With Sunglas® HP Reflective glass, one of over 30 solar management glasses by Ford.

The Hotel Inter-Continental is a $70 million glass-clad high-rise tower, designed with a nautical silhouette to give every guest room a view of the San Diego Harbor and to minimize obstruction of the harbor's view from downtown San Diego.

The glass of choice is Sunglas HP Reflective — used here with a durable silver coating applied to clear glass for 8% nominal light transmittance. This version (S1-08) provides a subtle reflectance of the harbor's ever-changing color as well as a reduction in the hotel's air conditioning installation and operating costs.

Sunglas HP Reflective is part of Ford's Sunglas family — a family of over 30 different solar management glasses with colors and shading coefficients for virtually any application. All Sunglas HP Reflective products are also backed by Ford's ten-year coating warranty.

The next time you specify reflective glass, specify the total performance and versatility of Sunglas HP Reflective by Ford and see the lite. For Quality, variety, and availability in solar management glass — Nobody outglasses Ford.

For more information call: 1-800-521-6346
(In Michigan call collect: 1-313-446-5915)
(In Canada call: 1-416-363-7561)
Owner: Torrey Enterprises, Inc.
Architect: Hope Consulting Group
A Prime discovery:
There are four sides to every building.

Nobody looks at a building design quite the way architects do. When a contractor sees a plan, he thinks of materials and schedules. Engineers envision system design and analyses. And facility managers look at your project with the bottom line in mind.

All of which can make designing a building that pleases everyone virtually impossible.

That's why Prime Computer offers this solution: An integrated approach to automating the building process that takes all sides into account. It not only ties together all of the people involved in the building process but also offers management tools for making the business profitable. Plus you can start anywhere in the automation process and grow at your own speed.

When you use our program for Computer Aided Design (we call it PRIME MEDUSA™ AEC software) you're doing a lot more than just drafting. You're also creating a database that can be used by others on the project team.

The database contains information that engineers and contractors can begin to work with before you even finish your design. Facility managers can use the database to put together floor plans, budgets and schedules.

And if you make a change in your plans it doesn't take days or weeks for everybody to find out about it.

In short, Prime can help make your job as an architect a lot easier by bringing everyone involved in the building process closer together.

But then, you'd expect that from a Fortune 500 company that offers total solutions. You see, like you, when we design something, we look at the total picture, instead of taking a one-sided view.

Call Prime at 1-800-343-2540 (in MA, 1-800-322-2450; in Canada, 1-800-268-4700). Circle 2 on inquiry card

Prime™
It's time you knew.
The most important one to this firm was in the last paragraph—"the possibility of collaboration," not only between architects and industrial designers but with the whole spectrum of talent in the design field.

Gere Kavanaugh

Congratulations on your article "The Structural Art of Santiago Calatrava" [RECORD, August 1985, pages 130-139]. I was an appreciator of Frank Lloyd Wright, and the master used to say that "architecture was the poetry of structure." Mr. Calatrava's work reflects that ideal.

I hope you will publish more of his work.

A. Emling, Architect

McDonald & Williams, AIA
Architects & Planners

Washington, D. C.

Reading my March 1986 issue of ARCHITECTURAL RECORD, I came upon the heart-rending proposal for an extension to the Guggenheim Museum. The museum is a quinquennial piece, bequeathed to the world of art and architecture by a master, and it is only fair that the trustees of this inheritance should make the inheritors responsible, in their entirety, for any alteration of this architectural pearl.

I get the impression that ideals in architecture, like unity, balance, harmony, etc., must make dangerously low levels of impact on the cerebral architectural repository of the author. You see, by way of summary of my feelings, no matter how beautifully you fashion a piece of jewelry in brass, juxtaposing it with one in gold tells a tale of disorder immediately.

As the saying goes among the Ibo of Nigeria, "A beautiful face does not deserve scratch marks, whether inadvertently or wilfully made."

George Ike Okoye, Architect

Lilge & George Designs

Enugu, Nigeria

Corrections

In RECORD’s article on Burt Hill Kosar Rittelmann Associates’ design for Two Mellon Bank Center (September 1985, pages 96-97), credit should also have gone to project architect Robert J. Noah and to architects David F. Hill and J. H. Sackey.

The main analysis, to design a successful mass-produced product that is visually and functionally sophisticated is one of the most advanced intellectual and skillful exercises now available.

Niels Differnt

Ridgefield, Connecticut

Your July 1986 Round Table on furniture design was more interesting. It is about time a lot of those thoughts should be expressed.
When Princeton University decided to convert the unused attic space in Little Hall to additional dormitories, it was essential to maintain the existing high standards of excellence and integrity in the University's classical architecture. The craftsmanship and design of VELUX roof windows were in perfect keeping with their quality standards. And, they are structurally solid to accommodate years of heavy use. The center-pivoting feature with the control bar at the top of the window allowed the space under the window to be used for clothing storage and heating units.

In addition, VELUX provided copper cladding and flashing so the windows could be soldered in place to reinforce the integrity of the overall design. The quality of VELUX service also made a difference with ready availability of parts and accessories and the planning needed to make sure all critical deadlines were met.

Discover the difference VELUX roof windows and skylights can make in your next project. Write VELUX for our free 24-page full-color brochure. Or see Sweet's 7.8/Vel. and 8.16/Ve.

VELUX The world leader in roof windows and skylights.

Please send me your free 24-page brochure and your current price list. (We will answer your request within 24 hours of receiving it.)

VELUX-AMERICA INC.  VELUX-CANADA INC.
P.O. Box 3268  16805 Hymus Blvd.
Greenwood, SC 29648  Kirkland, P.Q. Canada H9H3L4

Name: __________________________  Company: __________________________
Address: __________________________
City: ________ State: ________ Zip: ________
Telephone: __________________________
Foreign Intrigue: The Richard Sapper Collection

Knoll introduces European executive style to America: The Sapper chairs. Developed by Knoll International in France and now available in the United States. For more information:
Knoll International, The Knoll Building
655 Madison Avenue, New York 10021
Circle 75 on inquiry card
Editor
Mildred F. Schmertz, FAIA

Managing editor
Carolyn De Witt Koenig

Senior editors
Herbert L. Smith, Jr., FAIA
Charles K. Gandee
Douglas Brenner
Grace M. Anderson
Margaret F. Gaskie
Paul M. Sachner
Charles K. Hoyt, AIA

Associate editors
Dari Rastorfer
Deborah K. Dietsch
Karen D. Stern

Assistant editor
Eileen Gabriele, new products

Production editor
Annette K. Netburn
Laura Marchisio, assistant

Design
Alex H. Stillano, director
Alberto Bucchieri, senior associate
Anna Eeger-Schlininger, associate
Mariel Cattrell, illustration
J. Dyrek Fielderus, illustration

Design consultant
Massimo Vignelli

Editorial consultants
George A. Christie, Jr.
Jonathan Barnett, FAIA, AICP

McGraw-Hill World News
Petra Goll, director

Director of information systems
and circulation
Richard H. Di Vecchio

Director of business
and production
Joseph E. Wunk

Director of marketing
Camille H. Padula

Assistant to publisher
Elizabeth Hayman

Publisher/Vice president
Paul B. Baeity

Inquiries and submissions of work for publication may be addressed to any editor, though the editors listed below have a special responsibility for the subject areas named:

Charles Gandee, interior design
Herbert Smith, architectural education
Charles Hoyt, business
Paul Sachner, design news, competitions, book reviews
Dari Rastorfer, engineering
Eileen Gabriele, new products and product literature
Mary Anne Stockwell, regional news

Letters/calendar, 4
Editorial: Barriers to life, 9

Business
News, 33
Construction economy: Is the office boom really bombing? 35
Management: Incentive programs will improve your firm’s performance, 39
Practice: What we can do about the liability crisis in the near future, 43
Costs: More moderation seen, 47
Architectural education: Teaching urban design now that clients really want it, 49

Design
News, 57
Design awards/competitions, 66
Observations/books, 71
“1 for the road,” by Rachel Carley, 77

Building Types Study 633: Urban Infill, 89
Washington Court, New York City, 90
James Stewart Polshek and Partners, Architects
Corcoran at Georgetown, Washington, D.C., 96
Arthur Cotton Moore/Associates, Architects
Prospect Point, La Jolla, California, 100
Robert A. M. Stern Architects in association with Martinez/Wong Associates and Wheeler/Wimer, Architects

Corporate Headquarters, Hughes Aircraft Company, Los Angeles, 104
Skidmore, Owings & Merrill/Los Angeles, Architects

Countryside Montessori School, University Place, Charlotte, 112
David Furman/Architecture, Architects

Olin Memorial Library, Wesleyan University, Middletown, Connecticut, 116
Ferry, Dean, Rogers & Partners, Architects

Riverbend Music Center, Cincinnati, 124
Michael Graves, Architect

Engineering
Riverbend Music Center, Cincinnati, 130
Michael Graves, Architect;
Jaffe Acoustics, Inc., Acoustical Consultants

Jamaica Conference Centre, Kingston, Jamaica, 136
Patrick Staniagar, Architect;
Jaffe Acoustics, Inc., Acoustical Consultants

New products, 138
Product literature, 146
Manufacturer sources, 159
Classified advertising, 188
Advertising index, 202
Reader service card, 205

Cover:
Riverbend Music Center, Cincinnati, Ohio
Michael Graves, Architect
Photographer: © Paul Warchole
At Sargent, attention to detail comes naturally.

In nature, every detail is important and perfect. Every time. At Sargent, perfection is the only standard we'll accept. Which is why we pay such close attention to everything you see—like the precision afforded each manufacturing operation. And we're perfectionists about the things you can't see—like our commitment to making deliveries on time. Every time.

For first quality products and first class delivery, you can rely on the first name in door hardware. Sargent. Where attention to detail is second nature.

SARGENT
A Unit of L.B. Foster Company

Foster
Sargent, New Haven, Connecticut 06511
Sargent (Canada)

Circle 4 on inquiry card
Barriers to life

“Just picture the following scene for a minute. It is a warm summer’s evening and you are at the ballpark with friends. You are excited because one of the best pitchers will be in action. There is one problem, however, one not usually troublesome to most people—it is that an architectural obstruction blocks most of your view. Again, most people would get around this little difficulty by standing up, or by jumping up and down as the excitement mounted. But not you. You are confined to a wheelchair. And the offending barrier is a simple railing directly at your eye level. This is not a question of cost, but rather, the choice of a design detail. So much for your long awaited outing.”

The handicapped person describing his failure to catch a glimpse of one of his favorite players is Olaf A. Sööt, son of the well-known consulting engineer Olaf Sööt. The place was Shea Stadium. We all know that Shea Stadium is not the only public building in the United States that has been designed as though the handicapped do not exist. According to Sööt, few public buildings are easily accessible to people who cannot walk. He is grateful for such tokens as the occasional ramp, but many cinemas, restaurants, and even public toilets don’t have them. “It can be a major undertaking to go to a movie in one’s hometown and have to be lifted up several narrow steps; to be pushed and jolted through narrow doorways, only to find oneself blocking the center aisle. And lastly to feel all the while that one must be violating the local fire code. This happened to me in one of the most affluent towns in the country, Greenwich, Connecticut. The episode brought home all too poignantly the plight of others who reside in less comfortable environments. I do not need to point out the tremendous limitations life has imposed on those of us who are confined to wheelchairs, nor do I ask for any special privileges from the owners of public buildings. In spite of my infirmity and physical limitations I am still a taxpayer, a consumer, and a citizen of the wealthiest country in the world. Why then must I, and thousands like me, suffer the pain and humiliation of inaccessibility?”

Travel can be even more difficult, because the handicapped tend to be denied ordinary access to transportation. Unbeknownst to the rest of us, they are using freight elevators to make their way through air terminals, and at airports that require boarding from the apron, they are hoisted into planes by means of fork lifts or food-service trucks.

As most architects are aware, “accessibility” laws have been on the books in many states and municipalities since the late ’60s and early ’70s. The Architectural Barriers Act of 1968 decreed that all new or altered federal buildings and all federally funded or leased buildings must be barrier-free. Unfortunately, this act applies only to new or substantially renovated buildings, not to the greater part of our building stock constructed before the passage of the act. Sööt argues that there is no excuse for this state of affairs: “We have the resources and technical expertise to make both new and older buildings accessible to the handicapped. What is needed is good architecture, based on an understanding of the handicapped person’s difficulties and a sensitive design response. Statutes alone cannot do the job.”

There is more to the problem, of course, than helping the handicapped make it to the movies or to the ballpark, simplifying their access to transportation, and finding ways to get them more comfortably on and off planes. Handicapped people are joining the workforce in ever greater numbers, making the need for accessible buildings more urgent than ever. Sööt puts forth the argument that “perhaps a closer reading of the Constitution of the United States might well decide that not providing accessibility for the handicapped is in violation of its guarantee that all people are entitled to life, liberty, and the pursuit of happiness. And ‘happiness’ for most is a job, freedom of movement and, above all, choice. That is the bottom line for the handicapped—choice.” Sööt believes that the architectural profession must do much more to help. He is right.

Mildred F. Schmertz

Architectural Record October 1986
The Unique POLARPANE® I/ST™ Butt Glazing Story
for Insulating Glass

In sweeping straight lines and around attention-grabbing corners; providing a sleek appearance inside and out. Also, our internal vertical supports stay out of sight — providing "invisible strength". What you don't get are interfering mullions. What you do get is an eye-catching fully compatible, mullionless, window system in unlimited combinations of glass and coatings...installed — or replaced — from the interior to save you time and money.

Hordis' POLARPANE I/ST Units have a two-inch dead-air space between lites to improve thermal insulation and decrease sound transmission to levels consistently better than those possible with thinner air spaces—delivered complete with glass units, gaskets, metal, and accessories.

The moral, an innovative alternative to structural glazing methods...improved aesthetics, performance, simplified installation...a happy ending from HORDIS. For more information contact: POLARPANE I/ST Project Manager, Hordis Brothers, Inc., 825 Hylton Road, Pennsauken NJ (609) 662-0400, TWX 710-892-1814.

POLARPANE® I/ST™ is covered by US and Foreign patents.

Building: Arthur Collins & William E. Fox Office Bldg., Stamford, CT
General: Frank Mercado
Contractor: & Sons, Inc., Stamford, CT
Architect: Bruce Campbell
Graham Associates, Westport, CT

HORDIS BROTHERS, INC.

Circle 5 on inquiry card
These two names have solid backing.

Dura Beauty

Pionite
Decorative Laminates
Sterling Engineered Products.
A solid performer with a solid future.
We were formerly LOF Plastics. Now all of our experience, resources and know-how are committed to our Pionite® and DuraBeauty® brands of decorative laminates. Both are already proven performers. And, backed by Sterling, they’ll have an even stronger future.

What’s more, we’re committed to creating innovative new products, colors, patterns, and concepts. And, resolved to provide you with delivery service that is better than ever.

So keep an eye on us. Soon our Sterling qualities will become the laminate industry’s shining example.

Circle 6 on inquiry card
Derbigum has known for years. But...
Ultraviolet light is one reason we age the way we do. People have known this for a long time, but short of locking ourselves up in a dark room forever, there's not much we can do about it. Sad but true.

Ultraviolet light is also one of the downsides of roofing. But here, we're happy to say, Owens-Corning has been able to resist nature by designing our Derbigum® roof system so that it actually releases ultraviolet light.

Take a look at our diagram. The construction of Derbigum HPS and SP is unique—unlike that of any other modified bitumen roofing available in the UK and the USA.

While most competitors have only one reinforcing mat, Derbigum SP has two. And Derbigum HPS has three. And others have their reinforcement in the middle of the membrane, Derbigum's are on the upper surface. This positioning at the top enables Derbigum's Fiberglas® mat to reflect ultraviolet light as soon as it arrives. So the maximum amount of modified asphalt waterproofing material is protected from the sun.

Derbigum's multiple mats—polyester and Fiberglas—serve different purposes. One provides puncture and tear resistance. The other combines tensile strength of 200 lbs. per sq. inch with dimensional stability across a wide temperature range.

No wonder Derbigum can boast an 18-year record of proven performance to date, both in Europe and at home. And no wonder Derbigum comes complete with what we think you'll agree is the best overall warranty in the roofing industry.

Isn't life too short to spend a lot of time worrying about roofs? For additional reasons to specify Derbigum for your next commercial building, just talk to your representative from Owens-Corning, the world's largest roofing manufacturer.

Or write for a spec sheet. The address: C.C.L. Meeks, Owens-Corning Fiberglas Corp., Fiberglas Tower, Toledo, Ohio 43659.

Circle 7 on inquiry card
And It's the First Full-Power Mobile/Portable Telephone You Can Install Yourself.

An Incredibly Useful Tool. Radio Shack's transportable phone keeps you in touch while you drive. You can order materials, call for additional crew, receive important messages, and avoid unnecessary trips. Snap on the Portable Adapter Pack* and you can be on line at a job site, in a boat, and wherever there's cellular service. The transportable also moves easily to your personal car, so you or a family member will never have to drive "alone" again.

Full Legal Power. The 3-watt output gives you maximum range in or out of a vehicle. And it's five times the power of many cellular portables.

Now in Most Major Cities. Radio Shack obtains your cellular number, programs your phone, and handles the start-up paperwork. The basic phone is $1199 and you can lease-to-own for as low as $39.95 per month*. Visit our store near you today for a personal demonstration.

*Mobile antennas, portable adapter and batteries extra. Lease availability and terms may vary in different service areas. Prices apply at participating Radio Shack stores and dealers.
Now, our innovative USG® SJ Stud/RC-1™ Resilient Channel System isolates all types of sound problem areas—including tall walls in mechanical rooms and theatres. This exclusive MTC* drywall partition (Music, Mechanical Equipment Transmission Class) is especially effective in handling even such pervasive low frequency sounds as blower motors, machinery and the bass tone in music. Our high performance partition systems employ SJ Studs and RC-1™ Resilient channels—offer superior STC/MTC sound ratings plus fire ratings up to 3 hrs. (UL Design U451-U455). And our new computer-aided design service utilizes hundreds of new combinations of materials to customize sound control performance for virtually any requirement. Get specifics. Write to us at 101 S. Wacker Dr., Chicago, IL 60606-4385, Dept. AR 1088.

NOTE: USG Acoustical Sealant should completely fill gap under panels.

*MTC Is a single number rating, results from a methodology developed and copyrighted by U.S. Gypsum as an index of partition performance in low-frequency sound isolation such as music, motors and some other types of mechanical equipment.

or call us now at:
Eastern Construction Products Division
(914) 332-0800
Southern Construction Products Division
(404) 393-0770
Central Construction Products Division
(312) 321-4128
Western Construction Products Division
(818) 956-1882

UNITED STATES GYPSUM COMPANY
Circle 9 on inquiry card

© 1986 U.S. Gypsum
If this is the sign of success in your business, then consider that more and more signs are pointing to Marvin Windows as the window of choice in distinctive home designs. Not just because we have higher standards than other window companies. Which we do.

Or more standards, which we do. (In fact, we have over 5,000 standard sizes or we'll custom build to your specifications.) But because we set many of the standards now found throughout the industry.

THE WINDOW THAT LASTS HAS A HISTORY OF FIRSTS.

You should know that Marvin was the first national manufacturer to offer Round Top windows. We were the first major manufacturer to offer Trapezoids and Triangles as complete units. The first manufacturer to ship factory-installed extension jambs and completely assembled set-up windows.

First to bring wood bead glazing to the market on a
national scale. First with its own nationwide trucking fleet, cutting delivery time from weeks to days. We were the first to offer Low-E glass on its entire line. And the list goes on.

WHY NEW IDEAS TAKE SHAPE FIRST AT MARVIN.

When you make a window to order, and word gets around, you start getting some pretty wild requests. Like factory applied jamb extensions that are 20" wide. Or Round Tops that are eight feet across.

