Wheeling, West Virginia



SYLVANIA'S SYLVA-FLO TROFFER PROVIDES THESE ADVANTAGES IN ANY INSTALLATION

- The combination of quality lighting and air-handling.
- As much as 20% more light output.
- *Superior* air conditioning with the Multi-Vent System.
- Longer ballast life.
- Truer lamp color.
- Clean, uncluttered ceiling.
- Twin panels of soft light blend combination troffer with ceiling.
- Less maintenance.
- Quiet operation.
- Flexible, low-cost installation.
- Economical operation.
- Simple adjustment.
- Choice of shielding.
- Versatility of troffer widths and lengths.
- Selection of troffer housing to fit ceiling type.

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SUBSIDIARY OF
GENERAL TELEPHONE & ELECTRONICS

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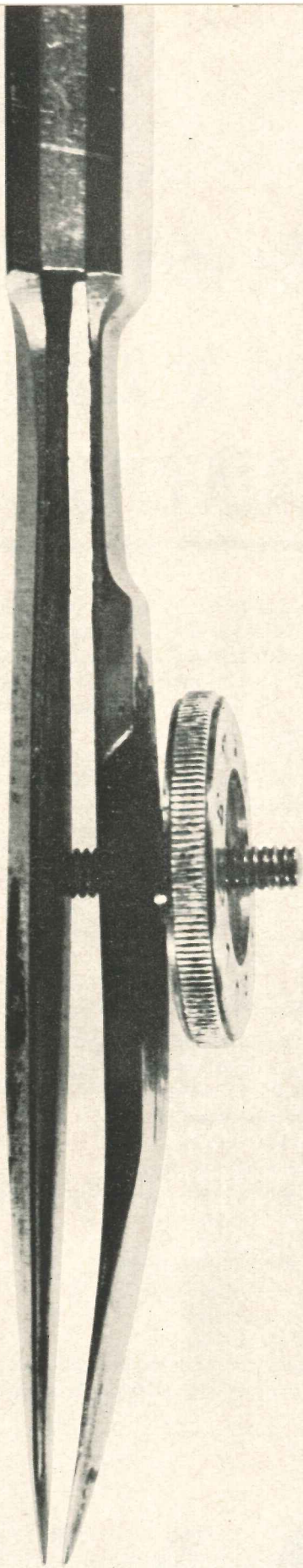

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You get *more* from American

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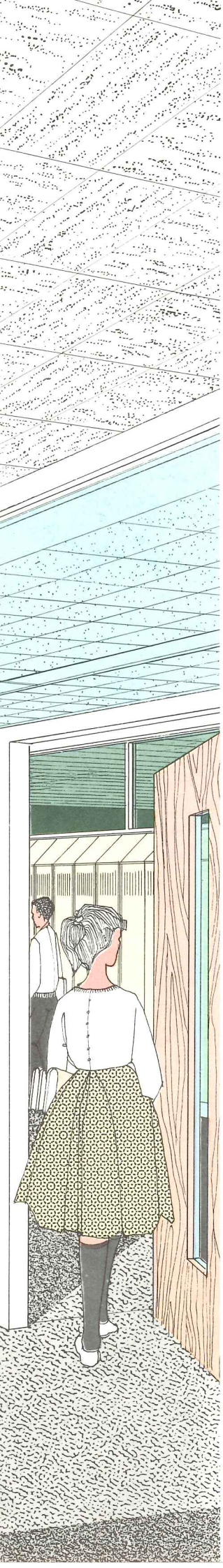
Jacoby



How Armstrong Acoustical Fire Guard cut ceiling costs on this Ohio school by 53¢ a square foot. Saved: $56,069

ON THE LEFT you see a Helmut Jacoby rendering of the new Valley Forge High School, Parma Heights, Ohio. To meet the specifications of Architects Fulton, Dela Motte, Larson, Nassau & Associates, of Cleveland, ceilings in the school had to perform two major functions —provide acoustical treatment and meet a two-hour fire code requirement.

Specifications called for Armstrong Acoustical Fire Guard or an alternative of acoustical tile cemented to plaster. The firm which was awarded the contract submitted a bid showing that Acoustical Fire Guard would cost $56,069 *less* than the alternate. This represented a saving of 53¢ per square foot since 105,000 square feet of Acoustical Fire Guard ceilings were specified.

Widest Range of Time-Design Ratings

Acoustical Fire Guard, available in both 12 x 12 inch tile and 24 x 48 inch lay-in units, offers you more than significant savings like this. To date, eleven different floor and ceiling assemblies incorporating Acoustical Fire Guard ceilings have been tested at Underwriters' Laboratories, Inc. Ratings of from one to four hours are available within these eleven assemblies. Therefore, Fire Guard offers you the widest available range of UL time-design ratings for fire-retardant acoustical tile and lay-in ceiling systems.

Accepted by Code Authorities

The variety of floor-and-ceiling assemblies, incorporating Acoustical Fire Guard ceilings, will suit most forms of construction. This gives you more flexibility in the selection of UL rated fire-retardant acoustical ceilings. Since Acoustical Fire Guard has been meeting rigid fire code requirements across the nation for more than two years, it is widely recognized by local fire code authorities.

Also, Acoustical Fire Guard tile and lay-in units can be combined effectively in different areas of the same project. This is because both offer the popular Fissured and Classic surface patterns. And the factory-finished surface requires no painting and a minimum of maintenance.

Phone Your Armstrong Acoustical Contractor

From one construction project after another comes proof that Armstrong Acoustical Fire Guard can sharply reduce your ceiling construction costs. To learn more about how Acoustical Fire Guard will meet your design requirements, and at the same time save money, call your Armstrong Acoustical Contractor (he's in the Yellow Pages under "Acoustical Ceilings"), your nearest Armstrong District Office, or write to Armstrong Cork Company, 4208 Rock Street, Lancaster, Pa.

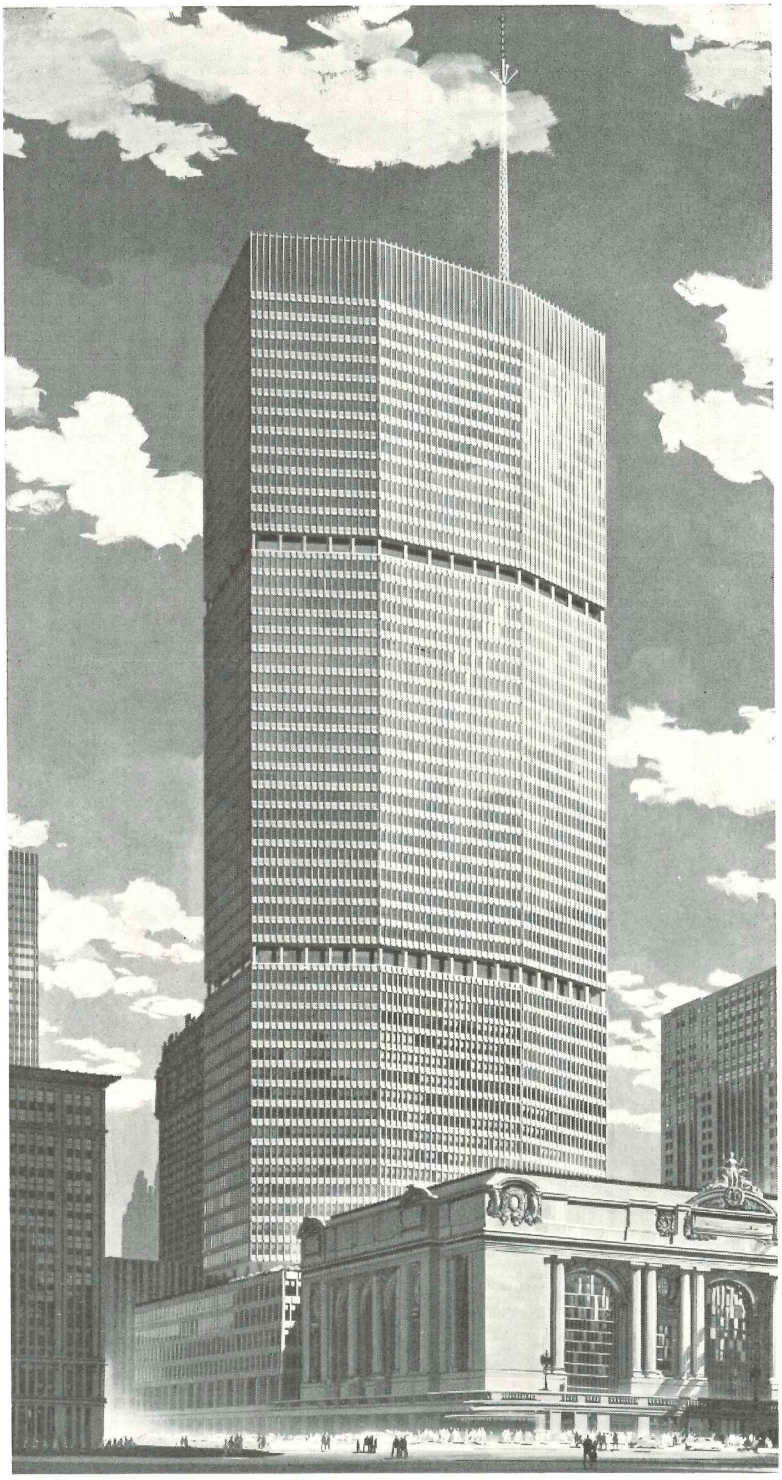
Here are 9 Acoustical Fire Guard UL ratings most frequently used to meet fire code requirements

FIRE GUARD LAY-IN		FIRE GUARD TILE	
Floor & Ceiling Design	Rating	Floor & Ceiling Design	Rating
#30	2-hr. (Beam—3-hr.)	#31	4-hr.
		#21	4-hr.
#13	2-hr. (Beam—3-hr.)	#8	2-hr.
		#7	1½-hr.
#21	2-hr.	#9	1-hr.
#8	1½-hr.		

Armstrong ACOUSTICAL CEILINGS

First in fire-retardant acoustical ceilings

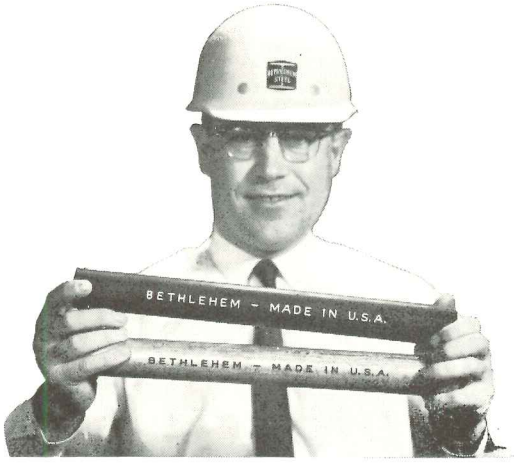
Superintendent of Schools for Parma: Mr. Paul W. Briggs
Architect: Fulton, Dela Motte, Larson, Nassau & Associates, Cleveland
General Contractor: H. J. Forepaugh and Son, Bedford, Ohio
Acoustical Contractor: The Gellin Company, Cleveland



Drainage lines, heating and air-conditioning lines, fire lines—all Bethlehem Steel Pipe* in New York's "city in the sky"

Pan Am Building, the world's largest commercial office building, is scheduled for completion in late 1962. Rising 59 stories tall, on a site directly behind New York's Grand Central Station, it will house a population of 25,000 people working in nearly 22,000,000 cubic feet of air-conditioned, fire-protected comfort.

*Continuous Buttweld to 4 in., nom.
Electric Resistance-Weld to 16 in., OD*



Owner: Grand Central Building, Inc.; Erwin S. Wolfson, President; Jack Cotton, Chairman. Architects: Emery Roth and Sons. Design Consultants: Walter Gropius; Pietro Belluschi. Structural Engineer: James Ruderman. Mechanical and Electrical Engineers: Jaros, Baum and Bolles. General Contractor: Diesel Construction Company, Inc.; Carl A. Morse, President. Heating and Ventilating Contractor: Raisler Corp. Plumbing Contractor: Jarcho Bros. Pipe Jobber: Chas. F. Guyon, Inc.

See 26 steel products in action in one plant office! Visit Bethlehem's exhibit at the Industrial Building Exposition and Congress, September 25-28, in the New York Coliseum.

BETHLEHEM STEEL COMPANY, BETHLEHEM, PA.
Export Sales: Bethlehem Steel Export Corporation

BETHLEHEM STEEL

BETHLEHEM STEEL

Ambulatory patients enjoy this daylighted, end-of-hall sunroom. *Thermopane* insulating glass keeps it comfortable. Faith Hospital, St. Louis, Missouri.

Made in U.S.A.

LOF GLASS

reports on a growing trend in

hospital architecture

Through large window walls, nature takes a hand in healing. We call it "open world" therapy. It's a trend in hospital architecture that is constantly growing.

Glass lets cheerful daylight and sunshine bathe each room. And from their beds patients can see blue sky and green trees.

But the patient's psychological needs must be balanced by other considerations—comfort, heating and air-conditioning economies, building mainte-

Glass-walled corridors connect buildings, look out at the open world, at Fisher-Titus Memorial Hospital, Norwalk, Ohio. Architects: H. E. Beyster & Associates, Detroit, Mich.

Faith Hospital, St. Louis, Missouri. Associate Architects: Joseph D. Murphy and Angelo G. Corrubia, St. Louis. Windows are glazed with *Thermopane* insulating glass.

nance costs, security. Read how the hospitals shown on these pages solved their particular problems with L·O·F Glass.

YEAR-ROUND COMFORT

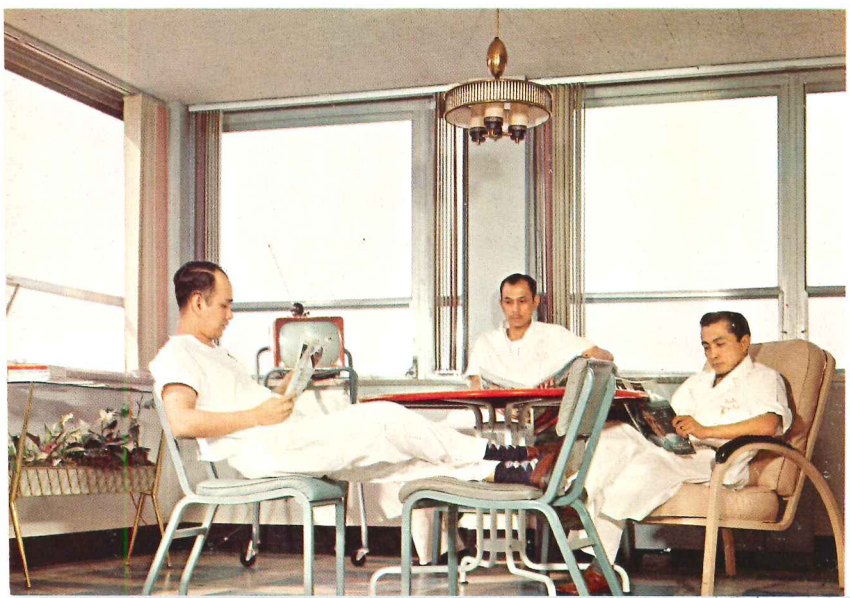
Thermopane® insulating glass and air conditioning are used at both Faith Hospital, St. Louis, and Roger Williams General, Providence, R. I.

Said Dr. Andrew Signorelli, founder and medical director of Faith: "People always feel better in bright, cheerful surroundings, patients particularly. No one likes to feel shut in, so through solar planning (with *Thermopane*) we've brought in lots of sunshine and opened our rooms to the view."

Mr. William E. Sleight, Director of Roger Williams General, expands this opinion: "We feel that the large *Thermopane* windows contribute greatly to our pleasant and comfortable surroundings. Although we have operating sash, we never have to open them, even in the muggiest weather. In winter, when it gets down to zero, we're still comfortable near *Thermopane* windows and can enjoy the view outside. The windows don't frost up like they do in the old building."

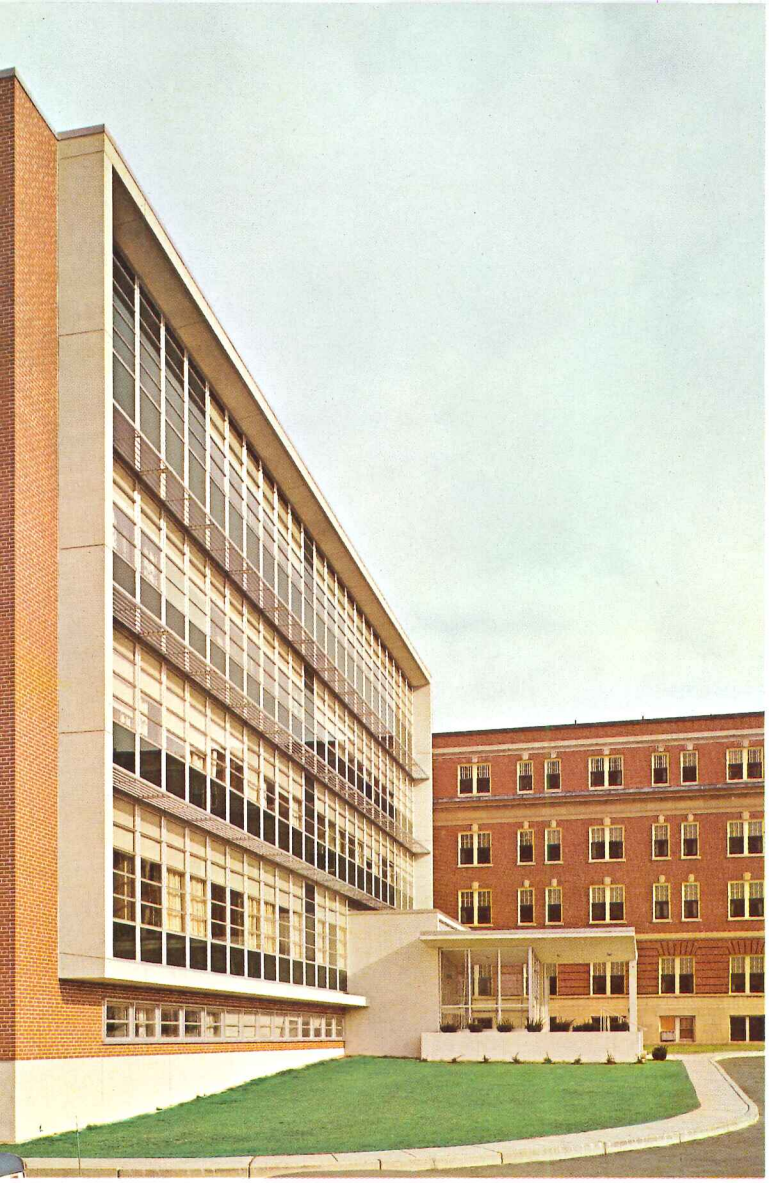
Both hospitals are located near heavy traffic arteries, but rooms are quiet and serene because *Thermopane* effectively muffles outside noise.

Resident doctors relax in daylighted penthouse lounge at Faith Hospital, St. Louis. *Thermopane* insulating glass keeps the room comfortable all year 'round.



LOW-COST MAINTENANCE

Insulating glass in both buildings was used also to effect heating and air-conditioning economies. On this subject



Sweeping glass façade in the new wing of Roger Williams General Hospital, Providence, R.I. Architects: Howe & Prout, Providence. L·O·F *Vitrolux* was used in the spandrels, *Thermopane* in the windows.

gives us better humidity control.

"In summer, the overhangs shut out much of the sun, shade about two-thirds of the glass, make it easier to cool the rooms. Our studies *prove* that *Thermopane* has helped us save considerably on utilities (light, heat, etc.) as compared with other hospitals of equal size."

CURTAIN WALLS

At Roger Williams General, *Vitrolux*® glass spandrels used between the *Thermopane* windows create an all-glass façade. *Vitrolux* is heat-strengthened plate glass with rich color fused to the back. It adds youthful beauty and cheerful character to the structure. Regarding the curtain walls, the architect, Donald J. Prout, has observed:

"They gave us a far more clear-cut design. They're less costly to build, and take less time to erect. Not a single glass spandrel was damaged during construction. And the glass in the windows and spandrels will keep its appearance, year after year, much better than most materials."

GLASS FOR PATIENT SECURITY

Tuf-flex® *Thermopane* is used in the psychiatric ward at McKennan Hospital in Sioux Falls, S. Dakota.

John Treacy, Chief Engineer for Faith Hospital, says:

"We air condition with hot water in winter and cold water in summer—individually controlled, room by room. The *Thermopane* windows are a great help. In winter, for instance, they let in solar heat . . . thermostats in rooms on the south side shut off one-third faster than in the others. And the lack of condensation on windows

MADE IN U.S.A.
LOF GLASS
THE QUALITY MARK TO LOOK FOR

You can see outside from any bed position in the new wing at Roger Williams General. Patients often feel "shut in" in an older room, shown on right.

This combines the insulating qualities of *Thermopane* with the strength of *Tuf-flex* for patient security. *Tuf-flex* is 3 to 5 times tougher than regular plate glass of the same thickness. And if *Tuf-flex* is broken, it is safer because it breaks into relatively small crystals.

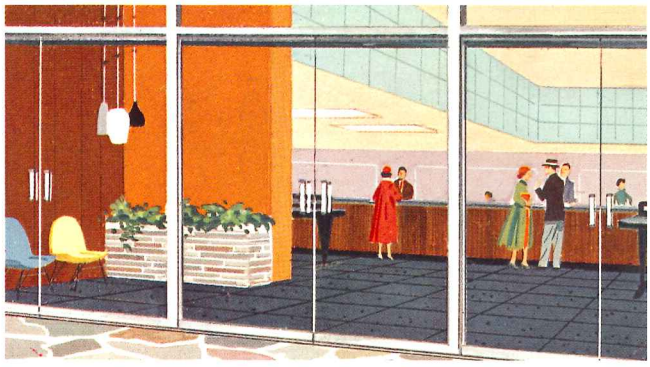
For other windows in the new wing at McKennan, Heat Absorbing *Thermopane* (for control of sun heat and sky glare) and regular *Thermopane* were used.

McKennan Hospital, Sioux Falls, South Dakota. Architect: Harold Spitznagel, Sioux Falls. *Tuf-flex Thermopane* is used in the psychiatric ward for comfort plus security.

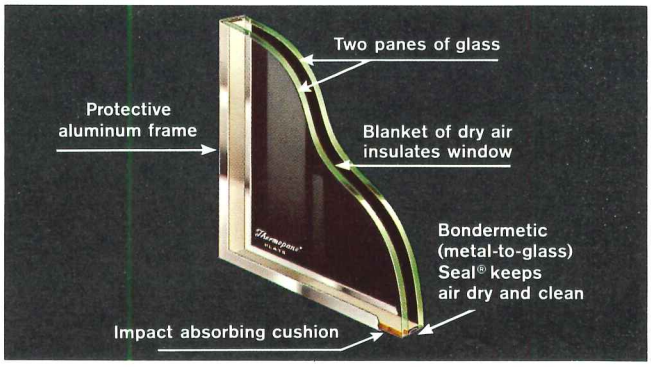
MADE IN U.S.A.

LOF GLASS

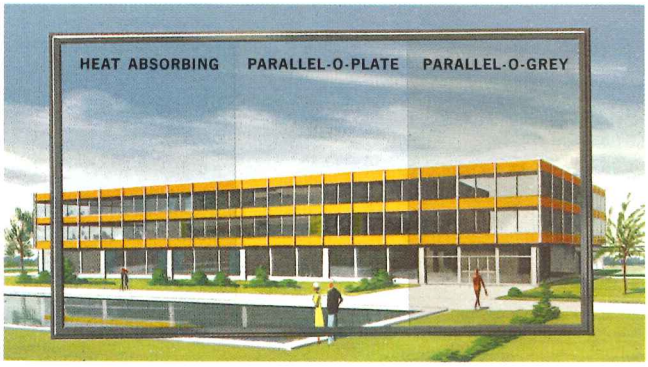
glass — for hospitals



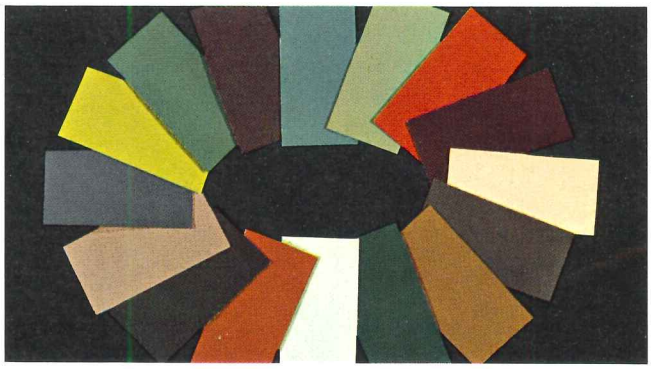
TUF-FLEX® DOORS — These frameless, clear-glass doors can withstand, with virtually no maintenance, all the traffic they help create. Made of ¾″ and ½″ thick tempered plate glass, they are 3 to 5 times tougher than regular glass of the same thickness. Sixteen types in finished sizes up to 48″ in width and 108″ in height.



THERMOPANE®— For maximum comfort and for heating and air-conditioning economy, use *Thermopane* insulating glass in windows and sliding doors. Heat loss is cut almost in half, compared to single glazing. Drafts near windows are reduced. Frost and fogging are minimized. Outside noise is muffled. Choice of plate glass (see left below) for outer pane.



THREE KINDS OF PLATE GLASS — *Parallel-O-Plate®* is clear plate glass, twin ground for clearest vision. *Parallel-O-Grey®* is tinted neutral grey. Heat Absorbing Plate is pale bluish-green. Both *Parallel-O-Grey* and Heat Absorbing Plate reduce transmission of sun heat to keep interiors cooler. *Parallel-O-Grey* reduces glare more effectively.

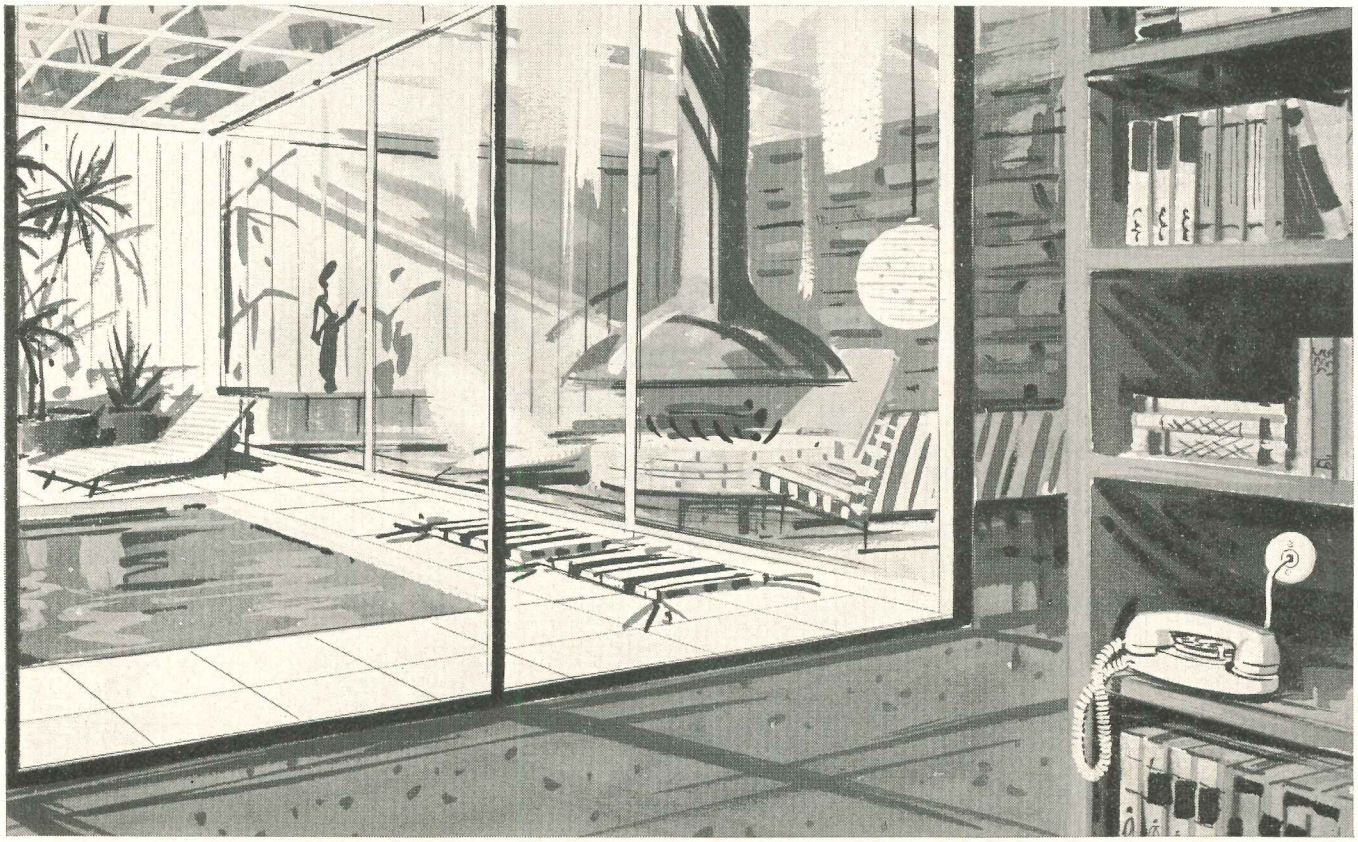


VITROLUX®— Rich color, fused to the back of this clear, heat-strengthened ¼″ plate glass, adds youthful beauty and cheerful character to any structure when used as a facing material. It is resistant to weathering, crazing and checking. Also ideal for interior partitions. Sixteen standard colors, plus black and white. Standard-size panels up to 48″ x 84″.

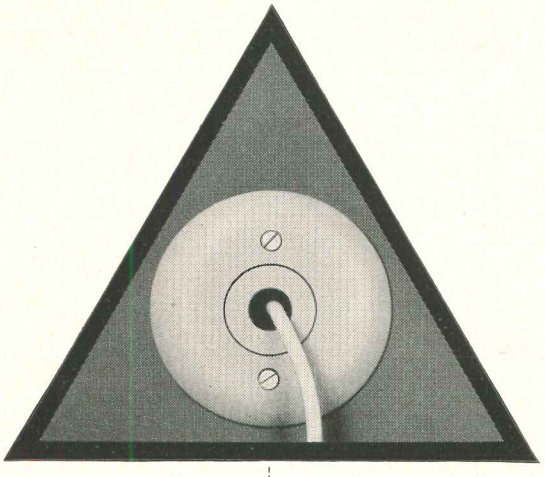
For complete information on these and other L·O·F products, refer to Sweet's Architectural File 26-A, or call your L·O·F Distributor or Dealer (listed under "Glass" in the Yellow Pages). Or write to Libbey·Owens·Ford Glass Company, 811 Madison Ave., Toledo 1, Ohio.

LIBBEY·OWENS·FORD
Toledo 1, Ohio

LITHO IN U.S.A.



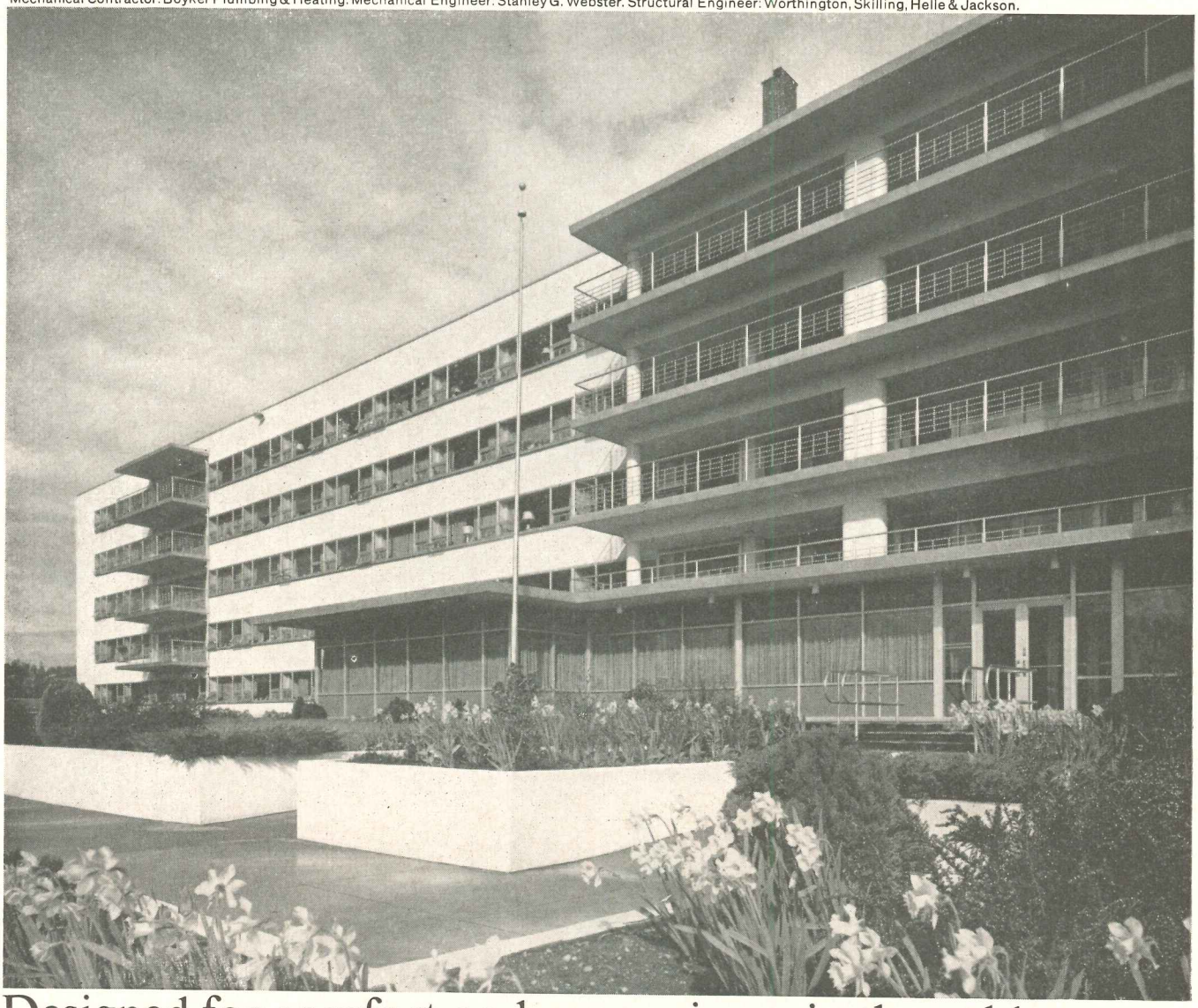
For details of home installations, see Sweet's Light Construction File, 11c/Be.



MODERN HOMES *are designed for pleasant living. When you plan for built-in telephone outlets and wiring concealed within walls, you offer full telephone convenience... preserve interior beauty.*

Bell Telephone System

Wesley Gardens, Des Moines, Washington. Architects: Wm. J. Bain and Harrison Overturf. General Contractor: Cawdrey & Vemo. Mechanical Contractor: University Plumbing & Heating Mechanical Contractor: Boyker Plumbing & Heating. Mechanical Engineer: Stanley G. Webster. Structural Engineer: Worthington, Skilling, Helle & Jackson.



Designed for comfort and convenience in the golden years with Crane kitchen and bathroom fixtures throughout!

Wesley Gardens is a new concept in care for the aged. Sponsored by the Methodist Church, it offers the most complete facilities for both the spiritual and physical well-being of senior citizens of all denominations and from all parts of the country.

Every building in this unique development is built for comfort... built for convenience ...built to last for years. Crane fixtures were chosen because of their functional dependability and classic design that never goes out of style. Because Crane's durable vitreous china finish is easy to maintain . . . hard to damage. And because every fixture is made with Crane's flair for precision beyond ordinary standards that guarantees quality and means extra long, trouble-free life.

Crane offers one of the most extensive collections of specially designed plumbing fixtures and fittings for residential, commercial, industrial and institutional use. You'll always find just the right size, shape, color and price to fit your requirements exactly.

In heating and air conditioning, too, you can expect to find the same wide choice . . . the same built-in excellence in every piece of Crane equipment.

For more details on Crane's complete plumbing, heating and air conditioning line see your regular contractor or your Crane representative. Or write direct to Crane Co., Plumbing, Heating, Air Conditioning Group, Box 780, Johnstown, Pennsylvania.

AT THE
HEART
OF HOME AND
INDUSTRY

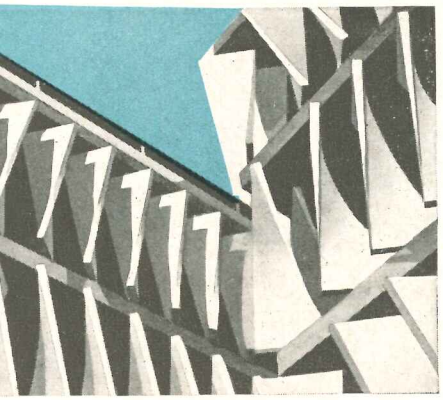
CRANE

VALVES AND PIPING
ELECTRONIC CONTROLS
PLUMBING
HEATING · AIR CONDITIONING

The best ideas are more exciting in **concrete**

Henry Ford Hospital 870-car parking structure, Detroit, Michigan. Architect: Albert Kahn, Associated Architects and Engineers, Inc., Detroit, Michigan

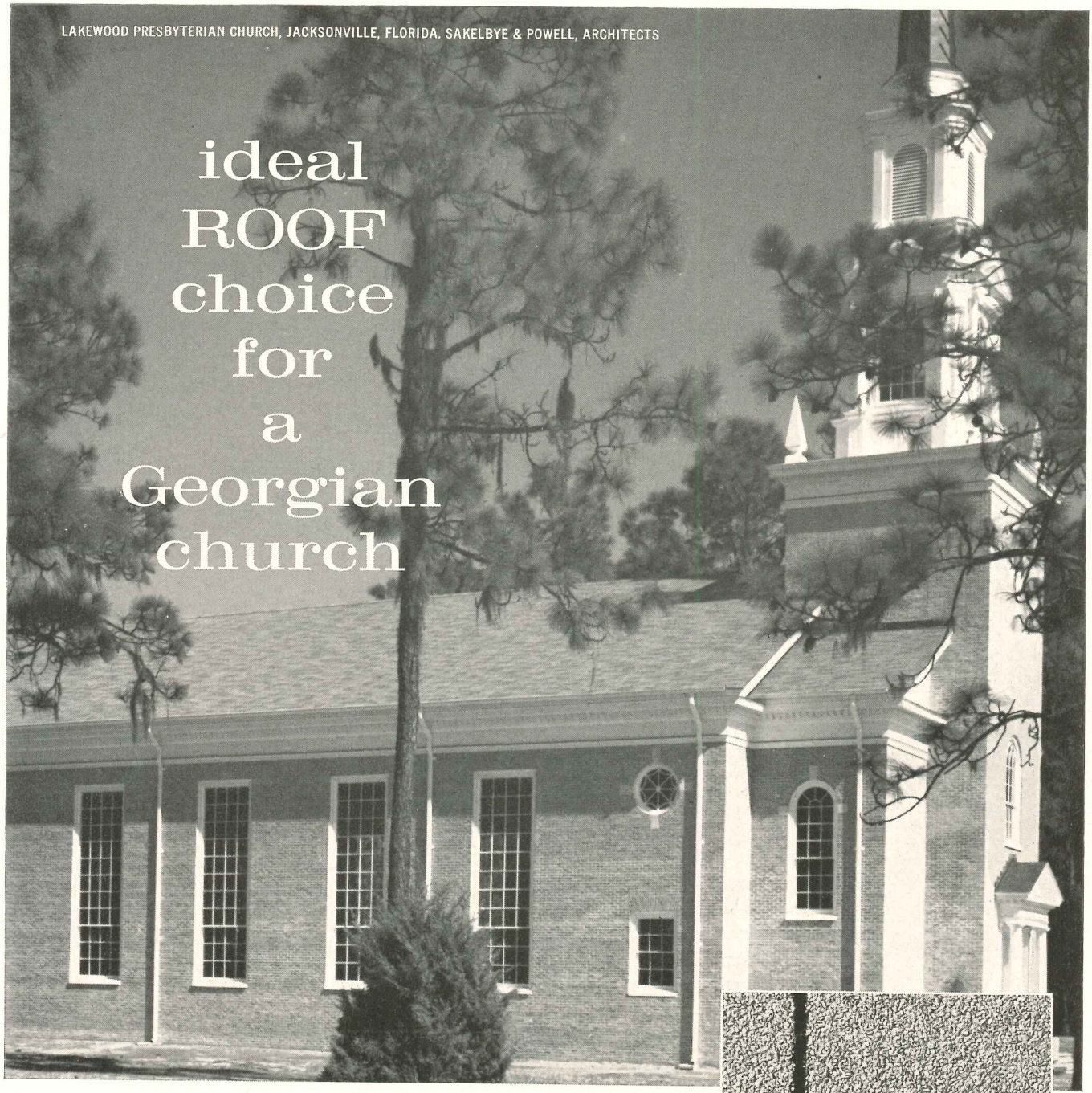
Louvers give a new beauty twist to concrete curtain walls!

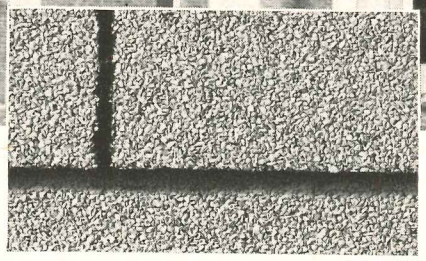


True hyperbolic paraboloids, 7'-4½" concrete panels have 90° twist, are 24" wide at top and base, 18" at waist.

Precast concrete curtain walls have given Henry Ford Hospital an off-the-street parking structure that blends attractively into a residential area. 1,716 hyperbolic paraboloid panels, precast from white cement, white quartz and sand aggregates, form the unique walls. An intriguing visual effect is obtained from these louvers which seem to change shape and position, depending on lighting and angle of view.

Practicality is everywhere. In the light, open feeling of the interior . . . in the enduring solidity of the concrete frame and floors. The versatility of concrete is today winning new appreciation as architects express fresh concepts in design.





See Specifications in SWEETS FILE 8C/Bi or 3C/Bi

THE PURE AUTHORITY OF THE BIRD KING-TAB ARCHITECT® SHINGLE PERFECTLY COMPLEMENTS TRADITIONAL DESIGN

The adaptability of the aristocratic Bird King-Tab Architect Shingle is again demonstrated in this stately church, here used in Tudor Gray.

Conformity with Design achieved by the Architect's 18″ King-Tabs — 50% less vertical lines accentuate the horizontal.

Uniformity of Surfacing in even distribution of jumbo color granules controlled in manufacture — no unsightly application on site.

Greater Safety, Triple Protection: 300 lbs. per square, thick as standard slate; 3 full layers at every point, with 5″ exposure. Flatter roofs, pitched as low as 2″ in 12″, use it with complete safety.

BIRD
Architect Shingles

BIRD & SON, INC.

or write
BIRD & SON, INC., BOX AR-81
EAST WALPOLE, MASS.
CHARLESTON, S. C. • SHREVEPORT, LA.
CHICAGO, ILL.

MOISTURE AND TERMITES A PROBLEM? WRITE FOR DETAILS ON BIRD TERMITE PREVENTION SYSTEM AND VAPOR BARRIER

ding!

That welcome sound of an arriving elevator will be heard as much as 30.6% sooner in buildings with new Westinghouse Selectomatic Mark IV elevators. How do we know? The Mark IV was tested in actual use... pitted against the most efficient elevator system available before Mark IV. In each case, Mark IV made substantial reductions in average waiting time. What turns the trick? **Demand Reversal.** Once free, Mark IV elevators can reverse direction to go up or go down... from any floor to any floor. They never make unnecessary trips to the top or bottom of the building. They don't operate on a timed dispatch cycle, as all previous multi-car systems have. New Mark IV elevators simply wait in-between the top and the bottom, available to answer calls as they come. Result: no matter what the time of day or how heavy the traffic, you'll hear the ding sooner in a building with new Selectomatic Mark IV. The Mark IV is available for installation in 1962. Contact your Westinghouse representative for more information or write: Westinghouse Electric Corporation, Dept. RH98, Elevator Division, 150 Pacific Avenue, Jersey City, New Jersey. You can be sure... if it's Westinghouse. J-98798AA

Elevators by Westinghouse

Meetings and Miscellany

continued from page 27

Mumford To Teach at U.C.'s Berkeley Campus

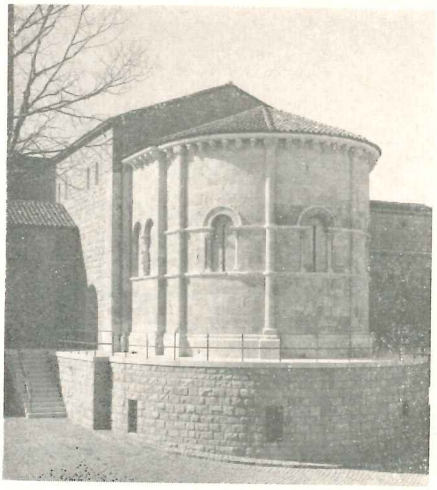
Author and critic Lewis Mumford, research professor of city and regional planning at the University of Pennsylvania and a visiting professor of M.I.T., has been appointed to a Ford Rotating Professorship in the department of political science on the Berkeley campus of the University of California for the fall term of 1961.

As a member of the Berkeley faculty, Professor Mumford will teach a graduate seminar entitled "The Community," and will be available for meetings with the University's staff and students.

The Ford Rotating Professorships were established at the University in 1956 with a $200,000 grant from the Ford Foundation to encourage research and interest in various phases of American government.

Apse of 12th Century Church Rebuilt for The Cloisters

The 800-year-old apse of the Church of San Martin de Fuentiduena, a national monument on loan from Spain, has been transported from Spain and reconstructed as an addition to The Cloisters in Fort Tyron Park, N.Y. It was opened to the public in May.



The golden limestone apse, nearly three stories high, richly decorated with Romanesque sculpture, has been rebuilt as part of a chapel with funds provided by the late John D. Rockefeller Jr., who originally gave the funds for the erection of The Cloisters, a branch of the Metropolitan Museum devoted to medieval art.

Preliminary plans for the chapel that contains the apse were prepared by James J. Rorimer, director of the Metropolitan Museum, who then worked closely with architect Geoffry Lawford of Brown, Lawford and Forbes. He made final drawings and supervised construction. The apse was built by the Vermilya-Brown Company, general contractors who built The Cloisters in the 1930's.

Yamasaki Honored by Rensselaer Institute

Minoru Yamasaki, Birmingham, Mich., was awarded the honorary degree of Doctor of Fine Arts by Rensselaer Polytechnic Institute at the Institute's 155th commencement exercises for his contribution to higher education and architectural design.

The citation read: "American architecture in the twentieth century has been searching for an expression of contemporary civilization in terms of space, structure and esthetics. You have realized that the human spirit demands more warmth and character in its buildings than that resulting from the mere logic of structure and technology. The buildings which you have designed have demonstrated your own precept as a teacher that, 'when people go into good buildings, there should be serenity and delight.' "

Boston Architectural Center Gets New Quarters, Begins Fund Drive

The Boston Architectural Center, long a rallying point for members of the profession in New England, has through the city's urban renewal program lost its old Beacon Hill home to make way for the new Civic Center. New quarters have been located in a Victorian stable in Boston's Back Bay district.

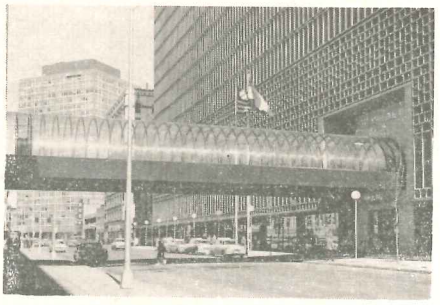
A committee to raise the money needed for new facilities has been formed, with Joseph P. Richardson as executive chairman.

Edward D. Stone, a B.A.C. alumnus, general chairman of the Building Fund Drive, said: "We are appealing not only to the Center's own distinguished roster of graduates (44 Rotch winners among them!) but to all members of the profession who feel that lack of funds should not close the door on deserving young people aspiring to a career in architecture."

John W. Ames heads the steering committee; other committee members include Hugh Stubbins, Morse Payne, Charles Strickland—all in Boston. Louis Skidmore in Chicago is in charge of Midwest solicitation. All are B.A.C. members.

Sponsor of a number of activities, the Center is probably best known for its night classes in architecture. Here talented young men or women, employed during the day in architecture or one of the allied arts, are given the opportunity to pursue an advanced architectural education for a nominal fee. It is supported generously by the architects and schools of Greater Boston, both in terms of money to run the Center and in time donated as instructors and critics.

New Covered Bridge in Downtown Denver



Downtown Denver has a new covered bridge which connects the Denver-Hilton Hotel with the May-D & F Department Store. Designed by I.M. Pei & Associates, New York, the pedestrian bridge spanning 86 ft is completely enclosed with an archway of transparent acrylic plastic. A low marble-topped plenum along each side of the bridge interior contains air conditioning ducts and lights. The bridge rests on two steel girders reinforced by nine lateral stringers. A sliding joint at the store end of the bridge permits 1 in. movement for expansion and contraction

Earnest: A.S.C.E. Nominee

G. Brooks Earnest, president of Fenn College, Cleveland, has been named official nominee for 1962 president of the American Society of Engineers. Voting will be by mail ballot this summer, and the new president will take office at the Society's annual convention in October.

more news on page 56

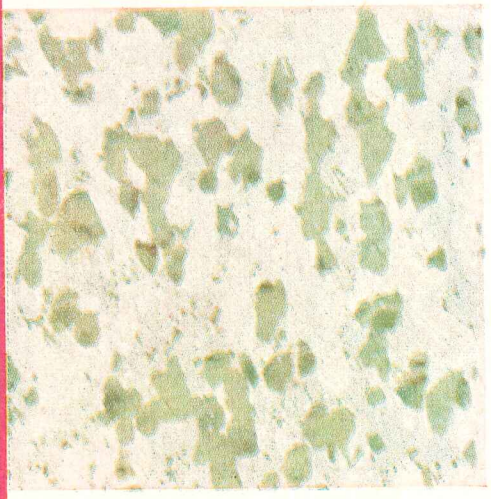
VINYL ASBESTOS TERRAZZO PASTELS

a new, exclusive style in

KENTILE FLOORS

Your choice of seven inviting pastel colors in low-cost, economical-to-maintain Kentile® Vinyl Asbestos Tile. Ideal for residential or commercial installations above, on, or below grade. Call your Kentile Representative for more information on Vinyl Asbestos Terrazzo Pastels.

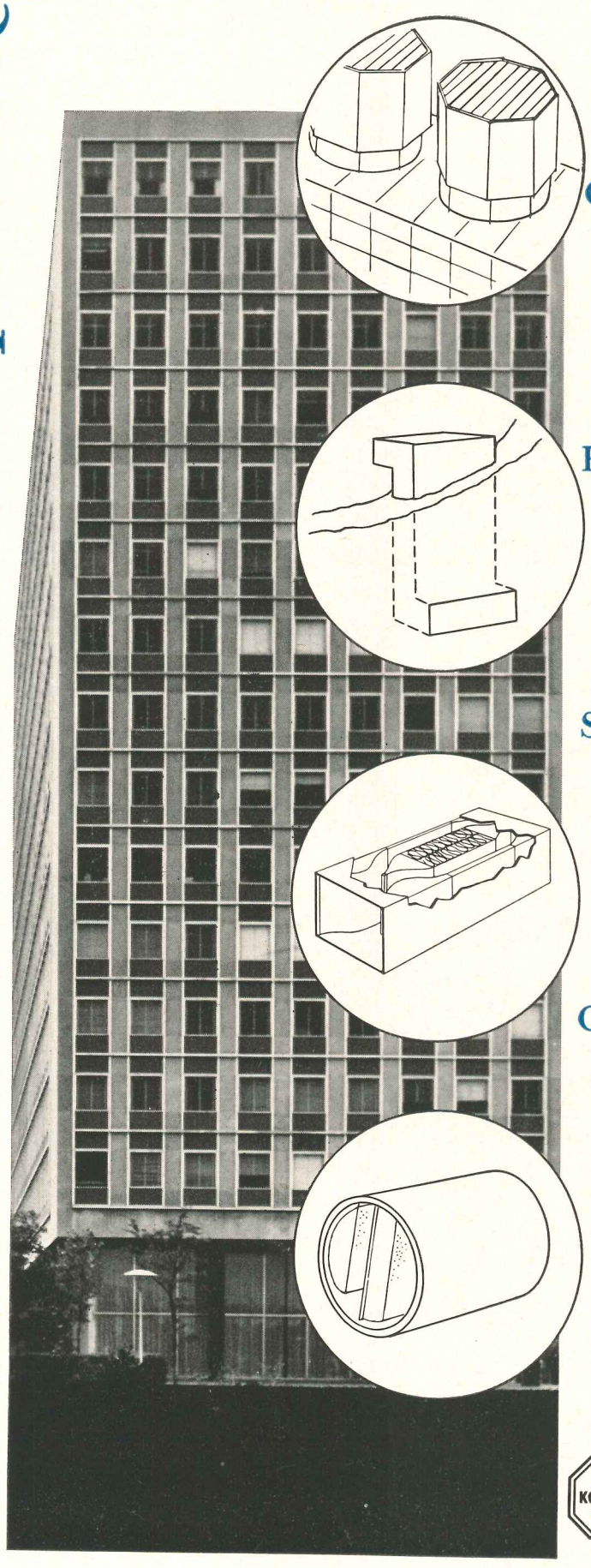
Visit the Kentile Showrooms in these cities: New York, Philadelphia, Cleveland, Kansas City and Torrance, California.



SPECIFICATIONS: Size: 9″ x 9″; thicknesses: 1/16″ and 1/8″; colors: Primrose Yellow, Piedmont Green, Nassau Pink, Sunny Buff (all shown) and Alleghany Gray, Bahama Blue, and Nantucket.

COLOR-COORDINATED FEATURE STRIPS in "Designer Palette" Solid Vinyl Tile. Specifications: Widths: 1/8″, 1/4″, 1/2″ and 1″. Thicknesses: 1/16″ and 1/8″. Colors: 8 (color shown is Bangkok Pink).

From basement to roof top... Aircoustat® silences noise



Cooling Tower Silencers

Water, fan and air noises are eliminated by Aircoustat Cooling Tower Silencers. Basic elements include intake sound proofing as well as exhaust mufflers. Because every building's requirements are special, every system is individually designed.

Return Air Vent Silencers

Block voices and other noises transmitted through transfer grills. Aircoustat Return Air Vent Silencers trap sound but not air. Available in three configurations and six stock sizes. Adaptable to a variety of installations—doors, walls, ceilings, etc.

Standard Duct Silencers

These low-cost, pre-engineered units assure a lifetime of trouble-free, maintenance-free service. Pre-determined values eliminate guesswork, *guarantee* the right attenuation. More than 60 stock models, fabricated in six lengths, available "off the shelf." No local job adjustments, no fabrication.

Circular Silencers

High velocity air system sounds need not be excessive if proper consideration is given to attenuation. An Aircoustat Circular Silencer adjacent to the fan does the job. Designed especially for higher pressure systems as well as for standard cylindrical ductwork. A full range of standard sizes available.

Selecting performance guaranteed AIRCOUSTAT *units is quick and accurate. We'll be pleased to supply you with complete technical and ordering information on any or all silencers in the line. Write:* KOPPERS COMPANY, INC., *3008 Scott Street, Baltimore 3, Maryland.*

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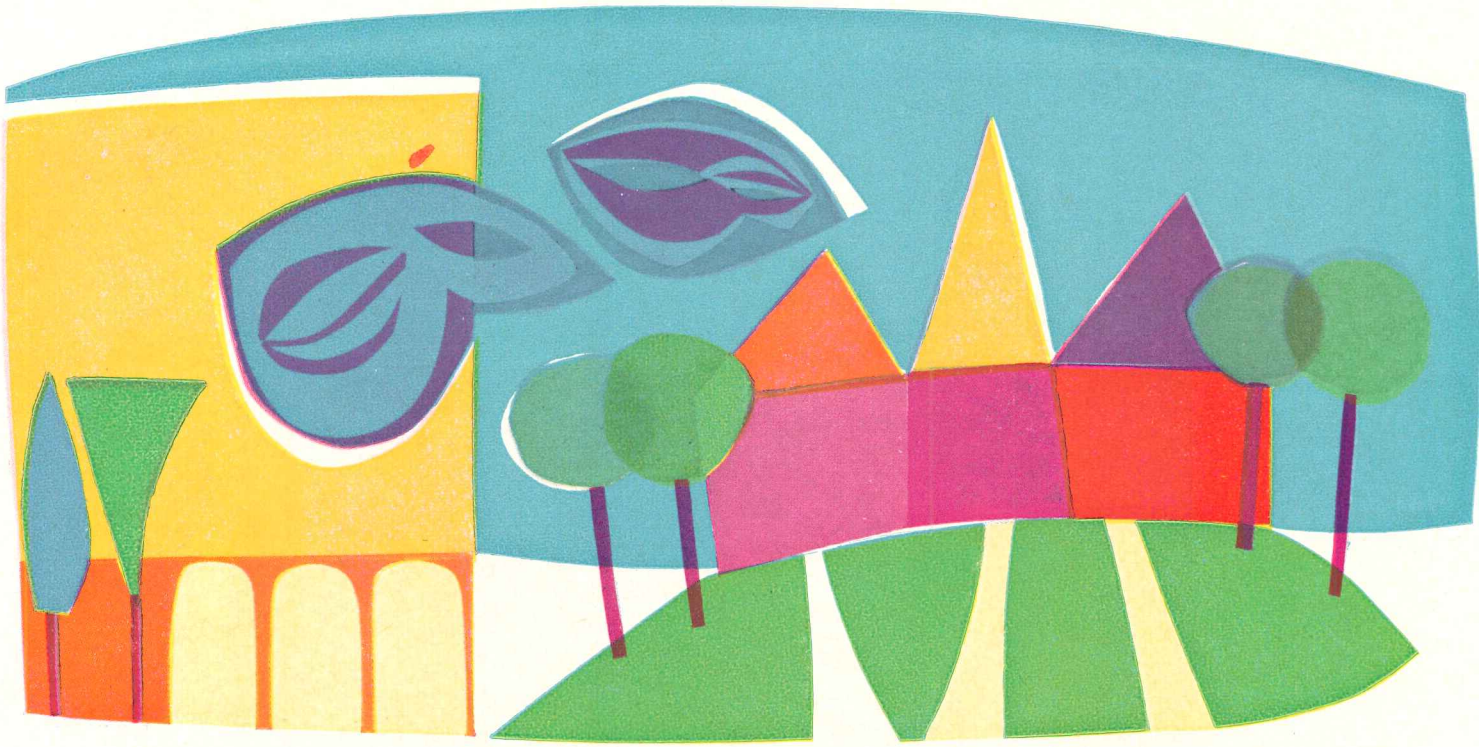

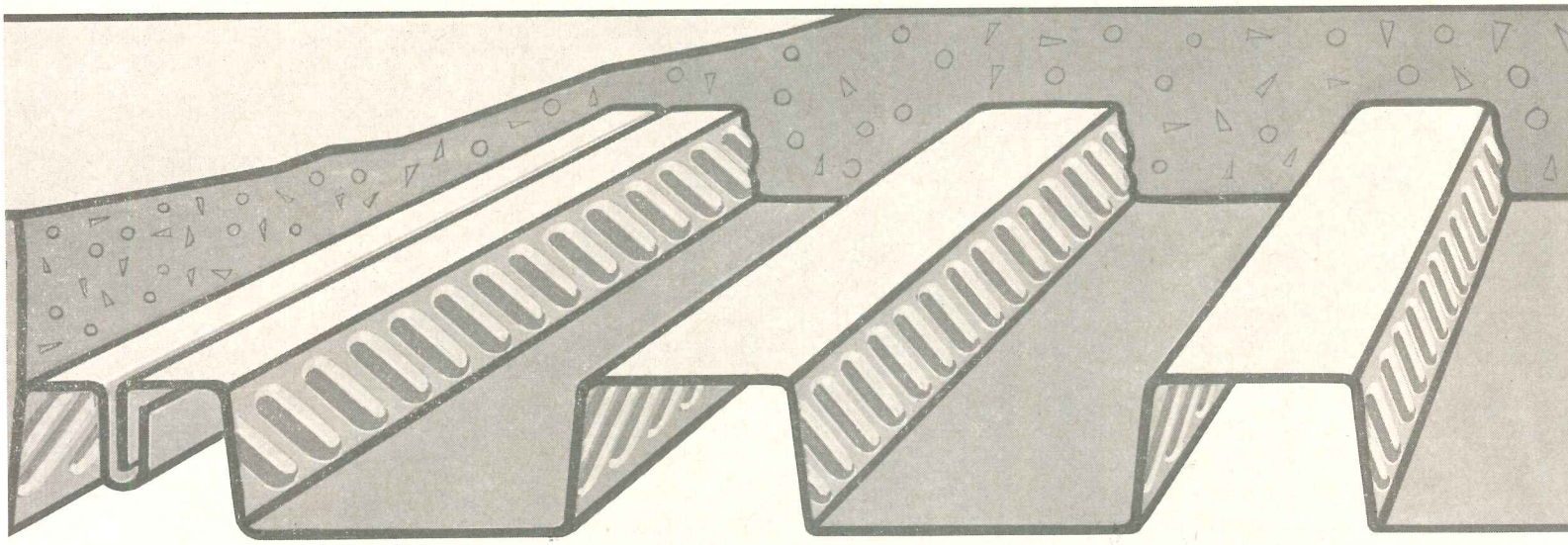

New Inland development

INLAND HI-BOND® FLOOR DECK

Inland Hi-Bond brings the high efficiency of steel deck to reinforced-concrete floor construction — at a cost comparable to ordinary systems. Its new design enables you to use more economical gauges for floor spans.

Provides Mechanical and Chemical Bond
Raised lugs in the webs of Hi-Bond panels give the extra strength. They do the work of reinforcing bars — provide a positive lateral and

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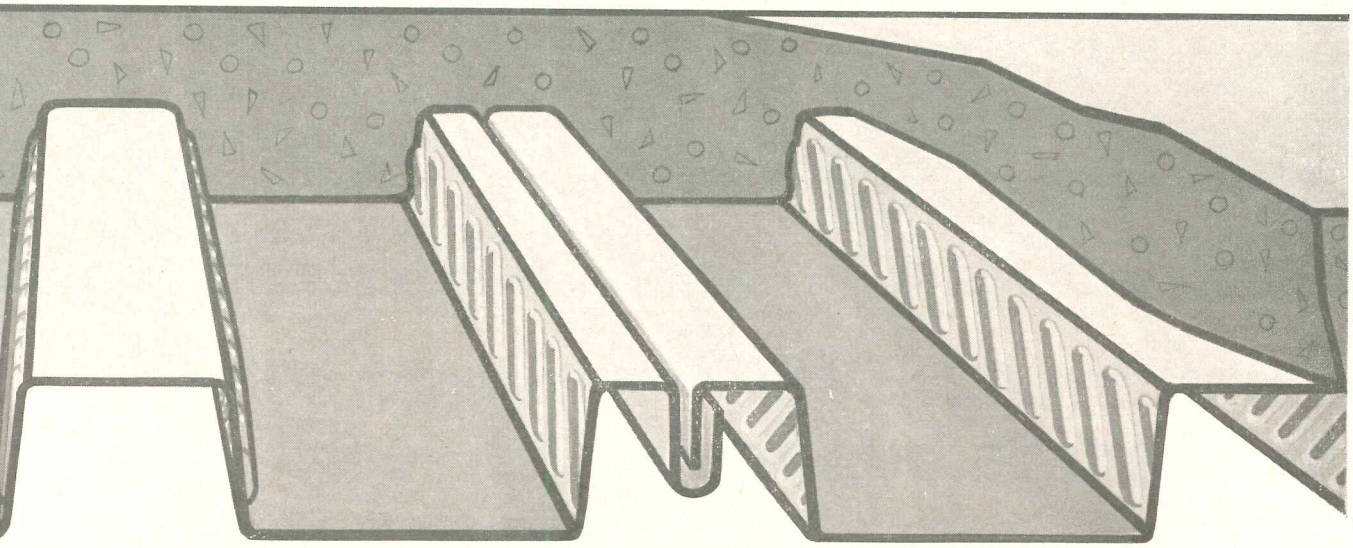


provides concrete reinforcement without bars

vertical mechanical bond between steel and concrete, as well as a chemical bond. Underneath, they provide a key for fireproofing.

Helps Maintain Work Schedules

Erection of Hi-Bond deck is fast. The deck is a permanent form for the concrete; you save the time and expense involved in forms. Hi-Bond serves as a safe working platform, prior to pouring the floor.

Hi-Bond floor deck is available in a number of Inland profiles. Where electrification is desired, Hi-Bond can be furnished as a cellular floor.

Further Facts Available

Hi-Bond is too new to be found in Sweet's. However Catalog No. 272 is ready for mailing. Send for your copy.

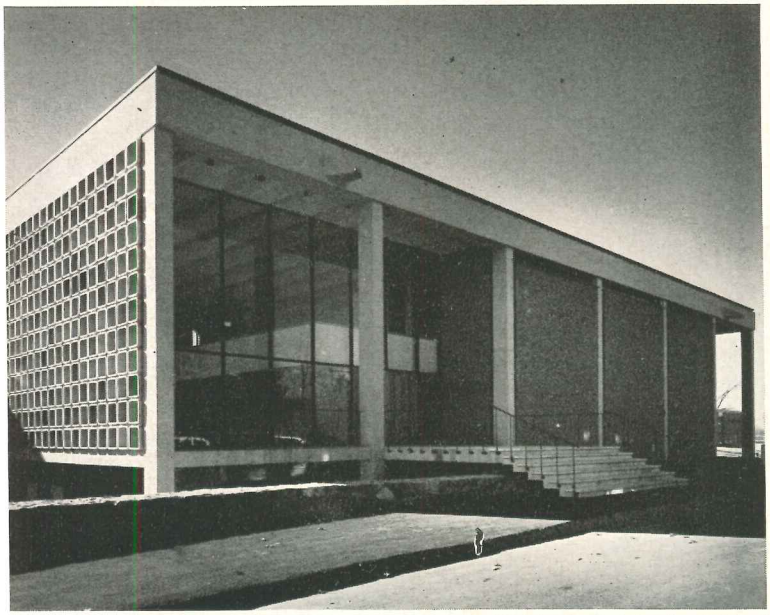
For more information, ask an Inland sales engineer — or write or call the nearest Inland office.

Company *Engineered Products Division* DEPT. H, 4033 W. BURNHAM STREET, MILWAUKEE 1, WIS.

ALBANY, ATLANTA, BALTIMORE, BOSTON, BUFFALO, CHICAGO, CINCINNATI, CLEVELAND, COLUMBUS, DALLAS, DENVER, DETROIT, FREMONT, HOUSTON, INDIANAPOLIS, KANSAS CITY, LOS ANGELES, MILWAUKEE, NEW ORLEANS, NEW YORK, OMAHA, PHILADELPHIA, SAN FRANCISCO, SEATTLE, ST. LOUIS, ST. PAUL, TULSA

Upper Left: Lincoln Hall in American Civilization Center, Academic Quadrangle
Lower Left: David and Irene Schwatz Hall, Social Science Center

Upper Right: Shiffman Humanities Center, Academic Quadrangle
Lower Right: Shapiro Forum, American Civilization Center, Academic Quadrangle



Brandeis University, Waltham, Mass. Architects: The Architects' Collaborative, Cambridge, Mass. Painting Contractors: Johnson-Foster Company, Inc., Somerville, Mass., John A. Berggren Company, Inc., Milton, Mass.

The man from DEVOE helps add color to Boston's building of the year!

On May 16, 1961, the city of Boston, Mass., awarded the coveted Harleston Parker Medal to The Architects' Collaborative, Cambridge, Mass., for designing the most beautiful building constructed last year in the greater Boston area . . . the Academic Quadrangle at Brandeis University.

The three-building enclave lies on a hill overlooking the main campus. Buildings are of red brick, with large expanses of floor-to-ceiling glass, and with air conditioning. Comfortable chairs and tables replace formal chairs and desks in the classroom. Complementing the buildings are landscaped Renaissance, English Tudor, Biblical and Grecian gardens.

Expediting color planning and selection was Herbert E. Farrier, the local MAN FROM DEVOE. He offered Devoe architectural services, without cost or obligation, for both the Academic Quadrangle, and the Social Science Center.

The MAN FROM DEVOE in your area will work with you on every phase of color planning. For example, he can assure you of 100% accuracy in color matching and mixing . . . enable you to duplicate the identical color in interior and exterior finishes . . . and offer you a choice of 1086 colors . . . all through the new Devoe Library of Colors System.

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Herbert E. Farrier, the MAN FROM DEVOE headquartered at Boston. Like the MAN FROM DEVOE in your area, he will work with you and your staff on costs, usage, maintenance and climate conditions, and traffic. He'll also build you a color reference library.

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Color is available on the entire line—rim, mortise lock and vertical rod exit devices. Further, you specify color application . . . on cases as illustrated; on crossbars only; a combination of both. The 77 line without color is equally stunning.

You will want to know more about this new concept to "the safe way out." For complete details and reproductions of available colors, write today for Bulletin 611.

the safe way out

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Two new air conditioning records were set at 1 Chase Manhattan Plaza

The largest centrifugal refrigerating machines ever built for comfort cooling supply chilled water to the largest number of room terminals ever installed in a single building.

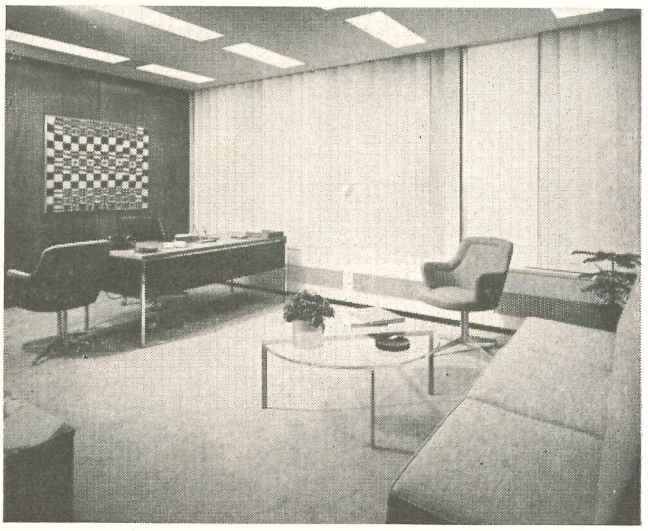
The air conditioning system designed for the Chase Manhattan building by Jaros, Baum and Bolles is the largest ever installed in a new commercial building. The colossal job was handled jointly by Raisler Corporation and Kerby Saunders, Inc.

The four Carrier Centrifugal Refrigerating Machines that provide 9100 tons of cooling include two units of 3500 tons each —the biggest ever used for comfort cooling.

The 6475 Carrier Conduit Weathermaster* Units that rim the periphery of each floor are the largest number of high-pressure window units ever installed in one building.

But perhaps the key fact about any air conditioning system is simply this. It helps creative architects like Skidmore, Owings & Merrill design structures that combine exceptional utility with an outward expression that man calls art.

*Reg. U.S. Pat. Off.



Photos by Alexandre Georges

Carrier Air Conditioning Company

The Record Reports

Richards Scholarship Established at Ohio U.

The John Noble Richards Scholarship has been established at Ohio University to be awarded to a student selected by the School of Architecture director and faculty.

Made possible by a grant from the office of Bellman, Gillett & Richards, the scholarship symbolizes the interest of the firm and Mr. Richards in the advancement of architectural education. Mr. Richards is senior partner in the Toledo firm and the immediate past president of the American Institute of Architects.

The scholarship will be awarded to an outstanding and worthy student in the newly established School of Architecture at Ohio University which continues the tradition of architectural education carried on by the Department of Architecture instituted in 1937.

U. of Cal. Architect Tours World Science Institutions

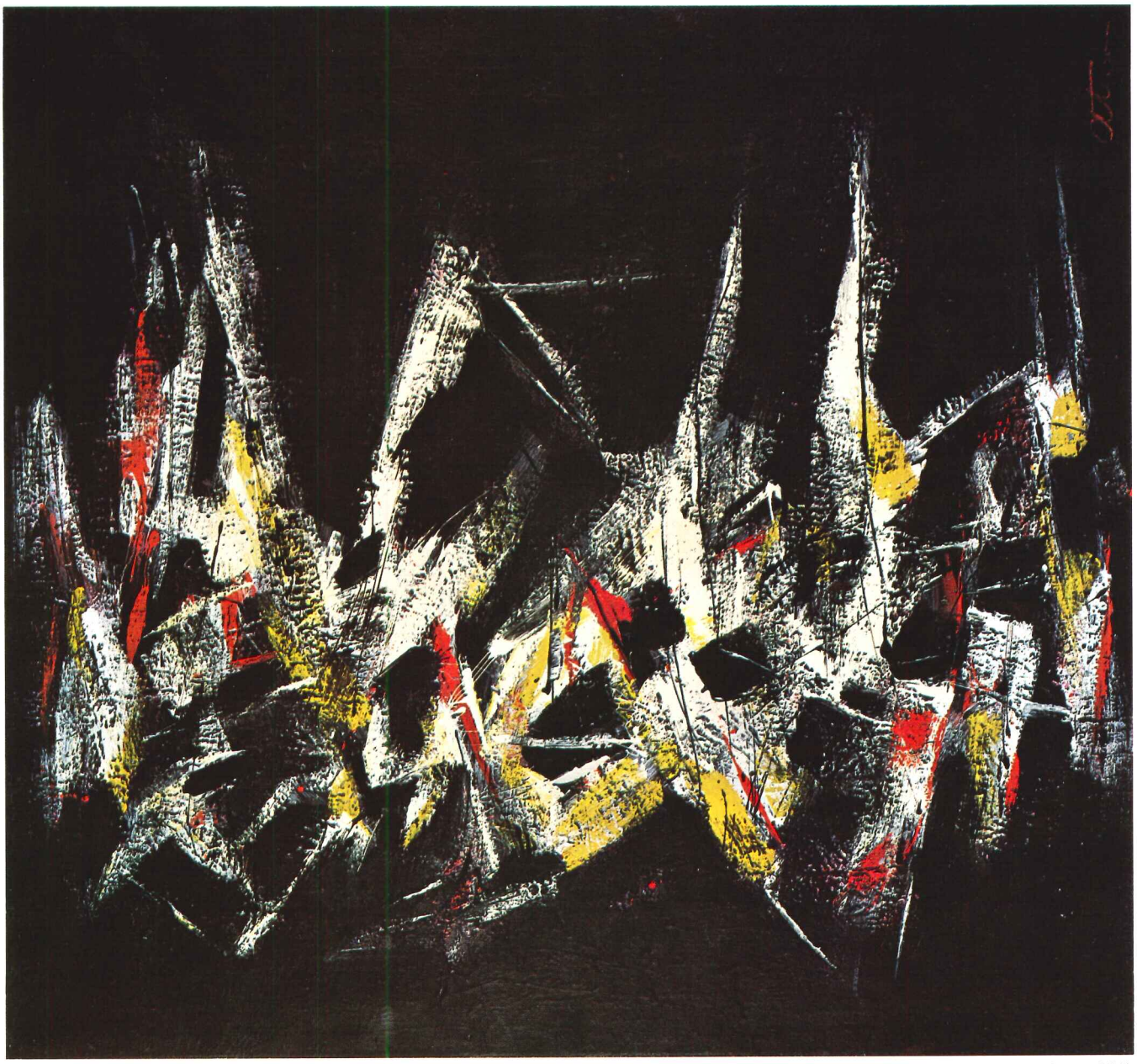
Philip W. Faulconer, A.I.A., who has for seven years been a project architect at the University of California Lawrence Radiation Laboratory in Berkeley and Livermore, is currently on a year's world tour of scientific institutions—a tour which will be completed in October. He is observing research facilities at universities, nuclear power establishments and industrial laboratories in Japan, India and Europe.

Mr. Faulconer was responsible for development of the building housing Dr. Luis Alvarez' 72-in. Bubble Chamber, and for the new experimental area of the Bevatron Building. In Livermore he supervised the design of eight laboratories grossing 100,000 sq ft.

National Academy of Design Elects Architect Members

Four architects have been elected to Associate Membership in the National Academy of Design. They are: Philip C. Johnson, New York; Nathaniel A. Owings, San Francisco; Thorne Sherwood, Stamford, Conn.; and William Wilson Wurster, San Francisco.

more news on page 65



PAINTING BY JOHN OTTERSON

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Architectural facades from the sophisticated to the flamboyant are created easily with GRIDWALL CURTAINWALLS. The numerous series designed to meet specific functional requirements illustrate the tremendous scope and versatility of GRIDWALL, THE UNINHIBITED CURTAINWALL.

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Lightweight Jamolite® plastic door offers easy, one-hand operation in hospital kitchen.

Lightweight, attractive ***JAMOLITE***® doors speed service, improve appearance in hospital installation

JAMOLITE doors are available in white and four colors to harmonize with any interior.

BRIGHT, CLEAN SURFACES of Jamolite all-plastic doors make these lightweight doors the ideal choice for hospital service. At the Washington County Hospital, Hagerstown, Maryland, five Jamolite doors are demonstrating these advantages over heavy, thick doors of other materials:

better appearance
easier cleaning
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easier opening and closing
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easy installation

Get complete details on these flush-fitting plastic doors by writing to Jamison Cold Storage Door Co., Hagerstown, Md.

JAMISON
COLD STORAGE DOORS

"Problem Solved in Graceful and Economical Manner"

Elimination of the cold "institutional" look was the achievement of Paul H. Kirk & Associates, architects for the Northgate Clinic, Seattle, Washington. "We feel the laminated wood used in the inverted vault for the waiting room ceiling solved our problem in an economical and graceful manner," states Paul H. Kirk, "and other laminated wood in entries and exposed decking areas also gave us a lightness of scale and permanence of surface that are most remarkable."

Rilco laminated wood structural members add warmth and character to any interior — besides offering unlimited design possibilities. All members are carefully processed and bonded together by glues stronger than the wood itself for lasting beauty and minimum maintenance costs.

Rilco arches, beams, purlins are custom fabricated to exact specifications, and shipped to job site on time for fast erection by regular crews — another cost saving feature. Our service engineers will be happy to consult with you, without obligation. Write for further information.

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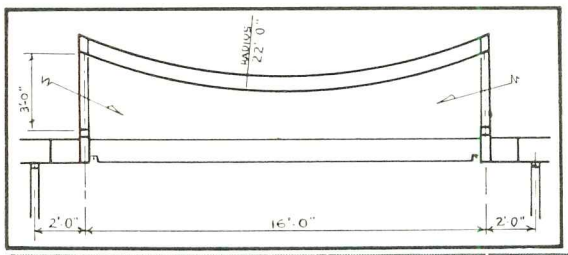
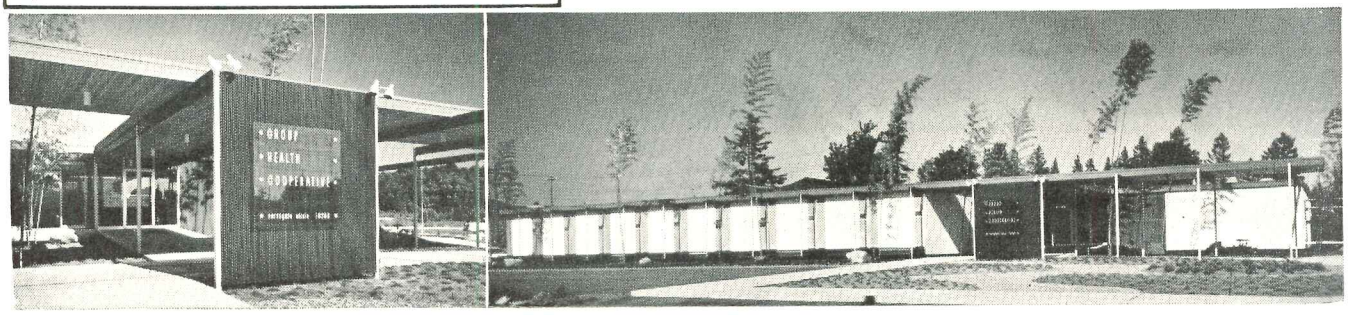


Group Health Cooperative, Northgate Clinic, Seattle, Wash. Architect: Paul H. Kirk, F.A.I.A. & Associates, Seattle, Wash. Constructed with 31 Rilco laminated wood curved members 3" x 9¾" in section with 22" radius, 10 flat beams 3" x 11⅜" and 3" x 9¾" in section.



Note how the Satin Chrome cover shown here blends with the decor of this modern office.

Now! Nine finishes to choose from in the new Honeywell Thermostat

REMARKABLE SENSITIVITY AND ACCURACY, TOO—EVEN THE FACE IS NEW

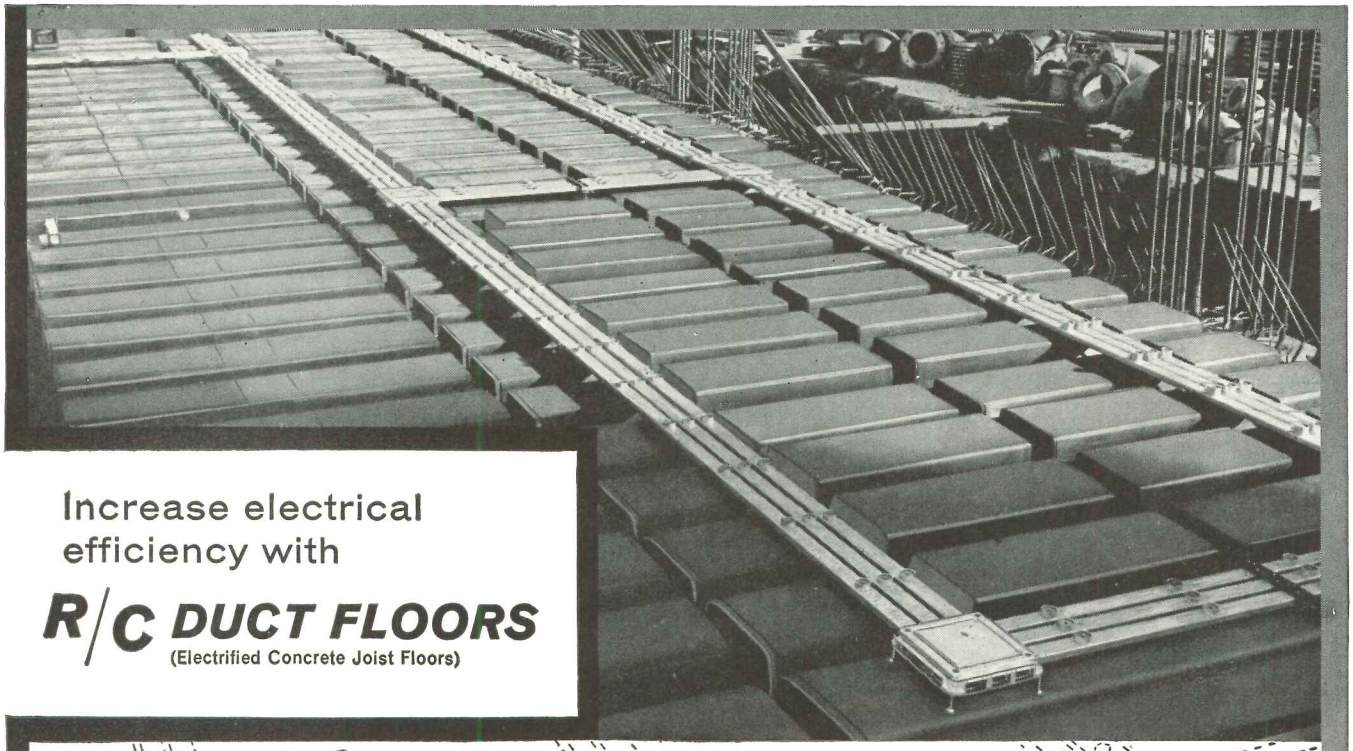
Now you can specify the Honeywell Round in nine new finishes. And it has a new face, exceptional sensitivity and accuracy.

We asked architects and engineers—lots of them—which finishes they preferred. The overwhelming choice was Satin Chrome, shown above. But, with the other eight finishes you get greater flexibility in blending the Honeywell Thermostat with the decor. The cover is heavy-gauge steel for strength. Seven finishes are electro-plated for long-lasting beauty—highly resistant to scratches, smudging and the effects of salt air and other corrosive atmospheres. Two finishes are tough, baked-on enamel.

The face is new, too. The white numerals fairly pop out from the black background—make reading and setting much easier. Setting and temperature scales are separate.

The critical parts are in the base of the Honeywell pneumatic thermostat, well protected from damage. A miniaturized sensing element provides immediate response to temperature changes. And, Honeywell's exclusive feedback action assures smoother, more accurate control of heating and cooling.

