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Letters to the editor

While on jury duty I had the opportunity to really absorb your Building Types Study No. 464 on Health Facilities (August 1974) which included the design of the VA Hospital, Bronx. I wouldn't have believed that anyone could have captured the entire complicated process of the design and construction on three pages (mostly illustrations) but "you did it." I was especially impressed that you included the part that, to their credit, the Veterans' Administration has broadened their collaboration with the architect on the Bronx project in a sincere effort to build the best of contemporary medical facilities. They will extend this policy to other future projects.

I found your descriptions of all of the other buildings in the Study equally comprehensive: VA Hospital, Bronx. Your Building Types Study series has to be one of your most effective and informative offerings to the architect.

Philip F. Moyer, PE, AIA
Executive vice president
Max O. Urbahn Associates, Inc.

The pictorial treatment of the Glen Park and Balboa Park stations is very good and your writing very thoughtful and generous.

One of the important things about both stations is color. Although strong colors do not occur anywhere. Consequently I was a little disappointed that it was not found feasible to use color in one or two views. In this respect the New York Police Station treatment is very successful.

The enclosed copy of a letter from Sprague Thresher just came without him, and one or two others with visions, these stations would not be as they are today.

Ernest Born, FAIA
San Francisco, California

"The November RECORD has just arrived and I was really thrilled to see the piece about your stations. Not only the two finest ones, but I thought it was a very perceptive analysis of the problems and their relation to the system."

Sprague Thresher
Chief architect
"Metropolitan" system
Washington, D.C.

I, a student of architecture in Bombay, would like to take this opportunity to thank you for the very interesting and informative articles that you publish in RECORD month after month. I certainly appreciate the time and trouble that you and your staff devote to the research and development of architecture in all its different aspects. I have undertaken to research on one of these different aspects, i.e., architecture in relation to blind people. India, as you might know, has the highest number of blind people in the world. These thousands of people are extremely unfortunate in not being able to see or enjoy our beautiful world. I am deeply interested in finding out how, as an architect, I could help in the betterment of their lives. With a deeper understanding of their needs, an architect could create spaces for them, which are not merely functional, but are also pleasing to their mind and body.

Perhaps your staff has carried out a similar research in India. I would be greatly indebted to you, if you could inform me about your findings and conclusions. This would greatly help me in making a very small but purposeful contribution in the betterment of the lives of these unfortunate blind people.

Farrokh D. Billimoria
Empress Building
Nersenwari Petit St.
Grant Rd., Bombay 7, India

Calendar

JANUARY


19-23 National Association of Home Builders convention, Convention Center, Dallas, Texas. Contact NAHB headquarters in Washington, D.C. or NAHB Dallas Convention Office, 1507 Pacific Street, Suite 1750, Dallas, Texas 75201.

26-30 ASHRAE semi-annual meeting, Chalfonte-Haddon Hall Hotel, Atlantic City, N.J. For more information, contact: ASHRAE, 345 East 47th Street, New York, N.Y. 10017.


FEBRUARY


4-5 Improving the Practice and Utilization of Engineering Laboratory Services seminar, Orlando, Florida. Sponsoring by the Florida Engineering Society/Florida Institute of Consulting Engineers, Engineering Laboratories Forum. Contact: Florida Engineering Society, 1906 Lee Road, Orlando, Fl. 32810.


21-23 National Home Improvement Council annual convention, Houston Oaks Hotel, Houston, Contact: Irwin Rosenberg, Convention Director, P.O. Box 13077, Pittsburgh, Pa. 15243.

MARCH

5-8 Annual Historical Preservation Seminar at the San Antonio (Tex.) Conservation Society. Contact: Mrs. R.J. Osborne, seminar chairman, 511 Paseo de la Villita, San Antonio, Tex.

6-7 How to Market Professional Design Services seminar, New York. Sponsored by ARCHITECTURAL RECORD. Contact: Building Industry Development Services, Suite 104, 1301 20th Street, N.W., Washington, D.C.

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NEXT MONTH IN THE RECORD

Building Types Study: Health facilities

A review of impending national health planning legislation indicates continuation of state-oriented policies of Federal grant programs, modified now by national planning commissions to assure actual need for new or modernized non-profit health facilities of various kinds. The Building Types Study will probe implications of such legislation and will also show a variety of recently completed and/or projected work.

Acapulco Cultural and Convention Center

A massive new complex, designed by architect Pedro Motezuma, serves several down-to-earth purposes in a resort long known for the frivolity of some of its inhabitants and many of its tourists. Part of a comprehensive program of urban development known as Plan Acapulco, the Center is the product of creative thinking which encourages local financial growth, and simultaneously provides public benefit within the same project.
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Guiding principles for Federal architecture; Part 2.

Or, why shouldn't the government live over the store?

In May of 1974, as reported in the June editorial, the first document leading—hopefully—to a new set of Guiding Principles for Federal Architecture was released by a task force of the National Endowment for the Arts. Entitled "Federal Architecture: A Framework for Debate," the report outlined in broad—but fresh and appropriate—terms "the special obligation of the Federal government to seek quality in its buildings." The report made a lot of critical points: about the cost of quality (and the cost of banality), about the community benefits of quality Federal building, about the necessary talent of design professionals in public service, about architect/engineer selection for public work, and on and on.

Among these important ideas was a strong statement that "Federal buildings used by the public should enhance as well as protect the environment by encouraging street vitality and a lively pedestrian setting in and around the buildings."

One of the ways you accomplish that is mixed use, and the report suggested that "Federal buildings should provide the widest possible range of uses along with public use... including other levels of government, commercial, education, institutional, civic, cultural and recreation uses."

Available this month is the first of a series of detailed supplementary staff papers on various aspects of the "Framework"—this one on mixed-use (or "multiple-use") facilities. Intended primarily for the client—Federal administrative and legislative people—it makes a strong and persuasive case that mixed-use in Federal office buildings is not just practical, but desirable and necessary; should not just be allowed, but vigorously promoted.

What kind of mixed-use? The report points out a wide range of such planning: Apartments above the store in a thousand neighborhoods—including very fashionable settings in Georgetown and Boston and New York City. Rockefeller Center—combining horizontal mixed use in a compact area, as well as vertical mixed use within buildings. Similarly, Penn Center in Philadelphia, and Prudential Center in Boston, and more recently Peachtree Center in Atlanta and Crystal City in Virginia—all of which flank office towers with apartment buildings, with bases of stores and sometimes rooftops of restaurants and observation decks. There are also examples of vertical multiple use in Marina City and the John Hancock Building in Chicago, Olympic Towers in New York (now under construction with retail at the base, office space on the lower tier of floors, and apartments above) and Holyoke Center in Cambridge, Massachusetts.

Why not multiple-use Federal buildings? The staff report notes, and argues against, the commonly offered reasons:

1) Objection I: "Agency demand for ground-floor space makes leasing this area to commercial use impractical... Moreover, overbuilding to provide space for multiple use objectives would be opposed by Congressional committees." To the first proposition the report argues that except for a few Federal activities where significant public contact is required (Social Security payment centers, passport offices), most Federal buildings feature vast lobbies occupied solely by information and/or security desks. You recognize the scene. Most agencies don't need ground-floor space, and with proper planning and financial arrangements (for instance, private renters could pay rent into the Federal Building Fund just as agencies now do) Congress could have no rational financial objection.

2) Objection II: "Security must be considered." Argues the Report: "Government security claims must be continually tested against reality [lovely phrase]." It argues that even such agencies as the CIA, FBI, and AEC can accomplish the extra security they require by such means as separate entrances and elevator banks, or elevators that require a special card or key to gain entry to a particular floor. It points out that the Pentagon maintains an extensive retail concourse for the convenience of its people.

There are other oft-quoted objections—shouldn't government lease private space, instead of vice-versa; what about the real-estate tax impact; or the heavy administrative burden of planning and operating multiple-use buildings? There's even "the question of whether the Federal government should engage in real estate leasing in competition with private enterprise." Answer: the amount of Federal space to be leased would be miniscule compared to existing private space, and even if there were some objection, "the decision to include multiple uses should be made in consultation with local government bodies that are responsible not only to local developers and real estate interests, but to the public at large."

And the report accurately concludes that...
“the issue is not the propriety of the Federal government competing with the private sector per se. It does that all the time; take timber sales, offshore oil leases. Rather, the issue is the desirability of using public intervention in the market system to pursue urban design objectives in the public interest.”

And there is indeed much in the public interest in the concept of mixed-use buildings. As the report points out: “Mixing residential, office, retail and recreational activities ... assures that people are continually moving about on the streets through the day and night. ... And people on the streets can make others, perhaps more reluctant to venture forth, feel more secure and by so doing entice them out.

“Beyond these obvious advantages is the issue of resource scarcity. ... We must conserve the resources available to us and use them in the most efficient way possible. Multiple-use facilities can play a role in the effort to make more intensive use of available resources.” Like what? Like compacting residential, shopping, and business facilities to reduce traffic congestion, the demand for roads, and the use of fuel. Like creating new urban centers that could attract the suburban middle-income families back to town (who says schools could not be part of the mixed use)?

Like giving new vitality to the cityscape. New York City’s model incentive zoning concepts have effectively reversed the trend to replace the city’s multitude of small restaurants and boutiques and art galleries and specialty stores with the paler fabric of corporate showrooms, airline offices, and banks. So could Federal multiple-use buildings.

And what better client to set the lead and the standard for more mixed-use? The Federal government, as the report points out, “is a major (indeed, the major) public works builder, with a responsibility for assuming a leadership role. The government ... is in a position to assume certain risks and take certain initiatives that profit-private developers might be hesitant to pursue.”

For instance and specifically: if the GSA can undertake the construction of two highly experimental buildings to explore new concepts in energy conservation (with the explicit objective of pioneering techniques that can be transferred to the private sector), shouldn’t the government explore in other buildings new urban-design concepts?

This report is a fine supplement to the original GSA Guidelines Principles proposal — and as I said before, I think its recommendations deserve support by every professional because they point a clear way to better public architecture — and we sure need that.

—Walter F. Wagner Jr.

Wanted: case histories for Engineering for Architecture

Last year at this time we asked architects and engineers to submit their best examples of architect-engineer collaboration, in the form of case histories, for Record’s first Engineering for Architecture issue, published in mid-August. The submissions, as exemplified by the 30-odd case histories we had in this issue, were every bit as good as we hoped for. Because of the highly favorable reception to this issue, we plan to repeat it again this year.

We expect that a lot of new people, as well as many of those who sent us material last year, will participate this time. The basic criterion is simply that the case histories be interesting technical ideas that other professionals would like to read about. They’re interested in trends, imaginative solutions — in other words, they want to know what forward-looking and inventive professionals are doing, and what the implications are of new or modified equipment and materials.

Here is what the qualifications are for consideration of your case histories for the Engineering for Architecture issue: 1) submit only buildings that are completed, under construction, or out to bid; 2) submit written statements from both architect and engineer involved, describing the building’s significance in the context of architect-engineer collaboration; this information should be supported by sufficient detail and documentation to allow fair evaluation; 3) submit graphic materials, such as schematics, perspective drawings, plans and photographs; 4) list credits for owners, architects, consulting engineers, technical consultants, and any suppliers who contributed to the solution, and, finally, the name and location of the building. We will consider all technical disciplines that affect building.

If you decide you wish to send us a case history, please write for the simple submittal form. Send your letters to Robert E. Fischer, senior editor, engineering: ARCHITECTURAL RECORD 1221 Avenue of the Americas, New York, N.Y. 10020.

Our vanishing heritage and what to do about it

... is the title of an excellent and moving brochure just published by the Boston Society of Architects. It’s designed to show the public (and especially town administrators) what they can do to protect the heritage of their New England town — and offers a good deal of sensible advice on how to go about it.

Pointing out that under Massachusetts law (and there are, of course, similar laws in many states) areas can be protected under Historic District regulations, the architects urge administra-
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UNITED STATES GYPSUM
BUILDING AMERICA

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The Federal government expects new construction to grow by 12 per cent this year, to some $150 billion, spurred by an expected surge in housing construction. This prospect was carried in the U. S. Industrial Outlook for 1975, released by the Commerce Department, in November. The forecast states that while physical volume this year will recover some ground lost in 1974, more than half the dollar outlay increase will probably result from cost increases. A 7 per cent increase in spending for public works is projected, but no gain in physical volume is seen; state and local expenditures will rise more rapidly than Federal ones.

William Marshall Jr., Norfolk, Va., was formally installed as the 1975 AIA president December 6, in Washington, D.C. He succeeds Archibald C. Rogers, Baltimore, Md., as head of the 25,000-member professional society. Five other AIA officers were also installed and they include first vice president (president-elect) Louis de Moll, Philadelphia; three national vice presidents—Elmer E. Botsai, San Francisco; Carl L. Bradley, Fort Wayne, Ind.; and John M. McGinty, Houston; and secretary, Hilliard T. Smith, Lake Worth, Fla.

The community development block grants program began January 1, and is approved for three years. Also, HUD regulations for disbursement of some $8 billion authorized by Congress became effective November 13, with their publication in the Federal Register. Under the new approach, the grants are consolidating seven programs: urban renewal, model cities, water and sewer facilities, neighborhood facilities, public facilities loans, open space, and rehabilitation loans.

The $11.8 billion Federal mass transportation bill has been enacted, and for the first time Federal money will subsidize hard-pressed urban mass transit systems. The major portion of the money, however, is slated for construction. The measure provides for $4 billion over six years for construction and improvement grants to be allocated on a basis of 80 per cent Federal and 20 per cent local funding. Operating costs during the same period will be on a 50-50 basis. Use of the money, not expected to have a marked effect on the current fiscal 1975 budget, would be tied to comprehensive plans including local and state transit considerations.

In Washington, an appeals court has ruled that the historic Willard Hotel can have its facade demolished, and that the owner can gut the interior as well to create an office building. The hotel was featured in the "Sitting Ducks" article, page 136, in last month's RECORD devoted to "Conservation in the Context of Change." A three-judge panel in the District of Columbia Court of Appeals ruled in favor of the owners despite opposition in Congress, the Fine Arts Commission and the Pennsylvania Avenue Development Corporation. The owner of the Willard is New York realtor Charles Benenson.

Construction costs rose nationally an average of nine per cent for the year ending September 30, 1974. This compared with 12.5 per cent a year ago, according to the Dodge Building Cost Services Department of McGraw-Hill Information Systems Company. Declining lumber prices were the main reason for the slower rate of increase in building costs over the past year. An average 10.6 per cent rise in building materials costs, plus a 6.6 per cent wage increase were said to account for the year's over-all climb. Craftsmen's wage increases were lower than a year ago, when they advanced 7.5 per cent for the period.

Konstantin Melnikov, one of Russia's leading modern architects, died in Moscow last November, at age 84. Mr. Melnikov was known for his 1925 design of the Soviet Pavilion for Decorative Arts at that year's Paris Exposition, and he was said to have helped shape "modern Russian architecture in the nineteen-twenties." Expelled from his profession during the Stalin purges, he was permitted to teach again after Stalin's death.

The National Endowment for the Arts has announced a new program to weave the arts into everyday life. Called City Spirit, the program will provide matching grants up to $25,000 to encourage community interaction among the "arts" and "non-arts" segments. For projects to begin June 1, applications must be postmarked by January 31, 1975. For projects to begin October 1, applications must be postmarked by April 15, 1975. For further information, contact: Grants Office, National Endowment for the Arts, Washington, D.C. 20506.

The doctoral program in architecture at the University of Michigan is offering $5000-per-year fellowships, plus tuition, to qualified persons enrolling in the three-year doctoral program beginning in the fall of 1975. Deadline for submission of applications is February 1, 1975, and requests for additional information may be obtained from: College of Architecture and Urban Planning, University of Michigan, Ann Arbor, Mich. 48105.

The National Sculpture Society is seeking nominations for distinctive architect-sculptor collaborations. Awards will be given for projects showing exceptional use of sculpture with architecture in these categories: religious, monumental or memorial, and institutional or commercial. Nominations will be considered during March, 1975, and further information may be obtained from: Claire A. Stein, National Sculpture Society, 75 Rockefeller Plaza, New York, N.Y.
A 90-minute color film for television, "An Eames Celebration—Several Worlds of Charles and Ray Eames," will be broadcast over the Public Broadcasting Service, February 3, 1975 at 8 P.M. (Check local listings.)

Produced and directed by Perry Miller Adato, this production of WNET, Channel 13 in New York City, provides a personal portrait of the architect-designer, and Ray, his painter wife who is a full-partner and collaborator in work that includes furniture and exhibit design, and film-making.

In this 90-minute television program, which includes excerpts from 18 of the Eames' films, Charles and Ray Eames are shown in a few of the design pursuits which have made them renowned the world over. The program features commentary by Peter Blake, Philip Morrison, Eliot Noyes, Kevin Roche, Buckminster Fuller (shown above, with Eames) and others.

As a not-to-be-missed program, it nearly captures the essence of what Charles Eames strives for in his work: "The kind of pleasures that one has gotten from the arts or looked for, should come from the business of life itself."

**AIA regions report gloomy past year**

Directors of the American Institute of Architects, reporting recently on economic, chapter and general conditions in their regions, give a dismal picture as far as private work is concerned. Public work is up in some places, but over-all current slow-downs are pictured, and there is little optimism about any upturn early this year. Capsules of regional reports on economic health are as follows:

**California:** Draftsmen employment is down as much as 30 per cent in Southern California; in the north and central areas of the state some offices, both large and small, are hiring while others are marginally alive. Public and institutional projects continue but residential, small commercial and developer projects are on the shelf. No improvement is expected in the next few months.

**Central States:** Tight money is a problem here, but improvement is expected in the first quarter. There is little unemployment and most firms report relatively stable work loads. Conditions after the first quarter are questionable.

**Florida:** A startling slowdown is felt by the absence of new starts. Many firms are reducing personnel, some drastically. Tight money and high interest rates are blamed. The greatest decline is in multi-family housing; condominiums are depressed.

**Gulf States:** Public work is showing a good volume but private work is stymied in many places due to high interest charges. There is little residential work, and some layoffs are evident.

**Middle Atlantic:** Members are pessimistic as work loads are substantially lower than last year; several smaller firms have closed and others are barely hanging on. The trend is toward mergers.

**New York:** Upstate conditions are poor with a trend downward at an accelerating pace. Workloads are light with backlogs limited or nonexistent. Profitability is down; significant deficit financing of office operations is reported and some closings and bankruptcies are expected. Those participating in or serving the development field are hardest hit with investment losses, and large uncollectibles.

**Northwest:** Alaska and Hawaii are busy but in general, high money costs and recession talk is affecting office workloads. Firms marketing A-E services and/or providing a broader scope of services are doing better than traditional firms.

**Ohio:** Architects are noticing a definite slowdown though less than elsewhere in the nation. Fewer new business prospects are reported for 1975 and few public works bond issues were approved in recent elections. Many firms anticipate reductions in staffs. Over-all, the trend is negative with no certainty about turnaround time.

**Texas:** Economic health is depressed. While some cities report good new start situations, new work is developing slowly and many firms face financial difficulties. Increasing layoffs throughout the state are noted, except in the far west.

**AIA chapter activity appears to be strong in most areas, with membership growing and good meeting attendance reported at improved programs.**

**Building product manufacturer provides $100,000 for historic upgrading**

A $100,000 matching grants program for the preservation of national historic sites was announced at a news conference November 21 by Ralph E. Heim, president of Bird & Son, Incorporated.

The program, initiated in celebration of the Centennial, offers matching cash awards up to $5000 for exterior restoration of historic sites.

**Bird & Son will award the grants for projects that are "designed to visibly improve the exterior of historic properties, to make them more accessible, understandable or environmentally compatible to the public they serve."**

Applications will be accepted for sites open to the public and registered or under consideration for registration by the National Register of Historic Places. Only one proposal per site may be accepted per nonprofit organization. Projects that have not been started can logically be completed January 1, 1976. Evidence matching funds must be submitted. Proposals are due March 31, 1975 and dev- en awards will be made July 1975.

**Owens-Corning Fiberglas Corporation announces energy conservation w**

Smith Hinchman & Gryll- cates Inc., Detroit, has won place honors in the government category of O-Corning Fiberglas Corporation's Third Annual Energy Conservation Awards Program.