All of which get our research guys thinking on an even bigger and grander scale. But as our list of innovations shows, they're not just thinking shapes and sizes.

Up here in Warroad, temperatures can plunge to 40° or 50° below. So we've been building triple-glazed, double weather-stripped windows for a long time. And living with them comfortably through freezing winters and blistering summers. Because every window is made to order, we're able to offer state-of-the-art manufacturing and options, like deep-treated vacuum penetration processes for protection against rot and decay, and different metal and Polycron® finishes for maintenance-free exteriors.

FIRST IN AVAILABILITY AND SERVICE, TOO.

Of course you can't sell any shape house if your windows haven't arrived on time. So we had another innovative idea: no matter what size, no matter what options, we can usually ship in 3 weeks or less from the time we get your order. (Round Tops and special glazing take longer.)

Your Marvin dealer has all the information and advice you need to help your greatest designs take shape. He's specially trained in back-up support and timely service.

For more information on the shape of things to come, call 1-800-346-5128 (in Minnesota, 1-800-552-1167), or write, Marvin Windows, Warroad, MN 56763.
Guiney Ranch Financial Center, Scottsdale, AZ
Architect: Comoye-Hedrick Architects & Planners, Inc.

Even when th...
An early completion date can constrict a designer's viewpoint. But when you work with Dryvit® Outsulation®, you're freed from worries about tight schedules. Case in point: the prestigious Gainey Ranch Financial Center (left), in Scottsdale. It's a beautiful example of the Santa Fe/Arizona style with flying beams and wing walls springing from two main buildings.

Planned originally for stucco, it was changed to a Dryvit Outsulation project because of time constraints. And the 100,000 square feet — and almost joint-free — application was completed well within deadline.

Outsulation is not only fast going up, it offers special aesthetic dividends.

This building is a soft subtle mauve, a color custom mixed by Dryvit; something the company is equipped to do over and above the 21 standard colors offered. And like all Dryvit finishes, it's based on a 100% acrylic polymer to resist staining, fading and cracking.

While the main buildings employ the full four component Dryvit Outsulation System, the flying beams and wing walls of Portland cement/metal lathe are coated in Dryvit's Finisher® for a perfect color match.

There's more. With Dryvit you get the proven wall system.

Over a period of 17 years, 55,000 buildings coast-to-coast stand as witness to Dryvit's leadership and success. It's the system backed by corporate research and testing and a broad network of professionals ready to offer technical help in the field.

With results as stunning as this, no wonder building #2 is underway.

An exact duplicate of the Gainey Ranch Financial Center is under construction as of Summer 1986. One difference, however: the Dryvit System application time has been cut by a month. Once you've worked with Outsulation, you find you can do a lot more in a lot less time!

Whether for new construction or retrofit, call or write for more information.

CALL TOLL FREE 1-800-556-7752

Dryvit® Outsulation®

DRYWIT SYSTEM, INC.
One Energy Way, P.O. Box 1014, West Warwick, RI 02893

Plant Locations:
West Warwick, RI; Tulsa, OK; Woodlake, CA; Columbus, GA; Vancouver, B.C., Canada (Dryvit Outsulation System Ltd.)

Look for us in Sweats: 7.13Dr and 7.13Dry

Circle 11 on inquiry card

schedule's tough, spread your wings.
The best laid plans...

...Oft go awry. Unless you're aware of the latest code changes. As a member of the National Fire Protection Association you will be the first to know about current trends and changes in the fire protection industry. So you'll be better equipped to make sure your plans comply.

In addition, all NFPA Members have access to the National Fire Code Subscription Service. It's a sure-fire way to keep informed about Code changes before they're law. But more importantly, you'll join 35,000 other professionals, members of NFPA, who want to make certain the buildings they design, build, inspect and occupy are fire-safe structures.

Call toll-free 1-800-344-3555, 8:30 AM to 8:00 PM, ET, Monday through Friday for membership details.

Circle 12 on inquiry card
You can't top this.

For permanent insulation.
Our dimensionally stable Roofing Base is an ideal substrate which is also recyclable.

For surfacing options. There are three, including smooth white.

For waterproofing integrity. GRM is so tough, this System offers a 15-year warranty.

For energy conservation. Grace Insulperm Insulation Board provides U-factors as low as .03. Stairstepped Boards add slope-to-drain the easy way.

The Grace Maximum Performance System:
No other roofing system keeps water out, energy in and roofing problems at bay quite like this one. We’ve spent 20 years and millions of dollars researching the best in roofing products and the problems associated with roofing systems. We know the problems architects and owners face — and the risks.

If we weren’t totally convinced of the integrity of this system, we wouldn’t make a statement like, “You Can’t Top This”. We believe the combination of GRM (Grace Roofing Membrane) and Zonolite Roof Insulation (Insulperm Board and Roofing Base) provides you with a system you can count on for years — one that’s backed by the best 15/20 year warranty in the business.

For all your roofing needs, we offer a variety of systems that satisfy a wide range of demands. Our GRM Membrane is compatible with many insulation boards and can often be applied directly over existing BUR’s. Our PRMA System (Protected Roof Membrane Assembly) is a proven, inverted system that extends membrane life. Like our Maximum Performance System, it provides you with the added advantage of single source responsibility. And, like all Grace systems, it’s expertly installed by our nationwide network of approved contractors.

Whether you need new or retrofit roofing, look into Grace Roofing Systems — you’ll like what you see. Call us today at 800-242-4476. Grace Construction Products, 62 Whittemore Avenue, Cambridge, MA 02140.

Grace Roofing Systems. They top them all.

OR THIS.
Interior floor statements. Innovative use of Quantum ceramic tile to achieve enduring color, pattern and wear resistance.

Quantum's unglazed surface features through-body color including both neutral and accent tones. Sizes available are 4 x 4, 4 x 8, 6 x 6, and 8 x 8. Colorful, lightweight, modular and stain-resistant statements for your next ceramic flooring design.

Shown: Montclair Plaza; Montclair, CA
Architect: The Jerde Partnership
Developer: The Homart Corp.
But the lock still works.

It should. It's a Schlage.
A name synonymous with quality and durability for over 60 years.
Starting with our very first product, the cylindrical lock, revolutionizing the business. Allowing installation in minutes. Instead of hours.
Since then, we've filled the years with innovations.
Like the inter-connected residential lock. For better security and safety.
And our new non-handed mortise lock. Awarded 11 design patents, it's taking the industry by storm.
Send for a copy of our Architectural Guide to Door Hardware: Schlage, IHS Division, 200 Parkside Drive, San Fernando, CA 91340.
And discover some of today's most enduring contributions to American architecture.
Presenting carpet of Antron Precedent—carpet that looks newer, longer than any other

Finally, there's a carpet fiber system that's a step above all others: Du Pont ANTRON PRECEDENT. Because carpet of ANTRON PRECEDENT looks newer up to two times longer than any other carpet.

We've proven it. In a side-by-side test held in a busy New York City university, more than a million people walked across two contract carpets: one made of Du Pont certified ANTRON PRECEDENT, the other an equal construction of the acknowledged industry leader.
Take a close look. Not only did the carpet ANTRON PRECEDENT excel in soil and stain resistance; it also succeeded in retaining original look and texture longer.

In the revolutionary system behind TRON PRECEDENT, state-of-the art hollowament fibers are combined with DuraTech® advanced commercial treatment based on the est in Teflon® carpet protector technology, is, along with stringent Du Pont construction specifications, is what sets ANTRON PRECEDENT apart.

So, for a carpet that will stand up better, specify one backed with Du Pont's signature of quality, the quality "Q".

Find out how your next carpet project can outlive more soles, with ANTRON PRECEDENT. Call us today at:

800-448-9835
WE CALL IT
THE PERSONAL ARCHITECT.
NOT THE PERSONAL DRAFTSMAN.

We named it on purpose. This is a tool for the entire architectural practice, combining automated design and drafting capabilities on industry-standard IBM* PC AT’s and compatibles.

Use the Personal Architect to design buildings. While other systems work with lines and arcs, the Personal Architect lets you work with floors, walls, roofs, and rooms. In 3-D. In perspective. So you can create a true model of your building design.

This system gives you the tools you need to make effective presentations. Like perspective views with hidden lines removed. Shaded pictures. And area takeoffs.

Use the Personal Architect to produce drawings. The system has expert drafting capability to get your production work done. And can edit drawings quickly too.

On-screen icon menus get you up and running fast. And a graphic symbol library of over 1,000 architectural symbols gives you great flexibility.

The Personal Architect. It can help you get more business and do more business. And isn’t that the name of the game?


Get more business. Shaded pictures (right screen) like this help clients see your vision clearly from any perspective. An invaluable selling tool. Drawing courtesy of Stephen Douglass, Architect, Cambridge, Massachusetts.

For more information on the Personal Architect write: Computervision Corporation, Personal Systems Business Unit, Building 16-2, 100 Crosby Drive, Bedford, MA 01730.

Circle 17 on inquiry card

*IBM is a registered trademark of International Business Machines Corp.
Protection you never thought possible with exterior insulation systems.

Frigid temperatures. Heat. Moisture. Time. All can take their toll on even the best designed buildings.

STO Exterior Insulation Systems offer the full above and below grade protection other materials just can't. They create a thermal shield against the elements that maintains high energy efficiency—they envelope the outside of your building like a protective skin that's flexible, breathes, and resists moisture, yet retains its original beauty for many years to come.

STO Exterior Insulation Systems—protection for your best designs.
EKFAST:
Approved
GUARANTEED
PERFORMANCE
on membrane and
roof insulation
fastening systems
for steel, wood
and concrete
decks.
AVAILABLE WITH:
SENTRI
LONG-LIFE FINISH
FOR TECHNICAL
PACKET AND
SAMPLES, CONTACT:
CONSTRUCTION
FASTENERS, INC.
Dekfast Product Group
P.O. Box 6326
Wyomissing, PA 19610
215/376-5751

Circle 19 on inquiry card

Wanted to Buy
American Architectural
Drawings
especially from the
period 1875–1940
Please contact
Robert Schonfeld, Senior Vice President
Hirschl & Adler
GALLERIES INC.
21 East 70th Street, New York 10021 • (212) 535-8810

Circle 20 on inquiry card

For the architect
who hates to wait.
Dataprint has thousands of brand name drafting
supplies in stock, all ready for same day shipment.
And all at hard-to-beat prices. Impatient professionals have
been calling us for over 19 years. So if you want the best, but
hate delays, call Dataprint (call us today by 2 PM, and we'll
ship your order by 5 PM). Ask for our free catalog, too.

DATAPRINT* Drafting, Print and
Plotter Supplies
(800) 227-6191

Circle 21 on inquiry card
SHELTERING AMERICA FOR OVER TWO CENTURIES.

When housing was needed for Hampden-Sydney College, a fine school with a tradition that dates back to 1776, Buckingham-Virginia Slate was selected as a natural roofing material. This is the same non-fading, blue-black, grade A slate that was used on original buildings still integral to campus life.

With a proud heritage of its own, Buckingham-Virginia Slate was often specified by Thomas Jefferson; and is still selected by eminent architects of our time for its permanence and natural beauty.

Because it blends with either contemporary or traditional architecture, and helps to blend both, it's a natural, superlative choice for residential work, churches, schools, commercial and municipal jobs.

If you want to create shelter that will be around for generations to come, above all, use a permanent roof of world-class Buckingham-Virginia Slate.

Buckingham-Virginia Slate Corporation
4110 Fitzhugh Avenue • P.O. Box 11002
Richmond, VA 23230-9990 (804) 355-4351

Circle 22 on inquiry card
Steelite challenges any other metal panel coating system to even equal—much less exceed—the all-around performance and long-term field experience of the unique Corrstan multi-mil coating system!

Nothing—but nothing—even equals the Corrstan system. That is quite a strong statement. There is some strong evidence behind it. Call or write for our new Corrstan Challenge brochure.

STEELITE, INC.
1010 Ohio River Boulevard
Pittsburgh, PA 15202
(800) 824-1370 (in PA)
(800) 824-1371 (outside PA)
Circle 23 on inquiry card
IGM Granite and Marble Thin Tiles are a high quality, economical and convenient product for residential and commercial applications.

Available in more than 60 varieties of color and style, Thin Tiles feature excellent flatness with tight sizing. Standardized measurements make Thin Tiles quick and easy to install. Packed in polystyrene cases for easy shipping, storing and handling, Thin Tiles increase profitability by lowering the cost of purchasing, transportation and installation.

Granite and Marble Thin Tiles are in stock at the five IGM Distribution Centers and at independent distributors. Special orders are also available. All are finest quality available.

Finishing: Granite: Polished, honed or flamed. Marble: Polished or honed.

Available Sizes: 3/16" Thin & 1/2" Thin

IGM International Granite and Marble Co. Inc.

Northeast
2038 83rd St.
North Bergen, NJ 07047
201-869-3200

Mid-Atlantic
2020 Lord Baltimore Drive
Baltimore, MD 21207
301-265-6720

Midwest
950 Greenleaf Ave.
Elk Grove Village, IL 60007
312-593-7560

Southwest
118A Pleasantville Drive
Houston, TX 77213
713-675-9140

South
873 West 18th St.
Hialeah, FL 33010
305-889-2718

Southeast
990 Travis Street
P.O. Box 93286
Atlanta, GA 30318
404-681-3713

Circle 24 on inquiry card
A new multi-event stadium for St. Petersburg

Looking to lure a baseball team, the city of St. Petersburg is planning to build a 43,000-seat domed stadium, with no assurance it will get a baseball franchise. Rick de Flon, vice president of Hellmuth, Obata & Kassabaum’s Kansas City office and principal of HOK Sports Facilities Group, is the chief architect in charge of the project.

The stadium’s configuration, containing three seating levels and 60 luxury suites (enclosed boxes containing lounge area and upscale amenities), provides 43,000 seats for baseball, 37,400 for football, 39,000 for outdoor soccer, 20,000 for basketball and tennis, 37,500 for track, 28,900 for indoor soccer and hockey, and 15,000 to 60,000 for concerts. For conventions and trade shows 152,000 square feet of flat floor space with a 30- by 30-foot utility grid will be available.

Another feature is a system of eight movable seating sections with incorporated restrooms and concessions. According to de Flon, the translucent fabric roof, supported by cables, will be the first of its kind in the United States.

The roof is similar to those put on two smaller facilities that will be used in Seoul, South Korea, for the 1988 Summer Olympics.

Outdoor sculpture and landscaped environment set for unveiling

A monumental outdoor sculpture installation, comprised of colossal mythological fragments reminiscent of archeological ruins and set within a landscaped garden, is scheduled for completion this month at the TransPotomac Canal Center, a $125-million waterfront office complex, now under construction on the Potomac River in Alexandria, Va.

The sculpture, a collaborative effort between French artists Anne and Patrick Poirier and American landscape architect M. Paul Friedberg, features a 30-foot-high bronze arrow thrust into a fountain that cascades from the plaza’s center to the Potomac River’s edge, a 14-ton marble obelisk, and colossal figurative fragments carved in white Carrara marble.

The Canal Center, designed by CHK Architects and Planners of Silver Spring, Md., is due to open in December.

Renovation planned for landmark office building in nation’s capital

The Colorado Building, one of the most strikingly ornamented of Washington, D.C.’s turn-of-the-century buildings, will undergo a major renovation in 1987.

Washington-based architects Kress Cox Associates will oversee the renovation of the 88-year-old building, originally designed by Ralph Townsend. Nine stories high, the building contains 105,000 square feet of space.

News briefs

Alan M. Hantman has joined the Rockefeller Center Management Corporation as director of design, planning, and engineering. Architect Hantman was project director of the C&W Development Consultants Group, a unit of Cushman and Wakefield.

Alan Chimacoff has joined The Hillier Group in Princeton, N.J., as director of design. On leave from his current position as professor of architecture and director of graduate studies at the Princeton University School of Architecture, Chimacoff has had his own practice in Princeton since 1978. Previously, he was a partner in the firm Chimacoff/Peterson, Architects in Princeton.

First prize in the state of Maryland’s Vietnam Memorial competition has been captured by the Columbia, Md., architectural team of Robert Tennenbaum and Michael Elliott. The site of the proposed memorial is Federal Hill Park, overlooking Baltimore’s Inner Harbor. The Maryland Vietnam Veterans Memorial Commission received 232 design entries from architects, landscape architects, students, designers, and sculptors.
Eastern economic report: Though construction may slow, New Jersey is well-placed for continued growth

Much maligned and sometimes underrated, the state of New Jersey possesses one of the most vibrant economies in the U. S. New Jersey’s unemployment rate in the first half of 1986 was 5.5 percent, below the national average of 7.3 percent. Personal income in 1986, moreover, has grown much faster than income in other states. As of 1985, New Jersey residents enjoyed the third highest per-capita income—$16,368—in the country. And of the 10 richest large metropolitan areas in the U. S., three are in the Garden State. In fact, residential construction contracts surged 19 percent in the first five months of 1986 compared with 8 percent nationally, pointing to strong housing construction for the rest of the year. In the past three years, housing starts in the state rocketed nearly 70 percent to 59,000, according to DRI/McGraw-Hill estimates, and construction employment grew rapidly. Despite this impressive record, however, the number of registered architects in New Jersey rose only 11 percent between 1982 and 1985, to 1,816, according to an American Institute of Architects tabulation. That left the state with relatively few architects, suggesting that they did better in the past few years than did their colleagues elsewhere.

But what of business in the future? After several years of boom, it is likely the economy will slow down. In particular, notes a state government analysis, construction has probably peaked. Industrial construction is being hurt by sluggishness in manufacturing and commercial construction. Under the gun of federal tax reform, which almost surely will undercut tax-shelter investment in offices, many old, declining cities like Newark, Camden, and Paterson, it is also developing high-growth regions such as those around Princeton, Piscataway, and Parsippany, marked by business parks and high-tech companies.

Battery Park fort restored as ticket and visitor center

Manhattan’s Castle Clinton, the semicircular stone fort in Battery Park City constructed in 1811, has been reborn as an orientation center for visitors to Liberty and Ellis Islands by Manhattan-based architects Beyer Blinder Belle and associated architects Notter Finegold & Alexander of Boston. A notable aspect of the restoration was the reopening of a doorway in the west wall, looking toward the Statue of Liberty. The precast concrete of the doorway blends with the existing stone, and the new gate is a modern steel interpretation of the wrought-iron gratings at neighboring gun ports.

The architects have also created a 12-sided ticket booth and an octagonal information center. Both structures have vertical cedar siding, glass-and-metal canopies, and shingled roofs.
Sunbilt™ Creative Sunrooms are architectural additions, designed and built to last by an affiliate of J. Sussman, Inc., a highly regarded, internationally renowned company known for quality and integrity for over 80 years.

Service, Cooperation, Delivery and above all QUALITY are the hallmarks of Sunbilt Solar Products by Sussman. Specify Sunbilt for trouble free glass enclosures that meet or exceed snow and wind load code requirements. Don't settle for anything but the best — Sunbilt.

Write or call for a FREE color catalog.

SUNBILT DEALERSHIPS AVAILABLE

See us in Swee ts - sec. 11213/SUS

Residential & Commercial Enclosures

Circle 25 on inquiry card

The Window Conference and Exposition for Historic Buildings

Boston, Mass.
December 2-4, 1986

A technical conference on state-of-the-art and cost-effective repair and maintenance techniques, replacement options, performance and energy issues, special window accessories, and federal tax credit requirements for commercial, residential, and industrial buildings. Window products and services for historic buildings will be featured at the Exposition.

For registration:
The Window Conference
P.O. Box 27080
Central Station
Washington, DC 20038
(202) 343 9578

You can order reprints of any articles that have appeared in Architectural Record, whether in color (if the article was published in color) or black-and-white (if published in black-and-white), in whatever quantities (minimum 100) you need, for use in your own mailings and presentations.

For more information, price quotes and help with layout and format of your reprints, call:

Janice Austin
609/426-5494

ARCHITECTURAL RECORD
The fresh approach to ventilation.