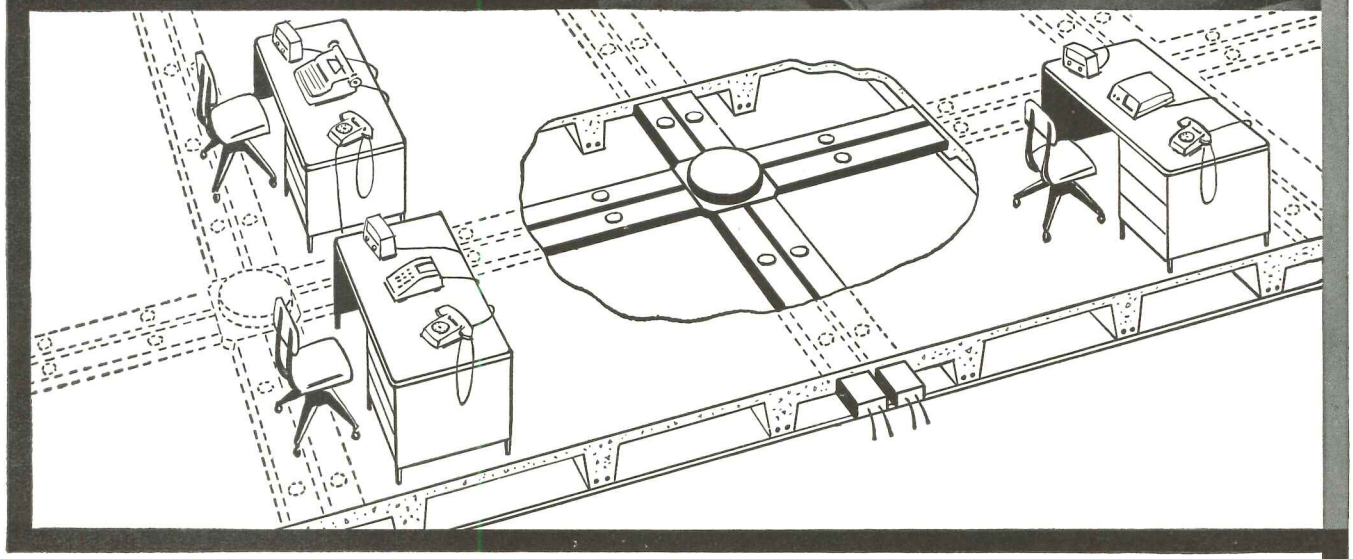
All the new finishes are available in both the pneumatic and electronic models. Call your nearest Honeywell office for sample color chips. Or write Honeywell, Dept. AR-8-153, Minneapolis 8, Minn. And be sure to tear out the color chart at right for handy reference. *Sales and service offices in all principal cities of the world.*



Increase electrical efficiency with

R/C DUCT FLOORS

(Electrified Concrete Joist Floors)



Office planning becomes more efficient when you specify low-cost R/C Duct Floors. This underfloor electrical distribution system makes it possible for every desk or piece of office equipment—including telephone, intercom, and business machines—to be serviced directly from floor outlets underneath. When offices or desks are rearranged, partitions moved or added, electrical outlets are always readily available. Unused outlets can be neatly closed, and reserve service outlets utilized without digging up floors or running exposed conduit or extension cords over floors, walls, or ceilings.

R/C Duct Floors is only one of the many design features available for reinforced concrete building construction. On your next project, investigate all of the advantages of this more versatile building material.

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Designer: Charles Deaton

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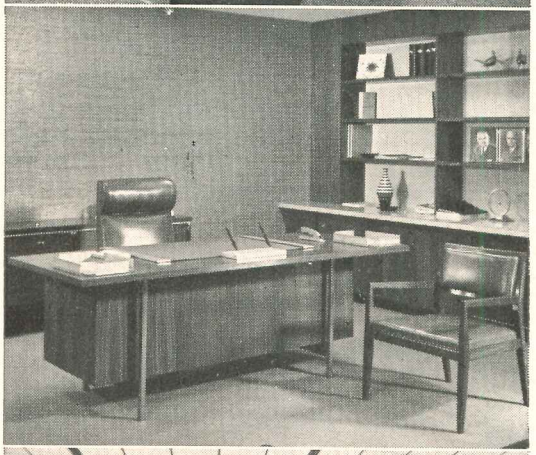
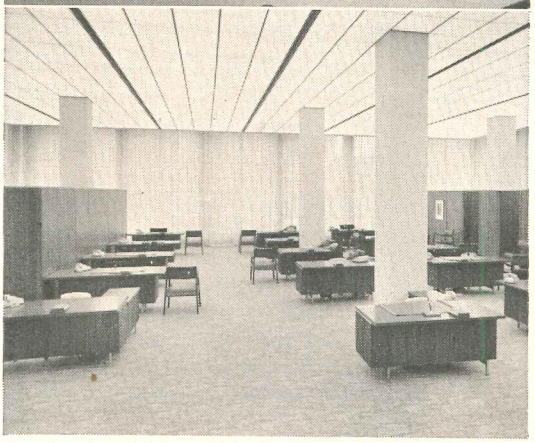
If working with "standard models" is too confining —if the cost of custom-built furniture reflects poorly in your proposals, then consider The Template Group. Here is modular furniture in wood that is scaled for the top executive, yet is available in sizes and pieces to fit most of the boxes on the organization chart. With The Template Group, you can specify each unit with an almost unlimited number of options. For a brochure, in color, write Leopold, Burlington, Iowa.

THE LEOPOLD COMPANY





TOP The mortgage loan department of the Western National Bank, Cicero, Illinois. Architect: Frank Louis Velet, Berwyn, Illinois. Desks from The Template Group were selected for officers and secretaries.

CENTER Executive desk with top overhang at front and sides is combined with matching closed-front cabinets from The Template Group in this New York office of Merrill Lynch, Pierce, Fenner & Smith, Inc.

BOTTOM A functional layout for the First National Bank of Minneapolis, Minnesota. Architect: Holabird and Root, Chicago. Desks are from The Template Group, by Leopold.

HOUSING FOR THE AGING IS A HUGE AND GROWING MARKET, EXPERTS AGREE

Public and private housing for senior citizens, already one-sixteenth of the total residential market, will rapidly exceed 10 per cent of that market, according to experts assembled at a three-day Institute on Producing Housing for Older People held in New York, March 26-28. Federal Housing Administrator Robert C. Weaver, addressing the opening meeting of the institute, said that by 1980 more than 26 million Americans will be 65 or older. Programs to expediate construction of housing suitable to their needs and priced within their means are already launched at all levels of government and through private agencies across a wide front of professional concern among architects, builders, economists, gerontologists, sociologists, and financiers.

All of these professions were represented by about 75 delegates invited to the New York meetings which were jointly sponsored by The National Council on the Aging, Inc., and the Institute of Physical and Medical Rehabilitation, New York University Medical Center, in cooperation with the National Housing Center. General Chairman was Carl T. Mitnick, president of North Cape May Development Co. and past president of the National Association of Home Builders. Meetings were held at the NYU Medical Center.

Architecture for the aging, a consensus among delegates indicates, is an important but relatively simple extension of architects' accustomed application to design. Facilities which are functionally and esthetically suited to occupants and to surrounding communities are objectives in most buildings including housing for the aged. Older folk, it was agreed, are as varied and individual in their preferences for housing as are people of all ages. A few basic conditions set the architectural approach to this growing market:

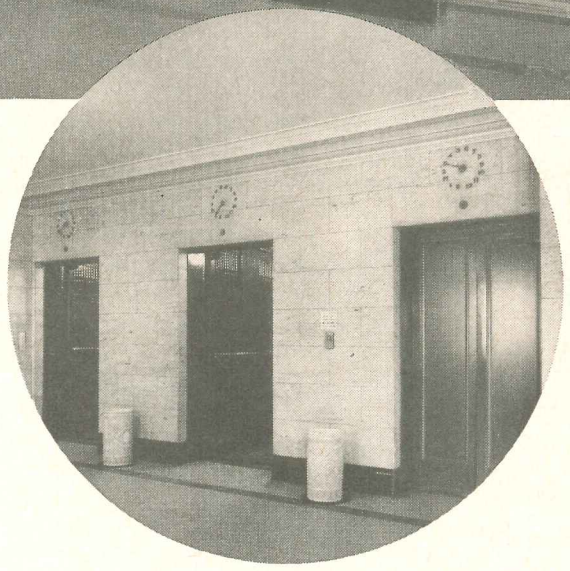
(1) The family unit is small. One- and two-bedroom dwellings are therefore, in order. One speaker suggested looking into the possibility of designing for the "shrinking" family as opposed to the "expandable" designs in

continued on page 72

Tenant appeal goes UP with MODERN ELEVATORS

VFW BUILDING, KANSAS CITY, MISSOURI

NEW



OLD

Montgomery® Elevators help attract new tenants

Prospective tenants are more ready to sign a lease agreement when your building features a smooth, efficient elevator system. Present tenants find modern elevator service a good reason for staying with you.

In Kansas City's VFW Building, Montgomery self-operated "Measured-Demand" elevators with Group Supervisory Control have economically brought vertical transportation facilities up-to-date. By replacing antiquated equipment with modern comfort and service, the new Montgomery system has brought increased tenant satisfaction to every one of the 12 floors. TODAY — get the full story on how MONTGOMERY can help make your building's efficiency go UP while keeping costs DOWN.

Other Buildings Recently Modernized by Montgomery:

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Kathrine R. Porter, Building Manager, says:

"Our recent decision to modernize by MONTGOMERY was determined by the prompt service, efficient and smooth operation of our equipment under the Montgomery PREVENTIVE MAINTENANCE program."

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Exclusive Manufacturers of Passenger and Freight Elevators for over Sixty-Eight Years

Architect: Warren, Knight & Davis, Plate No. 423

Murray quarry tile excels at K.P. duty. When it comes to meeting the rugged wear and sanitation requirements for floors in institutional kitchens and other hard-use areas, no material does the job as economically as Murray quarry tile. Architects can depend on Murray's superior quality—highly uniform sizes that permit narrower joints and stronger-bonding V-Bak® design—to provide better-looking, trouble-free installations. Write for new color catalog 861.

Illustration: shows 6″ x 6″ x ½″ Murray Sahara. Walls· Glazed tile, 8½″ x 4¼″, 56 Leaf Green.

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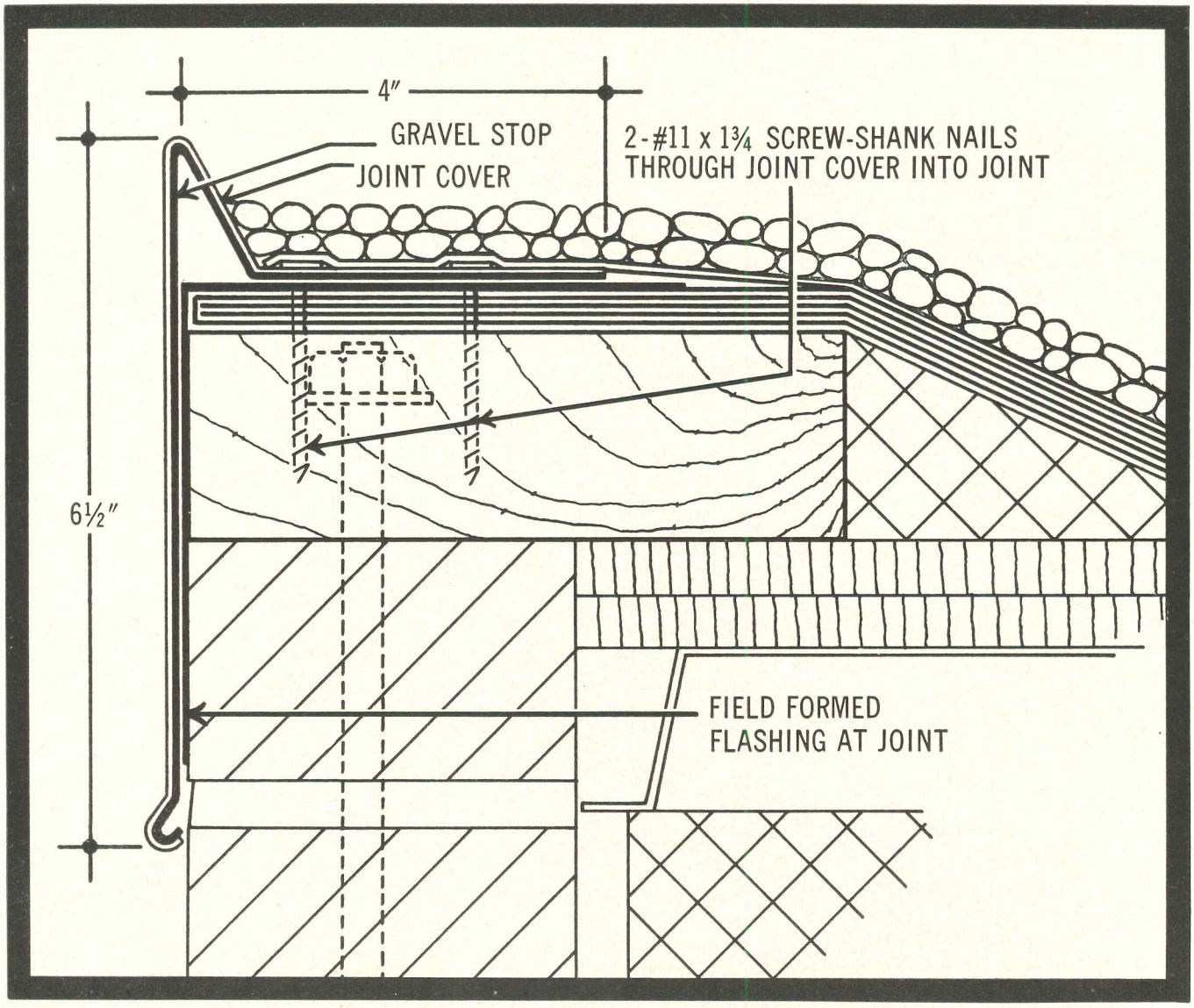

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NEW ALCOA ALUMINUM GRAVEL STOPS

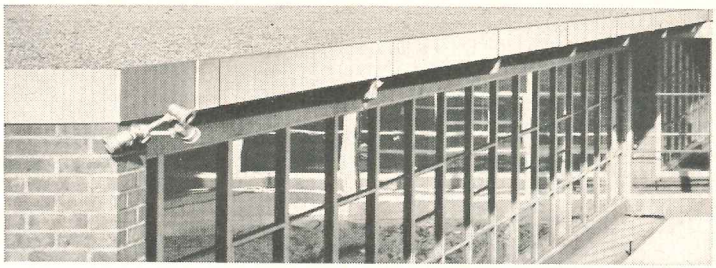
Extruded for greater strength, greater economy

Alcoa's new redesigned line of gravel stops gets its added backbone and stiffness from the extrusion process—metal squeezed through a die, giving a permanent set to the shape.

Alcoa® Gravel Stops will not "oil can." They'll even support leaning ladders without buckling. They're easy to install and, despite their deceptive light weight, they require no special handling.

Five functional and attractive types, in fifteen sizes. Cost? Alcoa long ago mastered the craft of extruding. For us, it's an economical process, so our production savings are passed along to you in the form of lower prices.

Consult Sweet's File or contact your nearest Alcoa sales office for technical details. Or write Aluminum Company of America, 815-H Alcoa Building, Pittsburgh 19, Pa.



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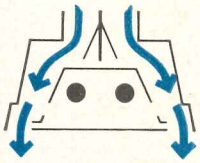

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THE MULTI-VENT SYSTEM GIVES YOU

More light output
Longer ballast life
True lamp color—all lamp types
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ANNOUNCING JOHNS-MANVILLE HIGH WALLS AND LOW WALLS

Two new movable walls that can be decorated any way you please

Versatile is the word that best describes new J-M Class A High Walls (floor-to-ceiling) and Low Walls (space dividers). As the photograph above indicates, you can decorate their asbestos-cement facings any way you please — with paint, mosaic tile, sculptured effects, veneers of wood or vinyl fabric.

These veneers can be factory-applied to your specification. And on special order, the facings can be integrally colored.

The completed walls are solid and permanent-looking... yet you can easily move them to another location, and re-use every panel, every piece of material. These walls go up fast. High Wall panels fit into metal floor and ceiling channels. A snap-on base and cornice complete the wall in a matter of minutes. Low Wall panel frames are slotted, and fit quickly into hooks on the steel posts.

J-M High Walls and Low Walls — with a core of incombustible material, facing of asbestos-cement sheet, and steel framing — meet every requirement of fire safety codes. Rugged strength and great durability are compressed into their 1¾" thickness. Their dry-wall construction offers the additional advantage of early building occupancy.

You will find these walls completely adaptable to any floor layout or design effect you may want to achieve. For more complete information, write to Johns-Manville, Box 158, Dept. AR-8, New York 16, N. Y. In Canada, address Port Credit, Ont. Cable: Johnmanvil.

JOHNS-MANVILLE
MOVABLE WALLS

JOHNS-MANVILLE JM PRODUCTS

HOUSING FOR THE AGING

continued from page 65

vogue for the young married family. A shrinkable design might plan for future division into apartments with separate entrances where oldsters might enjoy privacy and independence while remaining near loved ones and familiar surroundings.

(2) Designing for longest possible occupancy in declining years beset by diminishing faculties and reduced physical capacity means avoidance of stairs and steep approaches; compact, efficient space, easily maintained but with all possible variety of both interior and exterior vistas; electric outlets raised at least 18 in. from the floor; kitchen cabinets lowered for easier reach; non-skid flooring; towel racks and grab bars in bathrooms strong enough to withstand a 500-lb pull; windows and electrical fixtures that can be cleaned without climbing on ladders; ovens and hearthstones set at convenient height for use and cleaning without excessive bending or reaching.

(3) Designing for the disabled, old or young, includes most of the criteria established for the ambulatory aging plus a few special provisions. These are: gently sloping ramps to entries, doorways three ft wide throughout the house, elimination of thresholds, folding or sliding doors on bathrooms, turning space for wheelchair in bathrooms at least 4 to 6 in. from fixture front to wall, more grab bars where transfer from wheelchair may be desired, counter tops and sink levels lowered to 30 in. with knee and toe space for use in seated position. It was not recommended that most designs for the aging attempt to accommodate the disabled as well. Dr. Howard Rusk, head of the rehabilitation department of the host Institute of Physical Medicine and Rehabilitation, pointed out, however, that an increasing number of disabled are being returned to independent, useful private lives and will need the kind of housing that takes the wheelchair and physical handicap into account.

(4) Communities wherein the aging dwell must have convenient facilities for recreation, public transportation, shopping and medical consultation. Opportunities for both privacy and neighborly interchange are important.

Incomes of the retired elderly are usually fixed and at a low level in the majority of cases. Many do have substantial down payments in hand, however, and almost all have proved excellent credit risks within their means.

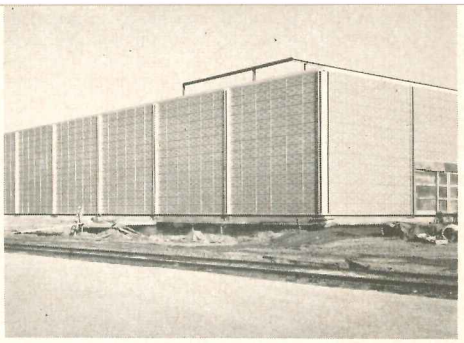
The Federal government has a number of special programs designed to stimulate construction of housing for the aging. These include direct aids for purchase of single family dwellings through FNMA; mortgage insurance through FHA up to 90 per cent of the cost of new rental multi-unit projects; new FHA regulations permitting friends and relatives to make down payments and/or become co-signers on mortgages. But, warns M. Carter McFarland, director, Division of Economics and Program Studies, HHFA, success of government programs depends on private local action. Federal aids will produce housing only to the extent that they are used.

Authorities

In addition to Messrs. Mitnick and McFarland and Drs. Weaver and Rusk, speakers at the Institute comprise an abbreviated "who knows what" in fields affecting housing for the aging. They are: G. Warfield Hobbs, president, The National Council on the Aging, Inc., New York; William Hoskins Brown, A.I.A., M.I.T. School of Architecture and Planning; Emanuel N. Turano, A.I.A., New York; Professor Walter K. Vivrett, U. of Minn. School of Architecture; Alice M. Brophy, deputy director, Social and Community Services, New York City Housing Authority; J. Clarence Davies, director, New York City Housing and Redevelopment Board; Richard Hill, Jr., director, Bureau of Research, New York State Division of Housing; Edward H. Noakes, architect, Bethesda, Md.; Sidney Katz, F.A.I.A., New York, N. Y.; Eleanor Pepper, design consultant, New York, N. Y.; I. S. Lowenberg, architect, Chicago, Ill.; Mrs. Virginia Wheeler, Kitchen Planning Project, NYU Medical Center; Noverre Musson, architect, Columbus, Ohio; Bruce Savage, commissioner, U. S. Public Housing Administration; Joseph D. Weiss, A.I.A.,

continued on page 80

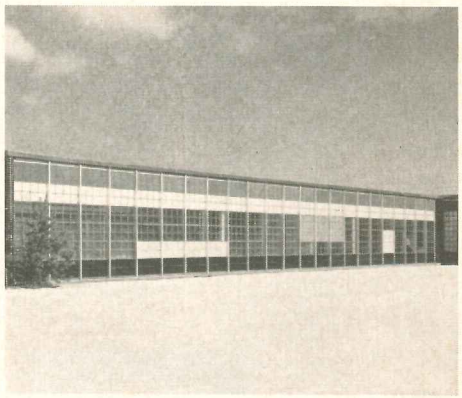
Light-controlling Thinlite panels provide excellent natural light, help reduce heating and cooling costs for the new $20-million Intelex Systems Post Office in Providence, R. I. Charles A. Maguire & Assoc., Providence, supervised design and construction.



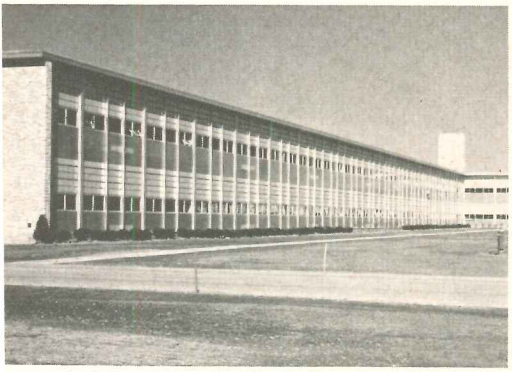
All exterior walls of the new research facility of Miles Laboratory at Elkhart, Indiana, designed by A. M. Kinney & Assoc., Cincinnati, will utilize the light-controlling features of colored Thinlite panels. The ground-to-roof installation will provide a more pleasant controlled environment for modern research.

Thinlite panels of Clear Vista, accented with ceramic colors, admit maximum light with low heat transmission in the new office building of the State Employees Building Corp., Sacramento, Calif. West America Engineering Co., Inc., San Francisco, designed the structure.

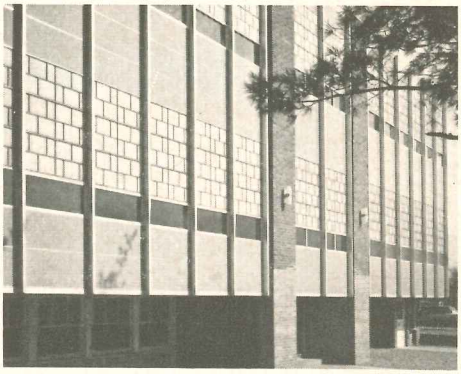
Northwest Suburban Y.M.C.A., Des Plaines, Illinois, is one of a series of new Y.M.C.A. buildings in the Chicago area in which Thinlite is used. Y.M.C.A. architect Eugene White commissioned Eckroth, Martorana & Eckroth, Chicago, to design Des Plaines Y.M.C.A.



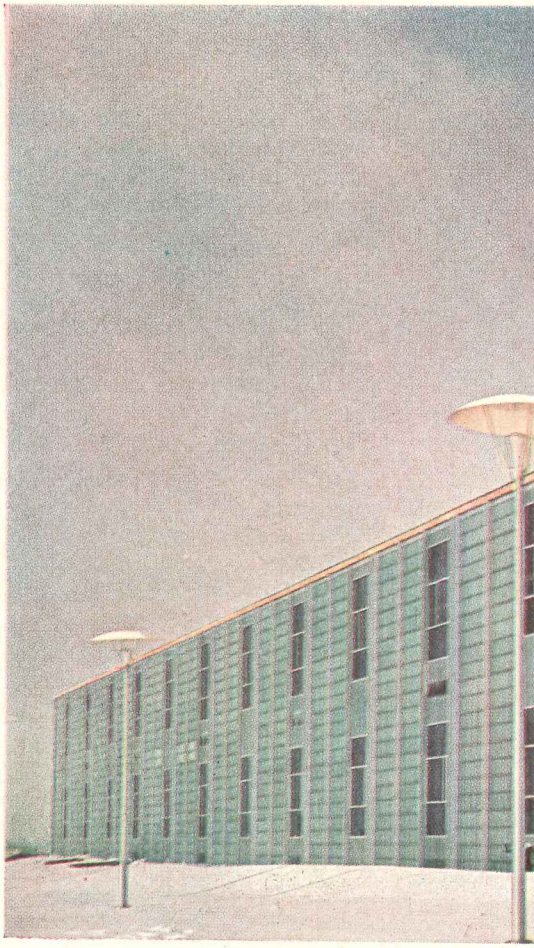
Severe New England winters called for a weather-control exterior at the Split Ball Bearing plant in Lebanon, N. H., so C. M. Koelb Associates, Weston, Mass. specified Thinlite curtain wall with vista panels and ceramic accent panels.

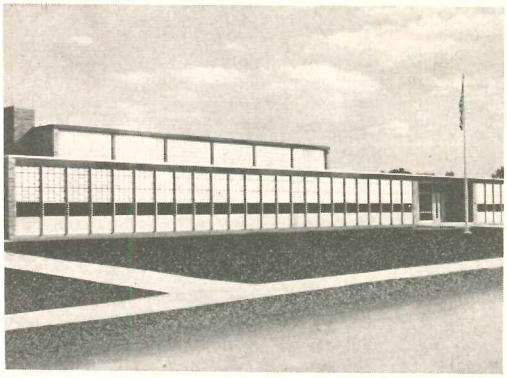


Architect Enos Cooke, New Kensington, Pa., used Thinlite in a major way at Stewart Junior High School, Lower Burrell Township, Pa., blending light-controlling panels with windows and aluminum-faced insulating panels.

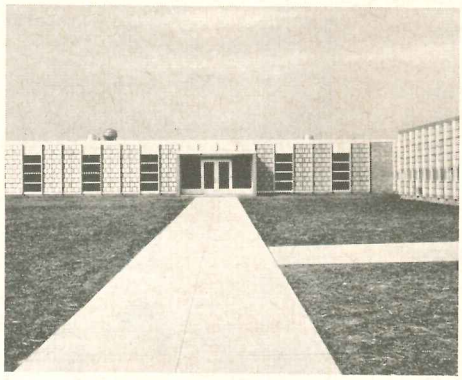


Lee Center School, Lee Center, Ill., used Thinlite Curtain Wall for this new addition that has taken years off the appearance of the school. Samuelson & Sandquist, Chicago, architect.



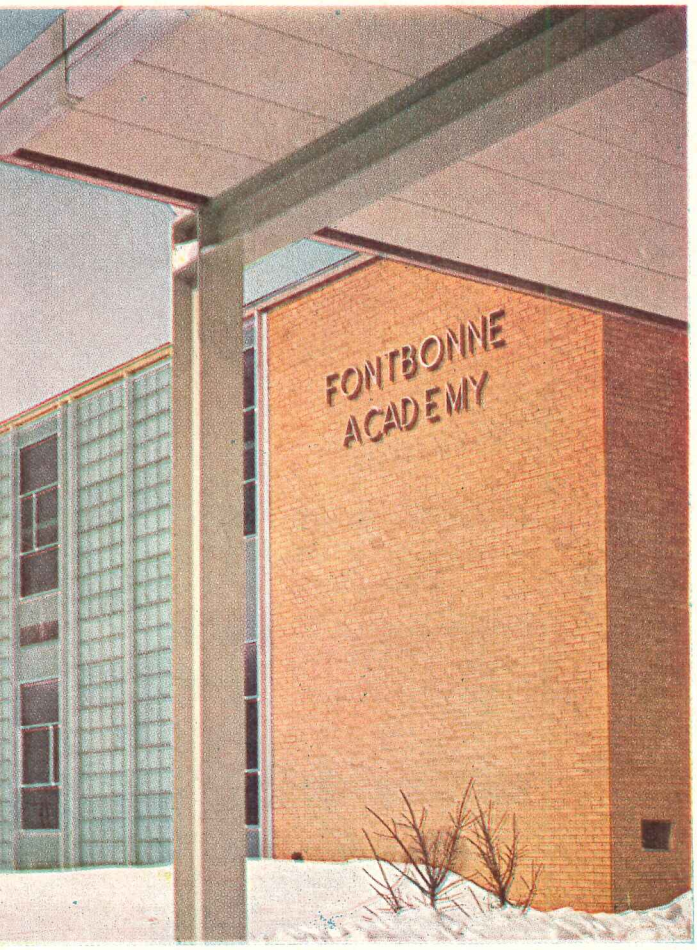


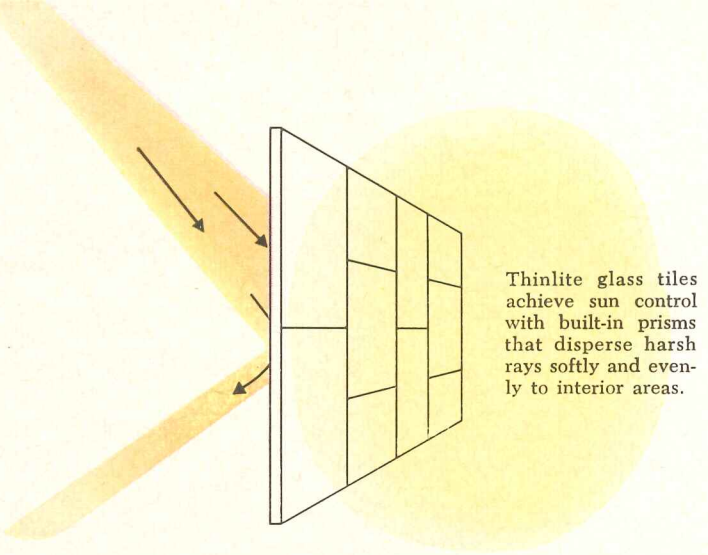
Extensive use of Thinlite prismatic panels, in combination with gray glass and porcelain enamel panels, controls harsh sunlight and severe weather in John Quincy Adams School, West Allis, Wisconsin. Architect, Schutte, Phillips & Mochon, Inc.



West Carrollton (Ohio) Senior High School (Architects—Outcalt, Guenther & Assoc.) features extensive use of prismatic and window panels to protect occupants from sun and weather in classrooms, corridors and cafeteria.

At Fontbonne Academy, Allegheny County, Pa., architects Celli-Flynn, McKeesport, combined light-controlling panels of green Thinlite with window and metal panels to achieve this unusual effect in the classroom wing.





Thinlite glass tiles achieve sun control with built-in prisms that disperse harsh rays softly and evenly to interior areas.

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Unique system offers many practical advantages for wide variety of structures:

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  Wide selection of panel materials, colors and arrangements permits unlimited design possibilities.
- **SUN CONTROL**
  Thinlite solar-selecting tiles diffuse sunlight on all exposures. Distribution of light is excellent and brightness is well controlled.
- **SOLAR HEAT CONTROL**
  Tests show Thinlite tiles transmit less solar heat than any other light-transmitting medium.
- **SAVINGS IN HEATING AND AIR CONDITIONING**
  Significant savings in heat and air conditioning can be achieved with Thinlite curtain walls. Tiles transmit less solar heat while the double-glazed construction guards against heat loss. Through-metal is kept to a minimum.
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  All possible fabrication is performed at factory under controlled conditions. Field cutting and fitting is reduced to the barest minimum. Field caulking is unnecessary except at wall perimeters.
- **LOW MAINTENANCE COST**
  Thinlite glass tiles are self-washing. Colors are permanent and metalwork is durable anodized aluminum.
- **COMPLETE CURTAIN WALL SYSTEM**
  The Thinlite system includes all necessary framing metal and parts, as well as glass or metal panels in 2′ x 4′ or 2′ x 5′ sizes.

For complete information including details, see Thinlite catalog in 1961 Sweet's Architectural Files—Curtain Wall Section.

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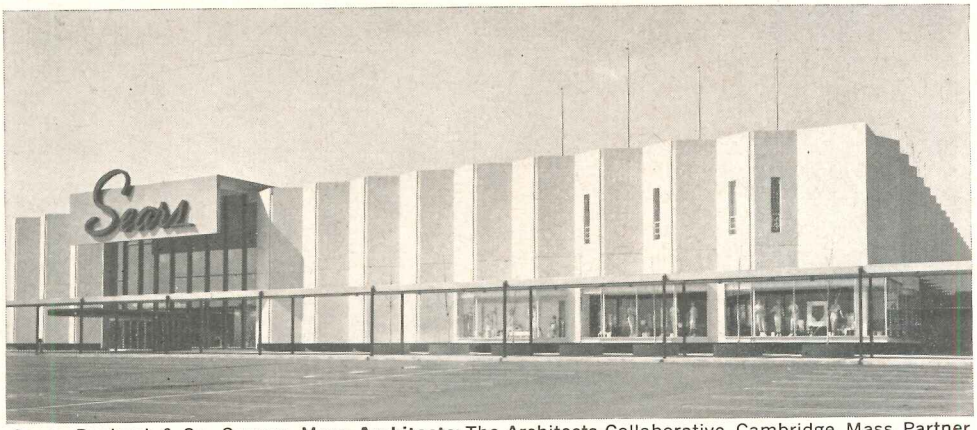
THE ARCHITECTS COLLABORATIVE

specified precast white concrete curtain-wall panels for this new Sears store in New England. Anchoring the panels in pairs to a structural concrete frame, an unusual corrugated concrete facade was created. Each unit was precast with a gleaming surface of exposed white quartz aggregate and ATLAS WHITE portland cement . . . 1½ inches of foamed polystyrene insulation . . . and a gray concrete backup. After erection, joints were sealed with gaskets and calking compound. □ More architects are discovering the aesthetic potential of precast concrete in curtain-wall design. Any size, shape, color, texture or pattern can be achieved . . . and economically anchored to any structural frame. For details, consult your local precast concrete manufacturer or write Universal Atlas, 100 Park Avenue, New York 17, New York.

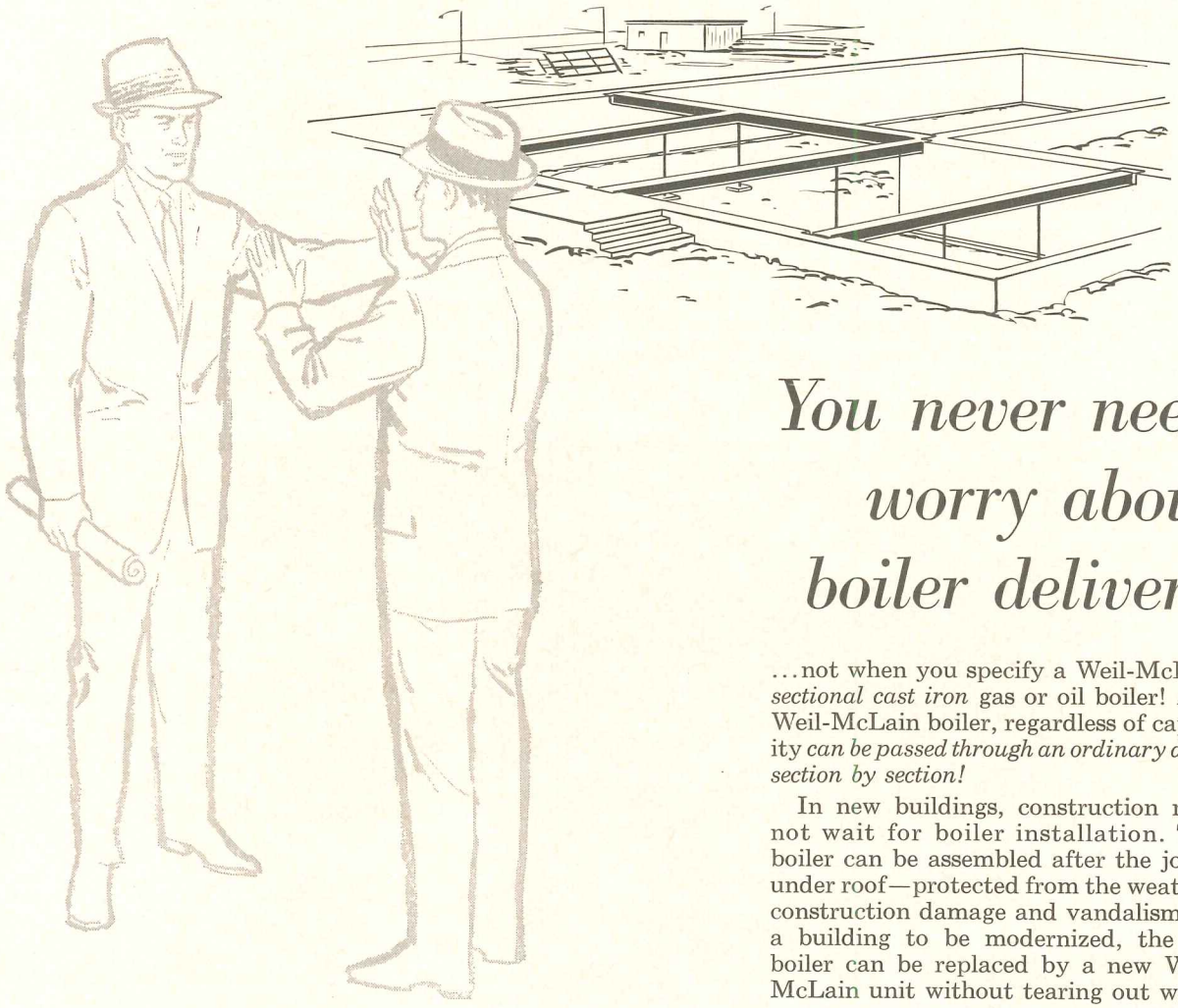


Sears, Roebuck & Co., Saugus, Mass. **Architects:** The Architects Collaborative, Cambridge, Mass. Partner in Charge: Norman Fletcher. **Contractor:** Vappi & Co., Inc., Cambridge. **Concrete Panels:** "Mo-Sai" by Cambridge Cement Stone Co., Allston, Mass.

Universal Atlas Cement
Division of
United States Steel

USS

"USS" and "ATLAS" are registered trademarks. WF-52



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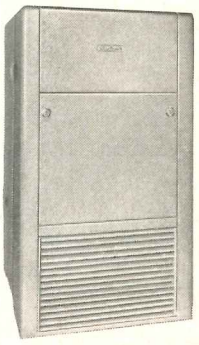
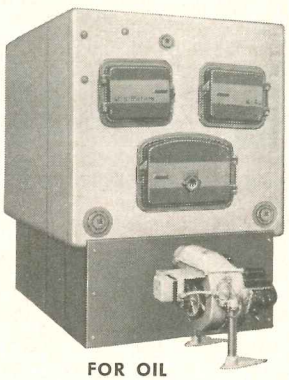
Maintenance expense, from the standpoint of repairs, is minor because cast iron boilers are strongly resistant to corrosion—immune to usual causes of boiler breakdown. Expensive welding and inspection are not required. Weil-McLain boilers can be easily kept at top efficiency because of convenient cleaning facilities.

Sectional Weil-McLain boilers offer these additional advantages...less boiler room space needed...longer life because of cast iron construction and strain-free assembly with short draw rods...tested and rated by I=B=R.



FOR GAS



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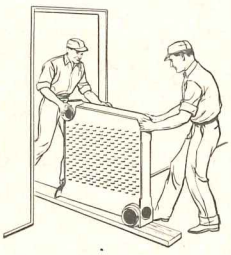

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HOUSING FOR THE AGING

continued from page 73

New York, N. Y.; Flora Y. Hatcher, HHFA; George Kassabaum, architect, St. Louis, Mo.; Mrs. Elizabeth Breckinridge, Illinois Public Aid Commission; Ollie A. Randall, vice president, The National Council on the Aging, Inc.; James Rosati Sr., president, Florida Retirement Village, Pinellas Park, Fla.; Mrs. Mildred S. Howard, housing specialist, USDA.

Henry Hering Memorial Medal Awards Presented

The Henry Hering Memorial Medal Award for outstanding collaboration between architect, owner and sculptor has been presented for the second year by the National Sculpture Society.

In the ecclesiastical category the award was given for the National Shrine of the Immaculate Conception in Washington, D.C., and for the Cathedral of Mary Our Queen in Baltimore, Md., both completed and dedicated last year. The medal for architecture was awarded Eugene F. Kennedy Jr., F.A.I.A., who designed both buildings. Mr. Kennedy is with Maginnis and Walsh and Kennedy, Boston.

In the monumental category the award was given for the Sicily-Rome American Memorial at Anzio-Nettuno, Italy, dedicated in 1957. Eric Gugler, F.A.I.A., of New York received the medal for achitecture; Paul Manship, the sculpture medal.

Eighteen sculptors were given citations for their work on the two church buildings. For the Washington building, the sculptors were: Adolph Block, Joseph C. Fleri, Thomas G. Lo Medico and Pietro Montana of New York City; Lee Lawrie of Easton, Md.; Ivan Mestrovic, South Bend, Ind.; and George Snowden, Los Angeles. Citations are being awarded posthumously to John Angel, Sandy Hook, Conn. and Ulysses A. Ricci, New York City. Sculptors honored for their work on the Baltimore building were: Theodore Barbarossa, Arcangelo Cascieri, Joseph A. Coletti, Adio di Biccari and Ernest E. Morenon of Boston; Jean de Marco and Gleb Derujinsky of New York City; Leo Friedlander, White Plains, N.Y.; Michael Lantz, New Rochelle, N.Y.

more news on page 202

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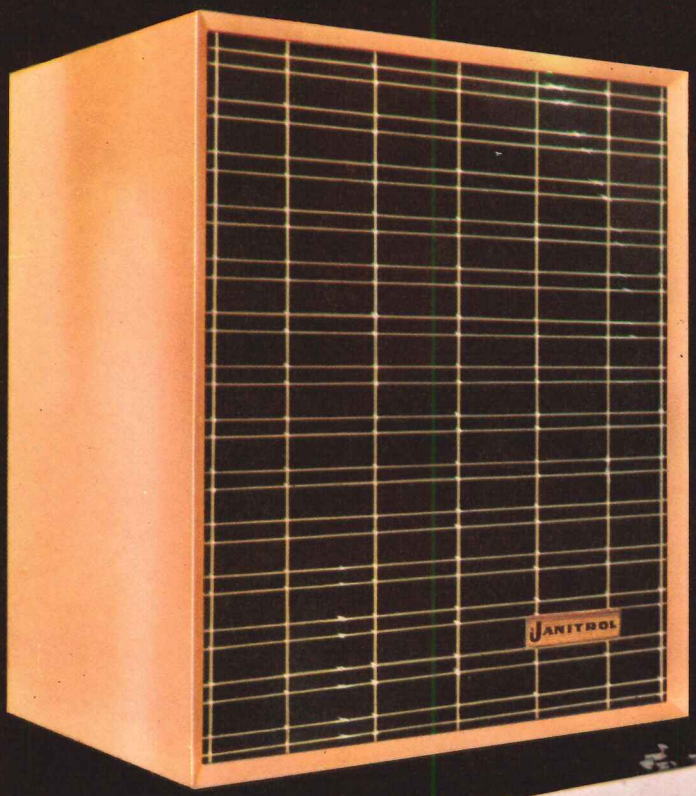

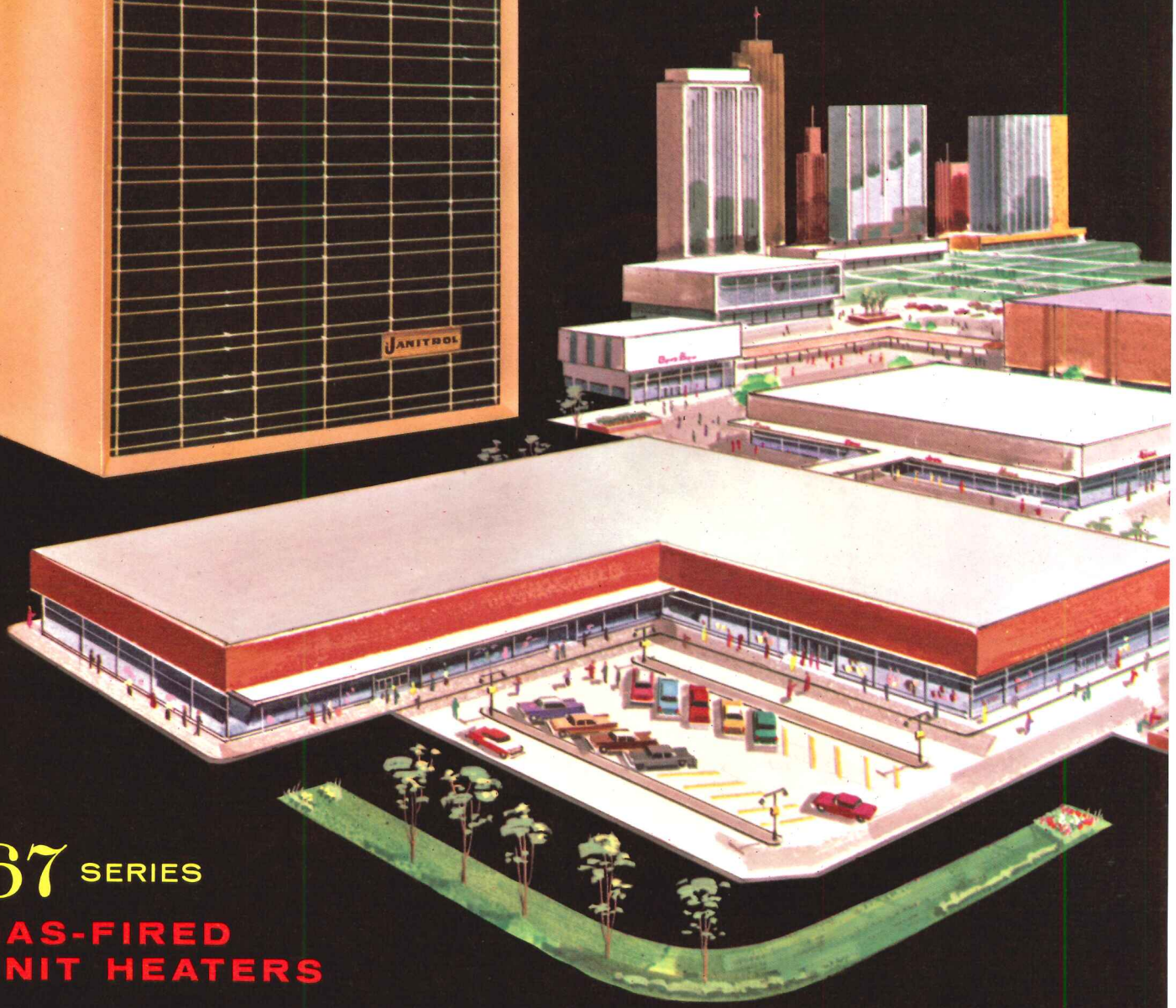

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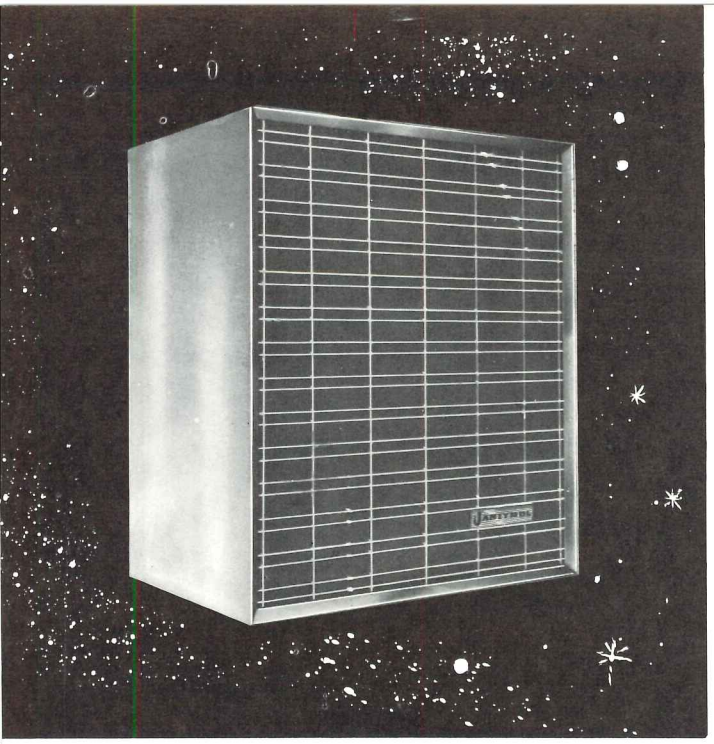

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ALL NEW! JANITROL 67 SERIES UNIT HEATERS FEATURING. . . STELLAR NEW STYLING, PERFORMANCE AND DURABILITY!

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The draft hood opening and adjustable louvers are concealed by the beautifully styled gold-tone grille. The rear combustion air inlet permits use of a solid bottom panel . . . eliminates any possibility of obstruction to combustion air intake.

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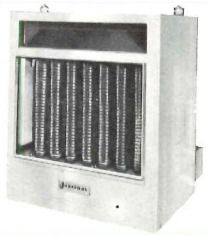

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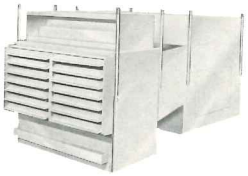

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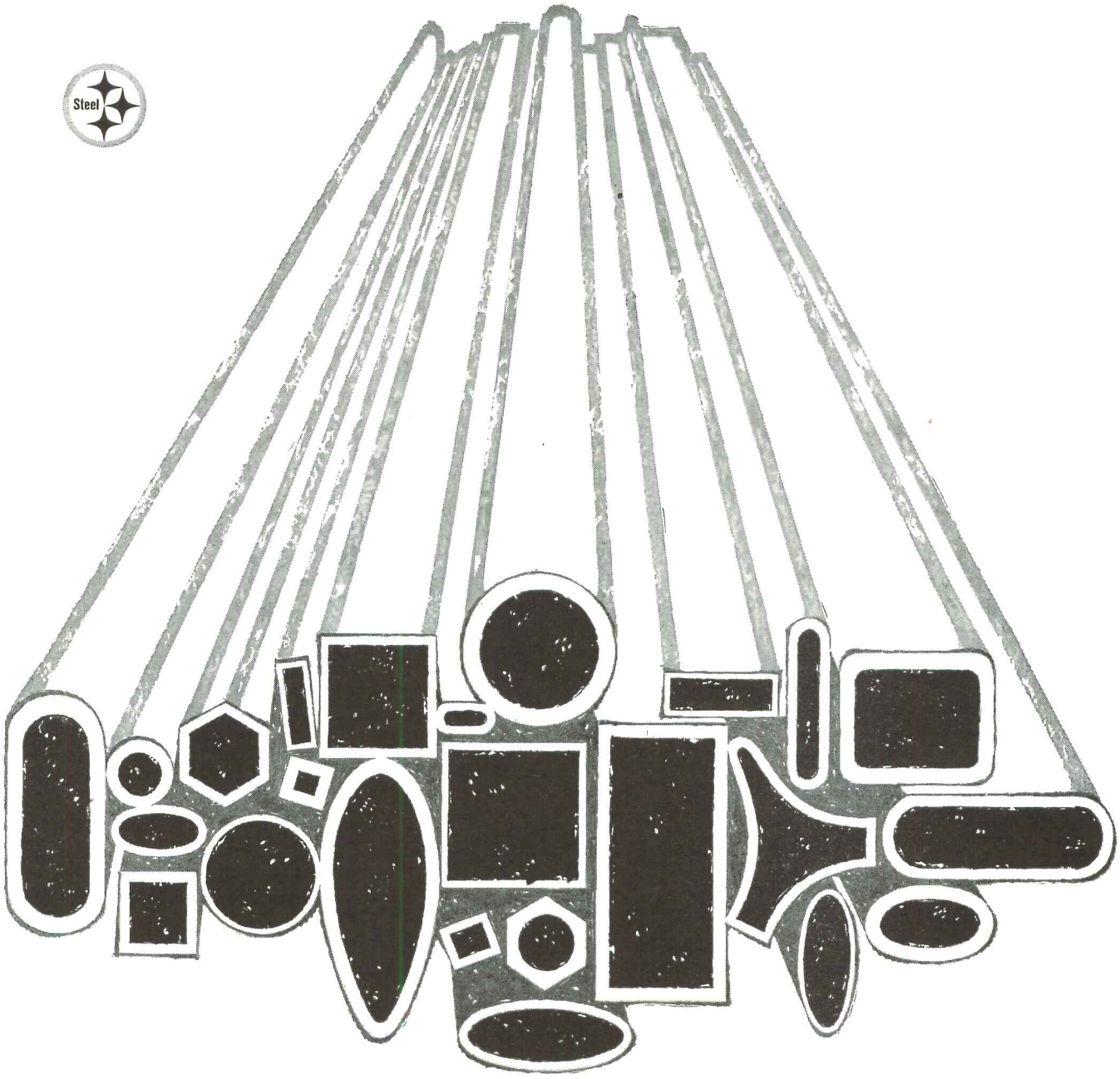

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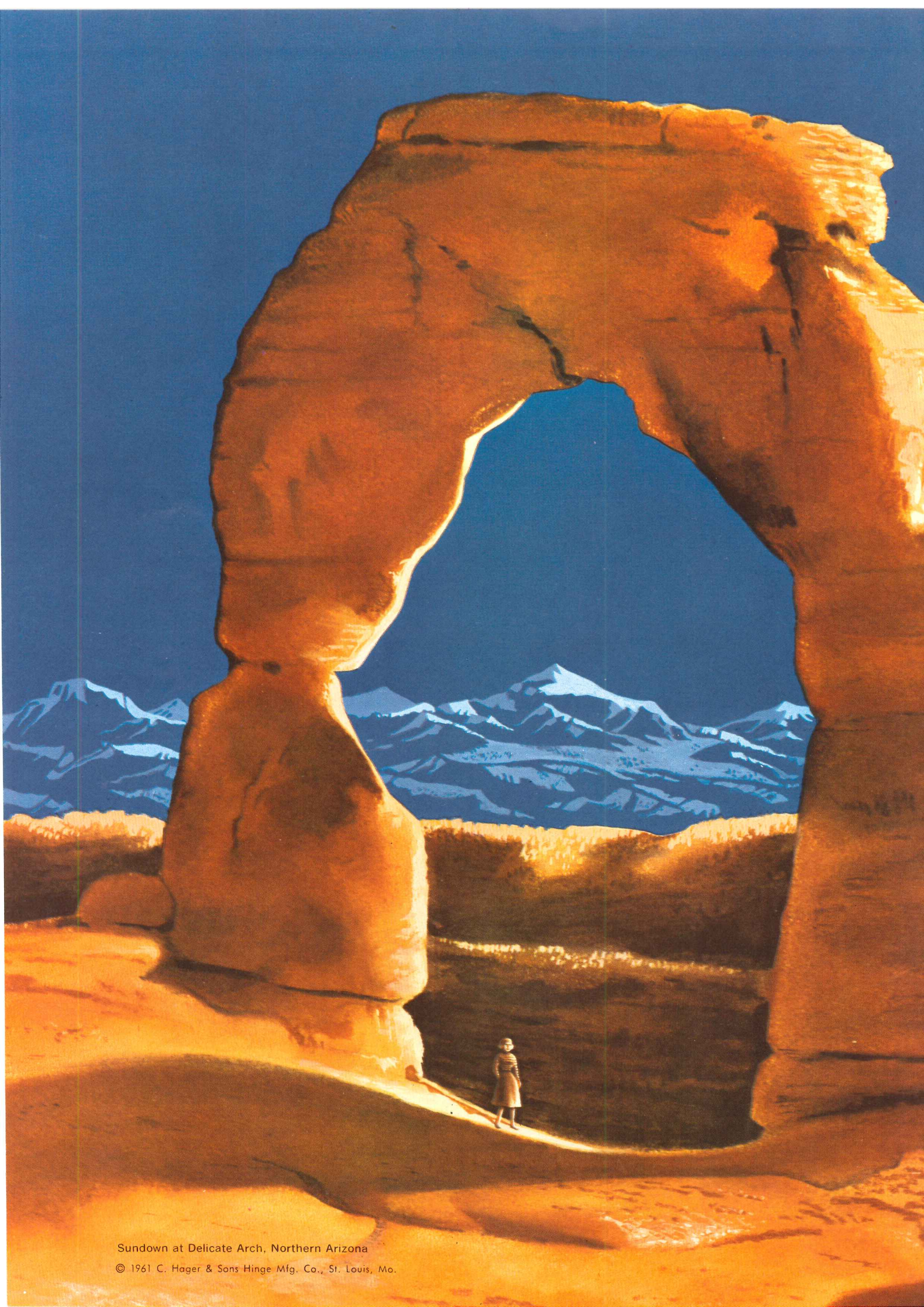
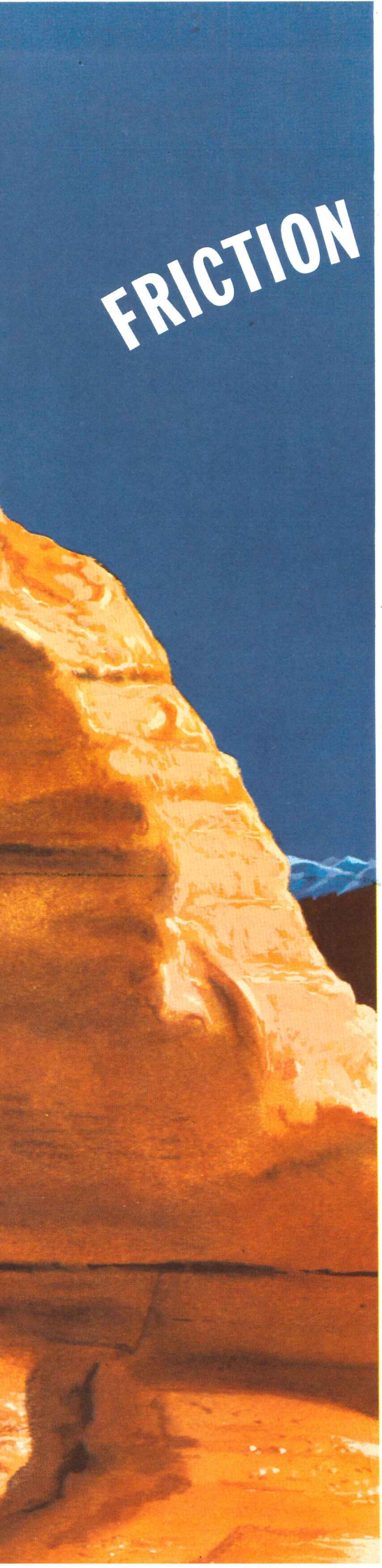


Sundown at Delicate Arch, Northern Arizona



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Lightweight 4' x 4' panels easily applied to concrete slabs or wood sub-flooring

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HOMASOTE
5/8" UNDERLAYMENT
for use under quality floor coverings

May be applied direct to concrete or to rough wood flooring

Provides a more comfortable floor for working and walking

ACTUAL SIZE OF LUMBER S4S

1" Thick ¾"	2" Wide 1½"	6" Wide 5½"
1¼" Thick 1⅛"	3" Wide 2½"	8" Wide 7¼"
2" Thick 1⅝"	4" Wide 3½"	10" Wide 9¼"

Example: 2 x 6 is 1⅝" x 5½"

• Homasote Handbook

Ask your lumber dealer for free Homasote Handbook. Its 72 pages give you many helpful building hints.

FORM 247

Comfortable, quiet floors

ARE POWERFUL, NEW SALES FEATURES

These two Homasote Products, supplied in 4'x4' panels, may be used interchangeably—according to whether 17/32" or 25/32" floor height is desired. They insure comfortable, resilient floors—sound-deadening and insulating against both temperature and the infiltration of dust. These features make a strong appeal to women and men alike.

Today, Homasote Products are available in a wide variety of thicknesses and sizes (up to 8'x14'). All are *weatherproof* and lend themselves to many uses not possible with other materials. They save you both money and time at every step of construction.

The major facts about each Homasote Product are presented in briefest terms—on a colorful Nutshell Card (as here pictured). Handy reference tables—such as actual size of lumber—are included. Ask your Lumber Dealer—or write us—for a set of these cards. Each shows you where you can save money at some point of construction—and still give the home owner higher quality, finer appearance and more lasting satisfaction. And—be sure you always have available a copy of the latest edition of the 72-page Homasote Handbook. Kindly address your request to Department H-2 or ask your Homasote representative.

HOMASOTE
Weatherproof
1⅜" WALL PLANK
2' x 8', tongue and grooved for use with studs 4' o.c.

Lower cost than ordinary frame walls . . . better insulation. Each plank is three layers of laminated Homasote with all long edges beveled on both sides. Nailed tongue up—for either interior or exterior use . . . especially advantageous for shell or vacation houses. Only 6½ planks needed to cover 100 sq. ft. of sidewall.

Ask your Lumber Dealer about Homasote P-B Components

HOMASOTE COMPANY
TRENTON 3, NEW JERSEY

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Homasote of Canada, Ltd. • 224 Merton Street • Toronto 7, Ontario

APARTMENT HOUSE PHONE SYSTEMS

A System For Every Size Building

Suite telephone has satin finish stainless steel faceplate . . . compact design to permit installation in buildings using shallow wall construction . . . removal of faceplate exposes all wiring terminals . . . wide choice of pushbuttons and signals . . . one of the units available in a complete line of equipment . . . including vestibule telephones . . . tilting mailboxes . . . directories . . . in standard modular units . . . to meet the requirements of any type or size apartment house.

Suite Telephone

LOCAL FIRE ALARM SYSTEMS

Meet Federal, State and Local Codes

Non-coded station features die-cast aluminum case . . . rugged molded plastic housing . . . sealed mercury switch . . . selection of contact configurations . . . dual terminals for each contact . . . features typical of the complete line of modern Modular Fire Alarm systems . . . both coded and non-coded . . . all UL approved . . . with provision for use of vibrating horns and bells . . . automatic fire detection . . . and connection to city fire alarm system.

Non-Coded Station

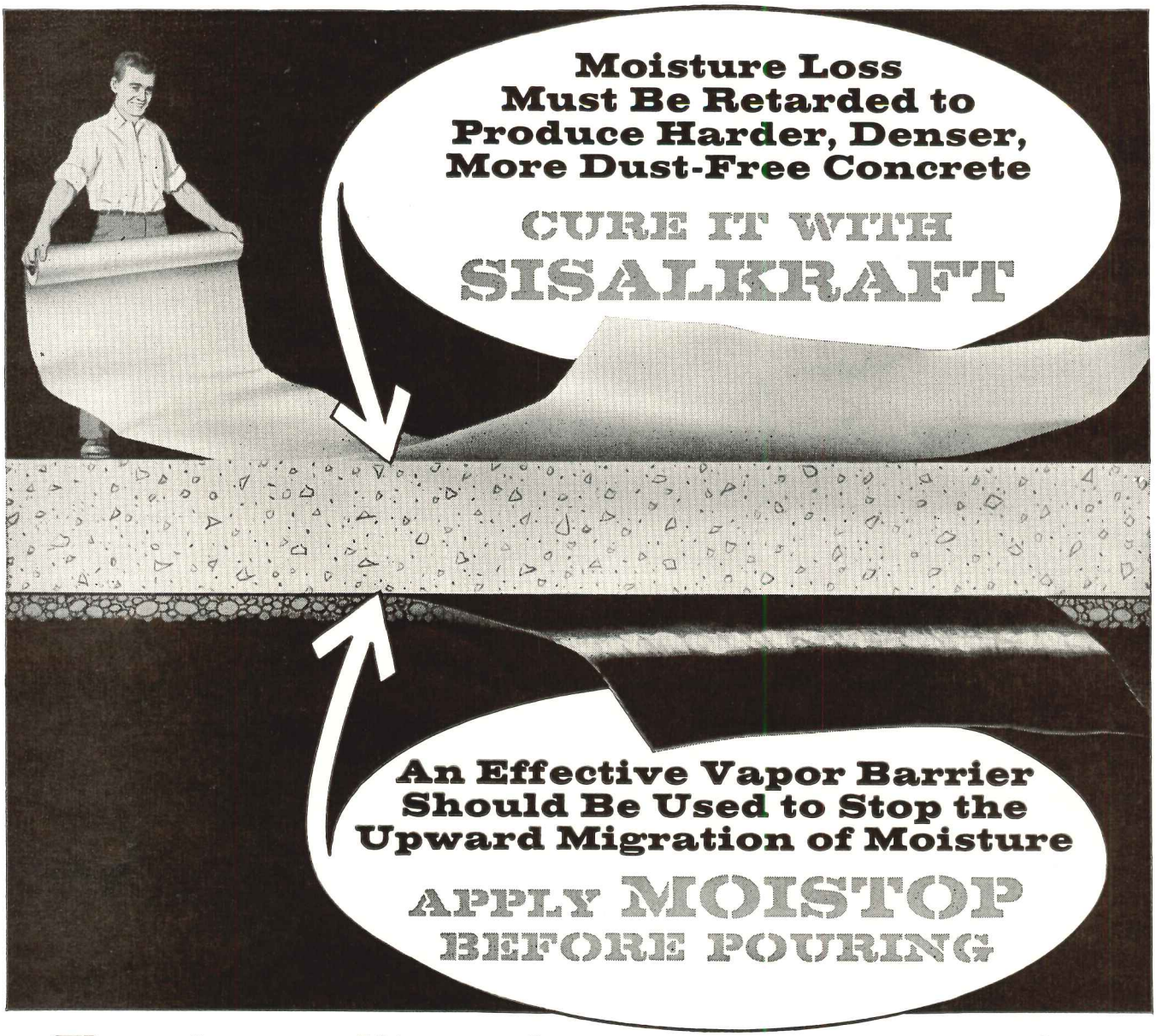
PRIVATE TELEPHONE SYSTEMS

Proven Quality In Self-Contained Units

Selector desk telephone is key instrument in system consisting of from 2-20 telephones . . . where each station can be signaled individually . . . and as many as 10 simultaneous conversations may be held at one time . . . just one of many different systems available . . . for requirements ranging up to 200 stations . . . from simple selective ringing to selective-talking annunciator switchboard systems . . . all reflecting Couch's design for "simplified systems of communication".

Selector Desk Telephone

for complete details, write S. H. Couch Company, Inc. 3 ARLINGTON STREET NORTH QUINCY 71, MASS.



These two quality products warrant your careful consideration for most concrete floor construction

MOISTOP — A combination of fungicide-treated reinforced paper laminated to polyethylene film with a perm rating of 0.15, Moistop is a *permanent* barrier against transfer of moisture vapor. Applied over fill before pouring, its strength will resist tearing, puncturing and abrasion from workmen and equipment. Wide widths mean faster application with minimum lapping.

SISALKRAFT — Tough reinforced paper of 101 uses. This product will prevent rapid drying of newly poured concrete. It is also an excellent protective cover for the slab during subsequent construction — keeping debris, mortar, etc., from damaging or marring the floor. The durability of Sisalkraft permits re-use, bringing its low cost per square foot down even more.

Moistop and Sisalkraft comply with FHA Minimum Property Standards for the uses recommended.

Literature and samples on either or both products will be sent promptly upon request.

ROLL SIZES

MOISTOP — 72", 84", 96" containing 1200 sq. ft.

SISALKRAFT — Widths from 36" to 96", special rolls up to 26½'.

reinforced paper, foil, plastics and other products for construction, industrial packaging and agriculture

American **SISALKRAFT** Company

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Award Walls

with STARK

SCULPTURED STRUCTURAL GLAZED TILE

The recent Stark Sculptured Tile Contest for Architects and Contractors resulted in hundreds of imaginative adaptations and uses for Sculptured Structural Glazed tile.

Several of the winning *entries are combined in this illustration. One is a unique overall wall pattern using Stark's "Classic" design tile along with regular units. Another award idea used the same "Classic" design, combined with brass inserts throughout a complete series of church "furniture."

This nationwide contest again pointed out the almost limitless design possibilities of the only structural unit that offers inherent strength, pattern, economy and a glazed finish for beauty and minimum maintenance.

New . . . Now Available . . . Design Ideas—8-page sketchbook of design suggestions by leading architects showing unique and dramatic installations of Sculptured Structural Glazed Tile. Send for your copy today!

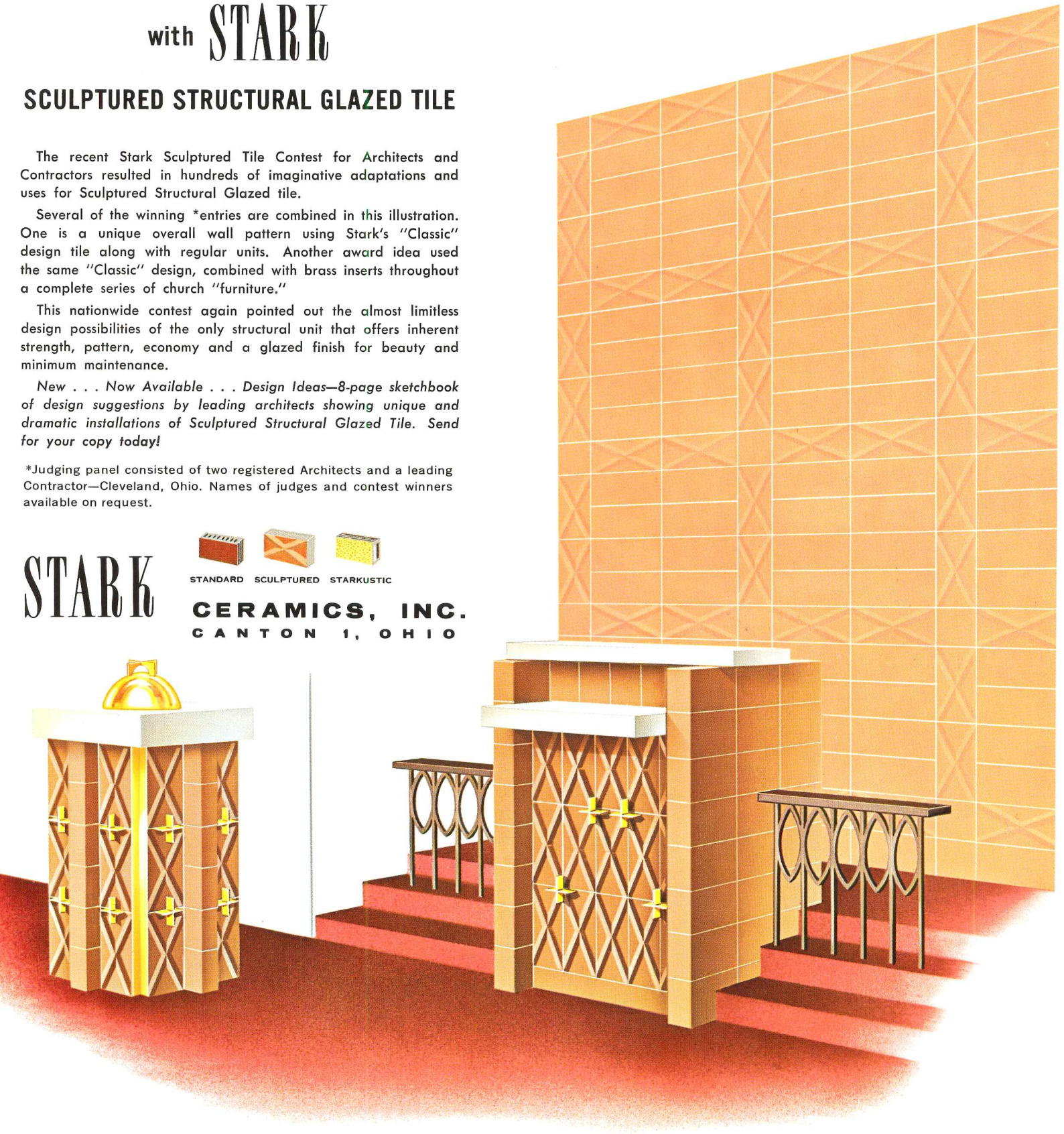
*Judging panel consisted of two registered Architects and a leading Contractor—Cleveland, Ohio. Names of judges and contest winners available on request.

STARK

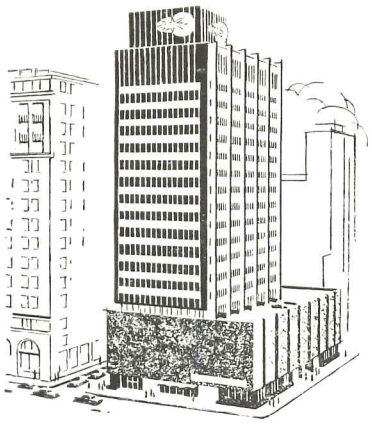
STANDARD SCULPTURED STARKUSTIC

CERAMICS, INC.

CANTON 1, OHIO



Architects: Walter Hook Associates; *Structural Engineers:* R. V. Wasdell and J. R. Armstrong; *General Contractors:* Southeastern Construction Co., Goode Construction Corp., F. N. Thompson, Inc., and McDevitt & Street Co. Structural steel was fabricated by Southern Engineering Co., Charlotte, N.C., and Bristol Steel and Iron Works ,Bristol, Va. Bristol erected all steel.



all columns outside clear space inside

When completed, the North Carolina National Bank Building in Charlotte will be the largest and tallest all-welded, steel-framed building in the Southeast.

The building will have 16 floors plus a 2-story penthouse. The tower will be in two sections: a main tower for bank personnel and leased offices; a service tower for elevators and stairs.

No interior columns

You can see clear through the Main Tower! 36-in. wide-flange sections span the entire 55-ft width. Not a single column to get in the way of floor arrangements. Partitions can be placed anywhere . . . office space can be arranged as the tenants desire.

Largest columns in the Carolinas

You can also see the largest and heaviest columns ever used in an office building in the Carolinas. The column sections, rolled specially by Bethlehem, are 36¾-in. deep and weigh 369.3 lb per lineal foot. That's 69.3 lb more per foot than the heaviest regular 36-in. wide-flange section.

All-welded steelwork

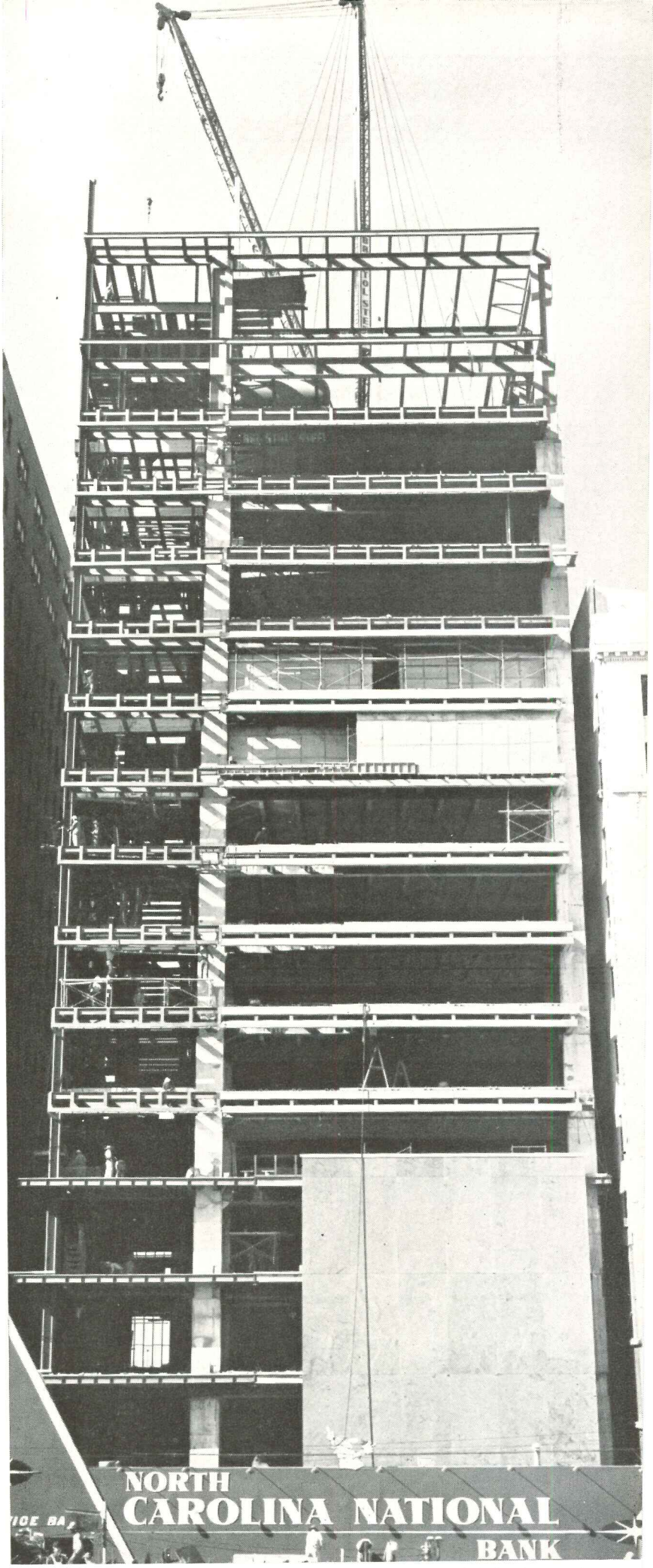
Using these heavy sections as the column core, the columns are welded, built-up members with a 20-in. x 2¾-in. cover plate welded flat on one flange, and two 30-in. x 2¾-in. plates welded perpendicularly to the edges of the other flange. The finished, fabricated columns weigh 1,100 lb per lineal foot.

BETHLEHEM STEEL COMPANY, BETHLEHEM, PA.
Export Sales: Bethlehem Steel Export Corporation

BETHLEHEM STEEL

Steel
For strength
. . . economy
. . . versatility

BETHLEHEM STEEL

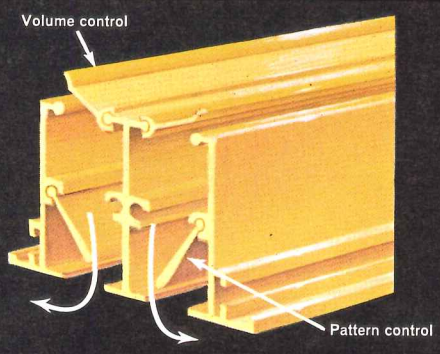


ALL-WELDED. *150,000 lb of welding rods were used in shop fabricating, and 35,000 lb were used in erecting 3,800 tons of Bethlehem structural steel.*

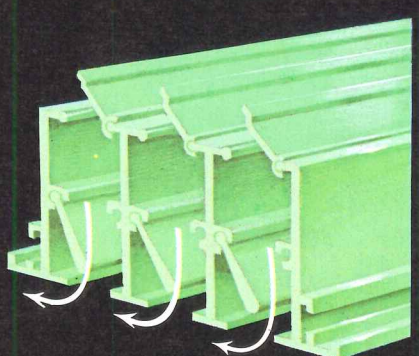
NEW FROM BARBER-COLMAN

Control

styled for
today's interiors
. . . engineered for
environmental
control



CLA two-slot Control-Line diffuser with volume control and two-way opposite pattern control



CLA three-slot Control-Line diffuser with volume control and one-way air pattern control

Line

AIR DIFFUSERS

. . . independent control of air volume and pattern insures comfort

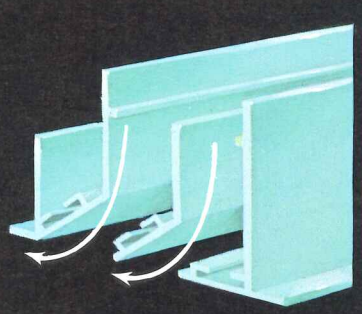
You get everything the name implies in a Barber-Colman *Control-Line* extruded aluminum air diffuser — linear design distinction with built-in control of both air volume and pattern.

These diffusers are light in weight, easy to handle, and simple to install in ceiling, sidewall, or soffit. They are assembled in continuous lengths by mechanical interlocking, using a key-and-slot arrangement. This assures continuity and alignment.

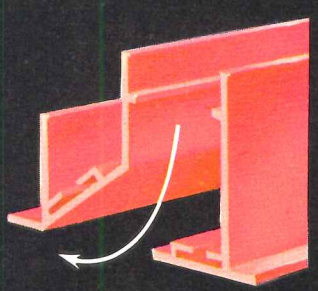
Available with one, two, three, or more linear openings, with built-in volume controls. Completely flexible CLA models incorporate air pattern adjustment — from horizontal to vertical throw. Can be furnished for two-way opposite or one-way air delivery as required.

The CLF models provide fixed air pattern delivery and are available in various shapes and styles to meet all architectural requirements. They may be used for any supply or return air application.

For complete information on the most advanced and complete line of linear extruded aluminum diffusers available, write for Control-Line Bulletin F-10431, *Barber-Colman Company, 1300 Rock Street, Rockford, Ill.*



CLF two-slot Control-line diffuser with one-way fixed air pattern

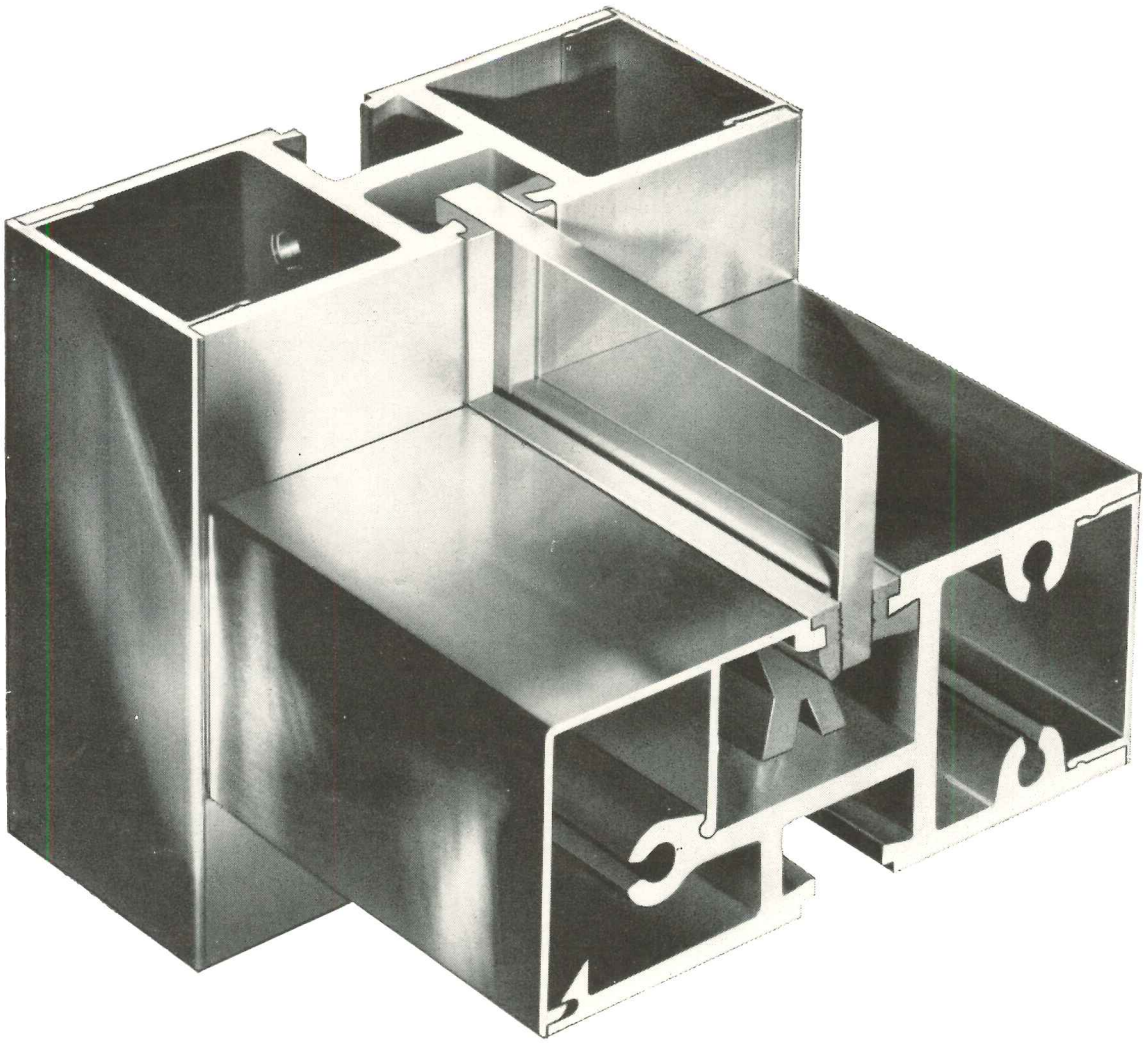


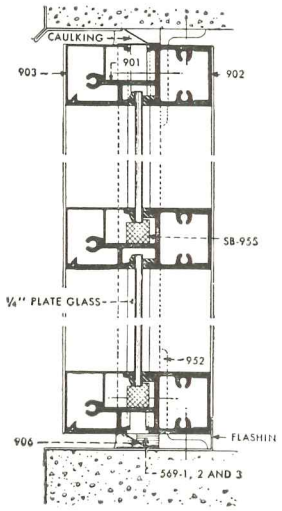
CLF one-slot Control-Line diffuser with one-way fixed air pattern for recessed corner mounting

BARBER-COLMAN

where originality works for you

BARBER COLMAN





The new PITTCO® "900" Series—You can frame windows and glass-clad walls completely with the related components of the new PITTCO "900" series. It is provided with a drainage system. All members are aluminum; all fastenings are concealed; all glass is held in neoprene strips and recessed to increase daylight opening. And the clean beauty of every line is strikingly apparent. For details, consult your PITTCO Metal Representative.