The firm was cited for architectural and mechanical design of the Saginaw General Building (top) which received, Mid-October, 1975.

The most prominent energy-saving feature is a square-foot flat-plate solar energy collector, which is designed to take maximum advantage of the sun's heat at the latitude.

**AIA**

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The most prominent energy-saving feature is a square-foot flat-plate solar energy collector, which is designed to take maximum advantage of the sun's heat at the latitude.
Legislative summary

Effable confusion has been upheld by the 93rd Congress which has been given a mandate concerning the subject of energy development and distribution and which, as a matter of fact, has changed the definition of architects and engineers.

The future development of solar and geothermal systems and components involved in and as the power plants develops under the new agencies, at which point the new opportunities for architects will become more apparent.

The enactment of the Heating and Cooling Act of 1974, as signed by President Ford on September 3, as Public Law 93-409, has led the Institute of Architects to consider the new direction for the profession by the new act which is not enforced by the foundations of solar heating and cooling that are required by the current federal programs for residential or commercial use.

Some specific legislation would be related to the Atomic Energy Commission which is to continue its efforts in the development of solar heating and cooling. The Hearing and Construction Development Act of 1974, as signed by President Ford on October 24, 1974, has authorized $100 million to be spent for the construction of solar heating and cooling systems and components. It has been a challenge for the profession to find ways of improving the current state of the profession while this measure provides for only $60 million.

According to the five senators who signed the Solar Research, Development and Demonstration Act of 1974, as signed by President Ford on September 3, as Public Law 93-473, authorized $75 million for a coming fiscal year. In June 1976, to carry out the Act's provision, a $2 million demonstration program was established by the National Science Foundation. The National Science Foundation is to act as a core for a comprehensive program for the foundation and for the advancement of the profession. This was signed by the Act on December 26, and it could be the largest outlay ever for the foundation.

Society of American Registered Architects

Each year the Society of American Registered Architects holds its convention with keynoter, General (retired) W. E. "Joe" Potter, president of EPDEC (Prototype Experimental Community of Tomorrow). EPDEC is a subsidiary program of the National Solar Energy Foundation and is responsible for many of the themes and over-all planning of the Florida Solar World activities. General Potter went into detail regarding the entire planning and construction stages of the theme park, the commercial areas as well as the environmental buffer areas surrounding the entire development. Other convention sessions heard speakers discuss NCARB, and construction management as it affects the architect/developer.

The Society chose as recipient of its Synergy Award, the Architect of the Year, the founder of the Society, Wilfred J. Gregson, Atlanta, and unanimously elected the following members to lead its activities for 1975: Charles J. Faroni, president, Cleveland, Ohio; Herbert E. Berger, president-elect, Wichita, Kan.; vice-presidents—Sidney Epstein, Chicago; Roy Everett, Allentown, Pa.; Jean P. Boulanger, Westfield, N.J.; Donald S. McKenzie, North Palm Beach, Fla.; Jerome Salzman, treasurer, Chicago; Richard E. Shields, recorder, York, Pa.; Norma E. Hodge, regent-at-large, Denver, Colo.; and Chester A. Stark, archivist, Chicago.

The 1975 convention of SARA is scheduled for November 20-23 for Phoenix, Ariz., with the theme of "Reycling and Rejuvenating the Architectural Environment." This past convention chairman was Donald S. McKenzie and Frank Masiello, Jr. Mr. Masiello is past president of the Society.

Architects are asked to participate in major housing design competition

The 9.2-acre site (outlined in white, right foreground) is programmed for 1000 units of housing as the second phase in Northtown on Roosevelt Island. Upon completion, the Island will be a vehicular-free community of 16,000 residents.

Requests for Announcements (free), or Programs (accompanied by a check or money order for $25) should be sent to: Theodore Liebman, Roosevelt Island Housing Competition, New York State Urban Development Corporation, 1345 Avenue of the Americas, New York, New York 10019.

Deadline for registration is February 15, 1975, and the deadline for first stage submissions is April 15, 1975.
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A design for the Wainwright restoration was chosen by Hastings & Chirch, Philadelphia, in association with Mitchell/Giurgola Associates, Philadelphia, as the winner in a national competition to provide a concept for a state office complex in St. Louis, in association with Mitchell/Giurgola Associates. The site is a 19th-century urban block, divided into quadrants, one of which is occupied by the Wainwright Building. The other three quadrants will be used for three new L-shaped units, emphasizing the block's parts and forming three courts. One of these is a formal reception area including car arrival (top of plan), the entry to the building vestibule, and a commemorative fountain. Through a covered area, it will be possible to reach the second enclosed court relating to the hearing rooms and courtrooms. The sequence of courts ends with a third opening onto a mall, more entertaining in character, with fountains, sitting areas and street access. The walls of the new building will be red sandstone like the Wainwright Building. The State intends to move ahead.

...and four runners-up shown in national competition

Four finalists were selected for recognition. Second prize (1) was awarded Urban Architects, Kansas City, for a low, horizontal design with interior court, and sidewalks recessed into the building. Third prize (2) was awarded William B. Ittner, St. Louis, in association with Perkins & Will, Chicago, for an elevated building design equaling the mass of the Wainwright Building, and providing a large open plaza. Honorable mention (3) was accorded HNTB Inc., Kansas City, and Joseph W. Albert, Milwaukee, for a terraced addition with roof gardens. And an honorable mention (4) went to Perkins & Will, New York, and William B. Ittner, for a low design exploiting the city's proposed skyway system, making the site a key pivotal point.
Prototype station for Pittsburgh transit out for bids

Celi-Flynn and Associates designed this prototype station, one of ten along the 10½-mile-long first line of the new Pittsburgh Rapid Transit System, which expects to start revenue service in 1978. The $2.3-million station prototype features Vierendeel trusses spanning concrete columns. At present, three bays are roofed and enclosed for platform waiting, but as longer trains go into service, additional bays may be enclosed. The design was done for Kaiser Engineers of Pennsylvania, prime consultants on the system.

Multi-function complex in suburban St. Louis

Clayton Center is a multi-use complex to be located on a five-acre site in Clayton, Missouri, a suburb of St. Louis. The 1.1-million-square-foot facility, the total development, when completed in approximately two years, will exceed $100 million, with the expected completion of Phase 1 in approximately two years. Phase 1, as shown in site plan and site plan and floor plan, are the architects of the project, which will focus on a four-story central atrium (see plan) serving office, hotel, and retail areas, as well as a 500-room hotel. More than 25 per cent of the master plan is designated for open space. Parenting of the atrium, terraces, plazas, fountains, and parks, with emphasis on pedestrian amenities, will be on the atrium area. Components of the development include outdoor restaurants, theaters, a performing arts center, art galleries, and athletic facilities. Three condominium residential components are planned: terrace units, level units, and penthouse. The first two condominiums (right in photo) will be completed in Phase 1.

Minimal impact is sought in office

The Simmons Company, in Atlanta, one of which is shown, will complete a 200,000-square-foot, 450-foot-long structure cantilevered on structural trusses to permit drainage and minimize damage on the site. The building is designed by Thompson, Cock & Witte Associates.
Construction begun on Indianapolis offices

Copeland, Novak and Israel designed this headquarters building for Melvin Simon Associates. Meant to harmonize with the residential neighborhood, the low-profile structure includes finger-joint-like sky-lighted areas for reception and eating functions, balconies along the length of the building, and floor-to-ceiling tinted glass. Indiana limestone will be used on the 120,000-square-foot project.

Hotel for Little Tokyo in Los Angeles

Construction has started on the 21-story Hotel New Otani in the developing Little Tokyo district of Los Angeles. The $24-million structure was designed by Kajima Associates of Los Angeles and William B. Tabler Architects of New York. When completed in 1976, the 500-room hotel will be operated by the New Otani Company, a Japanese corporation which owns the Hotel New Otani, largest hotel in Tokyo.

125 million multi-use complex announced for downtown Los Angeles

A major retail-office-complex for downtown Los Angeles was announced in March, and construction is expected to start immediately on the 6-acre site. A 165-foot-high, 15,000-foot-tall sky-park is planned to nearly the full site and provides interior lakes, streams and landscaped areas. The project, called The Centrum, will contain 2.8 million square feet, making it one of the largest buildings in Southern California. Ray Affleck and Ramesh Khosla, partners in Arcop Associates of Montreal, designed the building; the firm's work includes the Place Bonaventure, a similar building in Montreal. Associated with Arcop on The Centrum project is the Los Angeles firm, Gruen Associates. Completion of the complex is planned for 1978, according to the owner, Karam Ventures.
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Low-rise design guide for developing areas

The latest Building Science Series publication of the National Bureau of Standards, "Development of Improved Design Criteria for Low-Rise Buildings in Developing Countries to Better Resid the Effects of Extreme Winds," is a 166-page book covering the procedures of a November, 1973 workshop on the subject held in Manila, the Philippines.

It is part of a three-year project sponsored by the U.S. Agency for International Development and appears as BSS-56 in the NBS series. It may be purchased for $2.35 per copy from U.S. Government Printing Office, Washington, D.C. 20402.

Peace Corps seeks architects, engineers

The Smithsonian Institution and the U.S. Peace Corps have announced an increased effort to obtain qualified architect-engineer personnel to assist developing countries in environmental and natural resource assignments. Requests are said to be mounting, with openings in field projects, and administration.

The Smithsonian-Peace Corps Environmental Program, created as a result of a formal agreement between the two agencies in 1971, is working to help determine the best utilization of Peace Corps A-E personnel. Among the countries seeking professionals for spring 1975 are:

Venezuela: The Foundation for the Development of the State of Monagas is requesting an architect, a landscape architect, and a regional planner to perform a wide range of architectural and planning functions, including the development of regional plans, design of low-cost housing, and planning for parks and other recreational settings in cities throughout the state. The Foundation for Community Development and Municipal Improvement is also requesting four city planners, three architects, and two landscape architects to help meet a rapidly growing demand for public services in Venezuelan cities of 50,000 to 80,000 people.

Ethiopia: The Ministry of Interior in the province of Adwa has requested a planner to prepare a detailed development plan based on the master plan already drawn by a previous Peace Corps volunteer. He will also be asked to prepare preliminary development plans for the five capital towns in Adwa's 10 districts.

Afghanistan: Kabul University, in the capital city, is seeking two architects to teach a wide variety of architecture-related courses, and to participate in on-going review and modification of the architecture curriculum.

Philippines: The government is seeking 14 planning professionals to work at regional, provincial, and local government levels to help prepare for orderly urban development made necessary by continuing population shifts from rural to city environments.

Botswana: A local and district government council have jointly requested a volunteer with a B.A degree in architecture with extensive preparation in town planning to help plan and design construction for expansion programs anticipated within the context of the nation's current five-year development program.

Nicaragua: The Vice Ministry of Urban Planning is seeking two city planners to help plan and implement the rebuilding of the capital city of Managua, which was badly damaged by earthquakes in December, 1972.

Barbados: The Ministry of Education is seeking an architect to design public buildings at 23 projected sites, with responsibilities to also include overseeing land and building purchases, construction activities, and supervising the work of the Ministry's Building and Maintenance Division.

Other assignments in architecture and planning will be available in Bahrain, Fiji, Oman, Morocco, Tunisia, Western Samoa, Yemen, Zaire, Botswana, Ghana, Kenya and Liberia.

Civil engineers are needed for assignments in:

Western Samoa: The Public Works Department has requested three civil engineers to supervise design and construction of buildings, roads, harbors, and other projects.

Fiji: The Public Works Department is seeking a variety of skills, including water and sanitation works engineers; an engineering draftsman; and ten civil engineers for the nation's rural development program.

Nicaragua: The Vice Ministry of Urban Planning is seeking a civil/structural engineer to help plan and implement the rebuilding of Managua.

Sarawak: This Malaysian district has requested two civil engineers and two hydraulics engineers to plan for orderly growth of Sarawak cities and to help plan and implement water and sewer supply systems, highways and airports.

Thailand: The Department of local Administration needs ten civil engineers to assist with irrigation and other water works projects.

Honduras: The Office of Urban Affairs is requesting three civil engineers to help cities meet their requirements for water and sewage systems, and to help plan municipal streets.

For more information and applications, please contact: Robert K. Poole, Office of Ecology, Smithsonian Institution, Washington, D.C. 20560.

Latin America focuses on transit problems

The Transportation Commission of the Guayas Province, Guayaquil, Ecuador sponsored the First Latin American Seminar on Urban Transportation, held October 10-12, 1974, and attended by some 50 persons from six Latin American countries, etc., and supervising the work of the Ministry's Building and Maintenance Division.

Other assignments in architecture and planning will be available in Bahrain, Fiji, Oman, Morocco, Tunisia, Western Samoa, Yemen, Zaire, Botswana, Ghana, Kenya and Liberia.

Goods movement. The University team was drawn from the Ryder Program in Transportation and the School of Engineering and Environmental Design, with Dr. A. J. Catanese coordinating the effort. The Ryder Program is a multi-discipline endeavor bringing architecture, planning, engineering, business administration and urban studies together in research efforts in transportation.

Recommendations of the seminar, forwarded to the President of Ecuador, included improvements in the process and methods of transportation planning, utilization of technology from other countries; improved citizen input in planning; improved urban design for transportation facilities; and government reorganization and better accountability.

Professor Catanese's group at the University of Miami has been asked to produce another seminar in Ecuador on highway planning, and it appears that there will be a second Latin American Urban Transportation Seminar in Santiago, Chile this fall.

The South American interest in mass transit is growing as is the congestion in urban centers due to increased private car use. Housing is still the number one priority of many of these governments, but mass transit is approaching equal importance. Caracas, Bogota, Sao Paulo, Buenos Aires and Santiago have or are building rapid rail systems, with Santiago, Chile having purchased the French system used in Mexico City and Toronto. Bogota is looking into a system similar to BART, in San Francisco.

Capital funding remains a problem in South American mass transit, although the World Bank and the Bank of International Development are supporting some projects. The U.S. government, through AID (Agency for International Development), recently tried unsuccessfully to persuade Bogota to develop a freeway system, which citizen groups strongly opposed, focusing new attention on mass transit alternatives to the auto.
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Selling the American dream house


Carole Eichen has a profound understanding of L. Mencken’s observation that no one ever broke underestimating the taste of the American people. One of the most successful creators of model homes in America, she began her career working for her builder/designer husband and now heads her own test Coast design firm. With a firm grasp on the finer points of marketing and demographics, she applies the principles of mass psychology in How to Decorate Model Homes and Apartments as skillfully as any example illustrated by Vance Packard in his studies of the den persuasion of the American status-Seeker.

It is made clear at the outset that this is not a book about interior decorating per se, but rather about what makes houses sell. The author, both in theory and in application, sets forth a series of considerations about the tastes, motivations, and aspirations of Mr. and Mrs. N Q. Homebuying. Public that simultaneously fascinate and distress. The fascination is in her uncanny knack for psyching out, indeed supplying, the dreams that can propel the spectator’s subconscious attitudes toward the vicarious act of buying a home. The disturbance (the architects) lies in the realization that the prescribed standard of design-consciousness set in Modern architecture since World War II has had about as much effect on the average 15th-century American as the Renaissance had on the average 15th-century Tuscan.

One can hardly disagree with Ms. Eichen’s cardinal rule that you’d better give them exactly what they want if you want them to buy it. As a corollary, however, the habit of using LeCorbusier on have found an amusing regularity, the inhabitants of ss-produced housing have little likelihood of fitting their tastes into a mold, no matter how tactically “correct,” to whose values they have not been “educated.” And since this book is essentially about selling, albeit selling a product quite unlike any other, the author asks her subject what it is. Architects will hate the book even though they won’t like it; y will not get high style but they will get irr money’s worth (and some useful insight) from proven marketing successes.

The book is arranged with large color photos of the author’s own designs, accompanied by schematic drawings of the interiors “store” and “after.” We are led through the rooms amidst a plethora of decorating do’s and don’ts; parrot green has “good mass appeal and a minor offensiveness factor,” while hunter green “should be handled with discretion.” Bedrooms should always have two dressers and two night tables with lamps flanking the bed (not beds, since “75 per cent of the public owns a queen- or king-size bed”). Be sure to use large accessories (“It eliminates the temptation for people to drop your accessories into their pockets or purses”). Large mirrors that make occupants “uncomfortable, even nervous” in the living room can be used “to almost sinful limits” in the bathroom, presumably a reference to her use of a floor-to-ceiling mirror in full view of both bathtub and toilet (bottom photo).

With her eye ever aimed at the income-tax tables, Ms. Eichen presents even more specific “parameters” for different markets. For the first-time buyer of a $25,000 home, overdecorating will likely frustrate and scare off the prospect with decor beyond his means. “Cheeriness,” “warmth” and “charm” are the watchwords here. (Nevertheless, her horror vacui belies in practice the simplicity she espouses in theory.) Whatever one’s opinions of the schemes themselves, it must be admitted that the author has worked wonders of sorts with some atrociously designed interior spaces that she gamely calls “architectural bloopers.”

But as one ascends the economic ladder and descends the actuarial charts, things change: the oranges and yellows suitable for young families fade into the beiges and off-whites chosen for a luxury condominium development for older, more affluent types. Patterned wallpapers, pinball machines and schoolroom clocks are replaced by baby grands, knock-off Barcelona chairs and a fake Turner over the mantelpiece (top photo). And even though her examples of high-style decor are likely to draw snickers from the Billy Baldwin/Sister Parish set, the author once again removes herself from the considerations of “good” versus “bad” design by the catch-all escape clause of demographic appropriateness.

As architects Moore, Allen and Lyndon perceptively note in their recently published book The Place of Houses, (RECORD, December, 1974 page 45) “The dreams which accompany all human actions should be nurtured by the places in which people live. Houses have always embodied aspirations, and often they have recalled places and times not quite their own.” Ms. Eichen subscribes to that belief, too, perhaps not quite so consciously, nor directed toward the same goals as architects involved in the more comprehensive process of creating an entire building. Yet with small touches like placing a copy of The Wall Street Journal in a room to signify “that the person who can afford this type of shelter has made it in life, and has most probably made it in the business world,” she bespeaks that understanding.

But in this book she is limited by the passive, rather than active, designer/client relationship she defines. By assigning clients the dreams that her well-calculated demographics
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It's a typical RufWall Drainage-Vent installation at the hotel.

The design of the Crown Center Hotel required that some chases be installed at 45-degree angles to accommodate trapezoid shaped rooms. This required a flexible system, and the Foley company ranked Tyler's RufWall "best" in that category.

Robert E. Fitzpatrick House, Yorktown, New York

Robert E. Fitzpatrick House, Yorktown, New York

Myron Goldfinger House, Waccabuc, New York

A collection of 61 houses designed by architects for themselves and previously published in ARCHITECTURAL RECORD. The houses are grouped according to concerns which, according to their designers, were the primary determinants of their forms—site, budget, family needs and preferences, desire to incorporate traditional or regional design into a contemporary approach, desire to experiment with forms, plans or structures, renovating the city dwelling, special custom features, and unique problem situations.

The book is designed as a study-guide for potential house-buyers; "Houses are intensely interesting to study," it counsels, "because each one, in a different way, explores a way of living, and every house—for better or worse—expresses the way of living of the people who have built or bought or rented that house and made it their home. . . Look for ideas that reflect what you want, perhaps the way you want to live. For a house is (or can be, or should be) perhaps the most personal expression of your life."


Mar-a-Lago, Palm Beach, Florida, by Joseph Urban and Wyeth, King and Johnson

What has given Palm Beach its fame is the same combination of causes that made Bath famous in the 18th century: a very few clear-sighted men—they can be counted on the fingers of one hand—wealthy families attracted by what these men had to offer, and some remarkable architecture that came into being in consequence.

Landmark Architecture of Palm Beach records that architecture, which includes the work of Addison Mizner, Marion Wyeth, Maurice Fatio, and Joseph Urban. The book is small and handy for the architectural touring buff to carry around in a pocket—and it employs what has almost become a lost vocabulary of architectural terms that are in themselves a delight to wander through: cartouches, barge boards, Chinese railings, belt courses, and oeil-de-boeuf windows.
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These fire-retardant seats prove a point about Alcoa hydrated alumina.

There's less smoke.