You've probably never seen anything quite like this. A complete range of fans from Vent-Axia to help you keep your cool. From now on, when it comes to ventilation Vent-Axia has the answer.

Crisply styled to blend with interior decors, Vent-Axia fans come in five models to suit walls, ceilings, roofs, ducts, windows and even darkrooms, each in four sizes with outputs ranging from 133-1040 cu. ft. per minute. What's more there's a choice of matching backdraft dampers and speed controllers on all models.

Used on their own Vent-Axia fans quickly remove hot, stale, stuffy air and reduce condensation. Used to support air conditioning it becomes a powerful energy saver distributing air more effectively. Vent-Axia fans are high on performance and low on energy consumption.

Silent running too. Vent-Axia motors are totally enclosed and renowned for quiet, unfailing performance at any angle.

All other parts are manufactured from high quality polymeric materials so they won't corrode. The result is a range of axial propeller fans designed to last years longer than ordinary fans and proved worldwide.

Need more information? Call Sweets BUYLINE 800-toll free, for our nearest rep., or clip the coupon for fully detailed literature.
The Fleet Center, Providence, Rhode Island. A perfect example of just how perfect Rock of Ages Granite can be.

Contact our sales office for our brochure, color selection, finishes, applications, samples, budget prices or technical assistance. Call toll free: 1-800-445-7050, or in New Hampshire, call 1-603-224-5325.
Built to Endure the Elements

Insulated Wall/Membrane Roof Panel Systems

Armadillos are known for tough skins and a body that's built to withstand almost any natural element...features also typical of Aluma Shield products.

We offer a complete line of panels including our roof system...the only complete one-piece PVC membrane roof available today. Its ease of installation and superior watertightness allow for considerable cost savings during construction, and maintenance-free protection year after year.

You Get More From Aluma Shield

By continually stressing product quality and improvement, Aluma Shield has become the leading supplier to the industrial and cold storage construction markets. We continue to lead the way by offering a 20-year Kynar finish as our standard exterior paint coating. And to protect the panel finish during production, shipping and installation, we apply our special plastic ArmaFilm™ to both sides of all panels. No one else offers this special attention to quality.

If you're planning a new temperature-controlled building or demand a high quality roof that you can install and forget, Aluma Shield has insulated panel systems to fit your budget and control energy costs.

Hercules® Doors

Our complete line of industrial and cold storage doors satisfy today's most demanding needs for energy efficiency and material handling. Specify Hercules when you need top quality, cost effective doors that deliver reliable performance under the most demanding conditions.

Contact Aluma Shield for more information on our complete line of building products. They're tough, durable and insulated to protect whatever is inside from harsh elements outside.

405 Fentress Blvd., • Daytona Beach, FL 32014 • 800/435-3333 • TELEX 808-631

Bill Knapps Restaurant Distribution Facility

Circle 32 on inquiry card
HE'S EVEN BETTER AT SELLING BATH TOWELS

This folk art Indian used to be found outside of tobacconists selling cigars, but now he's selling towels and housewares at Bloomingdale's. American Express, applying one of its Cause-Related Marketing programs, donated $2.00 for each new Card issued. The response was excellent.

With a little guidance from the Business Committee for the Arts, both big businesses like American Express and smaller businesses like First Vermont Bank, are finding support to the arts can be a nice feather in their cap. The Business Committee for the Arts will show you how supporting the arts can improve your public image, boost employee morale and give you tax advantages. To find out what the arts can do for your business, get in touch with the Business Committee for the Arts. They'll show you that supporting the arts could mean good wampum as well as goodwill.

BUSINESS COMMITTEE FOR THE ARTS • SUITE 510 • 1775 BROADWAY, NEW YORK, N.Y. 10019 • (212) 664-0600

THIS ADVERTISEMENT PREPARED AS A PUBLIC SERVICE BY OGLIVY & MATHER.
ECI's new standing seam roof panel with VersaLok.

ECI's newest panels with a 3" standing seam give you a strong, weather-tight roof in one simple step. Our unique, VersaLok* self-locking joints snap together to make roofing quicker and easier than ever before.

But you can also seam the joint, if specifications require it, with our lightweight, inexpensive seaming tool that makes the job go fast, even in tight quarters. No hand crimping is required, and you can snap the entire roof together and field seam later if you wish. The critical-radius bends in the joints are formed at the factory, so metal fatigue and coating damage aren't the problems they are with some other mechanically seamed panels.

Whether you choose to snap or to seam, you get an attractive, functional, long-lasting roof with a UL-90 wind uplift rating. Our standing seam panels give you 24-inch coverage and are available in 20-year Galvalume,™ white or a wide selection of colors. Plus, you have a choice of fixed or floating clips, with or without thermal spacers.

If you'd like to install your next roof without the inconvenience of hand crimping and scheduling the use of expensive seaming tools with the panel supplier, call or write ECI today. Get more facts about the unique standing seam roof system that gives you two easy choices. Snapping. Or seaming.

*Patent pending

Engineered Components Incorporated

Please send me more information on your new standing seam roof system with VersaLok joints.

I am a □ Builder Contractor □ Architect □ Engineer □ Owner □ Erector/Installer.

Name ______________________________ Title ______________________________

Company ______________________________ Phone ______________________________

Address ______________________________

City __________________ State __________ Zip __________

Circle 33 on inquiry card
The most admired component of Monier Roof Tile is never seen. It's Monier's exceptional customer service. We listen and respond immediately to the needs of architects, builders, developers, and roofers alike. Then we add prompt deliveries for a smoother running job, office and site visits to update on latest products and we can provide practical advice on the latest installation techniques. Monier service translates into consistently good roof tile jobs, completed on time, giving you satisfied customers. Experience the quality of our customer service. Call or write for complete information now.
New York City's landmarks law, created in 1965, has long been a national model for other such laws that would protect buildings of historic, architectural, or quality of life importance. That law, often criticized by developers for obstructing large-scale new construction and by almost everyone else for not obstructing enough, would seem to have struck a happy middle ground. Yet it has recently come under attack by, first, churches that want a statewide exemption, and now, seemingly, by the city government, which created it in the first place.

Spurred by ongoing discontent in the real-estate community and, specifically, by the last-minute designation of buildings in an assemblage as landmarks, causing the developers to cry "ambush," and by the hasty stripping of ornament from another building to prevent a similar outcome, the city has proposed amendments to the law it believes will satisfy all interests.

In essence, the commission would have to create a list of all buildings deemed worthy of its consideration. And, at a developer's request, act on them. The benefit for the public? Potentially worthy buildings on the list would be officially protected from demolition or defacement on an interim basis. (Currently, in a developer's request, act on buildings of interest to the developer department.)

The commission would have to complete the protected-buildings list within four years. And it would have to act on any designation within 12 months of a request or not again for four to five years. Very reasonable, it would seem.

However, it has to be remembered that, in the 21 years of the commission's existence, fewer than 1/10th of 1 percent of all buildings in the city have been individually designated—which omits many familiar buildings by internationally known architects. (Rockefeller Center, for instance, has just received its plaque.) And a survey of eligible buildings in only one of the five city boroughs, Manhattan, is, after all that time, just nearing completion. Part of the problem, which the inflexibility of the proposed amendments does not address, is that research and changing values constantly produce new candidates. The other part of the problem: the commission has the power to make townhalls of the board members and to dismiss noteworthy sites and buildings which landmark advocates wish to preserve. Hence the cries of "ambush."

True, the amendments would give the commission more money to speed up the completion of an eligibility list for the whole city, but, given the strict time limits, many argue that the new budget of $4 million (which only increases the current one by a little more than twice), coupled with the slow and cumbersome process of designation, would mean that very few additional buildings will ever be designated. If New York is successful in passing the proposed amendments, the preservation community then has to hope that they will not become, like the proposed amendments, the final selection of the student participant in the Walter Wagner Education Forum at next year's AIA convention. The winner will be picked from students sending papers to the AIA by Nov. 1. The subject: Are there too many architects being trained? For more information, contact, Thomas Awai, convention chairman, Arizona State University, Tempe, Ariz. 85287.

Is it shape up or sell out for New York City's model landmarks law?

A mere $4.3 million reinvestment in decaying downtown neighborhoods and a little over 100 new jobs in them may seem like small change, but not so to Dolores P. Palma, an urban planner with the National Trust for Historic Preservation's Main Street Center. She is in charge of a three-year demonstration program, which began a little over a year ago in seven medium-sized cities with the basic aim of revitalizing decaying downtowns. In addition to new jobs and new investments, says Palma, the downtowns in the program have already recorded 32 new business starts, against 22 closures, even though the operational part of the program was not yet stated.

Previously, all seven cities were in a downward spiral. Now were these 32 starts by fast-food chains. All were independently owned small businesses, such as restaurants, clothing stores, and offices.

The program, financed entirely by local contributions, covers the business districts of Cheyenne, Wyo.; Dubuque, Iowa; Joliet, III.; Knoxville, Tenn.; Albuquerque, N.M.; Schenectady, N.Y.; Pittsburgh's South Side; and Boston's Roslindale Village.

The demonstration program identifies the issues and needs and develops model strategies, in partnership with local-community and government groups. It uses the target area's latent architectural appeal and visual character as a starting point in improving a business district's image.

The program stresses four main points—organization, promotion, design, and economic diversification. "It's a very incremental approach," says Palma. The first year typically concentrates on organization and preliminary redesign and rehab projects. "It is important to do things that are visible and that attract volunteers," Palma says. The second year gets heavily into design and promotion, and economic development gets going in the third year. "After that, the locals are on their own. But, if a good local organization is in place, the pace typically continues. It's like the management of any good shopping center," Palma says.

To take stock of what the program has achieved and where it is headed, the Trust and the Center are holding their first urban mainstreet conference on Nov. 11-13 in Washington, D.C. at the mid-point of the program. Attendance will be limited to some 200 persons actively involved in revitalization and management of urban business districts and will give them maximum opportunity for discussion with the center's staff and visiting faculty.
YEARS FROM NOW, MANVILLE ARCHITECTURAL PANELS WILL STILL LOOK LIKE THIS.

They last and last. Years from now, Manville Architectural Panels won't have faded, because their color is integral throughout. Years from now, they'll still be impact- and weather-resistant. And very, very durable.

And years from now, they won't have been harmed by fire—they're non-asbestos and fire-resistant. Yes, these architectural panels are definitely tough. But they also offer other advantages:

- They're machinable and easy to work with.
- They're available in a variety of textures and popular earth-tone colors.
- They're aesthetically pleasing with glazing and encourage creative architectural expression.
- And they're made right here, in America.

So if you want architectural panels that will last, talk to your local distributor. Or contact the Manville Product Information Center, P.O. Box 5108, Denver, CO 80217. Phone: 303-978-4900. (See our catalog in Sweet's.) Available internationally. Telex: 216115 MANV UR

Manville. 21,000 people with one goal: To be your very best supplier.

Circle 37 on inquiry card

Manville
Construction economy: Is the office boom really bombing?

The current status of the tax-reform bill makes the author’s observations well worth reading

By Joseph Spiers

It’s been a long wait, but the boom in office-building construction may finally have come to a not-unexpected end. (Update, RECORD, September 1986, page 35.)

The evidence: During the past year, inflation-adjusted outlays for new office buildings have been teetering (chart overleaf): construction contracts for office buildings have been sinking; and office-vacancy rates in many cities have not only reached the sky but continue to climb. The table overleaf makes this clear.

Is there anything surprising about this particular construction market getting weak? Nothing, except that this particular market has been behaving in an extraordinary manner year after year since 1978. And despite many predictions of an office-building demise during those years, the market kept shooting up to new highs.

Just as they are now, those earlier forecasts of an office slump were based on seemingly irrefutable evidence: soaring vacancy rates, extraordinarily high interest rates, economic recession, overbuilding, disinvestment, and, of course, potential tax-law changes. Yet from 1976—the bottom of the mid-1970s office slump—to 1985, real outlays for office buildings surged at a 15-percent average annual rate. That compares with only 5 percent for the rest of nonresidential buildings in the same period.

During this ever-onward-and-upward stretch, there was one glitch—1982—when office construction tumbled 13 percent. At the time, it seemed the office market had had it. The Coldwell Banker national vacancy rate had doubled during 1982 and hit 12.4 percent by the end of 1983. Interest rates, while down from their incredible 1981-82 peaks, were still extremely high. The prime rate in 1983, for example, averaged nearly 11 percent, compared with 8.5 percent today. Yet, while interest rates fell in 1983, so did inflation, meaning that the real cost of money did not change dramatically.

Meanwhile, transition to a low-inflation economy knocked loose an important pillar supporting the office boom. For inflation assures developers and investors that future capital gains on sales of their properties will more than justify the current high cost of interest payments.

Mr. Spiers is senior economist for McGraw-Hill’s Data Resources, Inc., which supplies economic forecasting to government, industry, and financial institutions.


With energy prices continuing down in 1985 and formerly vibrant Sun Belt cities feeling an economic chill, surely the strong facade of the office market would begin to crack. Yet, as noted, in 1985 as a whole, office construction soared once again.

So, given all the false signals in the past, why think that the end is here now? Indeed, some signals are still flashing strength in offices. On a general level, many analysts believe the economy will grow comfortably in the second half of 1986 and will continue to grow well in 1987. The big pluses for the economy: the cheapest oil, the lowest interest rates, and the weakest dollar in years. If the economy does, in fact, strengthen, companies will hire more secretaries, managers, and accountants, helping to fill up all those half-empty office buildings throughout the country.

More specifically, strength in offices still shows up in major markets. The most important market in the country, Manhattan, also happens to be the strongest. The office-vacancy rate in midtown Manhattan was only 8 percent as recently as March. In downtown Manhattan, the rate was higher at 10.8 percent, but still far below the national urban average of 16.5 percent and the national average suburban rate of 22.5 percent. In nearby Long Island, the rate was just 10 percent.

Other Northeastern cities—Boston, Philadelphia, Washington, D.C.—also sport vacancy rates far below the national average. With the continued growth of financial and other services, the Northeastern market looks solid compared with the rest of the country.

Yet even in the Northeast all is not rosy. In nearby New Jersey and Westchester County, which borders New York City, empty office space abounds. And in such cities as Baltimore and Columbus, Ohio, more than 13 percent of downtown office space was unleased as of March.

Compared with the Sun Belt, however, space in Baltimore and Columbus is tight. From Miami with a rate of 22.8 percent to San Diego with a rate of 20.2 percent, the Sun Belt has become the overbuilt belt. These rates have forced building owners to offer tenants great deals—such as a year without rent, or free furniture and redecoration. Yet, excess space remains a drag on many markets.

Clearly, with perhaps a few geographic exceptions, overbuilding has reached an extreme point.

Corroborating evidence comes from the growing number of real-estate deals that are going into default. In addition, while interest rates are far lower today than they were a few years ago, inflation is also a lot lower. Hence the prospects of fat capital gains have faded.

Perhaps the most important reason to believe office construction is coming to a crashing halt is tax reform.

To be sure, tax reform has been in the political wind for several years, with tax shelters a target in just about every proposal. And, of course, limited partnerships formed to build offices have been one of the most popular tax shelters in recent years. Nevertheless, despite tax-reform uncertainty, offices kept booming along.

It’s possible that news of tax reform could actually have spurred tax-shelter investment in new office buildings on the assumption that tax benefits for projects already under way would be protected by grandfather clauses. But it’s also possible that few market participants really believed tax reform would occur, or at least that any new tax bill would actually take a meat cleaver to real estate. After all, real-estate lobbies abound in Washington. And, anyway, there had been a lot of talk before and nothing happened to tax shelters.

That view may have been valid as recently as six months ago. But then came the startling announcement by the Senate Finance Committee that it had agreed on a bill to reduce the number of personal marginal tax rates from 14 to 2. Tax reform suddenly became a front-burner, can-do issue.

And while some taxpayers would get pinched by elimination of tax shelters, others see lower taxes and nonmortgage interest payments, promoters of office tax shelters would get devastated by elimination: the elimination of a taxpayer’s ability to write off losses from limited partnerships against ordinary income.

If the Senate Finance bill became law, losses from limited
Introducing the Kwikset Premium Entrance Lockset.

An exceptional high-quality lockset for finer residential and commercial buildings.

After four years of intensive research and development, utilizing the latest computer-aided design and manufacturing technology, Kwikset has succeeded in producing a heavier-duty entrance lockset at a price significantly lower than any other comparable entrance lockset.

This was accomplished by the innovative merging of new space-age materials with sturdy steel and brass components, which created a rugged, durable lockset with the strength and security needed for installation in high-traffic areas.

The Premium entrance lockset has a unique feature not available on any other tubular-style entrance lockset. The exterior knob rotates and spins free when locked by key or interior turn button. This is a valuable security aid for resisting knob wrenching during an attempted burglary.

All three entry functions are U.L. Listed, furnished standard with six-pin tumbler solid-brass cylinder, and have an easy-to-install 3⅜" larger snap-on rose for design enhancement.

For a complete illustrated catalog write to Kwikset, P.O. Box 4250, Anaheim, CA 92803-4250.
Construction economy continued

True enough, downward predictions have been made before. But the wild card in the construction deck—tax reform—had not been played then. Today, tax reform is on the table for all to ponder before making their bets.