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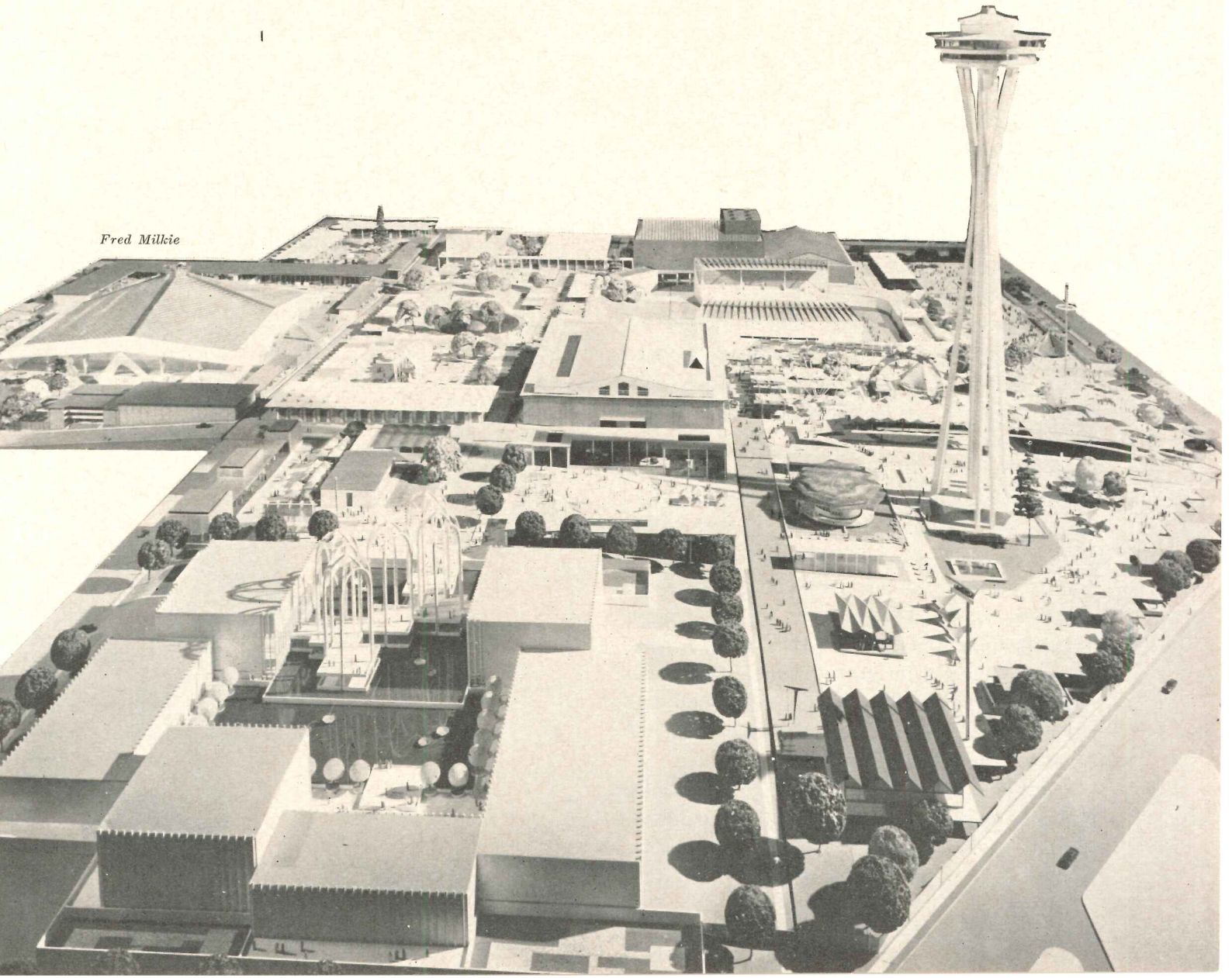
SEATTLE VOTES FOR ARCHITECTURE

Next year's "Century 21" Exposition USES design, and even architectural control — all points east and west, including New York, please copy — as tools for visual coherence, commercial success and a permanent community center besides



Fred Milkie

Century 21

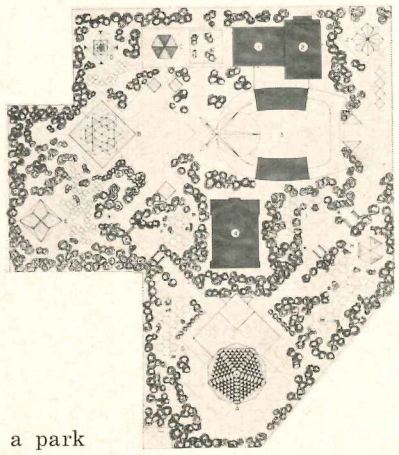
Architecture is not without honor in Seattle. The design story of Century 21 is a story to hearten architects (and instruct their clients) in a world which does not always understand that good architecture is—among many other things—just plain good business.

New York, whose prophet Robert Moses has been so earnestly protecting his 1964 World's Fair from any vestige of architectural control (by architects, that is), provides the complete contrast in its seeming total lack of comprehension of the role of architecture. In New York, the "Board of Design" resigned after its proposals for planning of the Fair site were rejected, ostensibly at least on economic grounds; and in his public speeches Mr. Moses has been boasting of "democracy of design" (i.e., no over-all design control) as his established design objective: "Our rules will not give any self-constituted clique control. . . . It will make for free enterprise, variety and perhaps some confusion in the minds of those who want everything to conform to a single pattern." Architects in New York are beside themselves with wrath and just about ready to man the barricades; but so far—except as they are commissioned by individual exhibitors—they are on the outside looking in.

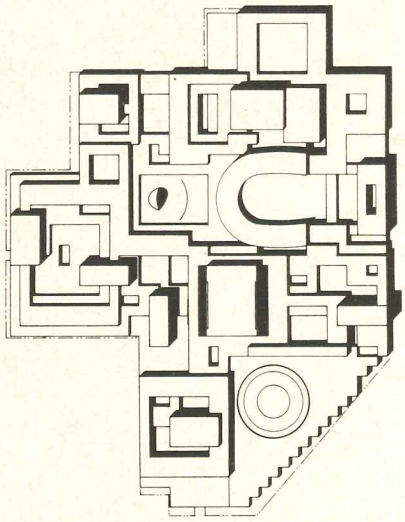
Not so in Seattle.

The first official act of Century 21 Exposition, Inc., was to create, in August 1957, a Design Standards Advisory Board. Its members included four architects—John Detlie, Robert Dietz, Perry Johanson and Paul Thiry—selected from a list of 16 names provided by the Washington State Chapter, A.I.A.; John Spaeth, Seattle's Planning Director; and two out-of-town consultants, architect Minoru Yamasaki and landscape architect Lawrence Halprin. The Board studied the needs of both the fair and a civic center, suggested imaginative solutions, made sketches and, several months after its appointment, urged that the two Commissions involved in the two goals—the State-appointed World Fair Commission and the city's Civic Center Commission—name a chief architect for the Exposition.

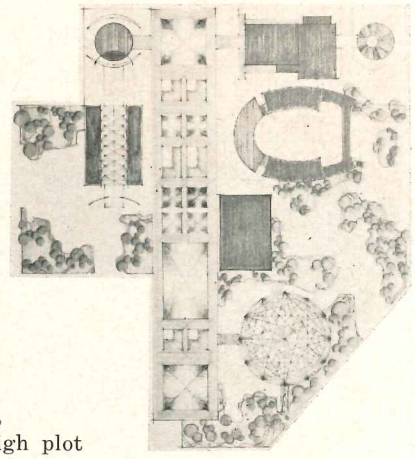
The Chief Architect—or as Century 21 calls him, the Primary Architect—could come from anywhere in the United States; the corporation and the commissions aimed at the best in every



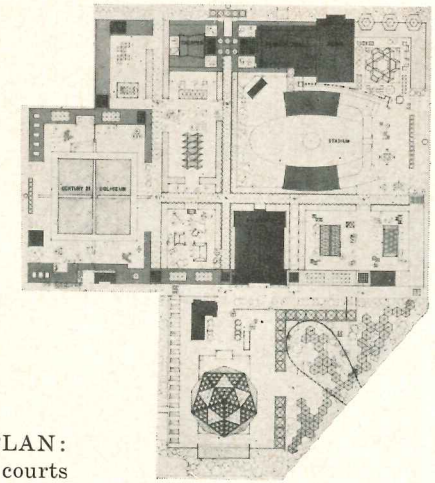
FIRST PLAN:
temporary structures in a park



Multi-level plan
for maximum site use



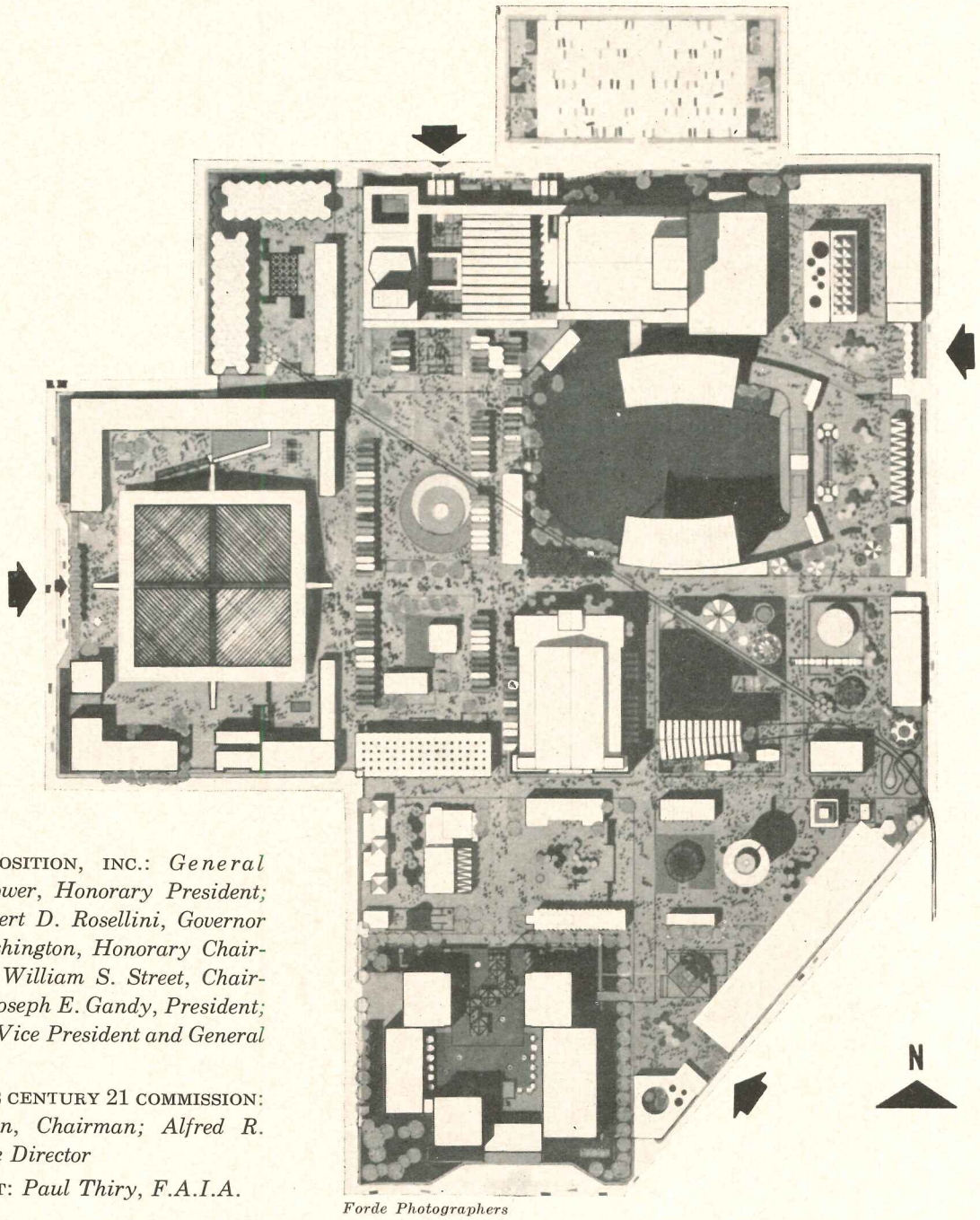
Single exhibit building,
Federal Building on high plot



FIRST OFFICIAL PLAN:
covered streets, open courts

SITE PLAN

PRIMARY ARCHITECT:
Paul Thiry
MECHANICAL ENGINEER:
James Notkin & Associates
ELECTRICAL ENGINEERS:
Beverly Travis & Associates
LANDSCAPE ARCHITECT:
O. E. Holmdahl



CENTURY 21 EXPOSITION, INC.: *General Dwight D. Eisenhower, Honorary President; The Honorable Albert D. Rosellini, Governor of the State of Washington, Honorary Chairman of the Board; William S. Street, Chairman of the Board; Joseph E. Gandy, President; Ewen C. Dingwall, Vice President and General Manager*

WASHINGTON STATE CENTURY 21 COMMISSION: *Edward E. Carlson, Chairman; Alfred R. Rochester, Executive Director*

PRIMARY ARCHITECT: *Paul Thiry, F.A.I.A.*

Forde Photographers

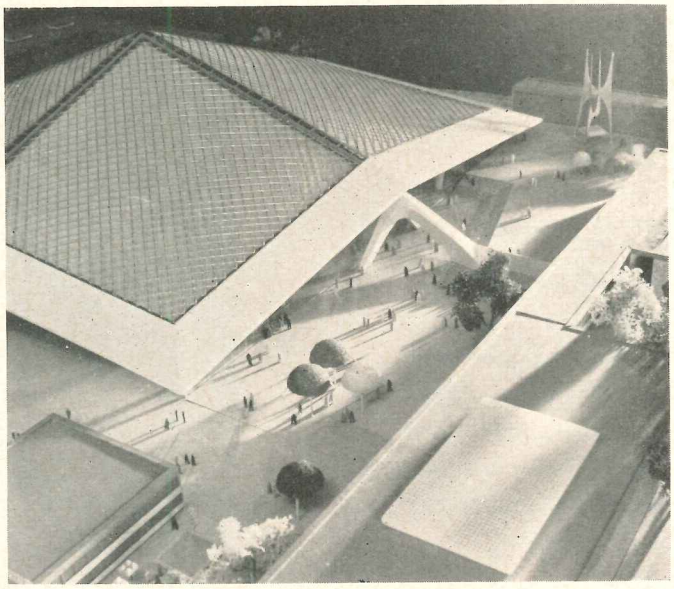
respect. But after considering the names of 35 architects, and after interviewing six, the two Commissions unanimously—and independently—chose a distinguished Northwest architect, well known to Seattle residents through his long and fearless service on their Planning Commission, and to his fellow architects for the high quality of his architectural work and for his service to the profession: Paul Thiry of Seattle.

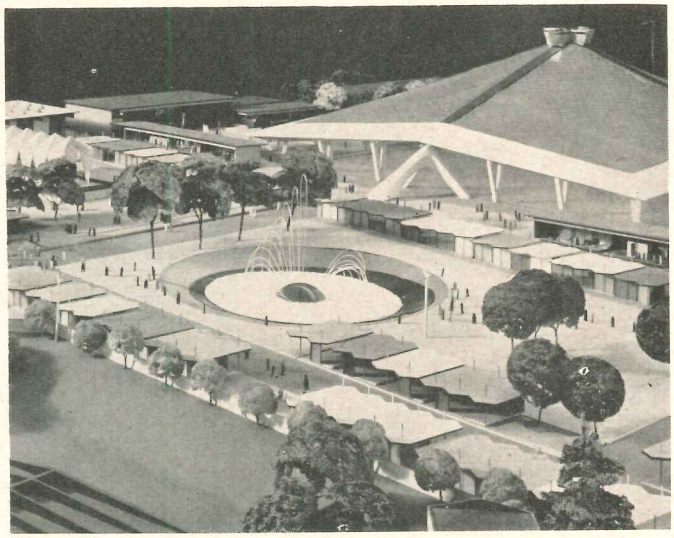
Century 21 is an urban World's Fair, set almost exactly in the center of the city of Seattle on a 74-acre tract of nearly flat land which overlooks the downtown business district, Elliott Bay and, beyond, Puget Sound and its Islands. The site is slightly more than twice the size of the 1951 Festival of Britain, which was also an urban exposition. But Century 21 is not at all like the Festival of Britain, despite their similar mid-city situations. Nor, for different reasons, does it resemble its most recent U.S. predecessors, the 1939-40 New York World's Fair and the San Francisco Golden Gate International Exposition, or the Brussels Fair of 1958.

A prime reason for Century 21's departure from these precedents is that from the beginning its planning has been towards two ends: an exciting and forward-looking exposition whose buildings and spaces could have all the drama and spectacle usually connoted by fairs, and at the fair's end, a city center for cultural, sport and other community events for which the fair's principal buildings would be the nucleus.

By the time that Paul Thiry assumed his duties with the Exposition in August 1958, less than three years remained until the projected opening date (later moved ahead one year). No definitive site plan had been made, no architectural character had been set for the physical environment of the Exposition. And many important factors—such as Federal participation—were still big question marks.

The site plan was complicated by the three existing buildings on the site: the Civic Auditorium and Ice Arena, destined for extensive remodeling; a Memorial Stadium belonging to the School Board, and the National Guard Armory. All had to be retained for economic and other reasons. The first schemes, presented

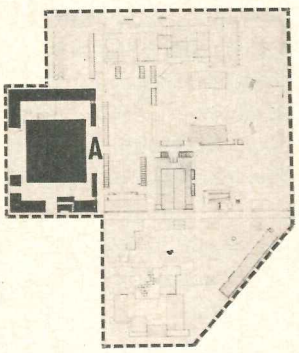


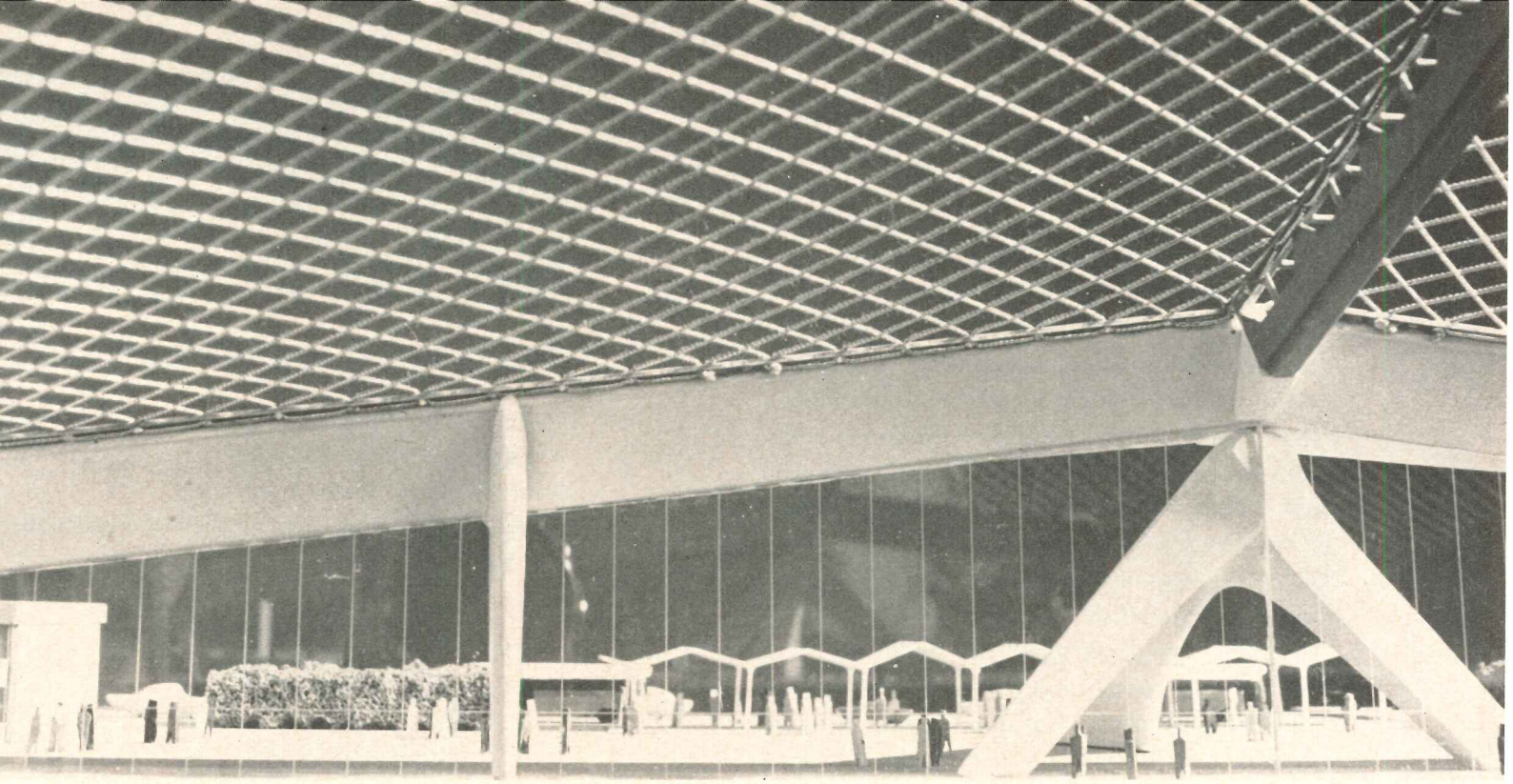


Fred Milkie photos

A. COLISEUM 21

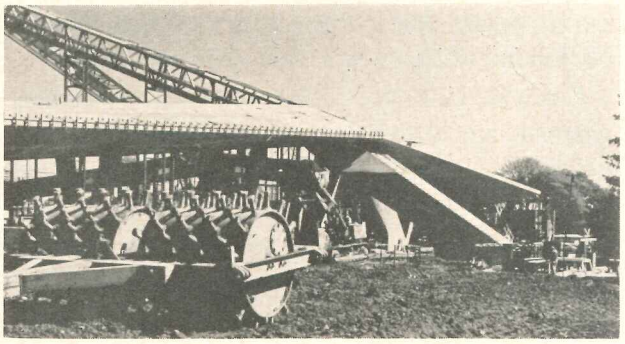
OWNER: *State of Washington*
ARCHITECT: *Paul Thiry*
STRUCTURAL ENGINEER: *Peter Hostmark and Associates*
MECHANICAL ENGINEER: *James Notkin & Associates*
ELECTRICAL ENGINEER: *Beverly Travis & Associates*
GENERAL CONTRACTOR: *Howard S. Wright Construction Co.*

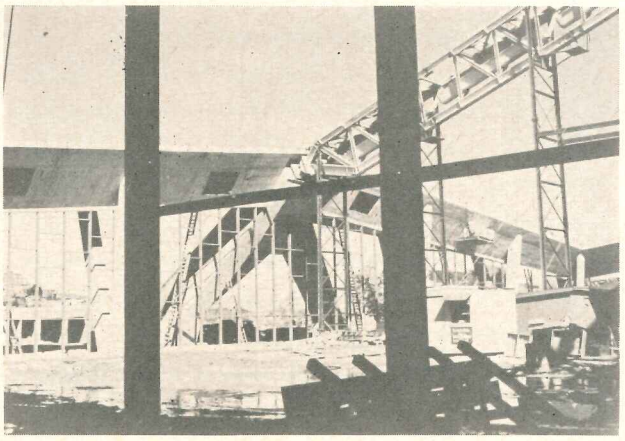


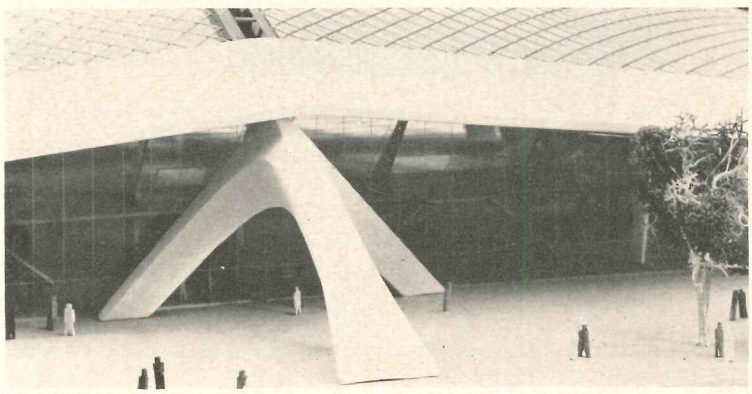


Fred Milkie

The Coliseum's dramatic form is a space-frame made up of four massive and strongly sculptural concrete tripods which act as abutments for the four steel compression trusses of the basic roof structure and are connected by a hollow prestressed concrete edge beam. Steel cables laced between the trusses form a hyperbolic paraboloid surface on which are carried the insulated aluminum panels of the finished roof. The building encloses three acres of unobstructed space, reaches a height of 110 ft at the center, and will be used during the Exposition to house one of the main "theme" exhibits, the "World of Century 21" (bottom, far right), designed by Donald Deskey Associates, Inc., with Synergetics, Inc., as engineers. Opening off the Coliseum is the Exposition's plaza with the fountain which won Seattle's international design competition. After the Exposition, the Coliseum will be converted for use as an 18,000-seat sports center







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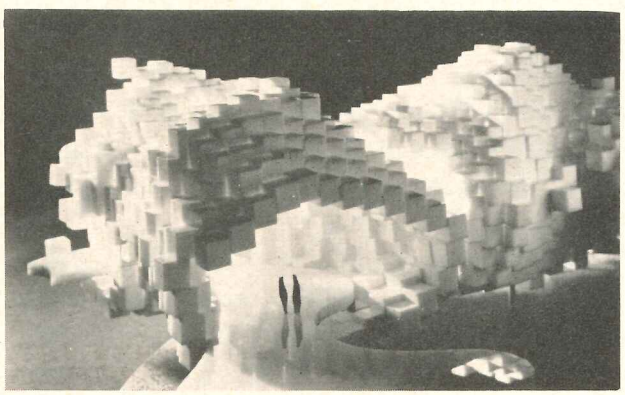


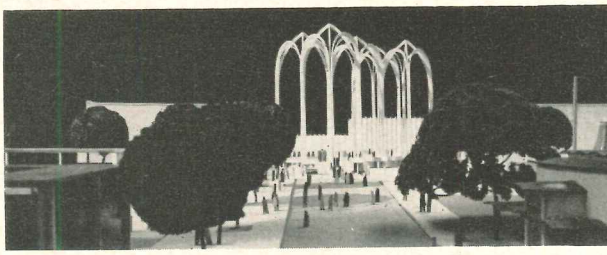
in November 1958 by the new Primary Architect to the World Fair Commission and the Corporation, had hopefully shown the site cleared of these buildings and developed, in one instance, as a park and, in another, as a multi-level, maximum-use plan (page 96). But these had to be put aside. In the end, however, what emerged was a site plan of ordered arrangement, based on a concept of courts within which the principal buildings were focal points, with the fair itself turned away from the more-than-ordinary surrounding neighborhood.

Although some things have been modified since this first official plan was accepted in May 1959, the basic concept of one dominant focus surrounded by low perimeter buildings has been retained, and when the Exposition is completed, next April, the architectural significance of this *parti* and its importance to the over all accomplishment of the site's two uses will be clear.

Since it made use of the existing grid street pattern, the court concept has practical advantages as well. Only a minimum amount of street closing has been necessary. But even more important, with this plan the existing utilities have been retained, an economic advantage not only to the fair, but to the future civic center (now renamed Seattle Center since its buildings have no governmental functions).

As now developed, the plan's three major building groups are Thiry's State-financed Coliseum (page 98, 99) which is to house the "World of Century 21" exhibit; Yamasaki's United States Science Pavilion (on which he is associated with Seattle architects Naramore, Bain, Brady & Johanson) which will stress the peace-time benefits of science for man, with a film by Charles Eames as one of the principal attractions; and the Seattle Center buildings—the Playhouse and Exhibition Hall, by Kirk, Wallace, McKinley & Associates, the Ice Arena, refurbished by Bassetti and Morse, and the Opera House, remodeled by James Chiarelli and B. Marcus Priteca, where the "World of Art" will present performances of various kinds and three major art exhibitions, now being assembled from all over the world.

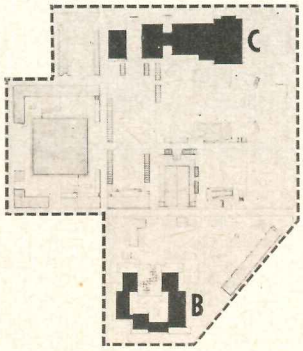
The first two of these buildings are the Exposition's "theme" buildings, since one stresses the world of tomorrow and the other science. (A more recent theme structure has also been



Fred Milkie

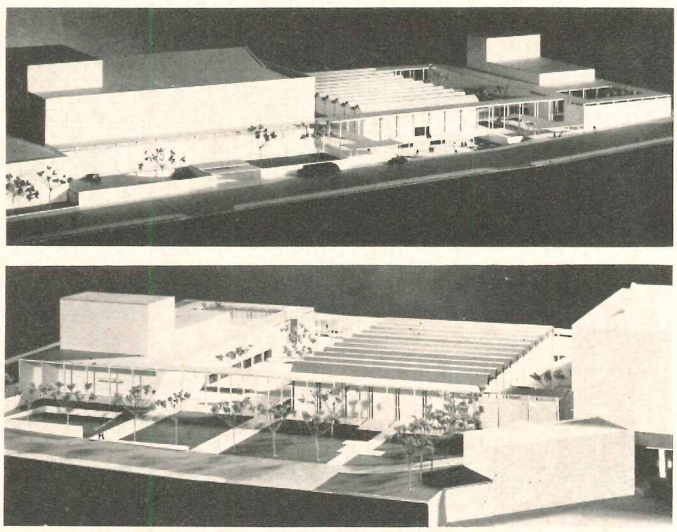
B. FEDERAL SCIENCE PAVILION

OWNER: *United States Government*
ARCHITECTS: *Minoru Yamasaki*
Naramore, Bain, Brady & Johanson
COMMISSIONER, UNITED STATES DEPT. OF COMMERCE:
Dr. Athelstan F. Spilhaus



C. BUILDINGS FOR SEATTLE CENTER

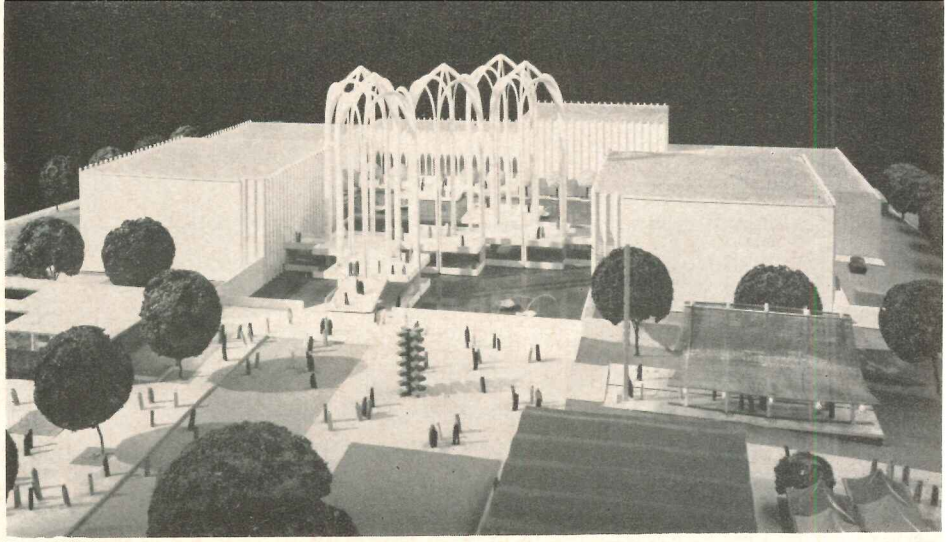
OWNER: *City of Seattle*
ARCHITECTS: *Kirk, Wallace, McKinley & Associates (Playhouse & Exhibition Hall) with B. Marcus Priteca & James Chiarelli; Bassetti & Morse (Ice Arena Remodelling)*



Hugh N. Stratford

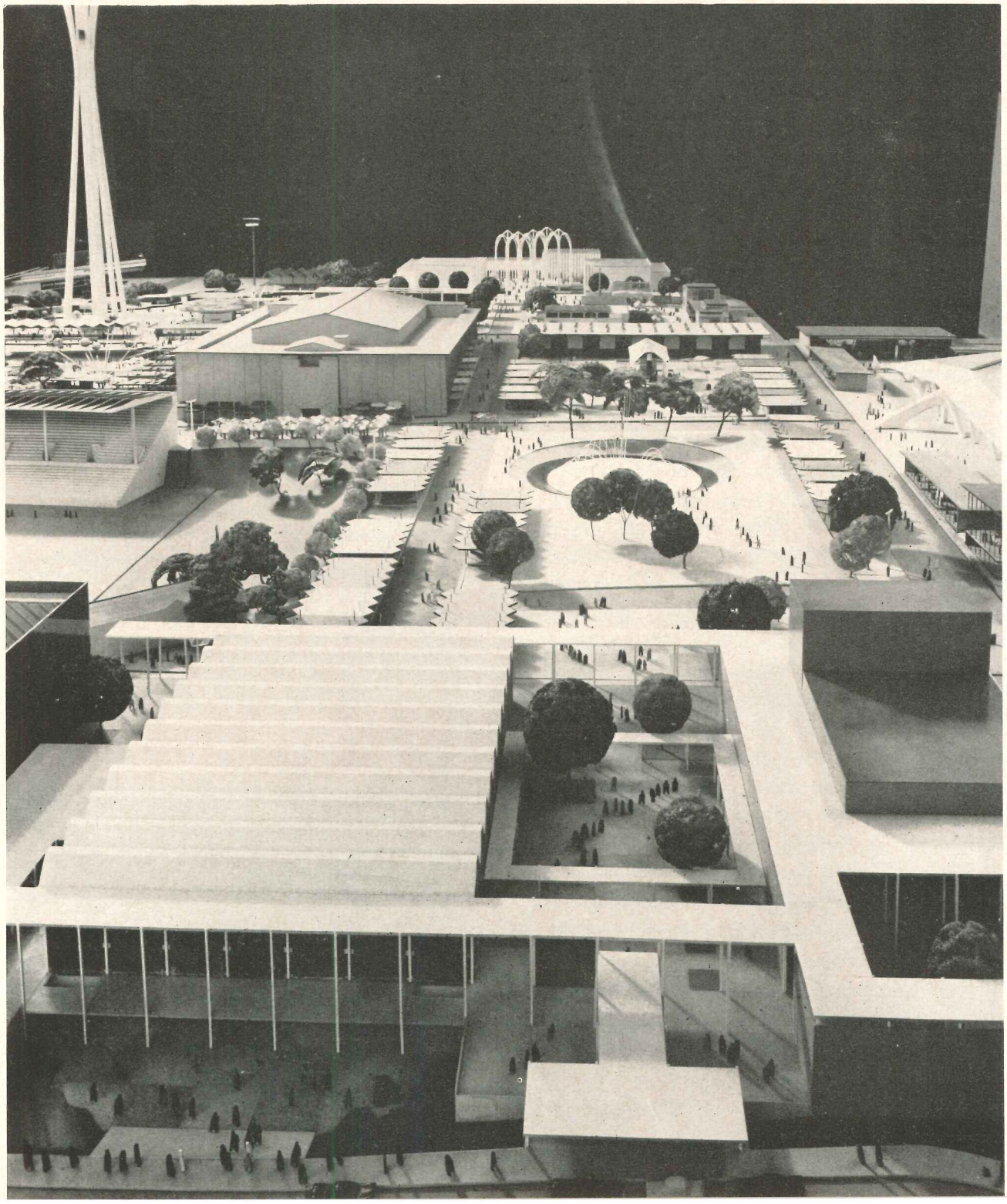
The Seattle Center buildings—the new 800-seat Playhouse and the adjoining Exhibition Hall, the converted Civic Auditorium and the rehabilitated Ice Arena—are part of the city's contribution to the Exposition, made with a look toward the time when the Exposition site will become a community cultural and sports center. The Playhouse (right) has a sloping floor and is designed for use in a variety of ways. Central to both Playhouse and Concert-Convention Hall is the new Exhibition-Banquet Hall; at extreme left is Ice Arena. The city's other important contribution is the fountain, seen in the plaza beyond the Playhouse

Situated on the highest part of the Exposition site, the United States Science Pavilion, one of Century 21's two "theme" buildings, has the dominant position as well as a primary role in the fair. It will house an extensive display of the latest international scientific developments in its five connected buildings, grouped around a pool with fountains. Five lacy Gothic arches, poetic symbols of the continuing search for knowledge, stand across the entrance to the court. The building will become a part of Seattle Center where its use for science displays and education will be continued. (The building was more completely presented in the August 1960 issue, pp. 147-8)



Fred Milkie

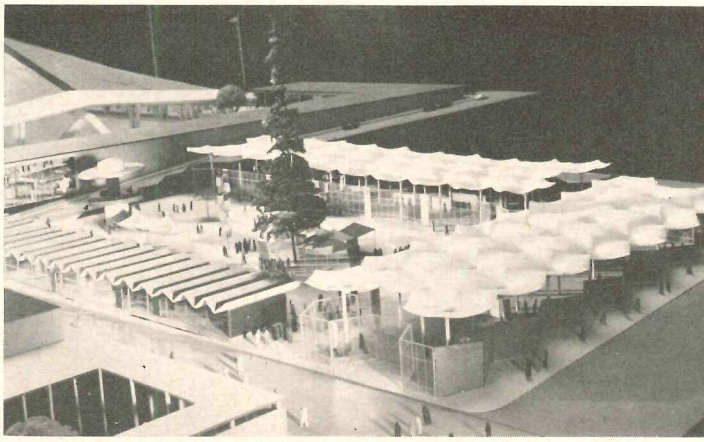
Fred Milkie



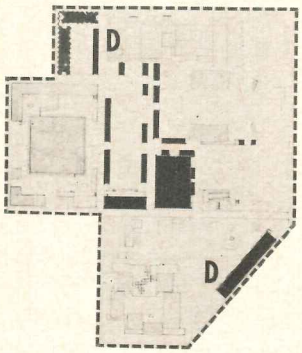
announced: the Space Needle, a 600-ft tower which brings in the Exposition's "Man in Space" maxim. But this is not a building in the sense of the other two.) To have two theme buildings might seem to place the two buildings in competition with each other. Although each represents a completely individual approach to the architecture of expositions, there is—thanks to the site plan—neither conflict nor unrelatedness between them. The lessons of Century 21 may well turn out to be the means, so often sought by Century 20, of achieving architectural unity in structural diversity.

Century 21's designation as a World's Fair by the Bureau of International Expositions requires that it provide exhibition space for exhibitors who do not wish to build their own pavilions. Some of these have been provided with State funds (the buildings for International Commerce and Industry and the Coliseum), some with King County funds (the buildings around the Coliseum), and some—the Boulevards of the World—have been financed by Century 21 itself. In addition there are pavilions built by exhibitors from private industry or other groups.

As in other fairs, the individual exhibitor who builds his own pavilion in this Exposition selects his own architect. But the design must be approved by Century 21 Exposition, Inc., and the Primary Architect. The selection of architects for State, County and City buildings, however, was both more complex and simpler, requiring ratification by the official agency as well as by the Exposition groups. The roster of architects selected to design the buildings for Century 21 is indeed a Who's Who of Washington architecture, and the buildings they have designed have the touch of their individual architectural personalities. Within the restrictions imposed by a particular building's requirements and budget, and by its location on the Exposition site, there was complete freedom for each architect to express his own interpretation of that building's role in the Exposition. Between the Primary Architect, the architects for the various buildings and Century 21's Director of Site Development, Clayton Young, there has been remarkable harmony. It is clear that although there has been a basic concept for the fair, there has been no design despotism.

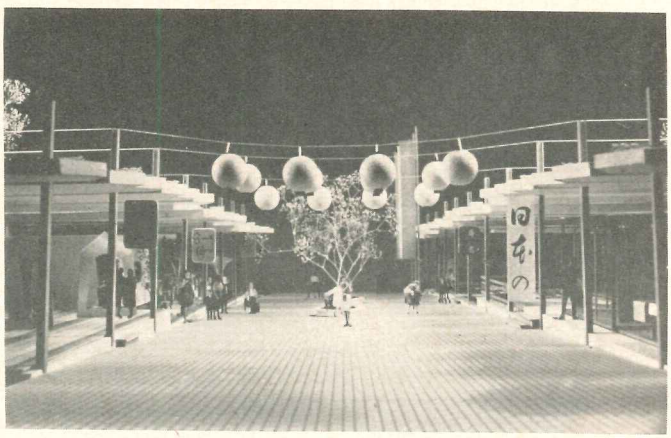


1 *Fred Milkie*



D. EXHIBITION BUILDINGS FOR COMMERCE AND INDUSTRY

Century 21's B.I.E. classification requires that it provide exhibition space for exhibitors. These temporary buildings, designed especially for the Fair, will be removed after it is over. U.S. industry exhibits will be housed in buildings by Waldron & Dietz, architects (3), and Robert B. Price, architect (5); foreign governments and industry in three pavilions (1,2) by Walker & McGough, architects, and by Paul Thiry (not shown) built by King County. Small, open pavilions (4) provide for shops, bazaars, restaurants along Domestic and International Boulevards of the World, designed by architects Naramore, Bain, Brady & Johanson and Roland Terry & Associates



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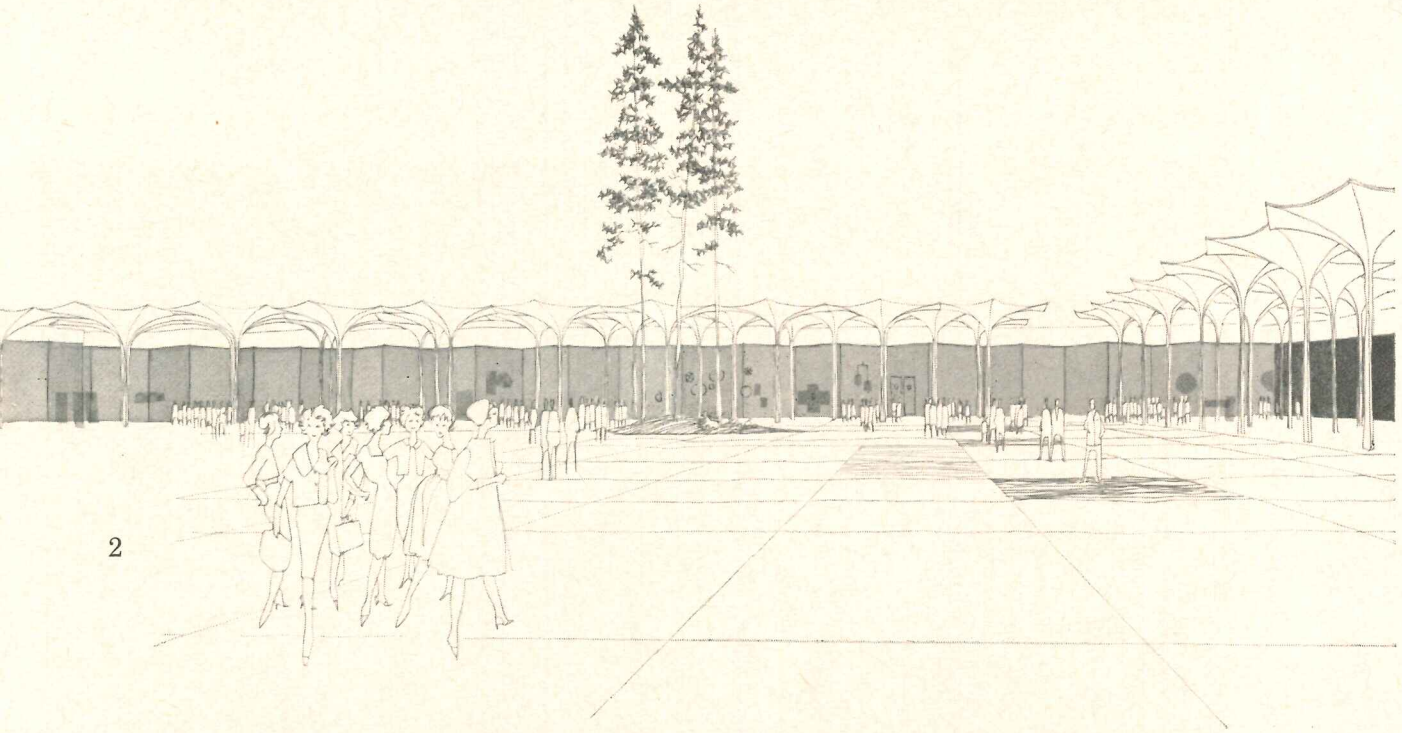

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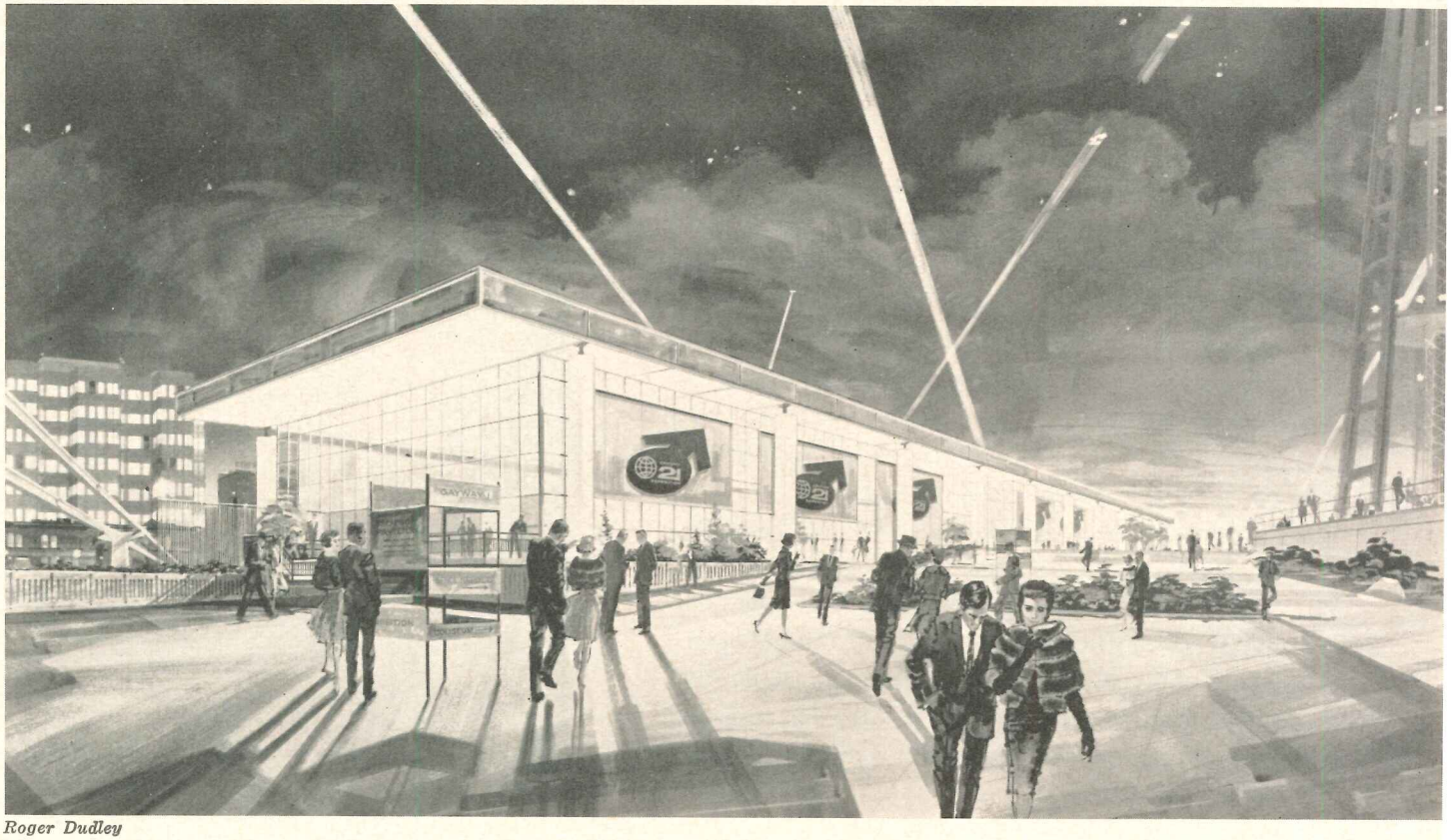
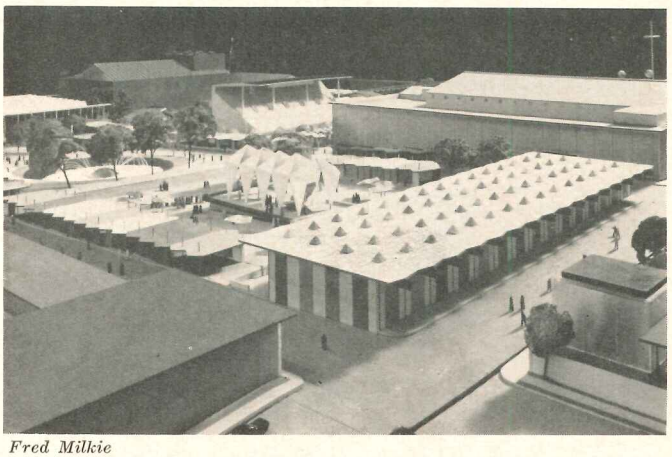


3

Roger Dudley



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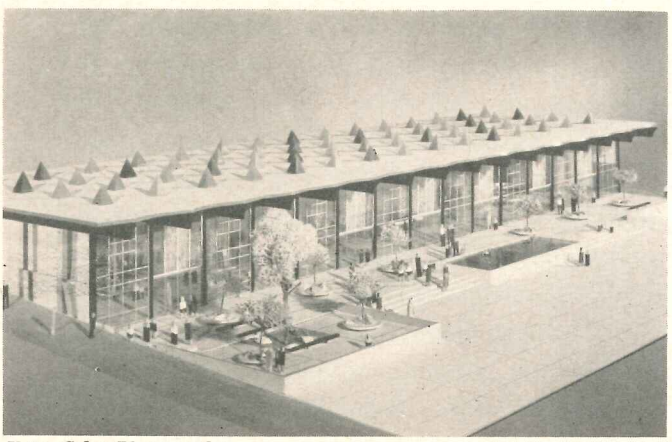
Fred Milkie



Yang Color Photography

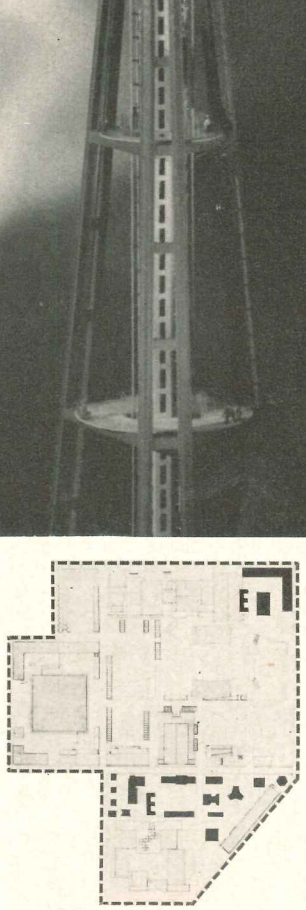
But the going has not been all smooth for the Exposition. Acquisition of additional land to make the Civic Center site suitable for the fair proved a tangled process; a taxpayer's lawsuit threatened to prevent use of the civic auditorium shell because this did not conform with the terms of the bond issue; another suit threatened to stall construction of the Coliseum. Business conditions slowed response to the fair's opportunities. And parking problems temporarily ruffled the otherwise smooth decision to locate the fair on the civic center site.

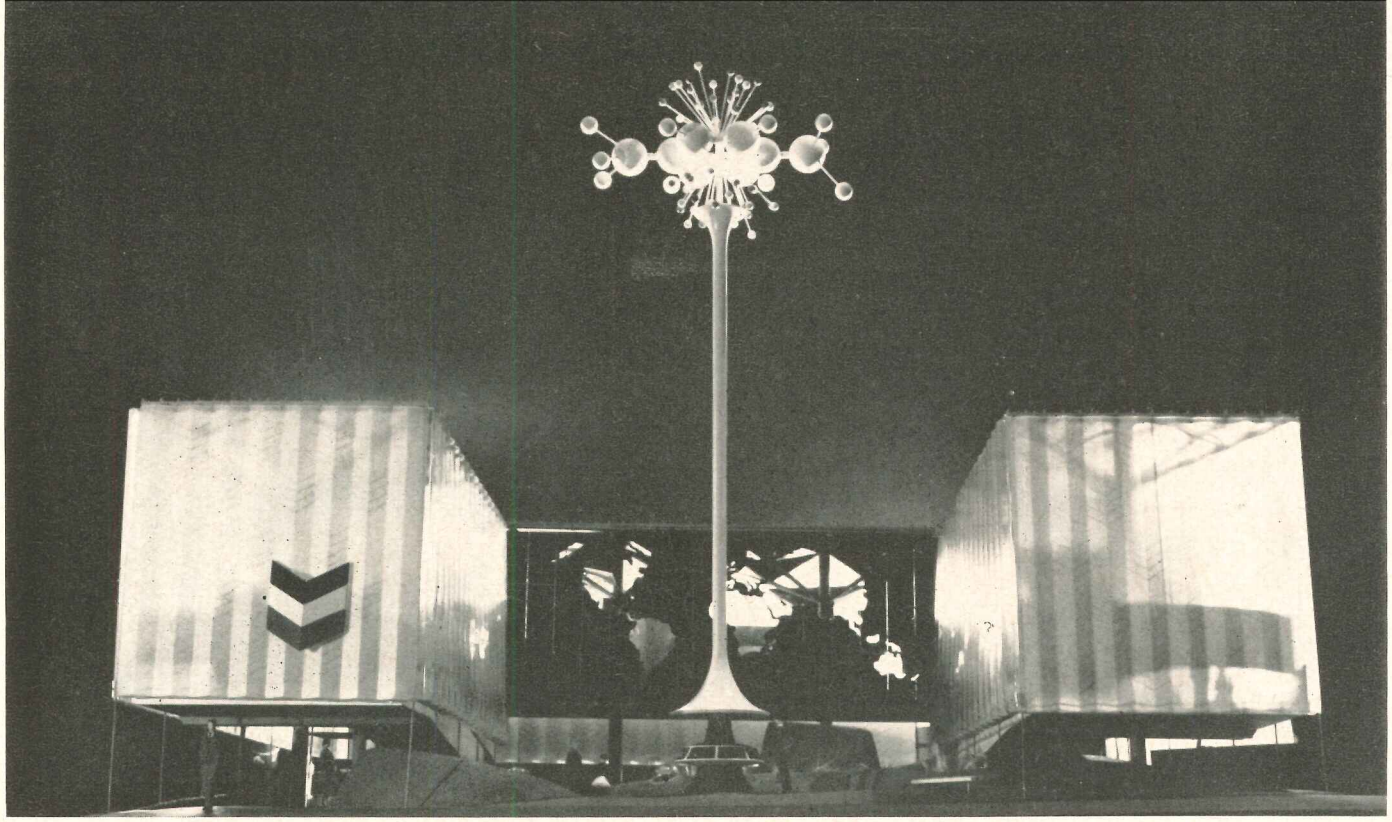
To solve the parking problem, at least in part, Seattle is building a multi-story parking structure across from the north entrance, since this will serve the Exposition and the Seattle Center buildings. The parking problem is eased in another and more unusual way: fair visitors can leave their cars in downtown Seattle, a mile away, and take this country's first high-speed commercial monorail trains direct to the Exposition. Built by Alwac, International, the monorail system will take its passengers between these points in 90 seconds. Great concrete T's already line Fifth Avenue, ready to carry the rail on which the trains will glide. The installation is "temporary", according to the city; but it could be that Seattle is providing the test run on its future rapid transit system.

The monorail—if it stays—will not, however, be the Exposition's only mark on Seattle, nor will the landscaped Exposition site and the buildings marked for permanency. The Exposition's emphasis on good design has made the point that good environment, whether temporary or permanent, does not come from haphazard action.

In throwing in its lot with the city's plans for what it then called a civic center, Century 21 became the incentive for a remarkable civic action: Seattle's international competition for the design of a fountain, a thing of beauty for the most important open space in the Exposition and in the Center that will replace it. As a piece of promotion for city and fair, it was an outstanding success; as a competition, it rewarded the city's residents in greater measure than the prize money did the winners. But the most lasting impact, and its real inspiration, could indeed be the choice of design and beauty to represent to the world a city's intentions.

1 *Yang Color Photography*





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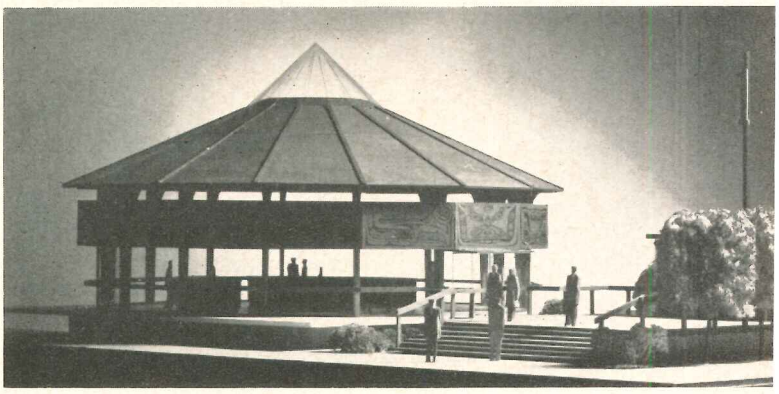
Hugh N. Stratford



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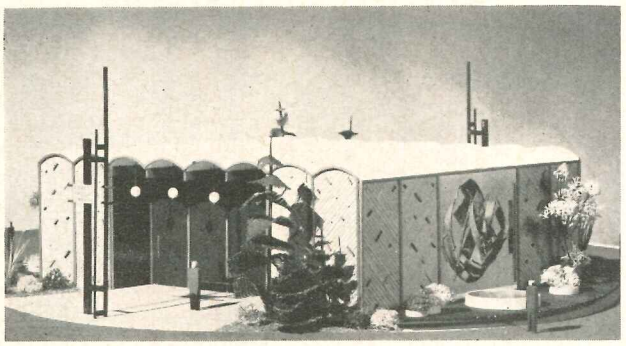
E. EXHIBITORS' PAVILIONS

At two strategic locations, near the east and south entrances, exhibitors' own pavilions provide eye-catching displays of materials too new for usual code requirements (Standard Oil of California-2), regional resources (Forest-Products-4) and forms (proposed bank-3), and unusual construction (Christian Witness-5). Some offer useful services—the bank will be a functioning branch of a Seattle bank, the Christian Witness building is a child-care center and chapel. Forest Products' theater will seat 100 for a movie showing. Standard Oil's building is a "series of visual and aural stimuli". Other exhibits: Alwac International's one-mile monorail line from downtown Seattle, with terminals by Adrian Wilson, architect; the Sky Ride Terminals, designed by architects Tucker & Shields; Pacific Telephone Northwest and Bell Telephone System, Raymond Loewy-William Snaith and Associates, designers, John Graham & Co., architects

1. The Space Needle, a 600-ft steel tower supporting an observation deck and revolving restaurant, is Century 21's "spectacular" and will remain as a permanent, privately owned and operated feature of Seattle Center; John Graham & Co., architects and engineers. 2. Standard Oil of California: Conderback, Inc., prime contractor; Michael Saphier Associates, Inc., Gene Tepper Division, San Francisco, designers; Piero Patri, architect, Patri, Patri, Patri; Lawrence Halprin Associates, landscape architects; Eric Elsesser, structural engineer. 3. Proposed design for Bank: Paul Thiry, architect. 4. Forest Products Industry: Robert B. Price, architect; Lawrence Halprin Associates, landscape architects; Harold Balasz, muralist. 5. Christian Witness Child-Care Center; Durham, Anderson & Freed, architects



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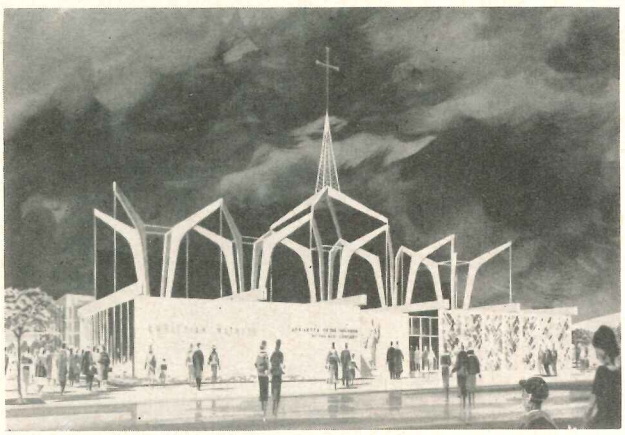
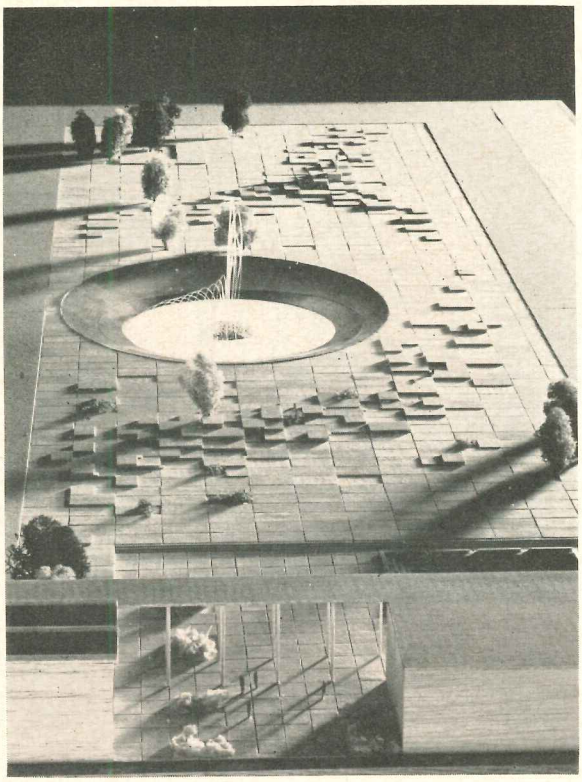
Richards



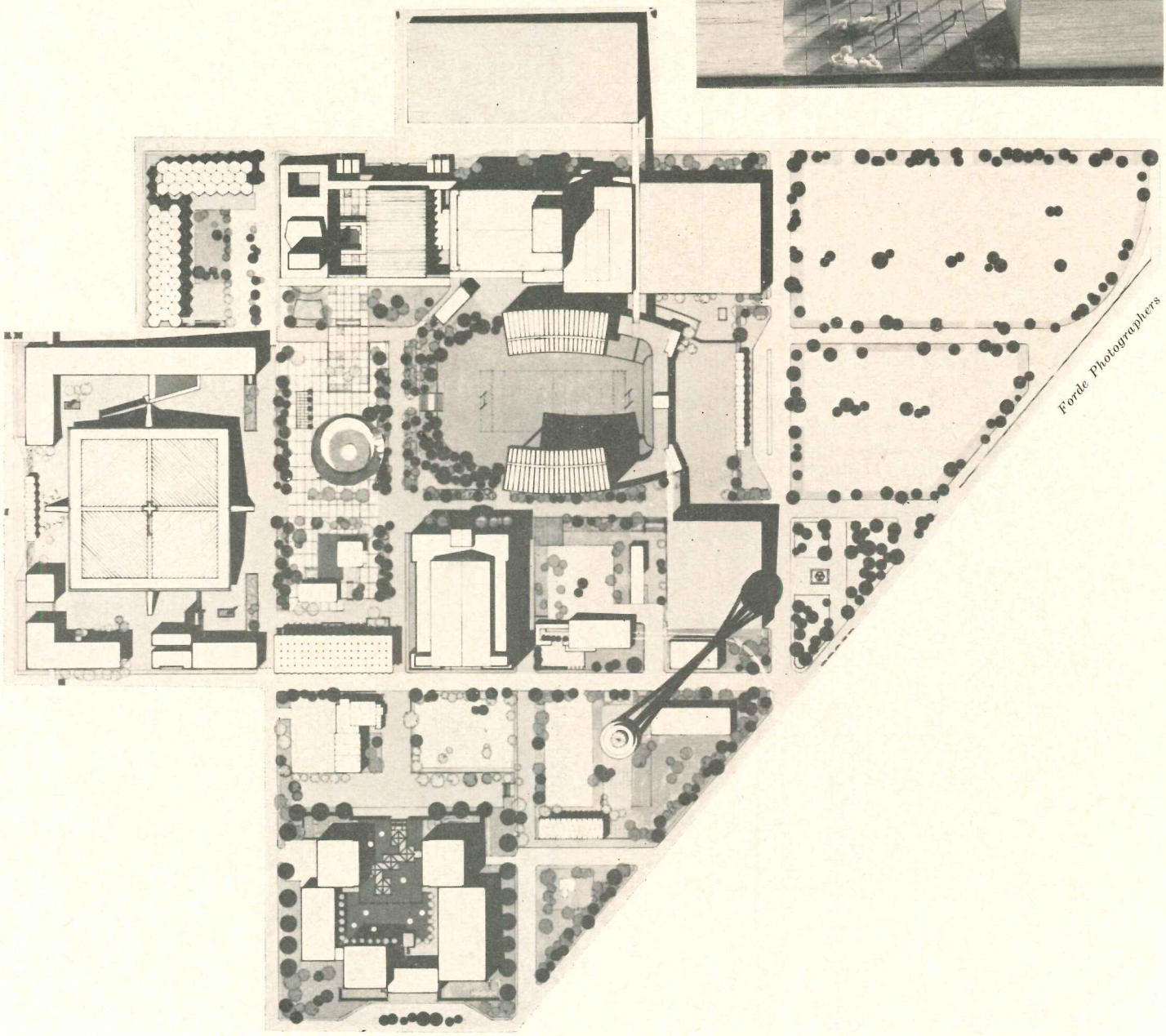
5

AFTER CENTURY 21: SEATTLE CENTER

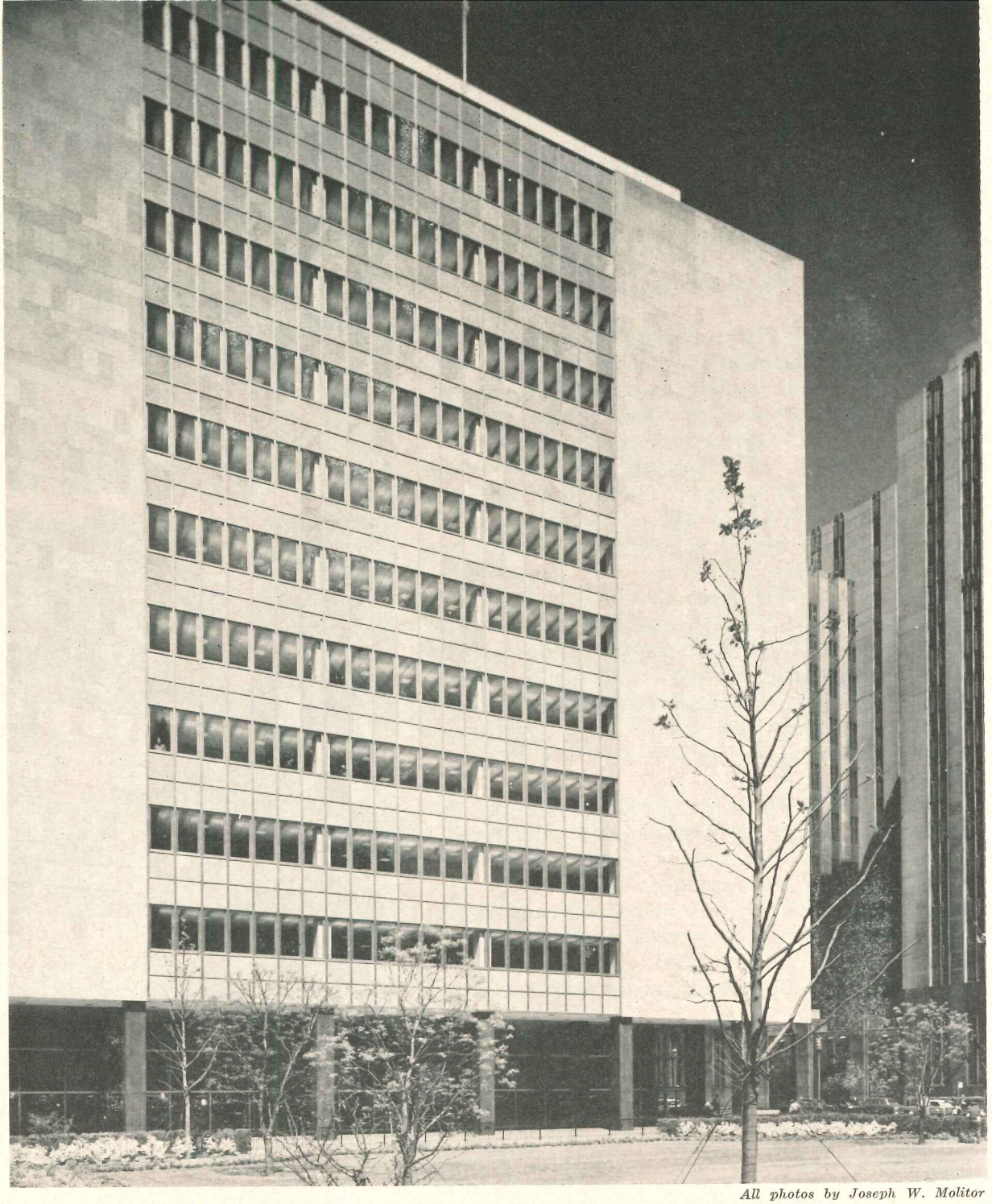
The focal point for Seattle Center, the city-initiated project which spurred development of the Exposition, will be the plaza and fountain (shown here in their ultimate development) designed by two architects from Tokyo, Hideki Shimizu and Kazuyuki Matsushita, who won the city's $250,000 international fountain competition. Temporary Exposition buildings will be demolished and replaced by landscaping. Remaining buildings will provide Seattle with a cultural, sports, community and convention center



Fred Milkie



Forde Photographers



All photos by Joseph W. Molitor

INSIDE COURTROOMS, DIVIDED CIRCULATION

City and Municipal Courts Building
LOCATION: *New York, N. Y.*

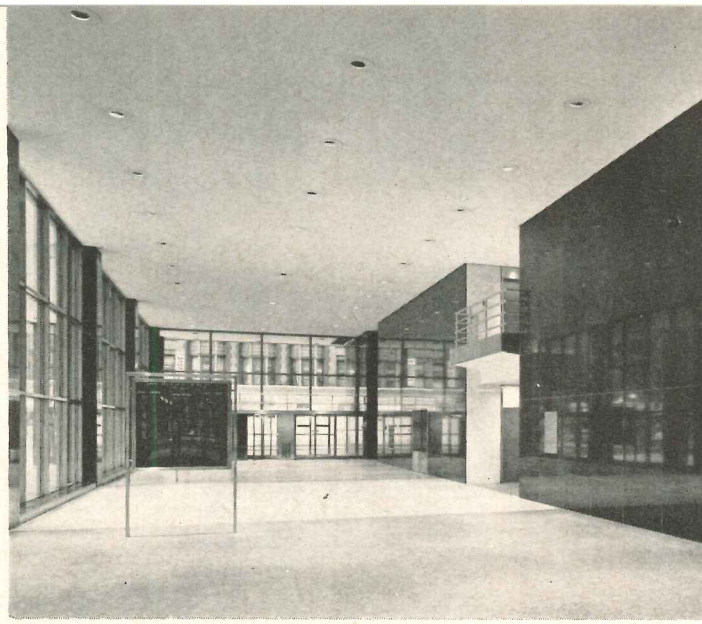
ASSOCIATED ARCHITECTS: *William Lescaze and Matthew Del Gaudio*

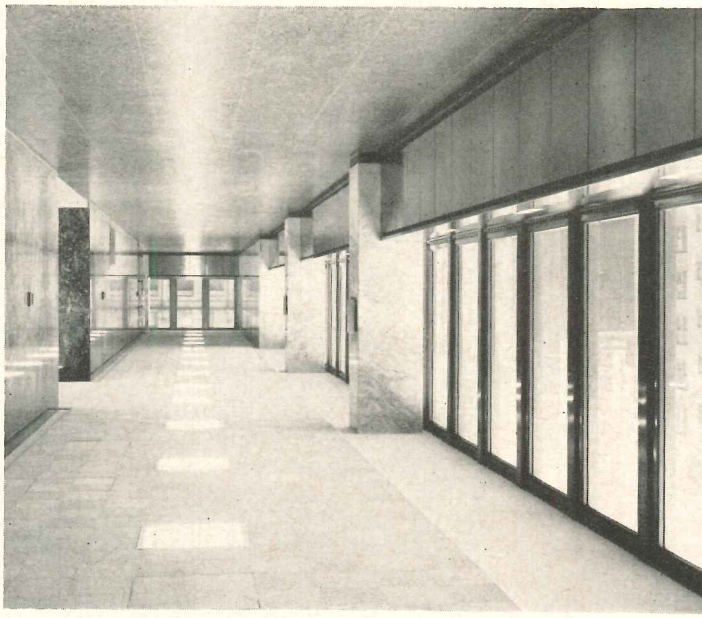
STRUCTURAL ENGINEERS: *Weinberger, Frieman, Leichtman, and Quinn*

MECHANICAL ENGINEERS: *V. L. Falotico & Associates*

CONTRACTOR: *Cauldwell-Wingate Co.*

CITY OF NEW YORK: *Albert J. Bauer, Director, Division of Buildings and Walter J. Detmar, Jr., Director, Division of Building Management*

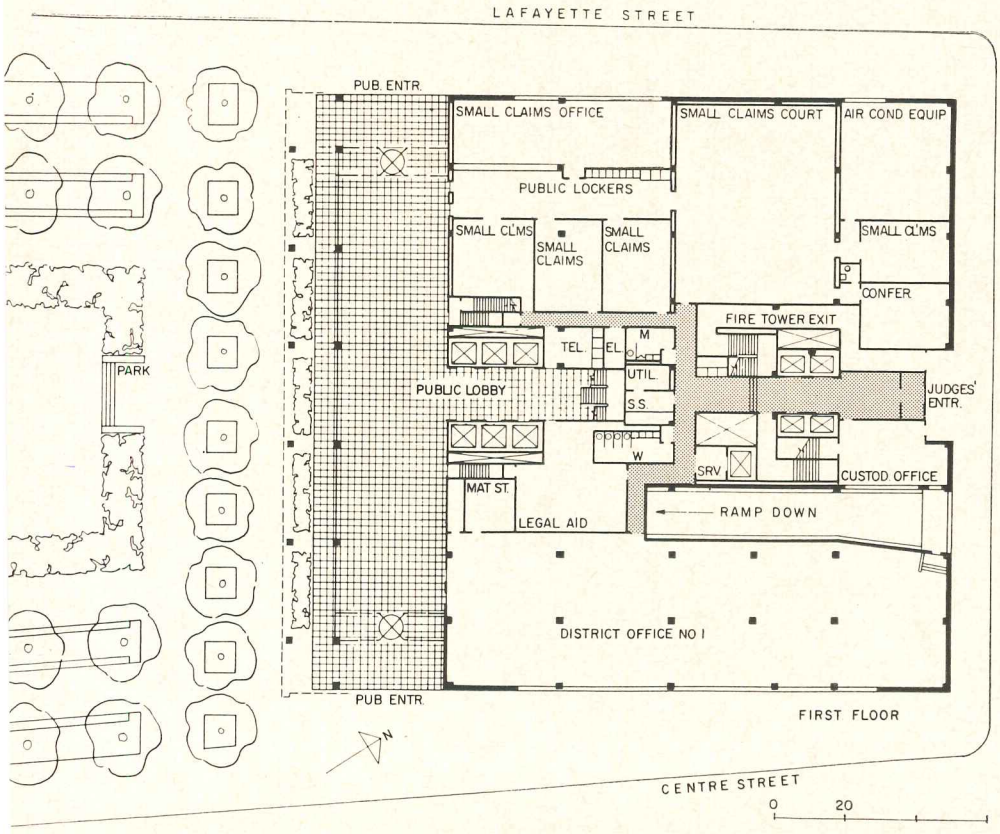




Efficiency and Comfort For Those Who Serve Justice

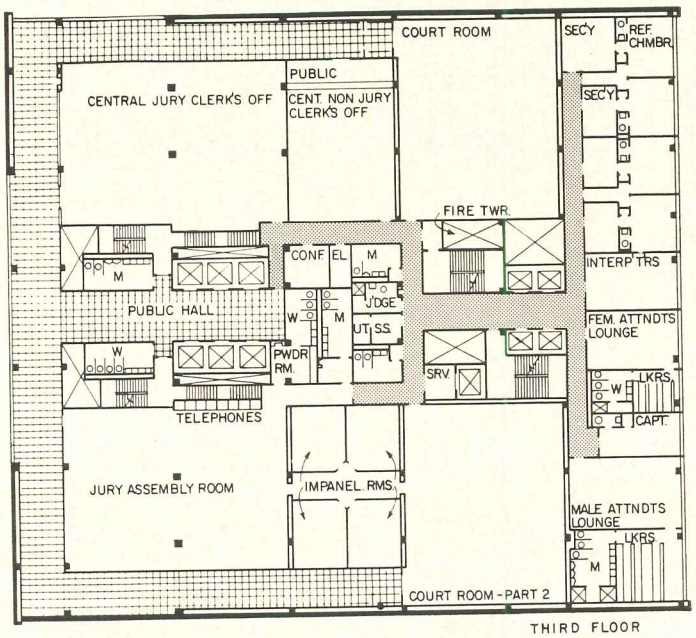
In order to serve justice in the most effective way, with maximum comfort for judges, jurors, and all others concerned, the architects of this building came to two basic planning decisions which strongly affect every other element of the design. Courtrooms are windowless and separated from the world around them. Two separate circulation systems are provided, one for judges and jurors, the other for lawyers and the public. A number of benefits are derived from this. Procedures are more orderly; courtrooms and other areas are quieter; participants in the proceedings are less distracted by extraneous matters. In addition, an important benefit comes from the segregation of those who must be judged, plead cases, or bear witness from those who judge them. These things add up to a better functioning courthouse and should result more nearly in equity under the law.

Other departures from common practice in the past are the use of smaller courtrooms, sized for the number of people who actually use them. Because of the strict control exercised on courtroom size, it was possible to provide a greater number of courts in the building than would be possible otherwise. And a further benefit comes from the greater specialization of courts possible with a larger number of units.

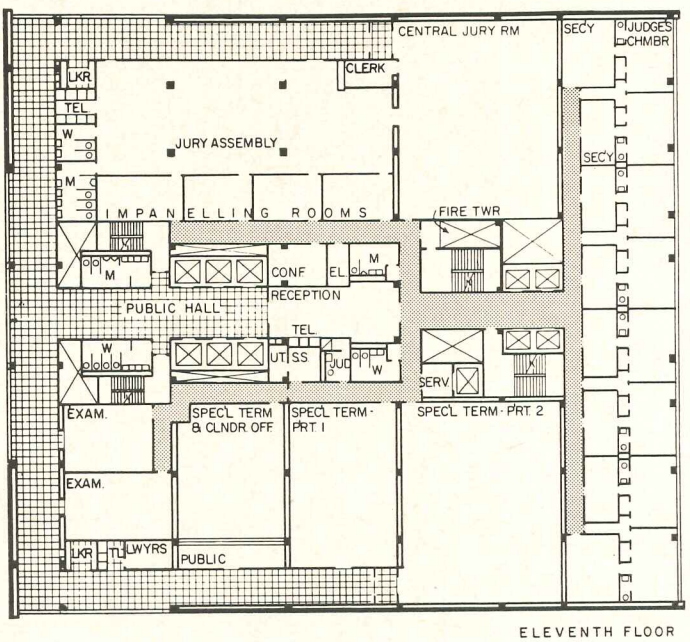


New York City and Municipal Courts

The separate circulation systems for judges and jurors and that for lawyers and the public are indicated by hatching on the plans shown here. The large ground floor public lobby, shown at the top of the page, is reflected by smaller lobbies, shown below it, on each of the upper floors. From each of these areas, the public and lawyers have access to courtrooms, elevators, public toilets, and other areas when necessary. Judges and jurors enter the building on the opposite side from the main entrance, proceed to upper floors via a separate bank of elevators, and circulate through various floors in corridors designed solely for their use. As shown in the plans and in the illustrations across-page, courtrooms of several sizes and with varied plans have been provided. All of these rooms are completely air conditioned. Also indicated in the plans is the column spacing of the fireproofed steel frame structure. Floors and roof are reinforced concrete. In the interior, rich woods such as white maple, walnut, teak, and rosewood are combined with a variety of American and imported granites and marbles

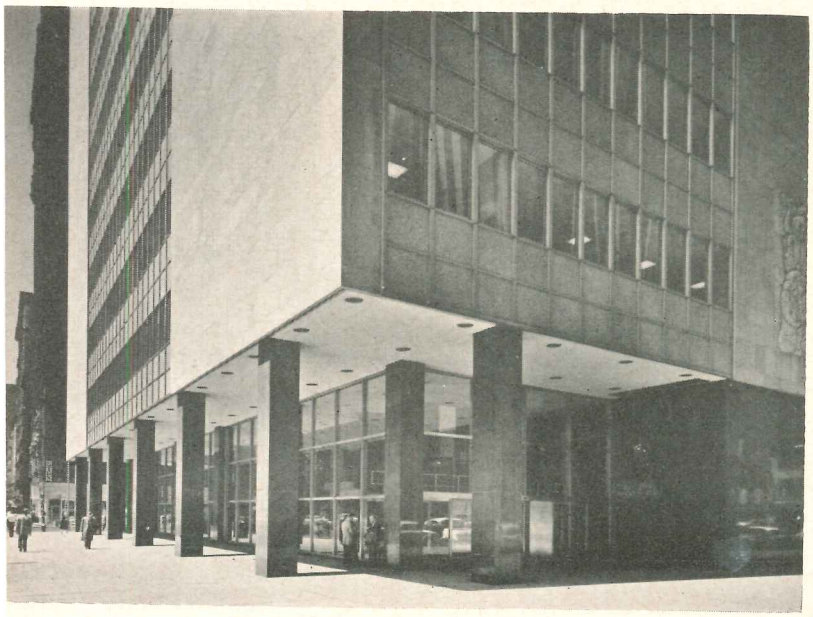


THIRD FLOOR



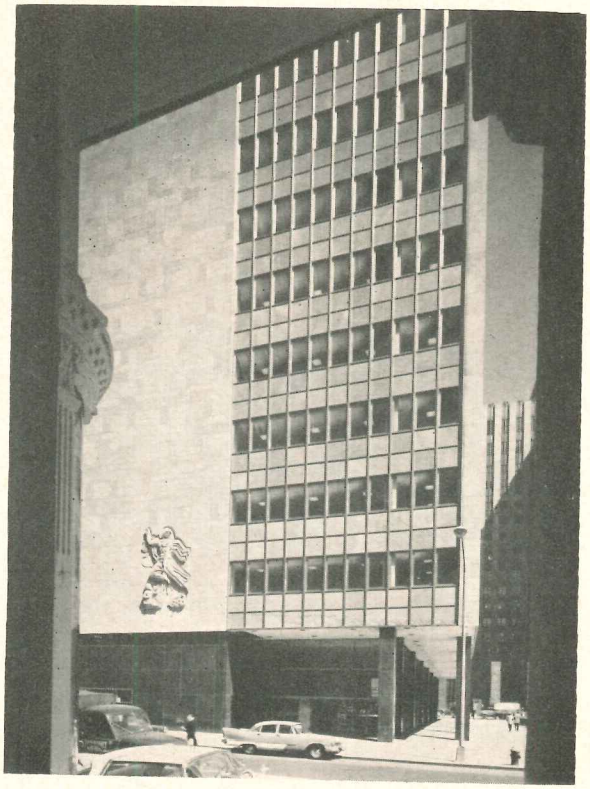
ELEVENTH FLOOR

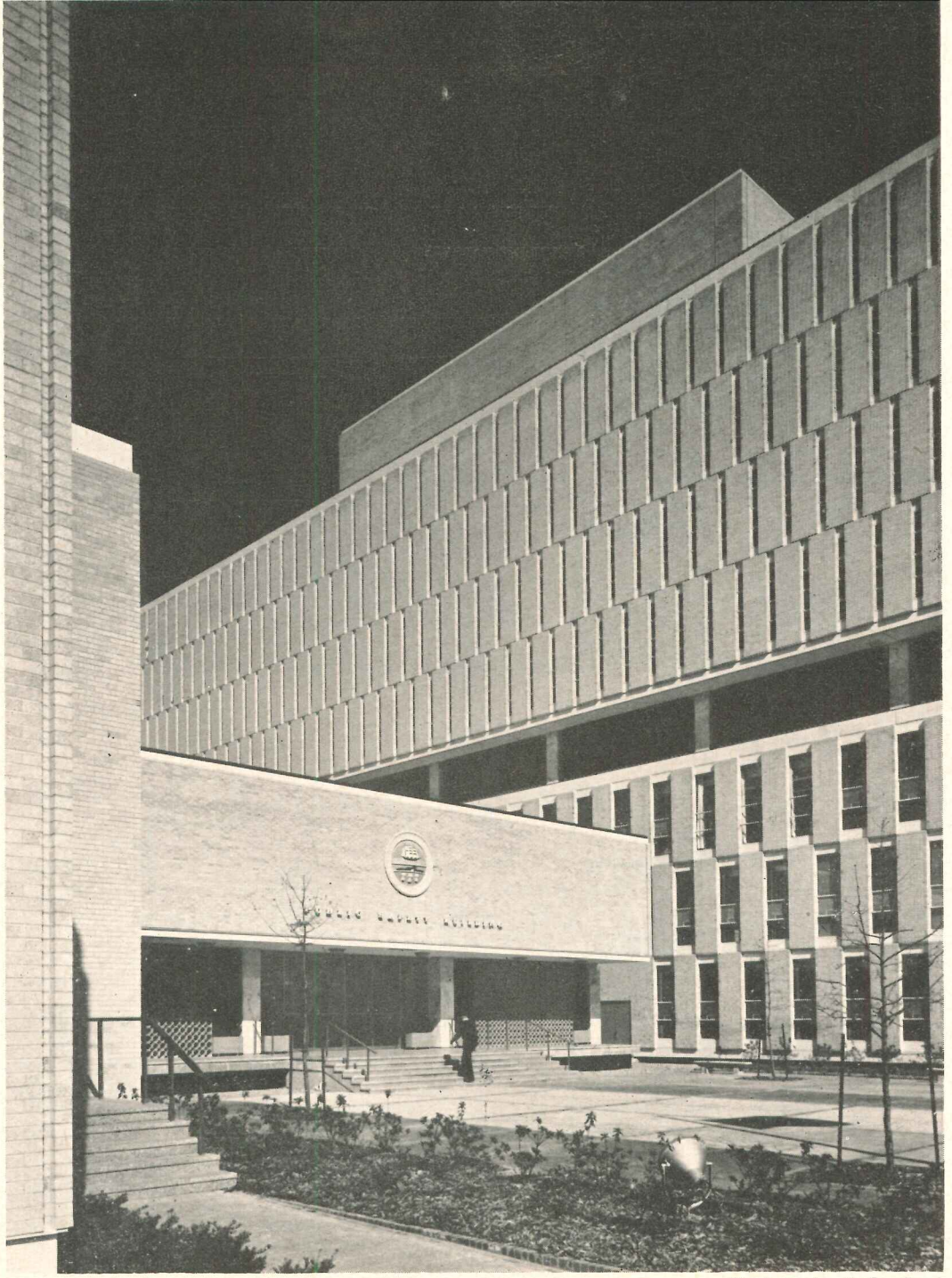
PUBLIC JUDGES, JURORS



New York City and Municipal Courts

Happily, the building has been placed on a site—all too rare in New York—that is relatively open and fronts on a park. The building exterior is a combination of glass and granite with stainless steel trim, windows, and mullions. The effect of this combination of materials is quiet and dignified, as it should be for a courthouse, yet not overbearingly official-looking. As may be seen in the illustration on the left, some examples of sculpture and the other arts have been placed in this building. The architects made a concerted effort to make this possible, but were unable to retain the right to select the artists for the work. William Lescaze, in his dedication speech, made a strong plea for an allocation of money specifically for art as part of the budget of each building. He added that the architect "should be charged with the responsibility of selecting his sculptor and painter . . . just as he selects his structural and mechanical engineers. Thus only can architecture become a work of art which will be completely harmonious and in which painting and sculpture will become integral parts of the architecture."