Both of these FRP seats are fire retardant, as indicated by comparable Limiting Oxygen Indices of 26. But the one with Alcoa® hydrated alumina filler does more than stop fire. It helps reduce smoke. Which means far less smoke to obscure exits and airwells.

Up to now, the common approach in making these fire retardant would have been to use halogenated resin and antimony oxide. But that would have meant that seats would typically produce voluminous smoke when exposed to flame—as the seat on the left.

Now... there's hydrated alumina. It retards the fire because it absorbs heat to help cool plastic below its kindling point. If the flame isn't removed, water evolves from hydrated alumina and dilutes combus- tible gases. So the mechanism which it retards the fire isn't pendent on generating char and smoke. Hydrated alumina is nontoxic. The only gas it can liberate is harmless steam.

It's simple and it works... with polyesters, epoxies, phenolics and many other resins. It's also inexpensive. It can be used in previously unfilled systems to replace some of the resin, so there's less resin to volatilize and produce smoke. It can even help reduce smoke in halogenated resins. And Alcoa hydrated alumina is available in several grades, in quantity, from three manufacturing locations in the United States.

For our new hydrated alumina bulletin, write Aluminum Company of America, 830-A Alcoa Building, Pittsburgh, PA 15219.

When the 2000 F torches are removed, both fire-retardant benches stop burning. The facing bench achieved its fire retardancy by the addition of Alcoa hydrated alumina filler. The bench made with the more expensive, chlorinated resin and antimony oxide, on the other side of the acrylic sheet, derived its fire retardancy at the expense of smoke generation, producing much heavier deposits.

Alcoa thanks American Seating and Cincinnati Milacron, Molded Plastics Division, for their considerable assistance in preparing materials for this demonstration. Initially, Cincinnati Milacron prepared panels which were subjected to the Fenimore Martin LOI Test (ASTM G-2863-70T) to establish equivalent fire retardancy. They then used American Seating molds to produce the seats tested with the pre-established formulations: 50 parts chlorinated polyester resin and 2.5 parts antimony oxide plus 50 parts simple mineral filler (plus fiberglass) for one, and 47 parts general-purpose polyester resin plus 53 parts Alcoa hydrated alumina (plus fiberglass) for the other. It was felt that it was much fairer to compare 2 filled systems rather than one unfilled (which would generate considerably more smoke than shown) and one hydrate filled.
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You can buy somebody's engine, somebody's generator, somebody's controller and somebody's transfer switch... call somebody to put it all together, and you'll have some kind of standby power. But then again it may be as mis-matched as turquoise, orange and purple.

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SEVENTY THREE
YEARS BEFORE
THEY SPECIFIED
JOIST GIRDERS
FOR THE FIRST
TIME. ELEVEN DAY
LATER, THEY DID
IT AGAIN.
Joist girders. The advantages they offer over I-beams were more than enough for Berlin Steel to specify them for the Sage-Allen Department Store they were building in West Hartford, Connecticut. So much so, that eleven days later they specified them again. Only this time, that eleven days later, they specified them again. Only this time, Berlin Steel learned about the advantages? From meeting with Vulcraft. The people who knew as much about joist girders as Berlin Steel about steel fabricating, and the first thing the Vulcraft engineers did was show Berlin Steel why joist girders are easier to specify and erect. By explaining that the simple span design of joist girders make ponding calculations easy. And shorten design time.

By telling them about the larger bay areas possible with joist girders. And by talking about the fewer foundations and columns needed with joist girders than with I-beams.

Then came the subject of the advantages joist girders offer after they're erected.

And to explain that topic Vulcraft talked about the modified Warren truss configuration used in joist girders. And that it gave joist girders a high strength to weight ratio.

They mentioned further, that bar joist erection was faster. Because top chord panel points show joist location, eliminating a lot of measuring.

Finally, the matter of ducts, pipes, and conduits came up. And Vulcraft explained how these things go right through a joist girder. Something no one can say about an I-beam.

What it all added up to for Berlin Steel was a change. A change from I-beams to another roof-framing system. A roof-framing system that was more economical and easier to erect for anything over 10,000 square feet.

It wasn't surprising to Vulcraft, though. Because architects and engineers all over the country are discovering the advantages joist girders have over I-beams.
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The extraordinary difference

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st microfilm reproduction of bid packages may imply savings for A-E firms

Working on overnight deadlines, microfilm operators at each office of a national network of construction information centers microfilm 15 complete sets of construction bidding documents daily for distribution to subscribing contractors, manufacturers and distributors of construction materials. Automatic photo-reduction machines help them complete the bid packages—from receipt of documents to mailing to customers—in an average 1.2 days. Take-off dimensional accuracy of full-scale projected image (and automatic file reduction of bulky documents) may best applications of the process in production and storage problems in the offices of architects and engineers.

Because of their use in job bidding and promotion, speed in production and distribution of the bid packages is a key factor in their ability to save subscribers’ time and money, says Albert J. Spivey, Jr., the Scan planning manager in the F. W. Dodge Division of McGraw-Hill Information Systems company, New York, N.Y.

The Dodge/Scan product, he explains, is a series of selectively issued microfilm copies of bidding documents detailing the plans for competitively bid construction jobs. Typically, 3 bidding documents as issued by architects consist of at least 100 pages of drawings and specifications, which cost as much as $300 to $600 a set to reproduce in hard-copy.

Because of the cost and bulk of these documents, architects normally don’t prepare more than 40 sets. These usually are distributed general contractors’ offices as well as number of other selected locations where contractors and building material suppliers gain access to them.

These locations typically include the geographically appropriate Dodge Plan Rooms, 116 such rooms in various parts of the nation. These facilities provide a repository of files for current construction projects of local interest. (The F. W. Dodge Division also publishes Dodge Reports, Dodge Bulletins, four real estate industry newspapers, and indexes several construction statistics information services.)

The distribution of some 40 sets of bidding documents, however, even with easy access to Dodge Plan Rooms, doesn’t satisfy all the needs of the construction industry. On a typical million-dollar job, it is not unusual for 0 subcontractors and building material suppliers to refer to the plans and specifications.
3. Dodge/Scan provides bidding documents on microfilm and its own patented Scan viewer to its customers. Estimators then can study the documents in their own offices, at their own working schedule.

4. Filming of the bidding documents is done at 116 Dodge/Scan locations throughout the country, using Recordak Micro-File machines.

5. Consistency of exposure, even though the density of the original documents will vary, is maintained by the automatic exposure control built into the Recordak Micro-File machines. When the exposure is made, the photocell swings up and out of the field of view.

6. Pages of specifications are exposed eight at a time and on a single frame of microfilm.

7. Processing of the original silver microfilm is at a constant 90 degree temperature in Recordak Micro-File machines. The most difficult task, he says, is getting the bidding documents transferred to microfilm fast and accurately. To expedite this, Dodge/Scan set up 16 regional microfilming centers all over the country. Each of these centers has at least one automatic microfilming machine and a tabletop film processor, model DVR, installed in its own offices, at their own working schedule.

8. “Many estimators simply didn’t get the information needed for their companies to make accurate bids,” Spivey says. “So, either they didn’t bid or, if they did, they based their estimates on whatever information they had at hand. This limitation in the bidding system, of course, also reduced the options of the general contractor.” It also added to building costs by increasing the “safety factor” of available bids.

9. What was needed, Spivey adds, was a way to reduce the cost of copying and distributing plans and specifications so estimators would have direct access to the accurate information needed with enough time to make really competitive bids.

10. Microfilming provides a key to fast, accurate bidding

The logical answer was microfilm. A typical set of bidding documents consisting of 300 pages generally can be reduced to about 75 frames of 35 mm microfilm. The film can be reproduced inexpensively and distributed to subscribers on a selective basis—just those jobs of interest—giving them direct access to basic, original bidding information.

Dodge Reports staffers gather the bidding documents from architects during their normal course of collecting project information. Spivey estimates about 90 per cent of all competitively bid building projects of $50,000 or more in this country are made available to the rooms.

The most difficult task, he says, is getting the bidding documents transferred to microfilm fast and accurately. To expedite this, Dodge/Scan set up 16 regional microfilming centers all over the country. Each of these centers has at least one automatic microfilming machine and a tabletop film processor. They also have to be extremely accurate in interpreting the detailed specifications.

As a result, estimators have had to invest time and money to obtain access to the bidding documents. Then, they would often spend additional hours waiting their turn, while other estimators were at work on available sets of documents.

The time and money invested in getting accurate information for bidding was one built-in limitation to the system, but it wasn’t the biggest problem.

“Many estimators simply didn’t get the information needed for their companies to make accurate bids,” Spivey says. “So, either they didn’t bid or, if they did, they based their estimates on whatever information they had at hand. This limitation in the bidding system, of course, also reduced the options of the general contractor.” It also added to building costs by increasing the “safety factor” of available bids.

What was needed, Spivey adds, was a way to reduce the cost of copying and distributing plans and specifications so estimators would have direct access to the accurate information needed with enough time to make really competitive bids.

Microfilming provides a key to fast, accurate bidding

The logical answer was microfilm. A typical set of bidding documents consisting of 300 pages generally can be reduced to about 75 frames of 35 mm microfilm. The film can be reproduced inexpensively and distributed to subscribers on a selective basis—just those jobs of interest—giving them direct access to basic, original bidding information.

Dodge Reports staffers gather the bidding documents from architects during their normal course of collecting project information. Spivey estimates about 90 per cent of all competitively bid building projects of $50,000 or more in this country are made available to the rooms.

The most difficult task, he says, is getting the bidding documents transferred to microfilm fast and accurately. To expedite this, Dodge/Scan set up 16 regional microfilming centers all over the country. Each of these centers has at least one automatic microfilming machine and a tabletop film processor.

“We can’t afford to lose any detail transferring this information to microfilm,” Spivey says. “All an estimator has is the draft of the original plan. We make sure the images are reproduced accurately.”

Bidding documents delivered to the microfilming centers range from separations to prints and wash-off intermediates and all intermediate generation. In addition, each set of bidding documents comes from different architectural firm, the drafting quality ranges from very good to poor.

“Under these circumstances, consists of the microfilming equipment, film, and processing is an absolute necessity if the end product is going to be readable,” Spivey says. “There’s no question, Dodge/Scan relies upon the microfilming process to provide the most accurate and timely information to the bidding companies.”
Easy threading and automatic operation of the Recordak Prostar film processors, model DVR, help maintain consistency of the film and speed processing for the operators, who are on newspaper-like deadlines. All film produced by the Dodge/Scan service is quality-checked on a densitometer. Density variations, film threading and automatic operation of the Recordak Prostar, help maintain consistency of the film and speed processing for the operators, who are on newspaper-like deadlines.

Microfilm operators use a technical manual especially prepared for this operation. Each microfilming center also has quality control check sheets. For the most part, however, quality specifications outlined in the operating manual are to be met the first time around.

There is no way to even out the microfilm work load. However, during the busiest periods, Dodge/Scan is able to distribute microfilm within less than a day and a half following receipt of the originals.

A typical day, Stewart says, is one in which each operator will film from five to 10 projects, ranging from 25 to 200 frames each. On a busy day there are as many as 15 sets of bidding documents to film, and a major project, like the World Trade Center in New York City, can fill up as much as 200 linear feet of microfilm.

**Speed and accuracy maintained by automatic camera operations**

To make sure of an even flow of work, while maintaining control of quality, most of the variables during microfilming are automated. Drawings of different dimensions must be filmed, along with 81/2 by 11-inch specification sheets. The latter are filmed eight to a frame at a reduction ratio of 21:1. When drawings ranging up to 30 by 42 inches are filmed, the operator pushes a button on the control keyboard. This changes the reduction ratio to 24:1.

For larger drawings too big to reduce to scale on a single frame, the camera operator uses a reduction ratio of 32:1. In all cases, a legend identifying the scale is placed on the camera copyboard along with the drawing. The film is processed at the microfilm centers, where it is inspected for quality.

While the film for each project is being produced, Dodge/Scan uses a computer to determine which subscribers will want copies. The parameters of the project, including the type of job, the dollar value, and the geographic area, are fed into the filming center’s computer. The computer matches these parameters to its memory of subscribers’ interests.

Then it prints out a list of subscribers, by project. A roll-to-roll microfilm duplicator is used to contact-print the number of copies needed for each project. The Dodge/Scan microfilm centers have their operations so that the originals are ready for duplicating about the same time the computer tells them how many copies are needed.

Usually, the day after the drawings and specifications are made available for a new construction job, the data are transferred to microfilm and mailed to the appropriate subscribers. Almost all of these subscribers use the patented, precision Scan Estimator 24 table-viewers, made available as part of the service.

These viewers have a 30 by 42-inch horizontal screen and project the image at 24x enlargement. As a result, the specification pages, filmed at 21x reduction, appear larger than actual size, and the majority of drawings, filmed at 24x reduction, are projected at actual size. Precise dimensions are a must for accurate costing and bidding.

Spivey believes the wide acceptance of this information service utilizing microfilm, plus the favorable results reported by both subscribers and architects, speak for themselves.
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M: the only way to go fast track—Part 2

Sign and construction management relationships for the new Johns-Manville World Headquarters near Denver were the subject of a pre-construction discussion among owner, architect and construction manager. Summarized here last month were remarks by H. McLeevea and Joseph Consigli of Johns-Manville, Joseph P. Hoskins of The Architects Collaborative and Barry Sibson of Turner Construction Company. Construction manager Sibson's further discussion of how the budget developed and the project cost out during succeeding design phases follows.

The first Turner activity on the project, Sibson says, was the preparation of an over-all budget estimate. Since the architect was set on the basis of a design competition, the budgeting plans of the proposed building were somewhat available. Using these plans, and Clunn, Turner's project executive, a quantity survey of the major items of construction was made. Obviously, at this stage of the project, there was not a great deal of detailed information on the drawings, but there was sufficient to determine approximate quantities of such items as excavations, concrete, structural steel, curtain wall and other items. With these quantities and an estimate to conceptualize the items not shown, the approximately accurate budget estimate can be made.

An informal interaction with the designer is almost as important at this stage as the specifications, in effect, are established in conditions between the architect and the estimator. The estimation results from Mr. Clunn's estimation, which was summarized on a trade breakdown, showing budget figures for each of the contract packages. A final review of the estimate was made in a joint meeting with Johns-Manville staff, the architect's staff and their engineering consultants. Upon acceptance, this estimate becomes a useful measuring tool for performance throughout the development and working drawings stages. As each of the subcontract packages is fixed with the corresponding get is made, providing a current reading of progress toward meeting the budget. With this information, the architect can select high or options in subsequent design to keep the budget on target.

Following acceptance of the budget estimate, Turner prepared an over-all project schedule for the sequence of construction operations. Approximate starting dates for the major trades were estimated, lead times for fabrication were allowed and purchasing deadlines were set. From this information, the critical items of design were identified and milestone dates for the completion of these design items were established. Thus, the efforts of the architects could be coordinated with the needs of the construction schedule.

During the development of a design from the schematic phase through working drawings, there are many alternates which face the designer. Many of these alternates can have widely varying effects on the eventual cost of the project and the construction schedule. In today's market, they may even require materials that are not available. As construction manager, it has been our responsibility to provide relative cost estimates of these competing alternates, to advise as to the availability of the materials under consideration and to alert the architect and engineers of any labor situation which might affect the timely or economical installation of a particular piece of work.

Examples of alternates which have arisen during the design of the JM project are as follows. Because of the degree of slope across the site, the base elevation of the building could have been set anywhere within a range of approximately 50 feet in elevation. Impinging upon this decision, of course, were many design factors, not the least of which was the cost of the excavation work. To assist the architect in making a decision on the building elevation, Turner estimators prepared relative cost studies for the various alternate placements. Other studies were made to establish the relative costs of a precast concrete frame versus a structural steel frame, and for various exterior wall configurations incorporating varying areas of glass and opaque panels. Because this decision also affected the design of the heating, ventilating and air conditioning system, these studies had to include figures for the relative costs of the competing mechanical systems as well.

One of the other major differences between Turner activities on the Johns-Manville project and those of a typical general contractor is the utilization of a fast-track schedule. The advantage of this procedure in an escalating market is obvious, not only in speeding the work, but also in pre-purchasing materials. For example, in July 1974, Turner purchased the structural steel frame for erection to start early in 1975. Thus, in comparison to conventional bidding after the completion of the entire design, the project is six months ahead of a normal schedule. And although it is always dangerous to talk of what might have been, says Sibson, Turner believes that this early purchase of steel has saved Johns-Manville between a quarter and a half million dollars in escalation costs. In fact, it is believed that the total savings achieved through the use of the fast track method on steel and other systems will amount to close to $2,000,000.

"To complete our responsibility for the preconstruction phase of the project," said Sibson, "Howard Clunn and his estimators will make a complete and detailed quantity survey of all the materials required for the job. We will price all portions of the work that have not been previously bought and will gather a complete and definitive cost estimate. This estimate will be presented to Johns-Manville and when accepted by them, it will become a guaranteed maximum price. This price sets the upper limit of Turner's reimbursement and the risk of any costs in excess of that price is Turner's. However, Turner will be paid only the actual cost of the project, if, as we all hope, the actual cost is less than the guaranteed maximum price.

"In a further effort to avoid material escalation costs and reduce subcontract costs, we are making available, at the site, storage space for materials and equipment delivered prior to the date that they may be needed in the construction process. We have also agreed to reimburse our subcontractors and material suppliers for material and equipment when it is delivered to the site. There are indications that a number of subcontractors will take advantage of this opportunity and that our costs will be lower for these materials. Additionally, in a few selected situations, we have bought at current prices, and have negotiated limited escalation clauses. In these situations, we are confident that the actual escalation factors will be less than the subcontractor was protecting himself for. Thus, we will achieve a lower actual cost than we could have received as a fixed price."

It is because of procedures such as these, and the savings in cost and time that are derived from them, that Turner strongly believes that some form of construction management is the best method of producing a building project such as the JM-Headquarters. A key element to eventual success of the CM method is a high degree of interaction between the owner, architect and construction manager. Certainly a higher degree of interaction prevails on a phased-construction project with construction management than is normal under the usual, sequential, design-build procedure.
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Cost differentials compare current local costs, not indexes.

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

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

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1941 average for each city = 100.00

ARCHITECTURAL RECORD, January 1975, 71
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Dimensions of the current housing cycle: Part 2

As last month’s article traced the path of the current housing cycle from its beginning back in 1970 to the peak in early 1973. Now let’s see what aspects for recovery ahead.

While the trend in single-family housing moved surprisingly uniformly from region to region during the current cycle, the behavior of multi-family building was found to be somewhat erratic. Three regions, the Northeast, Midwest, and West adhered to a fairly uniform pattern as far as multi-family building was concerned, but the South charted a course along individualistic lines. It turned upward a year after the other regions; gained much more momentum; and remained strong a year after single-family units in the rest of the nation began to decline. Demographic shifts—wage earners moving in search of expanded employment opportunities, and retirees seeking the advantages of the region’s climate—helped sustain this boom through 1973.

But, boom in housing, or anywhere else, that matter, have one major flaw—they’re very durable. The torrid monthly pace of 1972 and early 1973 soon gave way to the sharp declines of late 1973, and 1974. This article will analyze the factors involved in the housing collapse, keying in on the implications they have for the impending upturn.

tight money policies

Despite the recession, no comparable change in the economic advantages the South has enjoyed in recent years is discernible. Indications are that the current decline in the South’s multi-family housing market, though severe, will be of relatively short duration. The region should share in the housing upturn expected for the nation generally, in 1975, but at a lower level of activity. While residential contracts in the nation as a whole are expected to advance between 10 and 15 per cent next year, growth in the South will be slightly under 10 per cent. And, multi-family units, which slumped to 40 per cent of total housing in 1974, shouldn’t get much above that in 1975, due to the lag expected in the South. Multi-family units had accounted for 45 per cent of total housing in the nation in both 1972 and 1973.

Now that the Federal Reserve Board has shifted to a policy of relatively easier money in the face of the current recession, the availability of mortgage funds will be less of a problem in the months ahead. The recession itself could become an obstacle to a strong housing recovery, though, depending on its severity. Reduced aggregate purchasing power of consumers, plus the sharp run-up in construction costs in recent months, translates into something less than an ideal housing market in 1975. These conditions must be viewed as limiting factors to the breadth and substance of the housing recovery, though, not as reasons that will prevent its happening. They could make the turnaround somewhat slower, and the recovery somewhat weaker than it might otherwise be. The stretchouts that occur in 1975, though, will serve primarily to make growth in 1976 more buoyant.