Office construction outlays — Office construction contracts
(Quarterly data at annual rate)

Downtown office vacancy rates (%)

<table>
<thead>
<tr>
<th>Location</th>
<th>March 1986</th>
<th>March 1985</th>
<th>Percentage Change, 1985-86</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Northeast</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baltimore</td>
<td>13.3%</td>
<td>9.9%</td>
<td>3.4</td>
</tr>
<tr>
<td>Boston</td>
<td>10.5%</td>
<td>13.5%</td>
<td>-3.0</td>
</tr>
<tr>
<td>Manhattan, Downtown</td>
<td>10.8%</td>
<td>8.8%</td>
<td>2.3</td>
</tr>
<tr>
<td>Manhattan, Midtown</td>
<td>8.0%</td>
<td>7.1%</td>
<td>0.9</td>
</tr>
<tr>
<td>Philadelphia</td>
<td>9.2%</td>
<td>8.5%</td>
<td>0.7</td>
</tr>
<tr>
<td>Washington, DC</td>
<td>10.8%</td>
<td>10.6%</td>
<td>-0.3</td>
</tr>
<tr>
<td><strong>Midwest</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chicago</td>
<td>11.0%</td>
<td>10.5%</td>
<td>0.5</td>
</tr>
<tr>
<td>Cincinnati</td>
<td>18.4%</td>
<td>17.5%</td>
<td>0.9</td>
</tr>
<tr>
<td>Columbus</td>
<td>14.0%</td>
<td>20.2%</td>
<td>-6.2</td>
</tr>
<tr>
<td>Indianapolis</td>
<td>9.4%</td>
<td>11.8%</td>
<td>-2.4</td>
</tr>
<tr>
<td>Minneapolis-St. Paul</td>
<td>12.6%</td>
<td>14.4%</td>
<td>-1.8</td>
</tr>
<tr>
<td>St. Louis</td>
<td>11.0%</td>
<td>11.0%</td>
<td>0.0</td>
</tr>
<tr>
<td><strong>South</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Atlanta</td>
<td>13.9%</td>
<td>15.8%</td>
<td>-1.9</td>
</tr>
<tr>
<td>Charlotte</td>
<td>7.0%</td>
<td>10.3%</td>
<td>-3.3</td>
</tr>
<tr>
<td>Dallas</td>
<td>18.4%</td>
<td>17.5%</td>
<td>0.9</td>
</tr>
<tr>
<td>Houston</td>
<td>19.1%</td>
<td>19.6%</td>
<td>-0.5</td>
</tr>
<tr>
<td>Miami</td>
<td>23.8%</td>
<td>17.4%</td>
<td>6.4</td>
</tr>
<tr>
<td>Nashville</td>
<td>17.9%</td>
<td>20.8%</td>
<td>-2.9</td>
</tr>
<tr>
<td>New Orleans</td>
<td>25.1%</td>
<td>19.5%</td>
<td>5.6</td>
</tr>
<tr>
<td>Oklahoma City</td>
<td>24.0%</td>
<td>24.4%</td>
<td>-0.4</td>
</tr>
<tr>
<td>Orlando</td>
<td>17.2%</td>
<td>16.9%</td>
<td>0.3</td>
</tr>
<tr>
<td>San Antonio</td>
<td>21.0%</td>
<td>21.4%</td>
<td>-0.4</td>
</tr>
<tr>
<td>Tampa</td>
<td>23.8%</td>
<td>7.8%</td>
<td>16.0</td>
</tr>
<tr>
<td><strong>West</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Denver</td>
<td>26.1%</td>
<td>24.7%</td>
<td>1.4</td>
</tr>
<tr>
<td>Kansas City</td>
<td>18.5%</td>
<td>19.0%</td>
<td>0.5</td>
</tr>
<tr>
<td>Los Angeles</td>
<td>18.5%</td>
<td>22.4%</td>
<td>6.1</td>
</tr>
<tr>
<td>Oakland-East Bay</td>
<td>20.3%</td>
<td>18.0%</td>
<td>2.3</td>
</tr>
<tr>
<td>Phoenix</td>
<td>21.5%</td>
<td>20.7%</td>
<td>0.8</td>
</tr>
<tr>
<td>Portland, Oregon</td>
<td>19.8%</td>
<td>18.2%</td>
<td>1.6</td>
</tr>
<tr>
<td>Sacramento</td>
<td>16.0%</td>
<td>20.3%</td>
<td>-4.3</td>
</tr>
<tr>
<td>San Diego</td>
<td>20.2%</td>
<td>21.7%</td>
<td>-1.5</td>
</tr>
<tr>
<td>San Francisco</td>
<td>15.7%</td>
<td>10.9%</td>
<td>4.8</td>
</tr>
<tr>
<td>San Jose</td>
<td>23.0%</td>
<td>18.7%</td>
<td>4.3</td>
</tr>
<tr>
<td>Seattle</td>
<td>14.9%</td>
<td>13.5%</td>
<td>1.4</td>
</tr>
<tr>
<td><strong>U.S. Average</strong></td>
<td>16.5%</td>
<td>15.4%</td>
<td>1.1</td>
</tr>
</tbody>
</table>

Source: Coldwell Banker

Partnerships could be written off only against gains from other partnership investments. But, of course, the point of these investments is to generate losses, with the benefits coming from tax deductions and eventually from capital gains. Hence, under such a tax regime it is unlikely that many investors would want to invest in office-construction deals unless these deals were founded on a firm economic basis, not merely on tax-code clauses.

Estimates are that limited partnerships account for some $8 billion in real-estate deals, with a good chunk going for office development. Obviously, if this source of funds dried up, the office market would suffer. In fact, syndicators have been reporting a loss of investor interest in real-estate partnerships.

Besides the swipe at partnerships, tax reform also extends the depreciable lifetimes of nonresidential structures by some ten years. Thus, even for nonpartnership developers, the tax advantages of putting up a new office building are diminished.

On top of the proposals specific to real estate, the general reduction in both personal and corporate marginal rates also reduces incentives to report losses; they simply aren't worth as much as under a higher-rate regime.

Putting all of the above arguments into an office construction balance sheet looks like this: The asset side of the ledger includes an anticipated pickup in general economic growth that would lead to increased office employment, hence increased demand for office space. Faster economic growth would, in part, be spurred by lower interest rates, which of course directly benefit construction. The asset account also includes relatively strong markets in the Northeast.

On the liability side of the ledger are extremely high and rising office-vacancy rates, a depression in energy-producing areas of the country, low inflation, high interest rates in relation to inflation, and tax reform's blow to shelters. All in all, it appears that the liabilities outweigh the assets, with tax reform the decisive factor.

Given softness in office construction in the past few quarters, it's possible that fear of tax reform and inability to lease out space have already put a damper on this market. The view from here, therefore, is that the office boom is over, and not just for the moment, but for a couple of years.

Source: Coldwell Banker
A complete list of things to know about 2400 bps modems.

Now that you’ve memorized that, here’s a partial list of why a Hayes® Smartmodem 2400™ is best for you.

1. The Hayes Smartmodem 2400 allows you to communicate with the vast installed-base of 300, 1200 and 2400 bps “Hayes-compatible” modems. The Hayes Standard “AT” Command Set allows you to use Smartcom II® and other software that communicates.

2. Through synchronous/asynchronous technologies, the Smartmodem 2400 permits your PC to access mainframes, minis, and on-line services previously inaccessible through asynchronous-only modems.

3. The Hayes Smartmodem 2400 is efficient…it pays for itself in just 4 hours of annual use over long distance.

4. The technology of the Smartmodem 2400 allows you to transfer volumes of files with confidence across the city or across the ocean using Bell and CCITT standards.

5. The new Smartmodem 2400B™—a plug-in board for the IBM PC and compatibles—allow synchronous and asynchronous communication through the same Com port.

6. You will also get the Hayes standard 2-year limited warranty and the opportunity to extend the warranty to 4 years.

Best of all…you get Hayes. And that’s all you ever really have to know!

For more information or technical specs, contact your authorized Hayes dealer. Or Hayes directly at (404) 441-1617.

Hayes Microcomputer Products, Inc., P.O. Box 105203, Atlanta, Georgia 30348.

Circle 39 on inquiry card
Management: Incentive programs will improve your firm’s performance

By James Pashek

Incentive programs are important because they both motivate staff productivity and keep key members from leaving. These two goals were repeatedly brought up by managers in a survey of Pennsylvania design firms recently conducted by the author. Yet, some programs fail because they lack key elements that will make them effective. The purpose of Mr. Pashek’s survey, then, was to identify those key elements he sets out here.

The highly successful firms, the ones that repeatedly generate large profits and, as part of the process of doing so, spur employee motivation and control the rate of turnover, place high emphasis on both compensation management and incentive plans. But this does not mean that every firm’s incentive plans are equally effective—or even minimally so.

A recent study by the Professional Services Management Journal found that 85 percent of typical design firms have some form of bonus plan. It also found that 38 percent participate in 401K retirement plans. Most design firms provide incentives because other firms do or because the firm has provided the incentive in the past. Some managers believe that they hire only well-motivated employees, who, if paid well, won’t need incentives. Research indicates that, in the long run, this is not true. So what, specifically, do those firms with successful incentive plans do better than others? They recognize the fundamentals.

Behavioral scientists, including Abraham Maslow, F. Herzberg, and D. C. McClelland, three who worked in the ’50s and ’60s, have developed many theories about how employees respond to office environments. A shared component of these theories is that each individual has physical and psychological needs that are different from those of his peers. So not a few pat fulfillments but a whole range of custom-tailored ones must be given in order to generate true motivation. These theories also say the obvious: that the more desirable the reward, the better the incentive to perform a required task. Of prime importance, then, is the ability to carefully match different rewards with different needs. One bonus plan for the entire office will not do. For example, people having a strong need for achievement will be highly motivated by challenging work experiences more than by additional cash.

Keeping such basics in mind, the key elements of a successful incentive plan can be broken down into five categories:

- There must be a variety of monetary and nonmonetary rewards in order to meet the varying needs of individuals.
- For a reward to be motivating, there must be a clear and direct link to performance.
- There must be objective criteria for distributing the rewards.
- The incentive program should be simple, clearly defined, reliable, standardized, and part of a system of open communications between management and employees.
- Employees must perceive the distribution of monetary and nonmonetary rewards as fair.

Let’s try to relate these elements of a successful incentive plan to your firm:

**Money is not the only incentive**

Recognition, for example, is one of the most powerful nonmonetary incentives. When asked why they left their last firm in my survey, most designers said, “lack of recognition.” Motivation through recognition is one reason fast-food restaurants have an “employee of the month.” Recognition does not have to be costly. Send out an announcement and have a party when a member of the staff is promoted, passes the registration exam, or makes some other noteworthy achievement. It will also give your firm added exposure to clients.

Ample opportunity for advancement is another successful nonmonetary reward. This includes not only increased responsibilities but self-development as well. As an employee’s satisfaction with a particular reward approaches satiety, the capacity to motivate with more of the same diminishes rapidly. Hence, having a variety of rewards not only resounds to a variety of individuals’ needs but offers various substitutions for rewards that have lost their effect.

**A reward should be seen to be a reward**

There should be a differentiation, made clear to all, between compensation given to one who performs in a satisfactory manner and the reward given to a person performing at a higher level. Rewards must be seen as a direct result of exceptional performance and not of just a functional membership in an organization.

Curiously, some types of monetary rewards are not seen by many less sophisticated employees to have a direct link with performance. Stock-option plans, profit sharing, and some tax-deferred plans have a payoff too far in the future to be motivating today.

**What is being rewarded needs to be made clear**

Objective criteria for real achievement form one of the most important elements in incentive programs even though, unfortunately, they are difficult to establish. Nonetheless, leading design firms focus on results that can be measured. They use performance appraisals, specific goals, performance-level definitions, and formalized methods of goal achievement.

While a manager discusses employees’ needs with them, he also talks about what the employee will be expected to do to achieve need fulfillment. The manager must be flexible to be realistic. They may well change with experience.

**The method of rewards need not be a burden**

Most managers, burdened with decisions on a broad scale, are understandably reluctant to take time out to talk to their subordinates about details as much as they might. This is especially true when it comes to discussing performance appraisals. But if an incentive program is simple and easily understood by all, it need not take large chunks of a manager’s time. Frequent updates on the financial status of the organization and numerous opportunities for employee suggestions are important. And a manager should make regular evaluations that tell employees what they must do to stand in comparison to the established performance standards.

Firms can include many of the above elements in their incentive programs, but if the distribution of rewards is not perceived to be fair, the programs are doomed to failure. Trust in top management can be
When Hurricane Elena blew into town, we didn’t let her in.

High winds and rain put a lot of pressure on a window system. And the higher the building, the greater the pressure.

That's why more architects are specifying wedge glaze window systems by Vistawall. Because they give you performance and design flexibility.

Take wind load for instance. Wedge glaze can be engineered to withstand pressures up to 120 psf. Thanks to precisely designed wedge gaskets and horizontal gutters, windows won't leak even under the worst hurricane conditions.

And the system can be used for either punched openings or horizontal ribbon windows in various widths, depths, and configurations. With either 1/4-inch or 1-inch glazing.

Of course, wedge glaze is only one of our many quality architectural glazing systems. Our line includes innovative entrances, storefronts, window walls, and curtain walls—all backed by over 40 years of manufacturing experience.

And if your design requires modifying our standard systems, Vistawall's highly-skilled engineers will work with you to achieve the design and performance results you want.

So if there's an outside chance your building will have to stand up to nasty weather, specify Vistawall. For more information, write Vistawall, P.O. Box 629, Terrell, Texas 75160, or call (214) 563-2624. (Sweets 8.1 and 8.14 VIS)

©1986 Vistawall Architectural Products

Circle 40 on inquiry card
Below, the author offers a procedural framework for implementing the recommendations for successful incentive plans that came out of his research.

A good program needs a framework

The incentive model shown in Table 1 presents such a framework. First, identify the firm’s goals. Make them specific—such as increasing annual billings by 20 percent, reducing accounts receivable by 5 percent, improving overall staff utilization by 5 percent, increasing return on investments by 5 percent, opening a branch office, entering a new market area, acquiring or developing a new in-house expertise, etc.

Once the firm goals are set, the second step is to discuss with the staff what their individual needs are. Some individuals will indeed want the potential to earn more money. Others will want to achieve a higher level of responsibility or receive greater recognition. One person might want to develop a greater professional knowledge through attending seminars or other training opportunities in an area of expertise beneficial to the office. Other people might want to take charge of the office’s participation in design competitions, to have more paid vacation, or to have a company car. Ask each individual what three things are most important to him or her. Several firms have formed employee committees to survey staff needs and to determine whether adjustments were required in performance-appraisal methodologies.

Once you have determined what the organization’s goals, the individual’s goals, and the individual needs are, you can get down to basics. First, know what your competition is paying. Studies show that offering compensation less than 85 to 90 percent of the prevailing wage level in your community will result in undesired staff turnover simply based on salary.

One firm I surveyed sets earnings goals for key staff at a minimum of 180 percent of prevailing wages but with only 50 percent of that amount in fixed salary. The remainder is tied to achieving those goals agreed to between the individual and manager. Other firms surveyed also pay salaries below the prevailing wage, although not so far below, and provide bonuses and other compensation tied to meeting objectives that equal 10 or more percent of the base salary. A comprehensive program, then, can include both incentives for basic membership in the firm and performance.

How often should appraisals be made and rewards given? Most firms do this on an annual basis. Be flexible so that an unusually stellar performance can be singled out more often than annually. Finally, obtain feedback from employees regarding the goals and evaluations of performance so that adjustments in the program can be made to be more responsive.

Is all of this really necessary? If you are satisfied with your firm’s financial performance, the turnover rate of employees is acceptable, and employee morale is high, your existing incentive program may be acceptable. However, if not, then a new plan based on the above lines may be well worth your firm’s time.

The head of one engineering firm I surveyed said he spends one to two days each year crunching numbers to determine the exact distribution of profits to his top-level managers. By having the formulas called for here, his managers know what they need to do to achieve their share. He can be objective and they can feel they are being treated fairly.

A few final notes about incentive programs. When discussing reduced turnover, I am not advocating zero turnover. Rather, the firm should control who leaves when. Again a plan can help this situation because it opens the road to the better communications that are so vital in making an employee feel appreciated. More reasons for better communications: When employees do not believe that they know what is going on in their firm, they may be subconsciously counterproductive. The shifting of responsibility for organizational success to lower levels is an action which can be very motivating.

In summary, a manager should tell the employee:

- The firm’s goals;
- The overall strategy to achieve those goals;
- How the individual can contribute to the overall goals;
- What personal goals should be met;
- How those goals can be met;
- What the firm’s priorities are;
- What the rewards will be if the goals of both the individual and the company are achieved.

As a manager of one large company surveyed said, “Employees need real responsibility; they need to feel they do something worthwhile, and to identify with what they do.”
The advantage of an expanded family

With Da-Lite's newly expanded family, you can satisfy all your visual communication needs from a single, reliable source. The Da-Lite family now includes permanently installed electric front projection screens, one-piece rear projection screens up to 10 feet high, and Da-Lite/Oravisual communication cabinets and lecterns. Any available laminate or wood veneer can be specified for Da-Lite/Oravisual products—plus the three laminates and seven natural wood veneers that are standard finishes.

For more about the first family of visual communications products, see your Da-Lite dealer or contact Da-Lite Screen Co., Inc., Box 137, Warsaw, IN 46580. Telephone: 219-267-8101. Telex 23-2649.

Circle 41 on inquiry card

DA-LITE
A Heritage Communications Company
Practice: What we can do about the liability crisis in the near future

The second of a three-part report on a recently held joint RECORD/AIA symposium on liability focuses upon the legal remedies discussed

Panelists

Ava Abramowitz, attorney and associate general counsel of the American Institute of Architects for liability issues.

John A. Busby, Jr., architect, president of the American Institute of Architects, and executive vice president of Jova/Daniels/Busby.

Paul Genecki, senior vice president of Victor O. Schinnerer Company.

Arthur Gensler, Jr., architect and principal of Arthur Gensler and Associates.

Peter Hayes, president and chief executive officer of DPIC Companies and vice president of Orion Capital Corporation.

Arthur Kornblut, attorney, architect, and principal of Kornblut & Sokolove.

Barry Moore, architect and principal of Barry Moore Architects.

Martin Raab, architect, senior managing partner of Haines Lundberg Waehler, and vice president of the New York Chapter of the AIA.

Carl Sapera, attorney, partner of Hill & Barlow, counsel to the NCARB, and adjunct professor at Harvard School of Design.

Christopher J. Smith, architect, president of CJS Group Architects, and board member of the AIA.

Stanley P. Steinberg, architect, engineer, and chief executive officer of John Portman & Associates.

Charles B. Thomesen, architect and president-chief executive officer of 3D/International.

When we began this series (RECORD, June 1986, pages 35-39), we reported what our expert panelists recommended be done immediately to lessen the impact of the architects' and engineers' current liability crisis. The elements of the crisis are well known: huge awards by the courts for failing to protect the public from harm; rising insurance premiums for the loss or harm to come; and the inability of some firms to get coverage at all. As one panelist put it, "When we talk about premiums, it's almost like the cost of doing business." It's a lesson in the impact of the construction industry.

The elements of the crisis are well known: huge awards by the courts for failing to protect the public from harm; rising insurance premiums for the loss or harm to come; and the inability of some firms to get coverage at all. As one panelist put it, "When we talk about premiums, it's almost like the cost of doing business." It's a lesson in the impact of the construction industry.

The immediate solutions the panelists recommended included going back, reducing insurance coverage, raising insurance deductibles, and passing increased costs on to clients. Doing the latter, it was acknowledged, requires some well-applied psychology, but may be especially desirable if it permanently increases fees.

Of equal interest were the solutions proposed that require legal groundwork before they can be implemented. The best of these are presented here. C. K. H.

The panelists blamed the liability crisis, in part, on the profession's failure to see the obvious coming. As AIA president John Busby put it, "As AIA recently reviewed history and found that sure enough, 10 years ago we were faced with a similar crisis. And here we are faced with the same concerns we must address again. If the problems facing the insurance industry are cyclical, and if we haven't consistently addressed this, how do we keep architects from being sucked in on the next go round?"

Said architect Christopher Smith, who sits on the national AIA's planning and budget committee, "We didn't foresee the high interest rates a number of years ago; we definitely didn't see the energy crisis coming; and we missed on the future. The folks that build cars can plan ahead. So we must do that too."

But what are the strategies that will help us out of the crisis in the future and in the short term?

Change the laws that encourage people to sue at will

"What's most important in what we do here at this meeting," said Busby, "is not only to address the needs of our particular profession, but to come out of this with information that we can take to our clients, other members of the design team, the general public, and certainly our legislators on the complexity of the construction industry. We need legislative support in addressing this issue."

"When I talk in the insurance industry," said Victor O. Schinnerer senior vice president Paul Genecki, "think there is some legislative relief that's long overdue."

The immediate solutions the panelists recommended included going back, reducing insurance coverage, raising insurance deductibles, and passing increased costs on to clients. Doing the latter, it was acknowledged, requires some well-applied psychology, but may be especially desirable if it permanently increases fees.

Armed with what seemed to be the perfect answer. He proposed a legal reform that would penalize frivolous suits. The English system, by which the loser pays all court costs, seemed to be one possibility. (For other ways to defend back, while pulling a book out of a shelf; her husband was an ambulance-chasing lawyer and the insurance company forced us to settle. All other claims we have fought and never paid the plaintiffs a dime. But we've paid one hell of a lot in legal fees. I believe we are required to stand up, get counted, and set precedents.)

Insurance executive Peter Hayes had what seemed to be the perfect answer. He proposed a legal defense fund to which the insurance industry will contribute. The fund's purpose: to fight suits brought for reasons other than errors, omissions, or negligent acts—those that through the woods like Little Red Riding Hood with a basket full of money and guess who the wolf is after? I think changing the laws on workers' compensation is where we need to spend a great deal of our time and effort."

Architect Martin Raab offered a dissenting view: "You want to know what's coming, just look at your loved ones. And what is coming is a lot in legal fees. I believe we are required to stand up, get counted, and set precedents."

AIA associate general counsel Ava Abramowitz listed some of the targets for tort reform: "Workers' compensation is critical. So are statutes of limitations, by which people come to the courts years after a building is finished because of a maintenance problem and try to make it into a design problem."