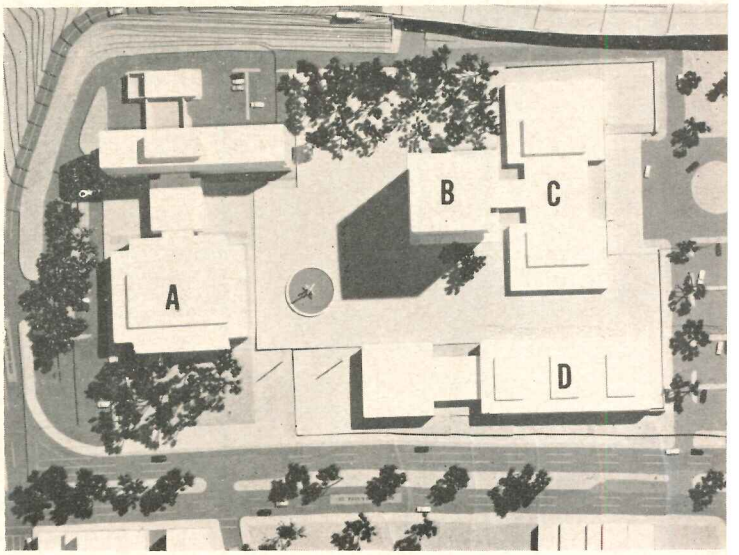




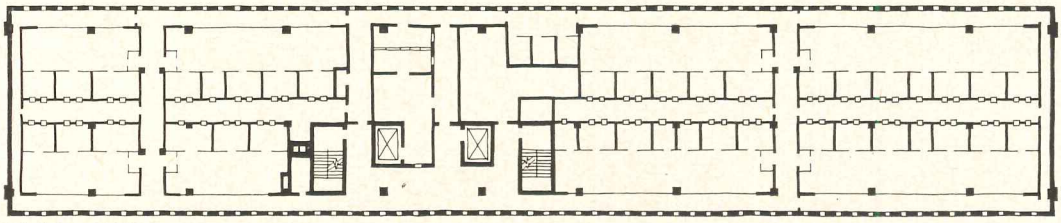
All photos by Taylor Lewis

NEW COMBINATION FOR PUBLIC SAFETY

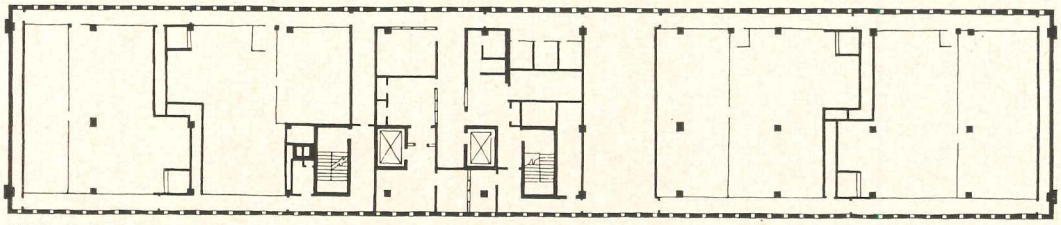
Public Safety Building,
LOCATION: *Norfolk, Virginia*
ASSOCIATED ARCHITECTS: *Vincent G. Kling and Oliver & Smith*
PROJECT MANAGERS: *Eric Vanderwater and Herbert A. Gygi*
STRUCTURAL ENGINEERS: *Fraioli-Blum-Yesselman*
MECHANICAL & ELECTRICAL ENGINEER: *James E. Hart*
LANDSCAPING: *Frederic Huette*
SITE ENGINEERS: *Langley and McDonald*



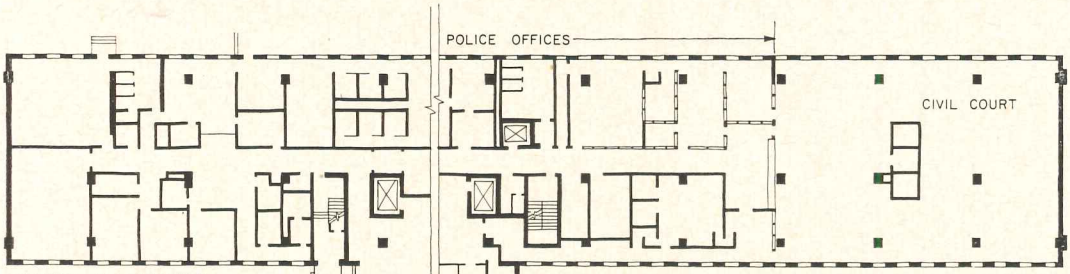
A. Public Safety Building
B. Municipal Office Building
C. Public Service Building
D. Corporation Courts Building

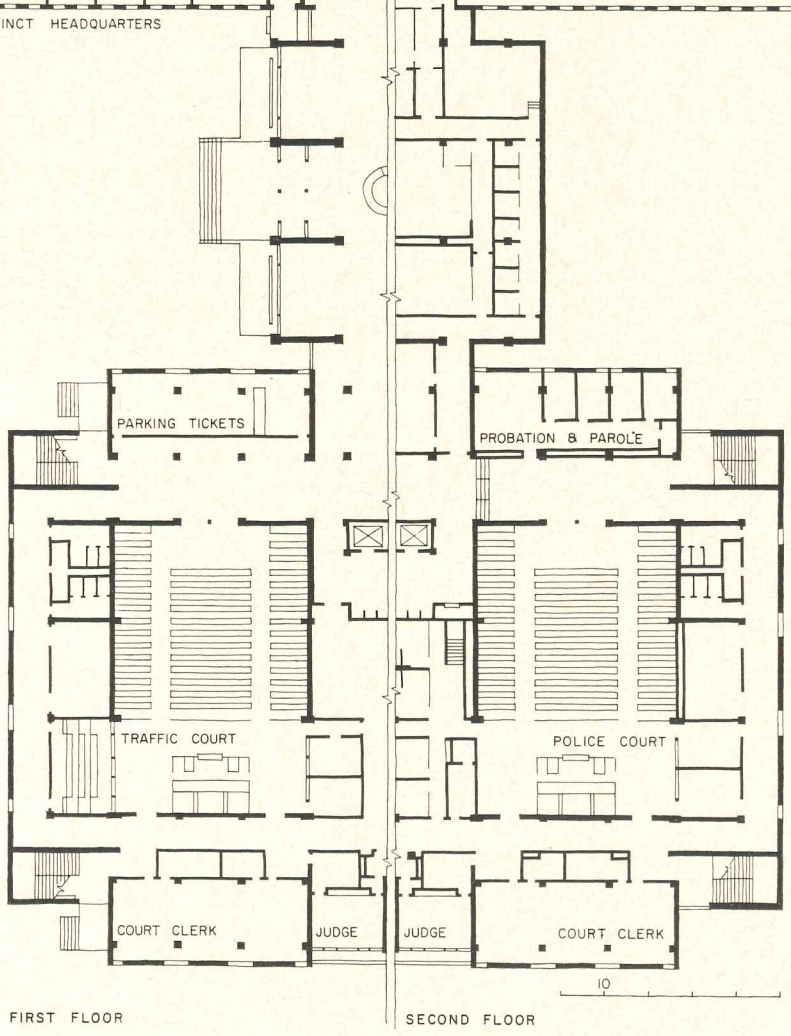


SEVENTH FLOOR



FIFTH, SIXTH & EIGHTH FLOORS





FIRST FLOOR SECOND FLOOR

Norfolk Public Safety Building

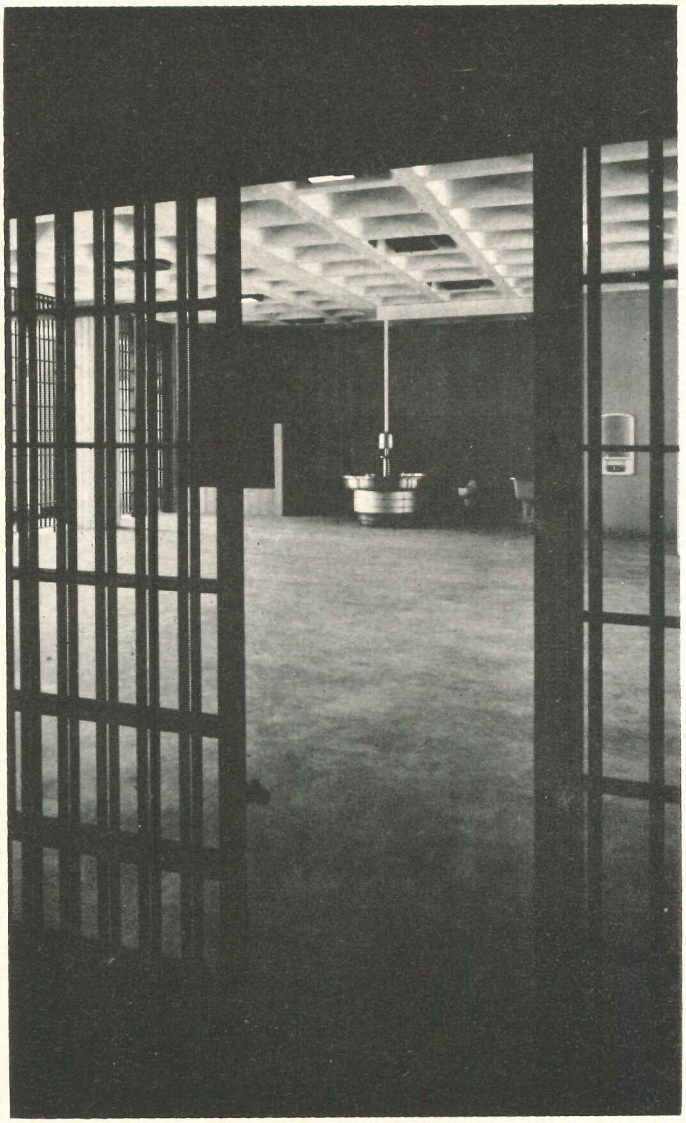
Public and prisoner circulation are completely separated from each other. An important part of the prisoner circulation scheme is the provision of a concrete-enclosed, segregated corridor above the lobby connecting the jail directly with the courts. Across-page are shown typical views of the jail. At the top of the page is a view of group-occupancy exercise area and washroom facilities backed up to vertical plumbing chase large enough to allow workmen to make repairs behind the fixtures. At the bottom of the page is shown another view of this area with the sleeping cots in the background. In this view may also be seen the guard walkway which extends around the prisoner area adjacent to the exterior walls. By so placing the cells, it is possible for light and air to enter outside the building. The remaining view is of the fourth floor common dining room for prisoners

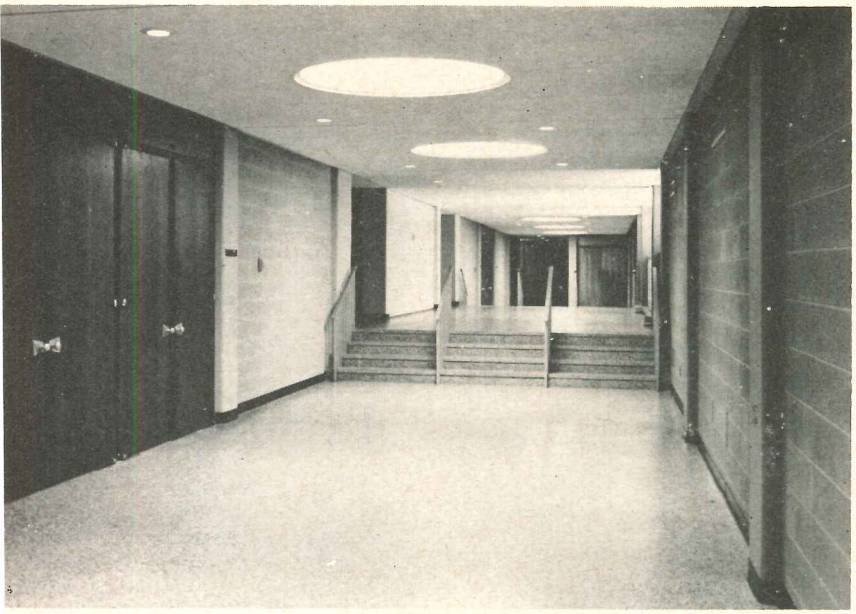
Building Houses Three Functions: Police, Jail, Courts

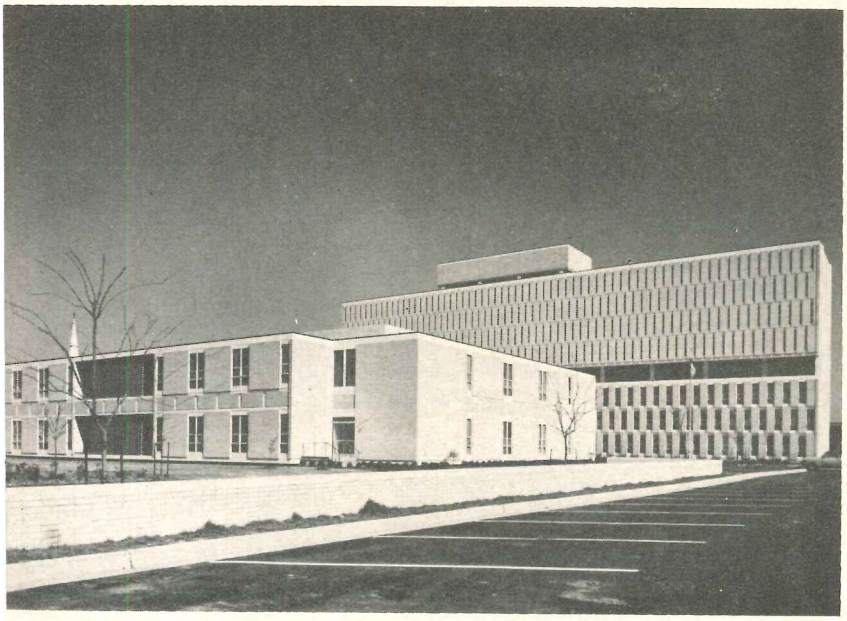
This new Public Safety Building has little in common with its counterparts of the past. Instead of providing separate facilities for the three functions of the law—police, jail, and courts—here, the three are integrated into a functional complex, with each element separated from the others in the necessary degree. But functions which are—in actuality—closely related, have been studied carefully, their relationships established and clearly stated. There are also great differences between the straightforward appearance of this building and the often over-expressed and forbidding qualities of many public buildings of the recent past.

The scheme used here provides a court building element and a police administration-jail element, with a connecting link between. The main entrance for both elements is located in the link. Within the court section, a further separation is made between functions which are similar, but generally unrelated; traffic courts and other facilities used by the general public are on the ground floor, while police courts and auxiliary spaces into which prisoners are brought for hearings or trial are on the second. In somewhat the same manner, police functions are located on the first three floors of the tower element, and kitchen and mechanical spaces on the fourth, while the remaining four floors contain the jail.

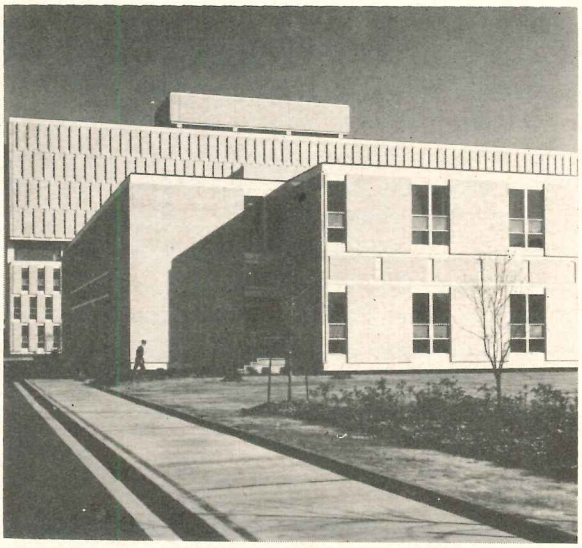
Eventually, the Public Safety Building will be joined by the others shown on the preceding page to form a complete civic center housing all of the municipal functions of the City of Norfolk.







Norfolk Public Safety Building



In the view of the second story court building corridor, upper left, and a courtroom, middle left, may be seen the exposed reinforced concrete structure used and the painted concrete block interior partitions. In the courtroom, the blocks have been laid with their long dimensions vertical and the vertical joints staggered and raked. This gives an effect of considerable elegance at very low cost. In the view of the court may be seen the glass-enclosed spectator galleries provided. These spaces were designed to allow school and other groups to observe and listen in on court proceedings without causing any disturbance in the court itself. Courtrooms are all placed in the center of the building away from the outside walls, since it was felt that while windows serve no useful purpose in the courts they are important in the office and other areas. The two views of the exterior show the massing of the various elements and the use of varied window and brick panel sizes and spacing to express the three major functions of the courts, the jail, and police

TRANQUIL PRIVACY FOR HAWAIIAN HOUSE

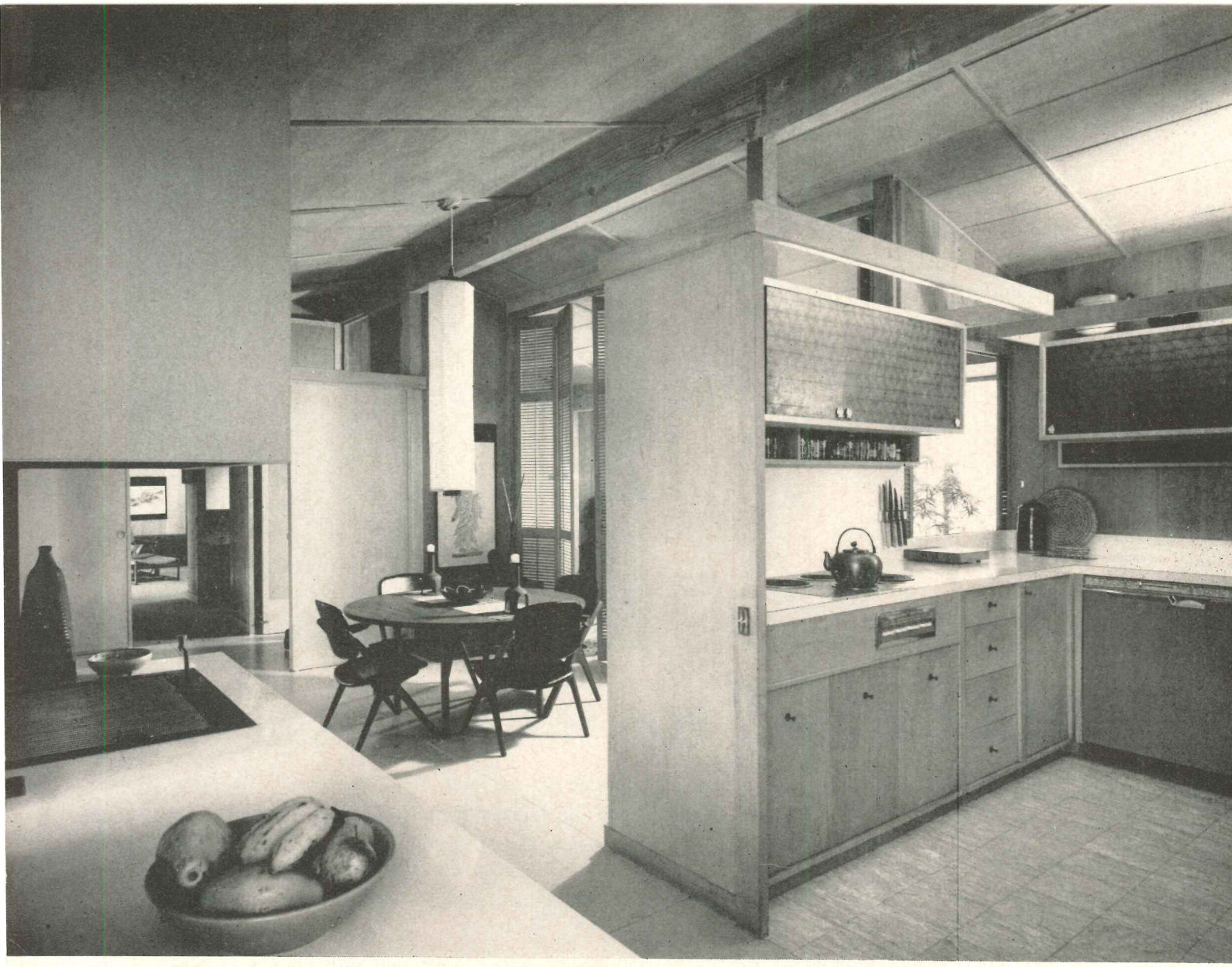
OWNERS: *Mr. and Mrs. Frank Slavsky*

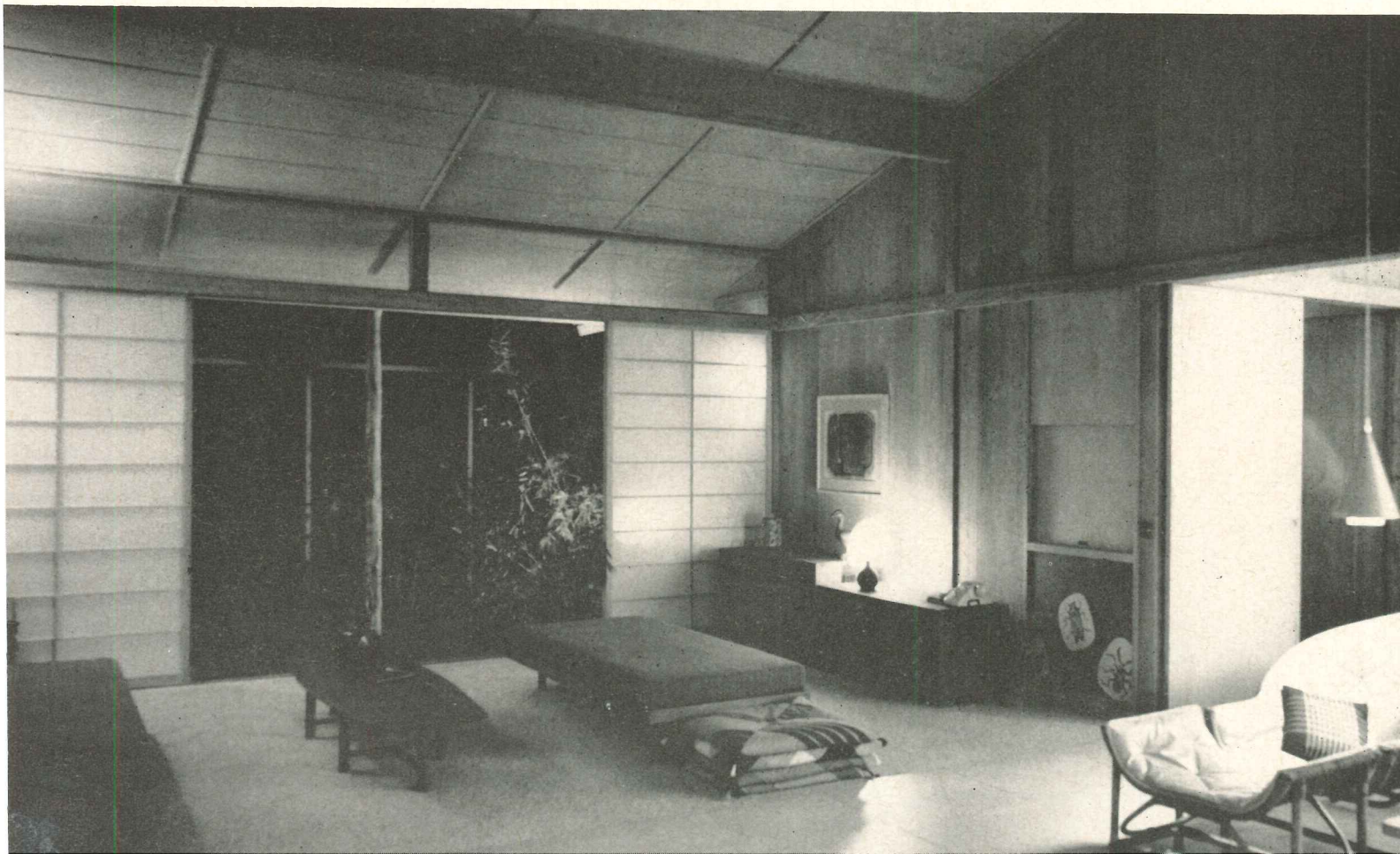
LOCATION: *Waialae-Kahala, Honolulu, Hawaii*

ARCHITECTS: *Design Associates (Frank Slavsky, A.I.A. and L. Harold Whitaker, Designer)*

LANDSCAPE ARCHITECT: *George Walters*

Camera Hawaii





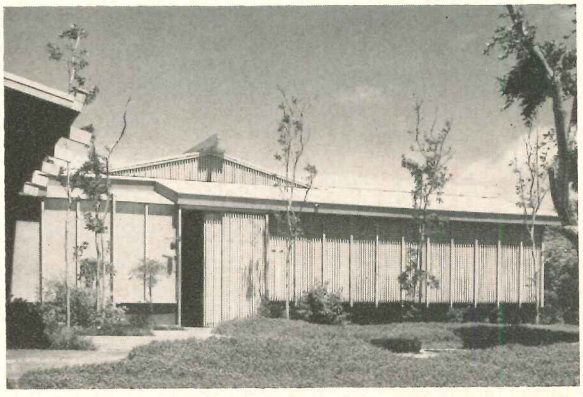
The Frank Slavsky House

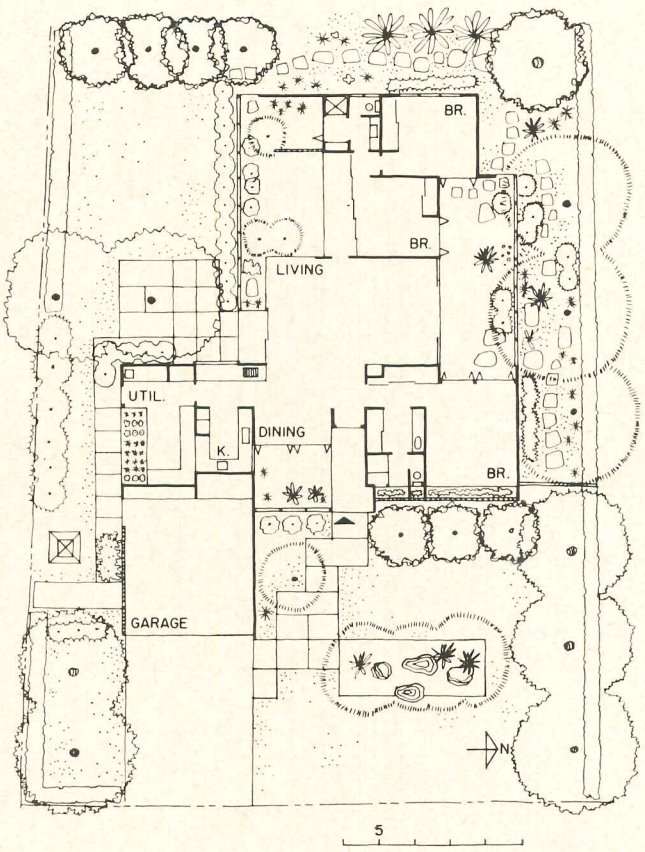
The creation of its own views, and privacy from adjoining houses, became a major design feature of this serene home. In designing it for his own family, Architect Frank Slavsky made the most of a small lot by putting a series of perimeter gardens off all major rooms. The gardens are screen enclosed for freedom from insects. Sliding Shoji doors permit the rooms to be left open to the gardens most of the time, adding greatly to the visual spaciousness of the structure.

The program requirements called for "the tranquil simplicity and uncluttered look of the traditional Japanese house, with consideration for Western comfort and privacy from neighboring houses." That the design achieves this in a highly successful fashion was borne out by the house receiving a 1960 Honor Award from the Hawaii Chapter of the A.I.A.

The framing of the structure is of Douglas Fir, walls of redwood and ceilings and cabinets of Philippine mahogany. The roofing is built-up tar and gravel with chip coral aggregate. Floors are carpeted, vinyl tile and terrazzo.

At the front of the house (below), privacy is assured by an entry garden screened from the street by obscure glass panels, with insect screen panels above and below for ventilation. Louvers screen the master bedroom and bath at the right of the entry. The big living area is divided into three use spaces: formal living, lanaii and dining.





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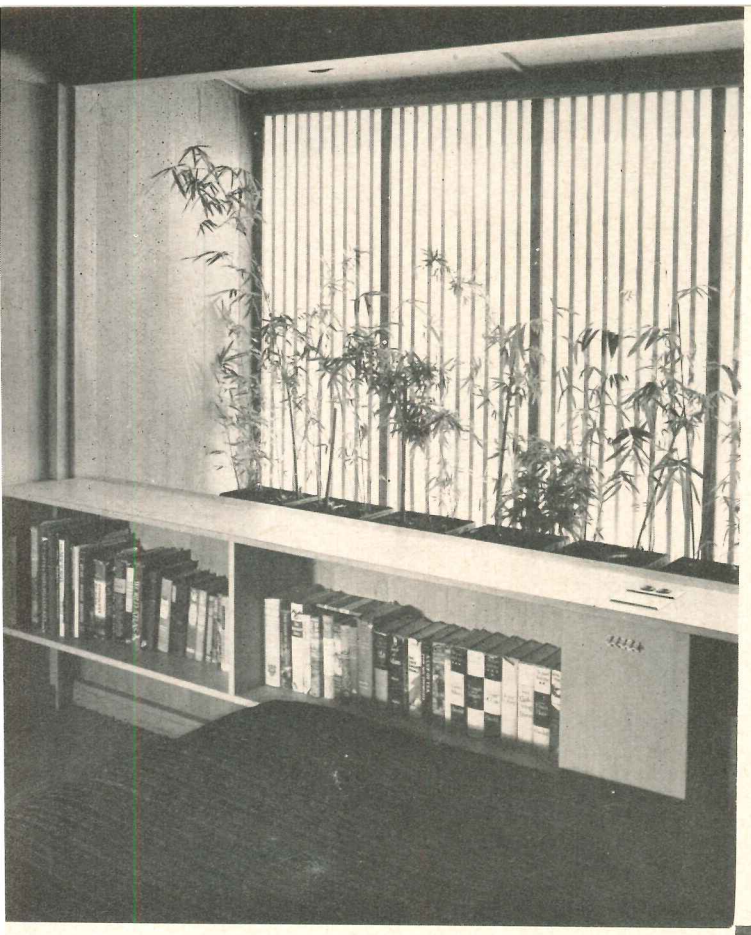
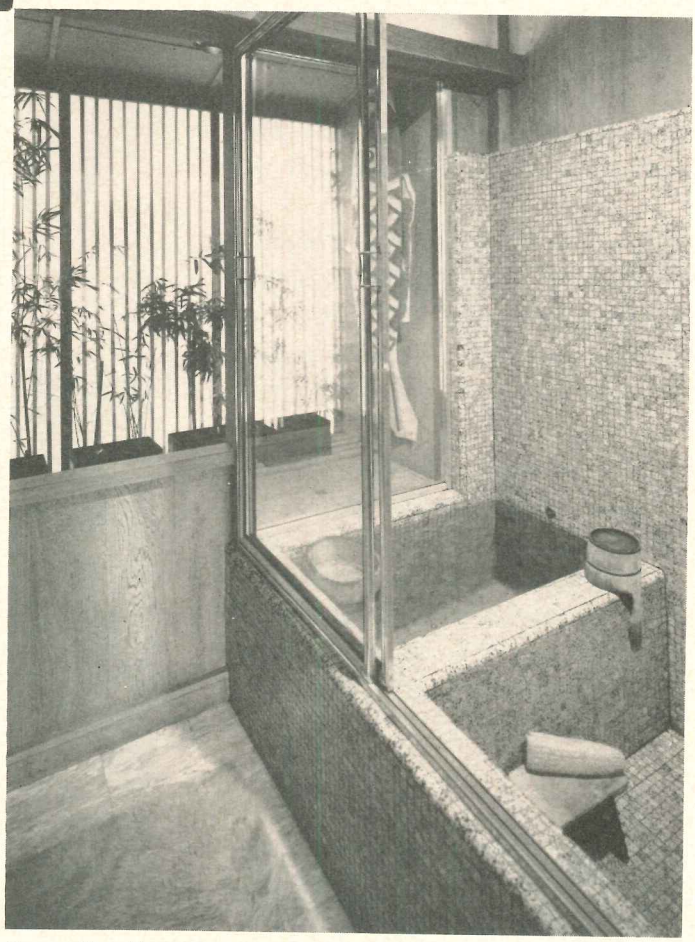


The Frank Slavsky House

Cross ventilation is promoted in the master bedroom and bath by a special "sill-vent" window along the street side. The window is made of opaque milk-white plastic panels and redwood grille to give privacy. Vent slots at the base (see photo below) permit air to come in from below, and are controlled by fold-up wood panels. Space is also provided here for potted plants.

The bathroom has both shower and tub compartments: The tiled shower compartment includes a deep Japanese furo tub for hot hydrotherapy (see photo at right.) The master bedroom is given a view of one of the peripheral gardens through a wall of Shoji screens on the wall opposite the street.



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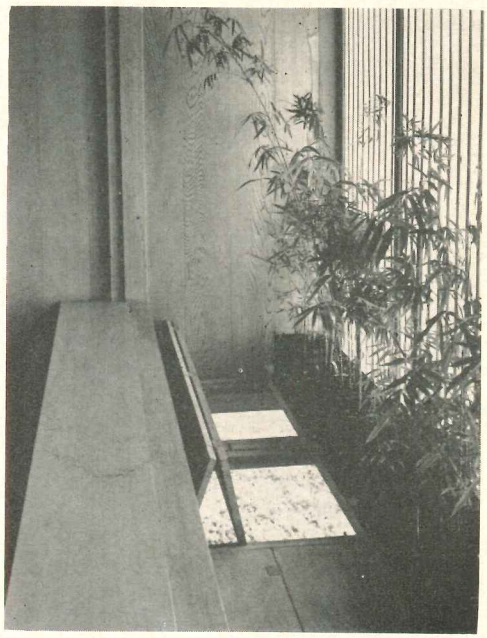


OFFICE BUILDINGS AND BANKS

BUILDING TYPES
®
STUDY 297

Commercial buildings make up the second most important category of building construction, taking second place only to single-family houses. In the first five months of this year, according to F. W. Dodge Corporation, contracts had been let for more than a billion and a half dollars worth of commercial structures. This represented a healthy gain of 9 per cent over the same period last year, and if the same gain continued for the rest of 1961, it would mean a total of more than four billion dollars for the year.

About half the commercial building contracts this year have been for stores and similar structures. Somewhat less than half were in office buildings, and the small remainder was accounted for by garages and service stations. Both stores and offices have shown enthusiastic growth this year, while filling stations have stayed about even with last year.

There are no statistics currently compiled on small stores and offices. We have, however, been able to come up with a jury-rig type of figure which is considerably better than nothing. It is possible, from the Dodge statistical service, to identify individual buildings costing $5 million or more.

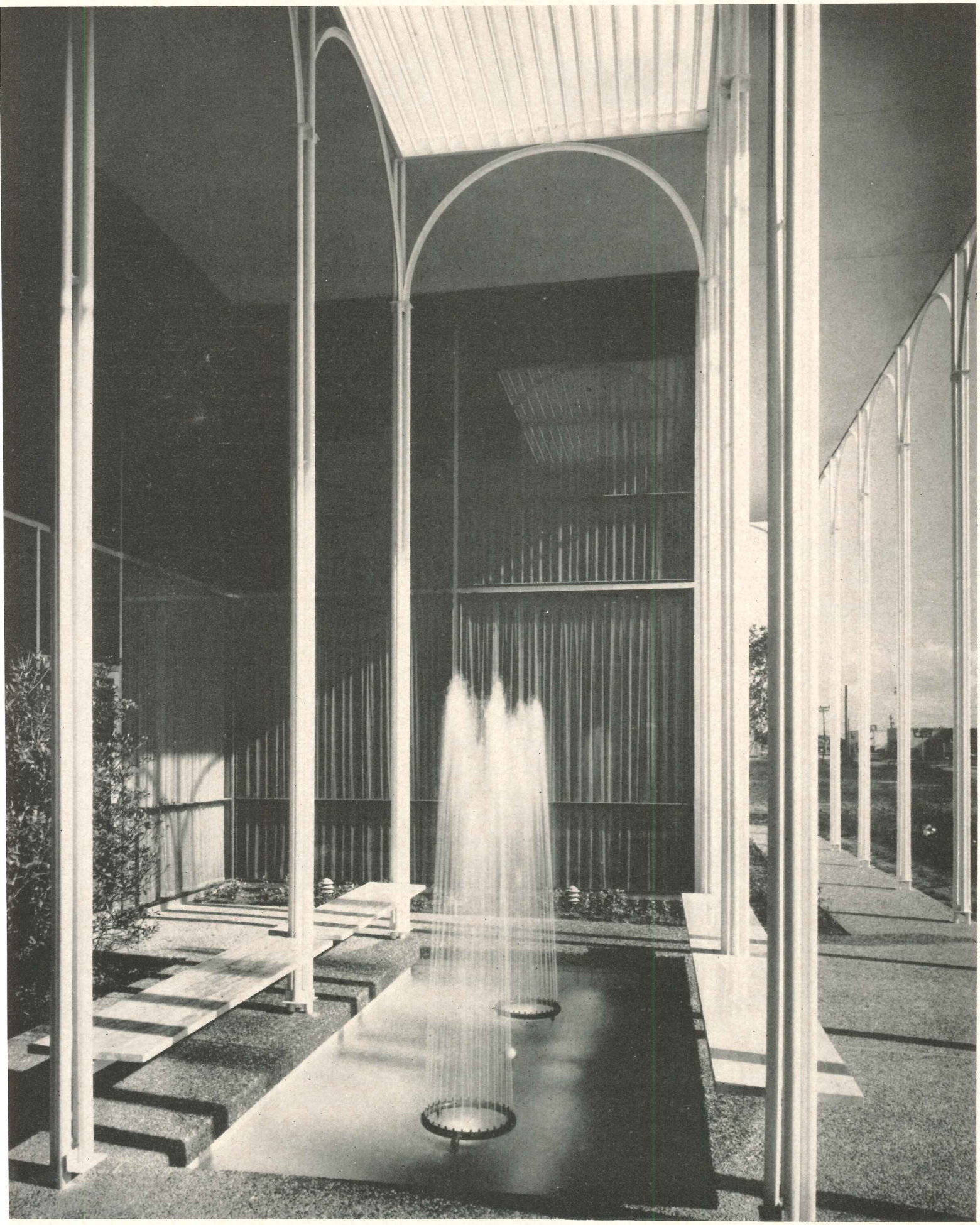
We can first eliminate commercial warehouses, garages and filling stations, and come up with an abbreviated commercial category. Then we can eliminate all buildings costing $5 million or more from the remainder. This gives us a new category which for convenience we will call "small stores and offices." Banks, of course, are included.

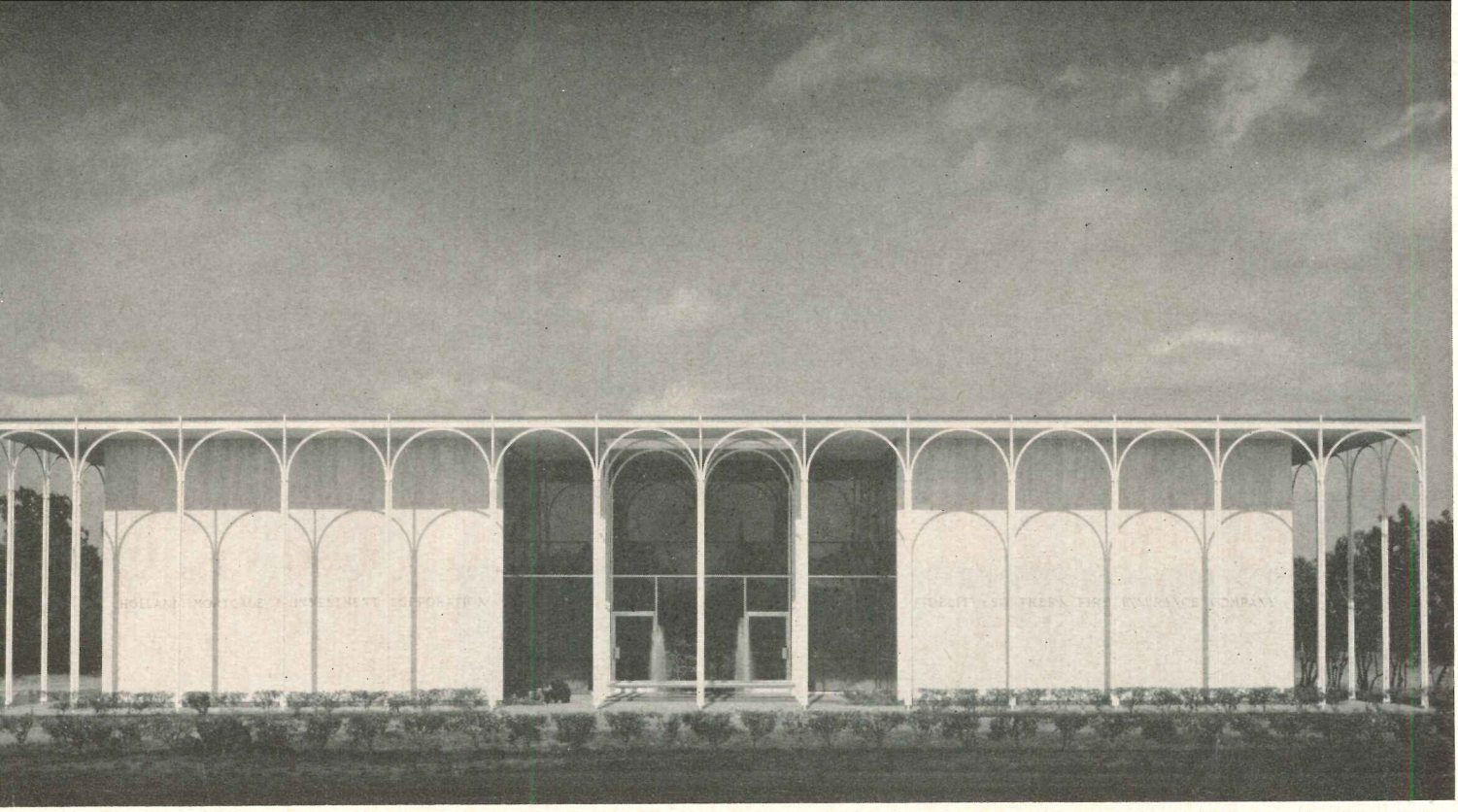
If we do this, we find a couple of very interesting things. First, small stores and offices account for a very respectable total. Contracts for these small buildings in 1960 amounted to $2,517,000,000, or 81 per cent of the whole store and office building market. For five months of 1961, the small building total is well over a billion dollars, or 82 per cent of the store and office market.

Moreover, when the effects of the extremely large buildings are removed, we find a much broader geographical spread of activity. The large buildings, especially offices, tend to be concentrated in New York and a few other cities; but there is no corresponding concentration of the smaller buildings.

With the popularity of shopping centers, and with the rapidly growing demand for "highway commercial"—that is, single store or office buildings with their own parking lots—prospects are that small, unsung buildings will continue to provide the bulk of the commercial building market.

by George Cline Smith
Vice president and chief economist,
F. W. Dodge Corporation;
Economic consultant to Architectural Record





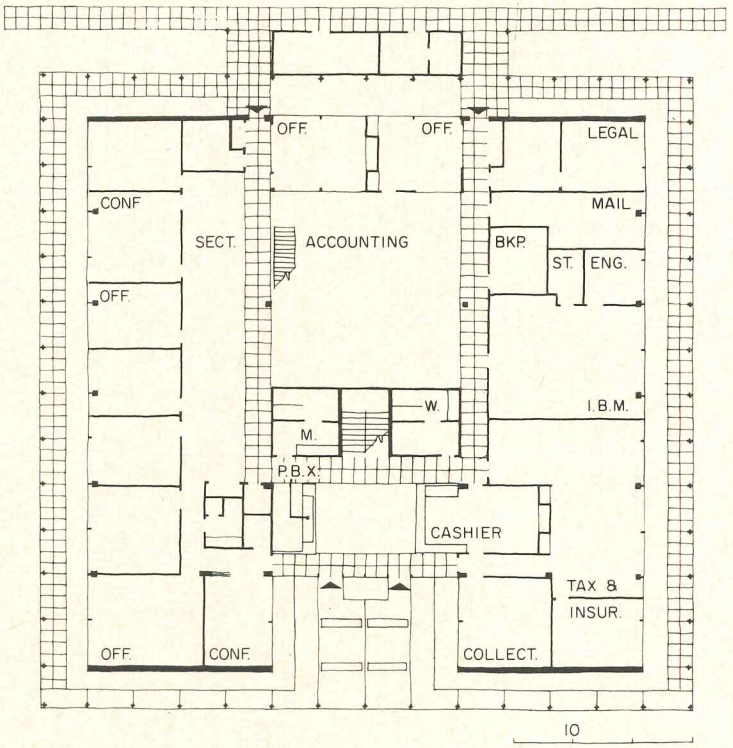
Photos by F. Wilbur Seiders

SLENDER COLONNADE LENDS ELEGANCE TO TEXAS BUILDING

Holland Mortgage & Investment Corp.

Houston, Texas

Neuhaus and Taylor, Architects



The notable air of elegance this two-story office building manages to achieve is due to the skillful handling of its continuous colonnade—made of bent T's, clusters of pipes, and a running channel; painted white—and the contrast this lacy element makes with both the solidity of the travertine walls and the crystallinity of the gray glass panels. The colonnade is set 24 in. outside the wall line, so its roof provides a degree of sun protection.

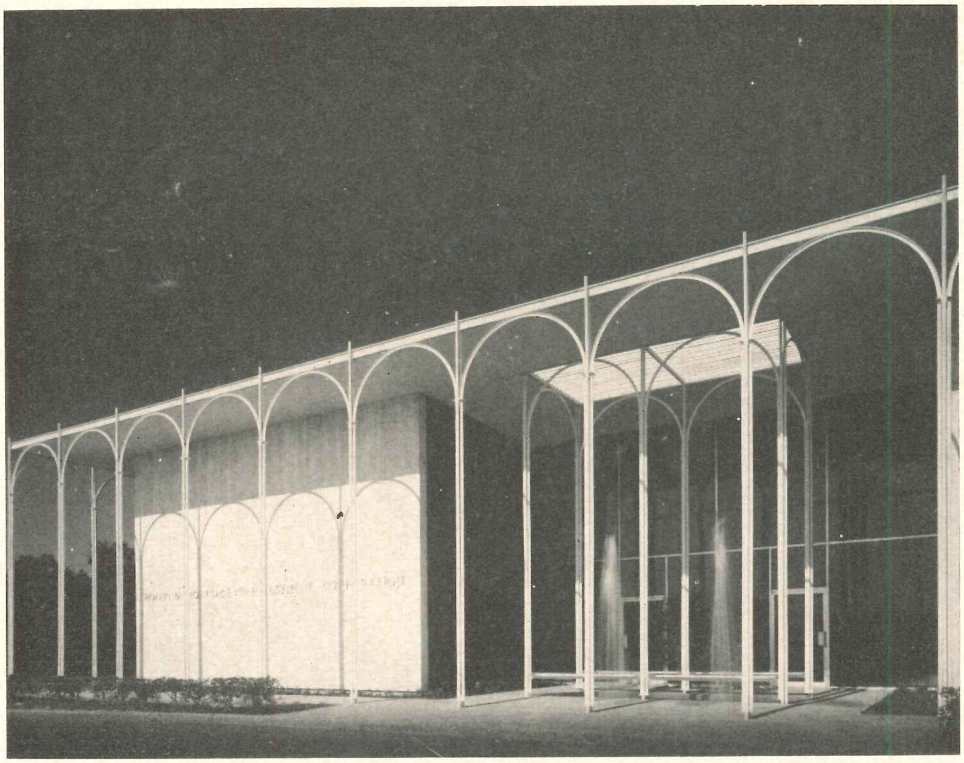
The attractive skylighted entrance loggia, shown on the left page, features a fountain pool, planting, and travertine benches. The building's 150 by 300 ft plot is located on a suburban boulevard which adjoins a high-class residential neighborhood. The mortgage company occupies the ground floor, and its sister insurance company the upper floor.

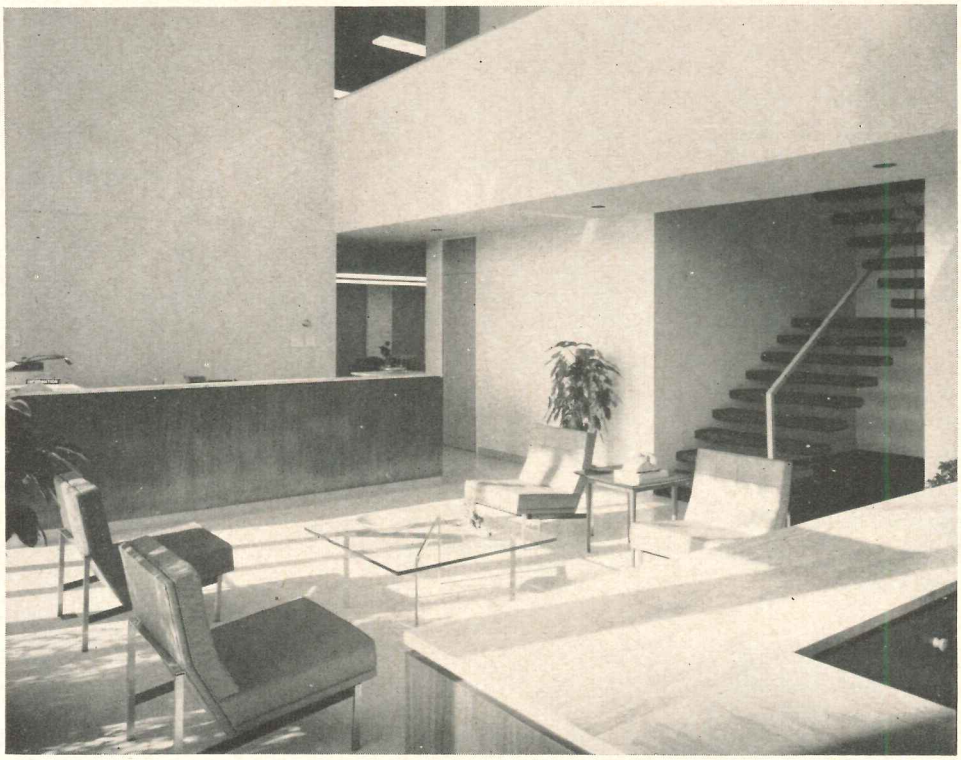
Structural Engineers: Vogt and Clouse; Mechanical Engineers: James G. Brown and Associates; Landscape Architect: Fred Buxton; General Contractor: W. R. Grimshaw Construction Company

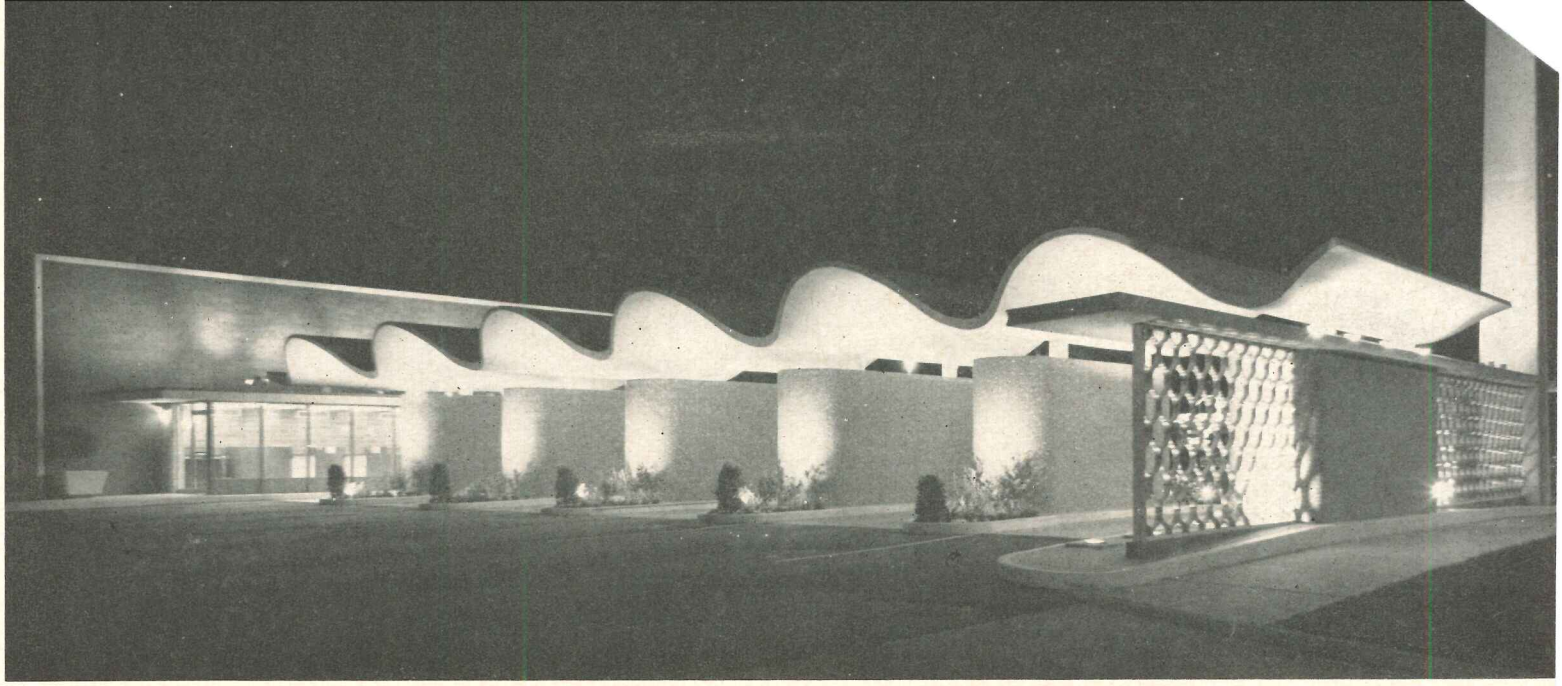
Holland Mortgage & Investment Corp.
Houston, Texas

The delicate, well proportioned colonnade is made of standard steel sections painted white. The colonnetes are a cluster of four 1½ in. pipes, the front and rear pair of which are continuous; the other two terminate at angle benches at the spring line and near grade. The front pipe elements continue upward to rise slightly above the fascia, a running 6 in. channel, and add visual interest at the roof line. The "arches" consist of 3 in. T's.

The interior walls of the building are finished with smooth plaster; the ceilings are acoustical plaster; floors are carpeted throughout except in the lobby and in main circulation areas, which are finished in terrazzo







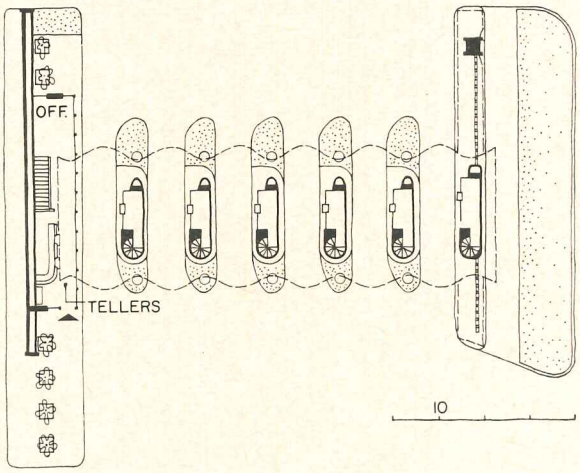
Photos by Julius Shulman

DRIVE-THROUGH BANK WITH A FUNCTIONAL UNDULATING ROOF

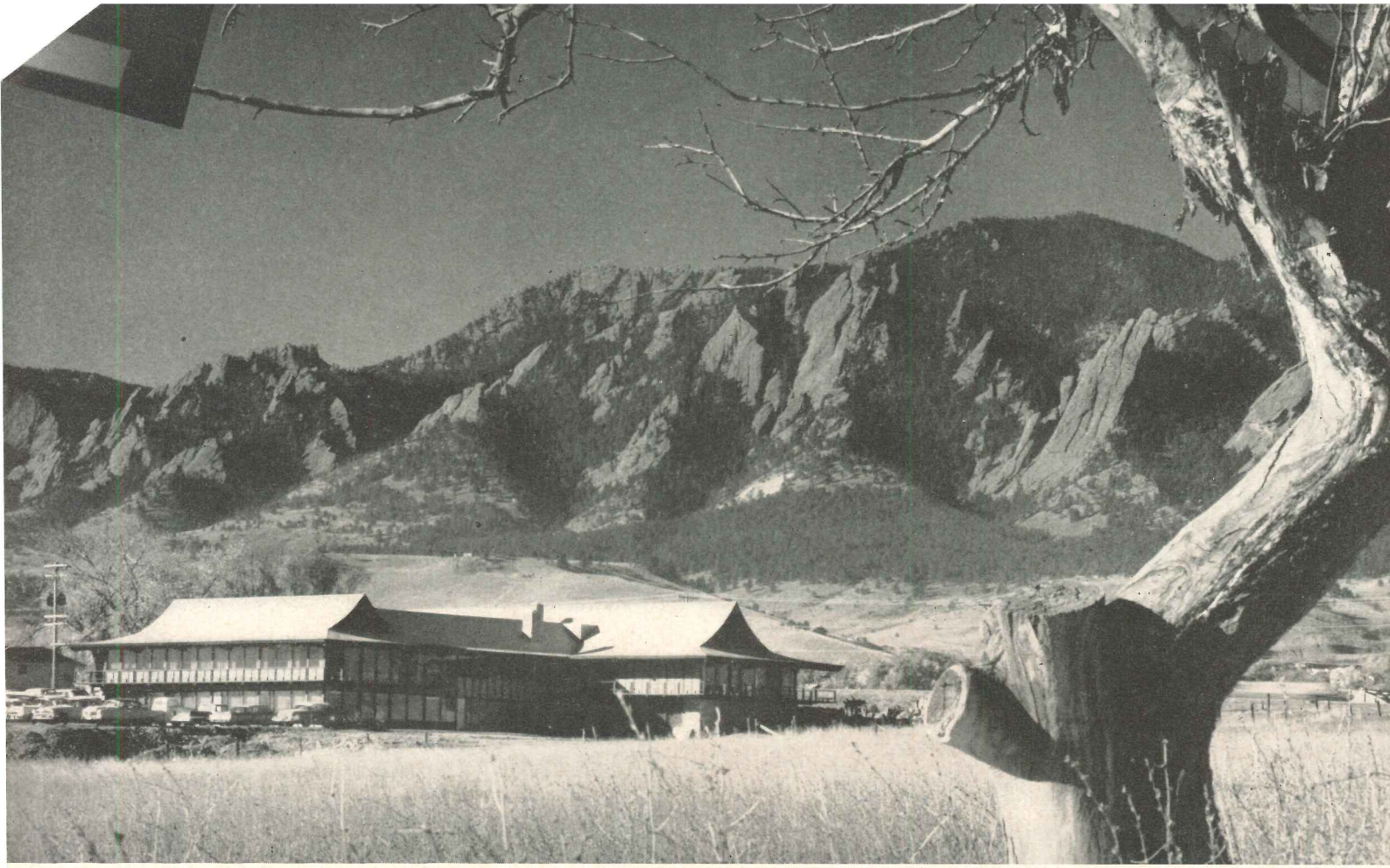
Central National Motor Bank
Oklahoma City, Oklahoma
Wright & Selby, Architects

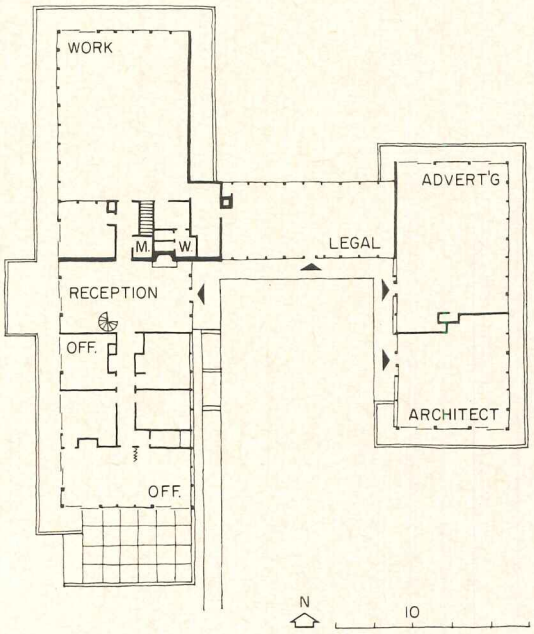
The undulating concrete roof that shelters this motor bank is not merely an attention getting cliché; over the driveways it furnishes the required rise for higher vehicles, then dips down to meet and protect the tellers' cages, thus creating a functional and generally lower silhouette for the building. The problem of expansion in such a length of roof was handled by making each support rigid in order to prevent expansional accumulation. Each rise then acts independently so expansion becomes an upward rather than lateral thrust.

The booths are of special design, and linked together by an underground tunnel to eliminate the hazard of regular doors. They are constructed of light channels, lathed and plastered both sides, with an exterior facing of ceramic tile. Sliding windows provide direct contact between teller and customer.

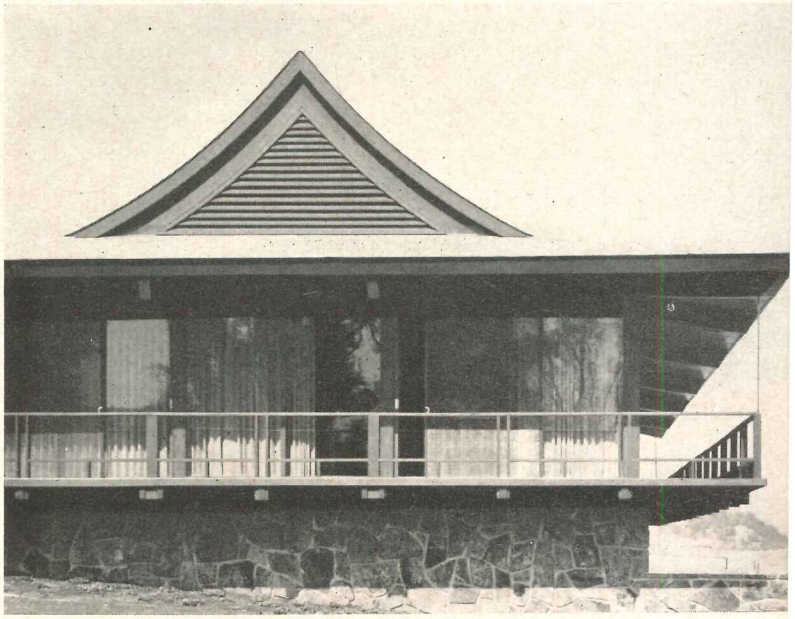


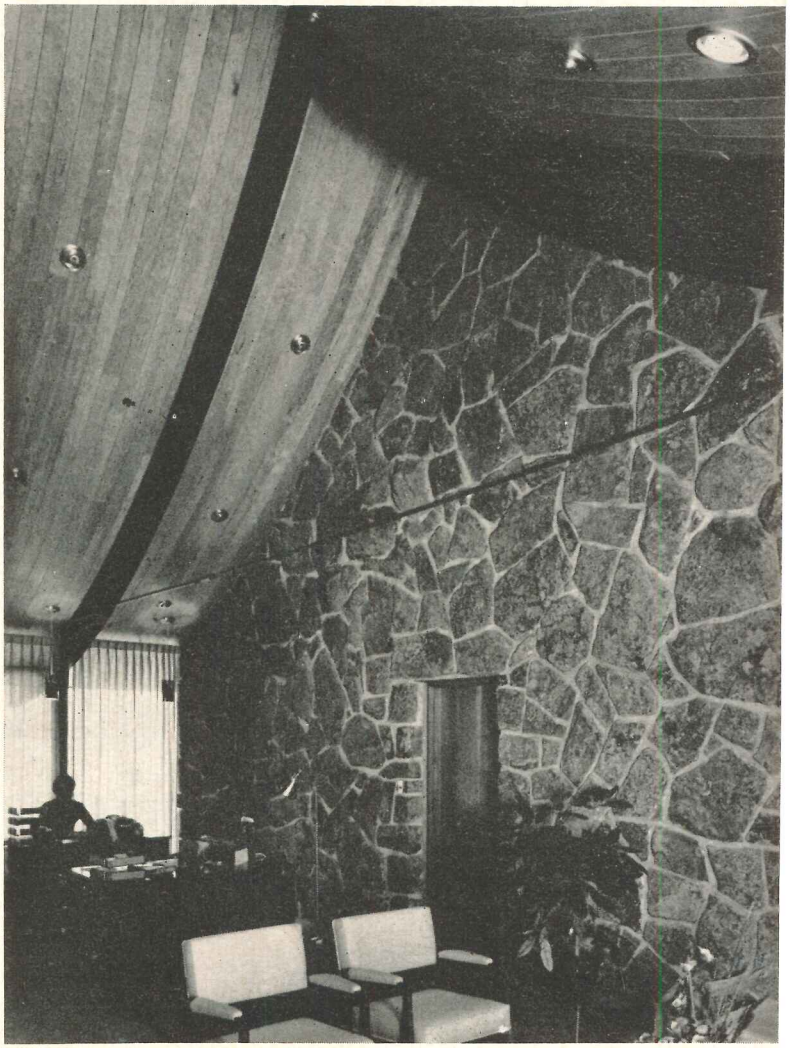
Mechanical Engineer: William J. Collins, Jr.; Electrical Engineer: L. B. Perkins Company; Contractor: Haskell Culwell Construction Company





3 photos by Roberts; next below by Stewart Sorey





ORIENTAL SHAPE AGAINST THE ROCKIES

Green Shield Office Building

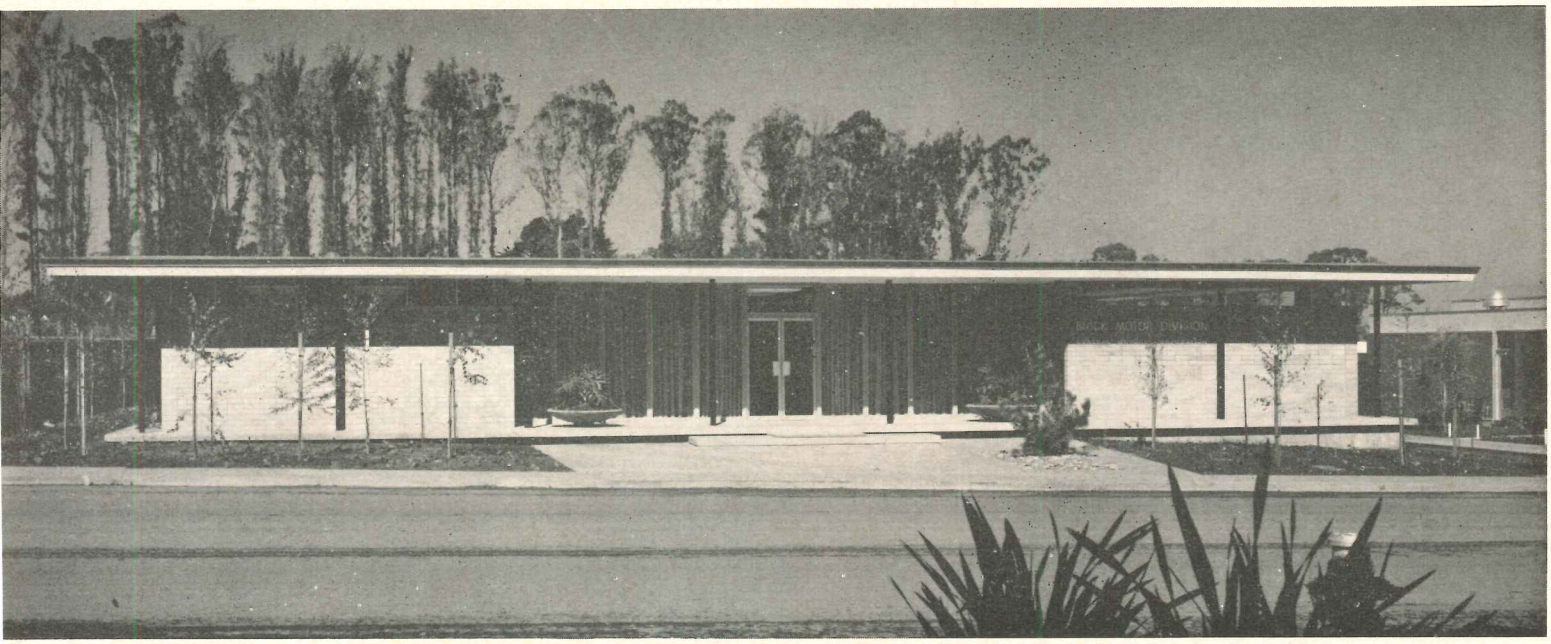
Boulder, Colorado

Hobart D. Wagener, Architect

The upward curving, Japanese-like, overhanging roof of this office building echoes the rises and peaks of its dramatic mountain backdrop; makes an intriguing silhouette against the sky. Laminated beams and posts of dark stained wood support the superstructure, which has a ceiling of hemlock boards; the gray glass exterior walls serve both to absorb the sun's heat and to make the expression of the laminated structural members more apparent.

Architect Wagener says, "Our approach was to resist the efficient, box-like, curtain wall type of office building in favor of something more romantic. The owner agreed that an informal, pleasant atmosphere was desirable for all concerned; we thus chose native sandstone and wood as basic materials, rather than the more formal steel and concrete."

Landscape Architect: George Uno; Structural Engineers: Ketchum, Konkel & Hastings; Mechanical Electrical Engineers: Swanson, Rink & Associates



Photos by Roger Sturtevant

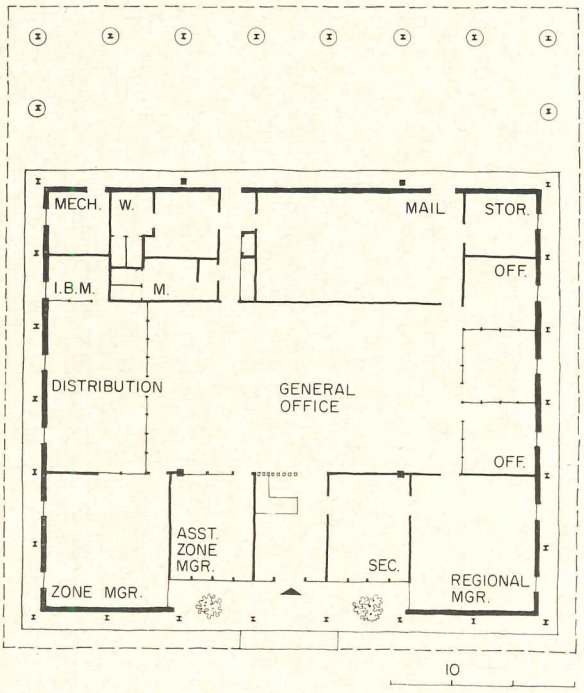
THIN-EDGED OVERHANG FOR ONE-STORY SUBURBAN OFFICE

Regional Office Building

Buick Division of General Motors

Burlingame, Calif.

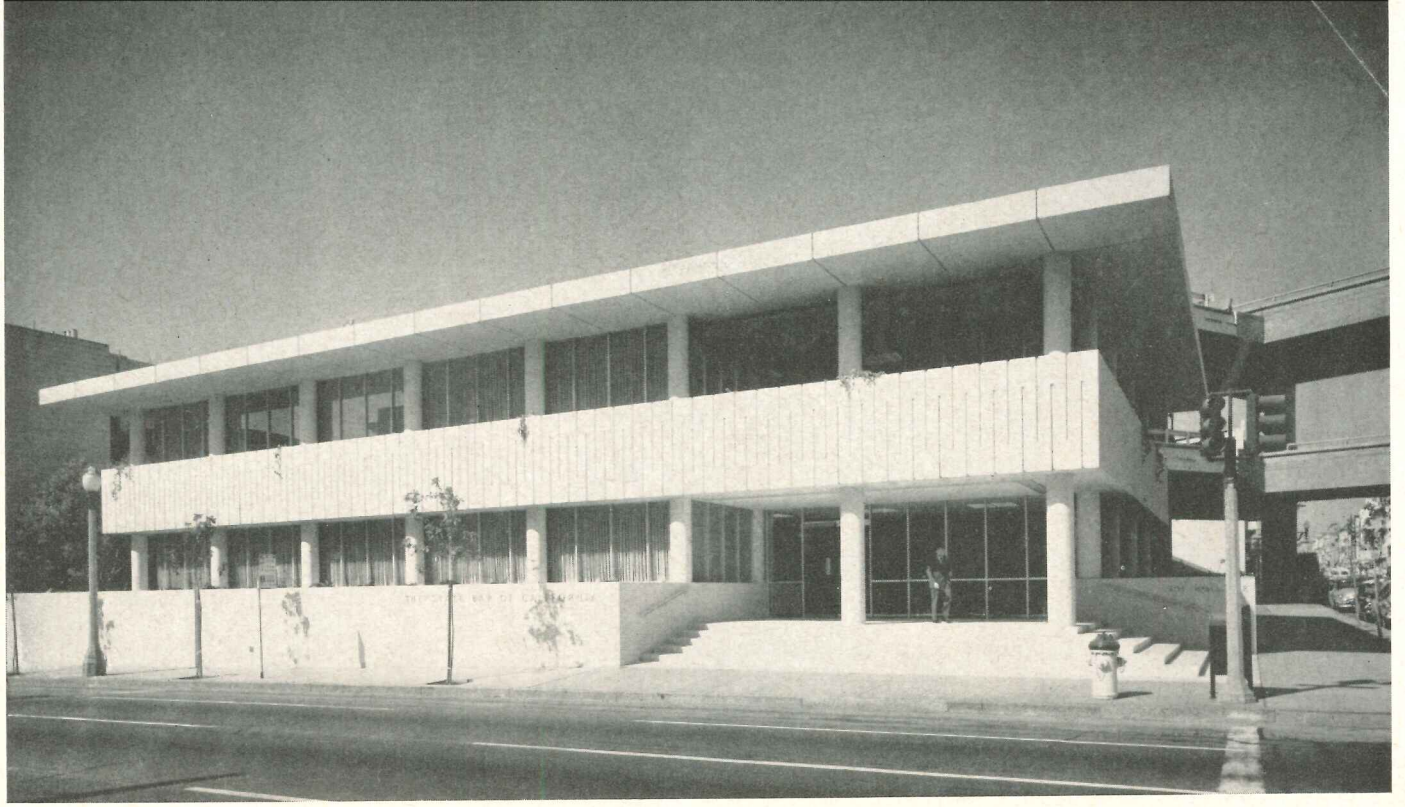
Hertzka & Knowles, Architects



This clean-lined, well proportioned suburban office building owes much of its grace to the slimness of its roof fascia, which measures 8 in. The effect was achieved by means of tapered steel beams at the 6 ft overhangs. The roof construction proper is of wood on light steel framing, from which an acoustical ceiling spline suspension system is hung.

The non-structural exterior walls are of light tan reinforced brick block with continuous, 2 ft high aluminum transom windows and jalousies; the exposed exterior steel columns are painted black. Interior partitions are wood studs, plastered both sides and painted; floors are vinyl asbestos tile; ceilings are of fissured mineral tile. The building is completely air-conditioned in a three-zone system; offices are equipped with individual controls.

Structural Engineers: Graham and Hayes; Landscape Architect: John Carmack; General Contractor: Morris Daley Construction Company



Photos by Roger Sturtevant

GOOD NEIGHBOR TO TRADITIONAL CIVIC CENTER

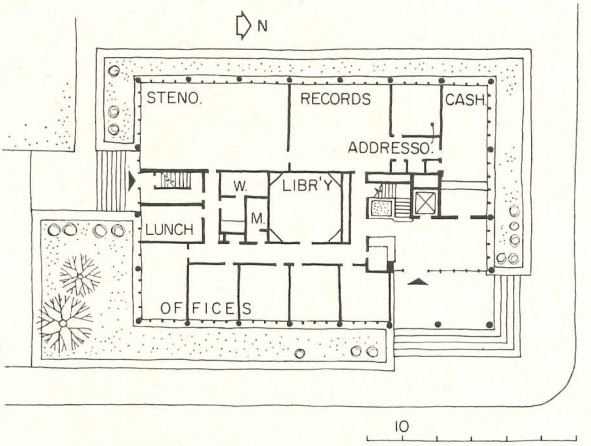
The State Bar of California

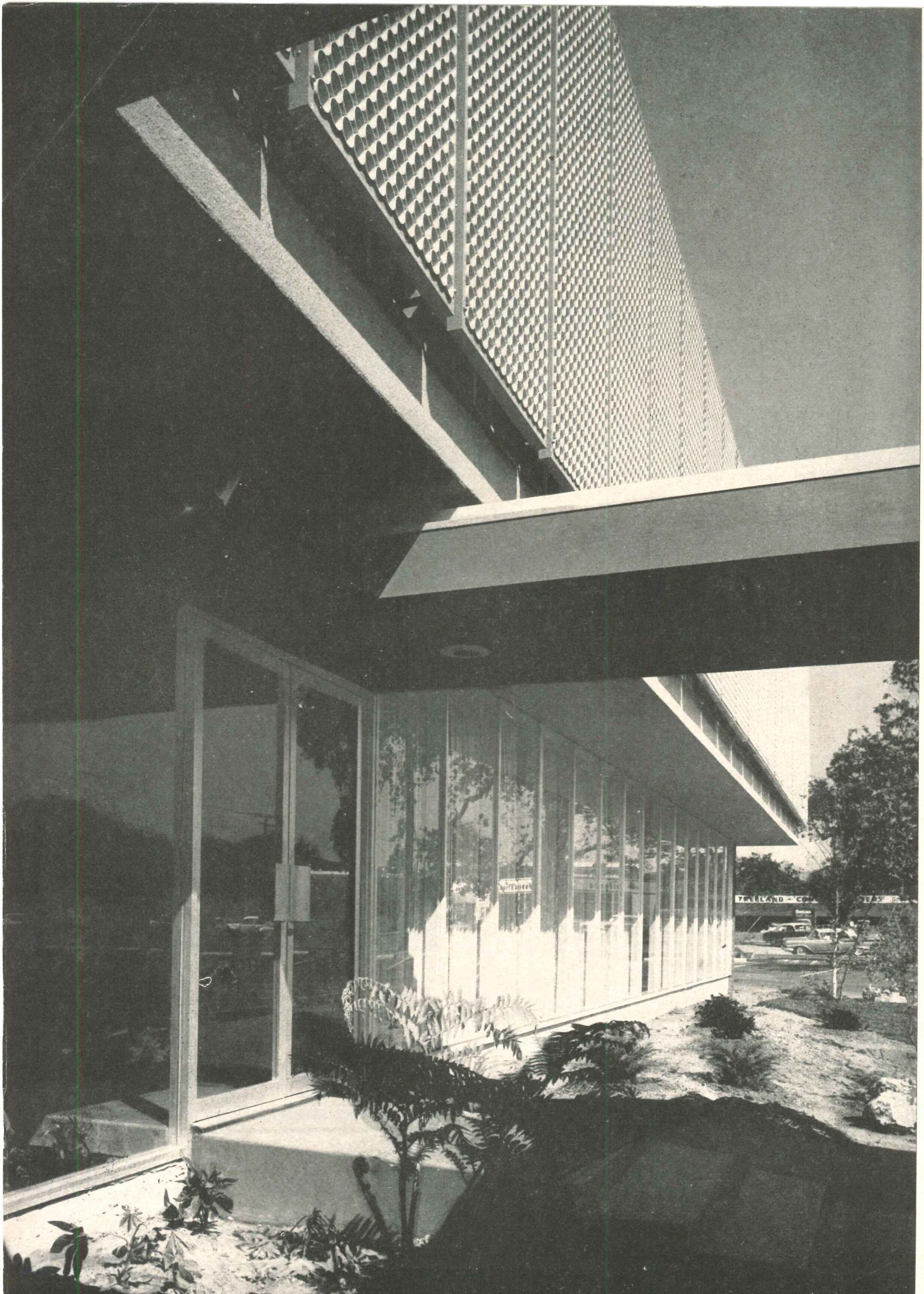
San Francisco, Calif.