Condominium-type housing has shown enormous popularity in recent years. Despite the current setback, it should prove to be quite resilient, bouncing back in late 1975 and 1976 to again play a major role in the housing picture. This should be true not only in the South, but in the rest of the nation as well.

James E. Carlson, manager, economic research
McGraw-Hill Information Systems Company

ARCHITECTURAL RECORD January 1975 73
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The EnerCon Classroom Air Conditioner system.
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For offices, corridors and administrative areas 100% fresh air isn't essential—the EnerCon Classroom Air Conditioner brings in up to 25% fresh air. These units also adapt to existing unit ventilators if you are modernizing. And, EnerCon Classroom Air Conditioners are compatible in design and function with all AAF cabinets and classroom series, including the effective, energy conserving/Stop return air arrangement.

Con pinpoints your heating/cooling needs. Average school frequently calls for both cooling and heating at the same time, even during the middle of the school year. For instance, heat gain from lights, equipment, and people means that core areas need to be cooled whenever they are occupied. So, core areas must usually be cooled even while perimeter areas are being heated.

During moderate weather conditions, the sun's heat from one side of a school to the other can make the difference as to whether you cool the perimeter, or heat from the areas being cooled, is reused and utilized this energy. You get heat or cooling where you want it, quickly and efficiently, at less cost.

And, you get a lot of heating practically free of charge. Just about all the heat needed to warm 2000 square feet is produced by units in other areas of the building that are cooling only 1000 square feet. This redistributed heat could, in many cases, be all the heat that is needed.

EnerCon cuts costs all around. Energy costs. Installation costs. Operating costs. They're all cut to the minimum. In fact, the annual owning cost of an EnerCon system, whether it's EnerCon Classroom Air Conditioners or Reverse-Cycle UNlvents, is especially attractive when compared to other heating/cooling systems on the market today. It's designed for today's school.

For more information, write: AAF, Dept. 131, Box 1100, Louisville, Kentucky 40201.

Better Air is our Business.

For more data, circle 40 on inquiry card

How EnerCon works in a school building. All EnerCon units in system are interconnected by a common water loop that transfers heat from spaces needing cooling to spaces needing heat, or stores excess heat for utilization later.

EnerCon Classroom Air Conditioners for interior classrooms and administrative offices.
Presenting the 1974 winners of the Owens-Corning Energy Conservation Awards.

Desert Research Institute, University of Nevada Systems, Boulder City, Nevada

*T.M. Reg. O.-C.F.*
Solar energy collectors were still pretty much a thing of the future when Owens-Corning initiated its Energy Conservation Awards Program in 1971. This year, both our Award Winners—plus two designs receiving honorable mention—rely heavily on the sun for their energy needs. Look these designs over. They may suggest a way your company can conserve energy and cut costs.

Desert Research Institute, University of Nevada Systems, Boulder City, Nevada
4,000 sq. ft. solar collector provides energy for 98% of the heating, 1 tons of cooling, and 96% of the water demand in this 8,800 sq. structure. Estimated energy savings: 63,000 KWH annually. Concrete walls and ceilings act as an insulation envelope that protects against temperature fluctuations and an uneven draw on the energy collector. Structure is built into a hillside for perimeter shielding from heat and cold. Plant life on exterior walls provides additional shielding. Design by Jack Miller & Associates, Las Vegas, Nevada, in association with Arthur D. Little, Inc., Cambridge, Mass.

Saginaw Federal Building, Saginaw, Michigan
18,000 sq. ft. flat plate solar energy collector provides energy for heating and cooling. Fenestration is pushed into the earth, and approximately half the roof is landscaped with lawn, shrubs, trees and seating. This contributes to low heat gain and loss. Design by Smith, Hinchman & Grylls Associates, Inc., Detroit.

Two Honorable Mention Awards
The Owens-Corning Energy Conservation Awards Jury found two other designs worthy of special attention.

Science Museum of Virginia, Richmond, Virginia. Combines a 28,000 sq. ft. solar energy collector with a heat-recovery system for heating and cooling. Expected energy operating cost: $12,000 vs. $50,000 for a conventional heating and cooling system. A saving of 75%.

Mechanical design by Hankins & Anderson, Inc., Consulting Engineers, Richmond, Virginia.

Denver Community College of Denver/North Campus, Westminster, Colorado. Combines a 50,000 sq. ft. solar collector with a heat pump system to cut fossil fuel requirements by nearly 80%. Insulation maintaining an exterior wall U-value of .065 is used throughout. Design by A.B.R. Partnership, Denver, Colorado.

How the Awards Program works.
Owens-Corning accepts entries in any of four building design categories:

Institutional—schools and hospitals, for example.

Commercial—office buildings, shopping centers, retail stores and similar structures.

Industrial—including manufacturing plants, research centers, and warehouses.

Governmental—post offices, administrative buildings and military structures, among others.

Any registered architect or professional engineer in the U.S. is eligible to enter a design. The only requirement is that the design be a commissioned building project. (The use of Fiberglas® insulation—although an excellent way to conserve energy—is not a requirement.)

Winners are selected by a special Awards Jury composed of leading engineers and architects.

Send for free Energy Conservation Awards Program brochure
If you'd like to know more about the winners, or their designs, write for a free brochure giving complete details.

Owens-Corning Fiberglas Corporation, Att. V. G. Meeks, Fiberglas Tower, Toledo, Ohio 43659.
Before Powerbond came along, a breakdown in communication or power lines meant ripping up your carpeted flooring. Now you simply install Powerbond on top of underfloor duct plates, as was done in this installation. When necessary to get at the wiring, only the plate section need be lifted. Make it easier to get into underfloor duct systems. Send in the coupon.

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919 THIRD AVENUE
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This is our new spring hinge.

Stanley's new spring hinge is, in fact, the one on the left. But you must admit it looks as handsome as our LifeSpan hinge shown on the right. Obviously, it blends in perfectly with other hinges on the job. It doesn't look bulky, out of place. It even has a concealed bearing.

Add to that, our spring hinge is UL listed, complies with codes, is factory pre-set and permanently assembled. Because it fits a standard 4½” mortise, it's also ideal for simple replacements in existing buildings.

For still more convincing facts, write Stanley Hardware, Division of The Stanley Works, New Britain, Conn. 06050. In Canada: The Stanley Works of Canada, Ltd.

*Patent pending.
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They came to Viking from every part of the world. They all knew something about fire protection. Enough to know they didn't know everything.

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We've done them all. Right down to a design which can keep a lot of money from going down the drain. And all this experience means we can help you get your next job done right, too. And show you how to save money in the process by recommending a knowledgeable contractor near you.

So when you're ready to specify fire protection, don't stay in the dark. Give us a call. Anytime. Wherever you are.

We'll shed some light on your fire protection needs.

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Call the Viking Sales Department for immediate information.
(616) 945-9501

Write for this helpful 32-page book "Viking Sprinkler System Guide". It's packed with information every building owner, architect and contractor should have.
WE TOOK THE BEAUTY OF DUTCH PORCELAIN AND PUT IT ON THE FLOOR.

This famous design from Holland gave us the idea for one of our high fashion sheet vinyl designs. It’s our new “Dutch Royale” pattern, available in our luxury line of foam-backed GAF GAFSTAR™ Supreme. All GAFSTAR sheet vinyl has a beautiful no-wax surface. And many other widths and thicknesses are available for Contract and Builder use.

If you need a floor that’s practical, and a floor that’s a real beauty, get both. In the one floor called GAFSTAR. For more information, call or write to GAF Corporation, Floor Products Division, Dept. P15, Box 1121, Radio City Station, New York, New York 10021.

For more data, circle 45 on inquiry card
1. An acoustically non-reflective ceiling is a must—to keep sound from bouncing to other areas. An independent acoustical testing laboratory examined eight ceilings, including expensive coffered and baffled systems. Their verdict: Owens-Corning's Nubby II Fiberglas® Ceiling Board (left) in any standard exposed grid suspension system is best for achieving speech privacy at economical installed cost.

*Reg. T.M. O.-C.F.
For speech privacy in open offices that puts it all indoors.

1. Masking sound

2. An unobjectionable background sound helps mask distracting speech. Special electronic speakers, installed in the room, make it possible to hear normal conversation clearly within defined areas, without being overheard in other areas.

3. Sound barrier "screen"

3. A barrier or the proper acoustical screen is necessary to keep unwanted speech from going directly between work areas.

All three essential elements should be "tuned" to work together with the help of an acoustical consultant.


Owens-Corning is Fiberglas

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These classics were first introduced to America by Stendig.

Chairs available from stock. One of the reasons why Stendig is so special. Write for catalogue.

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Looks as good as it lights. Vectorflood by Holophane.

Now there's a floodlight system you can use as an integral design element, with both clean architectural styling and outstanding performance. Vectorflood by Holophane.

First to introduce a crisp cylindrical profile, Vectorflood complements modern architectural concepts. You can even color coordinate with a spectrum of designer hues.

Plus, its advanced optical system gets the most out of the new, short-arc HID lamps—high pressure sodium to 1000W, or metal halide to 1500W—for maximum energy savings.

Let Vectorflood challenge your imagination. Find out how from your local Holophane sales engineer. Or write Holophane, Dept. AR-1, Greenwood Plaza, Denver, Colorado 80217.

Holophane®
Division, Johns-Manville Sales Corporation

for more data, circle 48 on inquiry card
Blue Cross and Blue Shield of North Carolina's Service Center, Durham, N. C. Architect: Odell Associates Inc.
HIGH-PERFORMANCE GLASS REFLECTS SAVINGS IN ENERGY.

Blue Cross and Blue Shield of North Carolina’s new Service Center does more than reflect and complement a beautiful setting—it’s a comfortable and energy-efficient structure as well.

LOF’s Vari-Tran® 1-108 reflective glass in Thermopane® insulating units in combination with slanted walls resulted in a substantial reduction in needed cooling equipment.

If the building had been designed with traditional vertical walls of 50% clear glass and 50% masonry cavity, it would have resulted in a solar heat gain through the walls of 3,300,000 Btu per hour. Clear 1/4" plate used in 100% glass vertical walls would have resulted in 6,000,000 Btu per hour solar heat gain. The final design, combining Vari-Tran with slanted walls, reduced solar heat gain to only 2,400,000 Btu per hour—a 60% reduction in energy load compared to the latter figure.

The use of Vari-Tran in Thermopane insulating units reduces heat loss in cold weather as well.

With Vari-Tran and Thermopane, annual fuel savings are precisely calculable and convincingly impressive.

In these days of high energy costs, a total energy concept of design must consider all construction materials.

Our highly qualified architectural representatives will be glad to help you save energy dollars with our high-performance glass. Write Dan Hall, Libbey-Owens-Ford, 811 Madison Ave., Toledo, Ohio 43695.

For more data, circle 49 on inquiry card
Designing in a Fraser laundry system can save your client from losing his shirt.

Do you know how much a well-planned on-premise laundry facility can save your client? Often there's a demonstrable 30% or 40% cost advantage compared to a contract laundry situation.

Fraser Laundry Systems can help you achieve this saving for your client right at the design stage. In fact we can do everything: feasibility survey, overall cost and projected savings, preliminary planning, sizing of installation to your available design space, schematic and mechanical layout, supplying equipment and specialty detergents.

As you see, Fraser Laundry Systems is not to be confused with the ordinary on-premise installation. We insure your client of maximum productivity and consistent results to insure minimum operating costs. After it's installed we back it up with service—factory direct service and regular preventative maintenance from our 700 Specialists. But we can explain all this to your client—or to you. Why not give us a call on our toll-free number 800-238-5557. After all, if you can save your client from losing his shirt, he may easily pin a medal on yours. Fraser Laundry Systems, Inc. is a subsidiary of Economics Laboratory, Inc., 4 Corporate Park Drive, White Plains, New York 10604.

Dept.-D-347

For more data, circle 50 on inquiry card

The clean living people.
The only organic roof that might outlast the Owens-Corning all-Fiberglas roofing system.

Conventional asphalt roofing systems have organic felts. So moisture and heat can cause them to curl, wrinkle, fishmouth, char and rot. And that can lead to an early failure.

Not so with our all-Fiberglas roofing system. Here's why.

1. It begins with Fiberglas Roof Insulation. This has a bottom surface that conforms to minor roof irregularities. And a top surface that stays flat. (FM Class 1 construction, UL 1, 2, and 4. Thickness from 15/16ths to 2 inches. C-value certification.)

2. Fiberglas Roof Tape then provides reinforcement at the roof insulation joints and helps reduce failures caused by normal deck movement.

3. Fiberglas roofing felts come next. Unlike conventional felts, ours won't absorb or hold moisture. So they won't char or rot. They resist curling, wrinkles and fishmouths.

4. Fiberglas PermaCap (where available) tops everything off. It's surfaced with inert, non-combustible ceramic granules that help beautify the roof.

And they're less subject to contraction and expansion due to changes in moisture.

For more data, circle 51 on inquiry card.

Unlike any furniture you've experienced before. A desk, a credenza, a work station and a space divider system.

A totally new direction in office furniture for the private office as well as the open area. For every department of the 2001 company.

A system of furniture that grows with you. Changes with you. Supports your every work need.

Series 9000—a new idea that will influence your office planning for years to come. Now in full production.

Write Department G for literature. Your Steelcase Dealer and Regional Office have complete information. They're in the Yellow Pages.

Steelcase Inc., Gd. Rapids Mi 49501; Tustin, Ca 92680
Toronto, Ontario; Steelcase (Far East) Ltd., Tokyo.

For more data, circle 52 on inquiry card
The nine award-winning interiors, shown here and on the pages that follow, range across a variety of building types and budgets but continue to express a remarkably unified approach to the design of interiors. Each is serious in purpose, energetic in its expression of function and insistent in the conviction that materials be brought together in orderly and carefully fashioned details. Without sacrifice to these values though, some of the projects, like C. Blakeway Millar’s Toronto restaurant (pages 104-105) or Hellmuth, Obata & Kassabaum’s offices for a bank holding company (where the mirror glass exterior turns under and into the building to create a reflective ceiling over the reception area, photo above) introduce elements of mystery and fun. These, when they are introduced with restraint—and without too many architectural calories—are, of course, exceedingly welcome—B.G.
The decision to mix elements of open planning with conventional office layout produces handsome results in these Kansas City interiors.

What most impressed the editors about these offices in Kansas City for a bank and bank holding company is the increasing skill with which elements of "office landscape" are introduced into a conventional office setting originally programmed as rental space. Here the mixture works well. Elements once thought to be antagonistic (indeed planned along opposing principles) coexist without serious conflict although the relationship between half-height partitions and perimeter wall (photo third from top, left) suggests less than complete resolution. Gone is the chaotic look that characterized earlier open-plan installations and gone too are the stiffness and formality of conventional office layout. Here in these offices, workspace is flexible and formal contours are softened by the generous use of plant materials and an extremely rich color palette. These colors, keyed by floors, are used in carpet, upholstery and in the vinyl finish on the interior core. The beautifully detailed full-height partitioning system, laid out on a five-foot module, includes large panels of glass that let daylight brighten the interiors.

Using handsome furnishings and carefully devised interior systems, Hellmuth, Obata & Kassabaum have created a series of interior spaces that are elegant, comfortable, and unusually expressive.

Changes of level, theater lighting and sumptuous details animate Warren Platner's rooftop restaurant for Crown Center

Few architects work more elegantly in interior design than Warren Platner, and his American Restaurant, in Kansas City, mingles opulence with elements of fantasy to create his most striking and theatrical dining space to date. The restaurant is a glass-walled penthouse atop a building by Edward Larrabee Barnes that overlooks Crown Center. The dining space is spatially expressed as a group of three distinct pavilions and a fourth that houses a reception area and services. The pavilions are artfully articulated by changes in floor level and by decorative ceiling canopies in floral forms that also conceal a myriad of clear-filament lamps that provide a low but pleasant level of illumination for dining. Some tables are lighted directly by brass domes and others by theater lights so set that the ceiling that washes diners (photo, bottom) in a scatter pattern reminiscent of falling petals. Similar fixtures throw sprays of light against oak window shutters.

Upholstery colors in the banquettes and cove seating are red, pink and indigo. Painted plaster wall surfaces are ivory cream, and carpet is a brownish gold. The level of detail throughout is exquisite.

Some readers may find the whole space overworked—too rich for their particular tastes—but Platner set out to create a place that would enchant, a place where routine can be suspended, where the frictions and abrasions of day-to-day living can be momentarily soothed in an atmosphere of fine art and fantasy.

AMERICAN RESTAURANT, Kansas City, Missouri


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Part renovation, part new construction was the answer in this lively facility for Canada's fastest growing sport.

The owner of two four-story brick buildings and an adjoining vacant lot commissioned the architects to design a squash club using the existing structures for lounge, locker and restaurant space, then integrating these with a new building containing squash courts constructed on the vacant lot.

The main entry is at the first floor of the new structure and gives access to the 400-seat viewing gallery that overlooks two exhibition courts which are fitted with large, back-wall viewing panels. There are two additional floors of courts on levels 2 and 3 above and these include 15 American singles courts, one English singles court (dimensionally different) and one doubles court. Connected to these playing facilities, but occupying renovated space in the existing structures, are a restaurant (with separate entrance), lockers, lounge spaces and other support facilities (see plans).

The program was unusual and its requirement for blending old and new into a coherent unity was a challenge the architects gladly assumed. The result is an interior that is not only functionally efficient but visibly unified—this in spite of the disparate elements the architects began with and in spite of the radically different requirements placed on each kind of space by the program itself. The interiors, though not glamorous, achieve an even level of design concern throughout and seem to convey quite clearly that fun and physical exertion are elements that can be contained and given suitable design expression.

TORONTO SQUASH CLUB, Toronto, Canada. Architects: Neish, Owen, Rowland & Roy—William J. Neish, partner-in-charge; Peter Manson-Smith, project designer; contractor: Camston Ltd.
In a renovated Manhattan brownstone, deep, curved inches expand a narrow space and open up a tightly-planned interior.

Architects Maurer and Maurer have made something of a specialty of townhouse renovations over the last ten years, and their assurance in dealing with this building type is evident in this brownstone on Manhattan's West Side. A number of limiting conditions are common to these houses. They are, for one thing, built out to the very edges of their exceedingly narrow lots (less than 25 feet). In addition, owners typically set aside part of the house for income-producing apartments.

Here, the family reserved three of the building's five floors as a self-contained triplex for themselves. The Maurers' aim on the main floor was to increase the apparent volume of the space by eliminating partitions, at the same time creating a sense of lateral expansion via long, deep recesses stretching on either side of the room. The reflective white enamel walls and stainless-steel fireplace enhance the feeling of openness—and, not incidentally, provide washable surfaces for a household of four children. The kitchen, which like the master bedroom below occupies a “bustle” area to the house earlier, has an arched ceiling that reflects the form of a round-headed window overlooking the back garden. Children's rooms are on the top floor of the triplex.

The top two floors of the building contain a pair of interlocking duplexes—the lower-level living room of one at the front of the house, its upper-level bedroom at the back, and the other way round for the second duplex—so that each apartment has one south exposure.

A tightly disciplined
color scheme
and subdued lighting
yield unexpected richness
in this extraordinary
Manhattan apartment

The client started with a two-bedroom cooperative apartment in Manhattan of more or less conventional design with exposures to the north and south. He enlisted the services of architect Der Scutt to advise him not only in the selection of a designer but to act as client's consultant for the project. Susan Forbes, of Forbes-Ergas Design Associates, was subsequently commissioned to work closely with the architect in design and preparation of the drawings.

To reposition the entrance, a custom ceiling, covered with carpet, was hung from the existing slab. A carpeted bench, in what had been closet space, further expands the space. Both elements are fitted with concealed lighting that detaches them visually and dramatizes their floating qualities.

The living room was fashioned from two spaces and shaped by platforms that create a strong diagonal axis. Following this diagonal, modular furniture is oriented to long views overlooking Central Park. The bedroom, facing west, is an uncluttered retreat, mirrored to double its apparent size.