"When I talk in the insurance industry," said Victor O. Schinnerer senior vice president Paul Genecki, "think there is some legislative relief that's long overdue."

Armed with what seemed to be the perfect answer. He proposed a legal reform that would penalize frivolous suits. The English system, by which the loser pays all court costs, seemed to be one possibility. (For other ways to defend back, while pulling a book out of a shelf; her husband was an ambulance-chasing lawyer and the insurance company forced us to settle. All other claims we have fought and never paid the plaintiffs a dime. But we've paid one hell of a lot in legal fees. I believe we are required to stand up, get counted, and set precedents.)

Insurance executive Peter Hayes had what seemed to be the perfect answer. He proposed a legal defense fund to which the insurance industry will contribute. The fund's purpose: to fight suits brought for reasons other than errors, omissions, or negligent acts—those that
Karastan exhibits great grace under pressure.

It's not how good a carpet looks when it's new that's impressive. It's how good it continues to look over the years. So Karastan's Lehigh carpet was woven on our advanced Kara-loc® II loom, creating an exceptionally dense, stable surface.

The design, a solid background of ultra-dense cut and loop pile, will retain its texture for years.

The fiber, ANTRON® nylon, provides soil-concealing easy care, durability, and built-in static-control.

Practicalities aside, Lehigh is also available in 19 elegant Karastan colors.

So bring on your high heels and wet galoshes. Track in your mud. We can take it. For years.
that have often been referred to as being based on entitlement. What design professionals need, said Haines, "is timely and expert defense of any such action brought anywhere in the United States and the winning of precedent cases. What they need is an immediate decision to stop the weight of their liability imposed on the plaintiff industry.

"I have chosen today in this forum to put forth the proposal of a design-professional defense fund for the express purpose of muffling the battlements, to publicize and protect the rights and legal positions of architects and engineers to the fullest extent of the resources available whenever and wherever improper claims develop. I hereby challenge all parties to step forward—the AIA, the American Consulting Engineers Council, the professional-liability insurers, defense attorneys, and, most of all firms in private practice.

"In my estimation, an initial fund of at least over $3 million could be easily raised by just the contributions of 0.2 percent of practice fees collected by those firms insured by DPIC and Schinnerer. I am prepared to try to secure a commitment of $300,000 from DPIC and its agents. In addition, we are prepared to use our facilities to mount the campaign. This means individual solicitation of each of our insureds and others, if desirable, and the use of our claims and defense facilities. I feel certain Schinnerer would do the same. Schinnerer would do the same. I am prepared to try to" get the potential for suits out of contracts.

Get rid of bad contracts altogether

Attorney Arthur Konklin described the new willingness of architects to resist a contract drawn up by an owner that imposes untoward responsibility. But this is not the case of the large owner, "the institutional owner using its clout," as Haines put it, "to enforce a disadvantaged contract" that the hungry professional is unable to resist. "I can give an example," said Steinberg, "the Board of Regents of the State of Georgia. We were selected by Georgia Tech for a project and the school sent us down to the Board of Regents to enter into its standard contract. I read it. I said I didn't need a lawyer; I wouldn't sign it. And we walked. Subsequently, I talked to three or four major firms that did sign that contract believing that 'they never really want what's in that document.' But I don't understand how any firm could sign it, and I want to ask if there is anything that the AIA is doing to advise its members on bad contracts by major clients. There is one way those types of contracts will collapse and that is if no architect signed them."

Abramowitz asked whether in particular, was so unacceptable in the board's contract. "Everything," said Steinberg, "from guaranteeing cost overrun, no surety, and the water-tightness of the building. And they wanted us to accept fees that I wouldn't accept even without all the guarantees." "You would not hesitate," said Genecki, "to use insurance as a negotiating tool. It's extremely effective when you are able to demonstrate to a client that, if he insists on certain language, especially guarantees—and even if you signed that contract, you would void your professional liability insurance. It's not 100 percent effective, but most clients want a financially viable design firm. And that means insurance."

In another case, Steinberg, "small architects out there don't realize there are people turning bad contracts down."

We spoke for the AIA efforts. "Nationally, we're working to get those kinds of inequities out of federal contracts. We do, in fact, point out that our liability coverage is void when such provisions as guarantees are included—that we can't transfer responsibility."

"What we have done in the Hawaii chapter," said Smith, "is to initiate a 'take it or face the conflict through the media.' He described how the chapter intends to publicize bad contracts and advise all architects not to sign.

Moore talked about what the Houston chapter is doing. "The city has a perfectly terrible contract that you have to sign if you do city work. Finally, this year, after much protest, the head of the public works department has asked the chapter to submit all of the AIA documents as a basis for a new city contract. You can do it. It takes a lot of time. And you have to be politically sensitive and active."

Change the nature of services offered

Thomson came closest to suggesting a revolution in the profession to solve the liability problem. "In Japan, in France, other countries of the world," he pointed out, "final-design documents are what we call design-development drawings. The contractors have very large engineering and architectural teams and their competitive edge comes from their engineering and architectural expertise, not from the ability to beat subs over the head to get low prices."

"There are people in the U.S. who are saying that, for certain kinds of projects, we can do that too; we can do scope drawings, we can do performance specs, we can describe objectives, we can control what the client wants us to control and leave the rest to the competitive marketplace. That will put the architect on a team with the contractor and reduce the litigant of interest on technical details. You hear George Heery talking about that. The Air Force is coming out with a project to be done this way. It's not a new idea."

As might be expected, Thomson's idea raised serious opposition: "I interpret what you say," said Raah, "as a backing away from responsibility. The person who should set the criteria to meet the client's needs moves further away from the end product. He becomes a contractor's sketch service."

Steinberg joined in the dissenting view. "I think my firm is perceived as a deep pocket and we get sued long time and we may not know for years afterward when we did it. But we will."
The sun's rays filter through the skylight, illuminating the area below with diffused, shadowless light. That unique quality of light plus many other advantages are only available with SHEERFILL® Teflon®-coated Fiberglas® fabric skylights from OC Birdair. SHEERFILL skylights are durable and self cleaning. They will not splinter, crack, discolor, delaminate or leak. With a service life in excess of 25 years, it is clear that a SHEERFILL modular or custom skylight from OC Birdair is the skylight in your future.

Light years ahead of glass.

SKYLIGHTING FROM
OC BIRDAIR

2015 Walden Avenue • Buffalo, New York 14225 U.S.A. 716/684-9500 Telex: 91 353 • Cable: BIRDAIR BUFFALO
Sweet's file number 07820/OCB

Circle 42 on inquiry card
Summary of Building Construction Costs

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of metro areas</td>
<td>486</td>
<td>785</td>
<td>1977*</td>
<td>785</td>
<td>786</td>
<td></td>
</tr>
<tr>
<td>Metro NY-NJ</td>
<td>18</td>
<td>0.94</td>
<td>2.33</td>
<td>1738.55</td>
<td>2389.5</td>
<td>2515.5</td>
</tr>
<tr>
<td>New England States</td>
<td>33</td>
<td>0.44</td>
<td>2.15</td>
<td>1680.19</td>
<td>2098.6</td>
<td>2448.7</td>
</tr>
<tr>
<td>Northwestern and North Central States</td>
<td>120</td>
<td>0.96</td>
<td>1.37</td>
<td>1661.80</td>
<td>1612.5</td>
<td>1583.9</td>
</tr>
<tr>
<td>Southeastern States</td>
<td>106</td>
<td>0.42</td>
<td>1.31</td>
<td>1716.26</td>
<td>1727.49</td>
<td>1635.31</td>
</tr>
<tr>
<td>Average Eastern U. S.</td>
<td>277</td>
<td>0.43</td>
<td>1.50</td>
<td>1698.82</td>
<td>1660.70</td>
<td>1692.30</td>
</tr>
</tbody>
</table>

Using only cities with base year of 1977

Historical Building Costs Indexes

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Atlanta</td>
<td>1171.5</td>
<td>1712.6</td>
<td>1955.6</td>
<td>2098.6</td>
<td>2078.9</td>
<td>2360.6</td>
<td>2454.7</td>
<td>2445.7</td>
</tr>
<tr>
<td>Baltimore</td>
<td>1018.4</td>
<td>1107.7</td>
<td>1304.5</td>
<td>1446.5</td>
<td>1544.9</td>
<td>1628.5</td>
<td>1688.7</td>
<td>1700.7</td>
</tr>
<tr>
<td>Birmingham</td>
<td>1029.7</td>
<td>1142.4</td>
<td>1329.9</td>
<td>1497.2</td>
<td>1469.9</td>
<td>1468.1</td>
<td>1497.5</td>
<td>1594.7</td>
</tr>
<tr>
<td>Boston</td>
<td>1028.4</td>
<td>0986.8</td>
<td>1238.0</td>
<td>1283.7</td>
<td>1432.5</td>
<td>1502.0</td>
<td>1569.9</td>
<td>1646.0</td>
</tr>
<tr>
<td>Chicago</td>
<td>1007.7</td>
<td>1022.8</td>
<td>1199.7</td>
<td>1323.6</td>
<td>1344.7</td>
<td>1425.8</td>
<td>1439.5</td>
<td>1476.7</td>
</tr>
<tr>
<td>Cincinnati</td>
<td>0948.9</td>
<td>0991.0</td>
<td>1323.9</td>
<td>1385.2</td>
<td>1359.4</td>
<td>1362.6</td>
<td>1430.8</td>
<td>1494.5</td>
</tr>
<tr>
<td>Cleveland</td>
<td>1034.4</td>
<td>1040.8</td>
<td>1297.5</td>
<td>1398.2</td>
<td>1438.5</td>
<td>1511.4</td>
<td>1475.9</td>
<td>1464.0</td>
</tr>
<tr>
<td>Dallas</td>
<td>1042.3</td>
<td>1106.0</td>
<td>1431.9</td>
<td>1481.5</td>
<td>1750.6</td>
<td>1832.4</td>
<td>1925.9</td>
<td>1958.0</td>
</tr>
<tr>
<td>Denver</td>
<td>1038.8</td>
<td>1104.0</td>
<td>1456.6</td>
<td>1487.2</td>
<td>1632.2</td>
<td>1679.1</td>
<td>1800.1</td>
<td>1824.2</td>
</tr>
<tr>
<td>Detroit</td>
<td>1018.1</td>
<td>1087.3</td>
<td>1427.8</td>
<td>1447.7</td>
<td>1395.6</td>
<td>1398.0</td>
<td>1472.1</td>
<td>1479.7</td>
</tr>
<tr>
<td>Kansas City</td>
<td>1028.5</td>
<td>0651.5</td>
<td>1155.8</td>
<td>1225.2</td>
<td>1238.4</td>
<td>1381.8</td>
<td>1407.5</td>
<td>1441.7</td>
</tr>
<tr>
<td>Los Angeles</td>
<td>1022.5</td>
<td>1111.0</td>
<td>1255.3</td>
<td>1387.5</td>
<td>1474.3</td>
<td>1503.3</td>
<td>1529.5</td>
<td>1555.1</td>
</tr>
<tr>
<td>Miami</td>
<td>1004.5</td>
<td>1080.9</td>
<td>1330.1</td>
<td>1389.1</td>
<td>1382.1</td>
<td>1476.7</td>
<td>1522.2</td>
<td>1529.8</td>
</tr>
<tr>
<td>Minneapolis</td>
<td>1090.2</td>
<td>1196.8</td>
<td>1296.9</td>
<td>1327.7</td>
<td>1442.6</td>
<td>1520.1</td>
<td>1549.0</td>
<td>1595.7</td>
</tr>
<tr>
<td>New Orleans</td>
<td>1001.3</td>
<td>1183.8</td>
<td>1291.9</td>
<td>1505.7</td>
<td>1572.7</td>
<td>1616.9</td>
<td>1650.5</td>
<td>1691.4</td>
</tr>
<tr>
<td>New York</td>
<td>1006.4</td>
<td>1043.0</td>
<td>1247.1</td>
<td>1319.4</td>
<td>1419.2</td>
<td>1491.8</td>
<td>1672.5</td>
<td>1747.2</td>
</tr>
<tr>
<td>Philadelphia</td>
<td>1012.8</td>
<td>1074.2</td>
<td>1475.5</td>
<td>1539.5</td>
<td>1660.7</td>
<td>1700.7</td>
<td>1737.1</td>
<td>1749.9</td>
</tr>
<tr>
<td>Pittsburgh</td>
<td>1016.1</td>
<td>1075.0</td>
<td>1272.0</td>
<td>1341.7</td>
<td>1484.2</td>
<td>1479.5</td>
<td>1472.5</td>
<td>1500.0</td>
</tr>
<tr>
<td>St. Louis</td>
<td>1089.1</td>
<td>1176.5</td>
<td>1275.9</td>
<td>1285.0</td>
<td>1387.3</td>
<td>1451.2</td>
<td>1504.9</td>
<td>1522.5</td>
</tr>
<tr>
<td>San Francisco</td>
<td>1083.2</td>
<td>1208.4</td>
<td>1474.4</td>
<td>1464.8</td>
<td>1776.4</td>
<td>1810.1</td>
<td>1856.8</td>
<td>1835.3</td>
</tr>
<tr>
<td>Seattle</td>
<td>1142.5</td>
<td>1137.9</td>
<td>1373.4</td>
<td>1616.8</td>
<td>1814.9</td>
<td>1962.7</td>
<td>1979.0</td>
<td>1948.9</td>
</tr>
</tbody>
</table>

Average of all Nonresidential Building Types, 21 Cities

<table>
<thead>
<tr>
<th>1977 average for each city</th>
<th>10000.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>2529.5</td>
<td>2515.5</td>
</tr>
<tr>
<td>2529.5</td>
<td>2515.5</td>
</tr>
<tr>
<td>2529.5</td>
<td>2515.5</td>
</tr>
</tbody>
</table>

Costs: More moderation seen

After a string of infinitesimal rises and even some drops in construction costs stretching across the previous year and a half, the McGraw-Hill Information Systems Company report for the first quarter of 1986 saw a rise that was certainly noticeable (RECORD, August 1986, page 41). But now, as predicted, those costs seem to be leveling out again. The combined components of material and labor rose in the second quarter by less than a third of a percent nationwide.

To be sure, there are some paradoxes in the situation. For one, there are, as noted in the first-quarter report, those pinched profits of many material suppliers that would tend to put upward pressure on this component. But material costs remained about flat.

And then, there are the regional variations. Metropolitan New York and New Jersey traded places with the Southeastern states as the leader in overall upward movement with an almost 1 percent rise (summary chart left)—nearly double any regional rise in that inflationary first quarter.

At least the geographic switch in positions did seem somewhat rational, as, in the tradition of supply and demand, the Northeast had a much healthier construction picture (contract value up 8 percent) than did the Southeast, where contracts fell by 2 percent. But wait a minute. Costs west of the Rocky Mountains, where contracts were up the most (by 9 percent), fell.

Nationwide, labor was the big variable component of construction costs, with average contracts in the second quarter rising some 2.8 percent for the first year covered. There was some good news in the labor picture for the future. In three-year contracts, an industry norm, the second year allowed for average gains of just over 1.5 percent—the same amount as last year—and the third year allowed slightly less than that figure.

 McGraw-Hill Information Systems Company studies are conducted quarterly by direct contact with union and nonunion sources, direct-mail suppliers, construction-labor consultants, and both general and specialty contractors in each city.

Cost Information Systems McGraw-Hill Information Systems Company

Architectural Record October 1986 47
The Kim Architectural Floodlight

You don't have to hide it behind shrubbery.

There is no other way to say it: Kim has re-invented the floodlight. By combining performance, versatility and ruggedness with a new standard in aesthetic refinement, Kim has created a superb lighting instrument for exterior and interior use. Available in three beam patterns, six H.I.D. lamp modes and nine mounting options, the AFL is another example of Kim's commitment to affordable quality.

KIM LIGHTING
Subsidiary of Kidde, Inc.
KIDDE
16555 East Gale Ave., Post Office Box 1275
City of Industry, Calif. 91759 • 818/968-5666
FAX 818/330-3861

Circle 43 on inquiry card
A generation ago it was possible to build a competent professional practice on government or institutional buildings, on work for big corporations, or even on subsidized housing. Today real-estate development has become a far larger component of what is built. Since developers go to the planning authorities with schemes for millions of square feet on farmland sites, for communities with hundreds of houses, for multi-use downtown building groups with controlled interior environments, what they want from architects is often more than individual building design. Even an ordinary new office or apartment building, or the renovation of a historic structure, now involves ever more complicated development incentives and regulations, which must be considered, and negotiated, before detailed design can begin.

Developers increasingly turn to architects for pre-schematic services which are, essentially, urban design. What building concepts meet the zoning code? What development can fit on a given site? Which alternative best meets environmental regulations? What is needed to get discretionary zoning approvals? For what use can any development incentives and government approvals? For what use can any new development?

A developer who sees design being considered from an economic point of view is also much more likely to take an interest in solving a design problem. We have found that the urban designer needs to understand the issues. A developer who sees design being considered from an economic point of view is also more likely to take an interest in solving a design problem. We have found that the urban designer needs at least two semesters of real-estate finance, which is more than many business school programs offer. In the first semester students learn about conventional office, retail, and residential projects. In the second they learn how to use real-estate financing techniques to further complex urban design objectives. We have also found that there is no substitute for a project-by-project approach where the students "crunch the numbers" themselves.

Students have tried their hands at Market Square in Pittsburgh with Hugh Hardy, downtown Cumberland, Maryland, with John Belz, and designs in suburban Baltimore, adaptive reuse of Tobacco Row in Richmond, housing, office, and industrial parks, and development of communities, as well as their recent applications. Law is an important philosophical issues about the nature of architecture: what is good design, or better design in a particular set of circumstances? How detailed must regulation be to convey the essence of a design concept, and, is it economically feasible?

Rapid new development is creating a significant number of design opportunities; it also makes it possible to mess up the environment on an even larger scale.

The one skill that the architect or planner needs at least two semesters of real-estate finance, which is more than many business school programs offer. In the first semester students learn about conventional office, retail, and residential projects. In the second they learn how to use real-estate financing techniques to further complex urban design objectives. We have also found that there is no substitute for a project-by-project approach where the students "crunch the numbers" themselves.

While you can teach quite a bit about real-estate finance in a year, you can only hope to make the most general introduction to the law. Nevertheless, urban designers need to know the basic framework in which government incentives and regulations operate; they need a sense of what a government can ask for and what goes too far; they need to understand how lawyers define and approach these problems.

When students finish an urban design program, they should be able to function in professional urban design situations, but it may be years before they get a chance to make major decisions. That chance may come in circumstances that are hard to predict right now. A graduate might be working for a developer or a city government, might be designing a planned community in a professional office, or writing a new downtown office plan, or perhaps housing programs will be available again; energy efficiency might again be a design determinant; there may be an agricultural depression. The only future we can project with certainty is that is bound to change. Urban-design education can only take the student so far; learning to design cities, like learning architecture itself, is a lifetime task.
And now, ECLIPSE™ reflective.
You design a structure with certain basic elements in mind. • Now there is a powerful—almost elemental—new design material to consider: • ECLIPSE reflective from LOF Glass. • Until now, pyrolytically coated glass has lacked presence. It was designed to blend with any architecture. Any materials. Any surroundings. • But ECLIPSE reflective is bold. Dramatic. Without the milky, yellowish cast of some other architectural glass. • Yes, there are other, more practical reasons to choose ECLIPSE glass. Reasons like solar control. Post-temperability. A remarkably low absorption characteristic. And availability that verges on the immediate. • Not to mention the fact that ECLIPSE reflective can be used in low, mid or high rise structures, as first or second surface. • Still, the best reason to choose ECLIPSE glass is the simplest: It looks so beautiful on a building.
Solid, non-porous CORIAN keeps on looking good, in hotels, airports, hospitals—applications where other materials age fast.