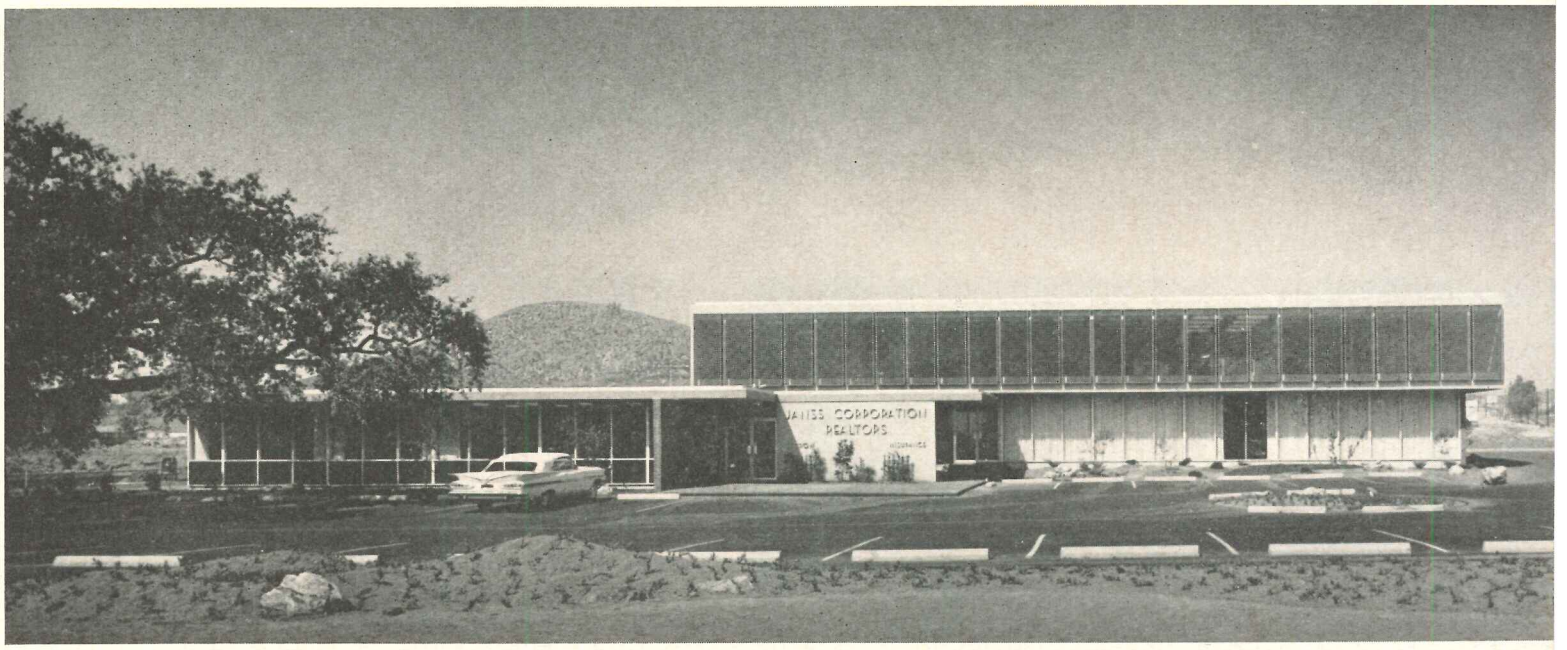
Hertzka & Knowles, Architects

Located across the street from San Francisco's Renaissance Civic Center, and backed up against a curving ramp of the elevated freeway, this office building was designed to fit as well as possible into its rather mixed environment. The exterior facing is of articulated precast concrete panels with exposed white marble chip aggregate to match the nearby Civic Center. The classic rhythm of strongly expressed vertical columns supporting horizontal masses echoes the spirit of the traditional center and repeats the basic elements of the freeway. The raised, landscaped set-back gives the interiors visual privacy and offers a buffer for sidewalk noise. The building is air-conditioned; all sash fixed.

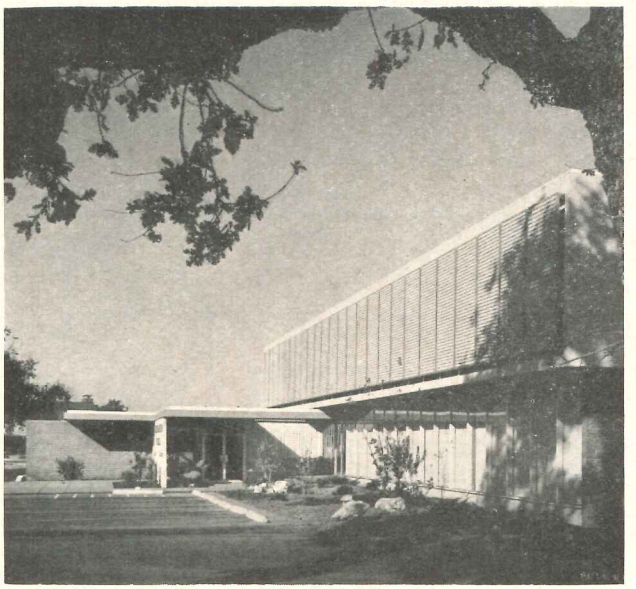
Landscape Architects: Osmundson & Staley; Interior Designer: Maurice Sands; Structural Engineers: Graham & Hayes; Mechanical and Electrical Engineers: Buonaccorsi & Murray; General Contractor: Haas & Haynie Corporation







Photos by Marvin Rand



PROFESSIONAL CENTER THAT RESPECTS THE CALIFORNIA SUN

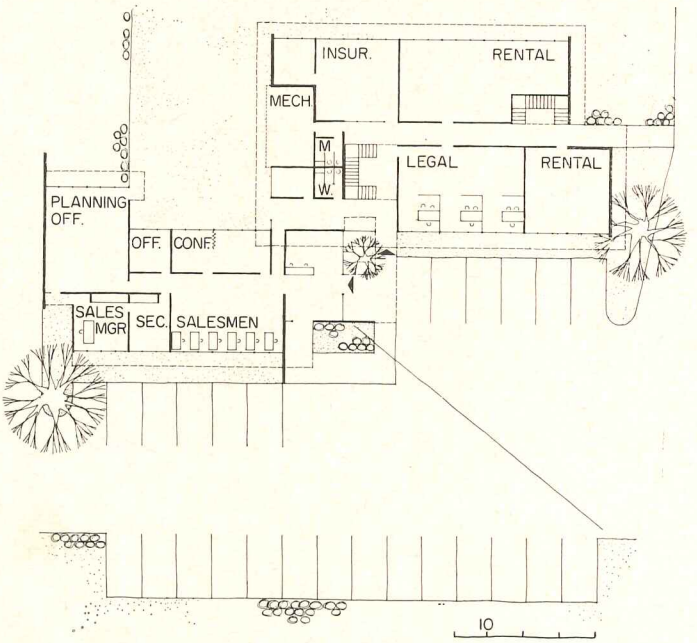
Professional Center, Conejo Village, Calif.

Neils Stoermer, AIP and

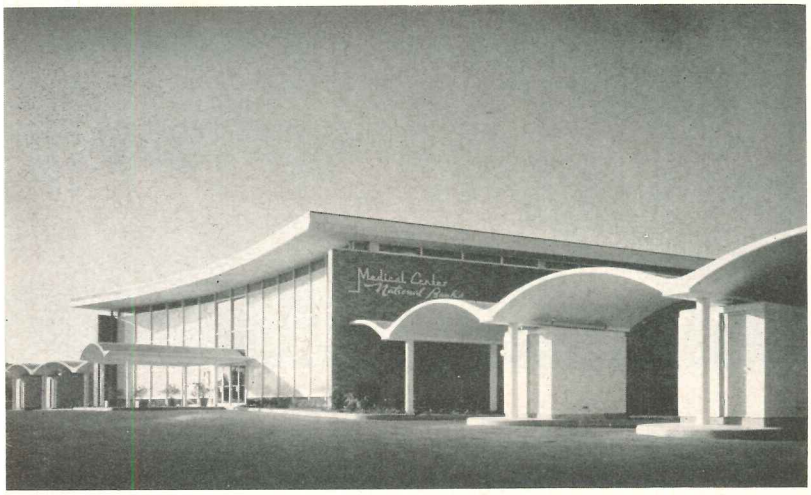
Perry Neuschatz, AIA, Designers

The California climate, sun, and surrounding landscape were strongly influential in the design of this attractive two-story office building. The east and west walls were made completely solid to blank out the low morning and afternoon sun, while the south façade (which faces the highway) consists of a sunscreened second floor that shelters the ground floor by means of an overhang. The north (or rear) windows are unprotected, and open out from interior spaces requiring north light.

Natural materials—felt to be in keeping with the landscape—were used: uncolored, sprayed-on cement plaster; split face, exposed aggregate block; and stained wood. The sunscreen—which appears transparent when viewed horizontally, but has a 45 degree cutoff—was made by cementing lengths of plastic tubing together to form panels.



Engineers: Robert Marks, Structural; Michael Maroko, Mechanical; Bernard Wanek, Electrical; General Contractors: Davies, Keusder, and Brown



Photos by F. Wilbur Seiders

TEXAS BANK EXPLOITS MARBLE'S TRANSLUCENCE

Medical Center National Bank

Houston, Texas

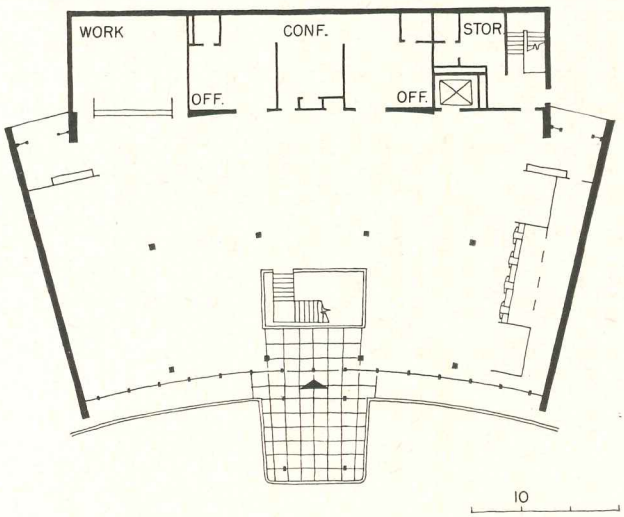
John A. Greeson—Brown & McKim, Architects

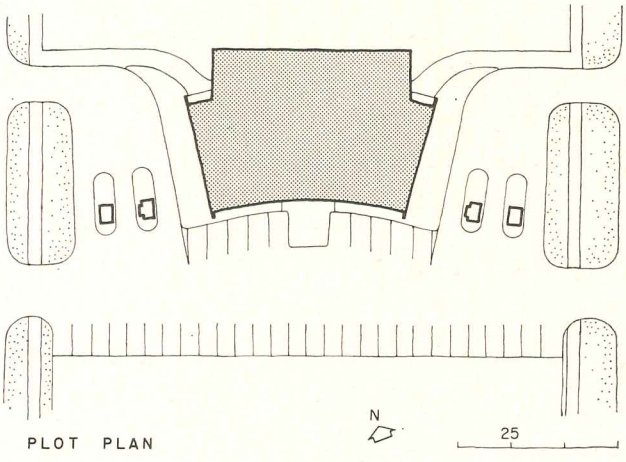
Hamilton Brown, Project Architect

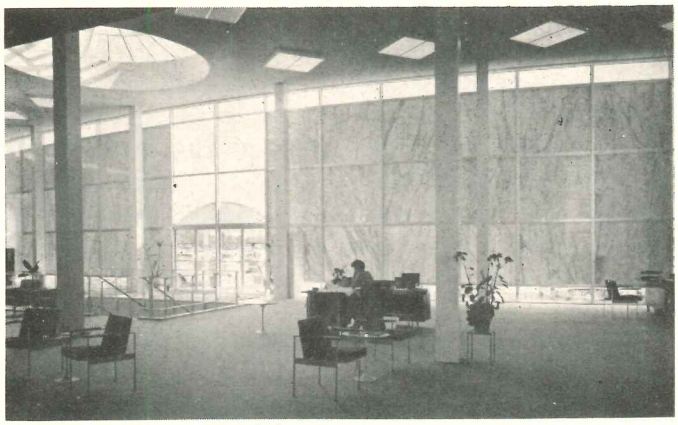
The main façade of this bank, which faces south into the Texas sun, is composed mostly of thin sheets of Vermont marble, used in a way that makes the most of the material's translucence. The marble slabs, 7/8 in. thick, are supported by aluminum muntins and mullions—much as glass would be—and are separated from floor, roof, and side walls by strips of clear glazing. Such treatment gives the marble an appropriate non-structural look, while the direct light from the glass augments the diffuse glow from the marble. Further "punch" daylighting is introduced by a circular skylight 18 ft in diameter, glazed with glare reducing, obscure glass.

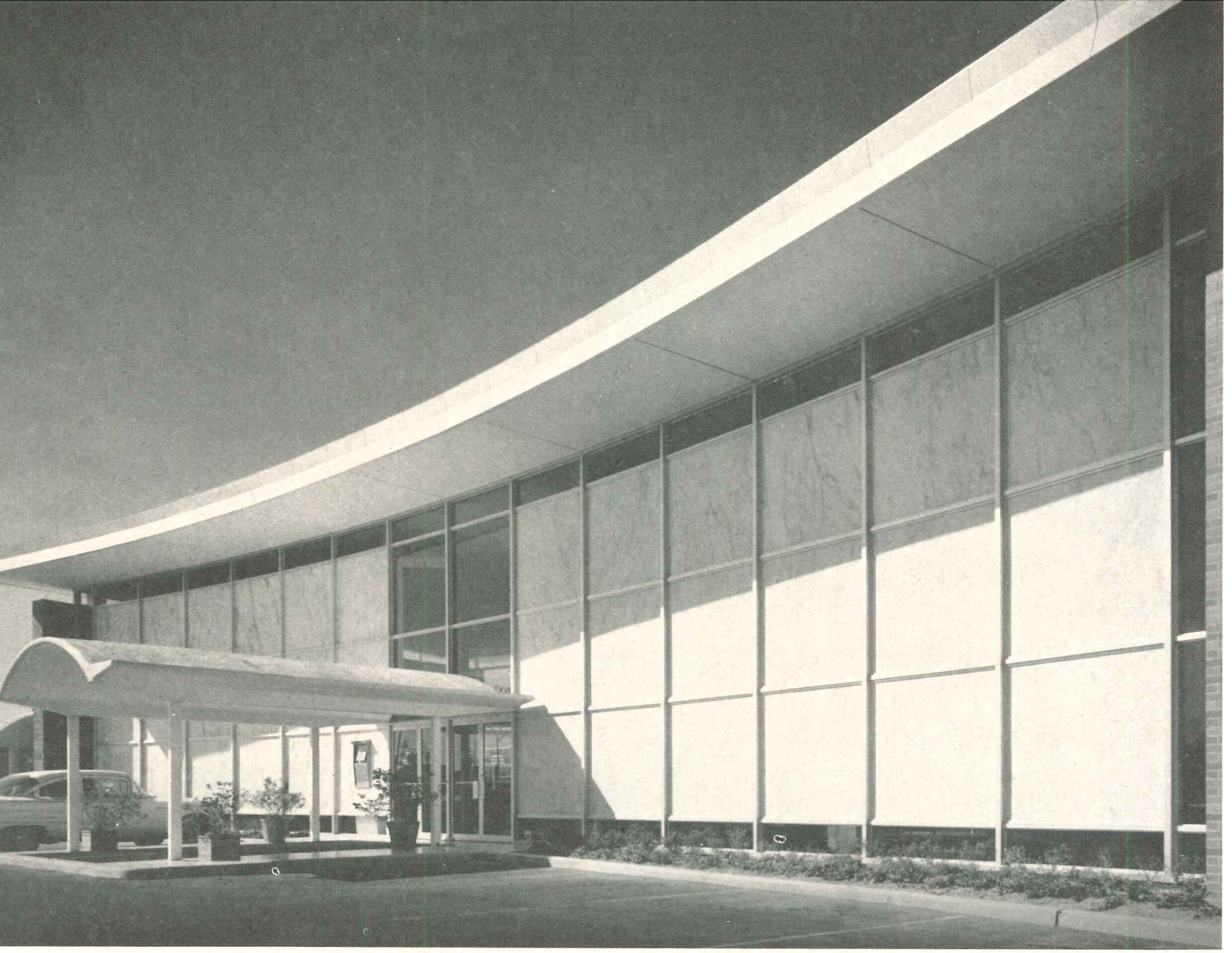
Blue glazed brick is used for both exterior and interior side walls; the blue carpeting for the main floor banking room is carried down the stair to the lower level vault and safe deposit area.

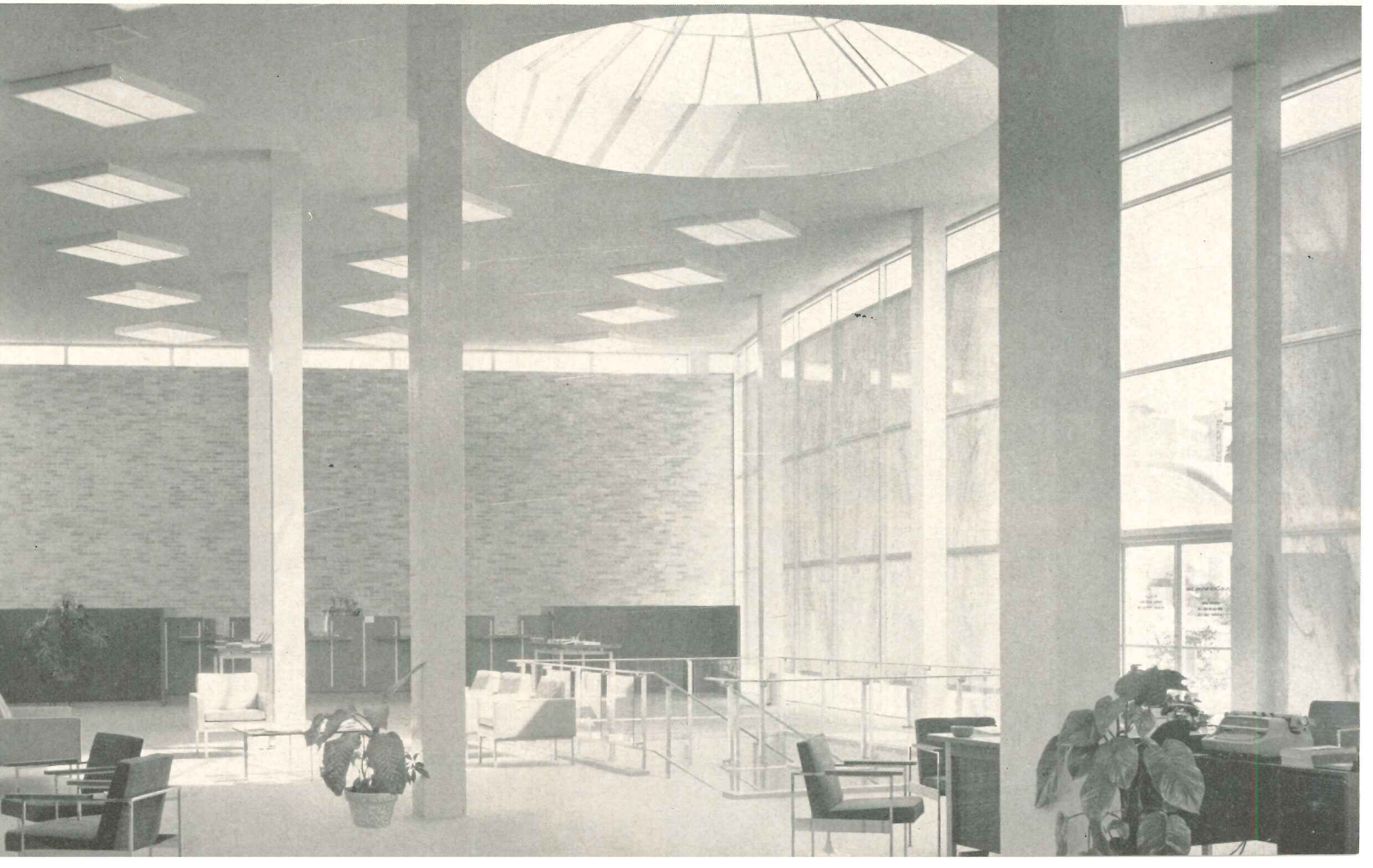
Structural Engineer: Walter P. Moore; Mechanical and Electrical Engineers: Bernard Johnson Associates



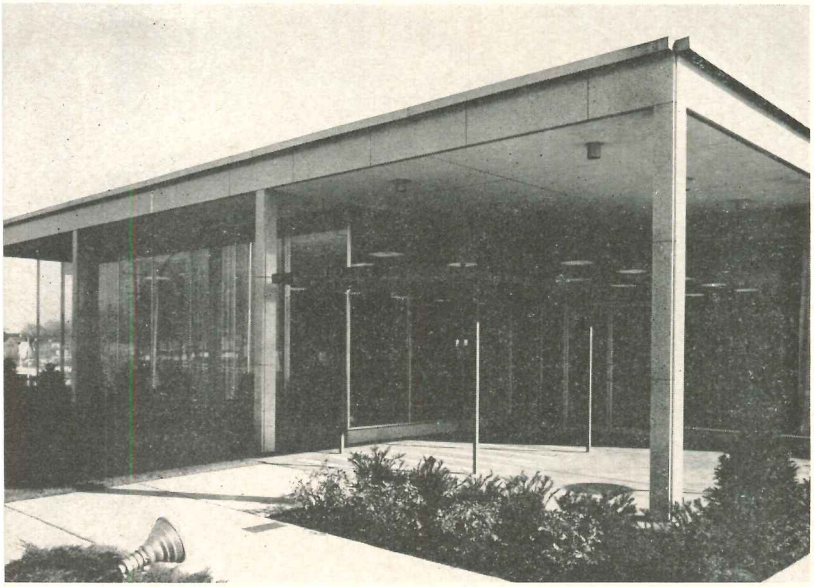


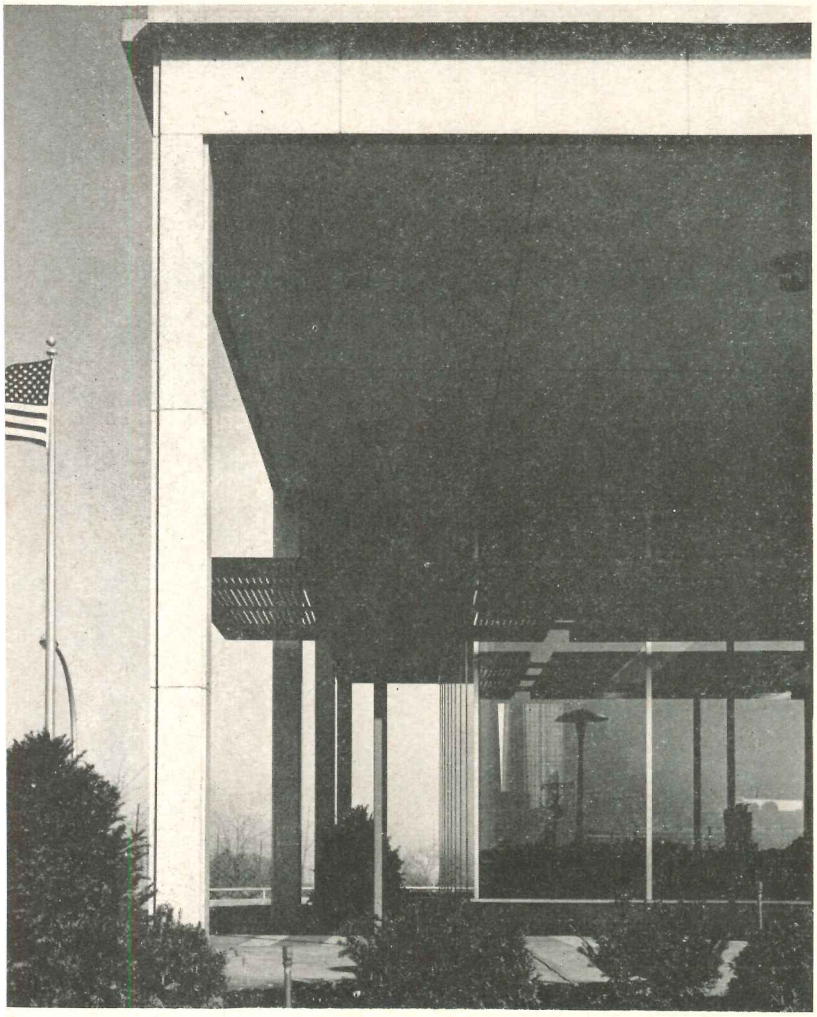


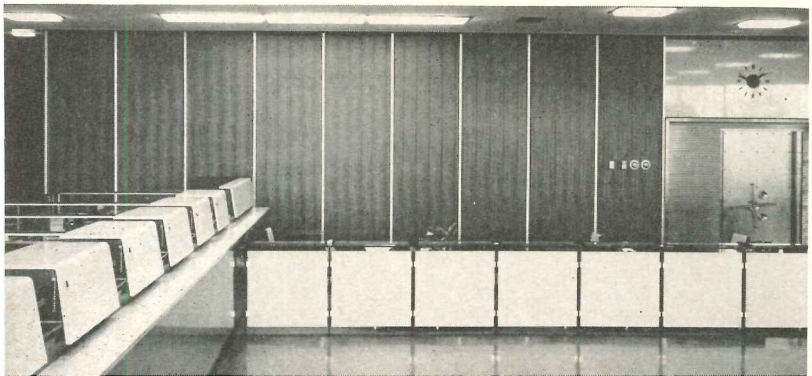


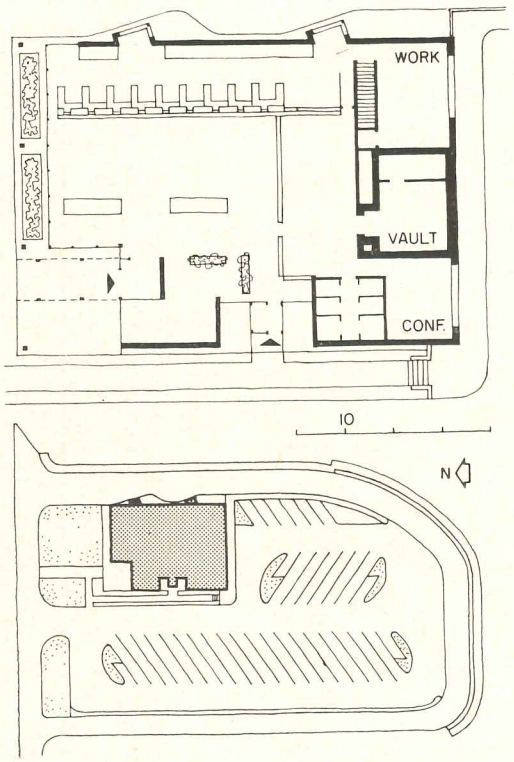


Photos by David R. Kitz









RESTRAINED DESIGN FOR BANK IN DETROIT SUBURB

Manufacturer's National Bank

Bloomfield Township, Michigan

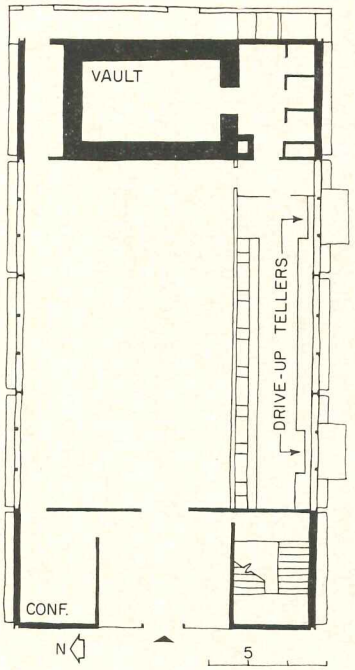
Louis G. Redstone, Architect

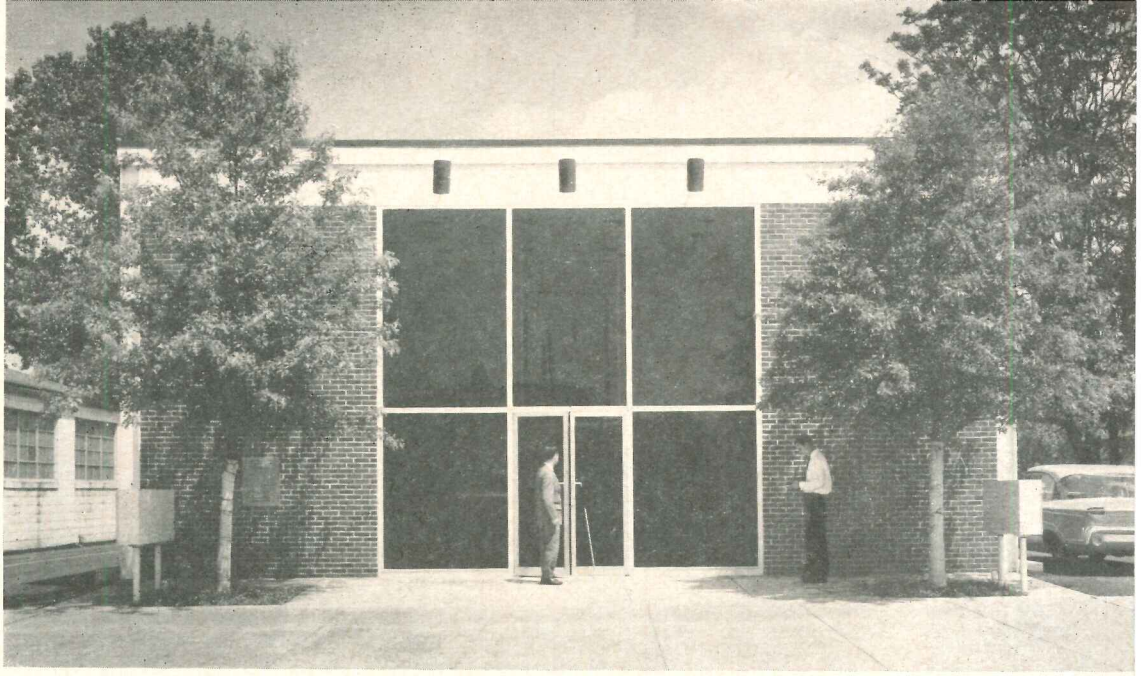
Avner Naggar, Associated Architect

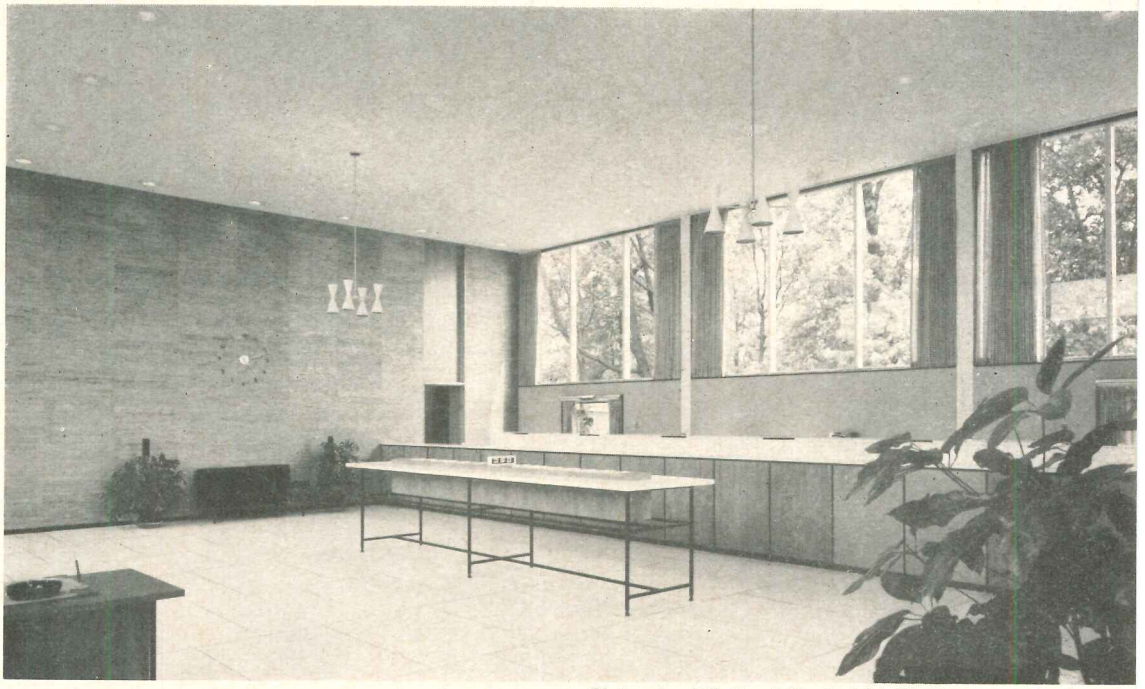
This branch bank, appropriately restrained in character and visually expressive of its simplicity, is constructed of materials proper to the carrying out of these ideas. The glass walls are held in place by slender aluminum extrusions; the steel columns and roof fascia are sheathed in Vermont granite; the sheltered walkway at the entrance contains a pattern of granite strips which serves to add interest at this point and tie the scheme together. Two drive-up tellers are located so cars can line up in a manner that does not interfere with the rapid movement of traffic on the adjacent highway (see plot plan); a second entrance provides convenient access for customers from cars parked in the bank's lot.

Ceilings are acoustical tile throughout; floors are vinyl tile; walls are brick or painted block. The building boasts both an electrical snow melting system and a lawn sprinkling installation.

General Contractor: R. E. Dailey and Company







Photos by Bill Engdahl, Hedrich-Blessing

SMALL CITY BANK OF QUIET BUT SPRIGHTLY DESIGN

South 3rd Street Branch, Merchants National Bank

Terre Haute, Indiana

Evans Woolen III and

Yeager Architects, Associated Architects

Regarding the design of this dignified, yet sprightly branch bank, architect Evans Woolen says, "The owners wished for a fresh approach in a neighborhood as yet undefined by any architectural character. The property is in the interior of a city block and has a narrow street frontage. Two drive-up windows and as much parking as possible were desired. The solution places tellers, safe deposit reception, officers, and public all in a single large space with a high ceiling. The result has an impact that would scarcely be possible otherwise. A relatively small vestibule serves as transition from the big room to the street; all views at ground level are excluded from the banking room. The exposed steel frame is painted white throughout; the wall infilling panels are of bright red hand-glazed brick. The reserve of the building's design lies in the tradition of banking; this is not a 'ranch' type bank!"

Structural Engineers: Fink, Roberts, and Petrie; Contractors: Glenn W. North Construction Co.


FIRST NATIONAL BANK


FIRST NATIONAL BANK

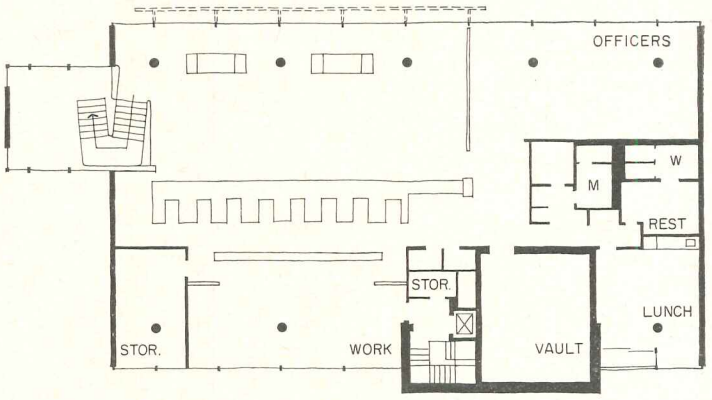
Photos by R. Wenkam

FIRST TWO-LEVEL BANK BUILDING IN 50TH STATE

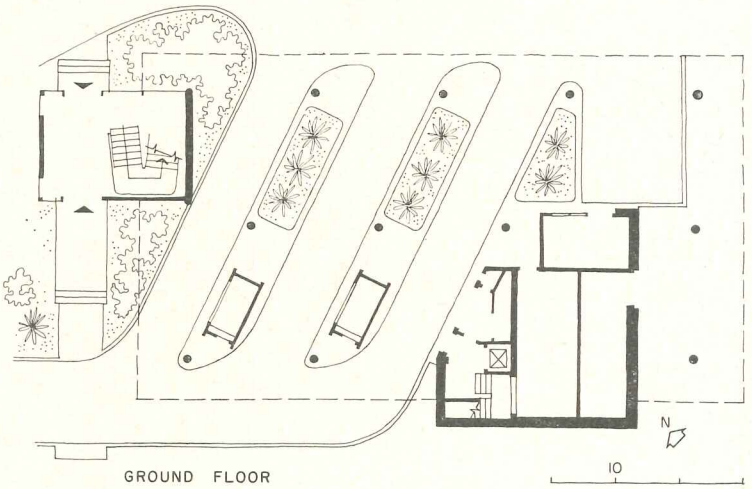
First National Bank of Hawaii

Kahili Branch, Honolulu

Vladimir Ossipoff & Associates, Architects



MAIN FLOOR



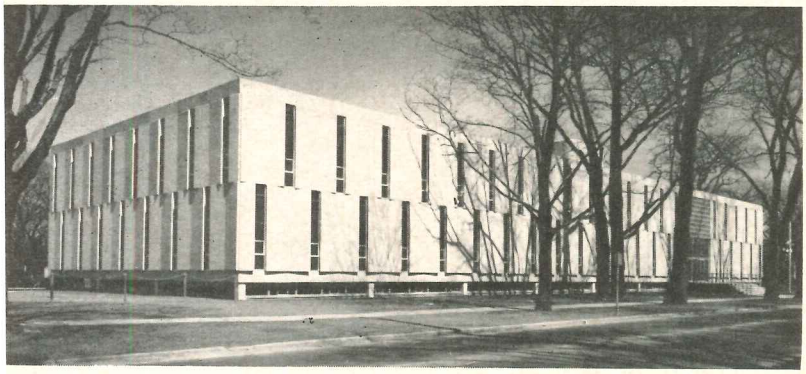
GROUND FLOOR

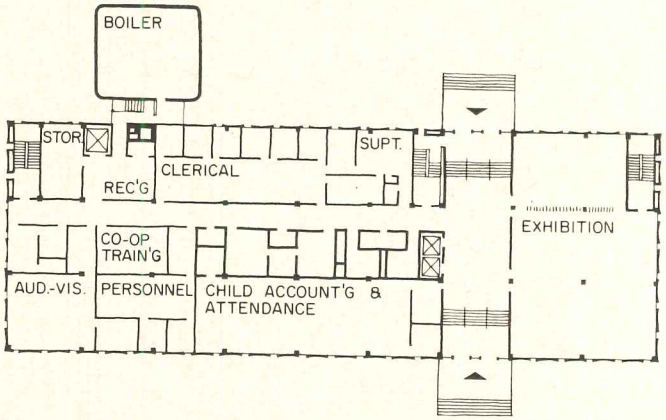
With the increasing dependence of Honolulu residents upon motor transportation, drive-up banking windows were a must for this branch, which was also required to have a conventional banking room. The architect's solution to the problem elevates the banking floor in order to provide a drive-through arrangement for three drive-up teller's booths at ground level. The raised banking floor makes the building more visible from a shopping center across the street, and also affords a pleasant outlook for the occupants. The climb to the second floor is carefully designed so that it is accomplished in easy stages.

The southern sun, rising eastern sun, and setting western sun are particularly damaging to interior comfort, so these walls of the building are virtually blanked out. East and west façades carry bas-relief sand castings by Edward M. Brownlee. The structure is concrete, with flat slab floors, pre-stressed roof joists, and precast exterior wall panels.

Structural Engineers: Shimazu and Shimabakuro

Lens-Art Photos





FENESTRATION IN UNUSUAL PATTERN FOR MIDWEST OFFICES

Flint School District Administration Building

Flint, Michigan

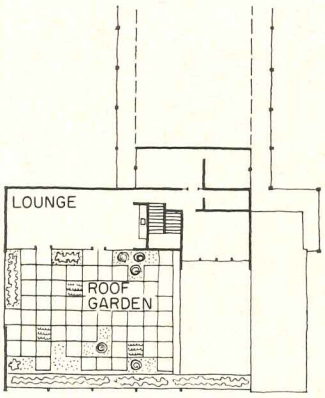
Linn Smith Associates, Architects

(formerly Smith, Tarapata, McMahon)

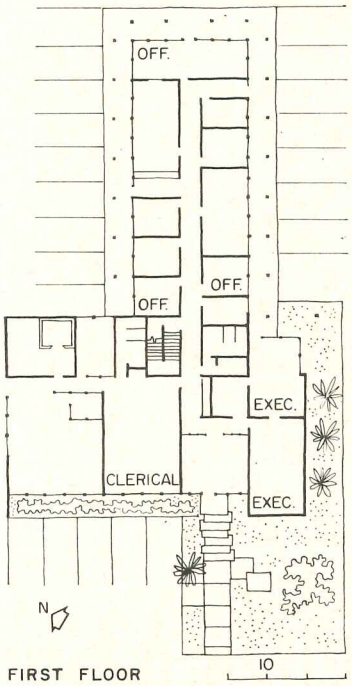
The attractive exterior skin of this steel-framed building consists of exposed granite aggregate precast concrete panels, disposed in an alternating pattern with slender, floor to ceiling glazing slots. Architect Linn Smith explains that the combination of narrow windows and broad wall panels permits considerable flexibility in the arrangement of interior partitions, and further comments that in this case the windows are intended primarily for visual relief and not for general illumination, which is provided by fluorescent lighting.

This first stage unit—consisting of a ground floor and two stories—will eventually have two floors added to complete the project. The ceilings are laid out on a 5 ft grid, with alternate squares containing diffusers or lighting units—an arrangement that provides maximum latitude in office planning. Heating is by hot water and air handling units that can be converted for future air conditioning.

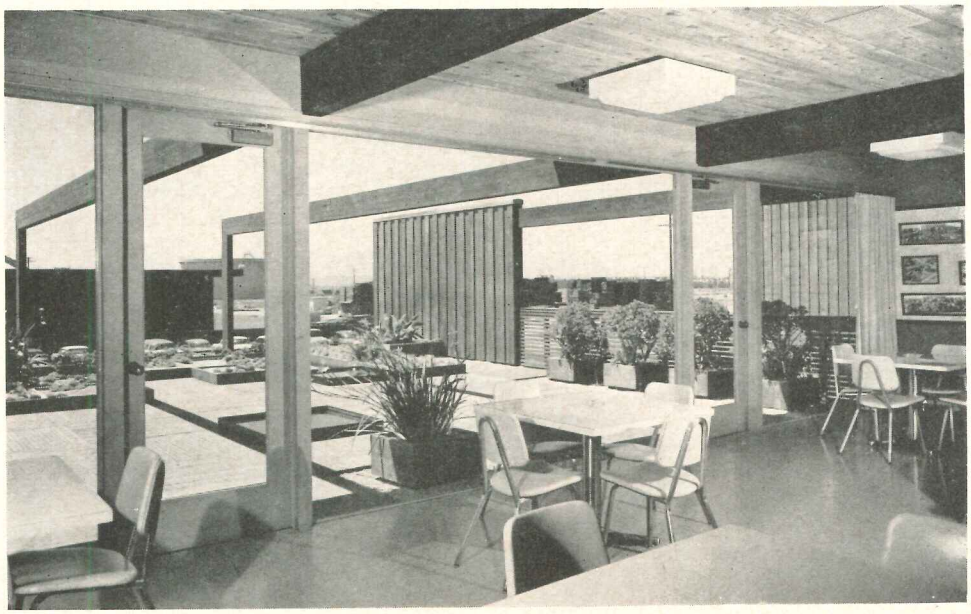
General Contractor: Schurer Construction Company



SECOND FLOOR



FIRST FLOOR



Photos by Douglas M. Simmonds

AWARD WINNING LUMBER COMPANY HEADQUARTERS

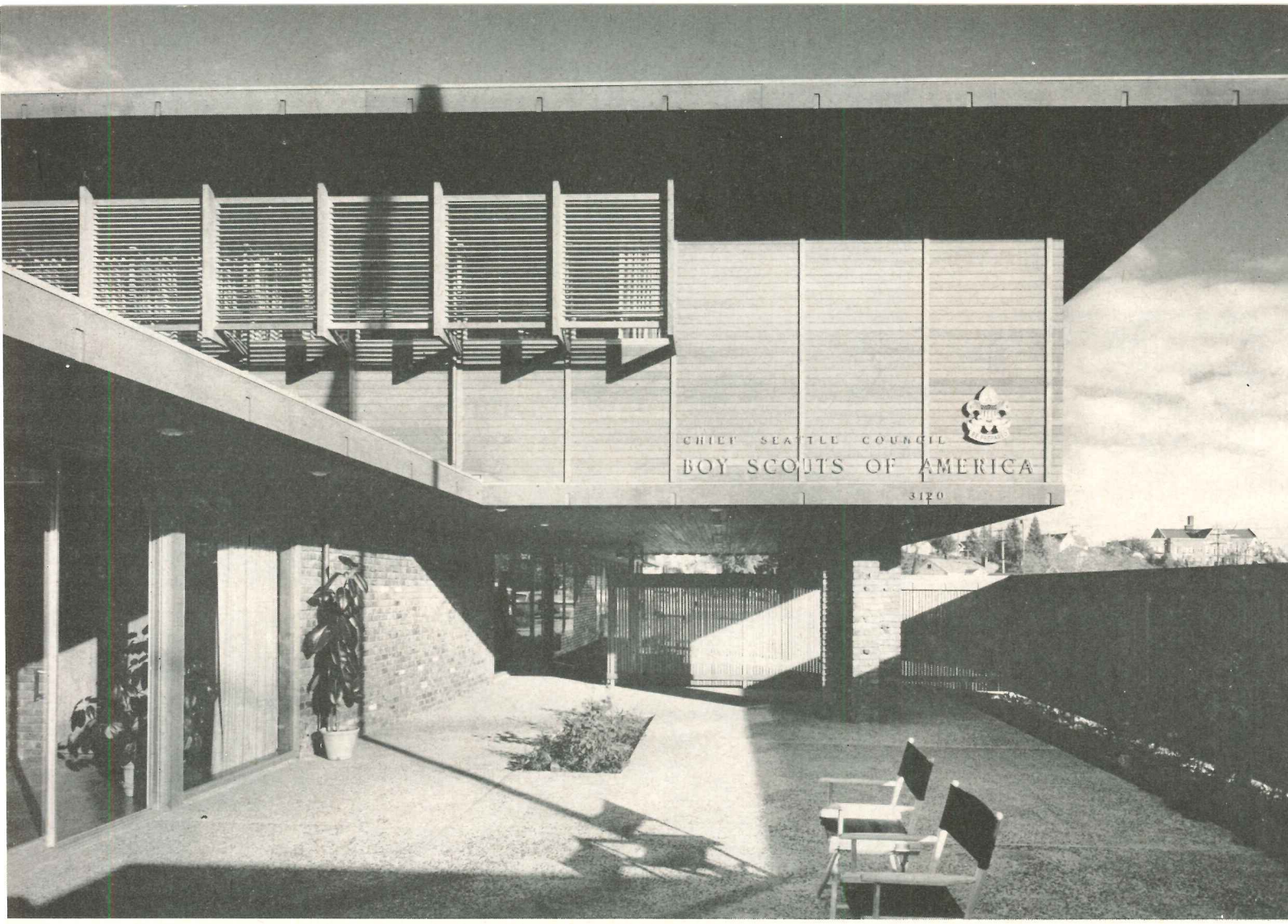
Western Lumber Co. Offices

National City, California

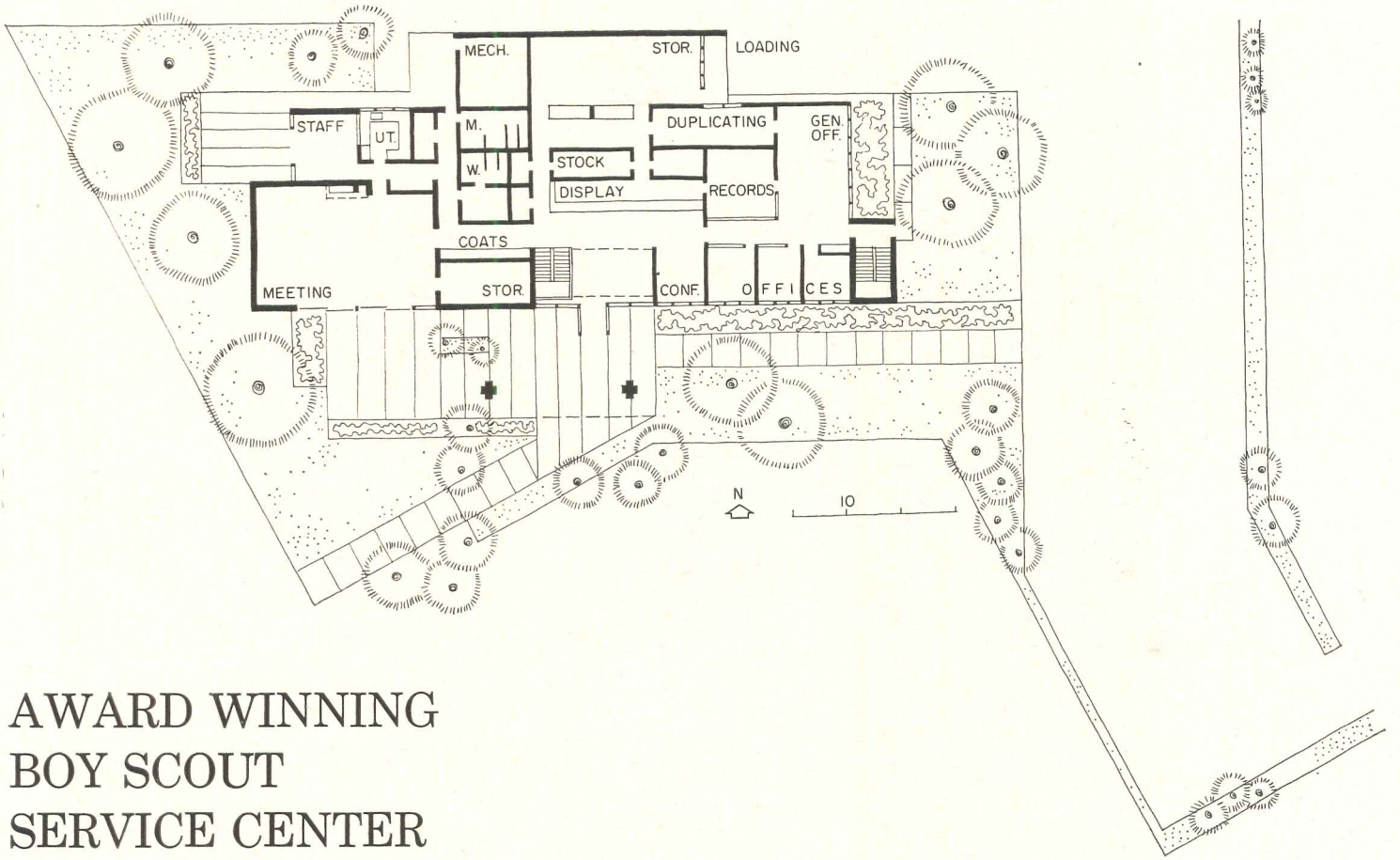
Johnson & Anderson, Architects

Presented an award of excellence by the San Diego chapter of the A.I.A., this office building makes notable use of the owner's product and serves, by both exterior and interior design, as a promotion piece. Exterior walls are sheathed in resawn redwood board on board, which is repeated in the owner's nearby mill and warehouse structures. Dark stained laminated Douglas Fir bents, which support the roof over the second floor employe's lounge, are continued out over the terrace deck (lower photo) and returned vertically to grade at the entrance. Contrasting horizontal lines are provided by 2 x 2 redwood sun slats. The pleasant employe's lunch room and terrace offer a view of San Diego bay. The office building is the center of a large plant covering 14 acres, which includes a mill, warehouses, yards, etc.

Landscape Architects: Wimmer & Yamada; Air Conditioning: Fred Antelline; Electrical: California Electric Works; Interior Design: Jane Jones; General Contractor: C. A. Larsen Construction Co.


CHIEF SEATTLE COUNCIL
BOY SCOUTS OF AMERICA
3120


EXIT



AWARD WINNING BOY SCOUT SERVICE CENTER

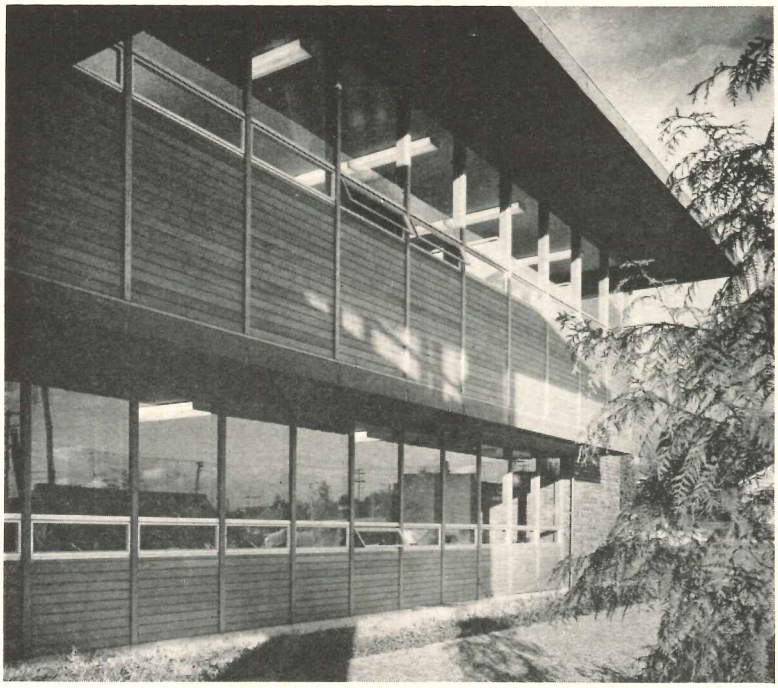
Service Center, Chief Seattle Council
Boy Scouts of America, Seattle, Washington
Ibsen A. Nelsen and
Russell B. Sabin, Architects

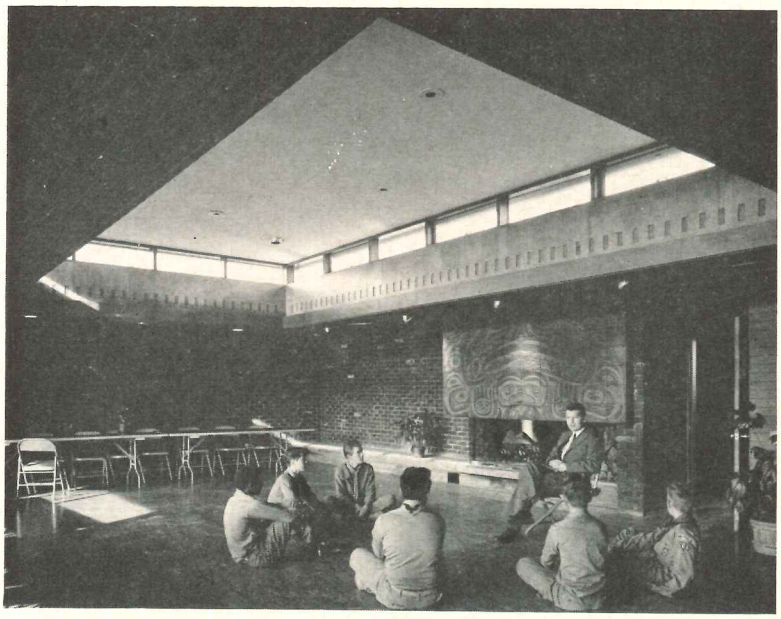
Photos by Art Hupy

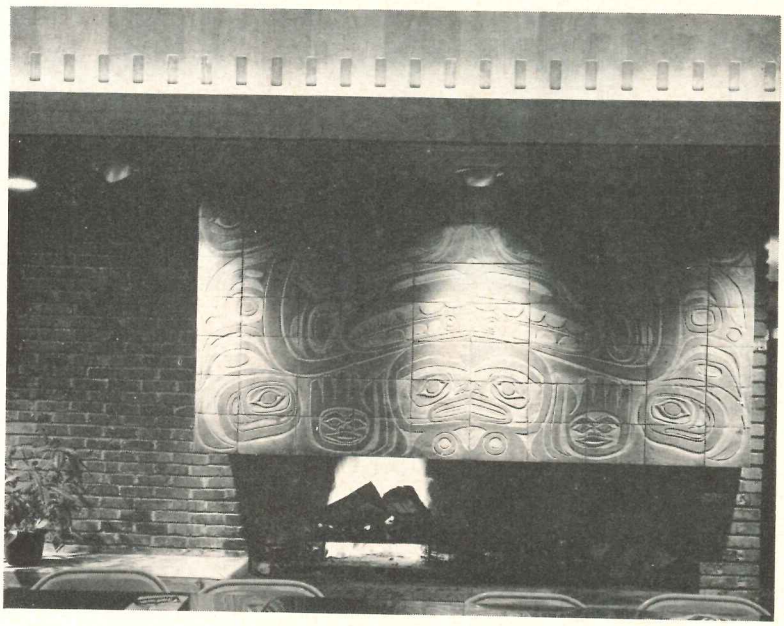
Notable for the skillful and attractive manner in which both its exterior and interior wood details are handled, this building's basic form and plan grew directly out of the needs of the client organization. It serves as an administrative center, a headquarters where adult groups meet for training and other activities, and as a distribution point for literature, training aids, and all additional Boy Scout paraphenalia.

The structure consists of laminated beams, wood joists, wood columns, and steel columns. Exterior walls are cedar siding or red brick; interior walls brick or plaster board, painted. Overhangs shelter the wood walls; widely used clerestories balance interior daylighting. The building won an award of Merit, 1961 Washington State AIA Awards Program.

Landscape Architects: Eckbo, Dean & Williams; Engineers: Worthington, Skilling, Helle & Jackson, Structural; Richard M. Stern & Associates, Mechanical; General Contractor: General Construction Company







Boy Scout Service Center
Seattle, Washington

The top photo shows the exterior of a two-story element: cedar siding; fixed glass held in wood stops; projected aluminum ventilators—note the careful handling of detail throughout, and the resulting good scale. The building's deep overhangs protect the wood walls from both sun and rain.

Clerestory lighting strips—extensively used through the entire building—are effective in rendering interior spaces more pleasant. The middle photograph shows the manner in which clerestories are used for the meeting room, which has an asphalt tile floor, red brick walls, birch flush doors and panelling, a lower ceiling of 1 by 4 T and G cedar, and features a handsome fireplace. The bottom photo shows a detail of the over fireplace decorative ceramic panel

Architectural Engineering

Beam Design Via Electronics

One of the most attractive aspects of a computer is savings in time. In the area of structural design, the office of T. Y. Lin and Associates, Van Nuys and San Francisco, California, is able not only to cut time for the solution to the design of prestressed beams, but also the time required for transmission of the information from their office to computer center and back. The problem, set up on a prepunched tape, is fed into an automatic typewriter which transmits the information over a telephone line to another automatic typewriter. The tape from this typewriter is fed into the computer for the answer to the problem. This answer also is transmitted via telephone, and the typewriter prints the computed information in final report form. The new communications device is called Autofax, manufactured by Communications Control Corp., and utilized in this case by a Los Angeles computer service center called ComputerMat.

Step-up in Building Research?

The future role of the National Bureau of Standards in building research is to be the subject of a year's study by a new nine-man Special Advisory Committee of the Building Research Advisory Board. Being made at the request of NBS, the study has as its purpose the recommendation of a "mission or relationship" that NBS could assume, considering the needs and opportunities for building research and the functions and activities of NBS.

Roofing Shells

The technology of roofing is changing and one of the reasons for this is the changing shape of the roof itself. Problems and developments in roof coverings and sealants for thin shell roofs were highlighted at the Building Research Institute's 1961 Spring Conferences in May. Ralph W. Yeakel Jr. of Eero Saarinen and Associates discussed weatherproofing problems of the bird-shaped concrete roof for the TWA terminal building under construction at New York International Airport, and summed up the general problems of roofing shells as follows: 1) The roof is not just a roof in many cases, but also a wall, which means the public sees a great deal more of it, so appearance is important. Whatever finish or coating is used, it should complement the concrete, not compete with it; 2) most shells do not have a conventional parapet or curb, so there may not be a convenient flashing turn-up—adhesives thus become more important; 3) the coating must have greater elongation capability than standard materials because of the movement of thin shells as compared with ordinary structures; 4) construction joints present a dual problem in caulking and sealing as the roofing material must either bridge the joint or be turned down into the joint before caulking is applied; 5) the coating must be amenable to smooth patching with no color differentiation.

Something in the Air

Back in the '30's, a number of scientists investigated the effects of air ionization on the behavior and physiology of people. While some of the research seemed to indicate that negative ions had a beneficial effect and positive ions, deleterious, the studies were rather inconclusive, and the matter received little attention for 20 years or so. With the emergence of space medicine and the rapid growth of air conditioning, however, new studies and reports have been initiated. In a survey of research through 1959, scientists R. A. Duffee and H. G. Schutz of Battelle Memorial Institute conclude that, ". . . there is no question that atmospheric ions have an effect on human behavior, but the amount of this effect and the ion polarity responsible . . . is not presently predictable." A study by Dr. Lawrence Slote of New York University's Engineering Research Division, reported last May in the *New York Times,* suggests that negative ionization improves performance and the sensation of comfort. And we have just heard of a voluminous report by the Russians, "Air Ionization and its Hygienic Importance," by Professor A. A. Minsh, available in an English translation (No. 6019868) from the Library of Congress for $16.80.

This Month's AE Section

NEW TECHNIQUES INTEGRATE LIGHTING, AIR CONDITIONING

Lighting fixtures, which alternate with acoustical panels in a checkerboard ceiling pattern, double as air supply—return units. Return air is drawn through lighting fixtures to remove heat, then reused by novel mixing devices to temper supply air.

Albert C. Martin and Associates, Architects and Engineers

Model of Water and Power Building, Los Angeles

New ideas continue to crop up in the integration of lighting, air conditioning and sound control in office buildings, stimulated by the desire for neat appearance, the current emphasis on flexibility of space arrangement and the trend to higher lighting levels. Thus much attention lately has been devoted to refining modular ceiling systems so as to accept almost any variation of partitioning, and to combining lighting and air conditioning functions in a single unit.

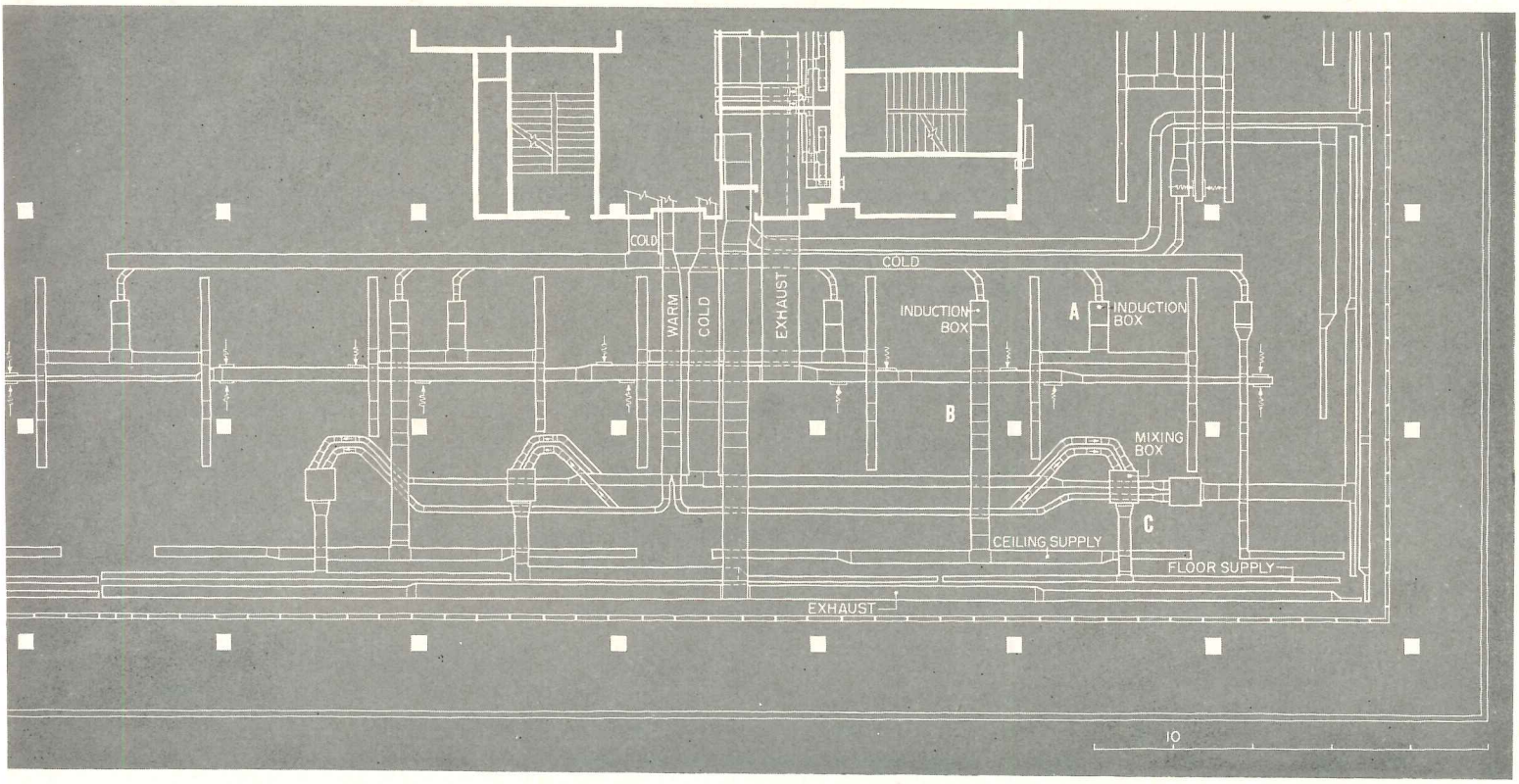
Some new twists in advanced lighting and air conditioning techniques will be demonstrated in the 17-story, 880,000 sq ft Los Angeles Water and Power Office Building which will bring under one roof 3200 employes now scattered among 11 widely separated buildings.

The new ideas involve using the lighting fixture to supply conditioned air to the room and then to exhaust air through the same fixture in order to remove heat generated by the fluorescent lamps and ballasts before the heat has a chance to enter the room. This heated air is not rejected, but, rather, is reutilized to temper the cold supply air that feeds the ceiling system.

The fluorescent troffer has slots occupying the middle third of each long side for supplying conditioned air. To remove air from the room a slot is provided at one end of the troffer at the ceiling line and outlet holes in the opposite end of the troffer above the ceiling line; purpose is to induce an even flow of return air through the lamp compartment.

The novel piece of equipment designed to reutilize the heated air in the ceiling plenum is a high velocity induction mixing box which also acts as a sound attenuator. To achieve temperature control, this box sucks in heated air from the plenum and mixes it with cold supply air in proportions called for by the zone thermostat. This technique, which is a variation of the single duct reheat

AIR DISTRIBUTION SYSTEMS: A—Interior Zone; B—Exterior Zone; C—Perimeter Zone



principle, eliminates the need for a separate hot duct or hot water coils to provide temperature control.

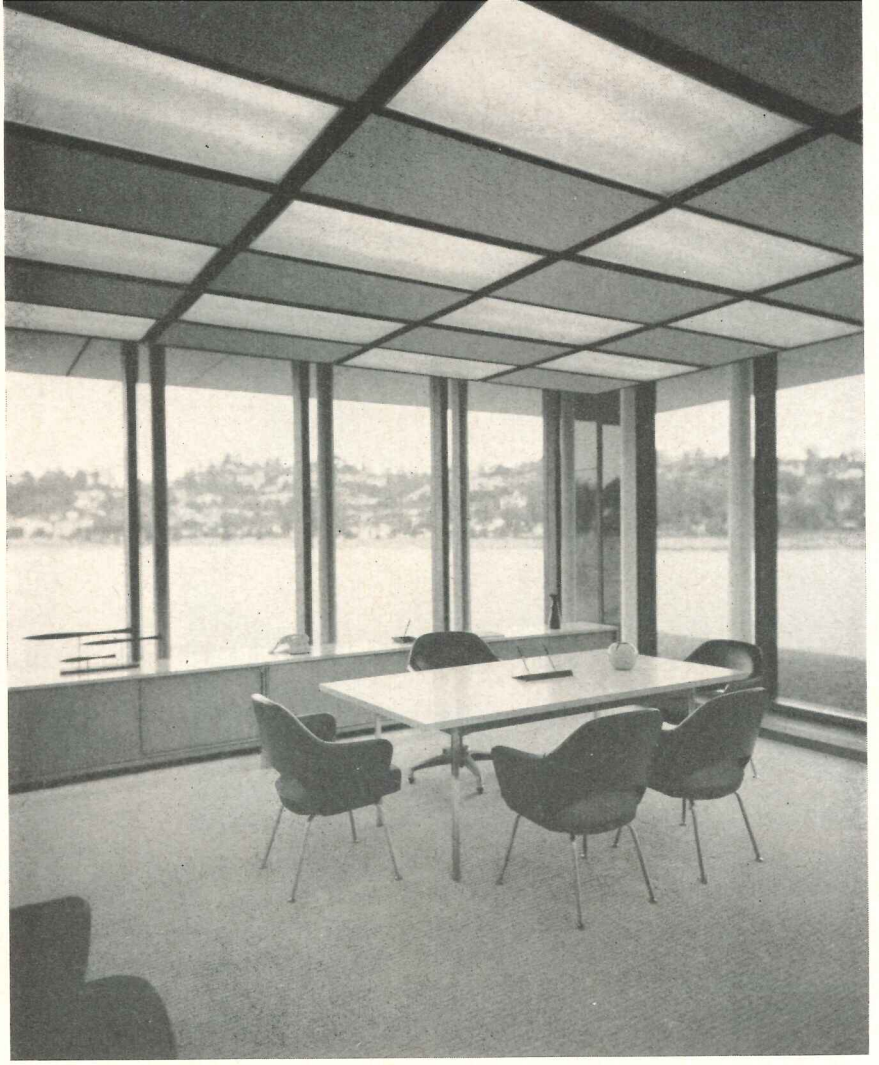
Other features include a heat pump system which provides both heating and cooling for the dual duct perimeter system and cooling for the single duct systems; a heat pump system for generating domestic hot water (heat being extracted from the cooling drinking water and from cooling dehumidification coils); a spray pool which dissipates a large portion of the heat load and visually symbolizes one of the major functions of the Department of Water and Power; and a supervisory data center for centralized, monitored control of mechanical and electrical equipment.

Ceiling System

The checkerboard patterned ceiling is made up of 4 ft 2 in. modules. One-half of each module is a lighting fixture; the other half is a sound absorptive panel.

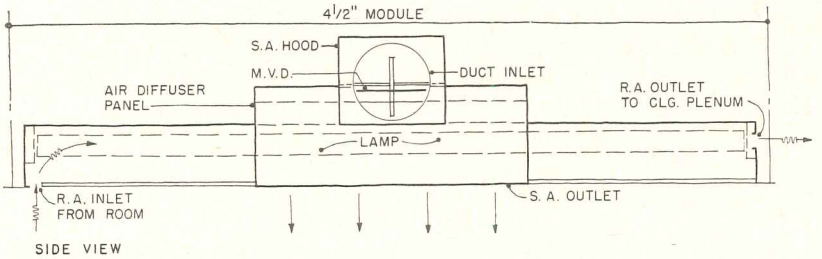
In a typical exterior zone (below, right) which covers an area approximately 70 by 12 ft, every other lighting fixture is also an air supply—return unit. In a typical interior zone, approximately 40 by 30 ft, every third lighting fixture is an air unit.

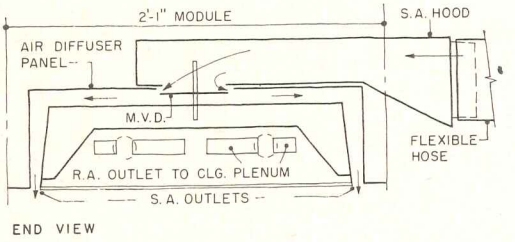
Illumination level will be 100 foot-candles in general office areas and

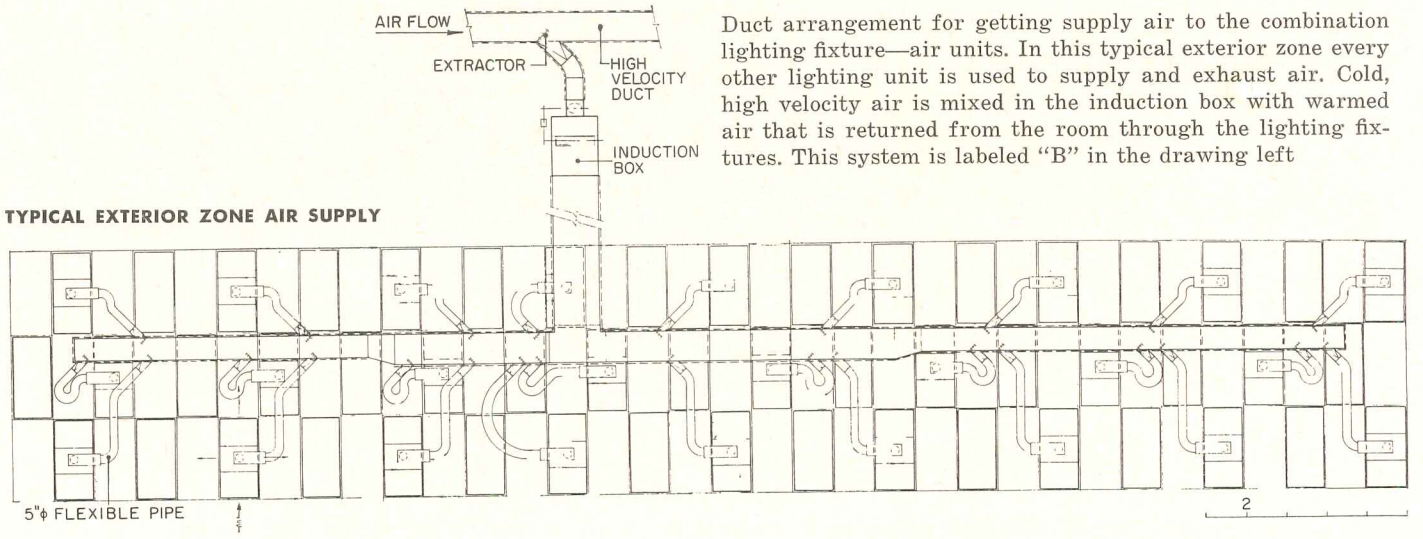


Interior of 1500-sq ft mock-up shows checkerboard pattern of ceiling which combines lighting, air conditioning and acoustical functions. Supply air issues from slots along the sides of the lighting fixtures; exhaust air is returned at one end of the fixture, passing over fluorescent tubes and into the ceiling plenum (see details below). Plenum air is used by induction boxes to temper supply air

COMBINATION LIGHTING, AIR SUPPLY—RETURN UNIT

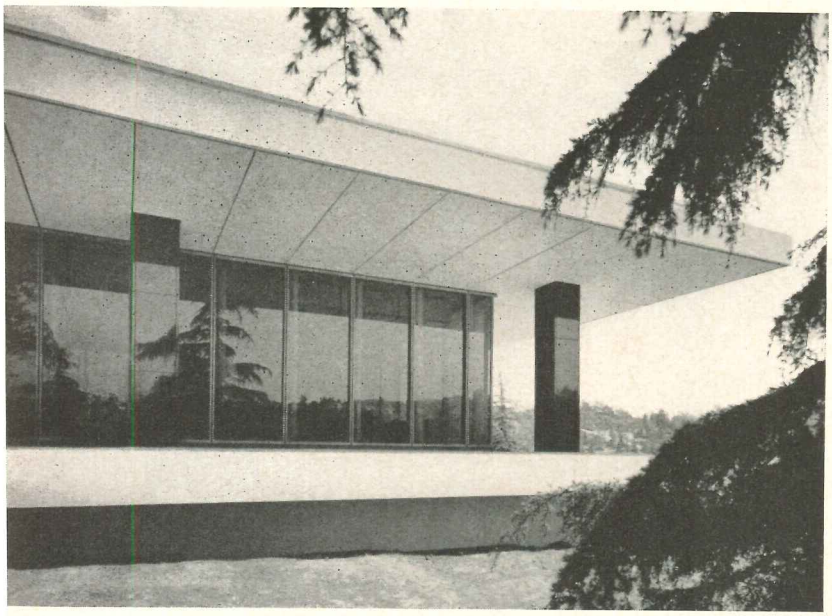


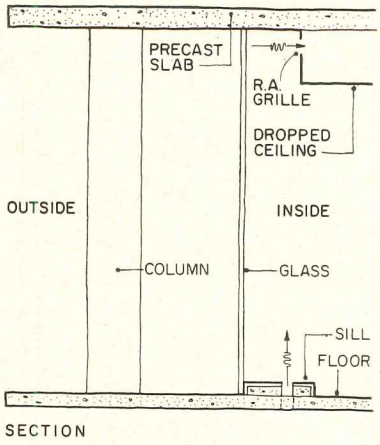




Duct arrangement for getting supply air to the combination lighting fixture—air units. In this typical exterior zone every other lighting unit is used to supply and exhaust air. Cold, high velocity air is mixed in the induction box with warmed air that is returned from the room through the lighting fixtures. This system is labeled "B" in the drawing left

TYPICAL EXTERIOR ZONE AIR SUPPLY





SECTION

PERIMETER AIR SUPPLY AND RETURN

Canopies of precast slabs shield glass walls from the sun. Transmission through the glass is compensated by perimeter air system. Exterior of mock-up is shown in photo

200 footcandles in drafting rooms.

Air Distribution

The 15-story glass tower is shaded at each floor by canopies of precast concrete. Heat loss or gain through the glass walls is compensated by the perimeter dual duct system. Air is discharged through slot type registers at the floor and is exhausted through registers in the dropped ceiling directly above. Air is returned to the vertical mechanical shafts in the core through uninsulated ducts.

There are short duct sections in the ceiling plenum for exhausting that portion of return air which is not picked up by the induction mixing boxes. Amounts reused range from 0 to 30 per cent of the return air in the ceiling plenum.

The ceiling air supply takes care of internal heat loads in both interior and exterior zones. Zone thermostats automatically modulate volume dampers in the induction boxes to vary air quantities induced air from 0 to 50 per cent of total box capacity. There will be approximately 400 of these boxes, 1000 to 2000 cfm in capacity. The cold air supply will be at a temperature of 55 F and induced air temperature will be in the neighborhood of 85 F.

Exterior Lighting

Accent lighting will be provided by eight lighted fountains in the pool surrounding the building at ground level. Main jets 35-ft high will be lighted white and 15-ft high spray jets around the circumference will be gold.

A microwave antenna housing of fiberglass panels atop the penthouse will be back lighted by fluorescent fixtures. Special accents on the roof perimeter screen will be provided by incandescent floodlights.

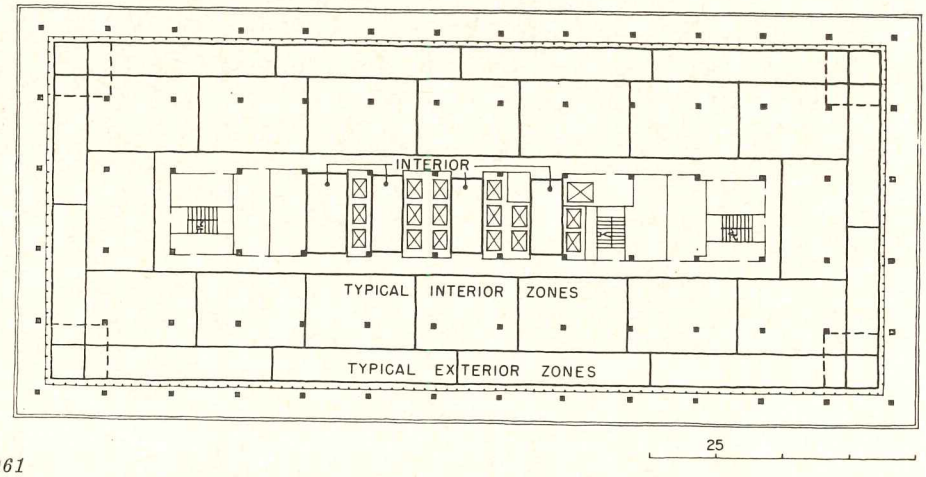
Equipment Designs

To insure maximum competition on the specially designed lighting fixture—air unit and the high velocity induction mixing box, the Albert C. Martin firm issued a performance and material specification so that interested manufacturers could evaluate the design concepts, prepare models and initiate certain required tests.

A 69 by 44-ft mock-up was built in Los Angeles to enable the designers to refine details in full scale and permit manufacturers to inspect the proposed ceiling system.

Project architect is Alfred T. Smith; project designer is Karl C. Klokke; job captain is Norman N. Rosson. Mechanical engineer is Robert C. Coyne.

ZONING PLAN FOR TYPICAL FLOOR



Spaces labeled "typical interior zones" and "typical exterior zones" are air conditioned by the ceiling system. The air supply to these zones is mixed with return air from the ceiling plenum to meet various temperature requirements

SHADED WALLS PROPOSED TO CUT SOLAR HEAT

In earlier times, walls of heavy construction helped reduce the effects of solar load. But with lightweight walls, the sun's heat is felt more immediately. A study by A. Monem Saleh suggests that the thermal virtues of traditional walls and the practical advantages of lightweight walls can be obtained by shading the exterior wall with panels which provide an air space behind them for free circulation of outside air

Working as an architect in Egypt, A. Monem Saleh designed an apartment building with cavity wall construction and vented attic space to mitigate the effects of the sun's heat in a country where the outside air temperature reaches 105 F as early as April.

In continuing his investigation of this problem as a graduate student in the School of Architecture of Pratt Institute in Brooklyn, he refined his ideas for shading the exterior wall, suggesting the use of shading panels in precast concrete, metal or glass; he also investigated the possibility of a masonry block which would provide the desired shading effect.

Following is a summary of portions of his study dealing with the "shading wall" concept.

Thermal Lag—Good or Bad?

Heat passes through thin, lightweight walls in greater quantities and with less time lag than through thick, heavy walls. The traditional load-bearing wall relied not only on its thickness to resist passage of heat, but on two other important factors—weight and heat storage capacity. Not all the heat that enters the outer surface of an exterior wall is actually delivered to the interior. Part of this heat is reflected or reradiated to the outside, and part is absorbed by the wall. The heavier the wall and the greater its specific heat, the more heat it will absorb. Thus two walls of different materials having exactly the same overall thermal resistance (U-value), would allow the eventual passage to the interior of different amounts of heat under the same conditions of diurnal temperature change. The wall with a higher heat storage capacity allows a smaller amount of heat to leak through.

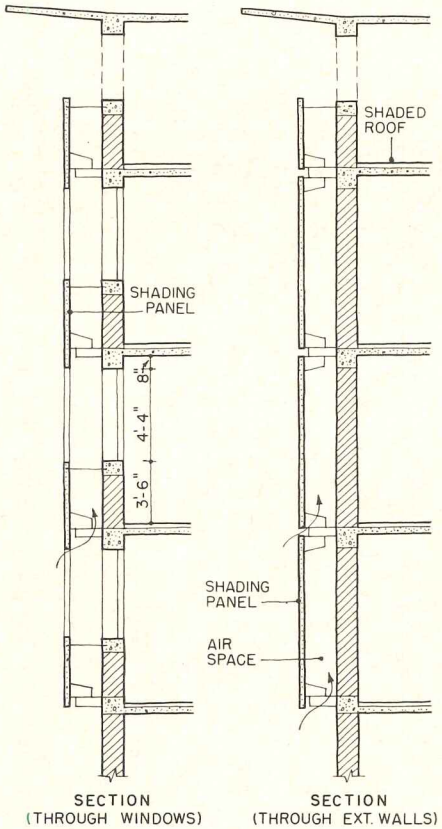
In hot, dry climates, where the diurnal temperature range is large, heat storage capacity of the walls is an advantage in late morning and early afternoon, when the outdoor temperature exceeds the comfortable level. The quantity of heat that succeeds in reaching the interior through the walls is not enough to heat the inside of the building appreciably in those hours. In the late afternoon and early evening, however, the outdoor temperature drops, but indoor conditions do not improve right away. Heat that the heavy walls have stored during the day is now discharged both outdoors and indoors.

This situation has led building researchers in Australia to suggest that a dwelling should consist of a daytime living area built in heavyweight construction with small windows, and a night time area comprising a second sitting room and bedrooms, built in lightweight construction with large operable windows.

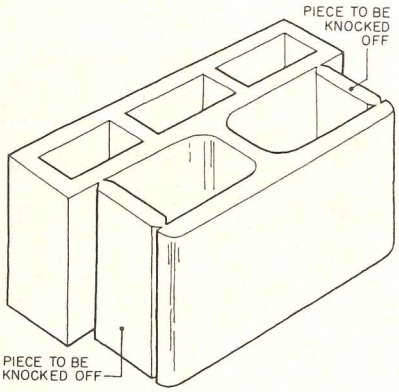
Effect of Shading

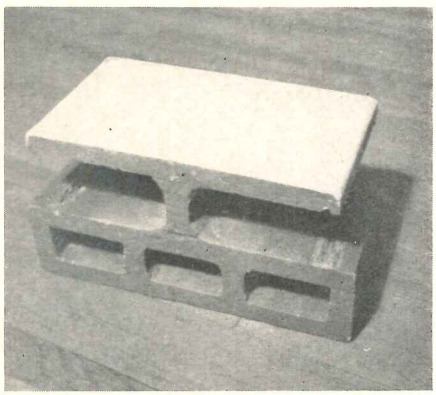
It would be advantageous if a single wall section combined the thermal virtues of heavyweight construction with the practical features of lightweight construction. During the day such a wall would offer strong resistance to heat, yet in the evening it would allow indoor conditions to follow the comfortable temperature of the outdoors. Such a wall section is indeed simple if we consider the role of *solar radiation.*

Since a large portion of the heat that is soaked up by building is caused by the sun striking exterior walls, it is clear that if we shade



The "shading wall" concept is demonstrated here in the use of precast panels to intercept the sun's rays. Panels could be glass or metal





Photograph shows model of a proposed structural clay block for use in a "shading wall." Sketch is design of block as it might be produced

the walls, the rate of heat transfer will be reduced.

Shading of roofs by double roofs, with a ventilated air space between, and shading of windows by wooden shutters is traditional in warm countries, but shading of opaque walls is seldom, if ever, practiced.

Shading of an exterior solid wall can be visualized as equivalent to increasing its thermal resistance during the daytime. The graph shows a temperature time curve for a July day in New York. On this curve is superimposed a sol-air* temperature curve calculated† for a western exposure for a surface of an absorptivity of .7. The curve shows that at 4 p.m. when the air temperature in the shade is about 94 F, the calculated sol-air temperature for the surface is about 129 F.