Throughout the apartment, storage, lighting and the selection of finish materials are handled with care and skill. The color scheme is largely monochromatic—staying in a range of neutrals, champagnes and beiges. Soft pools of artificial lighting, mostly from low floor lamps, are augmented by the wall wash from behind a custom valence that rings the living room at seated eye level. Together, these sources produce a warm, intimate lighting environment that reflects and sparkles from mirrors and Mylar blinds.

A Toronto restaurant where fine food and glimmering images flow together to create an enchanting aura of elegance and ease.

Noodles Restaurant, in midtown Toronto, is a shimmering space that awakens dulled senses and excites the imagination. Stainless steel cladding on columns and ductwork reflect fractured images back to the viewer and a mirrored ceiling, hung on a grid, compounds the visual perplexity. Downstairs, a cook prepares food at a stainless steel servery right in the midst of diners who sit at individual tables or at long banquets. The carpet is a bright orange and is turned up at the wall to meet a finish of hand-made Canadian tile. Concealed fluorescent lighting, marking the junction of wall and hung ceiling, washes the tile in soft, colored light that changes in both intensity and character at different times of day. Additional lighting is provided by pendant globes over the tables downstairs. Chairs and banquette upholstery is brown leather, legs and arm rests are chrome plated.

The richness of detail and finish combined with imaginative lighting make Noodles a favorite with a luncheon clientele that includes many advertising executives who work in the area. Open from noon until the early morning hours, the restaurant offers an atmosphere of easy elegance that enchants diners and urges them to linger.

In the atrium of the new Fort Worth Bank, John Portman cantilevers a circular restaurant over an untraditional banking floor.

At the base of John Portman's Fort Worth National Bank Building, the tower flares out and perimeter loads are transferred obliquely to spread footings (pinned to bedrock) through rows of concrete ribs (see section). The main level, octagonal space thus enclosed continuers on a service core made up of four elevator shafts with concrete walls that serve as bracing and absorb all lateral loads.

Visitors entering at street level from side move across concrete bridges to reach central escalator. From here, they may ascend to the main banking floor or ascend the circular restaurant level that cantilevers dramatically from the walls of the core.

The interiors are conceived and executed with the kind of boldness and spatial liveliness for which Portman is justly famous. Like other atrium designs, space is freely exchanged between functions in a seemingly effortless dynamic. The color palette however is restrained, staying in the beige, gray, soft brown range except where 15 foot trees, banners and art add important color accents. Upstairs down, the detailing and finish selection is flavorful and luxurious but it is the forcefulness of spatial expression that rivets the eye and lingers in the memory.

Supergraphic representations of patents they helped to obtain brighten the offices of a Manhattan law firm in a stylized and highly personal way.

The search for dignity, continuity and solidarity—or at least the physical expression of these values—so often leads the design of law offices into gloomy, uninteresting avenues that a striking departure, like the office shown here, is an occasion for general note. For their new offices in Rockefeller Center, this firm wanted something bright and fresh, partly perhaps because they are patent attorneys who deal continually with innovation and invention. They also required a high proportion of private offices, small conference rooms and individual work stations. Architects Smotrich & Platt related these rooms to an open, centralized space that includes secretarial cubicles, a file area and a large glass-walled library. Some perimeter space is not enclosed in private offices so that natural light can penetrate deeper into the interiors. Additional daylight is borrowed from selected offices fitted with light monitors.

To give the office a special identity, the architects and graphic designer Wade Zimmerman developed a series of supergraphic murals that are actually abstractions of patents handled by the firm. In the reception area, photo right, the supergraphic depicts a printed circuit while at the end of the corridor, photo left center, the mural represents a weaving device on which the firm helped to obtain a patent.

For Doubleday's new bookstore in Atlanta's Colony Square, a saw-tooth plan and diagonal geometry made the best use of a narrow, open-ended space.

This narrow 2250-square-foot space is part of Colony Square Shopping Mall in downtown Atlanta. The entrance fronts on a public skating rink and the rear opens to a large pedestrian plaza. In converting the space into a retail bookstore, architect Jack Gordon kept this axis open by placing the stockroom along the long wall, a decision that narrowed the sales area even further. To compensate, however, he broke up the stockroom wall (see plan) into short 30-60 degree segments creating in this way a series of subspaces for browsers outside the main avenue of circulation. Both the quarry tile paving and the pattern of ceiling lights respect the angled geometry of the casework—casework that doubles front and rear as a window display. No wall separates the shop from the Mall. The entrance is simply closed off after hours by a roll-down grille.

Sensibly planned and intelligently detailed, this new bookstore achieves a clear sense of identity using only the simplest elements but using them exceedingly well.

Central Avenue in Pawtucket, Rhode Island (photo left) is scarcely a dream site. Run-down at the heels, with some 19th century factory buildings mixed with cheap-as-possible cinder block warehouse space, some stores from the last era when glass block was groovy and lots of parking lots, it is—alas—typical of just-outside-downtown in a hundred American cities.

Teknor Apex' program for the remodeling of its Central Avenue corporate offices was similarly modest. The need was for new office space—“utilitarian, inexpensive, nothing ostentatious;” and since the company produces products only for resale to other manufacturers, “concerns regarding public image are limited.”

Says architect Warren Platner: “We rather enjoy the task of trying to make something of distinction from very little, especially if there is something inherited to respect.” The photos on the next pages show how well he succeeded.
The starting point for the remodeling was:

The 19th-century factory building shown low—which behind patched-on exhaust ducts and decades of grime did offer “something inherited to respect” in its old brick, arched windows, and New England forthrightness,

... 2. The completely featureless cinder block structure next door (see “before” photo on
...which adjoined the plant, was used by the client, and had been used as a discount retail outlet.

Until the remodeling, Teknor Apex' office space had been contained in the factory building and a combined need for more production space and more office space led to the job. Platner's solution to the space problem was to remodel the cinder block building for general office space (top of plan) and add a wall, one-story addition beyond for executive offices (bottom of plan) which opens through an all-glass wall (photo below) to a tree-shaded court. The planning of the new offices was, of course, a fairly routine design problem. What was not routine is the totally new character of place and environment and order created by Platner and his design team.

The top photo at left shows that the cinder block building, to be used for general office space, was given new windows (simply punched through the cinder block walls and given the arch form borrowed from the plant) and refaced in brick matched as closely as possible to the factory. The brick chosen was an inexpensive common brick made by the same producer who provided the brick for the plant nearly 100 years ago.

The unsightly yard between the plant and the office building (again, see photo left) was landscaped and semi-enclosed with the arched wall shown in the photos. This provided a handsome new entry court for the plant employees.

As the top photo shows, the wall continues at the lower level of the new executive-office wing, extends past to form the arched entry to the main entrance (both bottom photos) and terminates in a freestanding wall at the property line. This second larger court is paved in matching blocks and planted with plane trees and euonymus. Platner's conscious decision (with the client's approval) to open this courtyard to the neighborhood was accepted by the neighborhood: it is now a busy and appreciated mid-block passage. The reflective-glass curtain wall assures privacy for company executives while giving them a pleasant and controlled view—and doubling the apparent size of the court.

The buttressed brick wall at the right in the color photo is freestanding, simply separating the courtyard from the not-too-handsome commercial buildings beyond.
The interiors are simple and spartan, and of common and inexpensive materials, but—as is characteristic of Platner’s work—detailed with great care and precision. In the remodeled section (photos below and bottom right) the retail-store space (“before” photo at left) was stripped to its wood structure and concrete floor. The multitude of columns in the space were nearly all enclosed in new partitions, which are framed and trimmed in red oak, and are about half clear glass and half pre-finished hardboard with a random-groove pattern. Conference-room spaces are glass-enclosed, but have narrow-slat blinds which can be lowered for privacy when needed. Carpeting is on-slab, and the ceiling is a conventional hung ceiling with “the least expensive lighting fixture made by the manufacturer. We like the fixture,” Platner says, “because being the cheapest was also the plainest and simplest.” About 85 per cent of the furniture was moved from old office and repainted to match new furniture designed for the manufacturer Platner some years ago.

In the new executive-office space, same simple finishes were used, though, of course, spaces are more generous and the furniture more luxurious (mostly wood—again designed for the manufacturers by the architect). As the top photos at right show, most of these offices share the view of the courtyard, but have narrow-slat blinds because the space faces west. In the entry lobby (photo) a skylight and a panel of wood parquet are intended to create “a sense of location.”

Construction of this new space is (to s
short span, with columns of square steel tubing and light weight trusses. But again Platner achieved some elegance with such simple devices as incandescent wall-washers and a foot-wide strip of parquet as a border round the carpet.

Total cost of the job was $32.13 a square foot—$26.60 for all building work—renovation and new construction including sprinklers and air conditioning; $5.53 for all floor covering, furniture refinishing, and new furniture.

So, despite a very limited budget, and no quest for “image,” Teknor Apex got an image, and an appropriate one. “What was included,” says Platner, “is a forthright New England quality to both interior and exterior—quality that derives from the simplest, spartan logic of fulfilling needs.”
There's a moral:
In last month's editorial, the point was made that: "Architects are beginning to take on smaller jobs—and that's good for all of us. When things are chugging merrily along, it's hard to blame an architect who has several big jobs ahead for graciously declining a small job. . . . But there just are no unimportant buildings—and architects are beginning to react to that."

Warren Platner is probably best known for such work as the interiors of the Ford Foundation Building and some of the most elegant restaurants in the world (for a recent example, see The American Restaurant at Kansas City's Crown Center, pages 96-97 this issue), and for the design—for a number of leading manufacturers—of some of the world's most elegant furniture. His office is now busy with two acres of private club and restaurant space that will top both towers of the World Trade Center.

The budget for the Teknor Apex project could probably have been dropped into any of those projects without anyone noticing. At least by comparison, this "remodeling" job is a humble and modest commission. A type of urban-industrial "fix-up" that seldom gets any attention has here clearly benefited from hands as skilled as Warren Platner's.

As common in first-rate architecture, a single and clear design idea makes everything else work—and makes this remodeling so much more thoughtful than the more common solution of a freestanding office structure with the inevitable flagpole on axis. With the simple device of the continuous new brick skin, Platner not only unified disparate older buildings and a new building into a coherent whole, he maintained the desirable architectural character that was there as "something to inherit." And he not only produced pleasant and efficient work space for the client, he provided—in the three court yards—a genuine amenity for the surrounding area, clearly improving the quality (and the sense of quality) of the neighborhood.

—W.W.

The tall, dark glass-sheathed Toronto Dominion Bank Tower, and the white concrete-framed Eaton's Department Store, are the first two buildings to be completed in Pacific Centre, a two-block commercial complex under construction in Vancouver, British Columbia, by Cesar Pelli of Gruen Associates.
In the Toronto Dominion Bank building in Vancouver, British Columbia, Cesar Pelli of Gruen Associates has further refined his ideas on the design of glass buildings and, in fact, of modern office buildings. Glass buildings, he says, "should not really be so called for in most the glass is of lesser esthetic importance than the metal mullions which then become the character-giving elements." This newest of his glass buildings shows his particular interest in the quality of glass as a skin.

"The Toronto Dominion tower is designed as a glass prism," Pelli says. "The metal is the minimum necessary to hold the glass in place. Viewed at an angle, even a sharp angle, the glass dominates the exterior surface of the building; at a sharper angle, the reflective qualities of the glass are strengthened, made more mirror-like, and therefore more glass-like. It is the surface quality of the enclosing material, not the structural expression of the building, that is proclaimed.

"Although the exterior wall in a modern building is nothing but the separation of the outdoor environment from the controlled indoor environment, it has great esthetic importance. Strengthening its reflective and surface qualities makes of the structure a volume rather than a mass. A brick is a mass; a balloon and a cardboard box are volumes. Modern office buildings are enclosures of space, thus functionally volumes. Monuments are masses built for eternity, for things beyond human life. Today's buildings are for people to use."

The Toronto Dominion Bank tower stands on one corner of the first block in a two-block commercial complex. Sharing the site, and strongly contrasting with the dark glass of the tower is a large, low white concrete structure for Eaton's department store. Both buildings open onto a two-level plaza at the intersection of the city's two busiest streets, Georgia and Granville. When the second block of the complex is fully developed—a second office building, also glass-sheathed, and a hotel are currently under construction—another plaza, directly opposite the Toronto Dominion tower, will counterbalance the fountain plaza of the Provincial Courthouse on Georgia Street.

The Pacific Centre complex adjoins the new civic-cultural complex now under development in three blocks just west of Eaton's and the Toronto Dominion tower. Together, these two projects will transform and revitalize the most important and busiest section of Vancouver's commercial and office district.
The reflective qualities of the glass surface of the office tower are repeated on the glass-sheathed half-cylinder at the plaza corner of Eaton's store, where the entrance leads directly to the high-fashion section of the store. Both reflective surfaces catch and change the images of clouds and of neighboring buildings. From different angles and at different times of day, the buildings themselves look different.

One of Pelli's refinements is the treatment of the corners of the tower building. Conceiving of the building as "a single facade that wraps around and is, in essence, a skin rather than four separate facades come together," he cut the corners at 45 degrees to the sides of the building, making the corner plane "an intermediary plane between the two sides and permitting the skin to wrap around the building. And the corner plane, being glass, catches different reflections and accentuates the difference between the planes as facets of a crystal do, producing a clearer feeling for the total surface. The sharpness of the prism is strengthened by carrying the line of the corners, where the tension is the greatest, unbroken from the ground to the top—just as the surface material carries through from ground to building top, and by designing the entrances to look as if they were carved into this crystal prism."

Under both blocks of the complex there will be a shopping mall, with Eaton's lower floor departments at one end and a connection across Dunsmuir Street to the existing Hudson's Bay store, merging new and old developments. Below the mall are two levels of parking for 800 cars in each block.

In the 10 years since planning began for Pacific Centre, the processes of development, like the processes of design, have been brought into a state of refinement. Where private enterprise and government once were antagonistic, the overwhelming mutual benefits of development led in the end to complete cooperation.


120 ARCHITECTURAL RECORD January 1975
HEAT STRENGTHENED
COLORED GLASS
1 1/2" INSULATION
VAPOR BARRIER
ALUM. FRAME

1/2" INSULATION
VISION AREA

GLASS
VISION AREA

INDUCTION UNIT

2 1/2" CONCRETE & FLOOR FINISH
3" STEEL DECK

AR A R E A

EATON'S
To maintain the concept of the tower as a crystal, Cesar Pelli designed the entrances to the office building lobby and the street level branch of the Toronto Dominion Bank as deep-cut openings in the glass exterior walls of the building. The splayed wall of the entrance catches reflections from down Georgia Street, just as the building itself takes the reflections of its neighbors—among them the venerable, elegant and picturesque Hotel Vancouver with its steeply-pitched roof over the central tower—and passing clouds. One entrance leads into the lobby from the plaza on Granville Street, the other opens directly off Georgia Street, one block away from the hotel. Inside the lobby an escalator connects the street level with the shopping mall below which, when the second block is completed, will extend the length of that block and across the street to an existing store with an historic name, the Hudson’s Bay Company. From the lobby the bank branch, dramatically identified by a mirror-covered column, is immediately accessible.
The college campus as a unified architectural idea—with the integration and consistency of a single building—is by no means a new concept. Some of the best campuses designed in the United States have been just that. But the idea waned after World War I to be revived again under the pressures for college growth in the sixties. Three of the best current examples—by Paul Rudolph, Harry Weese and Tasso Katselas—are examined in this study.

In the past, large architectural compositions for college and university campuses have had the unity of single buildings. The quadrangular colleges of Oxford and Cambridge come first to mind as do their derivatives, the residential colleges at Princeton and Yale. Elsewhere in the United States, Thomas Jefferson's plan for the University of Virginia was one of the earliest to impose a strong formal order over a variety of buildings housing diverse functions. Other well unified compositions include Charleston College in Charleston, South Carolina built at the height of the Greek Revival style, Antioch College in Yellow Springs, Ohio whose Gothic Revival plan was never fully implemented, Trinity College in Hartford, Connecticut which celebrates English Tudor, and the turn-of-the-century plans for the University of Chicago which bring to the Midwest the quadrangles, towers and gateways of Cambridge, England. The original campus buildings for the Carnegie Institute of Technology in Pittsburgh, Pennsylvania (now Carnegie Mellon University), built in the first two decades of this century, were designed as a single entity by Henry Hornbostel in a manner inspired by the Italian Renaissance. Among the last great compositions which preceded our revived interest in unified campus design were two in the classical style: Henry Ives Cobb's 1899 plan for the American University in Washington, D.C. and the original 1916 plan for the Massachusetts Institute of Technology by Welles Bosworth.

By no means all of the 18th, 19th and 20th century U.S. campuses were as comprehensively master planned and built as the distinguished examples cited. Most were, and still are, built from the very beginning on a piece-meal one-building-at-a-time basis as the need arises. The best of these have controlling master plans, but most do not.

Only since the latter part of the 1960's have colleges and universities begun again to build learning, administrative, and student residential space at sufficient volume, scale and speed to permit the development of powerful over-all campus forms. One of the best of the earlier current examples is Scarborough College in Scarborough, Ontario by John Andrews ("Beyond the Individual Building," September 1966, pages 161-164). It was designed as a campus whose ultimate size could not be predicted. A nucleus of elements needed from the beginning by the entire college was established, including the library, gymnasium, administration wing and academic court. The teaching facilities radiate incrementally from this nucleus.

A distinguished foreign example of this period is the
University of East Anglia in Norfolk, England by Denys Lasdun & Partners (July 1969, pages 99-110). Considerably larger than Scarborough, but similar in concept, it illustrates that the basic ideas which Scarborough represents can be elaborated at a much larger scale.

Architect Paul Rudolph’s concept for Southeastern Massachusetts University shown on the following pages unifies within a repetitive structural grid and mechanical system a campus capable of truly ordered growth in terms of circulation, topography and sequence of visual experiences. Begun in the late sixties and still under development, it now includes an arts and humanities group, a science and technology group, a library, a lecture hall complex, a student union and an administrative wing. The entire complex has very strongly modeled forms without which such a large concrete and concrete block structure would appear overbearing and dull.

Lake Michigan College in Benton Harbor, Michigan by Harry Weese & Associates—also included in this study—is a two-year community college for 5000 students. The campus esthetic is quite different from Rudolph’s, but it is just as successfully one piece. Architect Weese decided to concentrate his buildings on a 6.7-acre island in an 18.5-acre man-made lake in order to preserve the existing orchards and topography.

The artificial lake serves many purposes. It was necessary for the drainage and dewatering of the site which has a high water table, and serves as a flood control reservoir for the surrounding area. The earth excavated to create the lake was used to raise the grade of the roads and parking lots to assure their proper drainage. The lake is used for condenser cooling water for the air-conditioning system and drains the building storm water. The lake is also part of the educational program having been stocked with fish. Ducks, gulls and other wildlife use it and it is available to the students for boating and skating. It is surrounded by a mile-long walk and bicycle path located on top of the perimeter berms.

The over-all architectural concept of Lake Michigan College clusters the building masses around the central plaza in a closely integrated way which makes them function as a single building. This is economical and convenient. The entire campus is of reinforced concrete with buff-colored face brick. It includes a service building located under the plaza which contains mechanical spaces, maintenance areas and the book store. It is the major indoor circulation element. The three-story classroom building is 800 feet long with a constant cross section. A lecture center and a combined library and cafeteria building have also been completed.

Allegheny Community College by Tasso Katselas (page 136) occupies a hilltop overlooking downtown Pittsburgh. It consists of classrooms, lecture halls, faculty offices, a library and gymnasium all built of reinforced concrete and dark brown brick. It occupies a much smaller site than the other two campuses included in this Study and it is denser and more compact. It is similar in spirit to the Rudolph campus at SMU, but even more aggressive in its forms.—Mildred F. Schmertz
LAKE MICHIGAN COLLEGE—
DESIGNED BY HARRY WEESER & ASSOCIATES
TO OCCUPY AN ISLAND IN A MAN-MADE LAKE

Located on 259 acres of farm land in a Michigan fruit belt between Detroit and Chicago, this two-year junior college was designed to preserve the character of the area by retaining its existing orchards and topography. The low lying sandy soil required flood control which caused the architects to develop a site plan which includes an artificial spring-fed lake. The resulting composition is serene and ordered.