Du Pont CORIAN building products are totally unlike thin plastic laminates or gel-coated surface materials that can easily be irreparably damaged. Instead, CORIAN is solid and non-porous, with color and pattern clear through. A perfect choice for those places where traffic is rough and people can be careless.

Since it is non-porous, most stains wipe off CORIAN with a damp cloth. More stubborn stains, even cigarette burns, rub off with household cleanser. Accidental cuts and scratches can be repaired with fine sandpaper. All of this with no permanent damage to the beauty of CORIAN.

And yet, for all of its built-in toughness, CORIAN has a subtle, rich appearance. It is satiny smooth and warmly pleasing to the touch. Neutral and compatible.

CORIAN can also be worked and shaped like a fine hardwood and inconspicuously seamed with Du Pont's special adhesive system, for individual design effects that let you put a personal and lasting imprint on a project.

**Send for more information on CORIAN.**


CORIAN is a registered Du Pont trademark for its building products. Only Du Pont makes CORIAN.

Circle 45 on inquiry card
where, because stains, burns, come right out.

Corian shrugs off rough wear and looks as new in this fast-food outlet in Rotterdam, Netherlands.

Westin Hotels' South Coast Plaza installed Corian 7 years ago, and it still looks like new.

Corian is solid all the way through.

Corian
Solid Beauty That Lasts.
VULCRAFT STACKS THE
When you stack up all the concerns you face in high-rise construction, it inevitably comes down to getting just what you need when you need it. There's too much at stake to gamble on products or service. That's why Vulcraft was chosen to supply composite deck as well as steel joists for the 12-story North Central Plaza II job in Dallas, Texas.

Although Vulcraft's composite deck would allow construction to proceed much faster and easier than the material and labor-intensive alternative of poured-in-place concrete, there was another consideration: delivery schedules. In order to accommodate the lack of "lay down space" on the confined job site, Vulcraft promised to deliver specified bundles at exact times on exact days. On this job there was no room for hedging your bets. Vulcraft's attention to the sequencing and coordination of composite deck and joist deliveries made sure nothing was lost in the shuffle. All 241,000 square feet of composite deck and 38 tons of joists arrived at the site exactly when it was needed.

Since Vulcraft is the only company in the U.S. that makes and delivers steel floor deck, steel roof deck, composite floor deck, standing seam roof, steel joists, and joist girders, we're your ace in the hole for virtually any construction project.

For more information, contact any of the Vulcraft plants listed below. Or, see Sweet's 5.5/Vu.

Vulcraft deliveries eliminated "lay down space" worries.
TIMELESS

In purpose and appearance, Ultrum site amenities are not restricted by time or space. Because they're constructed of only the finest materials: concrete reinforced with glass fiber, aggregate in stunning shades, fiberglass, Powder-Coated metals and hand-rubbed woods such as oak, redwood or purple heart. And we pay meticulous attention to texture, color and imaginative design. For more information, talk to your GameTime representative. Or write GameTime, Inc., Box 121, Fort Payne, AL 35567. Call 205/845-5610, telex 782-534.

ULTRUM
Final design unveiled for Minneapolis tower

Two years after it was first announced, the on-again, off-again Norwest Center project in downtown Minneapolis has been given a definite go-ahead, though in somewhat more modest form than the 950-foot tower initially envisioned (RECORD, August 1984, page 53). Developed by Gerald D. Hines Interests and designed by Cesar Pelli & Associates, the current proposal calls for a 57-story, 773-foot-high tower that will house 1.1 million square feet of office space and 200,000 square feet of below-grade parking. Unlike Pelli’s first design for the project—a campanile-like structure topped by a glass pyramid—the present rendition is a setback slab whose “dominant vertical rhythm” (Pelli’s words) seems strongly influenced by the architecture of the RCA Building in New York City. Embellished with gold-colored metal finials and sheathed in local Kasota stone and gray glass, the tower will occupy the site of the old Northwestern National Bank, a 1927 building that was destroyed by fire in 1982. Artifacts salvaged from the earlier structure—including 10-foot-tall Art Deco chandeliers, bronze plaques, and cast-plaster medallions—will be incorporated into the new tower’s lobby and seven-story-high rotunda space.

Schmooze and muse

One of the most unusual mixed-use buildings in recent memory—a gambrel-roofed, shingled-clad structure currently nearing completion outside the village of Woodstock, Vt.—will incorporate a delicatessen and an art gallery. Designed by Robert Carl Williams Associates, the building will bring “a new level of cultural, retail, and dining experience to Woodstock,” according to the architects.
MORE ARCHITECTS MODEL THEIR THOUGHTS WITH CALCOMP THAN ANY OTHER CAD SYSTEM.

Whether you're looking for powerful 3D building modeling or high-performance 2D drafting, there isn't an architectural CAD system offering more design creativity and production efficiency than CalComp's System 25.

First, because of CalComp's extensive library of architectural software. And second, because System 25 is the fastest of all CAD systems and one of the easiest to learn and use.

It's the only architectural CAD system that lets you start small and grow with complete compatibility.

But what about quality? CalComp System 25 was developed by architects for architects. And it's not just one system, but a continuum, from the CADVANCE-based 100 Series for PC users through the 300 Series to the high-performance multi-users 600 Series.

And System 25 is backed by the world-wide resources of a Fortune 500 company. CalComp's commitment includes installation, training, regional support teams and an 800 number hotline.

To learn more about why more architects model their thoughts with CalComp, just write or call for our 8-minute movie. It's titled "CAD to Reality," and is available on VHS or Beta for just $5 to cover postage and handling. Then decide which system to buy. For more information, contact: CalComp, P.O. Box 3250, Anaheim, California 92803. Phone us toll free 1-800-CALCOMP.

CALCOMP
A Sanders Company
© 1986 CalComp
Circle 48 on inquiry card
SITE Projects has been selected over 241 architects in an international competition to redesign Pershing Square in downtown Los Angeles. The November issue of RECORD will include more detailed coverage of SITE's winning design and the four runner-up submissions.

Leon Krier of London has been named the first director of a new scholarly institute established by the Skidmore, Owings & Merrill Foundation in Chicago. The post begins early in 1987, and the directorship will change every three years. In addition to sponsoring a program of research and symposia stressing "physical visions and societal strategies toward architecture that are in sympathy with the ecology of human habitation," the institute will oversee the restoration of Frank Lloyd Wright's Charnley House, which will serve as the organization's headquarters.

The Willard Hotel, designed by Henry J. Hardenberg in 1904 and for years a vacant eyesore along Washington's Pennsylvania Avenue, has reopened following a $120-million restoration and expansion program. The landmark structure is now part of a larger complex that includes an adjacent new office and retail building.

Thompson, Ventulett, Stainback & Associates, working in association with Borrelli, Frankel, Blitstein, has designed a 500,000-square-foot addition to the Miami Beach Convention Center. When the expansion is completed in 1989, the center will have just over one million square feet, making it one of the largest convention facilities in the country.

The American Craft Museum will open its new home in midtown Manhattan on October 26. Designed by Fox and Fowle Architects, the four-level museum is located across the street from the Museum of Modern Art in Kevin Roche John Dinkeloo and Associates' new E. F. Hutton headquarters building.

James P. Cramer has been named president of the AIA Foundation, succeeding Mary C. Means.

Thomas L. Schumacher, an associate professor of architecture at the University of Maryland, has been selected the 1886 recipient of the Arnold W. Brunner Grant, given annually by the New York Chapter of the AIA. The $12,000 award will enable Schumacher to write a book on Giuseppe Terragni and the development of late 19th- and early 20th-century Italian architecture.

Arata Isozaki's Museum of Contemporary Art, one of the most eagerly anticipated buildings of the past decade, will open in downtown Los Angeles on December 10. Situated in the center of California Plaza, an 11.2-acre redevelopment project that will eventually comprise a variety of commercial, cultural, and residential structures, the new building will house space for the museum's permanent collection and loan shows that until now had been displayed in the so-called "Temporary Contemporary," a former warehouse adapted for exhibition use by Frank Gehry in 1983. (Gehry's supposedly temporary facility has proved so popular that the museum will continue to lease the structure from the city through the year 2008, providing MOCA with a total of 70,000 square feet of exhibition space.) Isozaki's building, with its barrel-vaulted entrance and low-slung galleries crowned by pyramidal skylights (bottom), is meant, according to museum director Richard Koshalek, "to give the overall impression of a neatly ordered village." The structure is sheathed in striking red sandstone, quarried in India and laser-cut in Japan, which contrasts with panels of green and pink cross-hatched aluminum covering other portions of the facade.

Kevin Roche John Dinkeloo and Associates has unveiled plans for the firm's first project in Chicago—a one-million-square-foot office tower that will house the world headquarters of the Leo Burnett Company, the city's largest advertising agency. Situated at 35 West Wacker Drive in Chicago's North Loop redevelopment area, the 46-story building will feature a curtain wall comprising alternating bands of flame-cut and honed-finish granite, and gray-tinted windows set into polished stainless-steel framing. The distinctive characteristic is a motif of stylized pilasters and Roman grilles—used at the base, 15th-story corners, and roofline—that reveals Kevin Roche's continuing movement away from his distinctive brand of Modernism toward the eclectically historicist work of many current practitioners.
At King Saud University, there are nearly 2000 fixtures installed upside down... on purpose

King Saud University, Riyadh. Designed by HOK + 4. The largest university campus ever designed and constructed within a single decade. Emco was selected by the contractor to light the pedestrian spines with Emco RC luminaires. The specification, however, called for indirect lighting, not downlighting.

So Emco engineers modified the standard RC luminaire so it could be wall-mounted upside down. The engineers worked hand in hand with HOK + 4 lighting designers to meet their highly specialized needs. That's what Emco specification lighting is all about. Today some 1,970 Emco RC luminaires light up the Arabian nights at this splendid university on the desert.

For years Emco has listened to the needs of architects and consultants, and has responded swiftly to meet those needs. EMCOLITE, a computer program that verifies lighting designs in minutes, is a prime example. Emco was the first supplier to develop such a system, and we offer it without charge to architects and consultants for use in your own offices.

The Emco product line includes high performance environmental lighting projects for everything from airports to hospitals, from walkways to tennis courts. But the most important product we offer is our high level of personal service. It's service that comes with a pledge to meet your needs... even if it means installing our luminaires upside down.

Call toll free today for the name of your nearest Emco representative. 1-800-336-7654

Here are just a few of the high performance luminaires manufactured by Emco. Quietly setting the pace for specification lighting.
Design news continued

Insulation against the passage of time: Stuttgart restores a landmark of architectural Modernism

While much of the current celebration surrounding the centenary of Mies van der Rohe’s birth has focused on the reconstruction of the Barcelona Pavilion, the restoration of a lesser-known work by Mies—the 24-unit apartment block erected in 1927 for the Weissenhof Housing Development in Stuttgart—has been successfully completed. The rehabilitation dealt primarily with the repair of the structure’s deteriorating, lime-cement plaster facade, especially in areas adjacent to vertical steel supports. A fully insulated bonded system was utilized, comprising rigid foam insulation panels, reinforcing glass-fiber mesh, an outer coating of synthetic-resin plaster, and a final coat of acrylate exterior paint tinted pale red to match the color of the original facade.

Great Earth Architects and Engineers, a private consortium of Chinese and Canadian architects organized in 1985 by Chinese-born practitioner Alfred Peng, has won an invited competition to design a 650-room hotel and office complex for the China Travel Service in Beijing. The building’s chamfered configuration was inspired by the L-shaped form of Beijing’s ancient city gates, according to Peng.

An ironclad reconstruction

Among New York’s mid 19th-century architectural artifacts, perhaps none is more evocative of its period than the fire watchtower located in Marcus Garvey Park in Harlem. Erected in 1856 of mass-producible cast-iron components, the tower prefigured the steel-framed curtain-wall structures that eventually allowed New York to become the vertical city we know today. Time has not been kind to the landmark structure and in order to atone for its years of neglect, the city’s Department of Parks and Recreation has undertaken a major rehabilitation program that will involve redesigning and recasting the tower’s deteriorated truss girders, refabricating some original iron tie rods in stainless steel, and replacing a wood deck in the lookout with steel grating. Architect for the restoration is Medhat Salam Associates.

Moderne times:
Paying homage to radio’s golden era

When Parker and Scogin Architects set out to design a new 34,000-square-foot headquarters for radio station WQXI in Atlanta, their stated goal was “to revitalize a building type that had not received much architectural attention since the Streamline Moderne stations of the 1920s and ’30s.” The architects also sought to “reinforce the high-energy, criss-cross interaction of the staff” that they had observed in the station’s existing facility, while conveying the image of a stable, lucrative business. The result is a sleek two-story facility whose exterior exhibits a dual personality. The flat planes and rectilinear openings of the structure’s north elevation (top) are meant to excise a dignified air, while the agitated, unresolved south elevation (bottom) reflects the frenetic activity frequently occurring within.
Let Your Imagination Soar

WITH

PC GLASS BLOCK®
PRODUCTS

Imagine all the possibilities. Capture the delicate, light-transmitting qualities of glass, while relying on the durability of a masonry structure of superior insulating capability.

Select from a variety of PC GlassBlock® patterns, each distinctive for visibility and light transmission. Create innovative partitions, walls and windows, sculpted in serpentine curves or straight panels.

Re-define space by overcoming the traditional limitations of an opaque wall. Control natural or man-made light. You're in charge! Permeate a room with bright light and reflected colors. Or design a warm intimate interior providing maximum privacy.

American-made PC GlassBlock® products inspire your imagination — let it run away with you.

For more information, contact Pittsburgh Corning Corporation, Marketing Department, AGB-6, 800 Presque Isle Drive, Pittsburgh, PA 15239. Tel.: (412) 327-6100. In Canada, 106-6 Lansing Square, Willowdale, Ontario M2J 1T5. Tel.: (416) 222-8084. Circle 50 on inquiry card
Red-tile roofs, beige stucco walls, and a 150-foot-square courtyard—in short, the features associated with California Mission Revival architecture—characterize the design of the Ronald Reagan Presidential Library, planned for a ridge along the western edge of the Stanford University campus in Palo Alto. The Stubbins Associates was named architect for the complex following an invited competition sponsored by the Ronald Reagan Presidential Foundation. The proposed library will serve as both a study center for the history of the Reagan presidency and an archival repository for the personal and official papers of President Reagan and his associates. In architectural terms the library represents a significant departure from the norm on two levels. First, its seemingly modest size and consciously contextual details are a welcome contrast to the overscaled presidential libraries that have been built in recent years. (The Kennedy Library in Boston and the Johnson Library in Austin come to mind in this regard.) Second, the design by Stubbins’s office is striking in its clear evocation of regional architectural history—rare for a firm known chiefly for its signature brand of Modernism.

Zaki Farsi Consultants of Jeddah have won a competition to design a major residential, retail, and hotel complex for a site adjoining the Holy Mosque in Makkah, Saudi Arabia. In order to maximize views of the Mosque from the project’s hotel and apartment towers, the architects have positioned the buildings atop an eight-story podium and terraced the structures down toward the holy site.

The growing practice of profit-making real-estate ventures subsidizing nonprofit arts organizations has reached New Haven, where a proposed five-story office and retail project will be a key physical—and financial—component of the Connecticut city’s Audubon Arts District. In an unusual arrangement, the city will sell the building site to the Arts Council of Greater New Haven, which will then lease the parcel to a private management company and use subsequent rental income to help underwrite its program of activities. Designed by Roth and Moore Architects, the building will be articulated by three-sided bay windows, sheathed in water-striucked brick, and trimmed with limestone and granite—details meant to link the new structure stylistically with older adjacent buildings.
When the IRS needed an office on the road, Zenith withheld nothing.

Now IRS auditors can leave the office with just about everything but the coffee pot tucked under one arm. Thanks to Zenith's amazing Z-171 Portable PC.

**PC COMPATIBLE**
With dual 5 1/4" floppy disk drives and compatibility with most IBM software, the Z-171 gives auditors in the field access to pertinent home-based files.

But that's only the beginning. The Z-171 gives the IRS a full-size, backlit LCD screen, with plenty of room for spreadsheets to spread out. 256K of memory expandable to 640K. An optional built-in modem and rechargeable battery pack, and much more. All folding neatly into a package under 15 pounds.

Find out why the Z-171 came out on top in one of the most thorough audits ever made.

For more information, and the name of your nearest Zenith Data Systems dealer, call 1-800-842-9000, Ext. 1.

© 1986, Zenith Data Systems
EVEN AFTER 20 YEARS, THIS IDEA STILL HOLDS WATER.

BITUTHENE.
The waterproofing system engineered to keep water out. Once and for all.

Twenty years ago, we introduced a bold way of guarding structures from the ravages of water and time — Bituthene. And it has been preserving the integrity of foundations, plaza and parking decks, subways and tunnels ever since. Now more than 2 billion square feet of Bituthene protection have been installed around the world. Once it's in place, it's in for good. A rugged, pliable, self-adhering membrane system that was built to go in once. To go in easily. To stay put. Resist cracking. And never stop working. No matter what the climate.

And it comes to you armed with Grace technical expertise and engineering experience. Protect your structures with a watertight idea. Bituthene — the waterproofing system with a proven past.

Circle 53 on inquiry card
Design awards/competitions:
New York Chapter/AIA
1986 Distinguished Architecture Awards

1. Museum for the Decorative Arts, Frankfurt am Main, West Germany; Richard Meier & Partners, Architects (Honor Award). According to the architect, the design of this new museum complex on the Main River is based on two grids that overlap at a 31/12-degree angle. One grid was dictated by the existing 19th-century Villa Metzler, the second by the location of other buildings along the river. The museum's new structures are clad in the architect's signature palette of porcelain-on-steel panels and stucco.

2. Addition to the Des Moines Art Center, Des Moines, Iowa; Richard Meier & Partners, Architects (Honor Award). Originally designed in 1948 by Eliel Saarinen and expanded by I. M. Pei in 1968, the Des Moines Art Center turned to Meier when it needed additional space to house its 20th-century collection, traveling exhibitions, a restaurant, and storage areas. The architect's expansion scheme comprises three separate buildings—two small extensions to existing structures and a larger freestanding “villa”—clad in a combination of porcelain-on-steel and granite panels.

3. OMO Norma Kamali, New York City; Rothzeid Kaiserman Thomson & Bee and Peter Michael Marino, Joint-Venture Architects (Award). The client's request for strong monolithic forms enclosing a sequence of intimate spaces dictated the configuration of a prominent fashion designer's new retail headquarters, located in a gutted Manhattan townhouse (RECORD, mid-September 1984, pages 112-117). The jury admired the project for “its special qualities and its integrity of materials and spaces.”

4. The Pace Collection Show Room, New York City; Steven Holl, Architect (Award). “An elegant, complete, altogether studied and sophisticated work” was the jury's characterization of a tiny, 364-square-foot furniture show room on New York's Madison Avenue (RECORD, April 1986, pages 98-103). Closely spaced mullions holding panels of clear and opaque glass evoke the paintings of Piet Mondrian and, more pragmatically, are said to eliminate the need for vertical roll-down security gates.

5. Eisenberg Residence, Hampton Bays, New York; Tod Williams and Associates, Architects (Award). This 3,200-square-foot waterfront dwelling (RECORD, July 1985, pages 122-131) consists of a stuccoed cube housing a 15-foot-high “great room,” an aluminum-sheathed stair tower, and a cedar-sided bedroom wing and pool deck—a combination of forms and materials that evokes the work of Louis Kahn and neorationalist Italian and Swiss architecture. The jury praised the architects for “making an intense and powerful work out of simple materials.”