Shading Opaque Walls

In order to achieve a more thermally efficient wall, a shading skin is suggested to provide almost full shade for the opaque parts of the exterior wall of the building (walls and roof). The windows might be shaded by conventional shading devices such as shutters or louvers. The shading skin consists of a series of shading panels or leaves set out some distance from the exterior wall of the building. Such construction should have the following features:

1) A reflective surface facing the outside,

2) Thermal insulation backing the reflective surface. The reflective surface and the insulation together form the "shading panel,"

3) A ventilated space between the shading panel and the exterior wall of the building.

If such a shading skin is constructed around a building, the panels will be heated by solar radiation. For these panels to be effective, the heat transfer between them and the exterior walls must be minimized. There are three possible ways for heat to be transmitted between the shading panels and the exterior walls.

1) *Conduction*: The number and cross-sectional areas of the supports should be minimized.

2) *Convection*: The design should provide for free air circulation.

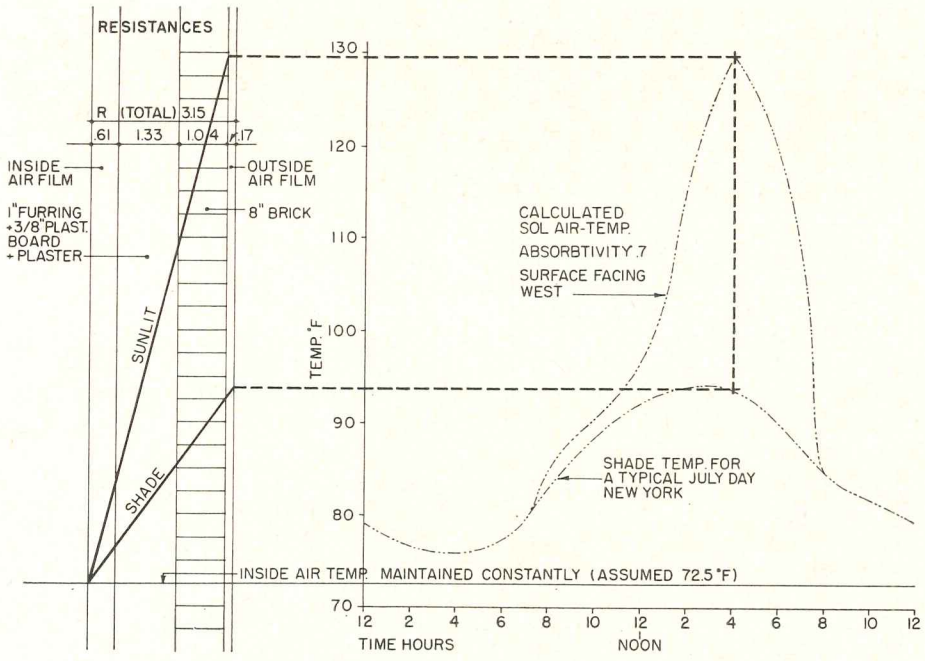
3) *Radiation*: Insulation is used back of the reflective surface to reduce the rate of passage of heat across the panel.

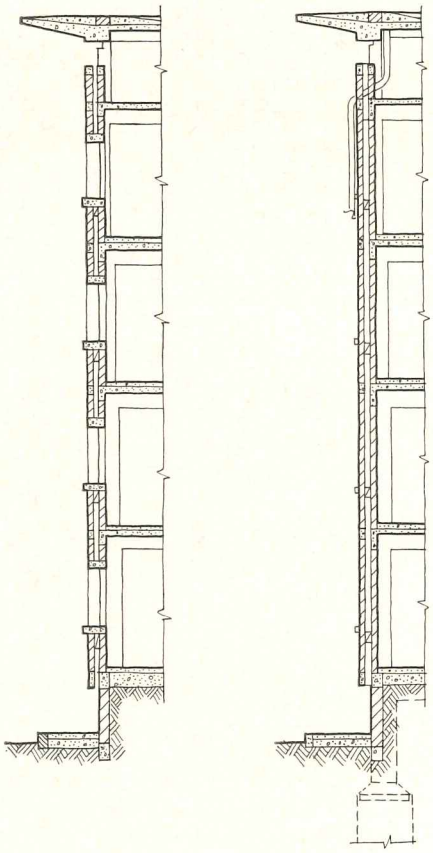
To put such a theoretical scheme into practice, a first attempt was made in a three-story building in Armant, Upper Egypt where the climate is hot and dry. The temperature there reaches a maximum of 105 F as early as April. A maximum temperature of 115 F is not unfrequent, while the minimum daily temperature varies between 60 F and 85 F in summer.

The plan and sections show the system that was adopted. The outer or shading wythe and the inner wythe (which is actually a conventional exterior wall) are both of 5 in. clay bricks plastered on one face. The outer and inner wythes are connected by a series of transverse wythes. Thus the exterior wall actually consisted of a series of flues of chimneys one beside the other. When a flue was interrupted by a window sill it was diverted to the flue next to it so that the air was not entrapped in it. Such a system does not fully meet the requirements previously stated for an efficient shading

*The sol-air temperature is the hypothetical temperature of the outdoor air which, by convection and conduction only, would result in the same rate of heat transfer to a building surface as is accomplished by the combined effects of the actual air temperature and solar radiation. (Mackey & Wright)

†Summer Weather Data & Sol-Air temperature (Mackey & Watson) *Heating Piping & Air Conditioning*, November 1944.





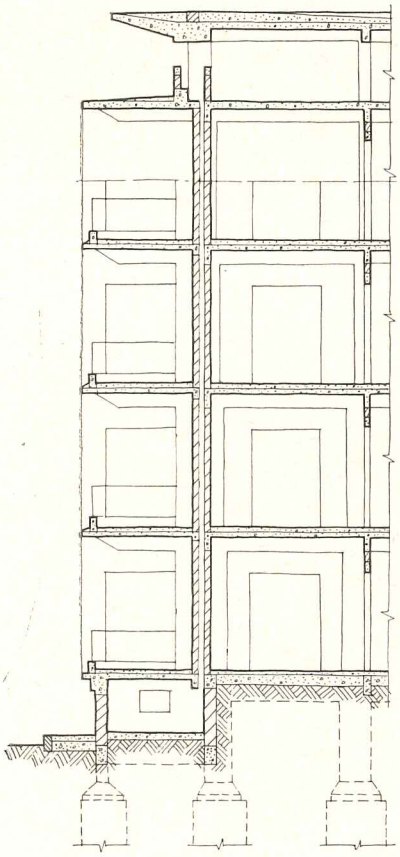
Advantage to be gained from a building wall being in the shade is illustrated in this graph. The effect of solar heat combined with that of the outside air is given in the sol-air temperature curve, a hypothetical temperature combining these two factors. It can be shown that a brick wall in the sunlight would have to be seven times as thick as one in the shade to get an equivalent resistance to the flow of heat

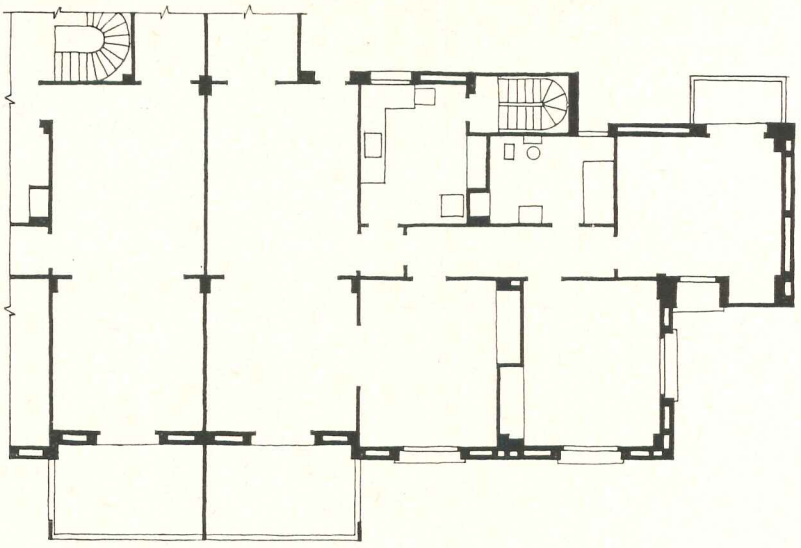
skin. Too many areas of contact exist between the outer wythe, and the flues do not have the frequent contacts with the outside air.

Suggested Shading Wall Designs

A more efficient system than the one mentioned above would naturally utilize the advantages offered by contemporary building techniques and new materials: precast concrete panels, metal, porcelain enameled metal or glass panels backed by insulation similar to those frequently used for office buildings today.

Three preliminary designs for a shading skin, one in precast concrete, one in metal and a "shading block" were studied together with Professor H. Seymour Howard, School of Architecture, Pratt Institute, Brooklyn, New York. The precast concrete panels were of a size commonly used today in curtain wall construction. The metal panels were backed by asbestos cement sheets. The shading block would be made of structural clay, or concrete. The flange of the block is the shading element, the web is the attaching element. Extra webs were provided to aid in extrusion of blocks to be knocked off during wall assembly.





This apartment building was the first attempt by architect Saleh to use the "shading wall" concept. Essentially construction is a cavity wall—a series of flues or chimneys, one beside the other. A flue interrupted by a sill was diverted to an adjacent one so as not to entrap the air. This system, however, loses efficiency due to the many areas of contact between inner and outer wythes. Panel construction eliminates this problem

LIGHTING FOR STORES: 1—Equipment; Check List

by Daniel Schwartzman, F.A.I.A., Architect

GENERAL LIGHTING

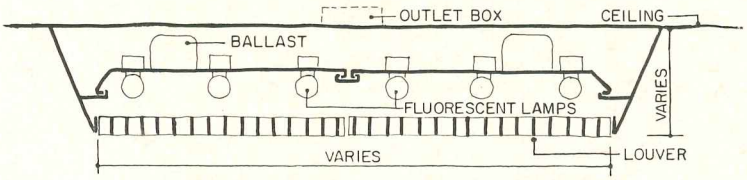
1. *Luminous Ceilings:*

A. Overall suspended metal or plastic louvers with incandescent or fluorescent lamps mounted above.

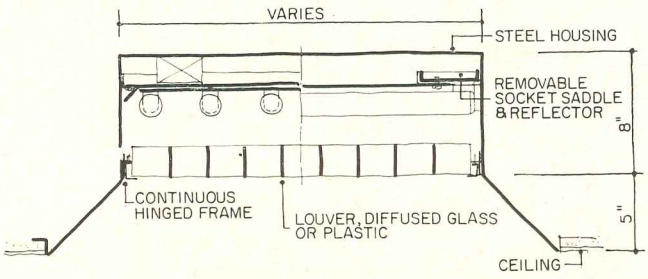
B. Overall white plastic panel ceiling in suspended metal frames with fluorescent lamps above.

2. *Evenly Distributed lighting Fixtures.* Light source brightness reduced by use of recessed surfaces, louvers, lenses, diffusing glass or plastic.

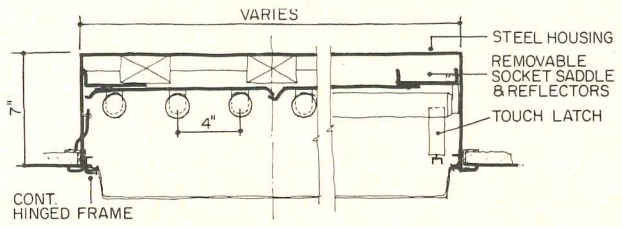
4- by 4-ft fixture recessed, surface mounted or suspended with six or eight fluorescent lamps, shielded by metal or plastic eggcrate louvers on 12- to 14-ft centers. These may be supplemented by incandescent spotlights, floodlights or downlights to fill odd spaces in an irregularly shaped area.



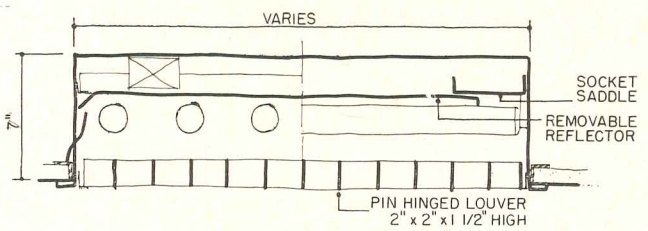
Surface Mounted Fluorescent with Metal or Plastic Louver



Recessed Fluorescent



Flush Recessed Fluorescent with Plastic Shield



Flush Recessed Fluorescent with Metal Louver

WALL LIGHTING

1. Continuous fluorescent strip light coves or cornices, or closely spaced incandescent floodlights supplement the general store lighting, while also lighting the merchandise in the wall cases.
2. Glass enclosed wall cases (and show cases) require additional fluorescent light. Strip lighting may be used over open shelves in self selection fixtures.
3. Certain types of merchandise (jewelry, silverware) require additional direct, incandescent light from continuous rows of reflector lamps in the ceiling.

ORNAMENTAL LIGHTING

Chandeliers and other pendant lighting fixtures can be used in key locations and high style departments, but should be limited in number and relied on only for supplementary lighting.

DISPLAY LIGHTING

At least two lights are required on each subject of a feature display to avoid deep shadows and to bring out the soft reflected light which emphasizes the form and texture of the merchandise on display.

SPECIAL REQUIREMENTS

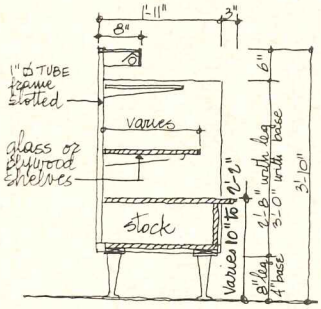
The following selling departments have special electrical requirements:

1. Restaurant and Kitchen
2. Beauty Salon
3. Lamp department and Home Lighting
4. Radio, T.V. and Records (Master Antenna systems)
5. Appliances
6. Snack Bar
7. Refrigerated cases at delicacies, candy and bakery.

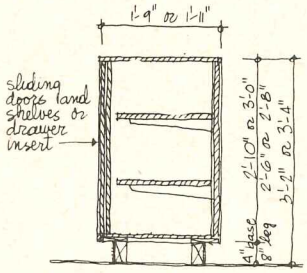
(to be continued)

STORE FIXTURES: 4 — Counter; Tables; Gondola

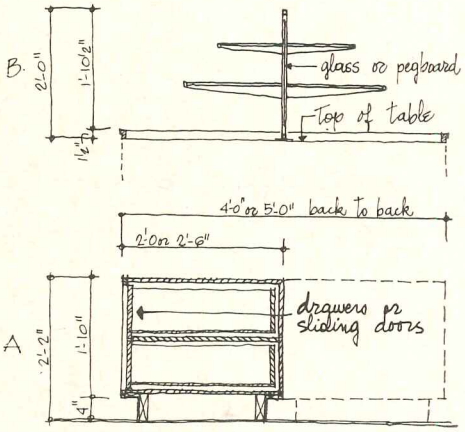
by Daniel Schwartzman, F.A.I.A., Architect



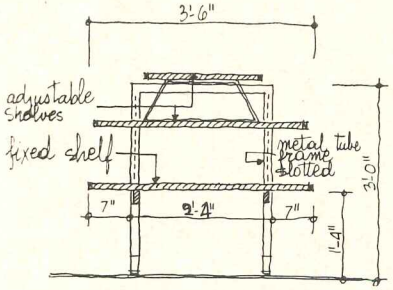
SELF SELECTION UNIT
1. length varies
2. special merchandise requires special inserts



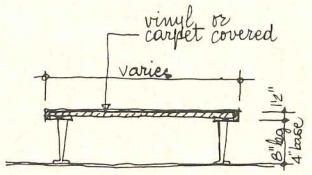
PLAIN COUNTER
Length varies 3 ft-9 in., 5 ft-7 in. or 7 ft-4 in.



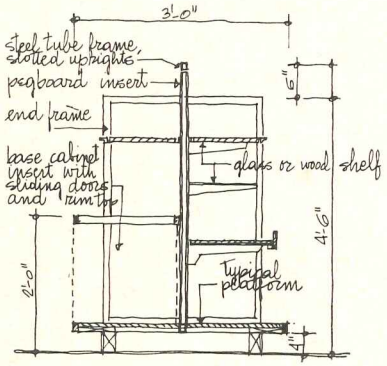
CABINET TABLE
A—without superstructure
B—with superstructure
1. with drawers or sliding doors and shelves
2. length varies 4 ft, 5 ft
3. no. of drawers varies 4, 6, 9



PIECE GOODS TABLE
1. length varies: 4 ft to 8 ft
2. shelves are formica covered



PLATFORM with LEGS or BASE
1. length varies
2. corners rounded, 2 in. radius

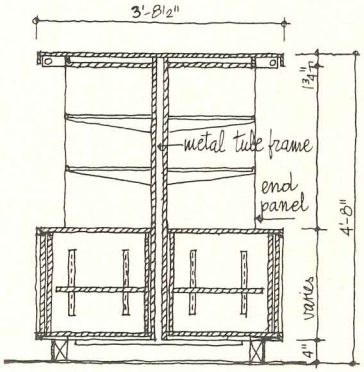


GONDOLA
length is 5 ft

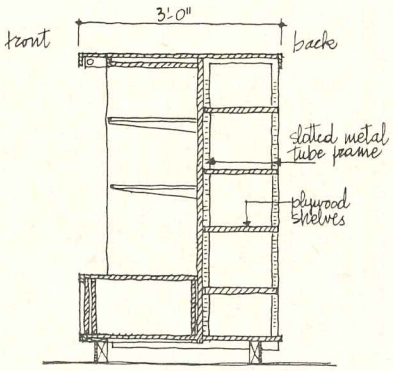
(continued from May)

STORE FIXTURES: 5 — Back Fixtures; Miscellaneous

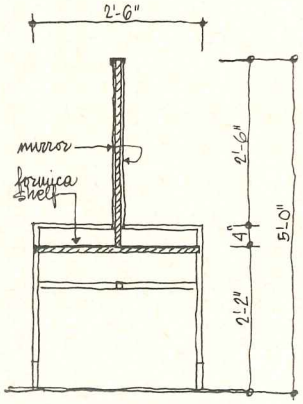
by Daniel Schwartzman, F.A.I.A., Architect



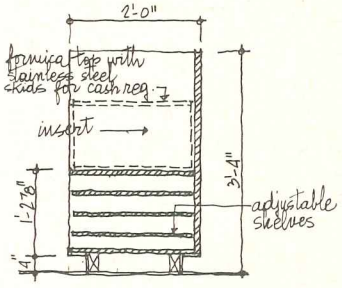
ISLAND BACK FIXTURES
BACK to BACK, with CABINETS
Number of shelves and base cabinet inserts vary according to type of merchandise



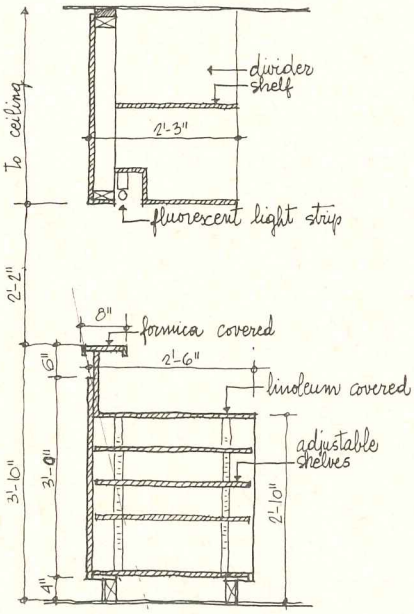
ISLAND BACK FIXTURE
with CABINET and STOCK SHELVING



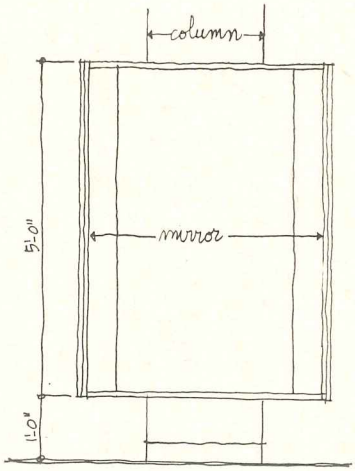
MILLINERY TABLE



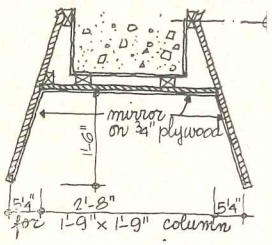
CASH REGISTER UNIT
1 ft-9 in. or 1 ft-11 in. wide when at showcase line



WRAP STATION



TRIPLE MIRROR AT COLUMN



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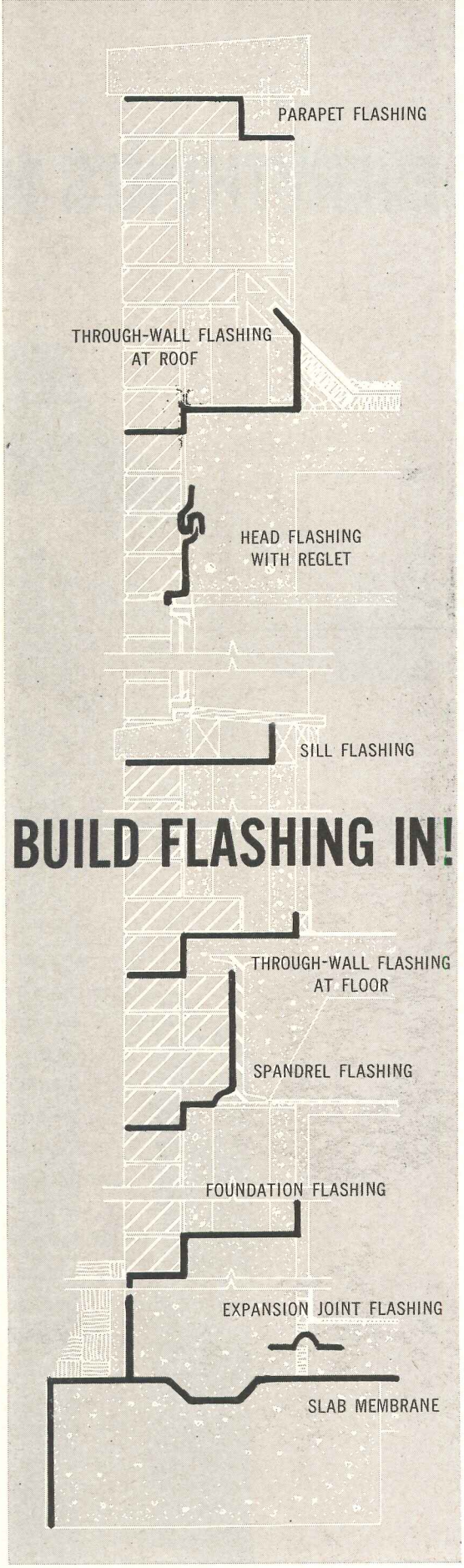

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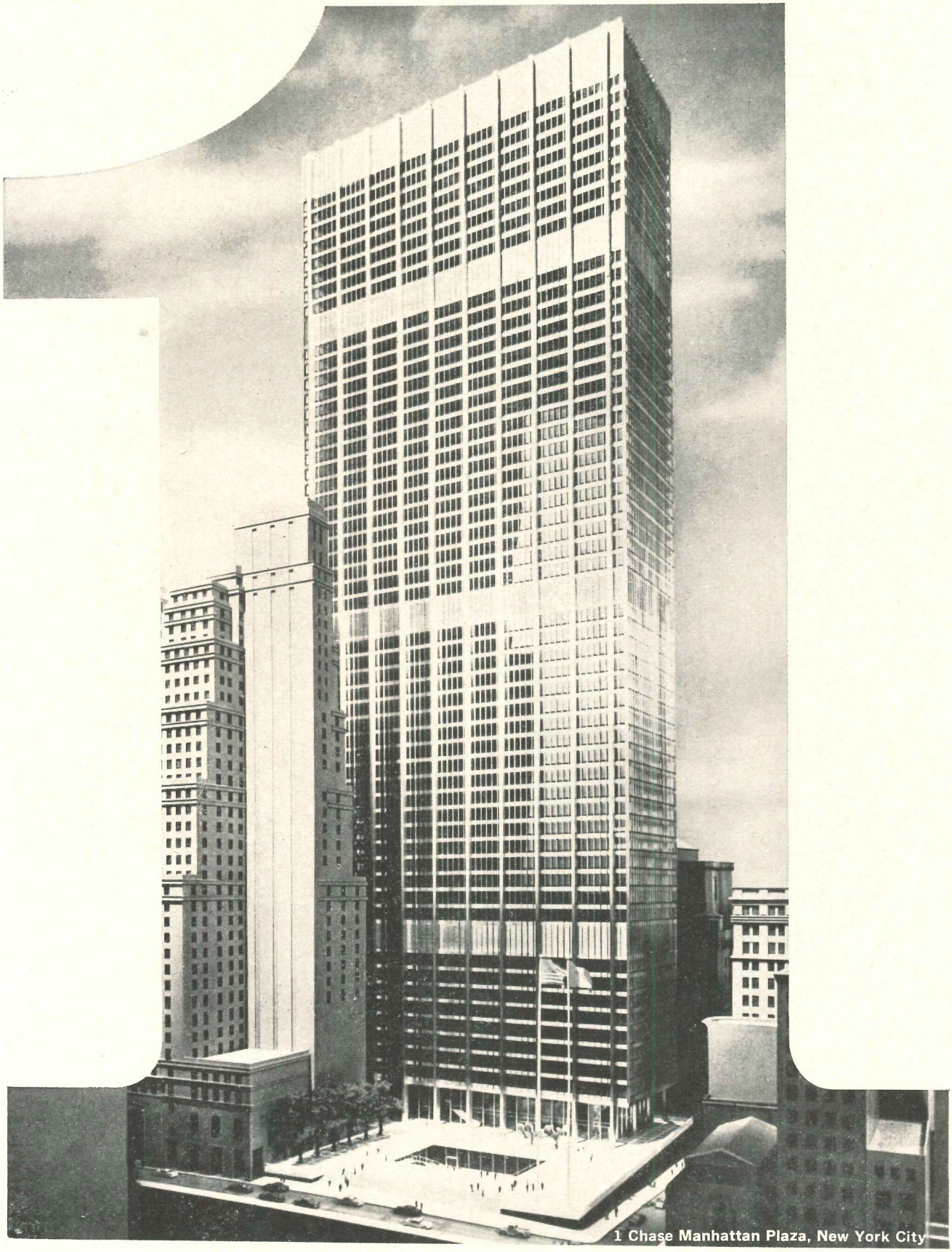

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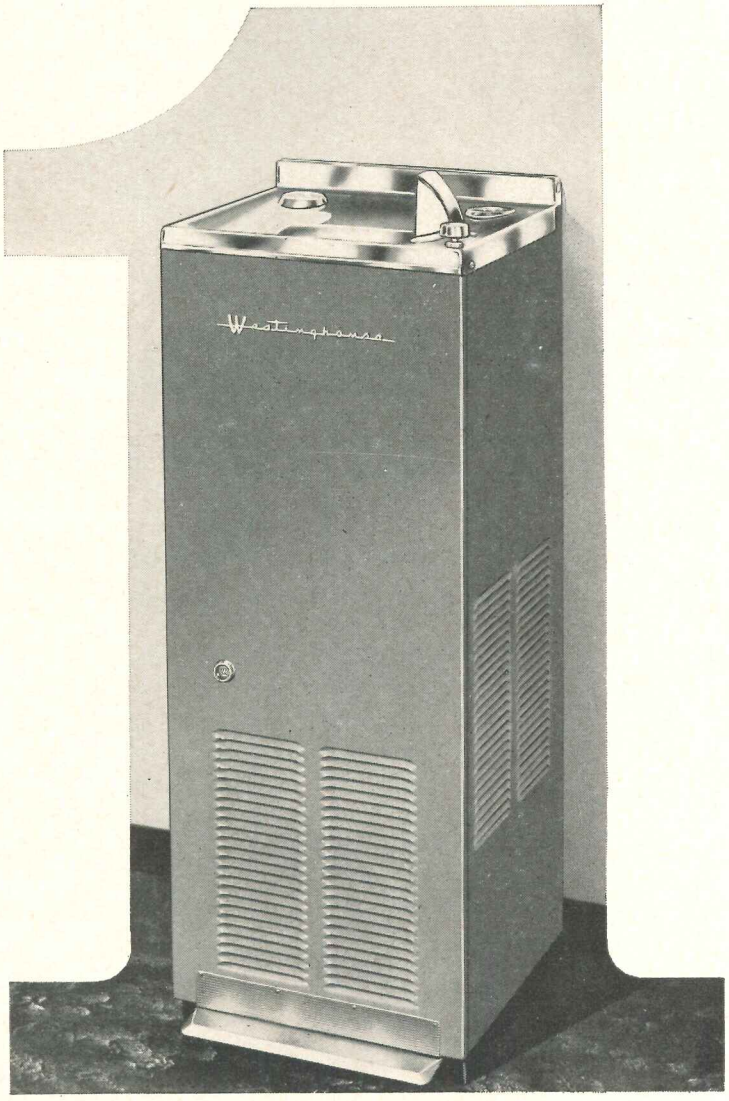

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A review of GYPSUM WALLBOARD SYSTEMS

by Howard P. Vermilya, A.I.A.

"Systems" in the context of this article means a method of application of wallboard to, or to form, a wall or ceiling other than the conventional single or double layer method. This may involve the use of specially fabricated and designed metal or wood components, and may comprise the entire wall, partition or ceiling. Some of these systems are patented, but for the most part they have been designed by manufacturers to encourage the extended use of their products. In many cases manufacturers have secured ratings for their systems by having them tested for both fire and sound resistance. To secure acceptance of these ratings, they must be duplicated in detail, particularly with regard to the type and spacing of fastenings.

The systems may be classified as follows:

1. Steel framed walls and suspended ceilings
2. Solid laminated partitions (studless)
3. Laminated gypsum strip or stud partitions
4. Wall and ceiling furring systems
5. Column fireproofing

It is possible here to indicate only the types of systems available. Manufacturers' literature must be used for specific information.

1. Steel Framed Systems

At least four manufacturers have developed specially designed *steel studs* varying in width from 1⅝ in. minimum up to 6 in., to provide incombustible partition assemblies suitable for commercial or other types of occupancies.

The systems use metal floor and ceiling runners with, in some cases, spacers between studs. Metal baseboard also is available. All provide openings in studs for electrical wiring, and some for pipes. Spacing of the studs may be 16 in. o.c. or 24 in. o.c. depending on the thickness of the wallboard ⅜ in., ½ in. or ⅝ in.

Wall height limitations range from 9 ft for the narrower widths of studs to 16 ft for the larger sizes. Wall lengths are unlimited when they extend from floor to ceiling but may be limited to approximately 14 ft between intersecting walls when the partitions do not extend to the ceiling.

These studs are designed for attachment of the wallboard by either nails, screws or clips. The systems involving nail or screw application may use single or double laminated layers of gypsum board, but the clip applied studs require double layers.

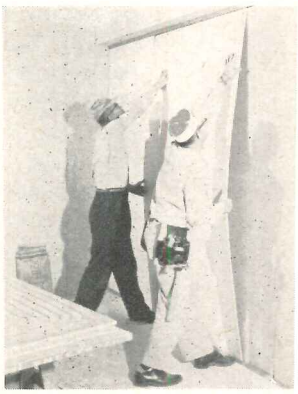
The clips may be of the resilient type for reduced sound transmission. Fire resistances of from 45 minutes to two hours may be achieved depending on the thickness and number of layers of wallboard. Average sound transmission loss ratings in decibels will range in general from 36 to 46. One system using resilient clips effects an airborne sound reduction averaging 52 decibels.

2. Solid Laminated Systems

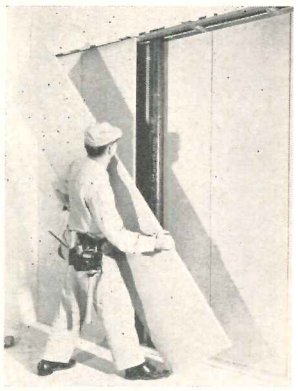
In solid laminated gypsum board partitions, the core may be either factory-laminated ½-in. backing board in 2 layers, or a 1 in. thick gypsum board, both types having gray paper surfaces. This core is then faced on each side with either ½ in. or ⅝ in. board laminated to the core in the field to make the overall thickness of the partition 2 in. or 2¼ in.

Some systems are movable. One of them uses sheets 24-in. wide, laminated in 3 layers with the core board center offset to provide a tongue and groove. Core board 1-in. thick is faced both sides with ⅝-in. fire rated board.

With the solid-type partitions, the face sheets have beveled edges. Joints of the face board, which should be offset from those of the core board, are taped and treated with joint cement when 48 in. face boards are used. Either metal or wood runners are used at floor and at



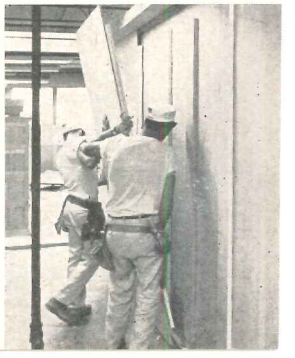
2-in. solid partition has ½-in. gypsum wallboard laminated to a 1-in. core



Double laminated sheets of wallboard are spaced 1⅛-in. apart for party walls, or wider for pipes and services

Wallboard can be fastened to metal studs with self-tapping metal screws to speed application

Movable partions in this patented system are made by laminating three layers of gypsum board in a tongue and groove arrangement



This 3⅝-in. partition which has a 47 db sound transmission loss, has ½-in. wallboard over staggered 1 by 6-in. ribs

Top four photos courtesy United States Gypsum; bottom photo Pabco Gypsum Div., Fibreboard Paper Products Corp.

ceiling to secure the partitions in place. Wood or metal door bucks and frames for borrowed light may be inserted in the partition. Wiring is usually inserted in chases cut into the core board or in spaces between them. This may be conduit in some localities, but others will permit flexible cable. 1½ in. deep outlet boxes may be used. Heights for the 2 in. partition are limited to a maximum of 12 ft and for the 2¼ in. partition to 14 ft for partitions up to 12 ft long. When partitions are in excess of this length, the height should be reduced. 10-ft high partitions may be used for any length.

One manufacturer has developed a double laminated solid partition system which consists essentially of 2-1½ in. or 1⅝ in. solid sections separated by an air space. Each section consists of 1-in. core board applied vertically to which a single face layer of ½-in. or ⅝-in. wallboard, also vertically applied, is laminated. The space between may be used for piping, ductwork, or electrical wiring. To achieve a 46 decibel rating the space between the double laminated sections should be at least 1⅛ in. wide.

3. Gypsum Stud Partitions

These are probably the most varied in design and in application techniques of the various systems. Strips of gypsum board, usually backing board or core board, varying from 3 in. to 8 in. in width are laminated in the field to provide thicknesses of from ¾ in. to 1⅝ in.

One system uses a 3-in. wide, ⅝-in. thick strip between two 6 in.-wide, ½-in. thick strips to provide a groove for a spline of gypsum board where the laminated panels meet, to provide a movable system.

Another system has been developed to use only ⅜-in. board for strips and face layers.

Most systems apply the strips with adhesive cement to the rear side of the gypsum board sheets either to one side only or to both sides before erection so that when both sides of the partition are laminated in place, the wallboard is separated by these gypsum strips, usually placed 24 in. on center. Some systems use 24-in. wide boards and others 48-in. wide board applied vertically.

The vertical gypsum strips are usually made 1 ft shorter than partition height to allow a 6 in. or less space at top and bottom for wiring. Both metal and wood runners are used, the systems of some companies being adaptable to either. Overall thicknesses vary from 2 in. to 4½ in., the latter using staggered 1-in. gypsum strip studs.

4. Furring Systems

Furring made of ⅜-in. thick gypsum board and either 4- or 8-in. wide is used by one system as a base for face sheets ½-in. thick. The 4-in. wide strips are used at all interior and exterior corners while the 8-in. wide strips are used where edges butt and along the long center line of the sheet. The furring strips are nailed to the framing. Laminating adhesive is applied to the furring strip and the dry face sheet is fastened with nails and screws along the edges and the center of the board to these strips. Joints are later covered with joint treatment.

Metal furring channels for use on masonry walls and ceilings have been designed by another manufacturer. They are 2¾ in. wide with 1⅜ in. legs. The width permits the adjacent edges of two sheets to be fastened with self-tapping sheet metal screws. These furring channels are spaced 24-in. o.c. to receive ½ or ⅝ in. board.

5. Column fireproofing

Structural steel columns may be made fire resistant by the application of layers of ½ in. gypsum wallboard cemented by adhesive to the flanges of the column. Succeeding layers are cemented, and next to the last is wire-tied around the column. Two layers of ½ in. board so applied rates one hr, three layers—1½ hr and four layers—2½ hr.

SOME TYPICAL GYPSUM WALLBOARD AND OTHER PARTITIONING SYSTEMS	Thickness, Overall, in.	Fire Resistance hrs	Sound Transmission loss, db	Weight per sq ft, lb
Steel Stud; sgl. layer each side ⅝ in. (Type X)* board	4⅞	1	39	6.5
Steel Stud; two layers each side ⅝ in. (Type X)* board	6⅛	2	46	11.0
Steel Stud; metal lath, ¾ in. sand aggregate plaster ea. side	5⅛	1	40	19.0
Solid Gypsum Board; 1 in. core, ½ in. (Type X)* board each side	2⅛	2	41	8.5
Solid Gypsum Board; 1 in. core, ⅝ in. (Type X)* board ea. side	2¼	2	36	9.7
Double, solid laminated; 1½ in. gypsum board faces, 1⅛ in. space	4¼	2	46	12.5
Gypsum Stud, 1 in. thick; ⅝ in. (Type X)* board each side	2¼	1		7.2
Gypsum Stud, 1 in. thick; two layers ⅝ in. (Type X)* board ea. side	3½	2		13.4
Gypsum Stud, 1 in. thick staggered; two layers ⅝ in. (Type X)* board each side	4½	3		13.4
Wood Stud (2 x 4); ½ in. board each side	4⅝	40 min.		5.9
Wood Stud (2 x 4); ⅝ in. (Type X)* board each side	4⅞	1		7.2
Wood Stud (2 x 4); two layers ⅝ in. (Type X)* board ea. side	6⅛	2		12.9
Solid Plaster Partition; gypsum lath, sand aggregate plaster	2	1	37	16.8
Solid Plaster Partition; gypsum lath; perlite aggregate plaster	2	1½	37	10.9
Solid Plaster Partition; metal lath, sand aggregate plaster	2	1	39	18.0
Solid Plaster Partition; metal lath, vermiculite aggregate plaster	2	1	34	8.8
Gypsum Block; ½ in. sand plaster each side	5	3	43	21.0
Gypsum Block; ½ in. lightweight plaster each side	5	2		15.0
Clay Tile, ⅝ in. sand plaster each side	5¼	1	41	29.0
Concrete Block, ½ in. sand plaster each side	4⅝	2	37	25.0
Brick, ⅝ in. sand plaster each side	4⅞	2	48	52.0

** Type "X" gypsum board is fire-rated, incorporating additives to increase fire resistance*

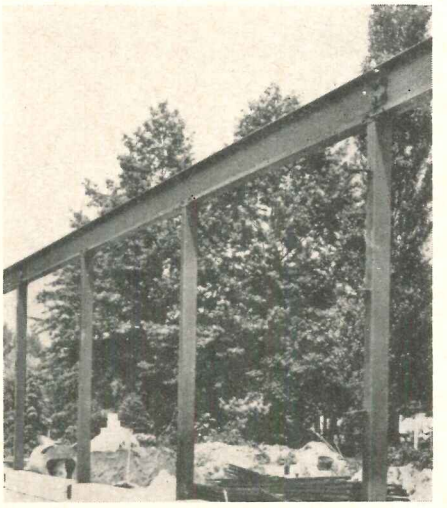
NEW SQUARE AND RECTANGULAR STRUCTURAL STEEL TUBING

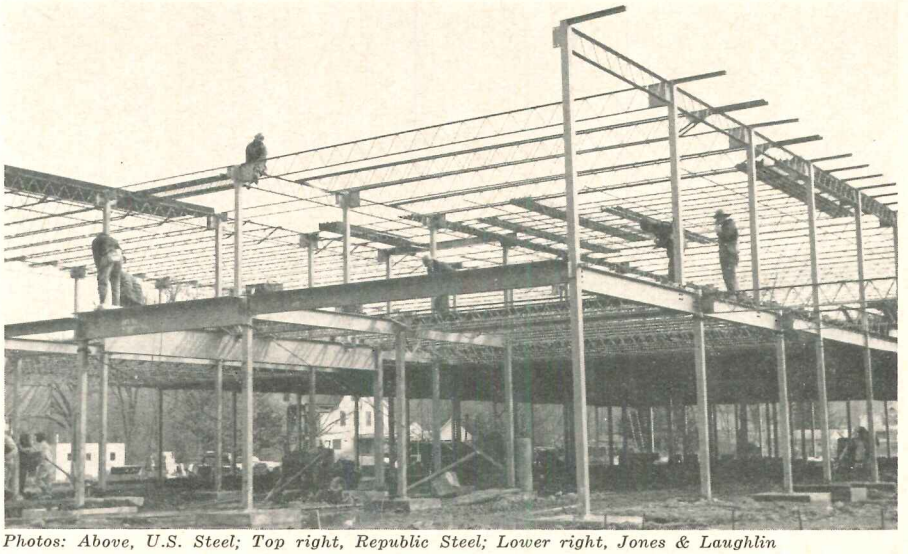
A number of manufacturers are now mass-producing structural grade square and rectangular steel tubing. Round steel tubing has long been used for structural purposes in Europe, and the steel companies expect that the simpler connections possible with the new sections, in comparison with those required for round tubing, will lead to a wide range of applications in this country. As compression members the square tubing can resist bending moments about each axis with equal efficiency; and in low-story light frame buildings both types of section possess an advantageous strength to weight ratio which could produce substantial savings in costs. United States Steel's National Tube division produces tubing in sections from 1 to 8 in. square and in 3 by 4 in. through 6 by 4 in. rectangles. The photographs show three separate applications employing products of the three companies listed below:

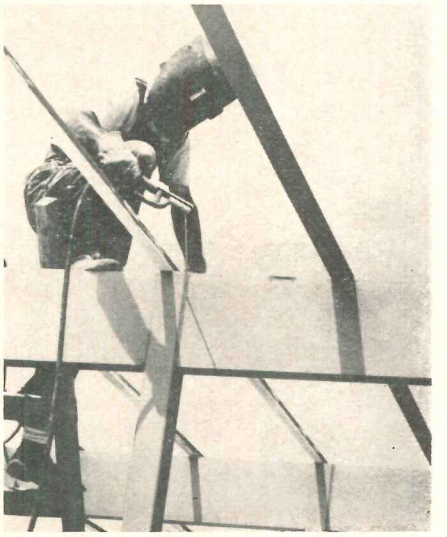
United States Steel Co., National Tube Division, 525 William Penn Place, Pittsburgh 30, Pa.

Jones & Laughlin Steel Co., 3 Gateway Center, Pittsburgh 30, Pa.

Republic Steel Co., 224 East 131st St., Cleveland 8, Ohio





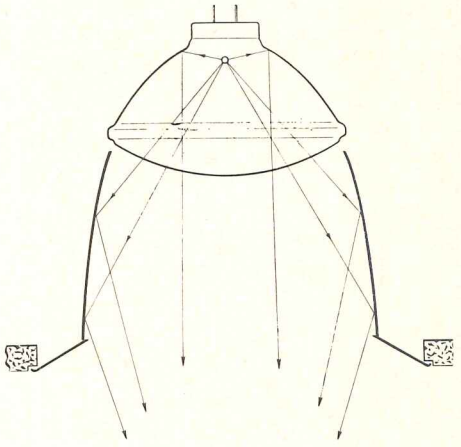


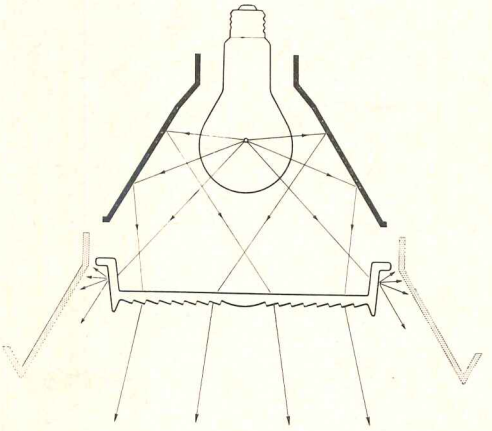
Photos: Above, U.S. Steel; Top right, Republic Steel; Lower right, Jones & Laughlin

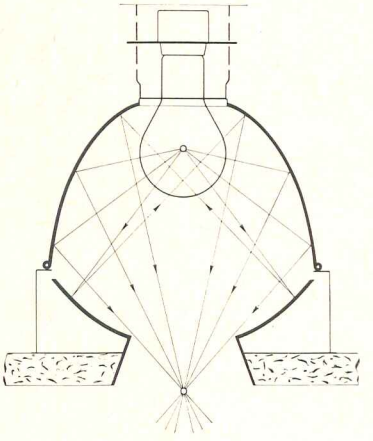
MARCO INTRODUCES NEW LIGHTING FIXTURES

The Marvin Electric Mfg. Co. has introduced a new line of recessed incandescent lighting fixtures incorporating several new principles and refinements. There are fixtures that produce variations in the plane of the lighting source, and numerous combinations of lenses, reflectors, and baffles designed to provide maximum illumination with a minimum of glare. The line includes an adjustable socket which preserves the original focal point when bulbs of different wattages are substituted. *Marvin Electric Mfg. Co., Los Angeles, Cal.*

more products on page 166







Office Literature

Welded Connections
The James F. Lincoln Arc Welding Foundation has announced the publication of a new manual, "Design of Welded Structural Connections", by Omer W. Blodgett, Design Consultant, and Dr. John Scalzi, Associate Professor of Structural Engineering at Case Institute of Technology. The manual is intended to provide the engineer, designer, architect, or fabricator with a summary of fundamentals and best current practice to enable him to design efficient welded connections for all types of structures once the forces and moments are known. Illustrated with 124 drawings, photographs, tables and examples, the price of the handbook is $1.00. *James F. Lincoln Arc Welding Foundation, Cleveland 17, Ohio*

Steel Lighting Poles
The Weld-Rite Company has announced two new publications: "Steel Lighting Standards," a 28-page catalog containing photos and specifications on Weld-Rite standards for lighting freeways, streets, and parking lots; and "Flood Lighting Poles," a 12-page catalog covering poles for stadium flood lighting, playgrounds, driving ranges, and security areas. Both catalogs include specifications, load limits, and deflection data. *Weld-Rite Company, 4417 Oakport St., Oakland, California*

Sculptured Screens
Brochures describing the modular pierced screen units designed by the sculptor Erwin Hauer can be obtained from the manufacturer. A limited quantity of miniature scale models is also available to architects who write for them on their letterhead. *Arts for Architecture, 134-12 Atlantic Ave., Richmond Hill 19, N.Y.*

Hospital Plumbing Manual
A new manual of hospital plumbing fixtures has been issued by American-Standard. It is intended as a guide to suggest the general and specialized types of plumbing products which are suitable for hospital installation. The booklet begins with a typical general hospital plan, which is considered room by room, with illustrations of products suggested for use in each area. A second section contains specifications of American-Standard plumbing fixtures and fittings illustrated in the first section. *American-Standard Co., 50 W. 40th St., N.Y. 18, N.Y. and regional offices**

Wiring in Flexicore Cells
The Flexicore Co. has published a 16-page manual on the use of the hollow cores of their precast concrete floor and roof slabs as raceways for electrical wiring. Details and diagrams show installations in various construction situations, and methods of connecting to header ducts, junction boxes, and individual fixtures. *The Flexicore Co., 1932 E. Monument Ave., Dayton, Ohio**

Parking Template
Maintenance Inc. is offering a set of six parking templates covering 45, 60, and 90 degree angle parking shown at 1 in. equals 20 ft and 1 in. to 50 ft scales. *Maintenance Inc., Wooster, Ohio**

Prestressed Framing
A booklet giving details and diagrams of the use of prestressed concrete Double Tees, Keystone Joists and Giant Tees in school construction has been published by Leap Associates, consultants to the prestressed concrete industry. It is available to architects and engineers at $3.00 a copy. *Leap Associates, P.O. Box 1053, Lakeland, Florida*

Curtain Walls
The Albro Metal Products Co. has published a brochure to demonstrate the range of curtain wall applications possible with the components they manufacture. The booklet includes 3 in. to 1 ft details of completed installations and outline specifications. *Albro Metal Products Co., 944 Longfellow Ave., N.Y. 59, N.Y.**

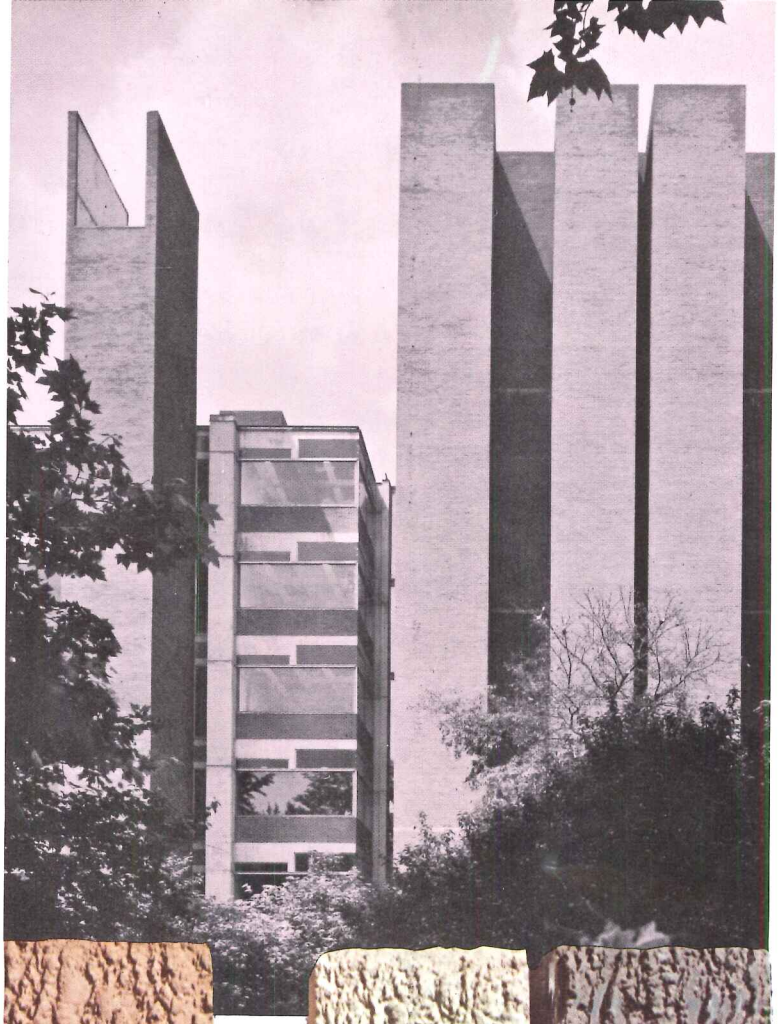
Noise Control
The E. F. Hauserman Co. has issued a new forty-three page study entitled "Noise Control, Privacy, and Signature Movable Partition." The first part of the booklet is devoted to a detailed discussion of the Hauserman partition which includes test data. In addition there is an appendix containing a reprint of an article in the June 1959 ARCHITECTURAL RECORD by William Ranger Farrell, a paper by Richard N. Hamme, and a glossary. *The E. F. Hauserman Co., Dept. A27, 5711 Grant Ave., Cleveland 5, Ohio**

Pigeon Hole Parking
A portfolio of installation plans and specifications for Pigeon Hole Mechanical Parking units is available from the distributor. It includes plans and sections of seven garages employing the system. *Western Industries, Inc., 2742 West 36th Place, Chicago 32, Illinois*

Roof-Top Air Conditioning
This 24-page brochure describes the application, installation, and specifications of Melco Roof-Top year-round air conditioning, a self-contained unit that requires no additional boiler or compressor room. The booklet also contains general specifications. *Melchior, Armstrong, Dessau Inc., Ridgefield, N.J.*

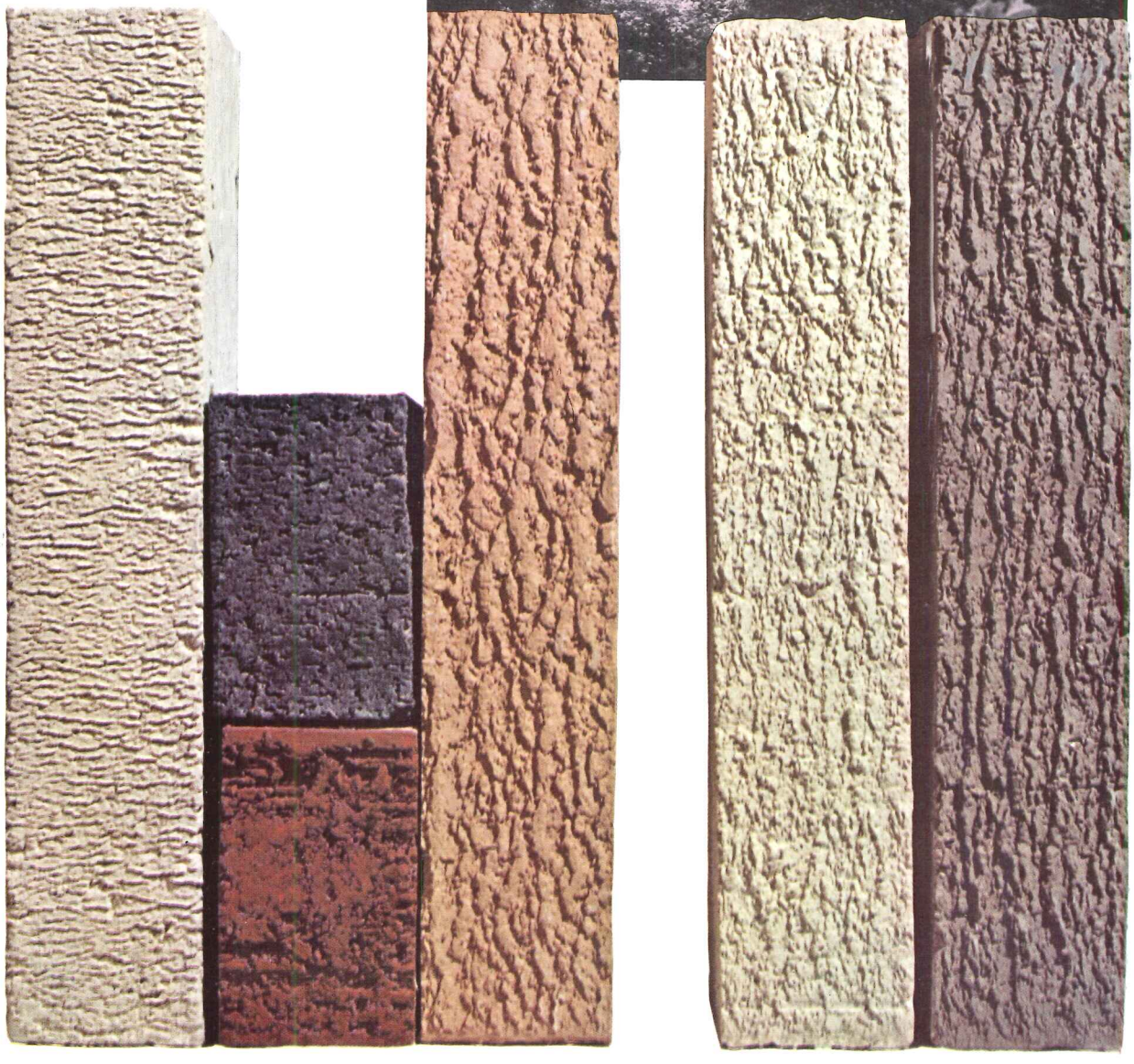
**Additional product information in Sweet's Architectural File*

more literature on page 178

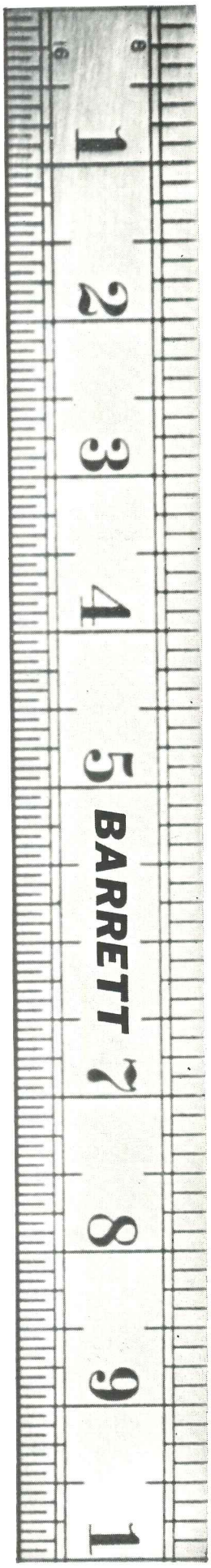


The Beauty Of Order

Severe but sensual, monumental yet delicate, the architecture is a statement of masterful discipline. Clothed in brick, an orderly material which yields easily to the artist, it reaffirms the Vitruvian principle. The building: Richards Medical Research Building, University of Pennsylvania. The architect: Louis Kahn.



Structural Clay Products Institute 1520 18th St., N.W. Washington, D.C.



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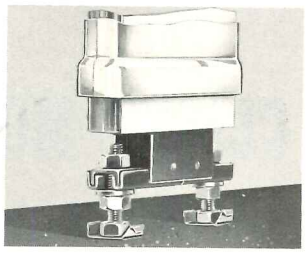

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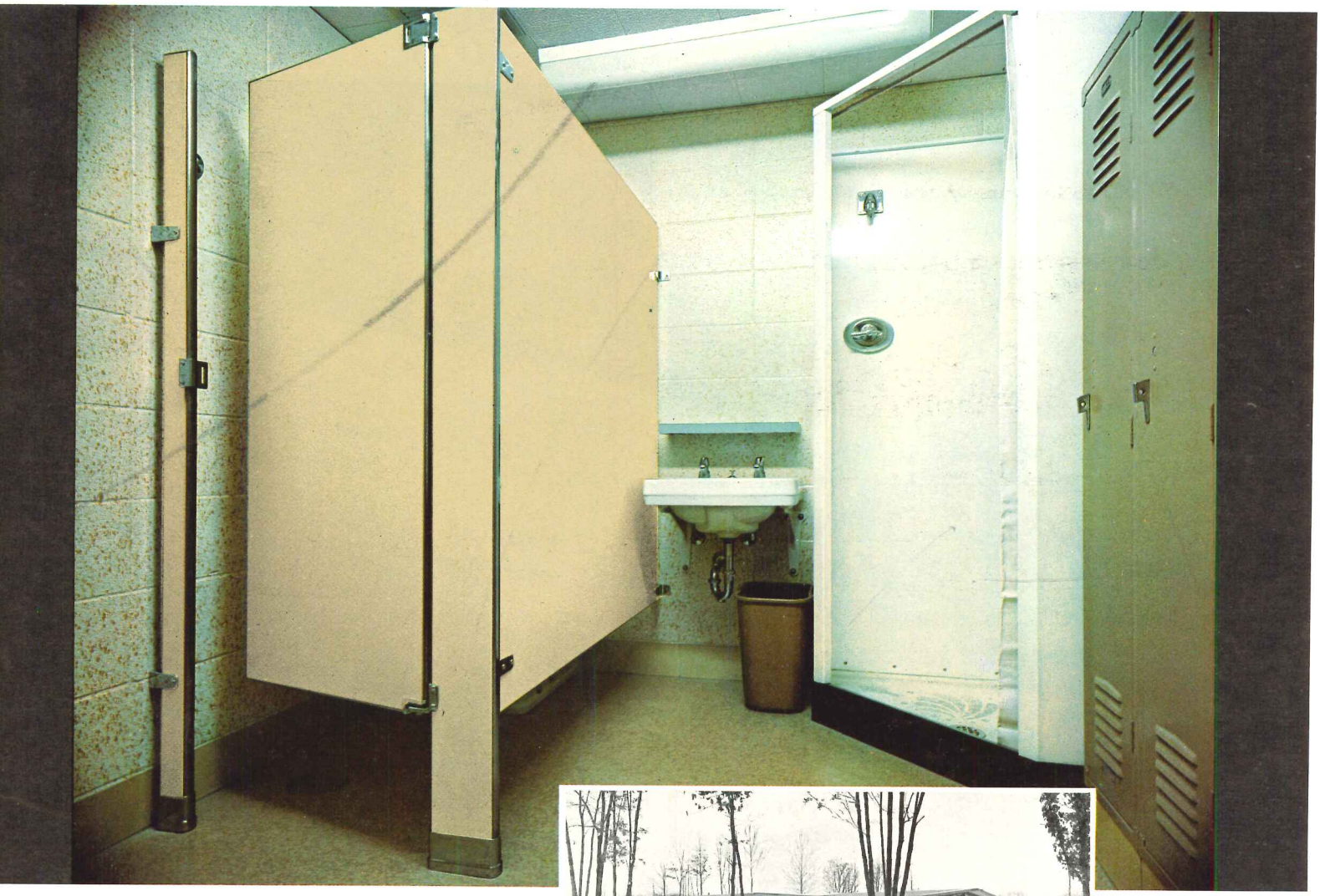

(S. E. corner of B unit) Loy Norrix High School, Kalamazoo, Michigan
Architect: Perkins & Will, Chicago; White Plains, New York
General Contractor: Herlihy Mid-Continent Co., Comstock, Michigan

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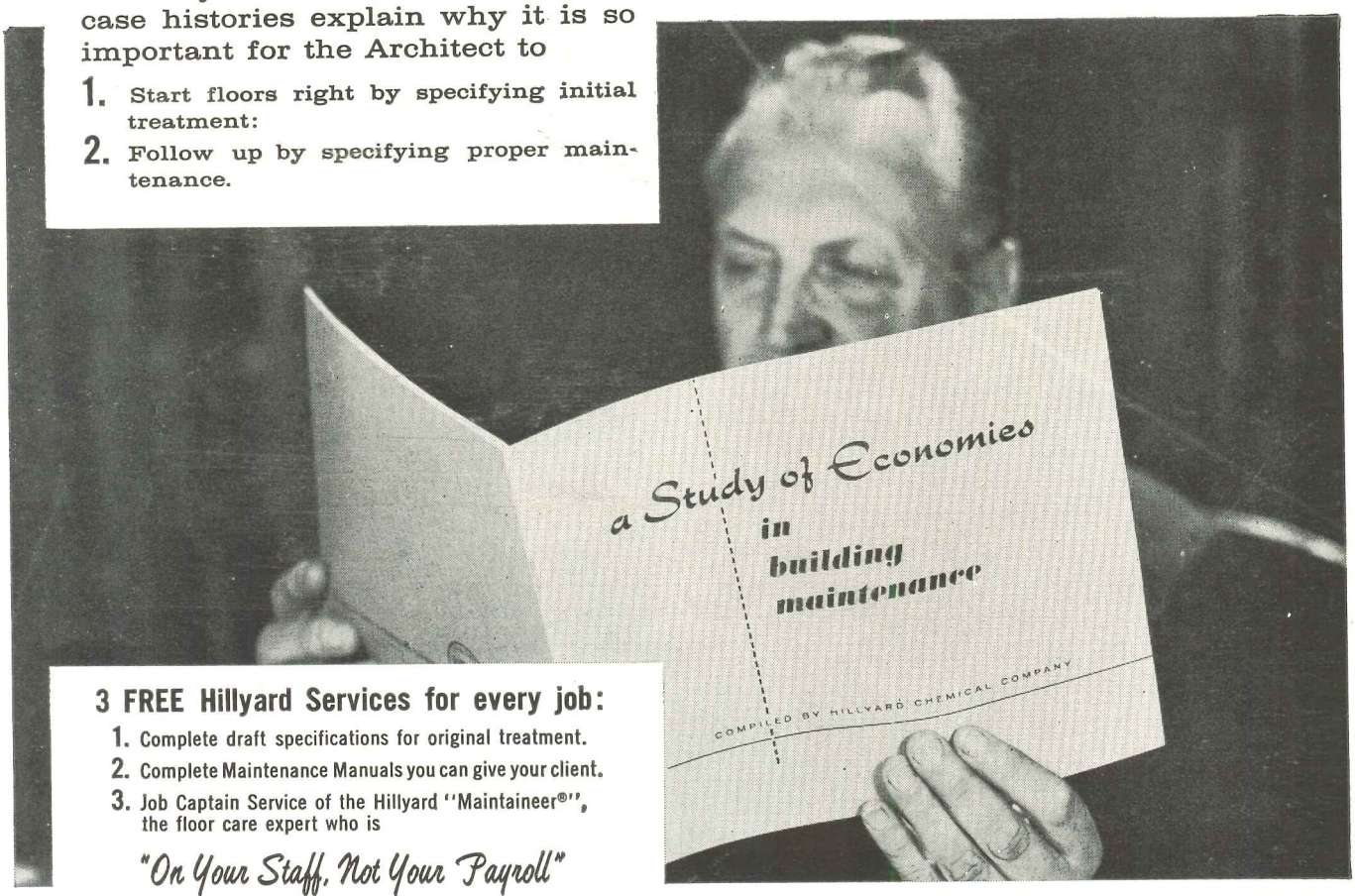
Contrary to opinion of all too many building owners, there is no economy in "cheap" floor maintenance products. Pennies saved here mean dollars lost in higher labor expense for floor re-treatment and maintenance – and, perhaps, permanent damage to expensive flooring.

If, without your guidance, the client guesses and guesses wrong, he will be the loser. So will your building. Write today for your Free copy of "A Study of Economies".



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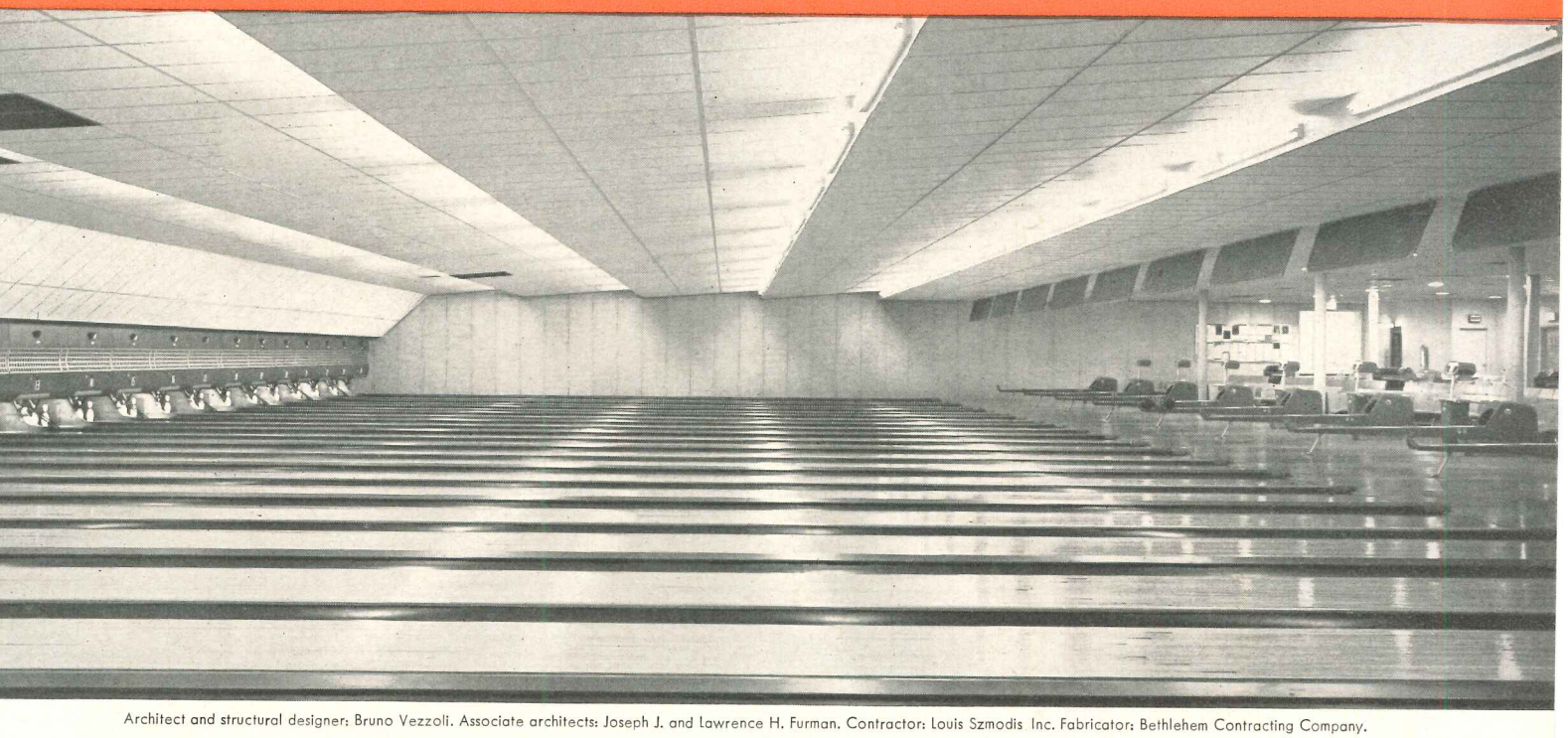
Bethlehem steel joists up here



Architect and structural designer: Bruno Vezzoli. Associate architects: Joseph J. and Lawrence H. Furman. Contractor: Louis Szmodis Inc. Fabricator: Bethlehem Contracting Company.

...no obstructing columns down here

Steel

for strength
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This 24-lane bowling alley has no obstructing columns to break up the all-important floor area. Bethlehem "L" series joists in the roof structure run parallel with the lanes and span 88 ft, front to rear. Bethlehem steel joists are ideal for any roof structure where column-free space below is of paramount importance, such as garages, auditoriums, gymnasiums, swimming pools, supermarkets.

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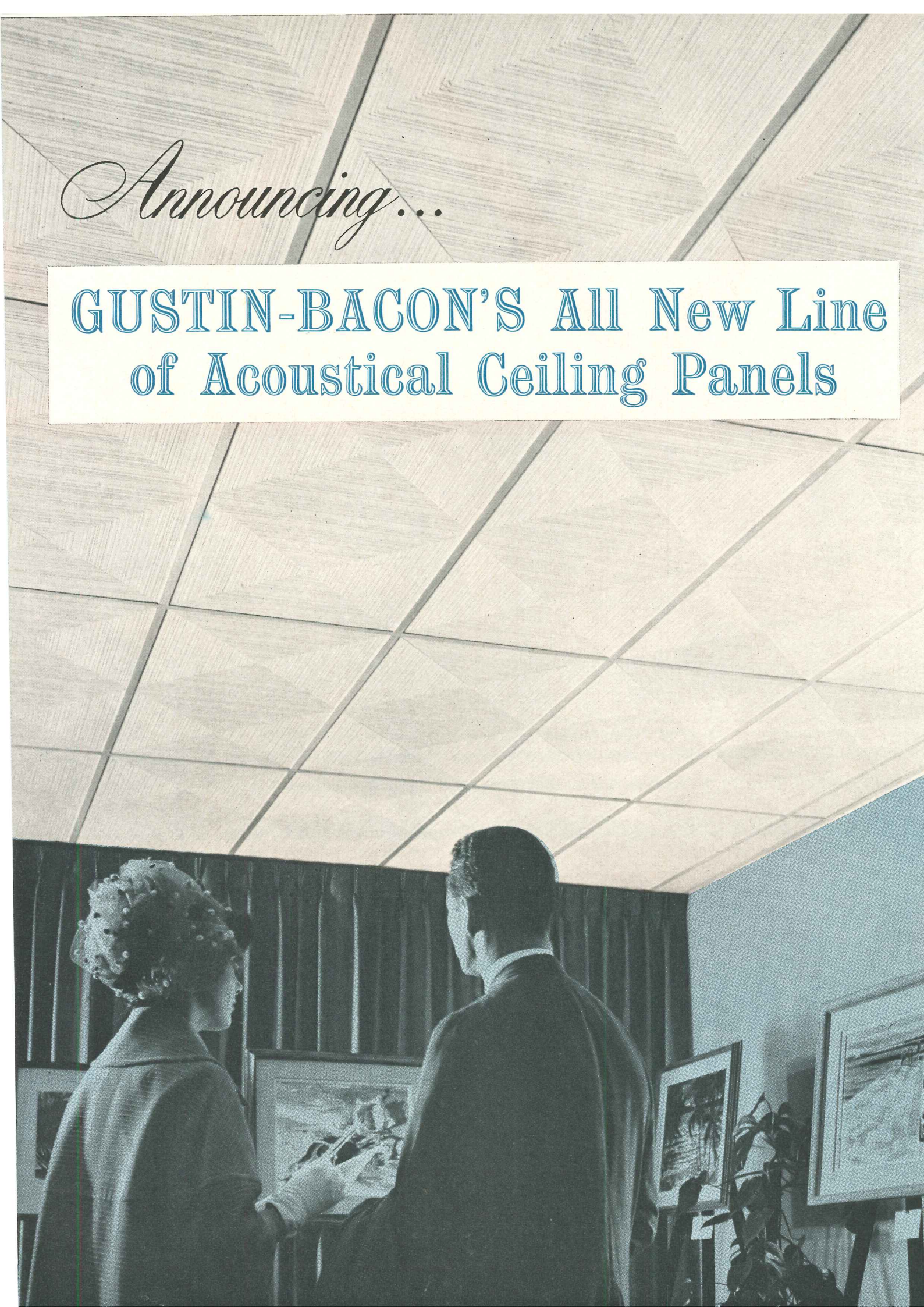
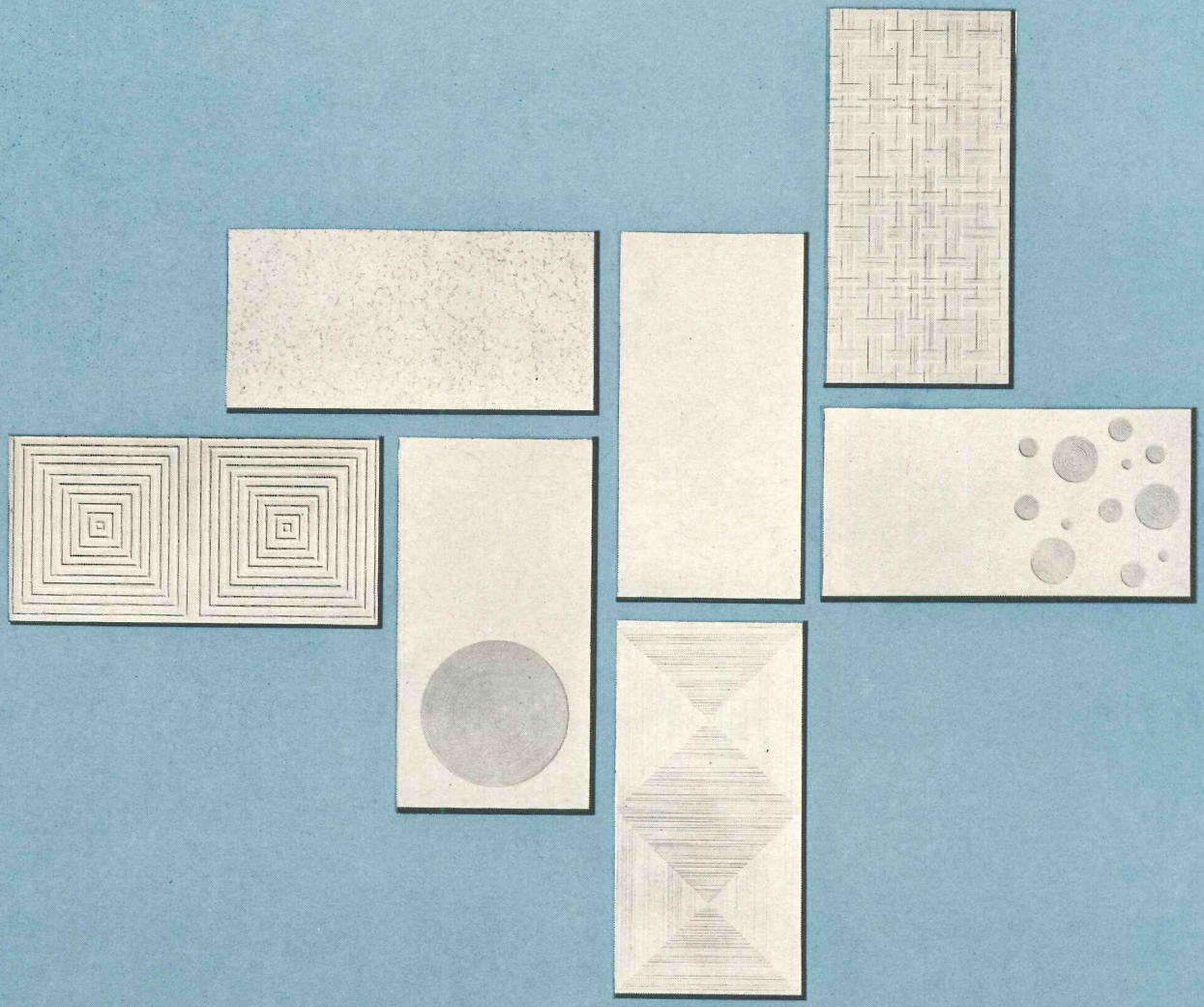
GUSTIN-BACON'S All New Line of Acoustical Ceiling Panels





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Six Sculptured, Three-Dimensional Patterns

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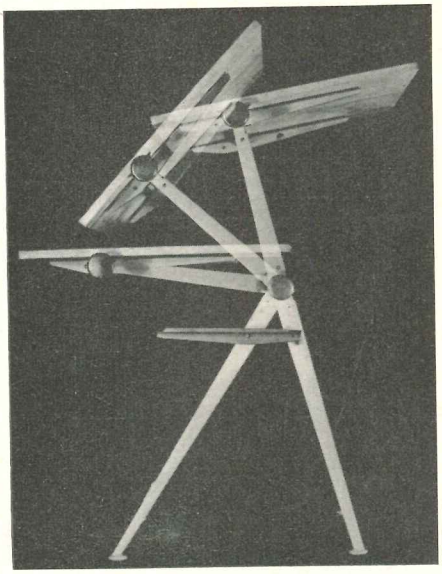
G-B ULTRACOUSTIC Ceiling Boards, made entirely of bonded fiber glass, provide maximum acoustical efficiency (.80 - .90 NRC). They are rated incombustible when tested in accordance with procedures established by the Underwriters' Laboratories and Federal Specification SS-A-118b. The pleasing, off-white finish has a light reflection rating exceeding 75%. The panels are available in either 24″ x 24″ or 24″ x 48″ modules. Write today for a new, fully-illustrated G-B ULTRACOUSTIC Ceiling Board brochure.

GUSTIN-BACON *Manufacturing Company* GUSTIN® gb BACON

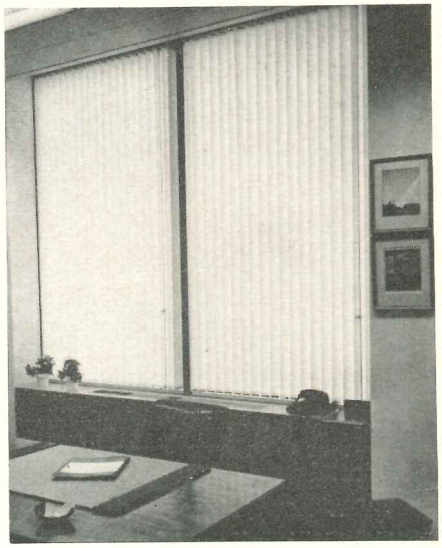
224 W. 10th St., Kansas City, Mo.

Product Reports

continued from page 157

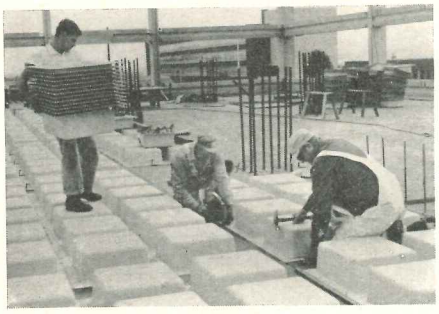


Adjustable Drawing Table
This drafting table, known as the "Planofix", has a steel frame fitted with a 30 in. by 40 in. board and a detachable tray for drawing instruments. Height is adjustable from 30 to 46 in. and the angle through a full 90 degree range. The unit can be fixed at any combination of intermediate positions and the table comes equipped with a leveling device. *D-H Associates, 566 W. Monroe St., Chicago, Illinois*



Vertical Blinds
These vertical blinds employ vinyl impregnated louver-vanes and rotate a full 179 degrees by means of a single handle control, offering good control of lighting and exterior appearance. *The Elkirt Co., 1500-02 Illinois St., Des Moines 14, Iowa.*

Fiber Glass Forming Pans
Forming pans of molded polyester reinforced with fiber glass are now available from the Molded Fiber Glass Co. Each pan weighs 6¾ lbs., the material is non-rusting, and non-corroding, and its resistance to deformation tends to aid assembly and provide a uniform surface. *Molded Fiber Glass Co., Ashtabula, Ohio*



more products on page 170

Bindon & Wright, *Architects*

Modern Door Control by *LCN* • Closers Concealed in Head Frame

BANK OF CALIFORNIA, SEATTLE, WASHINGTON

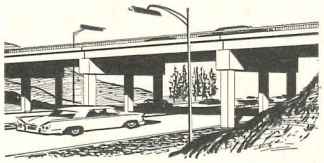
LCN CLOSERS, INC., PRINCETON, ILLINOIS

Construction Details on Opposite Page

PRESTRESSED CONCRETE

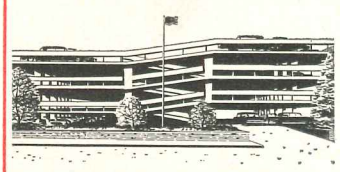
delivers important advantages to a wide variety of structures

Office Buildings



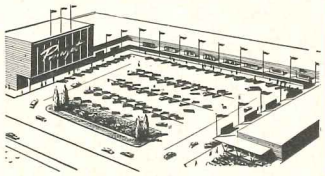
Overpasses

Stadiums

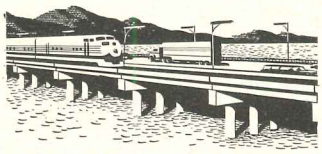


Parking Structures

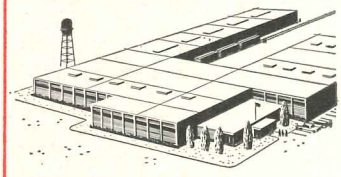
Schools



Shopping Centers



Bridges—Rail and Highway

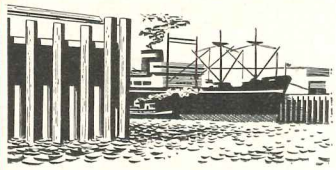


Industrial Plants and Warehouses

Churches

Apartments and Motels

Public Buildings



Marine Structures

In every section of the country architects and engineers are finding, in precast prestressed concrete units, a *flexible, easy to use* construction method for *nearly all types of structures.* Plant-manufactured precast prestressed concrete girders, beams, columns, wall panels, floor and roof units and piling meet *fast construction schedules*—provide *superior structures for less money.*

PRESTRESSED CONCRETE

combines two basic materials to give you the best of both

For plant-produced, quality controlled prestressed concrete, consult the PCI Active Member nearest you:

ARIZONA Arizona Prestressed Concrete Co., Phoenix • United Materials Inc., Phoenix

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COLORADO Bullen Concrete Products, Pueblo • Prestressed Concrete of Colorado, Denver • Rocky Mountain Prestress, Englewood

CONNECTICUT C. W. Blakeslee & Sons, New Haven

FLORIDA Capitol Prestress Co., Jacksonville • Concrete Structures, Inc., North Miami • Dura-Stress, Inc., Leesburg • Duval Engineering & Contracting Co., Jacksonville • Florida Prestressed Concrete Co., Inc., Tampa • Juno Prestressors, Inc., West Palm Beach • Lewis Manufacturing Co., Inc., Miami • Maule Industries, Inc., Miami • Meekins-Bamman Precast Corp., Hallandale • Prestressed Concrete, Inc., Lakeland • Southern Prestressed Concrete, Pensacola • West Coast Shell Corp., Sarasota • R. H. Wright, Inc., Fort Lauderdale

GEORGIA American-Marietta Company, College Park • Leap Structural Concrete, Inc., Powder Springs • Macon Prestressed Concrete Co., Macon

HAWAII Concrete Engineering Co., Honolulu

IDAHO Gemstone Prestress Co., Idaho Falls • Idaho Concrete Pipe Co., Nampa • Ready-to-Pour Concrete Co., Idaho Falls

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INDIANA American-Marietta Company, Lafayette • Shute Concrete Products, Richmond

IOWA A & M Prestress, Clear Lake • Midwest Concrete Industries, West Des Moines • Prestressed Concrete of Iowa, Iowa Falls • C. W. Shirey Co., Waterloo

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LOUISIANA Prestressed Concrete Products Co., Inc., Mandeville • Mid-State Prestressed Concrete, Inc., Alexandria

MARYLAND Baltimore Concrete Plank Corp., Baltimore

MASSACHUSETTS New England Concrete Pipe Corp., Newton Upper Falls • Northeast Concrete Products, Inc., Plainville • San-Vel Concrete Corp., Littleton

MICHIGAN American Prestressed Concrete Inc., Centerline • Lamar Pipe and Tile Company, Div. American-Marietta Company, Grand Rapids • Precast Industries, Inc., Kalamazoo • Price Brothers, Livonia • Superior Products Co., Detroit

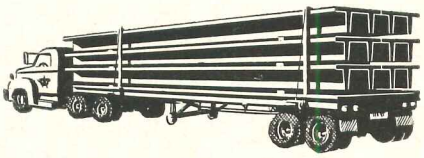
MINNESOTA Cretex Companies, Elk River • Prestressed Concrete Inc., St. Paul • Wells Concrete Products Co., Wells

MISSISSIPPI F-S Prestress, Inc., Hattiesburg • Grenada Concrete Products Co., Grenada • Jackson Ready-Mix Corp., Jackson

PLAN TO ATTEND!