ALLEGHENY COMMUNITY COLLEGE—
DESIGNED BY TASSO KATSELAS AS A STRONG STATEMENT FOR A STRONG SITE

This urban school is located on a dramatic hill top site across the river from downtown Pittsburgh's Golden Triangle. This site has the advantage of visually linking the school to the main city and calling attention to itself. The complex has been designed to take advantage of this prominent situation. The building forms are strong and sculptural within a formal structural order and well related to the older campus.
If a strong architect’s ideas are to prevail over time, they must be carried out by other architects who respect and understand his work. Although Rudolph himself (as the credits which follow indicate) has been in and out of work on the SMU campus since he created its master plan in the mid-1960’s, his hand is in everything. The tower, for example, was conceived originally by him as the necessary pivotal point for the entire composition, as in Siena or Venice or as yet to come in his own Boston State Service Center. At first Desmond & Lord’s architects referred to the projected SMU tower as a campanile, but later, at Rudolph’s urging, straight-facedly upgraded it to a “communications tower” topped off by a TV antenna (there was no other way to get the State of Massachusetts to pay for it). The actual tower itself was designed by architect Grattan Gill, then a principal at Desmond & Lord. “Paul was no longer directly involved,” he said, “but he gave us the courage to do it.”

The Library, for which Rudolph gave informal critiques to his friends at Desmond & Lord appears to the right of the photo (top) and at the center of the photo (opposite page).

library, amphitheater and anicile which form the core can all be seen in photo at right. The amphite-
ther (below) consists of steps planted in grass.
The state wanted asphalt green, but happily the 
rects prevailed). The fans out from this core 
series of spirals interconnected 
by broad shallow stairs-
almost Baroque in their 
(on page, bot-
As the site plan overleaf 
tes, SMU is a commuter 
with a large percentage 
students arriving by car. 
The main automobile en-
all traffic is diverted to a 
road from which the stu-
an select the parking field 
to his destination. Ad-
of Rudolph buildings as 
ure can slowly circum-
te the campus by this 
ring road watching the 
ing play of forms against 
other—the cantilevers 
ornices, the projecting 
owers and the bat-eared 
or penthouses against the 
here is much of Frank 
Wright in these build-
that part of Wright's 
which was most strongly 
ised by Japan. Interest-
the photographs on these 
which most emphasize 
ence were taken by the 
Japanese photographer, 
awa.
Shown above is a portion of the elevation of the Arts and Humanities Building and at right a detail of the Library. A repetitive structural grid is used with great consistency throughout the campus. It incorporates much of the mechanical system within a pattern of evenly spaced hollow polygonal piers. The piers have four points of support in the form of rounded columns connected by ribbed concrete block infill panels. Mechanical risers are housed in the diamond-shaped voids of these piers. These voids also serve as janitor's closets, miscellaneous storage spaces, and chases for laboratory services. The piers support paired beams which carry the horizontal ductwork between them. The underside of these horizontal chases, on both the interior and exterior, are finished in wood fiber cement plank, making it clear that they are nonstructural. The elevations throughout the campus are strongly modeled, consisting of alternately projecting bays at the top story. The ground floors are deeply recessed. Such vigorously articulated facades break down the scale of these huge buildings.
Rudolph's interiors become most dramatic at points of vertical circulation (right and below right). These spaces include projecting balconies, fireplaces and well-scaled informal seating areas. The Student Union building with a cafeteria (top right) was recently added to the complex, and the Auditorium (bottom left) is now complete. The lecture hall (middle left) is typical. Ribbed concrete block is used throughout the interiors as well as on the exterior.
Like SMU, Lake Michigan College in Benton Harbor, Michigan by Harry Weese & Associates has been designed for an enrollment of 5,000 students, and it too is a commuter college. Its site plan is as masterful in its way as Rudolph’s. The main elements, however, are different—vast expanses of quiet water as opposed to broad terraced lawns, and a consistent use of beige brick instead of exposed concrete.

The architectural spirit of the two campuses is in more dramatic contrast. Weese’s buildings are symmetric, classic and peaceful, while Rudolph’s are asymmetric, romantic and exciting. Further, the methods by which each architect exercised control over his design were, by necessity, not the same. Weese and his staff, to their good fortune, have been the sole architects of Lake Michigan College from the master planning stage through the construction of each building. Rudolph, on the other hand, was required to set up a design framework which other firms could successfully follow with varying amounts of behind the scenes critical input from himself. Weese’s campus, therefore, is consistent in its excellence, while Rudolph’s has varying degrees of quality within the over-all brilliance of its concept.

Weese’s design concentrates the entire college into what is essentially one interlinked building for economic and functional purposes. His scheme permits the convenient multiple use of rooms and the easy rearrangement of departments when necessary. The building masses cluster around a central plaza which is the roof of the service area and the indoor circulation between the building elements. The buildings have been placed close to the water’s edge separated wherever possible by a shallow sloping embankment. The complex presently consists of a classroom and administration building, a library and cafeteria wing and two lecture halls.

LAKE MICHIGAN COLLEGE, Benton Harbor, Michigan. 
The 200 by 220 ft plaza is the heart of the complex. It is the main circulation element and provides access to all the buildings. It is connected to grade by a wide ramp, a stepped ramp and other stairs. Its 400-seat sunken amphitheater (below) also provides access to the service building below the plaza. The view through the moon gate is toward the classroom wing. A corner of the library-cafeteria can be seen in the photo at the top of the page. On the perimeter of the plaza, precast benches are used instead of railing.
Two views of the cafeteria (minus furniture) appear above. It is located on the third floor of the three-story library-cafeteria building located at the terminus of the entry axis. The diagonal glass wall overlooks the lake and orchards. Service to the kitchen is by elevator which connects directly to the central receiving area in the service building. The library (below) is two stories high with a mezzanine which can be entered from the plaza. Like the cafeteria, it has a fine view to the north. The lecture hall (left) is typical.
Tasso Katselas's campus for Allegheny Community College is bold, romantic and imaginative in the way its forms take command of the hill. Thus it has far more in common with Rudolph's architecture for SMU than with Weese's design for Lake Michigan College, which, while imaginative, makes the kind of subtle, quiet statement which has little interest for Rudolph or Katselas in their own work as artists. There are more than two ways to do architecture, however, and in this instance, Katselas' way is a third. Whereas SMU was designed as a repeatable system with the possibility of being carried out by others and allowing for great expressive quality within each module, Allegheny Community College is a one-of-a-kind work of sculpture which, when the final buildings are added, will be in no way open-ended.

Where Rudolph's work appears to obey ancient laws of order, Katselas's flying cantilevers, deep recesses, assertive cylinders, jutting triangulated windows and criss-crossed diagonal escalators are fearlessly assembled without deference to known canons of taste. "Why not?", Katselas seems to be asking, and his question leads to the kind of exuberence in his work which we have again come to admire in late Victorian architecture and in certain venacular styles.

Much of the exterior complexity is the result of Katselas' interest that the internal spaces should be in his words "generative and flexible, able to adapt and absorb the changing needs of education. The hope was to create an intricate design with a variety which would surprise, lure, and upon occasion, awe the spectator. I have paid attention to the halls, the doorways, the landings, the stairs, the corners as well as to the main teaching areas. But in the end it is the students, by their activities, who give meaning to the spaces."

The physical education plant (above) has a full-size gym on the top floor with a competition-sized pool below. Fenestration changes with room size function and orientation as the photos on this page indicate. The triangulated windows increase the apparent size of small faculty offices. The peace symbol (bottom), cast in concrete, places these buildings firmly in their time.
The classroom building is at the center of the complex. At its heart is a vast atrium, in the form of a half circle which extends the full height of the building. The escalators to the left of the bottom photo are principal circulation elements, interconnecting the various classroom wings. The mural (above) located at the atrium ceiling is by Jane Katselas.
The 60,000 book library is organized around a multi-story circular reading room. Throughout the campus, these circular forms are juxtaposed against the rectangular module of the classroom and laboratory structures. In this circular plan, the stack areas at the center are within easy reach of the reading and lounge areas on the perimeter tiers. The control desk at the main entrance can be seen in both photos.
designers adapt pre-engineered structure for flexibility

Trick manipulation and structural augmentation turn a standard building into nonstandard theater

Faced with the assignment of designing a low-budget ($600,000) theater at Phillips Exeter Academy, architects Hardy Holzman Pfeiffer Associates contemplated certain advantages of pre-engineered building—low price, controlled cost, rapid assembly—and wondered if such a structure could reasonably be adapted to the purpose.

That structure would require some modification both functional and site reasons—to accommodate understage trap space, for instance, and to diminish the warehouse-like appearance of the large volume.

The building that evolved from these decisions set some out-of-the-ordinary conditions on his standardized system: an irregular build-volume with pronounced offsets and a broad ridge line; heavy foundations and the addition of a second level to a frame intended for single-story buildings; roof-hung lighting grid, walk and ductwork.

Adaptation involved extremely close cooperation of structural engineers Goldreich, Eise & Thropp, the architects, and the contractor services of Butler Manufacturing Co., who supplied the rigid-frame structural system for the roof and wall panels. The engineers provided the manufacturer with the magnitudes and placement of projected loads, and then, using computer-determined frame sizes, manufacturers supplied shop drawings.

The project necessitated some radical changes in normal design procedure—both architects and engineers use the word “backwards.” Only after the manufacturer’s drawings defined possibilities and limitations could engineers design supplementary support for flooring, seating “dishes” and overhead lighting. The engineers furthermore spent considerable time checking shop drawings against their stages of design.
Sharply sloping site allowed a split-level plan not accounted for in the design of the standardized structure. Heavy foundations, an interior retaining wall along one side of the lower-level lobby, and some additions to standard framing bents were required to support the main floor and its seating dishes, the undersides of which are exposed in the lower-level lobby (near right). Bents are paired (above) wherever offsets occur in order to accommodate girts for the end walls (see plans).
The stage and seating are set diagonally in an irregular enclosure to reduce apparent volume of the industry-type building and the insistent functionality of the exposed roof structure. Catwalk, lighting tracks, and work are hung from a special set of ceiling purlins because standard ins, designed to accept manufacturer's roof-panel connectors, could be economically be altered. To accommodate the extra loads, bents strengthened where necessary.
Nonstandard components include framing for the main floor (top left), supported partly by heavy foundations, partly by rigid frames. Brackets for floor beams were factory-welded to bents (above). On the main floor (center left), the asymmetrical lower seating dish, sunk below stage level, is supported by curving steel beams and by one pipe column beneath. The steeply raked upper seating dish (center and bottom left) is concrete and steel decking; pipe columns support its upper edge. To provide the roof height required by the two-level building, the bents, which are normally founded at grade, are set on concrete foundations or, as at bottom left, on a concrete pier adjacent to the retaining wall. Close-up of one of the offsets (below) shows doubled-up bents, as well as special end column, to support end-wall girts. Wall and roof are manufacturer's stock sandwich panels, colored olive green on the exterior.

manufacturer introduces a cabinet line for North American kitchens

Available in the United States and Canada, this line of kitchen cabinetry is in high-gloss, high-density particleboard, and are finished in white melamine plastic. Contemporary styling is emphasized by long-line polished aluminum handles and concealed, self-closing hinges. Four exterior finishes — white, teakwood, bright yellow and red-orange — are standard, but up to 12 other colors can be special-ordered. All units conform to American dimensions. North American distribution and inventory are being maintained, and units are moderately-priced. • Murray Kitchens, Westfield, N.J.

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Two basic components provide flexible seating

German designer Otto Zapf created this seating, "Pollorama," which can—without mechanical devices—be rearranged easily, according to the company. A 2½-in. wide belt holds a combination of two basic foam blocks together. Busters and loose cushions are also available to further the design options of the user. • Knoll International, New York City.

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tem of metal stud systems and accessories is the subject of a new brochure which describes pre-erected systems for construction of load-bearing, non-load bearing partitions, curtain walls and fire walls. Numerous illustrations and applica
don supplement text material. Detailed load-bearing engineering tables and suggested specifications are included. Descriptive data is supplied for the many nailing channel systems, drywall furring and related drywall accessories. Simple drawings show proper application techniques. • Allied Structural Industries, Detroit, Mich.
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GY-SAVING BRICK / “Walks to Save Energy," a professional's guide to energy conservation brick, has recently been added to the Brick In
stitute of America’s technical design library. Pri
mary for architects and engineers, this report is an
detailed study of life-cycle energy efficiency designs with brick. • Brick Institute of America, Chi
cago, III.
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BAR SHAKES / A design idea and reference man
ual. Western Red Cedar shake and shingle panels, diagramming drawing, data and application sheets are available for architects and de
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TUB-SHOWER ENCLOSURES / Included in the liter
ture are specifications and four-color photography of sliding door enclosures, folding door enclosures, pivoted doors, hinged doors, door and panel en
trances and special installations of glass and plastic glazing materials. • Howmet Corp., Magnolia, Ark.
Circle 410 on inquiry card

GYM FLOOR FINISHING / New illustrated literature on gym floor finishing features two specific systems. One utilizes a penetrating finish with a glare-free sheen; the other utilizes a sealer and an oil modified urethane surface coating to create a durable, high gloss finish. Both systems create a surface that is durable, efficient and easy to maintain; both are formulated for non-skid, non-slip safety and resistance to rubber burns, according to the company. The literature includes a discussion of the advantages of each system and the products required to obtain the desired finish. Application instructions are detailed. • Minwax Co. Inc., Clinton, N.J.
Circle 411 on inquiry card

LABORATORY FURNITURE / This 16-page “brief
catalog" describes everything from base units to work-tops, service fixtures to fume hoods. The bulle
tin explains all-steel construction and phosphatizing treatments for the products, and how furniture styling can help create a pleasant working atmosphere for the laboratory. • Fisher Scientific Co., Pittsburgh, Pa.
Circle 412 on inquiry card

FLUSH DOORS / Architectural and residential doors are shown in a new 1975 eight-page four color cata
log. Complete descriptions, specification and illu
sions are included for each type door. • Paine Lumber Co. Inc., Oshkosh, Wis.
Circle 413 on inquiry card

TREATED-PLYWOOD PRODUCERS / A directory of firms preservative-treating plywood and lumber for founda
tions is available from the American Plywood Association. Names and addresses are pro
vided for manufacturers subject to the American Wood Preservers Bureau treatment standard and quality control program which applies to plywood and lumber for ground contact. AWPB-FDN identi
fies materials accepted for wood foundation use by HUD and FHA building code authorities. • American Plywood Assn., Tacoma, Wash.
Circle 414 on inquiry card

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The finest, most beautiful sinks made. Single and multiple compartment models, a wide range of sizes and styles, many faucet and accessory options, four fine grades of stainless steel.

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The opportunity of getting seven buildings completed and ready for occupancy in fast time was a principal reason open web steel joists were selected for these Longboat Harbour Condominiums in Sarasota, Florida.

Planned and constructed by I. Z. Mann & Associates, Inc., they are located in an attractive setting in the beautiful Longboat Key area. Overall economy, plus the speed of erection for floor and roof support made steel joists the structural answer to this building need. The lighter total dead load also permitted savings in foundation construction costs in the sandy soil.

Learn more about the benefits of open web steel joists. Send coupon today.

For more data, circle 58 on inquiry card
HIGH EFFICIENCY LUMINAIRE / An efficient reflector system and a spherical luminaire highlight the new Wingate series of outdoor lighting fixtures. A bilateral reflector system is adjustable to provide a full range of IES light distribution patterns for various project requirements. Incandescent or high-intensity discharge lamps of 100 to 1000 watts may be used, and up to four luminaires can be arranged on various poles at heights of 7 ft 6 in. to 40 ft. • Sterner Lighting Systems Inc., Winsted, Minn.

Circle 312 on inquiry card

SIDEWALL SPRINKLER / A new sidewall sprinkler design provides a long-throw spray pattern of up to 300 sq ft. This area coverage makes it possible to install a lower-cost sprinkler system with fewer sprinklers and fittings, less pipe and, frequently, reduced pipe sizes, according to the company. Exposed piping is minimized and piping can often be confined inside walls, corridors or other service areas. The product is offered in both bronze and chrome finishes, and the pipe flange and elbow can be painted. • Automatic Sprinkler Corp. of America, Cleveland, Ohio.

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He's probably forgotten he bought it, because the Rite-Hite Fully Automatic dock leveler was designed to be ignored. It has a history of uninterrupted performance that is flatly amazing. In more than 20 years, covering literally thousands of installations, not a single unit has ever failed mechanically. If you're a bug on maintenance, the Fully Automatic will probably make you nervous, because it can't be adjusted. No need. But no downtime, either. It will keep on operating 24 hours a day for many, many, many years. Which means your first cost is your last cost. Long term, it is easily the cheapest and most productive leveler you can own. Easiest to operate, too. It's activated by the incoming truck.

Sound incredible? Try this: We absolutely and unconditionally guarantee the Rite-Hite Fully Automatic leveler against mechanical failure of any kind for five years after it is installed. If, after five years, you're still worried about maintenance, have your dock crew wash it. But tell them not to fool around with it. It'll be working fine. Write for details.

For more data, circle 60 on inquiry card
VIBRATION DAMPER / A two-page data sheet detailing the Sound Stopper Vibration Damper for control on metal surfaces is now available. The easy-to-use material is engineered to dampen vibrations of steel, stainless steel and aluminum surfaces. Applied with spray, brush, roller or felt, this visco-elastic coating retains its sound damping properties for years. It is fire-retardant, fume-free and chemically-resistant to most commonly used acids, alkalis and solvents. * Singer Industries, Inc., Chicago, Ill.

Circle 413 on inquiry card

MIXINGWARE GUIDE / A 20-page pocket-sized guide of a full line of plumbing fixtures contains detailed specifications and gives references to product—product features, colors, options, sizes and installation information. It is divided into eight product sections covering the total line of bathubs, lavatories, water closets, sinks and commercial fixtures. * Briggs, Tampa, Fla.

Circle 416 on inquiry card

EGOODS LINE / The company is offering three color brochures on its complete casegoods line. ENVIRO-70 brochure features casegoods for each care and hard use installations. MOBILA-90 SPECTRUM-80 brochures discuss lines for use in commercial and other casegoods applications. * Jet Industries, Inc., York, Pa.

Circle 417 on inquiry card

LITH-CARE EQUIPMENT / This health care equipment catalog describes and illustrates a line of less steel refrigerators and freezers for hospital lab installation, as well as autopsy and morgue equipment. The line includes freestanding, counter-under-counter, and wallmounted models. The 34-page brochure includes metric as well as English dimensions and temperature ranges. * The Refrigerator Co., Inc., Buffalo, N.Y.

Circle 418 on inquiry card

With reference to the Airports article in the November issue of ARCHITECTURAL RECORD, the credits for the design of the Terminal B interiors of Newark International Airport should read that Howard Grill, president, was the project Manager and that Bill Brody, vice president and chief architect of Merkt & Company, was the officer-in-charge.

In our coverage of "Wood and Plastics," page 21 of the October 1974 PRODUCT REPORTS issue, we were in error in stating that "three-ply ½-inch wood is being tested at the American Plywood Association as an alternative to five-ply ¾-inch wood." APA confirms that "tests have proven that the high standard of structural performance can be achieved using fewer plies in the production of wood. Three-ply and four-ply plywood are now interchangeable with five-ply plywood for non-heating applications."

Also in the October 1974 issue, we wish to point out the following photo sources for the article, "Architect as Product Designer:" page 18, Figures 1 through 5, Collection, The Museum of Modern Art, New York; Figure 6, Kevin Roche John Dinkeloo Associates; page 19, Knoll International; page Vayne Thom; page 20, drawings, Peerless Electric, 11 and 12, Jeremiah O. Bragg, Figures 13, Collection, Museum of Modern Art, New York; Figures 14 and 15, Sam Davis. Mr. Davis, author, is Assistant Professor of Architecture, University of California at Berkeley.

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Available in 50" lengths, these new fixtures are designed for either one or two fluorescent lamps. Frosted diffusers give greater lamp obscuration plus greater lighting efficiency. So stop fishing...we've got the fixture you need. Just drop us a line requesting Bulletin #400.