6. Additions and Alterations to the Observatory Hill Dining Hall, University of Virginia, Charlottesville, Virginia; Robert A. M. Stern Architects (Award). In addition to adding 200 seats to a student dining hall erected in 1974, two new porchlike pavilions (RECORD, November 1985, pages 110-115) formally relate the existing Modernist structure to Thomas Jefferson's nearby Classical architecture. The jury called the extension “a handsome, elegant solution that manages in its scale and its quality of space and light to enhance an already distinguished place.”
New York architects but built in every corner of the world." Mangurian added that the jurors saw "a strange, shaky kind of plurality that sometimes borders on revivalism." Although Foster was pleased to note that "the drive, energy, and diversity" that characterizes New York City was also reflected in the project submissions, he regarded his experience as a juror "bittersweet, because the diversity of the architecture, instead of producing a richness or true plurality, seemed to be more a mask for indecision. Buildings that were evocative of other styles or influences just did not seem to have anywhere near the depth, strength, or conviction of the original models that presumably inspired them. Maybe that is why [Richard] Meier's buildings stand out in a totally different league from the others." In addition to granting two honor awards to buildings by Meier, the jury tapped four projects for awards and seven for citations.
1. Pioneer Courthouse Square, Portland, Oregon; Martin, Soderstrom, Matteson, Architects. The result of a design competition to produce an “outdoor living room” for downtown Portland, Pioneer Courthouse Square was constructed with a combination of federal, city, and private funding. The square was designed to incorporate an ornamental colonnade, extensive public seating areas for open-air performances, and a restaurant. According to city officials, the project has become a tourist attraction and has triggered the rehabilitation of several buildings in the area.

2. Two Rivers Market, Albany, Oregon; Cornerstone Architects & Planners. Cooperation between local businesses and public officials—and an infusion of state Community Development funding—enabled this city of 29,000 to restore two vacant downtown buildings and convert them into a mixed-use center comprising upper-story offices and street-level retail space. A common area at the core of the complex is used for community events, and a landscaped parking lot, sidewalk cafes, and other public amenities face the buildings’ rear elevations.

3. Town Center Square, Wahpeton, North Dakota; Norman E. Triebwasser, Architect. Although the downtown renewal of this small city in southeastern North Dakota was initially proposed in 1969, it was not until 1985 that a mixed-use center comprising new and renovated structures was completed. The project is a U-shaped building ensemble that includes 15 stores and offices, a restaurant, 47 apartments, an enclosed commons area, a pedestrian mall along Fifth Street, and parking space for 120 cars. A clock tower is meant as a focal point for the new downtown. Project funding was primarily through a $2.3-million municipal industrial development bond.

4. Winston Square, Winston-Salem, North Carolina; Various architects. Public agencies, private businesses, and local arts organizations collaborated on an ambitious downtown revitalization program that incorporates the conversion of a former Woolworth store into an enclosed atrium mall called Mercantile Plaza; the adaptive use of the old Carolina hotel and theater into an arts school and performing arts center; the rehabilitation of a former YMCA building into 39 condominiums; and the conversion of a complex of industrial structures into a visual arts center. The focal point of the project is Winston Square, a revitalized open plaza that features a terraced amphitheater.

5. St. Louis Centre, St. Louis, Missouri; RTKL Associates, Architects. Among major American cities St. Louis has been particularly hard-hit by the flight of its downtown retail businesses to the suburbs. Intended to stem any further erosion of the city’s economic base, this major revitalization project serves as a connector between Famous-Barr and Stix, Baer & Fuller, the two largest department stores remaining downtown. The 350,000-square-foot retail center is organized around a four-level, glass-vaulted atrium and is topped by a 21-story office tower. Expansion plans call for a 250-room hotel and additional parking for 1,400 cars.
partner in charge of design with Gruzen Samton Steinglass
Architects in New York City; Fereshteh Bekhrad, AICP, senior vice-
president with York-Hannover Developments in New York City; and
John L. Heller, AICP, commissioner of development for the city of
New Rochelle, New York.

6. Horton Plaza, San Diego, California; The Jerde Partnership,
Architects (RECORD, March 1986, pages 128-135). Designed to
revitalize San Diego’s faded Broadway shopping district, Horton
Plaza was developed by The Hahn Company after the city invested $39
million in the acquisition of an 11.5-acre building site. The project
consists of four department stores, 150 specialty shops and restaurants,
a seven-screen cinema, a 500-seat performing arts theater, a 450-room
hotel, and parking for 2,400 cars—all housed in a stylistically diverse
group of buildings set along a diagonal axis that intentionally
breaks with the city’s orthogonal grid of streets.

7. Cannon Village, Kannapolis, North Carolina; Arnold C.
Savran, Architect (master plan). This city of 35,000 in central North
Carolina was originally the home of Cannon Mills. After purchasing the
mills and the downtown area, a new owner began taking steps to
reposition the company town as a true central business district
serviding a broader retail trading area. Toward that end, he
commissioned the architect to draw up a master development plan that
would add 400,000 square feet of retail space and such amenities as a
civic center, parks, theaters, a variety of street furnishings, and
expanded parking. The first phase of the project included the
installation of wide brick sidewalks and the redesign of storefronts in a
consistent neo-Federal style.

8. The Brown Hotel/Theater Square Project, Louisville,
Kentucky; Landmark Designs, Architects. The initial phase of a
larger redevelopment proposal aimed at revitalizing Louisville’s
Broadway theater district
comprises the rehabilitation of the old Brown Hotel and an adjacent
office building; the restoration of the 1,400-seat Macaulay Theater;
the development of Theater Square, a 50,000-square-foot theme center of
shops and restaurants; and the construction of a new 475-car
parking garage. The project is organized around a 146,000-square-
foot open square emblazoned with fountains and public seating, and
was coordinated by a not-for-profit corporation set up by the city and
two private developers.

9. Charles Plaza, Baltimore, Maryland; Cho Wilks and Benn,
Architects. Eight stores and seven restaurants occupy this 15-unit
retail center, which is located on a once-vacant site at the edge of the
densely developed Charles Center urban renewal area in downtown
Baltimore. Rather than design a conventional enclosed shopping
mall, the architects configured the project around an open-air, multi-
level public plaza. The result: the city now collects significant new tax
income from a site that was once poorly utilized and economically
unproductive.

10. Southbank Riverwalk, Jacksonville, Florida; Perkins
& Partners, Architects. Built along the underutilized shoreline of the
St. Johns River, Jacksonville’s Southbank Riverwalk is a 1.2-mile-
long, 20-foot-wide public esplanade that connects several downtown
development projects erected over the past decade. The boardwalk
features terraced resting places, illuminated entertainment areas,
and a variety of kiosks and ornamental banners. At selected
points the improvements along the river extend inland, encouraging
pedestrian movement between the waterfront and downtown.
Use the modified bitumen roofing system that's UL Class A rated. DynaKap® FR from Manville.

DynaKap FR is the key part of Manville's UL Class A modified bitumen roofing system. It's a sophisticated, engineered product that meets above-deck fire safety requirements without special coatings or extra gravel. For added safety, both DynaKap FR and the original DynaKap are hot mopped, not torch applied.

DynaKap FR is an elastomeric asphaltic blend cap sheet made with SBS synthetic rubber and fire-resistant additives to achieve the UL Class A ratings. It's reinforced with both a fiber glass mat and a tough polyester mat to resist roof movement and stress.

DynaKap FR is compatible with all Manville roof insulations to form total modified bitumen systems that are covered by the Manville Signature Series Guarantees.

For details on DynaKap FR, the state-of-the-art modified bitumen with built-in fire resistance, contact your Manville Sales Representative or the Manville Product Information Center P.O. Box 5108, Denver, Colorado 80217. (303) 978-4900.

For export, telex 454404 JOHNMANVL DVR.

Circle 54 on inquiry card

21,000 people with one goal: To be your best supplier.

Manville

Reviewed by Scott Gutterman

Architects are, by and large, a reticent group. Witness a recent conference held at New York University: a panel of highly distinguished architects (along with one critic) gathered for a general discussion of their field. Perhaps it was the absence of a strong moderator (Bill Lacy of The Cooper Union confined himself to introductions and avoided any guidance in order to promote "discourse"); or perhaps it was the sizable audience and hot lights. Whatever the case, these industry leaders could not get a decent discussion going. Robert Venturi led off by saying that the whole idea of talking about his work filled him with dread and that he wished he could respond as Sir Edwin Lutyens had when confronted by a similar setup (Lutyens had merely turned to his audience and asked, "Any questions?"). Venturi proceeded to offer such insights as "I just try to do the best job I can every day"—an admirable sentiment, but not overly enlightening. Charles Gwathmey appeared equally uncomfortable and opted to keep his comments brief; on the issue of his firm's proposed addition to the Guggenheim Museum, he would only remark tersely that time would be the best judge. Bernard Tschumi, however, named the group "The New York Five," the book sold well, and the rest, as they say, is history. Such events—an important first client, a chance meeting, an unexpected choice of school—figure as heavily as the intellectual programs each architect develops in pursuing his career.

The labeling of their work is a sore point for many of the architects interviewed. Most feel that such stylistic labels as Modern, Postmodern, and the like are inaccurate, that they call too much attention to themselves, and that they detract from individual considerations of form. In the words of John Hejduk, "You dismiss things by naming them." It is perhaps for this reason that none of the architects questioned wishes to be identified with any one label. A deep respect for the past, particularly for the giants of the Modern movement, pervades most of the architects' thinking. Having come of age in a period that saw the rise of the architect as hero and visionary, most were not so ready to dismiss their mentors when bastardized variations of their work began littering American cities during the 1950s and '60s. Mies, of course, is appreciated by all, not least for his sheer devotion to the art of architecture, and even those who reacted strongly against Mies's work saw him as a measure of architecture's possibilities. Louis Kahn, not surprisingly, also draws high marks from several architects.

An unexpected fringe benefit from all this is the humor that comes through in so many of the architects' responses. Regarding his career as both full-time architect and academic, Henry Cobb states, "I subscribe to Mae West's famous pronouncement: 'Too much of a good thing is wonderful!'" Philip Johnson, after being introduced with a string of affirmations of his fame, replies, "I didn't know I was such a famous and delightful person!" He is, and his interview is just one of the gems that enhances this delightful and fascinating compendium.

"That's as far as we go until the merger is settled."
Located in Arlington, VA, The Arlington Hospital is a full-service general hospital. Staffed by more than 700 licensed physicians, the 350-bed teaching hospital has been affiliated with Georgetown University School of Medicine since 1950.

"Scrubbing up at The Arlington Hospital is always a successful operation with Sloan OPTIMA® No-Hands Systems."

Cleanliness and efficiency are two essential aspects of providing responsible patient care. In a busy 350-bed teaching hospital, maintaining a sterile environment is a must. The Arlington Hospital has discovered an efficient way to ensure cleanliness with the installation of 58 Sloan OPTIMA No-Hands systems.

In the emergency room, the operating suites, and the labor and delivery rooms, Sloan OPTIMA No-Hands systems are helping to reduce maintenance, enhance cleanliness and promote

water savings. An electronic sensor "sees" the user, and the OPTIMA system automatically turns the faucets on and off—only as needed. Awkward arm- or leg-actuated faucets are eliminated to provide a quick, no-hands scrub-up.

The results: a more sterile, efficient scrub station. Reduced maintenance and water usage. And greater convenience for medical personnel.

Easily installed in any new or retrofit situation, the Sloan OPTIMA system meets all building codes and readily adapts to existing sink and plumbing hookups. The system is also compatible with soap dispensers, hand dryers, shower heads, and more.

Ask your Sloan representative about Sloan No-Hands automated systems. Or write us.

SLOAN VALVE COMPANY
10500 Seymour Avenue, Franklin Park, IL 60131
A Tradition of Quality and Pride

Circle 56 on inquiry card

Through the 20th century Japanese architects have embraced Western technology and design, giving their work a superficially Occidental appearance. Still, many contemporary Japanese buildings have a distinctly non-Western quality, with their adventurous, even weird, forms, forbidding exteriors, and interior spaces that nestle within each other like inner sancta. In this book, Botond Bognár helps demystify Japan’s 20th-century architecture by tracing its development since Commodore Perry opened the country’s ports to the West in 1853 and tying it to its pre-Meiji traditions.

Rather than idealizing modern Japanese buildings as mere “the buildings illustrated and thoroughly documented. The author’s prose is graceful and his argument coherent. If the social analysis occasionally becomes rather broad, at least Morgan strives to understand the causes of style rather than stopping with its history. His attention to Platt’s art and his office practice helps ground his design aesthetic. A brief memoir by the architect’s son is a welcome personal touch.

Perhaps more than anything else, these books reveal the disunity of the genteel tradition. Flagg bitterly critiqued the 1893 Columbian Exposition as “archaeological,” while Platt rejected the Gothic and picturesque work of his contemporaries. Although both men worked in a national style,” Flagg’s prototypes were French, Platt’s Italian. In fact, with a single exception each, neither author even mentions the other’s subject, as though their works were completely discrete. These men pursued distinctive visions with persistence and skill; the books distinguish them with sympathy and rigor.

Nevertheless, Flagg and Platt do share underlying assumptions—“a devotion to the classical past as inspiration for the modern world,” as Morgan puts it, a “belief in historicism and the perpetuation of cultural values,” in Bacon’s words—that tie them to a certain phase in the development of American architecture and culture. As these valuable books make clear, the period was more diverse and, perhaps, more significant than recent history has been inclined to accept. Their contributions help clarify the development of late 19th- and early 20th-century American architecture in all its complexity and contradiction.
What if...
YOU COULD PULL OFF A PERFECT DRAWING FOR ONLY $5,400?

Ah, the big idea. Everyone has one. But not everyone can afford a plotter to plot one on. Which got us thinking. What if there was an HP quality plotter so reasonably priced you could afford to hook one up to every PC CAD workstation in the office?

Introducing the HP DraftPro Plotter. Now for only $5,400 any architect, engineer or designer can create perfect plots time after time. Consider what the DraftPro can do:

It can draw straight lines, smooth arcs and perfectly-formed characters. All on C and D-size drafting film, paper or vellum, using eight different pen colors.

Furthermore, it works with just about any PC, like the HP Vectra PC and IBM PC's. As well as popular PC CAD programs like VersaCAD and AutoCAD.

If the idea of having HP reliability with a low price tag makes sense to you, call us now. For a brochure and sample plot, call 1 800 367-4772, Dept. 624B.

The HP DraftPro Plotter: high-quality drafting for only $5,400.*

*Suggested U.S. list price.
HP Vectra PC is a trademark of Hewlett-Packard. IBM PC is a registered trademark of International Business Machines. VersaCAD is a registered trademark of T & W Systems. AutoCAD is a registered trademark of AutoDesk, Inc. © 1986 Hewlett Packard Co. PG604ARO

Circle 57 on inquiry card


Reviewed by Steven Holt

No matter the individual's age, or the circumstances under which it happens, it's almost always a kick for an architect when his work is published. It provides a validation of sorts, a seal of approval from an impartial and objective source. The present architectural apotheosis of this sort is the book, the book of lavish monographs. With the printed (and well-illustrated) word increasingly popular among architects and design enthusiasts alike, monographs have turned bookshops into candy stores of sorts. Designers pick, sample, and nibble their way through so many pages in search of visual feasts and quick pick-me-ups.

The three tomes on Aldo Rossi, Ricardo Bofill, and Mario Botta continue this trend by simultaneously showing us how each architect cooks up his design ideas and giving us the chance to taste-test each architect's style; with these deliciously visual cookbooks, the implicit message is that you can have your cake and eat it, too.

Rossi is represented by a standard-size book concerned with the architect's buildings, words, paintings, and drawings. Covering a period of over 25 years, the book begins with Rossi's cultural center and theater thesis project from the Milan Politecnico where, he recalls with typical candor, "I was one of the worst students," and it ends with plans for the still-to-be-executed Centro Direzionale in Perugia.

Clearly, much has happened in between these two points, and the book tells us as much as any other book, many accompanied by Rossi's own drawings. As Vincent Scully notes of these renderings in his brief and frothy introduction, "Rossi] draws a new poetry."

While there is magic in all of Rossi's drawings, the project where it is most transubstantiated is the Teatro dell'Elba (Theater of the World) at the 1979 Venice Biennale. If one supposes for a moment that the world is a stage—and architects and butchers who give their sundry styles across its theatric (or better, operatic) dimensions—Rossi might well be cast as the phantom of such a space. Neither his imagination nor his travels are without purpose, however; they are intimately connected to such essentials as element, plan, moment, monument, and morphology.

As Rossi has remarked of these typological basics, "I have always known that architecture was determined by the hour and the event and it was this hour that I sought in vain." Such words also reveal the dramatic sense of timing that Rossi yearns to uncover, whether it be through drawing, designing, writing, building. For Rossi, it is the fragment rather than the whole that tells the story, and this book is about the beauty of individual pieces and forgotten moments. Rossi has distilled these ideas before in A Scientific Autobiography and The Architecture of the City, they assume a new power here when collected with the full corpus of his work, allowing us to see exactly how Rossi views his world.

The oversized volumes on Bofill and Botta are nearly identical in size, approach, and graphic design. Of the two, the one that explores the work of Bofill and his firm Taller de Arquitectura over the last 15 years is the more vivid. Although Yukio Futagawa photographed both books, his large full-bleed color shots of Bofill's work leap off the page; it is a vital architecture given accordingly vibrant treatment.

As Christian Norberg-Schulz points out in his insightful introduction, Bofill's architecture unites the attributes of house and cathedral. In fact, he is one of the few who has built Postmodern megastuctures that convey a sense of both purpose and people—a quality exemplified by the adjacent Walden 7 and La Fabbrica projects in Barcelona. Walden 7 comprises three gigantic apartment buildings (only one of which is presented) that form a hypotethical triangle. Both open and closed, small and large, the projects evidence the phenomenal property that Robert Venturi has referred to as "both/and" rather than "either/or." Outwardly the buildings are simple: brick; inside, it is tiled, primarily in shades of blue and green. Large cut-outs in the building's monolithic massing create Bofill's famous "urban windows." Walden 7 joins La Fabbrica (Bofill's home and office) amid the ruins of the Samson cement factory, a sense of place for the ensemble. In one of the book's many revealing texts, Bofill tells us that here, "life unfolds in a continuous manner. There is no difference between work time and free time." Today, perhaps only in Barcelona could an architect have his masterwork, office, and house all on the same piece of property. Or, maybe this is simply the Catalan approach to inner-city commuting. In either event, the book is a vigorous summation of Bofill's work to date.

The volume on Botta, blessed with a penetrating introduction by Norberg-Schulz, probably contains the freshest visual fireworks of the three books considered here. But what may be lacking in quick visual sizzle is made up for by a display of buildings that spans a rich and varied quarter-century of practice. More specifically, it shows how Botta has linked his architecture to such fundamentals of human experience as archetype, institution, locality, and historical moment. In the process, Botta is a contextualist, not just of the site but of the psyche.

For Botta, the youngest of the three architects, having a sense of place is a necessity because the times we live in are so abstract. Architecture must connect, and to do so, it must work in ways that are simultaneously new and old. Forms, unlike clients, do not have to be invented over and over again. Accordingly, much of Botta's work feels as though it already belongs together, as if it always has been. Bofill, Botta, and Rossi share a number of characteristics. Each, most significantly, wants to create a sense of place. Each is also intensely involved in a search for the essential in architecture. For Bofill it involves the basic concepts of experience and powerful built forms; for Botta it is a "return to architecture" expressed through blocklike masses, symmetrical facades, and sophisticated materials; and for Rossi it is the playful manipulation of surfaces, simple geometries, and qualities like hardness and clarity. The three architects, moreover, all return to Classical architecture, and they are closely associated with their native regions—Bofill to Catalonia in Spain, Botta to the Swiss Ticino, and Rossi to Milan. The latter isn't simply nostalgic, but a personal integration of old (the vernacular) and new (Modernism) within an architectural system that makes evident their interest in what has previously been hidden or repressed.

But it's not enough simply to relate what has been done to the past; one must make the connection, to be sure, but at some higher level one must also see beyond connection. As Norberg-Schulz says of Bofill, "An order is related to life when it is . . . broken;" furthermore, when speaking of Botta, the author declares, "You have to do more than just talk about connection."