PCI Annual CONVENTION

Denver, Oct. 15-19



Write for the new, illustrated booklet "PRESTRESSED CONCRETE —Applications and Advantages." This valuable addition to your file illustrates 19 types of projects, how prestressing works, typical products and substantiates these advantages:

LONG SPANS, SHALLOW DEPTHS... for fewer columns, more *usable* floor space. High strength produced by prestressing allows the design of well proportioned building members of limited depth for given spans.

CUTS CONSTRUCTION TIME — Plant manufacture of prestressed members and site work proceed simultaneously to shorten job schedule.

FINISHED PRODUCT OF PLANT CONTROLLED QUALITY — A wide range of architectural and structural shapes meeting PCI and AASHO requirements are available at local plants.

FIRE RESISTANT — Tests have proven the high fire resistant quality of prestressed concrete.

ATTRACTIVE APPEARANCE — FLEXIBLE IN DESIGN — Can take a variety of aesthetically agreeable shapes and bold new designs. Refined prestressed designs result in lighter weight structures.

LOW INSURANCE COST — Durability and fire resistance earns low insurance premiums.

MAINTENANCE-FREE — Requires no painting, little or no waterproofing. Needs no protection from corrosion and is virtually crack-free.

LOW INITIAL COST — Design flexibility, quality plant production and short construction time mean superior structures for less money.

PRESTRESSED CONCRETE INSTITUTE

PRESTRESSED CONCRETE INSTITUTE
205 WEST WACKER DRIVE · CHICAGO 6, ILLINOIS

Gentlemen: Please send me your free booklet "Prestressed Concrete—Applications and Advantages."

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MISSOURI Carter-Waters Corp., Kansas City • Missouri Pres-Crete, Inc., Overland • Dexter Ready-Mix Concrete Co., Dexter
MONTANA Floyd Pappini & Son, Inc., Great Falls
NEBRASKA Nebraska Prestressed Concrete Co., Lincoln • Wilson Concrete Co., Omaha
NEW JERSEY Camco Concrete Corp., Vineland • Formigli Corp., Berlin
NEW MEXICO American-Marietta Company, Albuquerque
NEW YORK American-Marietta Company, New York City • American-Marietta Company, Syracuse • Precrete, Inc., Corona • Principe-Danna, Inc., Long Island City • Raymond International, Inc., New York • Winkrete Precast Co., Inc., Syracuse
NORTH CAROLINA Arnold Stone Co., Greensboro • Concrete Materials, Inc., Charlotte • North Carolina Products Corp., Raleigh • Piedmont Construction Co., Winston-Salem • S & G Prestress Co., Wilmington
OHIO American-Marietta Company, Columbus • Concrete Masonry Corp., Elyria • Concrete Pipe Co. of Ohio, Cleveland • Marietta Concrete, Div. American-Marietta Company, Marietta
OKLAHOMA Oakley Engineering Co., Tulsa
OREGON Builders Supply Co., Medford • Empire Pre-Stress Concrete of Oregon, Portland • Ross Island Sand & Gravel, Portland
PENNSYLVANIA American-Marietta Company, Norristown • Dickerson Structural Concrete Corp., Youngwood • Eastern Prestressed Concrete Corp., Line Lexington • New Enterprise Stone & Lime Co., Inc., New Enterprise • Pennsylvania Prestress, Inc., York • Schuylkill Products, Inc., Cressona • Turbotville Block Co., Turbotville
SOUTH CAROLINA American-Marietta Company, Columbia • Ballard-Rice Prestressed Corp., Greenville
SOUTH DAKOTA Gage Bros. Concrete Products, Sioux Falls
TENNESSEE American-Marietta Company, Memphis • Concrete Prestressed Corp., Bristol • Knox Concrete Products, Inc., Knoxville • Nashville Breeko Block Co., Nashville
TEXAS Anchor-Wate Co., Almeda • Atlas Structural Concrete, El Paso • Crowe-Guide Prestressed Concrete Co., Amarillo • Span, Inc., Dallas • Texas Concrete Co., Victoria • National Precast Corp., Houston • Texas Quarries, Inc., Austin
UTAH Utah Prestressed Concrete Co., Salt Lake City
VIRGINIA Concrete Structures, Inc., Richmond • Shokey Bros., Inc., Winchester • Southern Block & Pipe Corp., Norfolk • Virginia Prestressed Concrete Corp., Roanoke • Alexandria Prestressed, Inc., Alexandria
WASHINGTON Associated Sand & Gravel Co., Everett • Central Pre-Mix Concrete Co., Spokane • Concrete Technology Corp., Tacoma
WISCONSIN Concrete Research, Inc., Waukesha • Prestressed Concrete Products Corp., Verona • West Allis Concrete Products Co., Milwaukee • Eau Claire Stresscrete, Inc., Eau Claire • F. Hurlbut Co., Green Bay
PUERTO RICO Pacadar Prestressed Beams Corp., San Juan
CANADA **Alberta:** Con-Force Products Ltd., Calgary • **Manitoba:** Building Products & Coal Co., Ltd., Winnipeg • Supercrete Ltd., St. Boniface • **New Brunswick:** Joseph A. Likely Ltd., St. John • **Newfoundland:** Lundrigan's Concrete Ltd., Corner Brook • **Nova Scotia:** L. E. Shaw Ltd., Halifax • **Ontario:** Murray Associates Ltd., Toronto • Pre-Con Ltd., Brampton • Ryan Builders Supplies Ltd., Windsor • Schell Industries Ltd., Woodstock • Standard Prestressed Structures Ltd., Maple • Toronto Cast Stone Co. Ltd., Toronto • Wilson Concrete Products Ltd., Belleville • J. M. Wright Ltd., North Bay • **Quebec:** Pressure Pipe Ltd., Montreal

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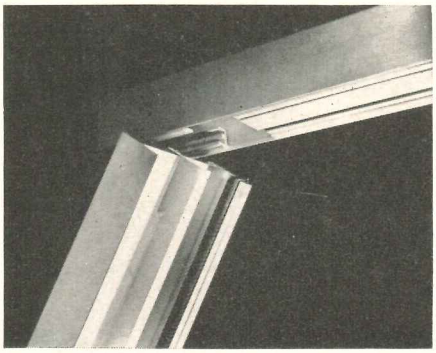
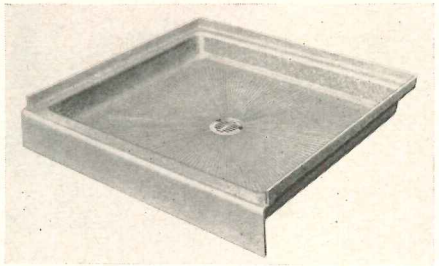
Product Reports

continued from page 166



Interlocking Curtain Wall
An aluminum curtain wall system for one- and two-story buildings in which all the components lap and interlock without the use of bolts and nuts has been announced by Pacific Curtainwall. This system is designed to minimize the amount of work necessary in the field. According to the manufacturer the lapped, rather than bolted, connections accommodate expansion while maintaining an unbroken waterproof seal throughout the wall. *Pacific Curtainwall, Inc., 600 W. 15th St., Long Beach 13, California*



Shower Receptors
A new line of shower receptors has been announced by the Ingersoll-Humphryes Division of Borg-Warner. Known as Borg-Warner Borgranite shower receptors, they are made of Borgranite, a polyester resin material with nylon and glass fiber reinforcing, and come in a range of eight models available in eight colors. Borgranite is a hard, non-porous material resistant to corrosion, rot, and rust. The receptor's one-piece construction, with threshold flanges and supporting base integrally formed as a single unit, simplifies its installation. *Borg-Warner Plumbing Fixtures, Mansfield, Ohio*

more products on page 174

Are You Installing CALL DIRECTOR or CALL COMMANDER Telephone Systems?

You can do it BETTER...FASTER at Much Less Cost with SQUARE D GATEWAYDUCT®

1¼" conduit is rarely adequate for systems using pushbutton or key set phones. It is completely impractical for either the Call Director or Call Commander systems which require a 1⅛" cable for each phone. Yet with conventional underfloor duct, 1¼" is the maximum size you can use as a conduit-feed to the system.

Square D's Gatewayduct system features exclusively designed junction boxes which completely eliminate the need for conduit. Homeruns are through duct with plenty of capacity. This is only one of many reasons why Gatewayduct is the logical raceway for today's larger communications systems.

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Ask your Square D Field Engineer for the complete story. Or write us—Square D Company, Mercer Road, Lexington, Kentucky.

SQUARE D COMPANY

wherever electricity is distributed and controlled

A unique dental clinic attests best to wood's natural adaptability and warmth. The simplicity of exposed beams and supports bolted together, the mixture of spaced and solid siding complementing one another—all present a friendly outside, promise a comfortable inside. Architects: Kirk, Wallace, McKinley & Assoc., A.I.A.

For economy with quality in a commercial structure

find the better way with WOOD

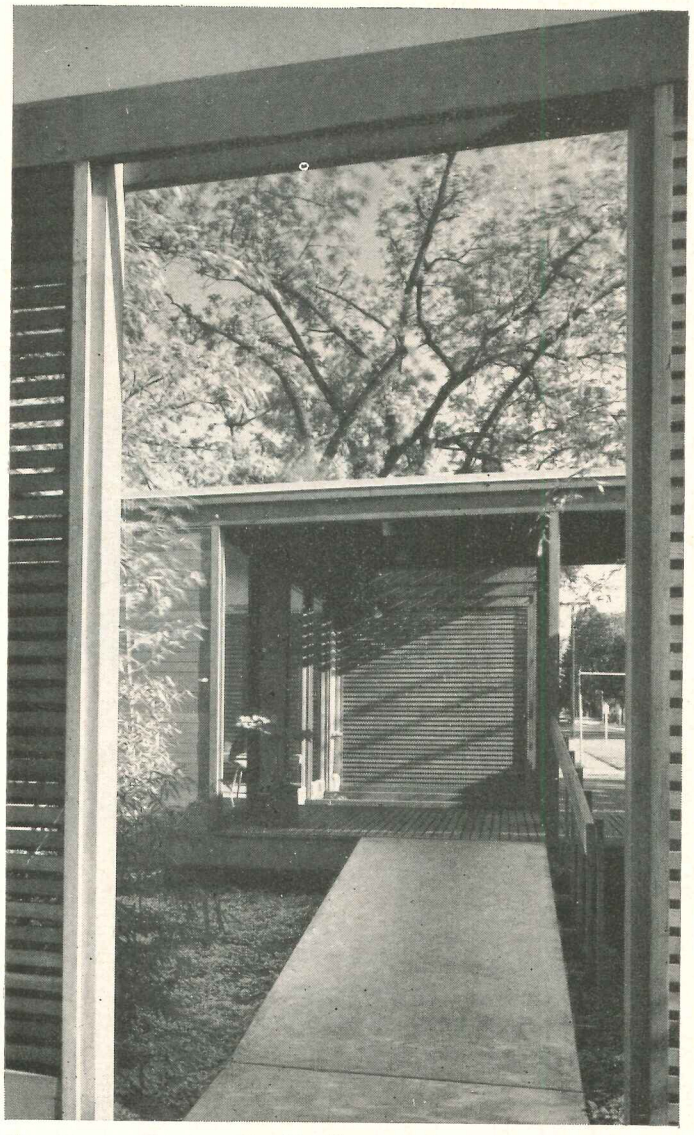
A good place to do business is in a place you plan with wood. The adaptability of wood weds structure and surroundings to create a friendly exterior, modern or traditional, for any establishment. Its unique integrity can enhance the interior of any building . . . whether in laminated beams overhead, planked flooring underfoot, or paneled walls all around. Wood's compatibility with other materials . . . with stone, glass, brick or metal . . . is wonderfully apparent in every application on any site.

Wood offers a favorable strength-weight ratio, an inherent resilience and a capacity for lasting wear. No matter how you shape it, or which of its diverse grains and tones you choose . . . wood maintains a natural beauty that is incomparable, a warmth that is genuine. For more information on designing with wood, write:

NATIONAL LUMBER MANUFACTURERS ASSOCIATION
Wood Information Center, 1319 18th St., N. W., Washington 6, D. C.

nlma

for freedom of design, look to **wood**

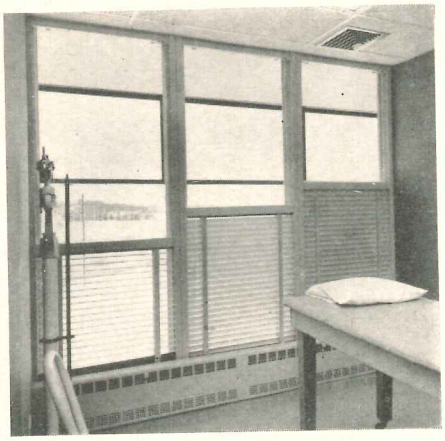


Wood bares still more of its friendliness in the dental clinic's intimate courtyard. The wall of spaced siding offers ample privacy with open-air freedom, clearly demonstrates one of wood's many economies.

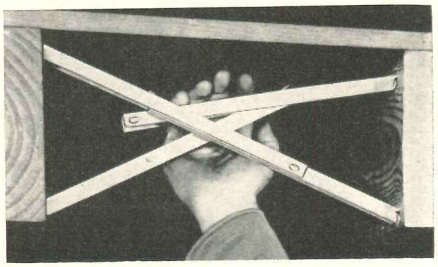
Far-reaching double-plank beams and supports of wood frame the translucent glass panels around an informal garden, let the outdoors in naturally for a relaxed atmosphere throughout the clinic.

Product Reports

continued from page 170

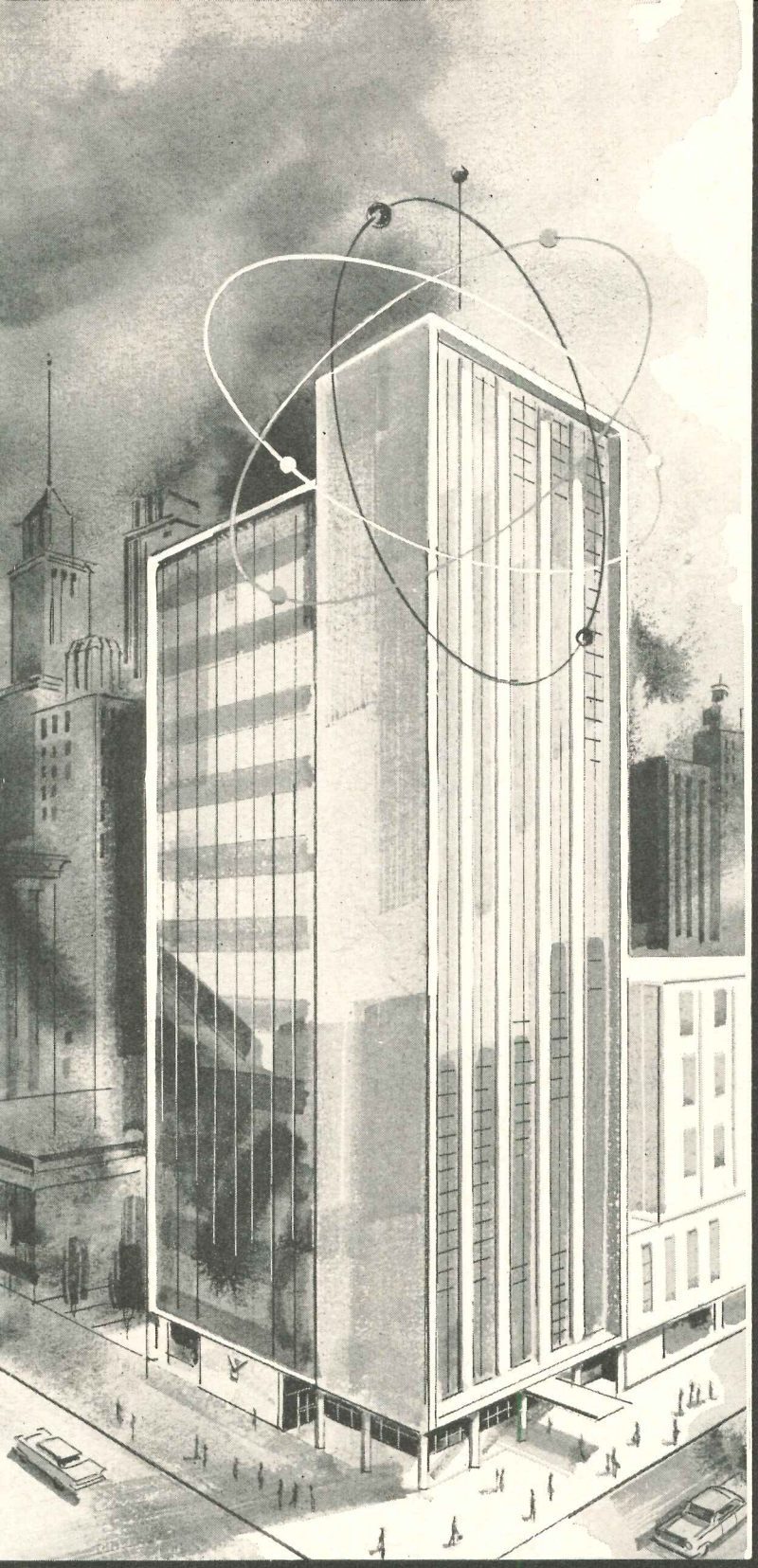


Top Lowering Blind
A venetian blind that lowers the entire unit from the top, yet operates in the same manner as a conventional blind has been developed especially for hospitals. During patient examination the blind can be lowered from the top to shoulder height and completely closed at the bottom portion, providing complete privacy but permitting unobstructed light and view. When the unit is fully raised it becomes a conventional venetian blind. *Levolor Lorentzen, Inc., Hoboken, N.J.*



Metal Joist Bracing
New metal joist bracing has been introduced by the Adjusta-Post Manufacturing Co. Called "Hercules Metal Bridging", it can be installed quickly from above or below joists, and is suitable for new or remodeled structures. Formed from 20-gauge, rust-resistant steel, the bracing is adjustable for joists 6, 8, or 10 in. deep. The braces snap-lock into position instantly without the use of tools, and the joists can be bridged after the sub-floor is laid. *Adjusta-Post Manufacturing Co., Inc., Akron, Ohio*

more products on page 186



New from Haughton Elevonics*

DYNAFLITE
ELEVATOR CONTROL

The Miracle in Motion That Sets New Standards for Speed and Comfort in Vertical Transportation

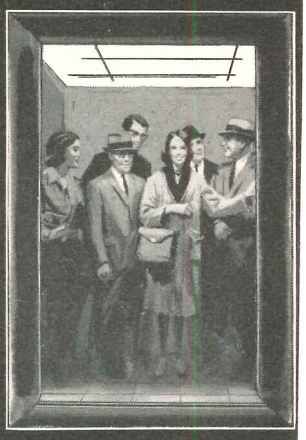
Haughton Dynaflite achieves the high speeds required for efficient handling of heavy elevator traffic with *incredible smoothness.* Acceleration and deceleration are so subtle—so finely controlled—that passengers scarcely feel any motion at all. This means passenger comfort and confidence that no conventional control system can provide.

The Dynaflite system is fully automatic, thoroughly reliable. Each run is as precisely controlled as those that preceded it, and those that will follow. Haughton quality in materials and workmanship brings tight-fisted economy in upkeep, too.

Haughton Dynaflite Control is ready to serve your buildings today, thanks to Elevonics* . . . the well-spring of progress in vertical transportation for multi-floor buildings. Include Dynaflite's distinctive advantages in your building or modernization plans. Ask your Haughton representative for complete information, without obligation. Or, write today.

* *Haughton's advanced program in elevator systems research and engineering, with specific emphasis on the creative application of electronic devices and instrumentation for betterment of systems design and performance. Registered in U. S. Patent Office.*

EMBLEM OF EXCELLENCE IN VERTICAL TRANSPORTATION



Haughton Elevator Company

Division of Toledo Scale Corporation, Toledo 9, Ohio

Offices in principal cities

PASSENGER AND FREIGHT ELEVATORS • ESCALATORS • DUMBWAITERS

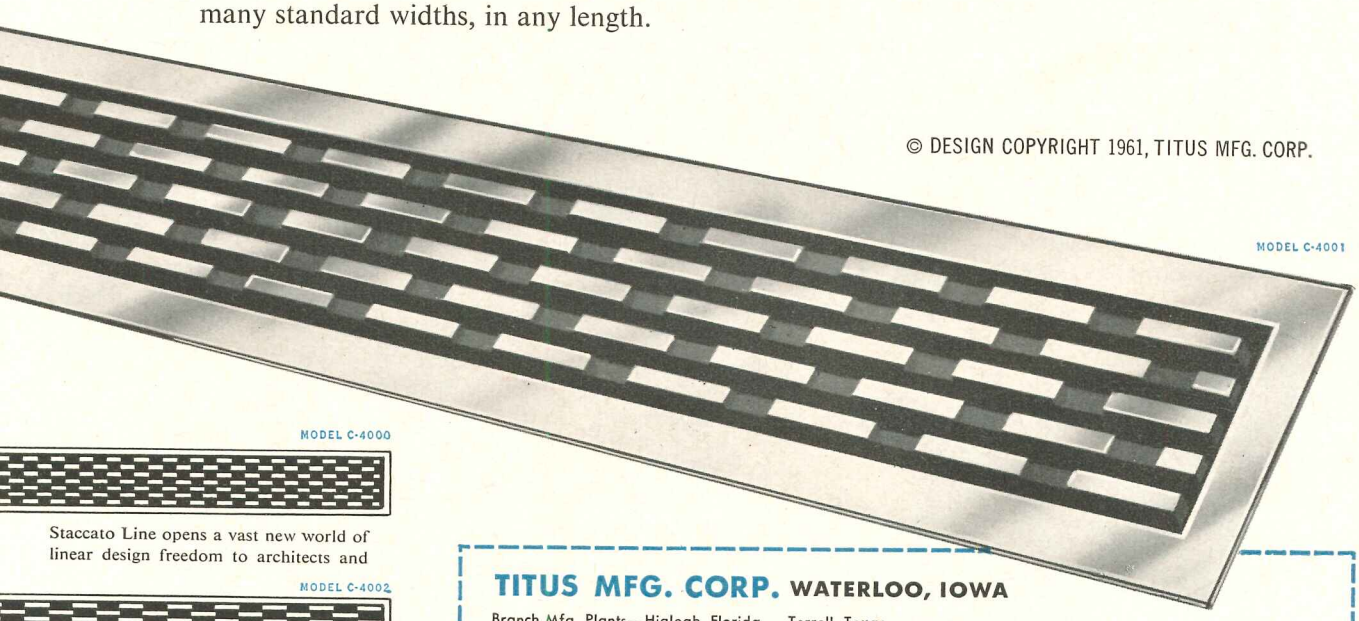
Staccato LINE

LINEAR AIR DIFFUSERS

Sharp clear notes of vibrant extruded aluminum—highlighted against a recessed background of anodized black. Available in *endless patterns* to harmonize with, or accent, any architectural motif. That's superb new Titus Staccato Line . . . with *design so decidedly different IT GIVES A STARTLING NEW DIMENSION TO THE LINEAR CONCEPT!*

And here's air diffusion efficiency to match the breathtaking beauty! Staccato Line is *perfect for in-line use on sidewall or ceiling* . . . for heating, cooling or ventilating.

Available in a wide variety of extruded aluminum border styles. Furnished in many standard widths, in any length.

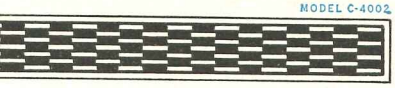


MODEL C-4001

MODEL C-4000

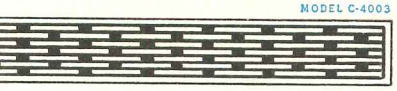
Staccato Line opens a vast new world of linear design freedom to architects and

MODEL C-4002



engineers. Select from an unlimited number of core patterns and border styles to

MODEL C-4003



develop your own individuality of design . . . or match any motif.

TITUS MFG. CORP. WATERLOO, IOWA

Branch Mfg. Plants—Hialeah, Florida Terrell, Texas

● Rush new free TITUS STACCATO LINE Linear Diffuser Catalog.

NAME_____

COMPANY_____

ADDRESS_____

CITY_____ STATE_____

Office Literature

continued from page 158

Steel Design Research
The United States Steel Co. has published four papers given at a seminar in April 1961 under the title "New Concepts in Steel Design and Engineering." The first paper, by J. A. Gilligan, deals with the selection of different kinds of steel to meet varied construction situations; the second, on higher strength steels, is by Dr. G. Haaijer; the third, on column strength of constructional steels, is by L. S. Beedle, T. V. Galambos and L. Tall; and the final paper, on new steels and products, is by R. W. Simon. *Market Development Div., U.S. Steel Corp., 525 William Penn Place, Pittsburgh 30, Pa.**

Educational TV Primer
This primer is a twenty-four page, non-technical booklet primarily designed to discuss and describe the simpler types of closed circuit systems, and show how they may be used for educational purposes. It includes a glossary of basic TV terminology. *Thompson Ramo Wooldridge Inc., Educational Electronics Division, 532 Sylvan Ave., Englewood Cliffs, N. J.*

Boring Specification
The Test Boring Contractors Association has published a recommended standard boring specification for cased borings, designed to promote standardization of contract specification requirements and eliminate misunderstanding of the respective responsibilities of the test boring contractor and of the architect or engineer. *Test Boring Contractors Association, 11 W. 42nd St., N.Y. 36, N.Y.*

Church Construction
The Rilco division of the Weyerhaeuser Co. has issued a new brochure describing laminated wood structural members used in church construction. The booklet consists primarily of photographs of existing applications. *Weyerhaeuser Co., Rilco Engineered Wood Products Division, W-818 First National Bank Building, St. Paul 1, Minnesota**

**Additional product information in Sweet's Architectural File*

Built faster ...earned $112,000 extra ...with STEEL

STEEL framed buildings really go up in a hurry—three stories per week in a typical apartment house.

Faster construction with steel means earlier completion, earlier rentals—extra income that would *never* be achieved with slower forms of construction.

Look at the *extra* bonus steel achieved on this 21-story, 700-room luxury apartment house in New York City.

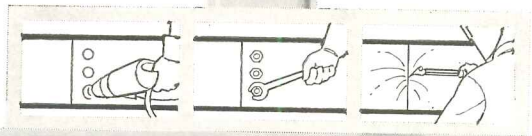
Steel framing shortened the building time and speeded occupancy by two months.

The owner says this meant:

$112,000 in additional rental income.

For that extra bonus . . . use **STEEL.**

American Institute of Steel Construction
101 Park Avenue, New York 17, N. Y.



Owner-Builder—Senville Realty & Construction, Inc.
Architect—Schuman & Lichtenstein
Structural Engineer—Charles Mayer

Steel

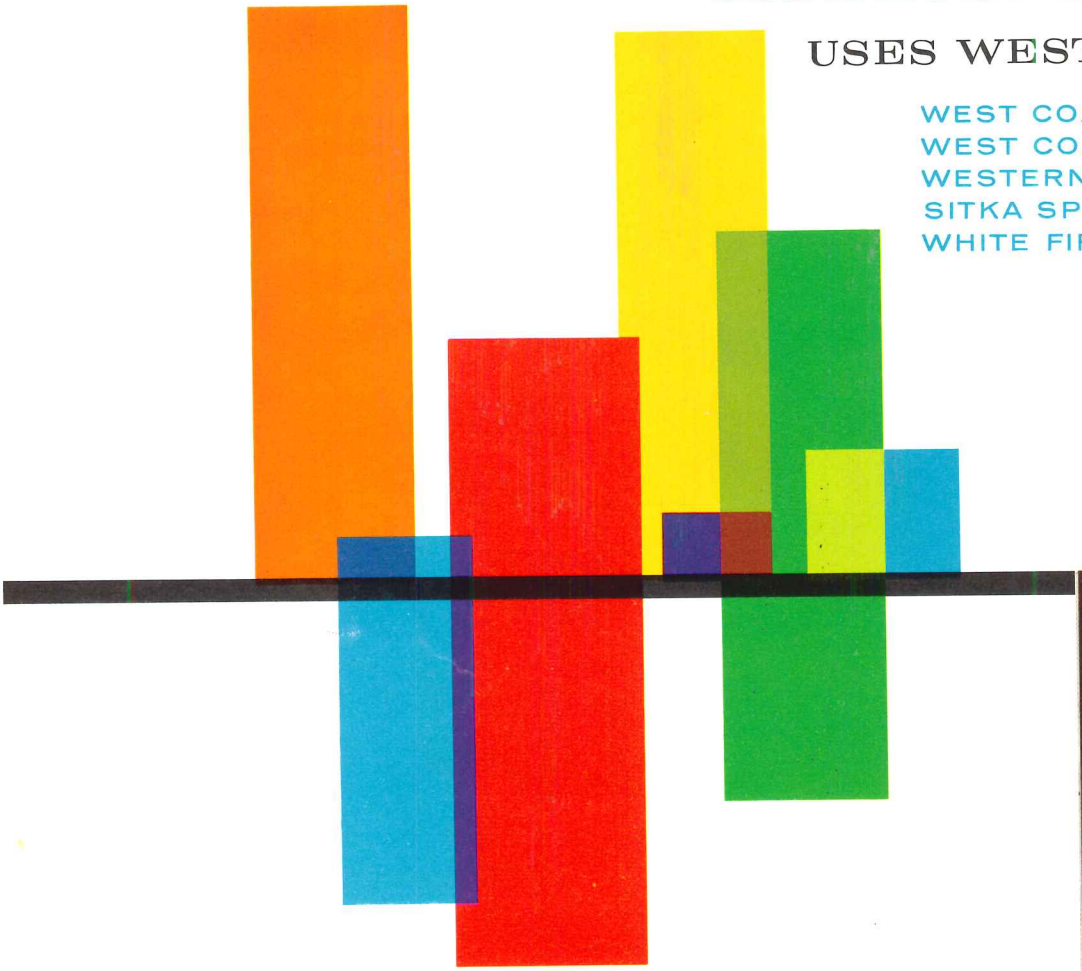
Steel STANDS for the future

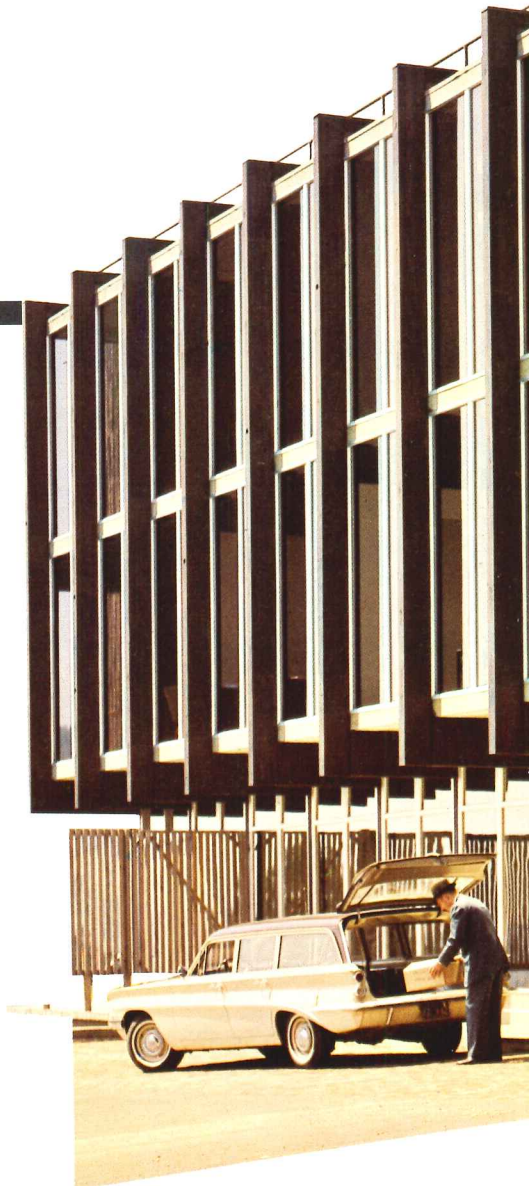
AISC

MODERN DESIGN

USES WEST COAST LUMBER

WEST COAST DOUGLAS FIR
WEST COAST HEMLOCK
WESTERN RED CEDAR
SITKA SPRUCE
WHITE FIR





Here is another handsome and functional building that was constructed swiftly and economically, thanks to the architect's ingenuity and West Coast Lumber's practical versatility. The building is situated to take full advantage of a beautiful view and good light on its eastward-facing lot.

The rigid frames that give bold character to the building's modern design are glue-laminated, pressure treated West Coast Douglas Fir. The 13 frames were assembled on the job and erected in a day. To provide maximum floor space and allow parking for 14 automobiles, these frames are cantilevered 4 feet beyond the 20-foot width of the daylight basement. Usable floor area in the 24′x100′ building totals 6500 square feet. All of this is located on a 60′x100′ urban renewal area lot.

The roof deck is 2″x6″ West Coast Douglas Fir roof plank, milled with an acoustical pattern and left exposed in the ceiling. Similarly, each floor uses 3″x6″ West Coast Douglas Fir milled with the same pattern. The only permanent interior partitions enclose the stair well in the center of the building.

Enclosed behind the screen of 2″x2″ Western Red Cedar at each end of the building, are the heating and air conditioning units for each floor. The equipment is mounted on a cantilevered, nail laminated deck of 2″x4″ West Coast Douglas Fir. This feature releases still more interior floor space.

Another interesting feature is the blending of the creosote color resulting from pressure treatment of the rigid frames with a complementary color. Pigmented stain was applied to the screen at the end of the building and to the 2″x8″ Western Red Cedar exposed blocking between the frames.

Standard sizes of West Coast Lumber are designed into this functional structure which costs approximately $15.00 per square foot.

Give freedom to your imagination with versatile West Coast Lumber. Complete information on sizes, grades and supply awaits you at your nearby lumber dealer.

Architects: Shell and Hoyt, A. I. A.

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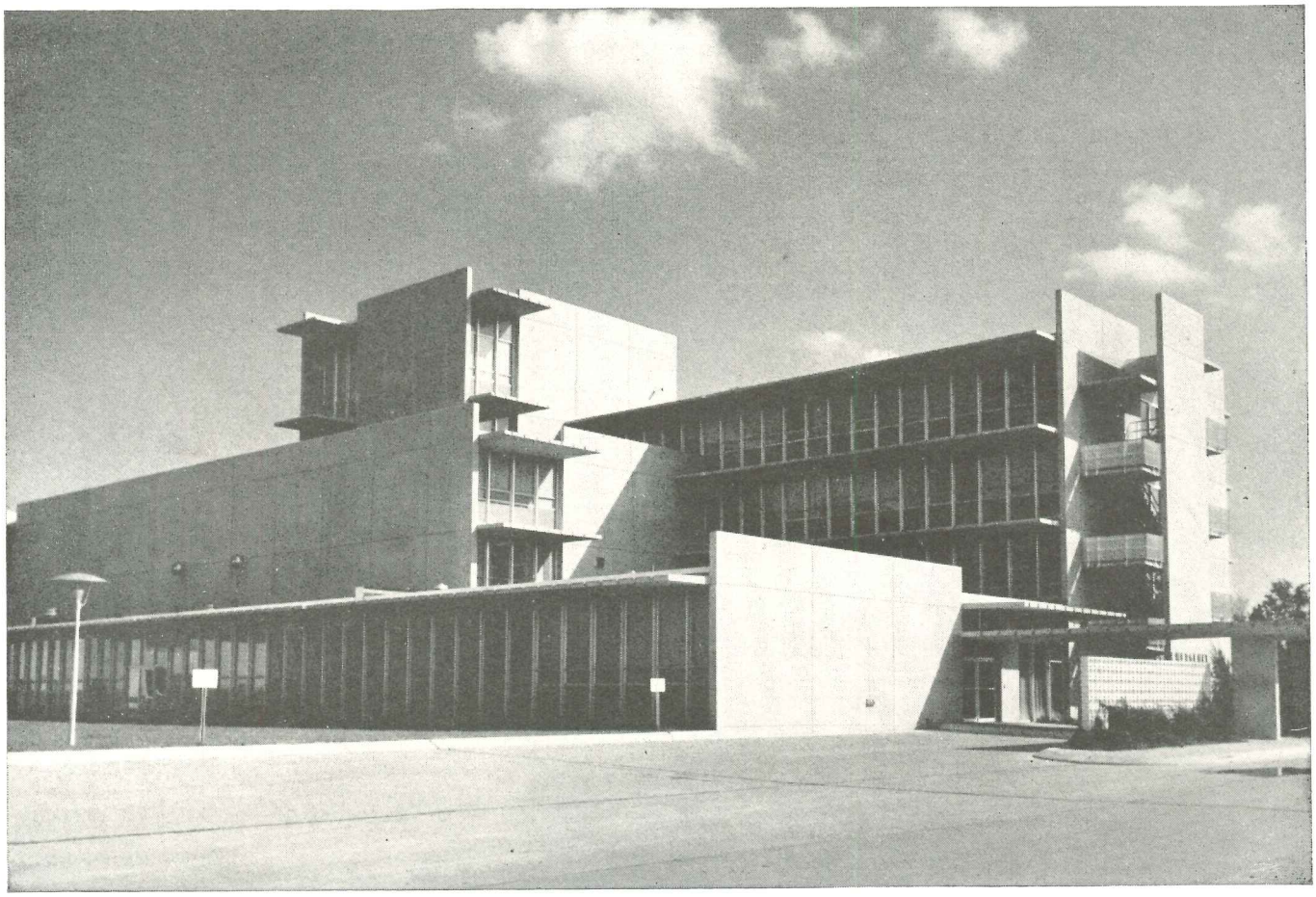
HOW THE DODGE REPORTER

helped the architect get this efficient hospital built



West Jefferson General Hospital, Marrero, La.
Architect: L. F. Dufrechou

Serving an industrial community, this hospital provides unusually extensive emergency facilities, has a normal capacity of 160 beds. Basic structure is concrete frame, utilizing lightweight concrete columns, and lightweight ribbed floor joists. Exterior walls are aluminum-framed curtain walls with porcelain enamel panels and projected sash. The building is completely air-conditioned and rooms are provided with individual controls.

Architect Dufrechou and his associates have achieved a flexible, smoothly functioning, full-facility hospital — in a distinguished architectural treatment — at low cost for a structure of its size and complexity. Mr. Dufrechou credits this, in large part, to early and close collaboration among all the consulting professionals, and to good communications with contractors and suppliers.

"The Dodge Reporter who calls on us regularly was kept informed on this job from the time we were named as architects until the last subcontract was let," says Mr. Dufrechou. "In addition, our plans were on file in the Dodge Plan Room in New Orleans."

"We know from experience that this is the most efficient way to publicize our needs, and to create a favorable bidding climate for our clients. We find it valuable to talk with suppliers and manufacturers who are aware of our requirements through Dodge Reports. They make well-timed calls, specific suggestions and accurate estimates."

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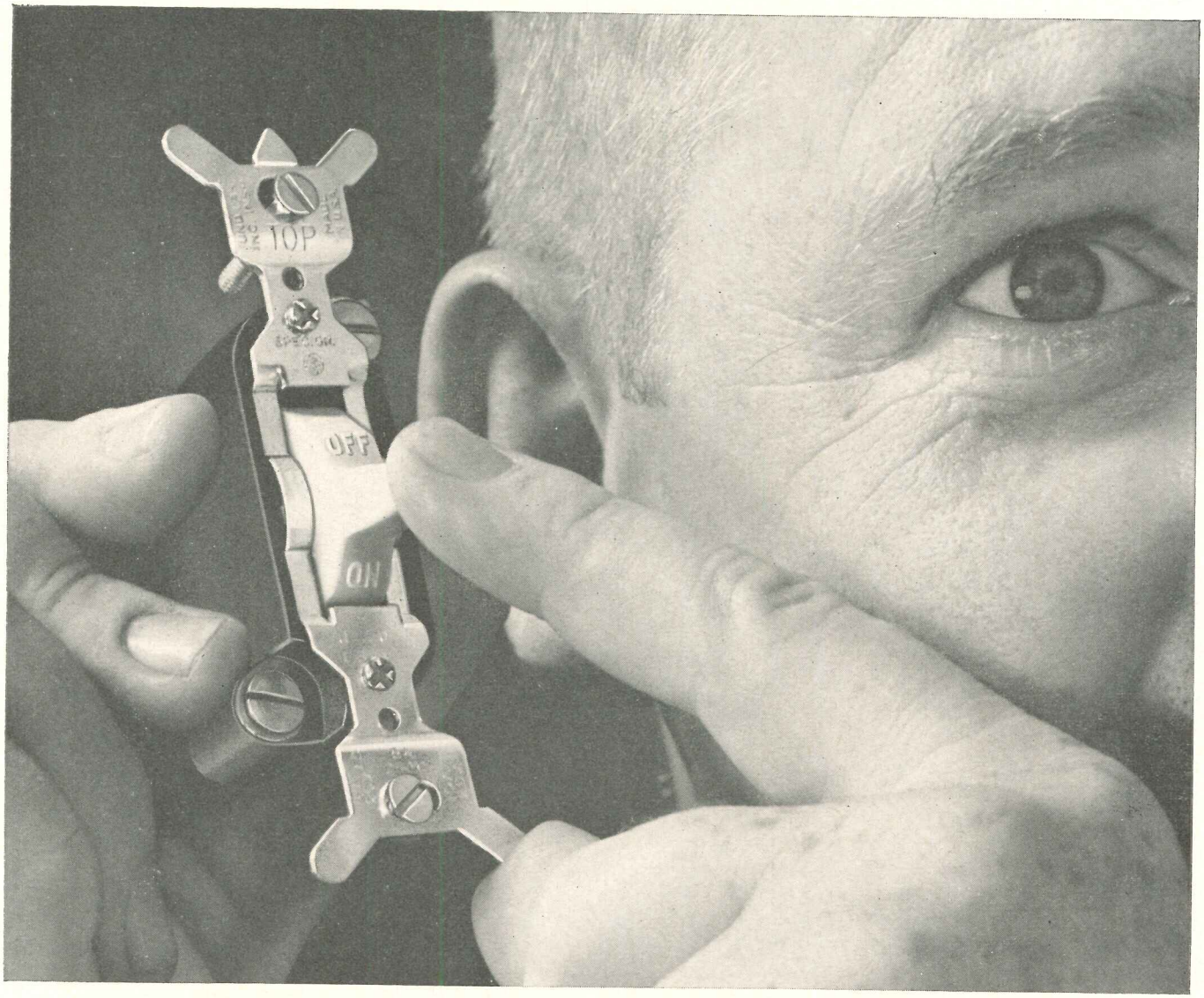

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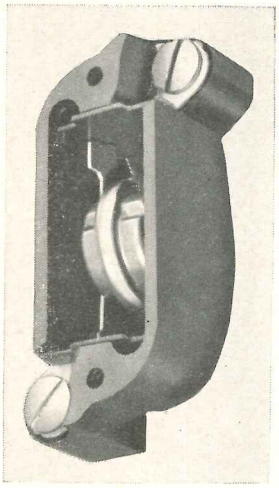
General Electric Silent Mercury Switches last years longer than other switches — have only one moving part

You please everybody when you specify G-E Silent Mercury Switches. They last years longer than snap-type or quiet-type switches — are completely silent — have a smooth, luxurious action that people are quick to appreciate.

Specification Grade, 10A-125V T, 15A-120V AC. U.L.-Listed; meet Federal, REA specifications. Available with lighted handles, for dark locations. General Electric Company, Wiring Device Department, Providence 7, Rhode Island.

The only part that moves in G-E Silent Mercury Switches is this smooth-turning button, in which pools of mercury flow softly together or apart. There are no snapping springs, blades or mechanical contacts. Lab tests indicate the average G-E Silent Mercury Switch can be turned ON and OFF more than 500,000 times!



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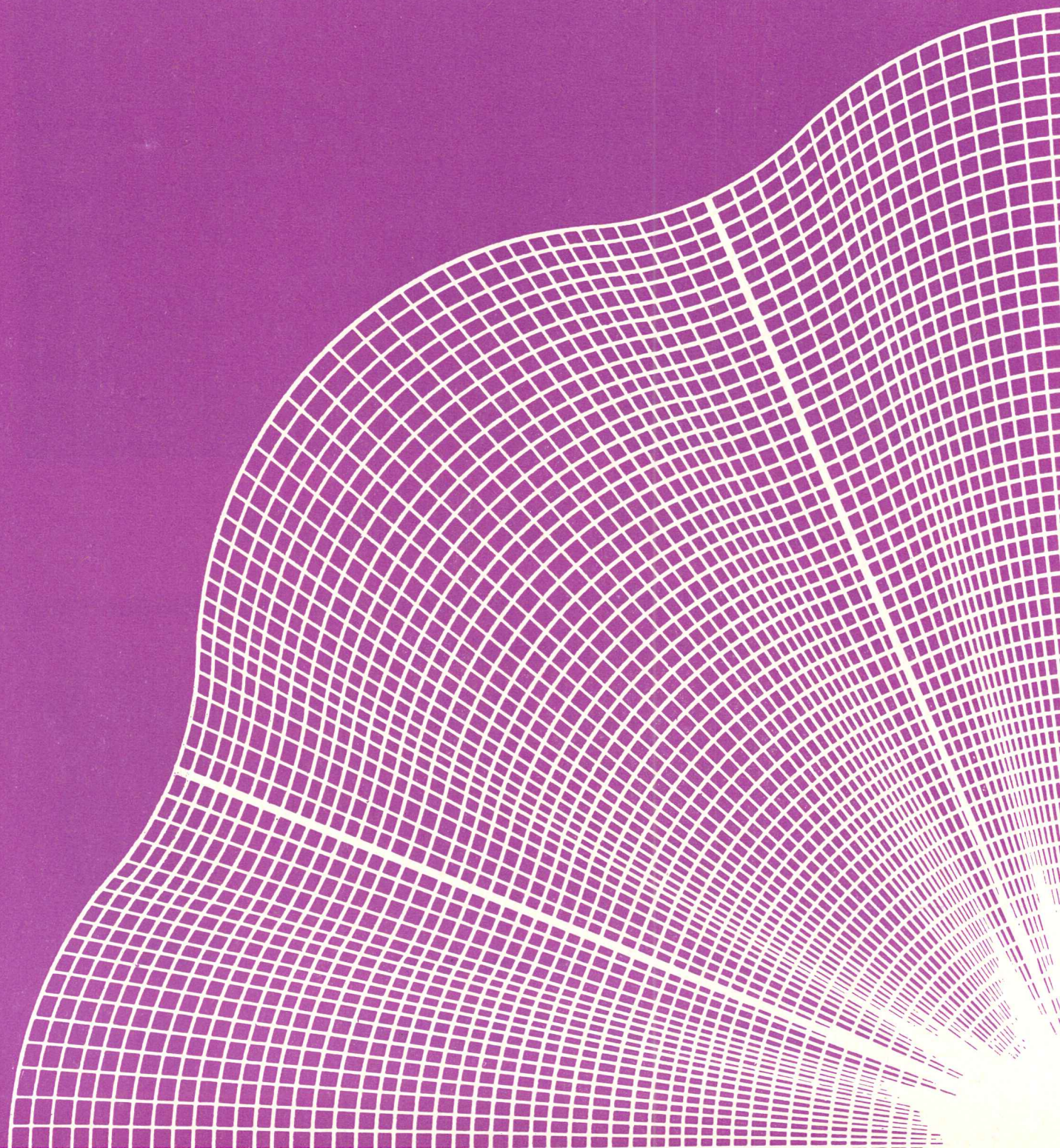

concrete...
fabric for new design horizons

Here's a new structural welded wire fabric, designed in wire up to ½" diameter, with the versatility required for modern thin shell architectural design concepts. The shallow concrete surfaces of hyperbolic paraboloids, folded plates, barrel arches, domes and other free-form designs suggested by the illustration are ideally reinforced with welded wire fabric. ■ The prefabricated sheets of high yield strength Structural Wire Fabric conform easily to warped surfaces without extra fabrication. And large areas of steel mats can be quickly placed as a unit, eliminating thousands of time-consuming placing and tying operations . . . it cuts placement time by at least ⅓. Inspection is simplified too. ■ If your design calls for innovations, consider the adaptability of Structural Wire Fabric. We'll be glad to assist you or your structural consultant with complete technical recommendations. Just contact our nearest sales office or write American Steel and Wire, 614 Superior Avenue, N.W., Cleveland 13, Ohio.

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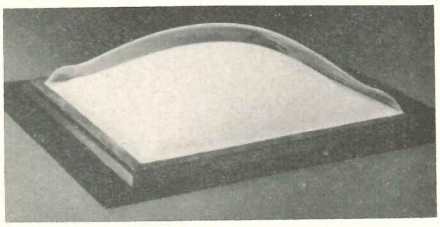
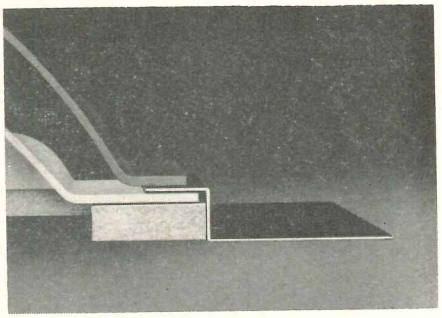
TRADEMARK

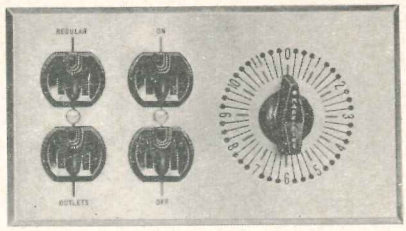
Product Reports

continued from page 174





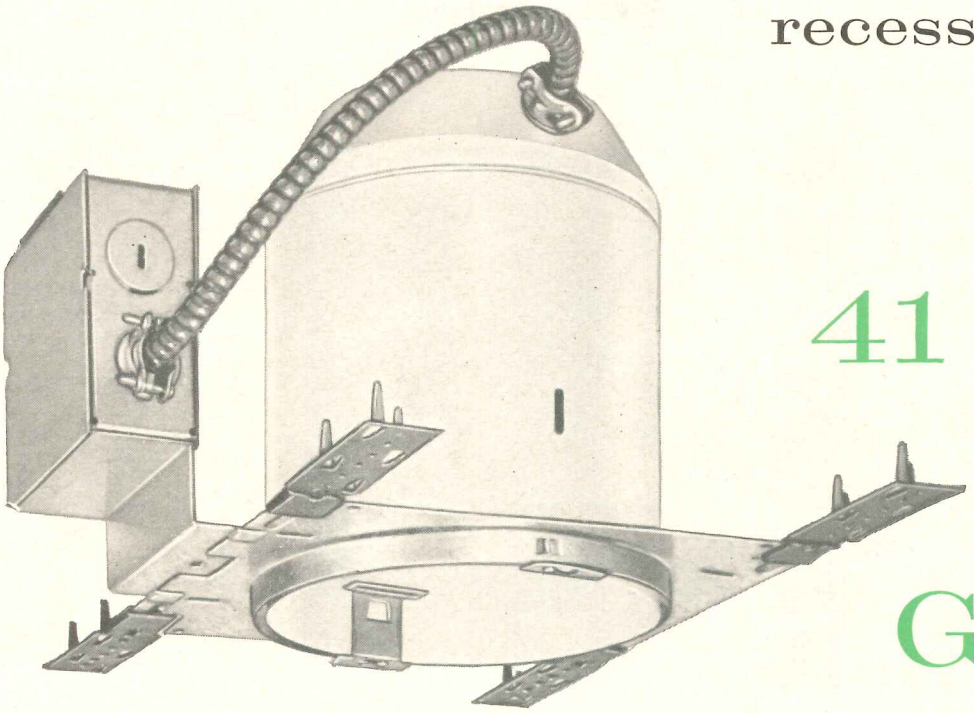
Self-Flashing Skydomes
Wasco Products has announced a prefabricated acrylic skylight that is designed as a completely sealed, insulated, and self-flashing unit which can be nailed directly to the roof deck. The skylight is composed of two acrylic domes, which can be either translucent or transparent, with a one in. dead air space between. The domes and an aluminum nailing flange are held together by a chemical sealant which it is claimed will produce a permanent trouble-free installation in any climate. *Wasco Products Inc., Bay State Road, Cambridge 38, Mass.*



Appliance Timer
An automatic appliance timer that fits into a standard 4-gang box is manufactured by M. H. Rhodes, Inc. under the name of "Appliance Minder". The unit turns appliances on or off within a twelve hour period. *M. H. Rhodes, Inc., Hartford, Conn.*

more products on page 190

New MOE LIGHT round recessed housing



PREWIRED NO. M-6000.
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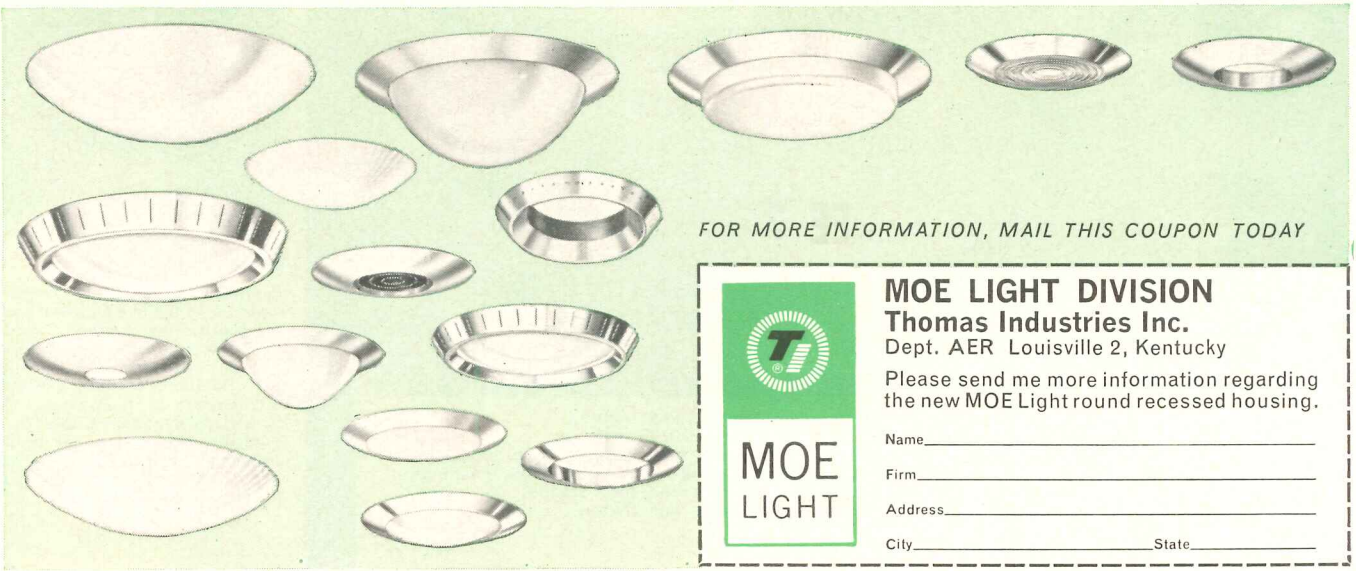
FITS 41 TRIM AND GLASS VARIATIONS

What could be simpler? When you use the new MOE Light round recessed housing in your lighting installation, you simply adjust the socket for the desired lamp position and the new housing is ready to fit any of 41 trim and glass combinations.

Trims and glass are interchangeable which means you can change a lighting effect quickly at little cost and with no structural or wiring changes.

The new MOE Light round recessed housing comes prewired or unwired. It is easy to mount, remove, or adjust, and light output can be varied by adjusting reflector and socket. Snap-open covers on both sides of outlet box permit fast wiring and inspection of pre-wired housing.

And just look at the choice of trim and glass styles!



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Thomas Industries Inc.
Dept. AER Louisville 2, Kentucky

Please send me more information regarding the new MOE Light round recessed housing.

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MOE LIGHT

Electrical construction meets schedule; occupancy rate beats schedule

WASHINGTON BUILDING, SEATTLE

Smooth progression of its electrical system construction and smooth operation since have played an important part in the successful debut of the Washington Building, Seattle, Washington.

The 22-story office building was constructed in the downtown area by University Properties, Inc., at a cost of $10,000,000. Its rate of occupancy—75% in the first nine months—is almost double the normal rate for a building of comparable size.

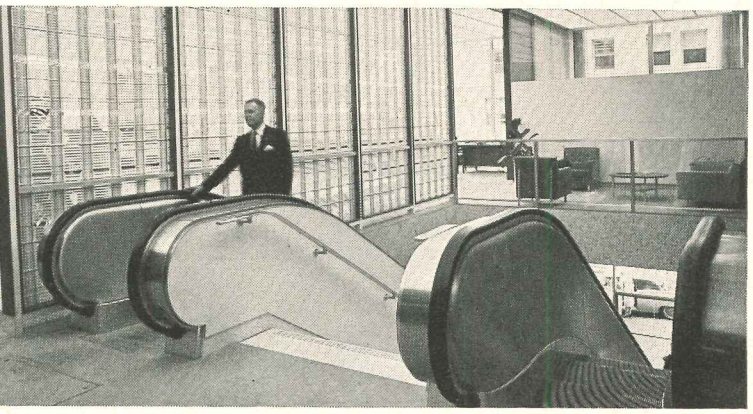
Happy to have had a part in this success story, Westinghouse supplied all the electrical distribution system components as well as the elevators and electric stairways. The building is capable of carrying 10 watts per square foot, and utilizes an electrical system that is geared to serve projected requirements foreseeable to the year 2000.

Westinghouse manufactures the broadest line of electrical-mechanical products for the construction industry. Put this completeness of product line and engineering experience to work in your new construction or building modernization. *You can be sure . . . if it's Westinghouse.* J-94169

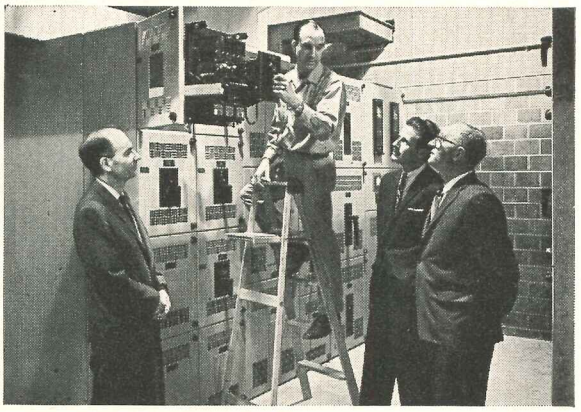
Owner: University Properties, Inc., Seattle, Washington.
Architect: Naramore, Bain, Brady & Johanson, Seattle.
Consulting Engineers: Bouillon, Griffith, Christofferson & Schairer, Seattle.
General Contractor: Johnson, Morrison–Knudson Co., Bellevue, Washington.
Electrical Contractor: Industrial Electric–Seattle, Inc., Seattle.
Westinghouse Distributor: WESCO–Seattle, Washington.

Fast, automatic, reliable elevator service is essential in procuring and retaining top quality tenants. Seen here in the high rise bank in the Washington Building lobby are: H. T. Griffith, partner, Bouillon, Griffith, Christofferson & Schairer; J. M. Ryan, President of University Properties; and W. J. Bain, partner, Naramore, Bain, Brady & Johanson. Traffic Sentinel® door control automatically holds doors open as passengers enter or leave.

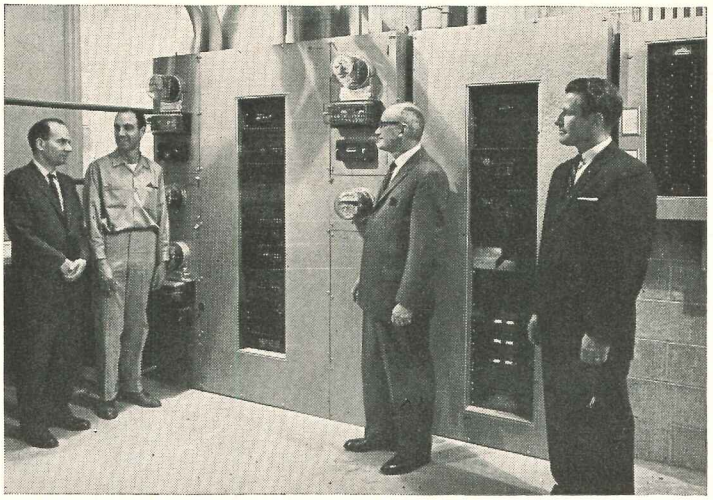
Co-ordinated planning led to an efficient, trouble-free electrical system; programmed deliveries met construction schedules, kept the building progress on time electrically. Seen around the conference table are: R. T. Killen, Area Manager, and W. E. Lee, Westinghouse Sales Engineer; Howard E. Bayley, Vice President, Industrial Electric–Seattle, Inc.; A. J. Flechsig, WESCO Sales Manager; and R. J. Fargo, Electrical Engineer, Bouillon, Griffith, Christofferson & Schairer.



ectric Stairways serve the Metropolitan Branch of the Pacific National Bank of eattle, enabling this tenant to take advantage of second floor rent and still maintain asy access from the street and high traffic position. John Ford, Westinghouse Elevator Division, rides fast, modern stairway, capable of carrying 5,000 persons per our. New Saf-T-Step design provides a positive demarcation strip, clearly denoting tep tread area to boarding passengers.



Low voltage switchgear fed by 4000 ampere ventilated low impedance bus duct distributes incoming power at 277/480V wye. Circuit breakers on this board are type DBL which combine famed Westinghouse De-ion® breaker design with current limiting fuses. Breakers protect against normal overloads and short circuits, and series fuses guard against high fault available in the spot network system. George Walter, on ladder, shows a DBL-25 drawout breaker to R. J. Fargo, R. C. Mitchell and A. G. Schille, Vice Pres., University Properties.



Westinghouse building type switchboards using panel construction form the core of the building's distribution system. Shops and ground floor offices are separately metered here. NH1B lighting panelboards contain De-ion® circuit breakers for long, trouble-free life. Discussing the installation are: R. J. Fargo, Consulting Engineer, G. E. Walter, Job Supervisor for Industrial Electric-Seattle, Inc., A. C. Meckling, Panelboard Specialist and R. C. Mitchell, WESCO.

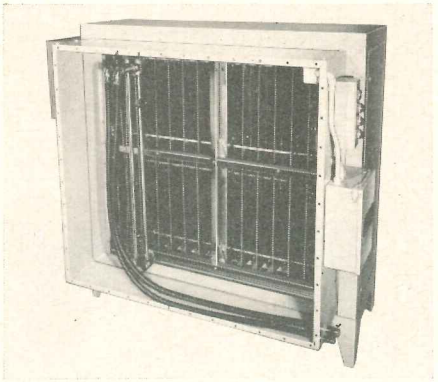
J-94169

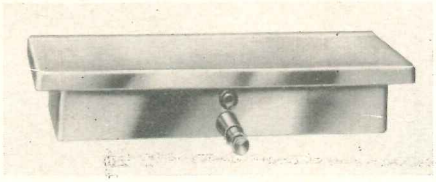
Westinghouse

Product Reports

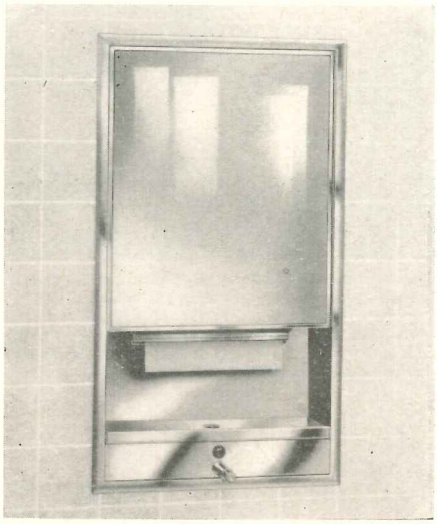
continued from page 186

High Velocity Air Cleaner
A new, self-contained high velocity electrostatic precipitator has been introduced by the American Air Filter Co. Called the Type HVSC Electro-Cell air filter, it is designed for use in inaccessible areas and with air handling units. It incorporates front and back duct connections, drain pan and pre-assembled washing and oiling mechanism; and is available for either floor or ceiling mounting. 24 sizes are manufactured, ranging from 1,000 to 25,000 cfm. *American Air Filter Co., Inc., 215 Central Ave., Louisville 8, Kentucky.*





Soap Dispensers
Bobrick Dispensers is now offering a series of stainless steel soap dispensers and other washroom equipment in simplified and well-thought out designs. Shown are a combination shelf and soap dispenser and a recessed cabinet incorporating a paper towel dispenser, mirror, soap dispenser, and shelf. *Bobrick Dispensers, Inc., 1839 Blake Ave., Los Angeles 39, California*



Files for Drawings
An open-type steel filing cabinet for drawings, blueprints and maps has been added to the line of the Dancer Stikfile Co. Called the Stikfile model OC-2224, the cabinet comes with 22 binders, that accommodate prints 24 in. by 36 in. The binders hold up to 75 prints each, making a total possible capacity of 1650 prints. The cabinet is 36 in. wide by 42 in. high by 26 in. deep. It is constructed of heavy gauge furniture steel and is available in gray, brown, beige, and green. *Dancer Stikfile Co., P.O. Box 10221, Houston 18, Texas*

SPACE SAVING

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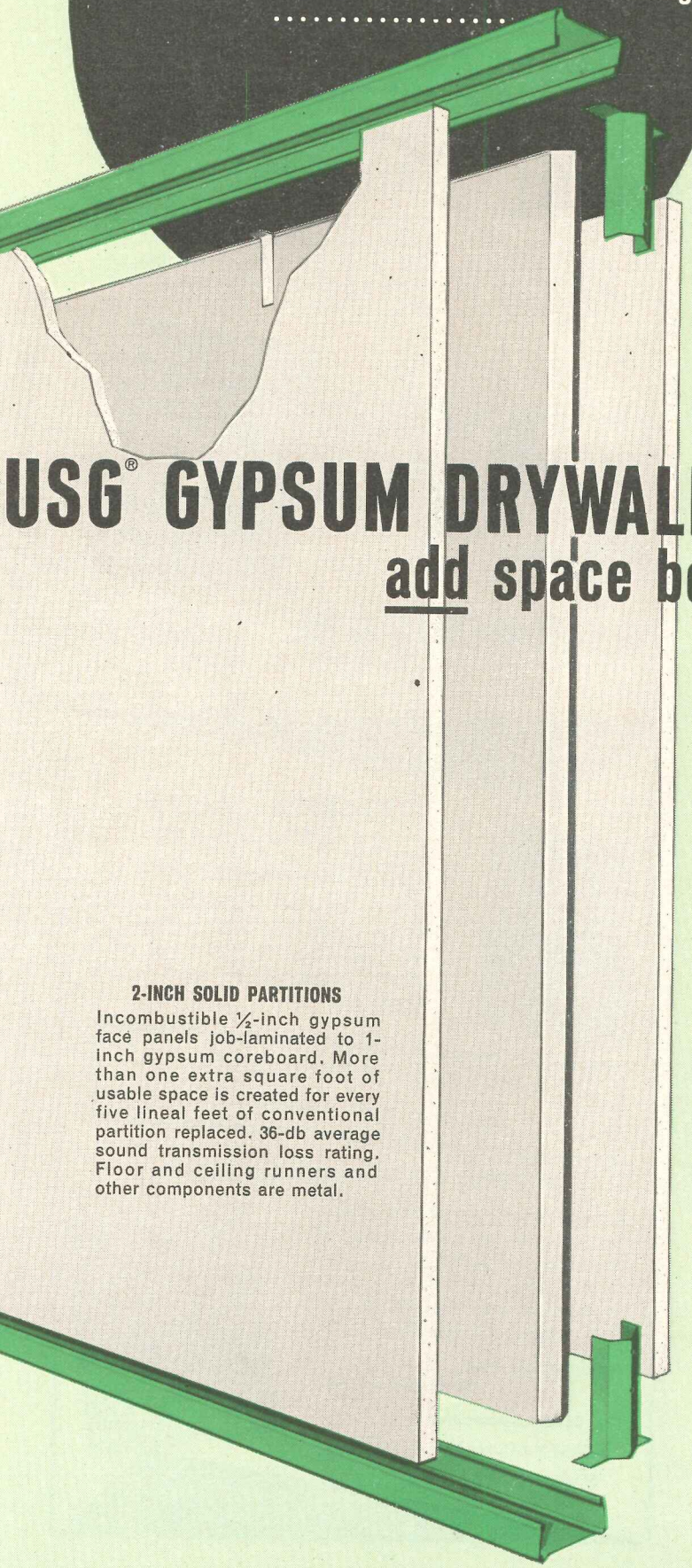
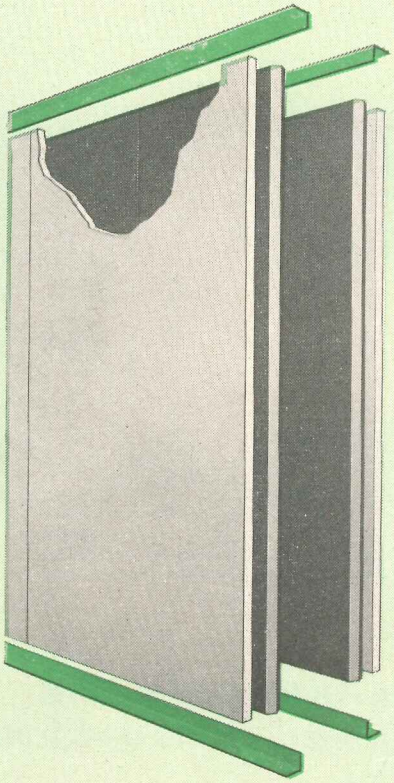
Up to 46-db sound transmission loss rating





DOUBLE-SOLID PARTITIONS
A double row of 1-inch gypsum coreboard spaced apart to accommodate all types of mechanical installations; ½-inch gypsum wallboard face layers laminated to each coreboard outer surface. Two-hour fire rating, 46-db average sound transmission loss rating.

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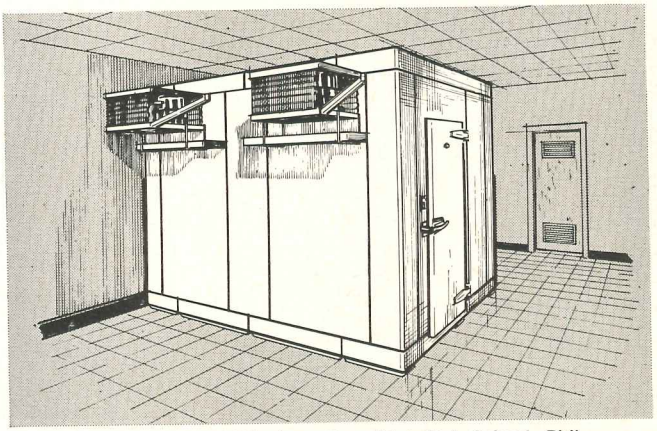

Installation in Phillipsburg Parochial High School, Phillipsburg, N. J. Specifications prepared by Alfred Clauss, Architect, 114 West 8th Street, Trenton, New Jersey.

Bally pre-fab walk-ins

all-metal coolers and freezers

Sectional construction! Expandable any time! Costs less than built-ins!*

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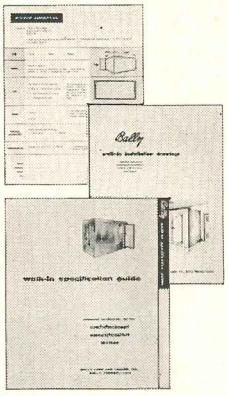
Free architect's fact file...

Includes guide for specification writers . . . 16-page Walk-In book . . . portfolio of 48 installation drawings and specifications. Also included is a Walk-In description form to request plans and specifications from Bally engineers for individual installations. **Write on your company letterhead.**



See Sweet's File section 26a/Ba.

*Based on cost scales in Metropolitan areas.

Bally

Bally Case and Cooler, Inc.
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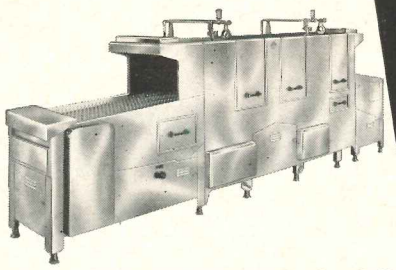
for commercial dishwashers, food mixers and peelers . . .

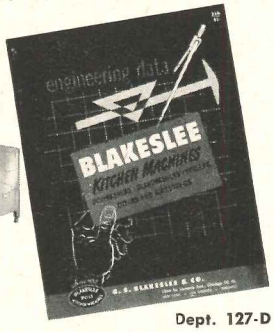
Specify the best... BLAKESLEE

26b BL (S)

in the 1961 Sweet's Architectural File

For fast, one source specifications on kitchen equipment for preparing food and washing the dishes for fifty to thousands of people per meal, look first to Blakeslee in Sweet's.





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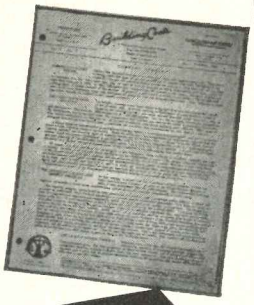

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This new, plastic enclosed, single-lamp Visionaire® forms a matching complement to the 2 and 4-lamp #7400 **STARAMA** series. Now architects, engineers and building owners can plan a unified lighting system from narrow corridors to large spaces with fixtures of the same style and lighting characteristics.

The single-lamp **STARAMA** is also available with clear SUNLUX® lens and translucent OPALUX diffusing panels. These are of polystyrene, formulated for longer-lasting resistance to discoloration. Translucent plastic sides are interlocked with the bottom panels forming a light-weight enclosure. Sturdily framed in metal, the diffusers open from either side. The advantages of easy installation add to the **STARAMA** flexibility . . . now with 1, 2 or 4 lamps.

Write for bulletin A84-11

SUNBEAM LIGHTING COMPANY, LOS ANGELES, CALIFORNIA | GARY, INDIANA

Speaking of Architecture

continued from page 10

walls. You'd think they'd look like power stations, but they don't.

Would you say that this new approach sought to compensate for a previous over-use of the drawing board?
The Miesian techniques that are applied represent the skin and not the bones. The basic qualities of Mies have not been fully imitated. The column in the Seagram Building, the rhythm of the bays, is what gives the building its strength. To see this you have only to look at buildings where a Miesian skin has been fitted to an alien column spacing.

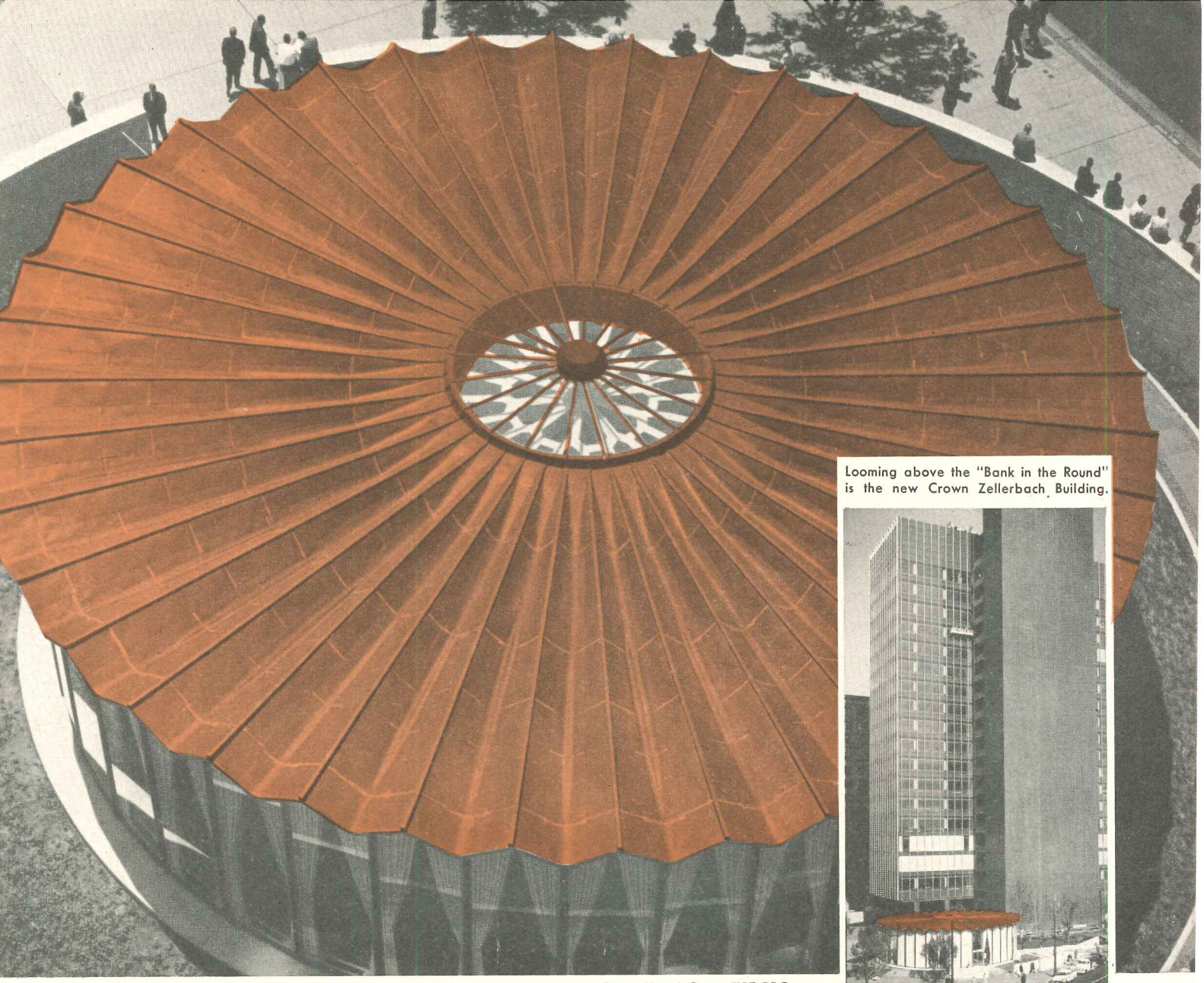
Do you think that, by and large, the architectural schools do a good job in preparing for entrance into the profession?
I think that the schools are doing as good a job as they can. There are problems to running a school in a high prosperity time. I sympathize with Rudolph and Grossi and the others; it is hard to keep a good faculty together when everyone is so busy. Even within the schools the pace is too hectic. I think the sense of pressure in the schools today is a terrible thing.

But was it really easier to teach during the depression?
I think so. The spirit was different. However, I wouldn't characterize that time as the good old days. I think that the narrow functionalism that we learned was bad. We learned minimums, we learned plumbing stacks; and the things we learn in our twenties are very hard to forget. I think Philip Johnson has done important work in reminding us that a building can also be sculpture.

What do you feel is architecture's relationship to the other arts?
I think there are two possible approaches to the other arts: that of the master designer and that of the museum director. I think the time is coming when people will cease to design the way The Four Seasons is designed, where all the art exists independently in space. There is something timid about furnishing a bank as if it were the Museum of Modern Art. The painting and sculpture should be an *extension* of the architecture as in the past. Only then will you have a real sense of continuity.

Then I imagine you have fairly definite ideas about how large an architect's office should be.
Obviously I'm for the small office. Buildings can be designed in only one way, by a small team with a strong leader, whether it is done in a corner of Skidmore, Owings and Merrill, or in a corner in New Canaan.

What happens to the small office when it begins to receive more commissions than it can handle?
One choice is to start enlarging the office and delegating design until you are left in the position of a broker. To me this is the worst possible thing that can happen to the architect. The alternative is not to take on too much work. I think buildings today are produced in an absolutely inhuman way. It has become a luxury that you dream of, to have all the time that you need to design a building.



Looming above the "Bank in the Round" is the new Crown Zellerbach Building.

Architect: SKIDMORE, OWINGS & MERRILL: Gen. Cont.: HAAS and HAYNIE: Sheet Metal Cont.: FIRE PROTECTION PRODUCTS. Revere Distributor: PACIFIC METALS COMPANY, LTD. All of San Francisco, California.

"Bank in the Round" a striking example of the great freedom in design that is possible with

REVERE COPPER

The "pleated" roof on the new Wells Fargo Bank American Trust Company building in San Francisco, Calif., is the result of an unusual design problem faced by the architects.

When they designed this ultra modern "Bank in the Round" they knew that many people would be looking down on it from the adjoining skyscraper in addition to those viewing it from the street level. The roof, therefore, could not be an ordinary one. Nor could the bank have a rectangular profile and still stand out against the tall building next to it.

The solution was the "pleated" roof you see above. It contains 12,000 lbs. of 16 oz. cold rolled Revere Copper, in 36" x 96" and 36" x 120" sheets. Copper was chosen to achieve this unusual roof because of its virtually unlimited flexibility in design, its eye-catching appearance (which takes on a striking patina as it ages) and its ease of workability into any desired shape or form.

This is another example of how the architect can dare to be different with copper because copper is so cooperative with his ideas, giving him practically unlimited freedom of design. A good reason to design your present and future structures with Revere Copper in mind.

REVERE
COPPER AND BRASS INCORPORATED
Founded by Paul Revere in 1801
230 Park Avenue, New York 17, N. Y.
Mills: Rome, N.Y.; Baltimore, Md.; Chicago and Clinton, Ill.; Detroit, Mich.; Los Angeles, Riverside and Santa Ana, Calif.; New Bedford and Plymouth, Mass.; Brooklyn, N.Y.; Newport, Ark.; Ft. Calhoun, Neb. Sales Offices in Principal Cities.
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Hamilton and Graham, *architects*
Glaser and Glaser, Inc., *building contractor*
Hedrich-Blessing, *photographer*

"OVERHEAD DOOR" opens a new door to space control

Doors permit maximum use of space . . . inside, and outside

"OVERHEAD DOORS" make the most of space by making it *accessible*. They are virtually *movable walls* that can open the front, back, and sides of a structure – multiply the use of both the building and the land around it.

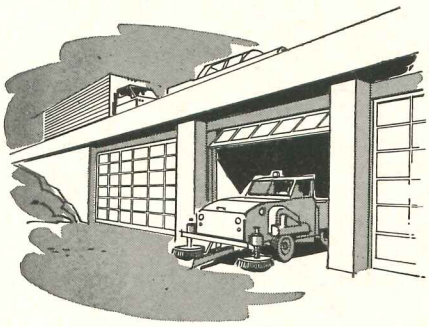
As exits, "OVERHEAD DOORS" can make every part of the lot immediately accessible from the building, allow more design freedom in placing the building on the lot, and permit full development even of a poorly shaped lot. *As entrances*, "OVERHEAD DOORS" supply light and ventilation, as well as access to the inside, making the structure more useful, more adaptable for additional functions. *As movable partitions*, "OVERHEAD DOORS" instantly divide or enlarge rooms to fit varying interior space requirements.

A typical space control application is in the Muncie, Indiana, fire station shown at left. "OVERHEAD DOORS" in the front and back of the building provide access to a paved area in the rear, which is used to turn, park, and service the fire engines and other vehicles. In other buildings, this ready access, plus the admission of light and air, can give space valuable extra usability.

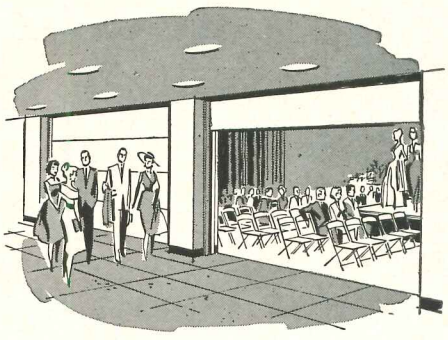
Many other new ideas in space control have been developed and tested by Overhead Door Corporation engineers – ideas that result from this company's 40 years of experience in the garage door field.

Get detailed information from your local distributor (see "OVERHEAD DOOR" in the white pages) for an application you may now be planning, or write to Overhead Door Corporation. *General Office:* Hartford City, Indiana. *Manufacturing Distributors:* Dallas, Tex.; Portland, Ore.; Cortland, N.Y.; Hillside, N.J.; Lewiston, Pa.; Nashua, N.H. *In Canada:* Oakville, Ont.

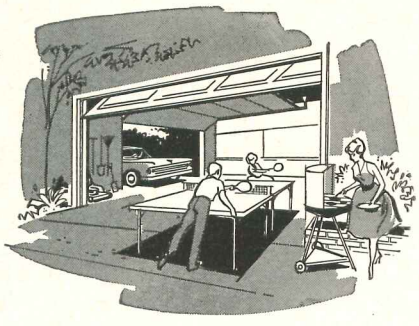
To solve many space control problems—



Viaduct garage. "OVERHEAD DOORS" help make more efficient use of space by providing *enclosure* as well as *access*. For example, the addition of doors and block walls can convert unused space beneath a bridge or viaduct into an inexpensive garage for public vehicles.