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OFFICE NOTES

New firms, firm changes

EDAW, Inc. announced the opening of offices in Fort Collins, Colorado and the appointment of Herbert R. Schaal as principal-in-charge of these offices. EDAW, Inc., based in San Francisco with offices in Newport Beach, Minneapolis, and Honolulu, will be located at Rocky Mountain Building, Suite 700, 315 West Oak Street, Fort Collins.

Copelin and Lee, Architects have announced that Mr. Lien Ching Chen has joined the partnership and that the name of the firm has been changed to Copelin, Lee and Chen, Architects, 150 East 79th Street, New York.

Gary R. Brown, Frank G. McCurdy & Charles D. Stickney have formed an architecture and planning firm to be known as Brown, McCurdy & Stickney, Pier 35, The Embarcadero, San Francisco.

Cambridge Seven Associates, Inc. have moved to new offices at 1050 Massachusetts Avenue, Cambridge.

Gordon H. Terwilliger, P.E., announced the opening of his office at 75 Augusta Road, Lavonia, Georgia.

Rosenfeld/Harvey/Morse, Architects have announced the relocation of offices to the Penthouse, 350 Madison Avenue, New York.

Benham-Blair & Affiliates, Inc. has acquired the firm of Wildman & Morris at 111 New Montgomery Street, San Francisco; at the same time has moved its West Coast headquarters to that location.

Claude Stoller and David Evan Glasser have announced that they will be continuing to practice architecture under the name of Stoller/Glasser, formerly the New York office of Marquis and Stoller.

Henningson, Durham & Richardson, Omaha-headquartered architectural-engineering firm, have established a new regional office in Atlanta, Georgia.

James M. Webb, Architect AIA and David A. Coon have opened offices in San Francisco and Alldena, California for the practice of architecture and planning. The firm will be operating under the name of AESTHETIKA, INC.

L-Jane Hastings and Carolyn D. Geise have recently formed a partnership for the practice of architecture. Known as The Hastings Group, their offices are located at 1516 East Olive Way, Seattle, Washington.

John Carl Warnecke and Associates, San Francisco-based architectural firm, has opened offices at 9665 Wilshire Boulevard, Beverly Hills, California.

Morris Ketchum, Jr., AIA has announced his firm's new name is Morris Ketchum, Architect, 104 East 40th Street, New York.

The firm of James T. Canizaro Architect has changed its name to Canizaro Trigiani Architects, 733 North State Street, Jackson, Mississippi.

The architectural firm of Jenkins-Wurzer-Starks, Architects, P.C. has relocated its offices to the Builders Exchange Building, 63 College Avenue, Rochester, New York.

Neubeck and Tatler have reorganized under the name of Tatler Rue Associates, Architects. Operations will continue from 495 West State Street, Trenton, New Jersey.
Large expanses of vision area in these high school buildings let the outdoors flow in. The openings are glazed with C-E Polarpane "20" Tempered Insulating Units in bronze . . . to keep the extremes of winter out.

C-E Polarpane insulating performance ("U" value .55) makes this open effect practical at George Junior Republic School . . . even though the school is located at Freeville in upper New York State, where winter means winter all winter long.

Students stay warm, comfortable and alert. A higher, more desirable level of humidity contributes to a feeling of warmth at lower temperature settings . . . and helps guard against itchy eyes, the irritation of dry skin and chapped hands.

Because C-E Polarpane holds higher temperatures at the glass, beneficial humidities can be maintained without condensation formation, dripping or inside frost, under most conditions.

Performance like this cuts initial investment in heating equipment. It means additional savings every year by reducing the requirement for fuels which are bound to become more expensive and harder to obtain in a situation of energy crisis.

For safety's sake, C-E tempering makes these units 3 to 5-times stronger than ordinary glass . . . providing welcome impact protection in areas of heavy student traffic.

To learn more about C-E Polarpane "20," see the C-E catalog in Sweets: 8.26/CE. For additional information, contact our local representative or write C-E Glass, 825 Hylton Road, Pennsauken, N.J. 08110, (609) 662-0400.

Polarpane "20" can be fabricated with clear, tinted or pattern glass and is available in many irregular shapes. The units are hermetically sealed with C-E's primary butyl sealant which offers the greatest resistance to water absorption and lowest vapor transmission available anywhere. This sealant plus a secondary sealant and desiccant are enclosed by a stainless steel spring channel which maintains permanent pressure on the primary seal. This enables C-E to provide a 20-year warranty for moisture-free performance in the sealed area.

This warranty is backed by Combustion Engineering, Inc., one of America's leading industrial firms.

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**RECORD HOUSES AND APARTMENTS**
The annual mid-May issue devoted to the year’s best architect-designed houses and apartments. More than 44,000 architect and engineer subscribers... plus distribution to 20,000 Sweet’s-qualified builders and 4,000 Sweet’s-qualified interior design offices.

**ENGINEERING FOR ARCHITECTURE**
The annual mid-August issue, devoted to a comprehensive survey and analysis for architects and engineers of the most significant current developments in engineering for buildings. Bonus coverage of newly active building engineers.

**PRODUCT REPORTS**
The annual mid-October round-up of the most interesting new and improved building products. Organized by the Uniform Construction Index, this “product file on the drawing board” provides a quick up date of out-of-date catalogs and literature.
The Mansards, Griffith, Indiana

"The whole idea of "The Mansards" is to provide gracious living accommodations in a natural setting of trees and water. The convenience of city living is combined with the graciousness of country living here. We have put top quality into "The Mansards" and that extends to our coin-operated laundry equipment. We chose Speed Queen for one simple over-riding reason—it's the best we could get."

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"Lake Point Tower represents a new kind of urban life—a completely self-contained city at the edge of Lake Michigan. We appeal to individuals and families of middle and upper income. They expect and get the best at Lake Point Tower. That's why we chose Speed Queen equipment for our laundry facility. Speed Queen represents quality which will be on the job—not out of order. And I understand the Stainless Steel feature is a real plus when laundering durable press fabrics."

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"We chose Speed Queen laundry equipment for one simple reason—it's the best we could get."

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Every Halsey Taylor water cooler is an asset to the people who own it and use it. It consistently lives up to its billing as the world's number one water cooler because we've established a standard of quality unmatched by anyone. And we never let it slip. We test every Halsey Taylor product—thoroughly—as it comes off the line. No spot checking. Every feature of every cooler must be perfect.

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Color oil-base stain should be applied before applying Overcoat. Hardboard and Overcoat. Think of them together.

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Bradley can give people showers, wash and dry their hands, give them a drink, look good on a sink and collect the trash when they’re done.
A change in course
And a final plea—to you—for help

A message from The International Architectural Foundation, Inc.:

The change in course: In lieu of an international design competition conducted simultaneously for three cities in the developing world, all efforts will be concentrated at this time on generating creative plans for a 3,500-person neighborhood in the heart of Manila.

The reason: This change results from the recent visit of our professional advisor to the Philippines, where an intensive effort is underway to ameliorate the sordid living conditions of over 200,000 squatters in the Tondo Foreshore area. Philippines authorities have expressed hope that The IAF Competition for the design of a neighborhood in Dagat-dagatan, a relocation area near the Tondo, will generate ideas that ultimately will benefit all inhabitants in the area—as well as contributing to solutions in other developing countries.

A tremendous challenge and opportunity!

We need your help now. To open the Competition by February, we need approximately $50,000 more than has been pledged to date. To achieve this goal, we are inviting contributions from individuals as well as institutions and establishing four categories for donors:

- Sponsors ($20,000 and over)
- Contributors ($5,000 to $20,000)
- Contributors ($1,000 to $5,000)
- Contributors ($100 to $1,000)

This is your opportunity to be associated publicly with this unique effort to bring the skills of architects the world over to bear on the problems of the urban poor.

Please send us your check today, payable to The International Architectural Foundation, Inc. Your gift will be used exclusively for purposes of the Competition. For additional information, see Editorial, October page 13; or telephone Blake Hughes, 212/997-4685.

Our sincere thanks to the following organizations which have pledged their generous support:
The Graham Foundation; The International Development Research Centre (Canada); The Johns-Manville Fund; The Asia Foundation; The Austin Company; Hellmuth, Obata & Kassabaum, Inc.; C.P. Air; E. H. Grolle, RAIC; the George P. McNear Foundation; Smith Hinchman & Grylls Associates; PPG Industries Foundation; Arthur Sworn Goldman Associates, Inc.

Problems of excessive population growth, unemployment, environmental decay, disease, alienation and urban squalor are all interrelated—rooted in ignorance and disability, breeding despair and desperation. Nowhere are these ugly problems more clearly focused than in the urban slums of the developing world. Nowhere is there a greater need for human solidarity and creative contributions.

The International Design Competition is a modest means to these ends and aims to:
- alert architects and planners to the gravity of the accelerating urban crisis in developing countries;
- increase the fund of talent and expertise available for planning human habitations;
- involve architects and planners in the design of a demonstration project in a major city of the developing world;
- contribute to the success of the important United Nations Conference-Exhibition on Human Settlements (Vancouver, 1974);
- act as a catalyst for further contributions by individuals, institutions, organizations, and governments to the solution of the multi-faceted problems of housing the urban poor.


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For more data, circle 74 on inquiry card.
If you think the world of Vicrtex® Vinyl Wallcoverings is bounded by such illustrious patterns as Alestria, Cainell, Covina, Avion—Look again at Lanai, Adagio, Maru, Velluto, Pharoah... or even Tangola

Take one of our superlative classics — Lanai, or glory in the deep-textured magnificence of Cainell or Avion. Whichever you choose, you're confident in selecting from the world's biggest variety of vinyl wallcovering patterns (more than 60!) and colors, with prices to match every decorating budget need.

LANAI

PHAROAH

VELLUTO

TANGOLA

ADAGIO

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For more data, circle 75 on inquiry card
Get more lumens per watt.

Save energy with Module 600™

Now available for the new high-pressure sodium and horizontal-burning metal halide lamps.

Take a good look at this outdoor luminaire, and you'll immediately visualize the many lighting problems it can solve. Consider the clean, modern styling, the rugged durability. And now, with the new high-pressure sodium and horizontal-burning metal halide options, the Holophane Module 600 offers more light per watt... an important energy-saving opportunity.

Module 600 is a true building block. It can be used like a Wall-PACK® as a distinctive element of mall and street furniture, or on poles for area lighting. You can mount it singly or in multiples, yet it has no visible hardware to mar its clean lines.

A specially developed optical system assures maximum illumination without problem hot spots or objectionable glare. And the Holophane Module 600 is the only wall-mounted luminaire that offers operation with the energy-saving 400W high-pressure sodium lamp.

Built to last.

Module 600 has a durable cast aluminum housing and single-piece prismatic refractor of ENDURAL® shock-resistant glass. Positive-seal gaskets contribute to long life in damp, humid atmospheres. It's an ideal luminaire for any environment, including tunnels and underpasses.

Choice of output extends flexibility.

You can use the new 150W high-pressure sodium or 175W horizontal-burning metal halide lamps for lower light levels or for theme and accent lighting. Use 250W or 400W high-pressure sodium or 400W horizontal-burning metal halide where higher light levels are needed, or for greater mounting heights, or wider luminaire spacing (fewer luminaires use less energy).

The choice is yours.

For special applications, you can select from a wide range of options. Like surface conduit mounting, suspension bracket, photoelectric control, clear polycarbonate shield, and tamper-resistant hardware.

Your local Holophane sales engineer has all the details on how you can save energy with Module 600.

Call him. Or write Holophane, Dept. AR-1, Greenwood Plaza, Denver, Colorado 80217.
ASG LIGHTING GLASS
The Glass Company puts quality and safety where you need to see it.

And where people need it to see. After all, we know you can’t afford to use less than the best when it comes to lighting glass. Because people do notice the difference. In case of fire, ASG glass panels won’t burn—or melt and drop to the floor, causing other fires. Or release toxic fumes. Unlike plastic, ASG panels always look new. They stay cleaner longer and are quick and easy to care for. ASG panels don’t warp, sag, turn yellow or scratch. They diffuse light with unsurpassed efficiency.

ASG-112 is a prismatic lighting glass developed especially for the speculative office building market. ASG-112 offers quality unique to its price range, with an octagonal and square indented prism structure, and light, neutral color composition that combine to produce a truly comfortable visual environment.

ASG Crystal includes panels with hexagonal, square or linear prisms. You can choose tempered crystal for added strength, safety and thermal shock resistance. Plus special ceramic coatings for radio interference shielding, glare reduction and color correction.

Alba-Lite® a light opal glass, provides soft, diffused light transmission and excellent lamp image hiding power. It’s a superior lighting panel for reducing glare.

Write for ASG’s Lighting Catalog. It contains details on these and other quality lighting products to help you see just what we’re talking about.

ASG Industries Inc
The Glass Company, P.O. BOX 929, KINGSPORT, TENN. 37662
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For more data, circle 78 on index card.

Dates and locations of workshops in other areas for 1976 will be announced.
A carpet that passes our Tuft Bind Performance test can take the rough-housing in any school.

School carpets have to take a lot, year in and year out, ranging from students rough-housing to cafeteria spills. That is why we performance-test carpets made of Dow Badische fibers and yarns in our lab—before they are deemed worthy to cover the floors of Academe.

Our Tuft Bind tests, for instance, indicate how much pulling and snagging a carpet can resist. With a hook and Instron tester, we measure the force required to pull a single, independent carpet tuft out of a carpet sample. In order to pass, a carpet must withstand a minimum of 6.3 pounds of force.

This is just one of eight tough tests we put carpets through before they can carry the Dow Badische Performance Certification label. The carpets are also tested for flammability, static generation, light fastness, compression and abrasion resistance, delamination, wearability and appearance retention.

The next time you specify school carpet, look for the carpets with our Performance Certification label on them. You can be sure then they have passed their school tests with honors. Write for our Contract Carpeting Selection and Specifications Guide.
It takes guts to go anywhere.

Think of the toughest design or installation problem you've ever had. Now take a look at the answer. Symmons Hydapipe. The prefabricated stainless steel shower system that has the guts to go anywhere.

Since there are no in-the-wall fittings, you won't have to build extra thick walls or pipe chases to install it. You can bolt it anywhere. Even to a shower partition or in corners. Unlike space-wasting column and stanchion type showers, Hydapipe makes the most practical use of space, by putting the showers on the wall. And since it features Symmons Safetymix shower valve, it's tough enough to stand up to years and years of use and abuse and still deliver the water temperature selected, and hold it steady and constant, no matter how many pressure demands are made elsewhere on the system.

Hydapipe, with its flow restrictors and single-handle concept, conserves water, fuel, and operating costs, too. And in this day and age, when conservation is everyone's objective, that's a dividend that shouldn't be ignored.

Get in touch with the Symmons rep near you. Or call us direct at (617) 848-2250. Or write us: Symmons Industries, Inc., 31 Brooks Drive, Braintree, Mass. 02184. We'll show you a variety of different Hydapipe systems that have the guts to save you a lot of time, space, work, and money.

For more data, circle 79 on inquiry card

Symmons
We've got the guts to be better.
If you can’t tile it, GLID-TILE® it.

Performance at prices you can afford!

Glidden’s new GLID-TILE Polyester-Epoxide HIPAC (High Performance Architectural Coating) system resists corrosion, stains, abrasions, and meets Federal specifications TT-C-550a and TT-C-001226.

This new GLID-TILE Epoxide is a polyester-epoxy system for easy brush, roller or spray application on interior masonry, wood, metal, wallboard. Gives you high build, high solids, low odor, and a wide selection of colors. Use it anywhere highest resistance to moisture, staining or abrasion is demanded. In hospitals, schools, laboratories, lavatories, cafeterias, commercial kitchens, and high traffic corridors.

Contact your nearest Glidden representative. He’ll show you GLID-TILE Epoxide’s colors and document its durability against corrosive chemical stains and conformance to Federal specifications.

When tile is out of the question, make GLID-TILE your answer.
You can't write a dirty word with AllianceWall's new Rite-On, Wipe-Off System. Specially-treated porcelain-on-steel writing boards and dry-marker pens create a COMPLETELY DUSTLESS SYSTEM. Write clean . . . erase clean. Floor-to-ceiling length panels double as a wall covering and projection screen. Choose from 50 beautiful decorator colors. Perfect for all type business offices: sales, advertising, production, and conference rooms. No dirty words. No dirty walls with AllianceWall Rite-On, Wipe-Off System. Write:

AllianceWall
CORPORATION
WYNCO TE, PA. 19095

Manufacturing plants in Alliance, Ohio: Okmulgee, Oklahoma; Genk, Belgium and Odense, Denmark.
Beauty is in the eye of the beholder. It is usually subjective. Rarely universal. But economy is another thing. It is difficult to be subjective about economy in the face of facts that prove it. Even after hearing charge and countercharge concerning overall costs of various flooring materials. Consider terrazzo vs. carpet. A recent study showed clearly that the total annual cost of nylon carpet is at least twice that of terrazzo—126% higher, to be exact. Considering cost of material based on average life, maintenance labor, capital equipment and supplies, the total annual flooring cost per 1,000 square feet for nylon carpet came to $541.81. For terrazzo—only $245.45. Economy that's beautifully rare in these times. We'll be happy to send you details of the study, and the results. Write terrazzo 2A West Loudoun Street, Leesburg, Virginia 22075. (703) 777-7683.
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For more data, circle 90 on inquiry card
A fireplace with a view?
Anything is possible with
The Anyplace Fireplace

When Mr. and Mrs. Peter Lowenstein commissioned architects Chimacoff/Peterson of Princeton, N.J., to design their dramatic vacation home in Montauk, Long Island, what mattered most was "that it have a great sense of space emphasizing the relationship between indoors and out."

With that in mind, a fireplace "with a view" was a natural. So the architects naturally specified a Heatilator brand fireplace, the one you see here. They wanted a quality product that could be decorated for any room. And they were pleased that Heatilator fireplaces can be built-in anywhere, in any enclosure.

You can specify a Heatilator Anyplace Fireplace right up against combustible walls, with no costly masonry for support or protection. And now there are more models than ever. Woodburning, gas and electric. Built-in, Wall-hung. Plus a new line of freestanding fireplaces. The Compatibles®, in popular House & Garden colors. The design and decor possibilities are virtually endless!

For expert help in fireplace planning, call your Heatilator Fireplace Man. For his name, call toll-free 800-553-8905. Or write: Heatilator Fireplace, A Division of Vega Industries, Inc., 1919 W. Saunders St., Mt. Pleasant, Iowa 52641. (Also available in Canada.)

See Catalog in Sweet's Architectural, Light Construction, and Interior Design Files.

For more data, circle 86 on inquiry card
COMING IN MID-MAY... 
ARCHITECTURAL RECORD'S IDEA ANNUAL OF THE HOUSING FIELD

RECORD HOUSES AND APARTMENTS OF 1975

In mid-May Architectural Record's Record Houses and Apartments of 1975 offers a timely opportunity for manufacturers of quality building products to establish year-in and year-out influence on those architects and builders who are at the forefront of the housing market.

It will reach all major groups of specifiers and buyers in this market:
- over 44,000 architects and engineers who are visibly responsible for 87% of the dollar volume of all architect-planned residential building.
- 20,000 of the nation's foremost builders qualified on the basis of annual building activity receive the Light Construction File.
- 4,500 leading interior design offices qualified on Sweet's to receive the Interior Design File.
- in addition, bonus bookstore distribution to an influential segment of the house building and buying public.

Record Houses and Apartments offers its advertisers a unique advantage:
The issue has the longest working life of any issue of any architectural magazine! Architects refer to it ten, even fifteen years after publication.

Don't miss it! Closing date: April 15.
See how corrosion starts, then stops, because of an aluminum substrate.

The scanning-electron photomicrograph you're looking at shows how any organic coating weathers in time. The coating has become spongelike and retains moisture. Wet cycles last longer. The hydrophilic cells trap such contaminants as sulfur dioxide, which combines with water to form sulfuric acid. Now the corrosive effects of electrolytic action include chemical attack at the interface... underfilm problems that can cause flaking or loss of adhesion... and staining or streaking, depending on the performance of the substrate. At this point, however, an aluminum substrate helps to protect an organic coating because its natural aluminum oxide film resists the effects of electrolytic action. This stability at the paint-metal interface discourages flaking or adhesion loss. Painted aluminum can be drilled, punched and sawed without concern about chipping or undercutting. If you want color in the second place, put it on aluminum in the first place. It will last. Especially if you specify an Alcoa® Super Alumalure® finish, the long-life PVF coating that offers the advantages of a super-tough fluorocarbon at a price you can live with.