Movable partitions. Interior "OVERHEAD DOORS" can be used to convert small rooms quickly into a large auditorium area—and back again. Special flush panel doors that rise into a false ceiling are available with hinges, struts, and jambs concealed.



Convertible-garage-room. An extra "OVERHEAD DOOR" in the back or side wall of a residential garage supplies light and ventilation to make the space livable. With the car removed, the garage quickly becomes a warm-weather workshop, play pavilion, or covered patio.

THE "OVERHEAD DOOR" TRADE MARK

the original upward-acting sectional door . . . made only by

OVERHEAD DOOR CORPORATION

Lighting Fixtures: Smoot-Holman Company, Inglewood, California
Location: Southern California Edison Co. Office at Ontario, California

CUSTOMIZED LIGHTING... A SINKO "THIN-CELL" SPECIALTY

A Sinko THIN-CELL Louver for special light transmission (80%) was created and molded for Smoot-Holman to be used in an unusual application of reflecting light. This new lighting system employs the use of Sinko's THIN-CELL Louvers between Smoot-Holman's "Perfect Vision"® luminaires forming a ceiling of light.

The fixtures and louvers were suspended from the original ceiling using 18" stem hangers. This type of lighting installation hides any imperfections and need for refinishing or replacing the present ceiling, and at the same time enhances the appearance and visual comfort.

If you have an unusual lighting problem, consult Sinko's Engineering Department, because their know-how and molding ability, along with their close affiliation with the fluorescent lighting industry, have the facilities to do the job for you.

SINKO "THIN-CELL" louvers

SINKO MANUFACTURING & TOOL CO.
7310 W. Wilson Avenue • Chicago 31, Illinois

In Canada: Sinko Manufacturing & Tool Co. of Canada, Ltd.
3550 Frobisher Street, Montreal, Quebec

6159

Name a room, select a decorating scheme— there's a Marlite Paneling just right for the job!

Rich, warm Trendwood® grains for the family room . . . gay decorator patterns for the recreation room . . . subtle pastel colors for the kitchen . . . distinctive marble patterns for the bath. You'll find them all in the complete Marlite line styled by American Color Trends.

Moreover, Marlite is ready to install without painting or further protection. And unlike many "finished" materials, Marlite shrugs off grease, stains, mars—even heat! Extremely resistant to denting and wear, this remarkable paneling stays like new for years with an occasional damp cloth wiping.

Marlite's ease of installation over old or new walls helps you meet completion dates as promised; cuts your "in place" costs. Get complete details from your building materials dealer, consult Sweet's File, or write Marlite Division of Masonite Corporation, Dept. 805, Dover, Ohio.

Marlite® plastic-finished paneling

MARLITE IS ANOTHER QUALITY PRODUCT OF MASONITE® RESEARCH

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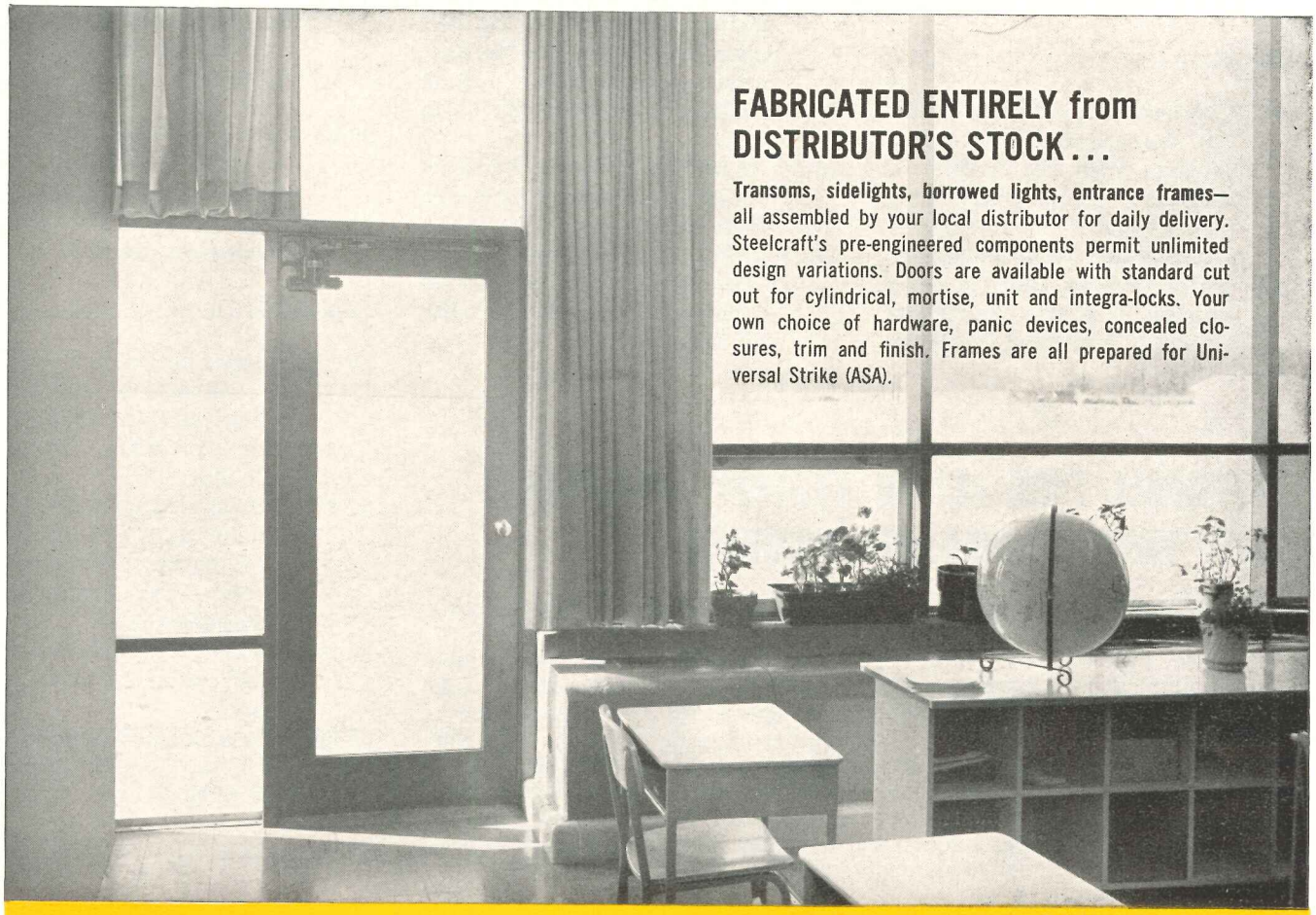

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Transoms, sidelights, borrowed lights, entrance frames—all assembled by your local distributor for daily delivery. Steelcraft's pre-engineered components permit unlimited design variations. Doors are available with standard cut out for cylindrical, mortise, unit and integra-locks. Your own choice of hardware, panic devices, concealed closures, trim and finish. Frames are all prepared for Universal Strike (ASA).

Fredericktown Elementary School,
Fredericktown, Ohio
Architects: Joseph Baker and Associates,
Newark, Ohio

STEELCRAFT standard METAL DOORS and FRAMES

Over 4,000 door types, styles and sizes ...over 7,000 frame variations

STEEL Craft METAL DOORS AND FRAMES

Now you can have complete versatility in standard metal doors . . . and frame variety to match. Rugged, handsome doors—flush, exceptionally sound deadened, and with "billiard table" flatness due to their unique *Honeycomb* core that tests prove to be superior to girder type construction. Quality at low cost, too—for Steelcraft's standardization and modern-flow assembly make possible passed-on production economies. *Get the full story today on why more and more architects specify Steelcraft. Valuable brochure on request.*

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On the Calendar

August

10-13 National convention, Catholic Art Association, held in conjunction with the Architects' Seminar; theme: "Achieving Sacred Space"—University of Notre Dame, South Bend, Ind.

13-18 Third seminar (final of three in areas of atomic shelter and survival) sponsored by Pennsylvania State University; theme: "Survival in the Nuclear Age—Executive Management"—Pennsylvania State University, University Park, Pa.

16-17 Australian Building Research Congress—Monash University, Victoria

17-19 Third annual convention, Society of American Registered Architects—Conrad-Hilton Hotel, Chicago

21-31 United Nations Conference on New Sources of Energy; aim: to study new ways of harnessing age-old energy sources—Rome

26-29 Fourth national conference, American Craftsmen's Council; theme: "Creative Research in the Crafts"—University of Washington, Seattle

September

10-15 Engineering seminar on Structural Aspects of Architectural Engineering—Pennsylvania State University, University Park, Pa.

24-28 63rd annual conference, American Institute of Park Executives; theme: "Parks and Recreation—The Years Ahead"—Rochester, N.Y.

25-28 Fall meeting, American Welding Society—Adolphus Hotel, Dallas

25-28 Industrial Building Exposition and Congress—The Coliseum, New York

October

1-6 43rd National Recreation Congress, sponsored by the American Recreation Society and the National Recreation Association; cooperating agencies: Detroit Dept. of Parks and Recreation, Recreation Association of Michigan, Federation of National Professional Organizations for Recreation; theme: "Recreation in a Mobile America"—Cobo Hall, Detroit

5-8 Annual meeting, American Society of Industrial Designers; theme: "Design Explorations"—Santa Catalina Island, Calif.

6-15 Second Annual Decorating Show, "Decoration & Design 1962", sponsored by the Resources Council of the American Institute of Interior Designers and the New York Chapter of the A.I.D. and the *New York Herald Tribune*—Seventh Regiment Armory, New York City

7-10 Western Building Industries Exposition, sponsored by Associations of the Western Building Industries Council—Great Western Exhibit Center, Los Angeles

10-13 1961 National Planning Con-

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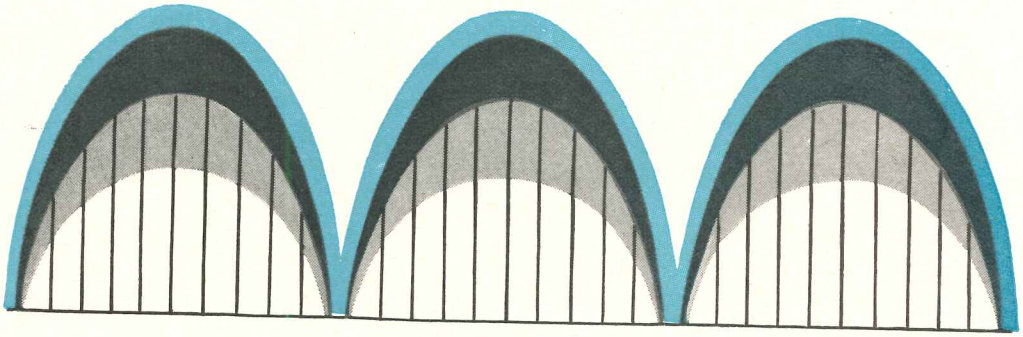
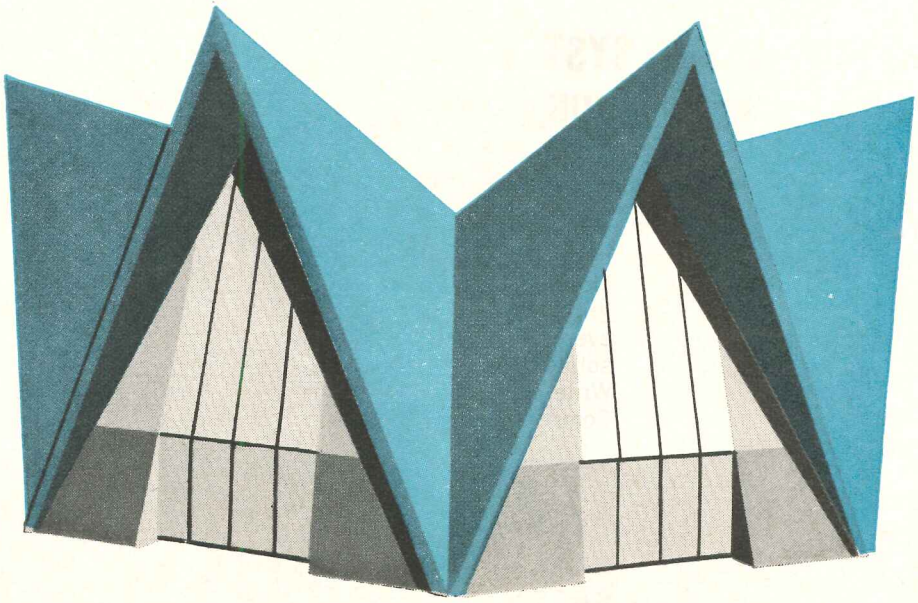


Bold new dimension in roof design:



NEOPRENE-HYPALON® ROOFING SYSTEMS

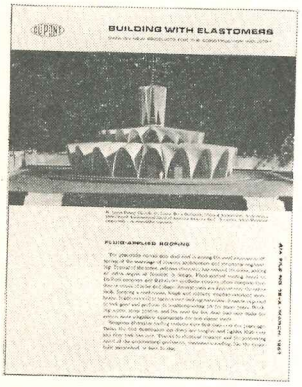
Daring innovations such as these . . . dramatic, exciting, unfettered by convention . . . are as *practical* today as they are beautiful. One reason: fluid-applied roofing based on Du Pont neoprene and HYPALON synthetic rubbers.

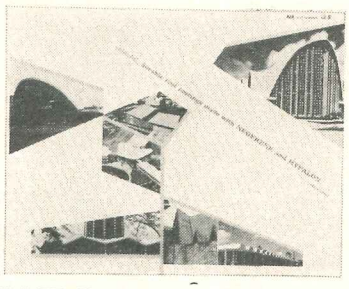
No longer need the limitations of conventional roofing materials be a barrier to fresh, original design. Neoprene-HYPALON roofing systems are ideal for difficult shapes, pitches, contours. Easily applied over most substrates, they cure quickly to flexible, tough, weathertight films with excellent resistance to heat and cold, sunlight, ozone, abrasion, oils, chemicals and flame.

As a roofing system, neoprene affords low-cost film build-up; HYPALON, a wide choice of stable, attractive topcoat colors. Moreover, either can be used alone. Although Du Pont produces only the synthetic rubbers—neoprene and HYPALON—that make this new roofing system possible, we'd like to spark your imagination further with the booklets shown here. To receive them, just write: E. I. du Pont de Nemours & Co. (Inc.), Elastomer Chemicals Department AR-8, Wilmington 98, Delaware.

• **Building with Elastomers** Quarterly publication packed with data on specific design and construction applications using Du Pont synthetic rubbers. Begin your subscription with this first issue devoted to fluid-applied roofing.

• **Colorful, Durable Roof Coatings Made with Neoprene and HYPALON** Complete details on performance, properties, and advantages of these new roofing materials. Excellent reference booklet. Yours for the asking!





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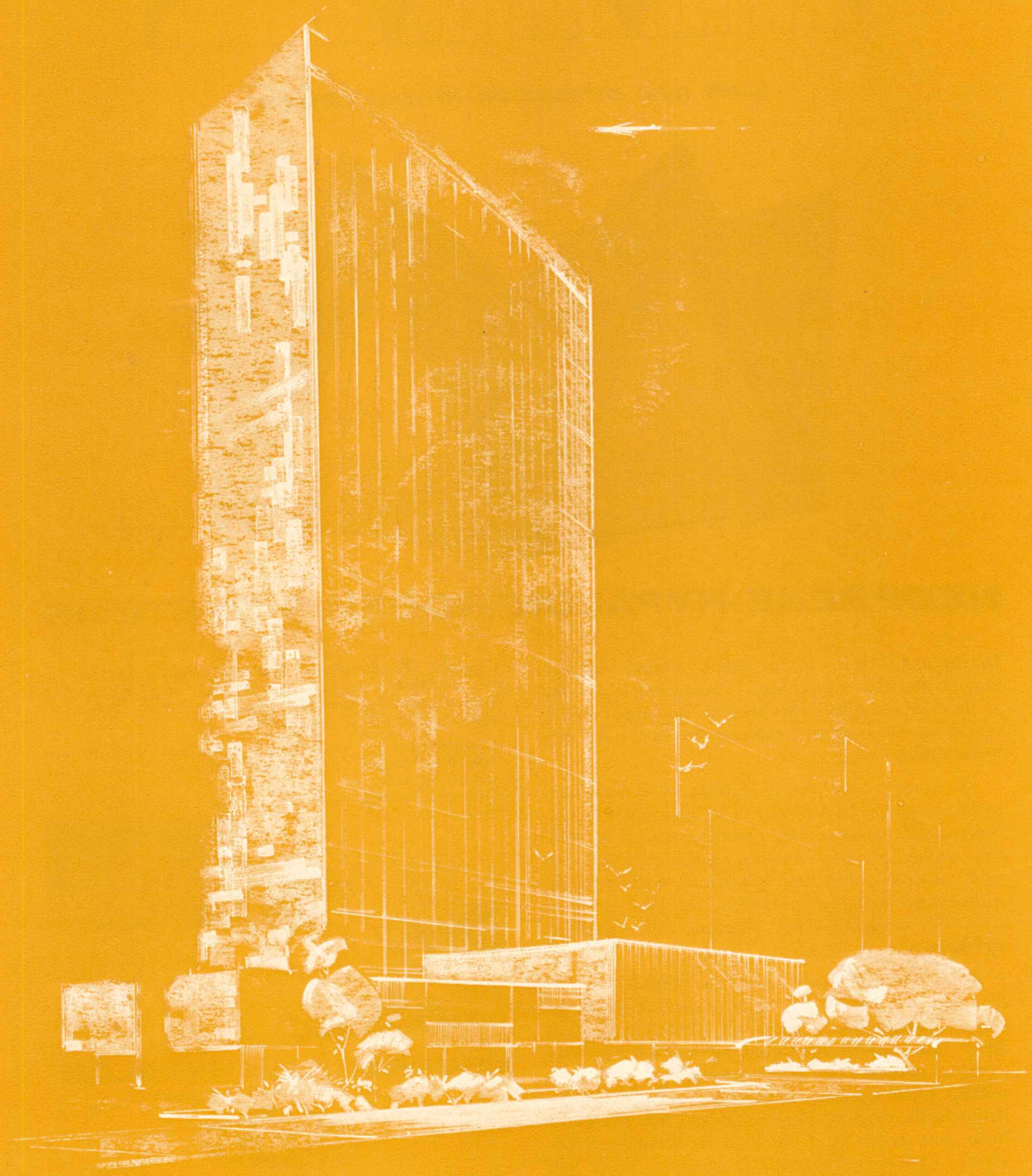

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The broad range of T&B air distribution devices and accessory equipment for heating, cooling and ventilating answers every requirement of the architect, engineer and client. As the largest full-line manufacturer, T&B offers the precise piece of equipment for each job . . . setting the highest standards of appearance and performance.

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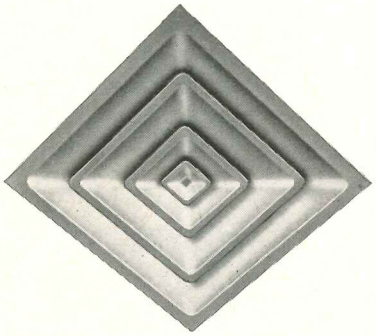
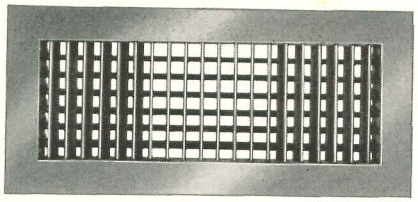
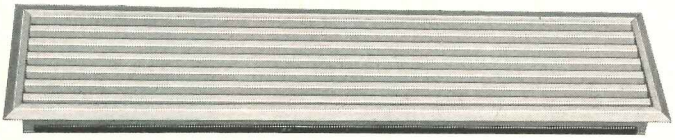
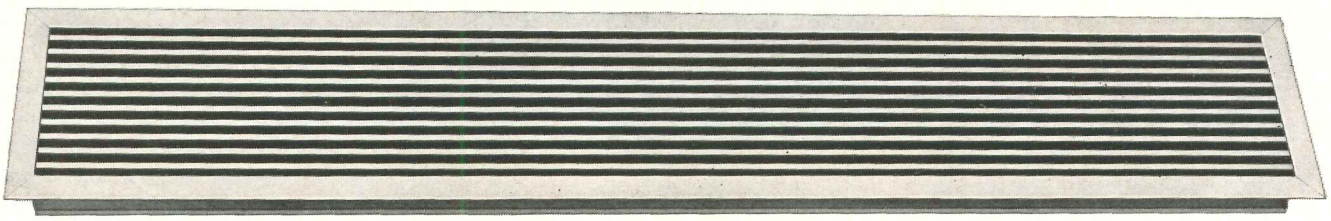
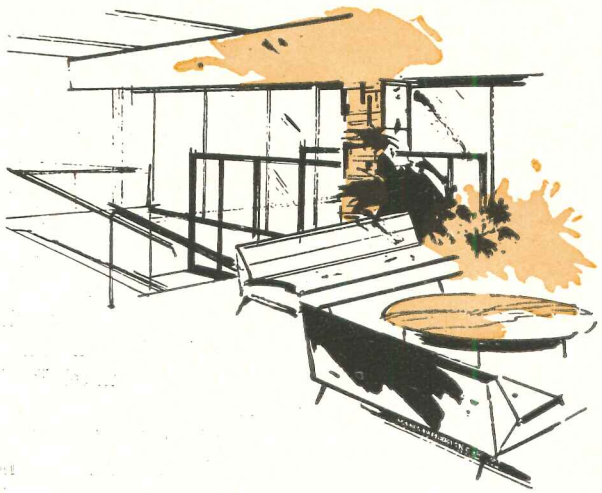
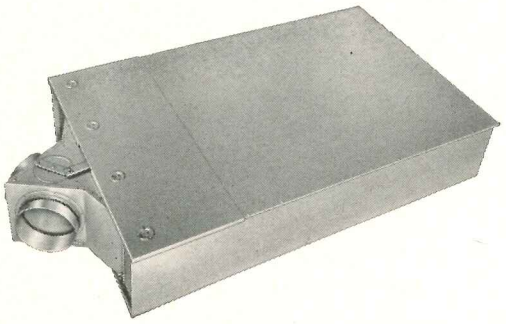












TUTTLE & BAILEY

Division of Allied Thermal Corporation
New Britain, Connecticut

Tuttle & Bailey Pacific, Inc., City of Industry, Calif.

continued from page 202

ference, Community Planning Association of Canada; theme: "Regional Planning"—Nova Scotian Hotel, Halifax

12-16 Annual conference, National Trust for Historic Preservation—Waldorf-Astoria Hotel, New York City

15-19 1961 convention, Prestressed Concrete Institute; theme: "New Opportunities in Structural Design"—Cosmopolitan, Brown Palace hotels, Denver

16-20 1961 National Safety Congress, annual convention of the National Safety Council—Chicago

23-27 National Metal Exposition—Detroit

Office Notes

Offices Opened

Lun Chan and Morton Rader have opened a new office at 11 Tillman Place, San Francisco under the firm name of Chan/Rader and Associates, Architects and Planning Consultants.

James A. Wares, chief architect for Marshall Field and Company in Chicago for more than 22 years, has opened an office in the Broadmoor Center Bldg. in Tucson, Ariz. for the practice of architecture and to provide a consultation service in shopping center development, store planning and merchandise engineering.

New Firms, Firm Changes

Denis C. Schmiedeke and Bradley Ray Storrer have formed the firm of Schmiedeke & Storrer, Architects' for the comprehensive practice of architecture, planning, interior and industrial design. The firm is located at 1800 Grindley Park, Dearborn, Mich.

The New York firm of Benjamin & Flack, Consulting Engineers, announce the appointment of Benjamin Silverstein, P.E., as chief mechanical engineer.

A new partnership has been formed by Jack M. Levin & Associates and Ezra Gordon under the name of Ezra Gordon-Jack M. Levin & Associates, Architects. New offices are at 64 E. Jackson Blvd., Chicago 4.

Eugene L. Staton, structural engineer, has become a partner in the firm of Mott, Mobley & Horstman, Architects, 229 Merchants Bank Building, Fort Smith, Ark. The new firm name is Mott, Mobley, Horstman & Staton, Architects-Engineer.

D. A. Bohlen & Son and Burns & Burns announce the consolidation of offices for the practice of architecture under the name of Bohlen & Burns, Architects & Engineers. The address is 1308 North Meridian St., Indianapolis 2, Ind.

The partnership of Walter H. Sobel and J. Stewart Stein has been dissolved, and the firm name has been changed to Walter H. Sobel, A.I.A. and Associates. Armando F. Armijo has been appointed associate in charge of design and planning.

George Fuchs has been named chief engineer of the Manhattan-Jamaica architectural firm of Samuel Paul & Seymour Jarmul.

Sigmund F. Blum, head of the department of design of Smith, Hinchman and Grylls Associates, Inc., De-

continued on page 210

Another Amerada product serving the architect—and his clients' best interests!

How a new self-shading glass adds a dramatic new concept in design while answering an age-old need for reducing maintenance costs!

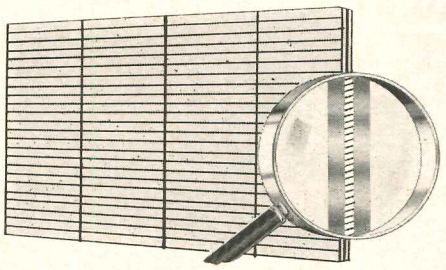
new Comfor-Lite* by amerada

never-ending problem of solar heat and e has been dramatically and ironically ed by glass itself—unique, self-shading nfor-Lite by Amerada.

single glazing unit featuring a louvered en sealed between two panes of glass, nfor-Lite provides an 89% shading effi-cy yet allows 84% outward visibility. implications of this revolutionary self-ing method are clearly momentous:

inal design latitude. Comfor-Lite frees architect from the design strait-jacket osed by the need for expensive, permanent ior shading devices. No longer must hangs or extension-type screens influence contour of any structure. Comfor-Lite its own harmonious design element with-disturbing the flush, uniform appearance ften desired in today's architecture.

ntenance savings. Comfor-Lite eliminates necessity for any interior shading device tsoever. Gone is the heavy initial expense apes, blinds, shades. Gone too, of course, e overhead involved in their constant ep. With no exterior sun shades to require y, time-consuming cleaning, your client's tenance outlay in this area is reduced to



the cost of standard window cleaning. Moreover, rugs and upholstery are completely protected from fading due to sun-scorch.

Air conditioning savings. Because Comfor-Lite so effectively shuts out heat-carrying glare, interiors are kept up to 15° cooler in summer. Air conditioning tonnage requirements are thereby minimized, introducing economies in both initial and operating costs of the central plant.

Personal comfort. Comfor-Lite's filtering of the sun's direct rays pays highly desirable dividends in improved lighting, less eyestrain and relaxing glare-free atmosphere for occupants. Clear, unobstructed outward visibility is assured since the thousands of minute louvers inside Comfor-Lite are virtually unnoticeable and remain permanently stationary.

Client appeal. In specifying extraordinary new Comfor-Lite as your visual element, you provide your client with a saleable feature to materially influence rental decisions, help speed removal of "Space Available" signs. And by economizing in the area of shading expense, you often free funds for more thorough design treatment elsewhere in the project. In those projects where budgetary considerations prohibit overall use of unconventional glass, Amerada suggests specification of Comfor-Lite on the sun-side only, where its peak effectiveness and economy are realized.

Comfor-Lite in a choice of 17 or 23 louvers-to-the-inch spacing is available at leading glass distributor outlets. Comfor-Lite's built-in screen is featured in your choice of 12 distinctive architectural colors (Glacier White, Ghost Gray, Regal Red, Sherwood Green, Pacific Blue, Salmon, Shoreline Blue, Gulf Green, Antique Gold, Tawny Beige, Canary Yellow, Midnite Black) or in a blend of your own specification.

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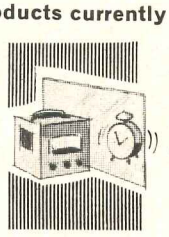
Greyed laminated safety glass provides cool, restful, glare-free environment, reduces solar energy 30-40% more than clear glass.



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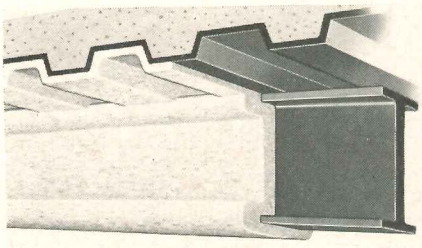
Mono-Kote sprays on, sets firm, dries fast and fissure-free. It bonds to steel at over 500 psf., withstands temperature and humidity changes.



Investigate the high fire resistance and the economy of Mono-Kote. Write:

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COMPANY
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from left to right:

TEXACO OFFICE BUILDING

Architect
Welton Becket & Associates, Architects and Engineers

General Contractor
Del E. Webb Construction Co.

Plastering Contractor
George M. Raymond Co.

Material used:
Zonolite Acoustical Plastic and Zonolite Plaster fireproofing

IBM OFFICE BUILDING

Architect
Charles Luckman Associates (successor to Pereira & Luckman)

General Contractor
McNeil Construction Co.

Plastering Contractor
Travis Corporation

Material used:
Zonolite Fireproofing

3540 TISHMAN BUILDING

Architect
Victor Gruen Assoc., Architecture and Engineering

General Contractor
Tishman Realty and Construction Co.

Plastering Contractor
Martin Bros.

Material used:
Zonolite Plaster fireproofing

TRAVELERS INSURANCE OFFICE BUILDING

Architect
Welton Becket & Associates, Architects and Engineers

General Contractor
George A. Fuller Company

Plastering Contractor
A. D. Hoppe Co.

Material used: Zonolite Mono-Kote direct-to-steel decking fireproofing; Zonolite Plaster for fireproofing columns, shafts, stairwells.


TISHMAN
3540
TEXACO
IBM
CHRIST CHURCH - UNITY
PEG
EASTER SEALS

continued from page 206

troit, is now an associate of that architectural and engineering firm.

Maurice F. Parkins has resigned his position as Principal City Planner with the Detroit City Plan Commission to devote his time to his firm, Parkins, Rogers & Associates, City Planning and Urban Renewal Consultants, located at 800 Livernois Ave., Ferndale, Mich.

Changes in staff assignments within the firm of H. E. Bovay Jr., Consulting Engineers, include the following: L. S. Curtis, former project manager of the Richland, Washington—office-manager of the Baton Rouge office; C. E. Craig Jr., with the Baton Rouge office and Spokane office in charge of chemical plant design—manager of the mechanical department, Baton Rouge; George C. Love, former chief engineer at Richland—project manager, Richland, Washington; A. H. Kintz, formerly senior mechanical engineer, Richland —now chief engineer there.

New Addresses

John Alexanders, Consulting Engineer-Structural, Radburn Plaza Bldg., Plaza Rd. and Fair Lawn Ave., Fair Lawn, N.J.

Caldwell Engineering, Inc. (formerly Arthur C. Caldwell), Suite 200, Central Medical Bldg., 1737 Chestnut St., Philadelphia 3.

Ralf E. Decker, A.I.A., Architects, 1040 Washington Bldg., Seattle 1.

Fordyce and Hamby Associates, 717 Fifth Ave., New York 22.

Wallace Holm, A.I.A., Architect and Associates, The Abrego Bldg., 419 Webster St., Monterey, Calif.

Kemp, Bunch & Jackson, Architects, 1320 Coast Line Bldg., Jacksonville 2, Fla.

A.N.A. Landscaping Awards Program Announced

For the ninth year the American Association of Nurserymen is sponsoring an Industrial and Institutional Landscaping Awards Competition for "Achievement in Industrial and Institutional Landscaping and Beautification contributing to employe and civic pride in our American heritage."

Classifications include: 1) Manufacturing and utilities, including research buildings 2)Retail and service establishments 3) Public and private institutions and 4) Beautification of downtown areas.

Competitors may be any industrial company, business firm service organization, institution or its authorized representative, or any nurseryman, landscape architect or landscape contractor.

The awards, engraved and framed certificates, will be of an undetermined number, both national and regional.

Judges will consist of industrialists, landscape authorities and educators, who, in the opinion of the officers of the association are eminently qualified.

For information and registration material, write Dr. Richard P. White, Executive Vice President, American Association of Nurserymen, 835 Southern Building, Washington 5, D.C. Actual entries (8″ x 10″ glossy photographs and specifications) must be submitted by September 1, 1961.

more news on page 214

ageless beauty for church fenestration

MARMET

aluminum church windows

Inspiring designs created by the architect for houses of worship . . . many with unusual fenestration forms . . . are no problem at MARMET. Our engineers develop windows with exacting attention to detail on an endless variety of design requirements. MARMET church windows are engineered from special tubular, aluminum alloy extrusions which combine great strength with slimness of line. The result is a superb window of delicate elegance which never rusts or needs refinishing. These are windows on which you can depend . . . for ageless beauty.

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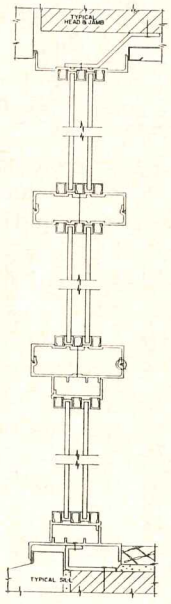
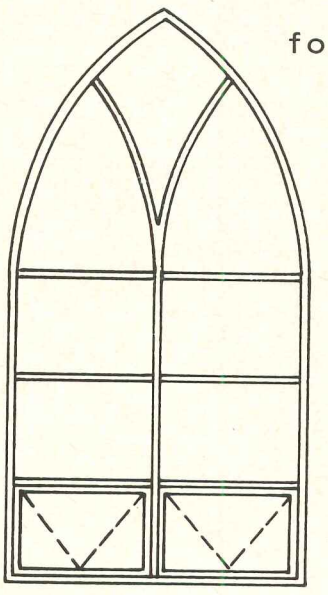
Worthington, Minn.
Architect:
A. J. Ross & Associates
Mankato, Minn.





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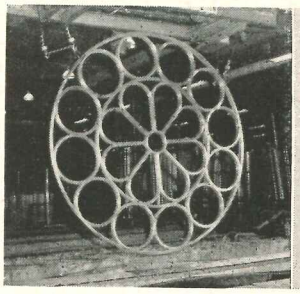
Well adapted to the delicate pattern of traditional windows or the bolder modern, MARMET Series 100-160 Church Windows in contemporary gothic or rose window sash are beautiful in their very simplicity.

Extruded aluminum of the finest alloy is quality fabricated, all electrically welded for hairline miters. For new construction or modernizing older structures, MARMET aluminum windows add gleaming permanence!

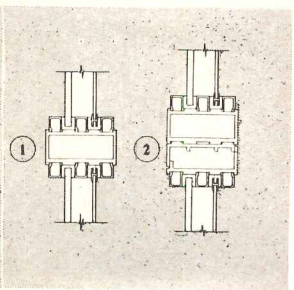


etched finish "stays new" indefinitely

An ageless, gleaming luster is produced in a special dip treatment that removes all surface impurities . . . assures even weathering.

SERIES 100

This cross section through a typical rose window sash shows the alternate slimline muntin at (1) and operating sash in frame at (2).



SERIES 160

Cross sections here show the snap in glazing beads. A special bead (not shown) with an extruded extension arm to cover the third slot, allows windows to be glazed singly at first, simplifies a later change to stained windows . . . up to 3/8" thick leaded glass.

For additional information on the complete line of MARMET products—consult Sweet's Catalog File No. 17a or write to MARMET for catalog Mar. 61-w

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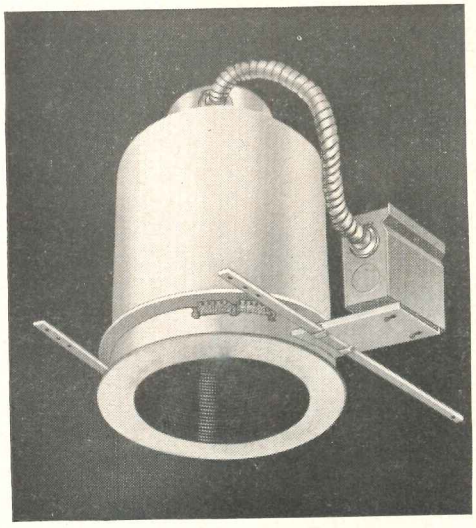
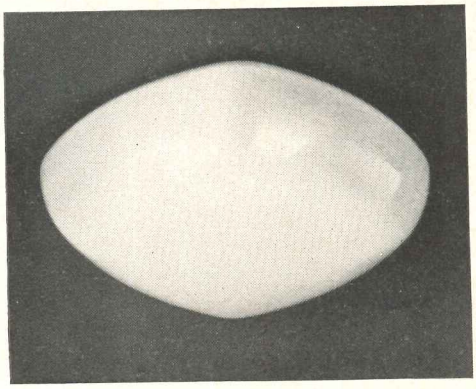
Lightolier manufactures a remarkably diversified array of lighting devices. There are over 1,000...each exactingly engineered for precise (and predictable) performance...each designed to be an exemplar of its type, whether recessed mounted fluorescent or crystal chandelier. Among them are many new design concepts. Here, for instance, is a fully

HARDLY A LIGHTING JOB





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luminous bowl that hugs the ceiling, seemingly without support... a decorative fluorescent set in a rich, walnut frame to harmonize with fine furnishings... pendants which serve your designs either hung singly or grouped on special spreaders. For fresh ideas, for craftsmanship and for design, look first to Lightolier. You'll seldom have to look further.

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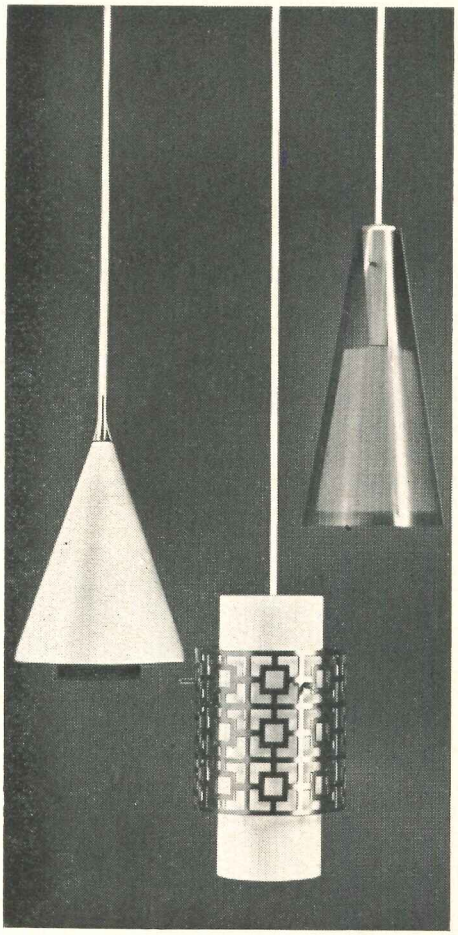

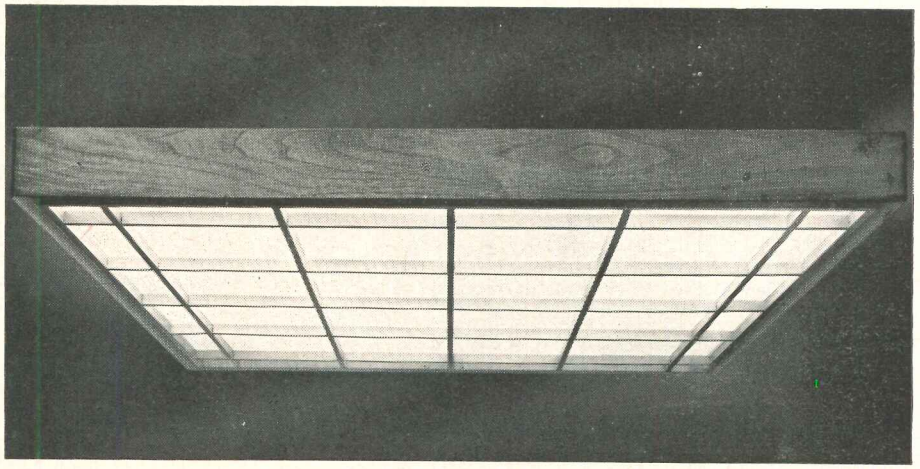

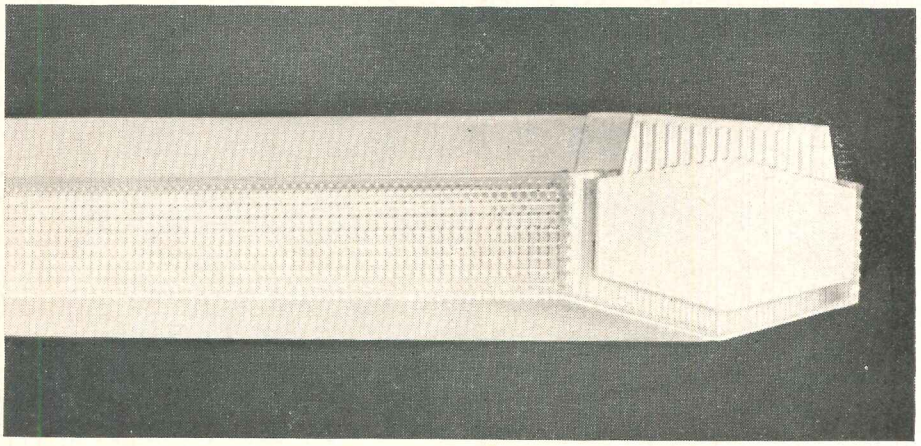

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Design Technics Opens New Showroom in New York

The recent opening of a showroom by Design-Technics, a firm which creates ceramics for contemporary design needs, makes accessible a new showcase for ceramics as an architectural material.

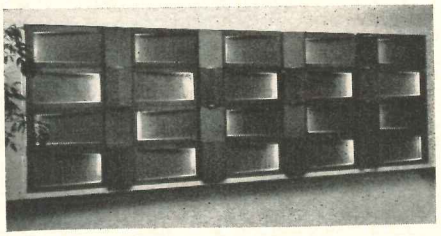
Lee and Sam Rosen, the owners, have renovated an old building, two stories and a mezzanine, making it a "house of clay" from the sculptured façade to the interior.

The façade, in effect a sculptured mural, is intended to state that the company has the production skill as well as the creativity to develop ceramic treatments on a scale large enough for architectural importance.

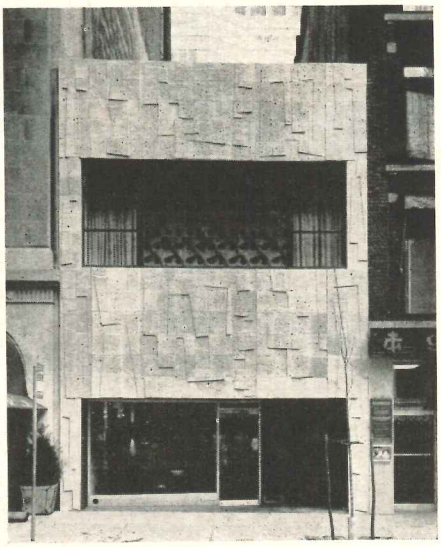
In designing the 4500 sq ft of display space, the Rosens turned the front part of the high-ceilinged main floor into the reception area. The rear section is split into two levels, both open and in full view.

The showroom's top floor displays the company's ceramic wall surfacings. The space has been designed as a gallery where architects may browse, as in a library, among the different wall surfacings available. A cabinet system of sliding panels permits the display of 40 full-size wall sections. Flexible side lighting has been built into each cabinet.

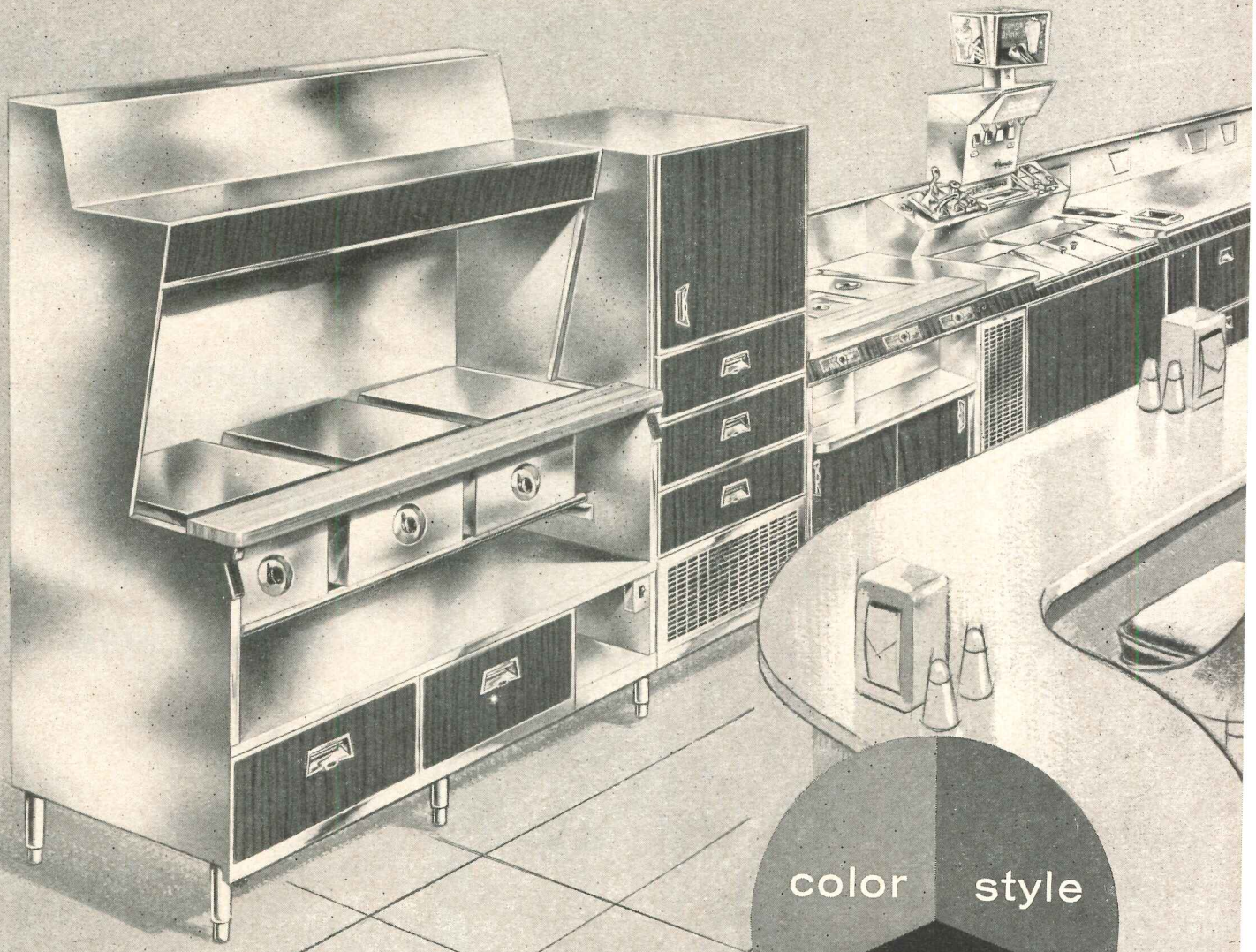
Also on exhibit is a group of ceramic wall hangings. Among them are high and low reliefs in both abstract and figurative compositions, collages of different patterns and colors and sculptured murals.



A new architectural concept is a lighted ceramic wall, which is its own source of indirect light. The illumination is inside the wall, the light flowing through half-concealed openings to highlight the wall's texture and sculptured patterns.



more news on page 222



color style flexibility

a touch of tomorrow...today!

Take the sleek styling, brute strength and absolute corrosion-resistance of stainless steel, craft it into hundreds of matching interchangeable modular food service units completely new in design from the legs up, and add unlimited flexibility of color treatments . . . that's FIESTA. Units fit together in any combination, any sequence with hairline accuracy . . . creates a custom effect with production line economy.

Surfaces can be completely color keyed with your choice of *any* plastic laminate (including wood-grains, textures, flat colors); or simply color accented along the chip-proof contoured top edge; or, if you prefer, you can have a satiny stainless-steel look throughout. Mix and match colors at will . . . even change them later. Dozens of other construction and design features (including recessed "flare" handles, magnetic doors, cold wall refrigeration) make Fiesta the finest investment in today's and tomorrow's food service equipment.

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...*by* **BASTIAN-BLESSING**

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Dow roofing materials provide permanent water- and moisture-tight seals for . . .

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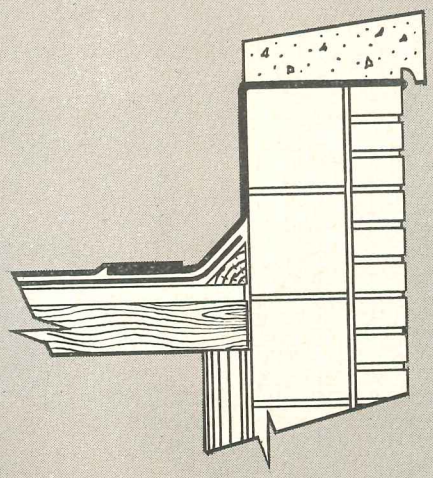
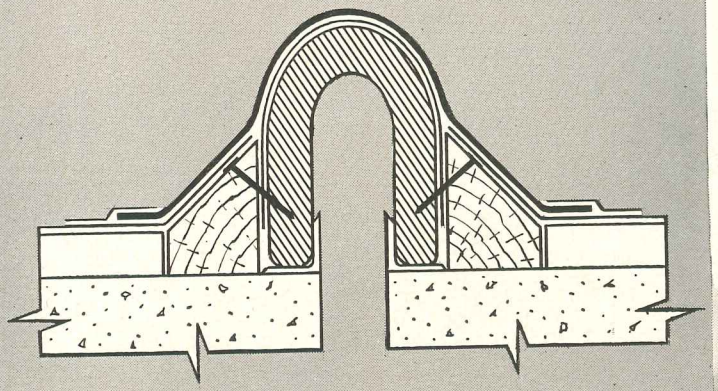
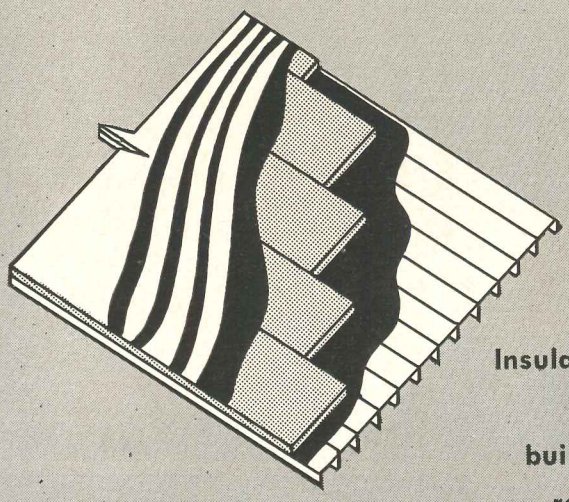


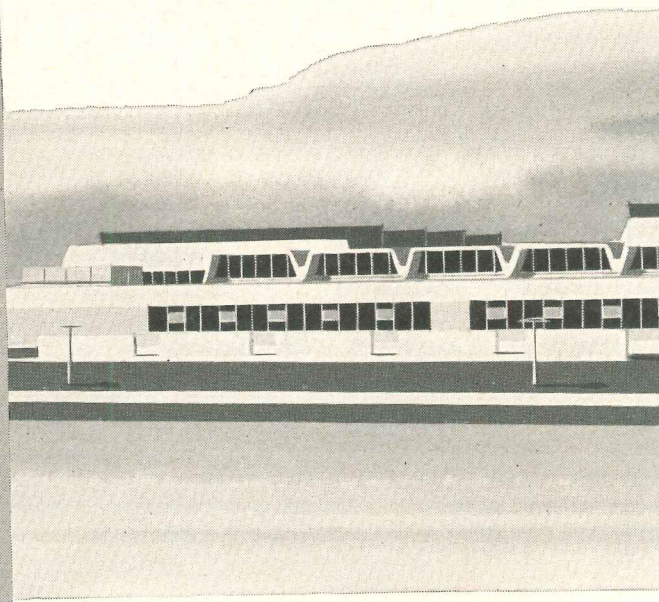
Permanent parapet flashing.



Insulated expansion joint.



Insulation for built-up roofs.



SOUTHWESTERN COMMUNITY HIGH SCHOOL, FLINT, MICHIGAN

Architect: Eberle M. Smith Associates, Inc.

Roofing Contractor: Sterner Sheet Metal and Roofing Co.

All through-steel joints, parapets and valleys are flashed with Saraloy 400.

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solve design problems, reduce installation time and costs!

Problems with roofing and flashing design? Dow roofing materials can help make designing of both conventional and non-conventional buildings easier... sometimes even permit unusual designs not possible with ordinary materials.

Take Saraloy® 400 flexible sheet flashing, one of the most durable, easiest-to-use flashing materials available. It can be conformed to almost any shape without prefabrication . . . can be adhered to all common building materials. Saraloy 400 is ideal for flashing parapets, metal-to-roof joints, "through-steel" sections. For roof expansion joints, its flexibility accommodates even extreme relative movement between building sections.

When other kinds of flashing won't last, or require costly preforming and fitting, Saraloy 400 can be your best answer. Even where other flashing *will* work, Saraloy 400 often works better, for longer.

Built-up roofs can be insulated quickly, economically, using Roofmate*. This Dow roof insulation board has a lightweight core of Styrofoam® enclosed in asphalt-laminated kraft paper.

Roofmate insulation is so light it can be handled easily, laid in a hurry. Because of high moisture resistance, it acts as *its own vapor barrier!*

Dow roofing materials and other building products not only ease designers' problems, but their cost of installation is low . . . even for unconventional designs. For information and data on Dow Building Products, write THE DOW CHEMICAL COMPANY, Midland, Michigan, Plastics Sales Department 1503N8.

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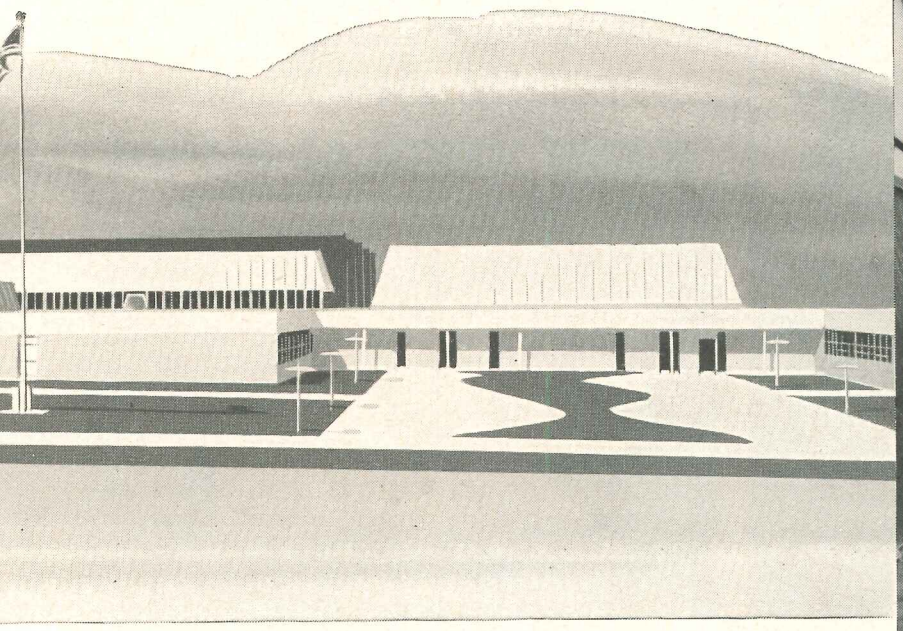

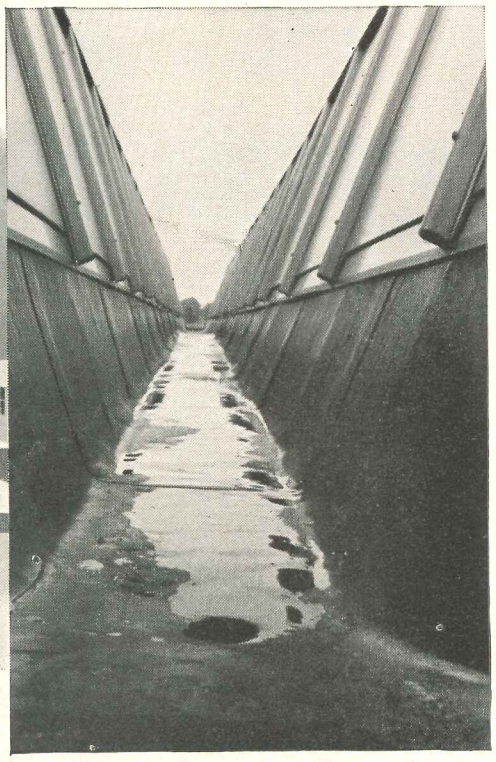

Saraloy 400 seals valleys permanently, at low installation cost.

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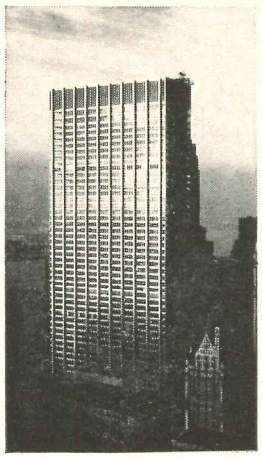

Modern throughout, 1 Chase Manhattan Plaza has vertical louvered blinds in every one of its 8,800 windows. "Tontine" Triglas* vinyl-coated woven glass fabric gives offices a smart new look. Blinds are neat . . . easy to clean . . . rotate to permit light desired and slide like a drapery to either side of window. They're dimensionally stable . . . resist curling, twisting, bowing or distortion. Long-lasting matte white finish reflects solar heat . . . helps keep rooms cool. Blinds fit windows of any size. Du Pont makes fabrics used . . . does not manufacture the blinds. Send coupon for free swatches of "Tontine" Triglas.

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The plans for Delta College, now under construction in the "Golden Triangle" area of central Michigan, call for the most modern educational facilities and best construction methods. That's why masonry joints on the Delta College buildings are being reinforced with Keywall for added strength, greater crack resistance. The contractor on the job, states: "Delta College is being constructed of the finest materials available and we feel that one of the better crack-resisting reinforcement products on the market is Keywall."

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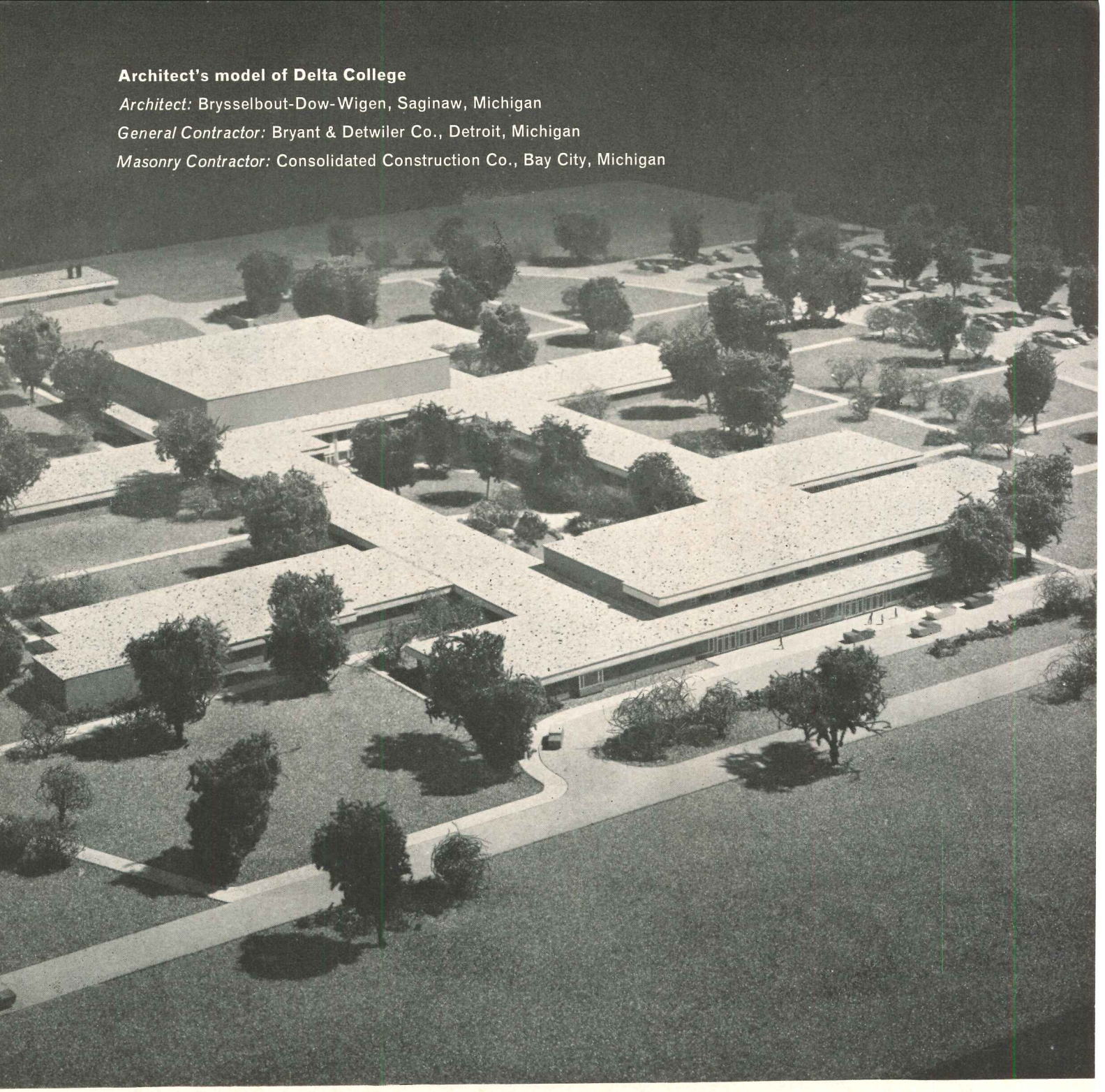
Architect's model of Delta College

Architect: Brysselbout-Dow-Wigen, Saginaw, Michigan

General Contractor: Bryant & Detwiler Co., Detroit, Michigan

Masonry Contractor: Consolidated Construction Co., Bay City, Michigan



Located in a fast-growing, industrialized section bordered by Bay City, Saginaw, and Midland, the Delta College is one of the first in the U. S. to be financed by a multiple county tax program. One of its many unique features is a closed-circuit TV studio which will originate educational programs throughout the school and neighboring communities.

For buildings that stay young throughout the years, rely on Keywall galvanized masonry reinforcement. Masons find Keywall easy to handle, easy to adapt to a wide range of applications. It can be lapped at corners without adding thickness to joints. Full embedment and complete bond assure effective reinforcement. Comes in 4″, 6″, 8″, 10″, and 12″ sizes.

The Record Reports

Joint Center and Venezuela Begin Guayana Region Study

The Joint Center for Urban Studies of the Massachusetts Institute of Technology and Harvard University has completed an agreement with the Government of Venezuela for research and technical assistance in that country's Guayana region.

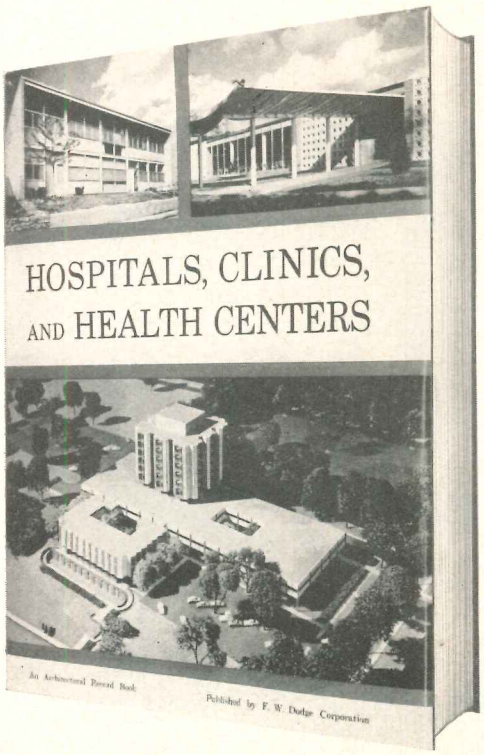
The regional development program was initiated with the purpose of reducing the country's dependence on petroleum. Another aim is stimulating a new growing point in southwestern Venezuela to relieve the congestion and some of the other problems of development in the Caracas region.

To help implement the program, the Government of Venezuela has formed the Venezuelan Guayana Corporation whose president, Col. Raphael Alfonso Ravard, past president of the Venezuela Development Corporation, will report directly to President Romulo Betancourt.

Working together, Venezuelan officials and experts and the Joint Center for Urban Studies of M.I.T. and Harvard will analyze the economic structure and potential of the region as a basis for determining requirements for housing, industry and commerce, public services and the pattern for urban and regional growth. In the process, they will prepare a development plan for the design of a new city which will have a population of 200,000 or more when built, probably to be called Guayana City. Economic and physical planning will be combined in the studies. Work will begin in both Venezuela and Cambridge as soon as a project director is appointed.

The Guayana region, located at the junction of the Orinoco and Caroni Rivers, has a unique combination of resources. Sometimes called the Ruhr of South America, the Guayana area has rich deposits of iron and manganese ore, bauxite and petroleum. Already a new hydroelectric plant is producing low-cost power. At present a steel mill is being built to be managed by Koppers. Reynolds Metals Company and the Venezuelan Government will build an aluminum plant. Plans include building a petrochemical plant

continued on page 230



New illustrated survey of medical buildings

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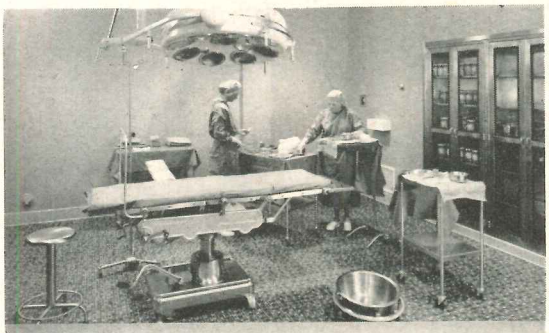
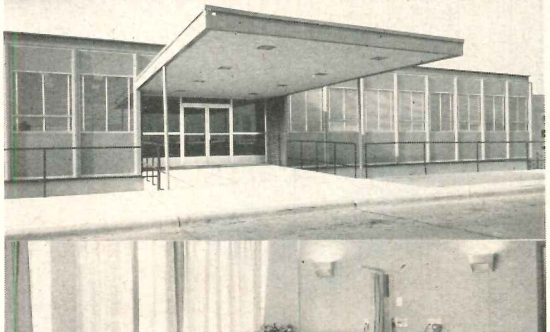
Here, in one book, are the newest, most effective ideas for the planning of hospitals and other medical facilities. Divided into four sections, this valuable sourcebook covers practically the entire range of medical building types: hospitals, special facilities, rehabilitation centers, health centers, clinics, and doctors' offices.

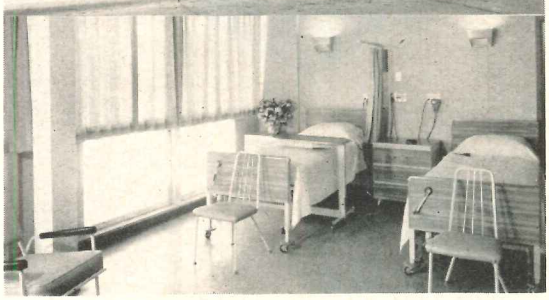
Containing sixty presentations and discussions, HOSPITALS, CLINICS, AND HEALTH CENTERS thoroughly examines the latest advances in medical building design. Each project studies a particular planning problem and its solution, and is graphically illustrated with numerous interior and exterior photographs, floor plans, and diagrams. Carefully chosen for their value, variety, and lasting interest, they provide vital background information needed to solve planning problems effectively.

Also included are authoritative technical articles on planning such specific elements as X-ray suites, pediatric units, and surgical suites. In addition it thoroughly analyses these important subjects: efficient handling of hospital traffic, planning of supply systems, air distribution in operating rooms, hospital electrical facilities, design of teletherapy units, and mechanical and electrical systems for health centers.

Designed for architects, engineers, hospital administrators and consultants — anyone concerned with the efficient planning of medical facilities — HOSPITALS, CLINICS, AND HEALTH CENTERS is the most stimulating, up-to-date source of ideas available today.







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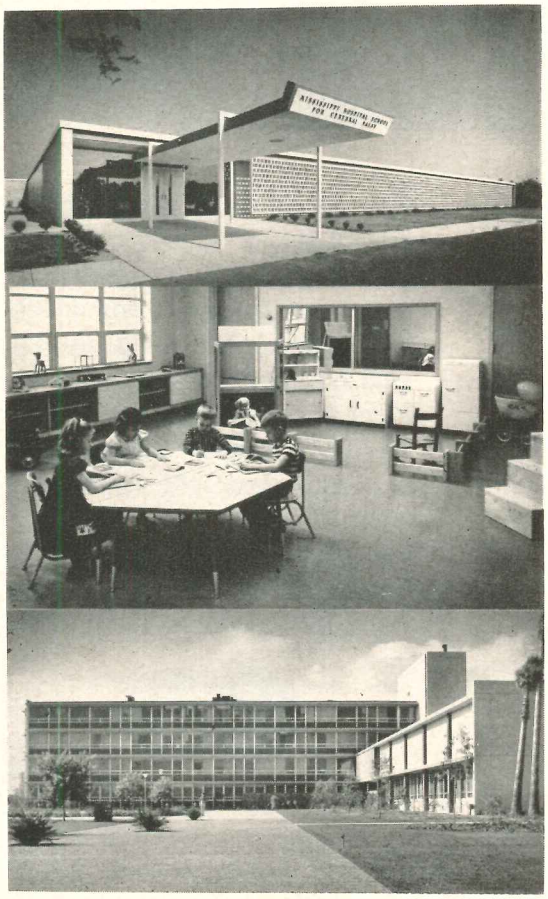

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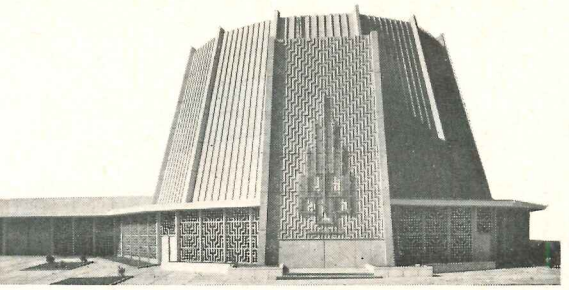

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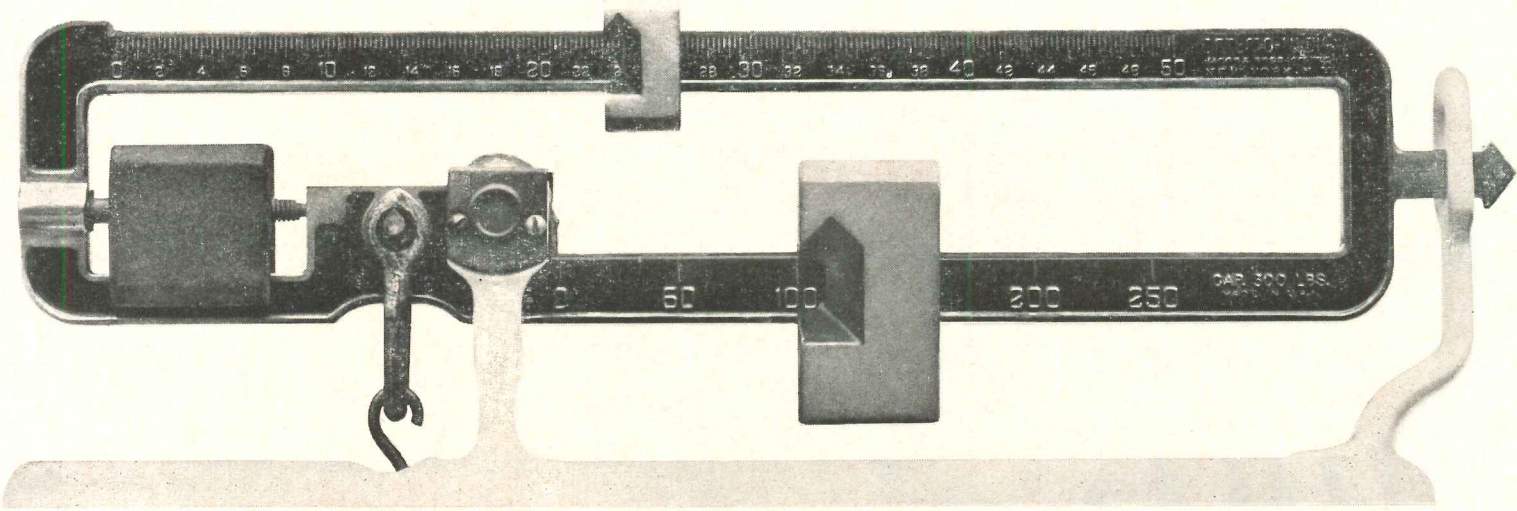

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Light Source	Skylights Only	Incandescent Only	Fluorescent Only	Skylights & Incandescent	Skylights & Fluorescent
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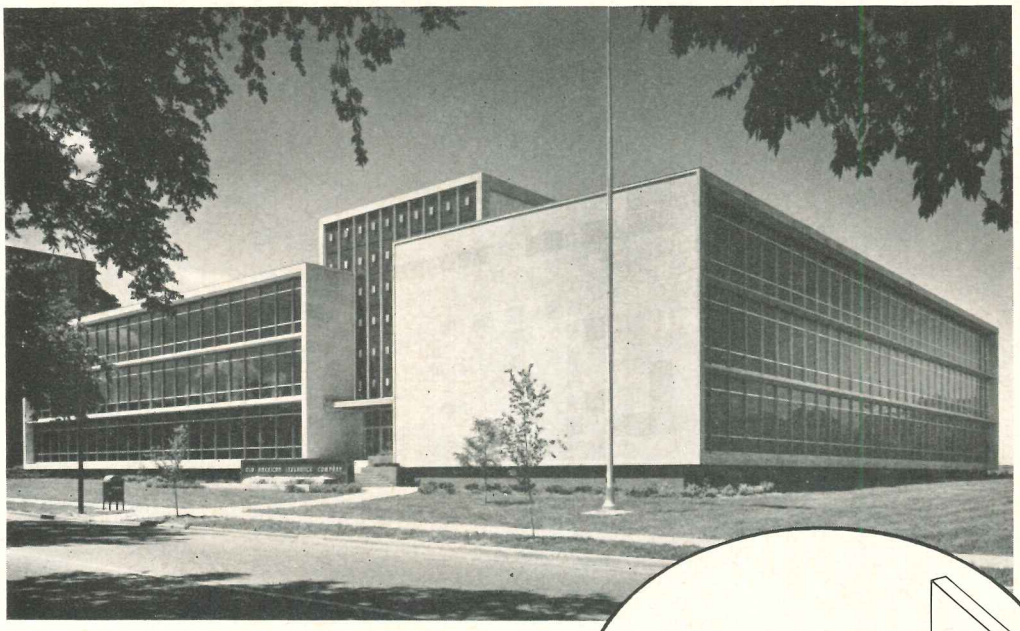

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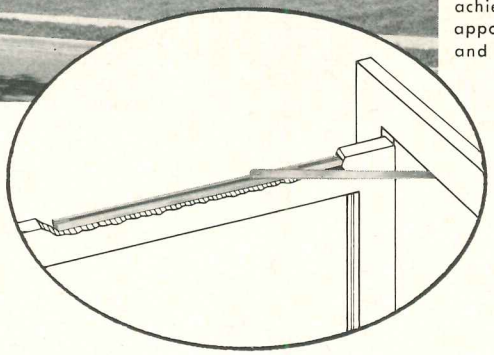

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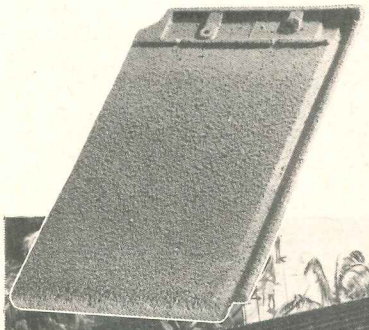


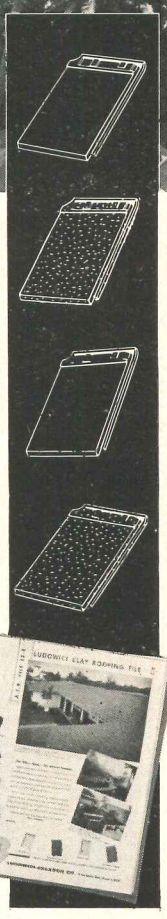
Ludowici Crowns a Princess

The Princess Kaiulani Hotel Shop Building in Honolulu was given a regal roofing treatment with Ludowici-Celadon interlocking tiles. Interlocking tiles, as all other patterns, will not fade or discolor; will adapt to any architectural design and last the life of the building.

PRINCESS KAIULANI
Hotel Shop Building
Honolulu, Hawaii

ARCHITECT:
Gardner A. Dailey, F. A. I. A.
San Francisco, Calif.

ROOFING TILE:
Ludowici Weathered Black Interlocking



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The Record Reports

continued from page 222

and other factories. In anticipation of the industrial development, already an estimated 45,000 people have moved into the region.

Playing an important part in the development will be the Joint Center, a research organization established in 1959 by M.I.T. and Harvard. The function of the Joint Center is to stimulate fundamental and applied research in urban and regional studies. Members are drawn from the faculties of both institutions and from a variety of academic disciplines. The Joint Center's director is Professor Martin Meyerson of Harvard; the chairman of the faculty committee is Professor Lloyd Rodwin of M.I.T.

Honorary R.A.I.C. Fellowship Awarded Philip Will

Philip Will, president of the American Institute of Architects, was awarded an Honorary Fellowship in the College of Fellows of the Royal Architectural Institute of Canada, at the 1961 convention of the Institute in Quebec. Also receiving an Honorary Fellowship at the convention was Stewart Bates, president of Central Mortgage and Housing Corporation.

In April an Honorary Fellowship was conferred upon His Excellency Major-General Georges P. Vanier, Governor-General of Canada at a special Government House ceremony.

Michigan State Jaycees Name Architect "Outstanding"

The Michigan State Junior Chamber of Commerce has named architect Ted Daubresse of Allen Park, Mich. as one of the five "Outstanding Young Men in Michigan" for 1960. A member in the firm of Pellerin-Daubresse, Associated Architects, the 34-year-old Daubresse was named on the basis of vocational accomplishments, leadership abilities and community service.

Mr. Daubresse received his Bachelor of Science degree in Architectural Engineering from Lawrence Institute of Technology in 1950. Graduating as top scholar in his department, he received an award for Outstanding Architectural Achievement from the Detroit Chapter of the American Institute of Architects.

This beautiful, modernistic structure is the Pierre S. du Pont Science Building of Swarthmore College at Swarthmore, Pennsylvania. It was designed by Vincent G. Kling, Architect, F.A.I.A., of Philadelphia.

American-Marietta insulated wall panels add to the charm, as well as serviceability of the design. The relatively large stone used in these panels provides a strong, readily noticeable texture which complements the earthy or sand color of the panels and provides an extremely clean and attractive appearance.

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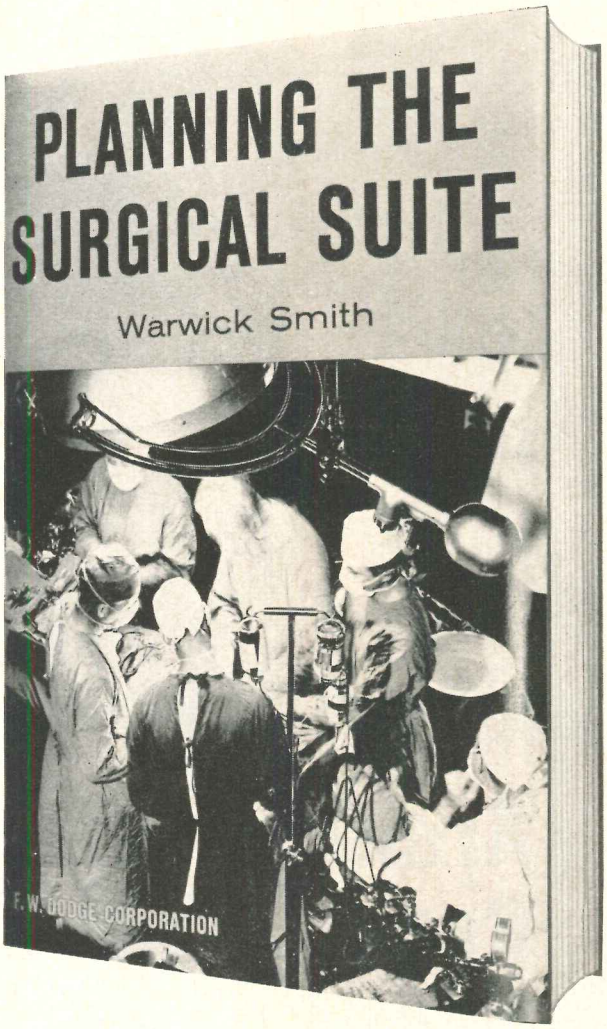
The first authoritative guide for planning the heart of the hospital



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The heart of the hospital is its surgical suite. Because of its critical functions, the operating room and its environs must be designed to work efficiently under all conditions. This is a fact recognized by all administrators and designers of hospitals. Equally recognized is the difficulty involved in developing a truly efficient and flexible plan for a surgical suite.

Much time and money has been wasted in building and remodeling surgical suites. The inherent flaws are soon revealed in a suite design which did not consider all of its required functions. Consequently, within weeks of its occupation, it is often found necessary to remodel or improvise upon the original design.

PLANNING THE SURGICAL SUITE is aimed directly at this problem. This unique guide explains how the intended functions of a surgical suite affect its organization and design, and describes the methods of translating these into actual facilities. With the aid of tables, charts, and checklists, it provides for a complete analysis of the function and design of the operating room complex.

Architects, engineers, hospital administrators — anyone planning a new hospital or new facilities for an existing building — will find PLANNING THE SURGICAL SUITE of vital interest.

Consider all aspects, including:

- **role of the surgical suite**
- **size, plan, and location**
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- **engineering services**

About the author . . .

Warwick Smith has made an intensive, twelve-year study of hospital design, with special emphasis on the surgical suite.

Although a native Australian, Smith has designed hospitals and medical facilities while working for architectural firms in England, Sweden, and the United States. An associate of the Royal Institute of British Architects and the Royal Australian Institute of Architects, the author was awarded the Henry Saxon Snell Prize in 1954 for research in hospital architecture.

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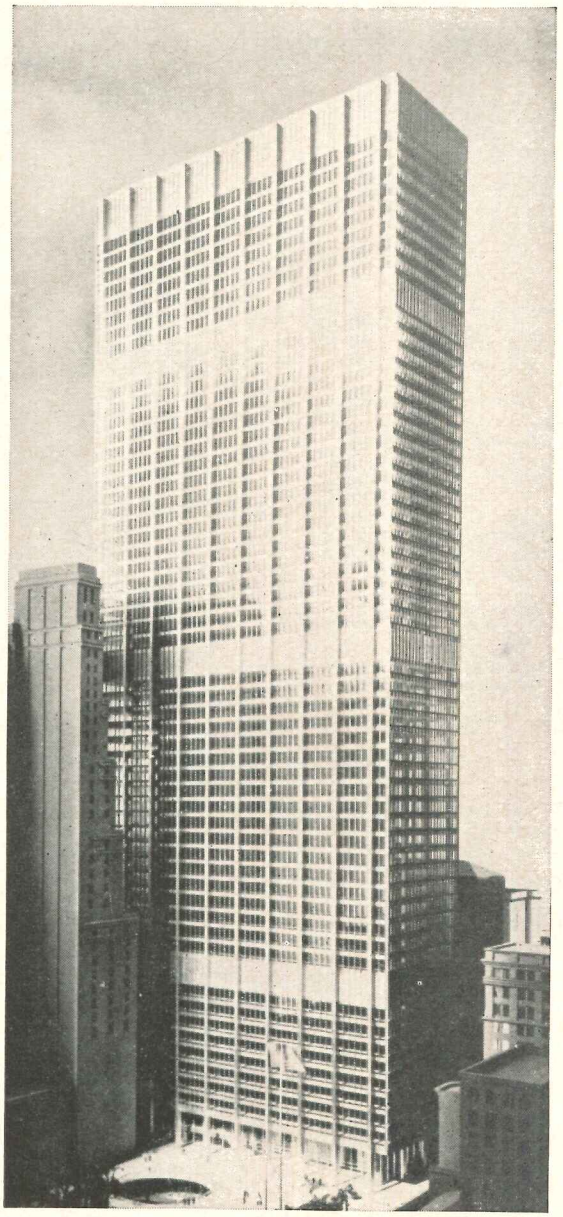

Chase Manhattan Building, New York, N.Y. Architects: Skidmore, Owings & Merrill. General Contractors: Turner Construction Company. Structural Engineers: Weiskopf & Pickworth. Authorized K&M SPRAYED "LIMPET" ASBESTOS applicator: E.B. Carley & Co., Inc.

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The selection of K&M SPRAYED "LIMPET" ASBESTOS came only after the builders of the Chase Manhattan Building subjected numerous fireproofing materials to exhaustive studies and tests.

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