For more information, see Sweet's Architectural or ICR/PE files. Or write Aluminum Company of America, 1085-A Alcoa Building, Pittsburgh, PA 15219.

Change for the better with Alcoa Aluminum

For more data, circle 87 on inquiry card
Whoever said “There are no shortcuts…”

...didn’t know much about Sweet’s Guideline

Sweet’s Guidelines is a method of improving catalog content by organizing product information clearly and logically for the mutual advantage of specifiers/buyers and manufacturers. Guidelines will pinpoint this information in the exact sequence and content that the construction professional requires for making comparisons and selections.

A Guidelines-organized catalog helps its user easily progress from logical thought to logical thought…to complete understanding for evaluation and appropriate action. A Guidelines-organized catalog helps the manufacturer by sequencing and presenting his product information in the most effective manner.

The Guidelines method has been proven in numerous applications and in the detailed analytical documents covering more than 230 specific product categories. Sweet’s staff of Architectural/Engineering Consultants helps manufacturers implement the Guidelines principles in their individual product catalogs. These professionals are instrumental in Sweet’s tradition of bringing industry buyers and sellers closer together.

If you’d like printed product information in Sweet’s Catalog Files presented to you in this more systematic, easy-to-evaluate Guidelines manner…suggest that the manufacturers’ representatives who call on you contact local Sweet’s offices. Sweet’s Professional Consultants will make themselves available to help manufacturers implement the Guidelines organization.

In their official document—E-101—the American Institute of Architects recognizes Sweet’s GuideLines and recommends preparation of product information literature in a manner consistent with the GuideLines organizational concept.

See the Guidelines catalog 1.1/5W in any Sweet’s 1975 File. It supplies detailed information on the Guidelines system for organization of product information. Many manufacturers have translated this information into action in the form of Guidelines-organized catalogs bound into Sweet’s 1975 Files.

Sweet’s Division
McGraw-Hill Information Systems Company
1221 Avenue of the Americas
New York, New York 10020
Ceco forms slabs for great buildings

World’s tallest hotel is one

Nearly a million square feet of concrete slabs in Atlanta’s new 70-story Peachtree Center Plaza, world’s tallest hotel, are being formed by a unique method engineered by the Ceco Corporation to meet an unusual structural design. This method makes repetitive use of special pie-shaped panels “flown” floor to floor.

Ceco’s work, performed for a guaranteed lump sum, includes slabs and ramps for the several floors below grade, and slabs for a nine-story base building; also, slabs for three floors of mechanical services and meeting rooms atop the 80-foot columns shown here, and then, soaring into the Atlanta skyline, 56 floors of guest rooms.

For more than half a century, Ceco has helped contractors by developing better ways of forming concrete slabs. Consequently, Ceco’s forming services are used on hundreds of projects coast to coast every day. Ceco’s field crews are the country’s leading specialists in placing and removing formwork for ribbed, waffle and flat-slab floor construction. For more facts, refer to Sweet’s or your nearest Ceco office.

For more data, circle 88 on inquiry card

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

For more data, circle 88 on inquiry card
LAST YEAR WE PROVED TO THE WORLD THAT NO NYLON HIDES SOIL BETTER THAN ENKALURE II.

Now Slone’s Pharmacy is proving it every day.

When Slone’s Pharmacy in New Milford, Conn. decided to remodel, they were sure of one thing. They’d have to get rid of the asphalt tile and replace it with carpet. Carpet would have better acoustical absorption. And since it’s more resilient, it would not only prevent breakage, it would be much more comfortable to walk on.

Besides, carpet looks better.

Now, which one? Since Slone’s is a heavy-traffic store, one of the requirements was that the carpet had to have good soil-hiding properties in order to keep maintenance costs to a minimum. Also, it had to be durable. To be able to keep its fresh appearance, no matter what.

The choice was clear. Slone’s decided on a carpet made with Enkalure II soil-hiding nylon. And from the wide range of patterns and colors available, they easily found the one that was perfect for their new color scheme. They chose “Sampson” by Criter.

The special multilobal construction of Enkalure II causes light to actually bounce off the fiber, keep the colors looking bright and clear even when the carpet is dirty.

Furthermore, Enkalure II has deep grooves to trap dirt. Conventional nylon fibers do.

A grueling test by Nationwide Consumer Testing Institute proves that no nylon hides soil better than Enkalure II.

But the real proof is at Slone’s. For specific carpet information and a 14-page report of the test results, contact American Enka (Dept. AR), 530 Fifth Avenue, N.Y., N.Y. 10036. (212) 661-6600.

Enkalure II soil-hiding nylon by ENKA

For more data, circle 89 on inquiry.
The Big Sit-In

Massey has the solution to your deep-seated problems—a big, luxurious oversized lounger featuring three-pillar back support, with full depth foam cushion and back. You can always rest assured that the Massey Astro-Lounger will answer your seating questions most comfortably. Also available as the Astro-Rocker.

You’re always sitting pretty with

Massey Seating Co.
Nashville, Tennessee 37208

For more data, circle 92 on inquiry card

Covers like paint, performs like stain, resists cracking, peeling, and blistering.

Heritage Woods, Avon, Conn.; Architects: Collister and Payne—August Roth; Builder: Paparazzo Development Corp., Southbury, Conn. Treated with Cabot’s Stains.

Cabot’s O.V.T. Solid Color Stains

This fine product combines the best features of a stain and a paint. Cabot’s O.V.T. Solid Color Stains, on oil-base finish of great beauty and durability, is suitable for wood, metal, masonry . . . and is applicable to all surfaces: textured, striated, smooth, previously painted. These unique stains penetrate the wood in the traditional manner of a stain, yet cover like paint (often in one coat). Available in 62 pleasing colors.

Samuel Cabot Inc.
One Union Street, Dept. 129, Boston, Mass. 02108
Send color card on Cabot’s O.V.T. Solid Color Stains
Send Cabot’s full-color handbook on wood stains

For more data, circle 94 on inquiry card
All-weather Crete®
the re-roof insulation system that solves major re-roof problems.

- AWC adds positive slope to drains!
- AWC allows re-roofing without tear-off!
- AWC insulates to reduce heating/cooling costs!

When the roof leaks, repairing the membrane may stop it temporarily, but it does not solve the problem of what made the membrane leak in the first place. One major cause is improper water drainage and the freezing and thawing of ponded water and blisters over insulation joints. A proven solution is All-weather Crete. It is a dry, thermosetting insulating fill that is installed at various thicknesses and contours to provide water drainage. All-weather Crete may be applied directly over the old roofing, smoothing out uneven surfaces to provide a firm, seamless base for new roofing. It permits normal activity in occupied buildings during repairs and saves the owner the cost of tear-off plus messy inconvenience.

AWC is economical! The application of AWC often costs less than a tear-off and re-roof. The initial cost of AWC can be paid for in a few years thru fuel savings and thereafter will save fuel costs every year. Solve those roof problems. Talk to your local AWC man now. He's listed in Sweets . . . or call:

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6300 River Rd. • Hodgkins, Ill. 60525
Chicago Phone (312) 735-3322

For more data, circle 95 on inquiry card
Does Kelley make HYDRAULIC DOCKBOARDS

YES...IN CAPACITIES OF 20,000, 35,000 AND 50,000 POUNDS FOR FAST, SAFE HIGH-VOLUME DOCK OPERATIONS!

Touch a button. Kelley Hydraulic Dockboards raise...lip extends and dockboard automatically lowers until lip contacts truck bed. Lip maintains full, firm contact with truck during loading/unloading operations. When truck pulls away, lip lowers and dockboard automatically returns to fully-supported, dock-level position.

Features? Here are just a few...

- Two-stage hydraulics for most efficient lift.
- OSHA safe...deep toeguards. Automatic, built-in hydraulic emergency system.
- Accommodates truck bed heights from 12" above to 12" below dock level.
- Exclusive torque-tube design accommodates out-of-level truck tilt up to 4".
- Fully enclosed, self-lubricated power unit.

If you want the most rugged automatic dockboard with built-in safety, ask for a Kelley Hydraulic Dockboard from your Kelley "No Shortcuts" Dockboard Specialist!

Kelley Company, Inc.
6768 North Teutonia Ave.
Milwaukee, Wisconsin 53209
Telephone: (414) 352-1000 • Telex: 26-661

New health-care equipment catalog shows dimensions in metric as well as in inches

Health Care Equipment Catalog describes and illustrates Jewett’s comprehensive line of stainless steel refrigerators and freezers for hospital and lab installation, as well as autopsy and morgue equipment. The line includes free-standing, counter-top, under-counter, and wall-mounted models. The new 8 page brochure includes metric as well as English dimensions and temperature ranges.

For more data, circle 96 on inquiry card

For more data, circle 97 on inquiry card

For more data, circle 102 on inquiry card
New Comdek by Granco.

Eight Reasons to Spec Our Composite Deck.

1. New deep embossed indentations bond concrete for full composite action. Structurally tested and proved one of the strongest composite action deck designs available.

2. Fewer sidelaps and faster erection with full 36" wide panels. Lengths to 45' mean fewer sheets to handle.

3. Easy, precise bay fit and line-up with new adjustable sidelap design that also eliminates lap leakage.

4. Faster welding with pre-punched slots on a 12" module.

5. Light gages are double thick at sidelap to improve fastening strength.

6. Optional ceiling hanger holes in each rib (12" o.c.) fit any ceiling grid pattern.

7. Handling holes provide easier handling and faster erection.

8. Comdek has approved UL Fire Ratings up to 3 hours.

And for greater economy, Comdek is available in both 2" and 3" depths. For complete information, see Sweet's, section 5.5p, Metal Decking, composite. Or mail this coupon request for a free copy of the new Comdek brochure. Write now.

Granco, P.O. Box 40526, Houston, Texas 77040.

Granco: Send the Comdek brochure fast. □ For my files □ For a job under consideration.

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ARCHITECTURAL RECORD January 1975
GUTH HAS JUST RE-INVENTED OUTDOOR AREA LIGHTING

... to more uniformly illuminate a larger area per fixture than conventional systems, and do it with up to 18% less input wattage!

Guth's "Dual" Area Light is a totally new concept that combines two separate optical systems and two H.I.D. lamps in a single housing. One is specifically designed to "throw" light, the other to "spread" light. They're available separately, too.

Less power per fixture and fewer fixtures add up to double savings. So, for more efficient lighting with fewer poles and less clutter, write or call:

GUTH LIGHTING

P. O. Box 7079 • St. Louis, Mo. 63177 • (314) 533-3200

For more data, circle 99 on inquiry card
A unique combination of experience and sophisticated technology gives the Pilkington all-glass facade system an unrivalled design flexibility, allowing architects greater scope for creative expression.

Using specially processed and tempered 'Armourfloat' glass plates suspended from the building structure we can design single assemblies up to 75ft. high with no limitation in length. That's far in excess of all previous glass systems.

During the last 12 years over 50 buildings in 16 countries around the world have incorporated Pilkington 'Armourfloat' suspended glass assemblies.

The design potential for the system is enormous. The new Louisiana Downs grandstand, Bossie employs a multiple assembly system 600ft long and 66ft high. One vast assembly 1000ft long and 500ft high forms the complete facade of a new office complex at Ipswich in England.

Inherently more versatile than other systems, Pilkington assemblies can be designed to satisfy virtually any performance criteria. For example, assembly for the Centre Point building in London was designed to withstand wind pressures of 100psf and was tested to over 80psf. A completely no spring suspension system was designed to co
WANT TO MAKE IT BIG.

the very large movements resulting from the
vial structure of the Standard Bank building in
nnesburg. And only last year completely
pendent verification of our technology was
through tests conducted in the United
om, by the Government funded Agrément
on a series of full scale systems.
So if you want to explore the really big
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Making life better through glass.
TCS AND THE VISUALLY SIGNIFICANT ROOF

TCS is stainless steel coated on both sides with a terne alloy of 80% lead and 20% tin.

TCS has no equal among standard architectural metals in resistance to atmospheric corrosion.

TCS solders perfectly without the need for expensive pre-tinning, acid fluxes or neutralizing agents.

TCS weathers naturally to a uniform dark gray and does not stain.

TCS provides galvanic built-in safeguards against failure which no competitive product can match.

TCS is reasonably priced and requires no maintenance.

FOLLANSBEE
FOLLANSBEE STEEL CORPORATION
FOLLANSBEE, WEST VIRGINIA
A mirrored wall; entrance to a grand conference room...wood paneling which screens floor-to-ceiling record and storage space...great doors opened and closed with fingertips, without visible hardware.

Here are reflected the advantages of concealment, the functional superiority of floor-type door closers and the door pivots which have earned this company its reputation for exceptional door control.

Ask the specialists:

RIXSON-FIREMARK, INC.

For more data, circle 105 on inquiry card
Whose cold storage doors keep the products moving at major distribution centers?

Ask Morrison Incorporated. They chose Jamison.

DOUBLE PROTECTION. Jamotuf® Vestibule Track door assures efficient refrigeration protection at doorway between beef receiving dock and cooler. Double batten door in same frame minimizes refrigeration loss when insulated door is open in this high traffic area.

UNIQUE REQUIREMENT. Jamison manual Mark II Vertical Sliding Vestibule door was selected for double protection in a high traffic area where space available would not permit use of a swinging or horizontal sliding insulated door.

FOR LIMITED SPACES. Jamison power-operated Mark II Vertical Sliding doors are installed on exterior walls at shipping and receiving docks where space between truck openings won't accommodate horizontal sliding doors.

Morrison Inc. depends on Jamison doors to minimize refrigeration loss and help keep 100,000 lbs. of product moving steadily each eight hour shift. At its new Jackson, Miss., processing and distribution center, the famed southern cafeteria, restaurant, and motel organization uses 30 Jamison cold storage doors in 60,000 sq. ft. of refrigerated space. The doors are durable, versatile, and easy to clean. Because they are opened and closed up to 150 times a day, their quality workmanship, reliability, and low maintenance especially impress Morrison. Write today for complete data.
YOU CALL US APPROVED EQUAL.

4" X 8" WALL THICKNESS

MASONRY WALL

ADJUSTABLE REAR FLANGE

1-3/16" BULLET RESISTIVE GLASS
USE UOF, P16, OR "APPROVED EQUAL"

OUR REAL NAME IS SAFELITE.

And we produce quality U.L. approved BULLET RESISTANT GLASS. Our BULLET RESISTANT GLASS comes with mitered or sawed edges for butt glazing when specified and always with clean, clear vision.

Safelite’s other specialty glass includes RIOT GLASS for maximum security and SOUND CONTROL GLASS for noise abatement and comfort. Besides clear glass, we utilize a wide range of acceptable architectural colors, each at a specific light transmission, a constant U-value and shading co-efficient.

So—specify us by name... Safelite Industries... and we will deliver on time.

Write us for complete brochure or call for information.

Safelite
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P.O. Box 1879 / Wichita, Kansas 67201
1-800-835-2092
You can talk to a lot of different people about a lot of different waterproofing systems. Or you can talk to us about it all.

Think of all the advantages there are to having one source for all your waterproofing needs—convenience, assured system compatibility and one overall responsibility for keeping your building dry. Rather than 3 or 4 competing sources, you work with just one.

Tremco’s representative assists you with specification information and service from drawing board to job site instruction. And wherever you need waterproofing—below, on or above grade—there’s Tremco system that will do the job effectively.

Two systems for keeping water out at the ground level.

TREMproof™ liquid polymers form a monolithic seamless blanket. They are adaptable to insulated or non-insulated applications, exhibit excellent cold weather flexibility and elongation properties, and will withstand continuous water immersion. These properties make them perfect for use with either of the following waterproofing systems.

If you’re considering a decorative plaza, deck or terrace, you should consider pavers. KingPin™ pedestal gives you design freedom—a level paver surface and uniform open joint between pavers. The KingPin supports the paver surface above the structural slab waterproofed with TREMproof. Water runs through the open joints in the paver surface and down the drains at the structural slab level.

Drawings not to scale.
you're designing a poured concrete wearing

... our unique All-Level Drain used with

EMproof assures positive drainage on all

... Water is taken off the traffic surfaces, insulation layer, the percolation layer, and

... waterproofing layer itself.

course TREMproof liquid polymers can be

d for the waterproofing of foundations,

... Reflecting pools, etc. They're self-

... and become an integral part of the

... Their superior adhesive quality pre-

... any lateral movement of water between

... substrate and waterproofing blanket.

items to waterproof traffic-bearing surfaces. EMproof Systems also come in a decora-

... moisture-curing liquid polymer for the

... bearing surface of plazas, balconies,

... faces, interior floors, etc. It cures to a flexible,

... less blanket and becomes an integral part

... structure. It's easy to use and has excel-

... lent resistance to abrasion, chemical spillage

... ponded water.

Systems for interior waterproofing.

... For those difficult interior waterproofing jobs

... such as washrooms, and mechanical equipment

... rooms, TREMproof Systems make for easy,

... labor saving application in single- or twin-slab

... construction.

A variety of masonry preservatives.

... To complete the waterproofing job, Tremco

... can provide you with a wide variety of preserva-

... tives to keep water out of masonry walls. You can

... select from heavy-bodied decorative preservatives

... available in architectural colors. Or, choose from

... our clear, transparent preservatives that retain

... the natural beauty of the masonry.

A complete system, one source.

... Is there any reason why

... Tremco shouldn't be your one source for water-

... proofing?

... We've waterproofed some of the world's

... largest buildings. For over 45 years, we've been

... providing top quality leak proof systems and prod-

... ucts, such as our job proven sealants MONO®,

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CLASSIFIED SECTION

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ARCHITECT—Established expanding national company, with over 100 offices, is seeking an architect. The qualifying person should be a registered architect with a background in architectural and interior design, and have the ability to head a department where the responsibility would also include business administration in terms of implementing and supervising construction, taking into account both technical know-how and cost control. There is excellent growth potential with this St. Louis based firm, and the benefits program is outstanding. Please contact Bernard Bloom, Edison Brothers Stores, Inc., P.O. Box 14020, St. Louis, Missouri 63178.

DEPARTMENT OF ARCHITECTURE-UNIVERSITY OF MARYLAND, COLLEGE PARK, MD.—PLANNING FEE S FOR ARLINGTON—FAIRFAX—WASHINGTON, D.C.—is seeking a planning faculty for the 1975-76 academic year in the following areas: Director of City and Regional Planning, Director of Professional Affiliates, Director of Landscape Architecture, Director of Building Systems, Additional faculty for: HISTORY, Basic Design, Architectural Structure, Building Design. Resume and letter of application should state which position is of interest. Please apply to: Harold Box, FAIA, Chairman of Committee of Architecture, University of Texas at Arlington, Arlington, Texas 76019. UTA is an Equal Employment Opportunity (M/V) Affirmative Action Employer.

DEAN, SCHOOL OF ARCHITECTURE: The University of Wisconsin-Milwaukee is seeking a Dean of the School of Architecture beginning July 1, 1975. The School offers a B.S. in Architecture, a Master of Architecture, and a Master of Urban Planning. The Urban Planning degree was initiated the Fall of 1974, and will be expanded in the Fall of 1975. Applicants should have administrative experience, an interdisciplinary view of architecture and planning, and a willingness to work within a decentralized decision-making framework. Send resumes to: Professor Damei Stillman, Chairman, Search and Screening Committee for Dean of the School of Architecture, Sandburg Hall W1340 A, University of Wisconsin-Milwaukee, Milwaukee, Wisconsin 53201, by January 20, 1975. An Equal Opportunity/Affirmative Action Employer.

ARCHITECTS—Permanent positions open for Graduate Architect with outstanding Design ability and minimum 3 years Planning/Design experience on major projects. Experience in the Health Care industry and medical architecture of national projects. Company paid benefits. Submit resume, salary requirements: The Drake Partnership, Architects, 10425 Old Olive Street Road, St. Louis, Mo. 63141.

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