And so the dialectic between the past and the present, the part and the whole, goes.

Although these architects are often considered members of the avant-garde, these monographs clearly reveal that what they care most about are the simple things—how a building meets the ground, how it relates to others, how it rises to the sky, and how it opens and closes. Bofill, Botta, and Rossi not only construct on a site; from the start, they attempt to construct the site itself.

In the end, while one can speak at length about an architect's architecture: sketches and photographs of Bofill's urban furniture, Botta's Prima and Seconda armchairs, and Rossi's Cabine dell'Elba furniture provide a valuable counterpart in scale and intention to their architecture.

In either event, while one can speak at length about an architect's architectural Record, the whole of this entire volume is a statement of things that were often said before but never as articulate. In fact, these three books considered here. For Bofill, Rossi, and Butta in particular, "a return to architecture" expressed through blocklike masses, symmetrical facades, and sophisticated materials; and for Rossi it is the playful manipulation of surfaces, simple geometries, and qualities like hardness and clarity. The three architects, moreover, all return to Classical architecture, and they are closely associated with their native regions—Bofill to Catalonia in Spain, Botta to the Swiss Ticino, and Rossi to Milan. The latter isn't simply nostalgic, but a personal integration of old (the vernacular) and new (Modernism) within an architectural system that makes evident their interest in what has previously been hidden or repressed.

Architectural Record October 1986 75
Many skylight systems look good on paper. But the difference between “meeting specs” and performing in the real world over time, can be dramatic.

You know what the situation is today in terms of product and design liability. So, it makes more sense than ever to insist upon quality and integrity — in a company and its products.

Next time you incorporate skylights into your design, check out Naturalite. Check our client references. Our financial strength. Our guarantee. Our systems. And, most of all — our reputation. You will find that Naturalite builds skylight systems you can stake your reputation on.

Circle 58 on inquiry card

Your single source for skylights since 1945.

Monumental · Standard · Residential
For information, please call toll free: John Rowan, 1-800-527-4018
Photo: Capitol Marble Company, Marble Falls, TX · Architects: Shepherd & Boyd, Dallas.
1 for the road: 
An affectionate stroll down memory lane

By Rachel Carley

Cruising Route 1 to see the sights may not be everybody’s idea of a 

joyride, but for the friends and members of the Society for 

Commercial Archeology, the trip from Portsmouth, N.H., to 

Bass Lake, Maine, is a personal speciality. The group 

includes people interested in American roadside architecture. 

This legacy of our culture is the subject of their 

passion and they have spent the weekend together. 

Although Robert Venturi, Denise Scott Brown, and Steven Izenour 

glorified the architecture of the strip as early as 1970 in their classic 

Learning from Las Vegas, it was not until 1977 that the Society for 

Commercial Archeology was formed with the express purpose of 
documenting and preserving “appropriate American automobile 

roadside structures and landscapes.” The SCA publishes a periodic 

newsletter, and it sponsors occasional trips meant to uncover the 

best of America’s highway vernacular. SCA member Rachel Carley 
reports on the group’s recent weekend jaunt through New England. 

Experience it we did, as our bus 

rolled past an original Mr. Peanut 

sign and a neon cowboy lassoing 

a chicken near Rowley by pulling 
in at Fowle’s drugstore, the only 

1940s holdout in restored Colonial 

Newburyport. Fowle’s is a local 

institution, where anyone in the 

know comes for a daily newspaper, 

coffee and gossip, maybe a greeting 

card or a tube of toothpaste. While 

admiring the original black Cararra 

glass storefront, the deep, old-

fashioned plate-glass windows, the 

neon sign (the oldest in the 

Merrimack Valley), and the 

streamlined soda fountain, 

we learned from present owner Sam 

Waterhouse that he nearly scrapped 

the dated look in the 1970s, when 

most of the historic townscape was 

renovated.

“I grew up with this kind of 

decor, and I wasn’t too happy with 
it,” recalled Waterhouse, who 

wanted to upgrade his place with a 

new brick-veneered storefront. But 

a local architect with federal funds 

in hand convinced him to restore 

the original features. A good thing, 
too, because it turned out that 

the town’s residents also preferred 

that way. “A woman swore at me 

when I took out the stools to get 

them refurbished—she thought 
they were going for good,” said 

Waterhouse. He is now a convert 
himself. “I love it,” he admitted. 

“Just getting this interest is 
fantastic. I don’t want to change 

anything now.”

The group felt good about that 

and pressed northward to Salisbury 

Beach, distinguished birthplace of 

Dodge’s cars. The amusement 
park, now a ticky-tacky jumble of 

friest food and plastic souvenirs, 
dates to the 1880s when a plank 

road was laid over the meadows 
to provide access to the beach. Later, a 
trolley line connected the seaside 
resort to Haverhill, Lawrence, and 

Lowell. More introverted travelers 
could also take a paddle-wheeler 
down the Merrimac River, but that 
cost $25 cents and took two-and-a-
half hours from Haverhill.

Believed that we weren’t booked 

into nearby Haggerty’s Motel, a 

jerry-built arrangement of six or 

seven Quonset huts, we advanced 

across the New Hampshire border 

through Hampton and Rye beaches 

before stopping briefly at a snappy 

miniature golf course built in 1956 

by submarine-worker Edmund 

Silva. Made of salvaged bits and 

pieces, the course is a tribute to 

Rube Goldberg. A used washing-
machine agitator powers a windmill, 

for example, and there is a little 

highway made of old cinderblocks 

(aim through the toll booth). To 

finish the game, you put into 

Mickey Mouse’s mouth, and the ball 

rolls back into the office.

The course is a classic example of 

roadside inventiveness, according to 

Chester Liebs, our historian-in- 

residence. A founding member of 

the SCA, Liebs recently published a 

book on roadside architecture 

(Main Street to Miracle Mile, 
reviewed in RECORD, July 1986, page 
81), and considers the American 

motorway an asphalt-and-concrete 
timeline, a visual landscape where 

tings are best explained by their 

context. “In a society that is 

switching from words to images, we 

need to know how to read what is 

out there,” said Liebs as he relaxed 
in his bus seat. “I don’t think that 
looking at commercial architecture is 
a widespread activity—the public 
is just beginning to care. But 15 
years ago, the public didn’t care 
about Main Street. Victorian houses 

were only good for funeral homes, 

and no one would have dreamed of 

living in a cotton mill. I think that in 

the next 50 years, the whole issue of 

Rachel Carley is a former senior editor at 
Home magazine. She is currently a 
freelance writer specializing in 
archrcture and historic preservation.
the better choice in
communications systems

Rauland TELECENTER® better for schools

TELECENTER® IV Provides multi-link internal communications between administrators and between administrators and classrooms, plus full interconnect to outside lines. Features: Conference call capability, instant schoolwide or “zone” paging, call display in order received, with priority for emergency calls. Includes a wealth of user-programmable features; simple touchpoint operation; fully expandable to meet growing needs. Unmatched for administrative communications management.

TELECENTER® 5000 This very affordable microprocessor-controlled system provides instant 2-way conversation between the Control Center Station and up to 48 classrooms. User-programmable features: room numbering, architectural or otherwise; “zone” or area assignment; distribution of optional program sources (cassette, phone, radio); built-in program clock to distribute class change signals. Simple touchpoint operation; classroom privacy; immunity to power failure—all at a remarkable low cost.

Rauland RESPONDER® better for health care

RESPONDER® III Selected by more hospitals nationwide since 1982, than any other nurse call system. Offers 24 exclusive new features, including “hold” and “recall” capability, one-button automatic staff search, independent utility display, automatic staff “follow” in code blue, 14 priority levels; includes a host of user-programmable features; microprocessor-controlled; immunity to power failure; simple positive touchpoint operation. Designed to be specified with complete confidence.

RESPONDER® System 3000 Designed for smaller hospitals and nursing homes, to combine reliable, versatile communications with unmatched economy. Microprocessor design features user-programmable room numbering, room priority status, paging by specific “zone” or facility-wide. Includes staff “follow”; 7 levels of call priority; call display in order received, with priority for emergency calls; immunity to power failure, night service from a single floor control station. Maximum efficiency with economy.

AT YOUR COMMAND: One of our nationwide network of Authorized Rauland Communications Specialists with system design expertise and full installation and service facilities is available to you for consultation and demonstration without obligation. For full details about the systems and your nearest Rauland Specialist, write or call today, or use the reader service card.

RAULAND-BORG CORPORATION
3636 W. Addison St., Chicago, Ill. 60614 • 312-267-1300
In Canada: Rauland-Borg Corporation (Canada) Inc. • 6535 Milcreek Dr., Unit 5, Mississauga, Ont., Can. L5N 2M2

Circle 59 on inquiry card

Observations continued

screened porches. New bright yellow shingles topped the peaked roofs but, with typical New England thrift, only on the sides that faced the street.

The next day we breakfasted at the Miss Portland Diner (Worcester Car #818, built in 1946), where owner Randy Chasse has carefully maintained the original chrome fixtures and leatherette booths, keeps ‘50s songs on the jukebox, and regularly serves 48 dozen eggs on any given morning.

A U-turn through Portland then sent us back down the flip side of Route 1. If one had to pick the high point of our return journey, it might be the Golden Rod resort store in York Beach, Me. A summertime emporium opened in 1986, the Golden Rod is a first-class operation by any standards. It is primarily a combination soda fountain and salt-water taffy manufacturer, but it also dispenses souvenirs, fudge, gummy worms, dill pickles, red-hot dollars, fireballs, licorice whips, peanut brittle, Vermont maple sugar, pepper jelly, and Old-Fashioned Molasses Sponge, a concoction of sugar, corn syrup, molasses, water, and bicarbonate of soda that looks something like brown polystyrene foam. Outside, through old storefront windows, riveted passersby can view the actual taffy-making assembly line, where copper cauldrons bubble away with molten sugar, a mechanical arm pulls and twists the candy into a stretchy mass, and an incredible machine spits out wrapped pieces of candy in bite-sized twists.

Other outstanding sights occupied our itinerary. In Essex, Mass., for example, there was Woodman’s birthplace of the fried clam. The story goes that on July 3, 1916, “Chubby” Woodman was frying up a batch of potato chips at his small roadside stand, when a friend happened in. “Why don’t you throw some clams in?” asked the friend. “Don’t be ridiculous,” replied Chubby. “Clams have shells.” But something made him reconsider, and when his friend returned the following day—July 4, of course—he may have been the first person in American history to sample that deep-fried, batter-coated delicacy.

All good things, even our lunch at Woodman’s, must come to an end. But as we neared Boston and hurried by the Ship Restaurant, an exact replica of a 1790 sailing barque with 150-foot masts, and sped past a gigantic orange Tyrannosaurus Rex, Michael Jackson left us with some pleasant thoughts: “What we’ve got here is the baby-boom generation, which grew up with the automobile culture and television, and they’re just starting to look back,” he explained. “It’s not just nostalgia, which is a quick-hit word for memory; it’s something more. We want to understand and preserve the power of the strip. I guess you could say we’re the children of the road, trying to save the more important things for the grandchildren of the road.”

With that in mind, we sang happy birthday to the bus, which had just turned ten, and headed for home.
Today, a new generation of advanced gas cooling equipment brings to commercial air conditioning the same economy and reliability that gas brings to heating. Before you design your next project, let your gas company show you how right gas cooling can be. Gas. America's best energy value.

Circle 60 on inquiry card
Better.

Increased financial flexibility. More valuable features. Greater personal service. To apply, simply complete and mail the attached form. Or call 1-800-368-4535. First Card Premier Visa. The card that serves you better.

FIRST CHICAGO
The First National Bank of Chicago

Circle 61 on inquiry card
Finally, a multi-plan ceiling you and your acoustical consultant will love.

When your floor plan calls for mixing private and open office spaces, acoustical specialists usually call for you to specify two different ceilings. But now, there's an alternative. CapCore Multi-Plan™. The first dual-purpose acoustical ceiling.

The performance of two ceilings. The convenience of one.

CapCore is really two ceilings in one. Its unique, sandwiched construction combines high-density glass fiber, to absorb sound in open areas, plus perforated mineral board, to block sound transmission from enclosed spaces.

All of which means you can specify CapCore Multi-Plan throughout any office. And enjoy the convenience, visual continuity, and cost savings of specifying one ceiling, without sacrificing a single decibel.

A look you'll love.

CapCore Multi-Plan ceiling panels look as good as they sound. The woven fabric finish comes in 85% light-reflectant white, or a variety of designer colors. There's a choice of edge detail, too. In addition to the standard square edge, CapCore is available with a flush reveal edge for a refined, monolithic look. Or choose CapCore bold reveal for a more dramatic look.

Ask your acoustical consultant about CapCore Multi-Plan today. Or, contact Capaul for more information and a free sample. Either way, you'll find CapCore Multi-Plan is the one acoustical ceiling you and your consultant will both love.

For more information, write: Capaul Corporation, 1300 Division Street, Plainfield, IL 60544. Or call toll free number: 1-800-421-8368 [In Illinois, (815) 436-8503].

Circle 62 on inquiry card

Capaul Architectural Acoustics.
The new COMPAQ DESKPRO 386™ is the first complete high-performance PC CAD/CAE solution that single-handedly runs all the popular engineering and business software. It offers versatility without compromise. Each and every component far surpasses the limits of previous "advanced technology" PCs. From its superior microprocessor to its exceptional memory capacity to its greater storage to its monitor all the way to its faster disk drives, it is the most advanced personal computer in the world.

The first PC to offer a true minicomputer level of performance. It runs thousands of engineering and business programs 2-3 times faster than ever before possible.
Minicomputer performance on your desktop

The COMPAQ DESKPRO 386 delivers minicomputer-level performance. Running at an impressive 16 MHz, its 80386 technology and advanced 32-bit architecture run engineering software like AutoCAD™ and CADVANCE™ and business programs like Lotus 1-2-3®, 2-3 times faster than any other advanced technology PC. Plus it welcomes boards for communicating with mainframes as well as industry-standard graphics display boards and peripherals, all crucial to your design. You can also add the 8-MHz Intel® 80287 coprocessor to speed graphics- and floating-point-intensive applications.

More memory to draw on

Every single component in the COMPAQ DESKPRO 386 has been optimized to take advantage of its increased speed and power. You can get up to 10 Megabytes of 32-bit high-performance RAM on the system board, 14 Megabytes overall, without waiting for new versions of DOS to use it.

The COMPAQ Expanded Memory Manager comes built in. It provides Lotus®/Intel®/Microsoft® Expanded Memory Specification and VDisk support, letting you use up to 8 Megabytes of 32-bit RAM, which makes complex software run much faster than ever before.

More to work with

The COMPAQ DESKPRO 386 sports the fastest 40-, 70- and 130-Megabyte internal fixed disk drives in the industry so you can access data two times faster than other advanced-technology PCs.

Watch the performance on the new COMPAQ Color Monitor for enhanced text and graphics resolution. Displaying 16 colors at once from a palette of 64, it comes with the COMPAQ Enhanced Color Graphics Board.

Exceptional speed, enhanced graphics and the ability to run today's UNIX®-based CAD/CAE software along with thousands of industry-standard business programs, make a versatile, cost-effective alternative to expensive dedicated workstations. Plus, the new COMPAQ DESKPRO 386 comes with a one-year warranty.

History in the making from a company that knows how

Long after others copy its microprocessor, the new COMPAQ DESKPRO 386 will still be the world's most advanced personal computer because it incorporates dozens of separate enhancements.

It's no wonder COMPAQ Personal Computers have the highest user satisfaction rating in the industry. And no wonder we made the FORTUNE 500 faster than any other company in history. For the Authorized Dealer nearest you, or to obtain a brochure, call 1-800-231-0900 (in Canada, call 416-449-8741) and ask for operator 25.

You can use any industry-standard mouse to speed CAD/CAE work.

It simply works better.

rst engineering PC background.

of AT&T Bell Laboratories. CADVANCE™ is a registered trademark of CalComp California Computer Products Inc. ©1986 COMPAQ Computer Corporation, all rights reserved.
To give everyone a view of the lake, the building shape had to repeat itself. So Pella was chosen to say “quality” over and over.

The people of Excelsior, Minnesota, have long held a sentimental attachment to a historic parcel of land on the shore of Lake Minnetonka. That's why they made waves any time anyone proposed to develop it. And now — where streetcars from Minneapolis dropped vacationers from around the world, where a landmark amusement park had stood — stands Excelsior Bay Gables.

Miller Hanson Westerbeck Bell Architects have succeeded admirably in recalling the excitement, texture and scale of the community's past in this luxury condominium development. For this upscale market and this beloved site, nothing but the best would do. And that meant Pella Windows and Doors. Through double-hung bay windows and sliding glass doors, each of the 52 units is afforded equal orientation to the lake.

The creative interlocking of dwellings resembles a New England fishing village in its traditional materials, forms and colors. While reminiscent of grand old Excelsior resort hotels, mass is broken into a residential scale that is sympathetic with this quaint community of wood frame houses.

Pella standard and custom windows and doors.

Pella offers a range of standard and custom windows to suit almost any new or retrofit project, with a variety of glazing and shading options. At the Gables, Pella Double-Hung Windows are arranged in bays, while custom Pella springline quarter circle windows light up third story lofts.

Here, custom height Pella Sliding Glass Doors help hold in the heat from sun/tube radiation below the sill. The sliding door panel is mounted to the outside, so the harder the north wind blows off the lake, the tighter the weatherstripping seals. Pella doors are among the industry's best performers for air and water infiltration, so there will be no damp carpeting under the grand pianos at the Gables. And those doors offer excellent security, either locked closed or open about three inches for ventilation.

Pella says quality in custom colors.

MHWB specified Pella Clad Windows and Doors for the Gables. No matter what color a project calls for, Pella's low-maintenance, aluminum cladding with baked enameled finish assures exceptional color stability, resistance to chemical attack, chalking, erosion, chipping, peeling and cracking.

Pella's warm wood interiors enhance the traditional feel at the Gables. And removable wood muntins and pivoting sash make Pella Double-Hung Windows easy to wash from indoors.

Your Pella distributor can tell you more about it. For information, look for Pella in the Yellow Pages under “Windows”, call Sweet's BUYLINE or see Sweet's General Building File. Or, send the coupon below.

Please send me the latest literature on Pella for replacement and new construction.

Name ____________________________
Firm ____________________________
Address _________________________
City _____________________________
State ___________ Zip ____________
Telephone _________________________

This coupon answered in 24 hours.

Mail to: Pella Windows and Doors, Commercial Division, Dept. T31J6, 100 Main Street, Pella, IA 50219. Also available throughout Canada.

©1986 Rolscreen Co.

Pella. The significant difference in windows and doors.

Excelsior Bay Gables Condominiums
Excelsior, Minnesota
Developer: Keewaydin Development Group, Inc. Minneapolis, Minnesota
Architect: Miller Hanson Westerbeck Bell Architects, Inc. Minneapolis, Minnesota
Contractor: John Lambin Construction Company Excelsior, Minnesota

Circle 63 on inquiry card
IS YOUR SIDING HOLDING UP YOUR BUILDING?

Every time your project is slowed down because your siding isn't going up, you're being held up. In more ways than one.

So what's the cure to sluggish siding? Shakertown.

This ingenious system lets you nail directly to studs in most areas. Which, simply put, means you're spared the expense and time of putting up sheathing.

Then there's the clever self-aligning groove on the back that turns ordinary carpenters into veritable speed demons.

Shakertown has even thought of the little things that make a job go faster. Like giving you color-matched nails for free, and cutting our siding exactly to stud spacing.

The point of all this is to get your project done, so you can get your money out.

But that doesn't mean you should use Shakertown just because it installs quickly.

The real reason is the way it look Handcrafted. Natural. With the unmistakable beauty of genuine Western red cedar.

In other words, the look so many buyers are looking for right now.

That can only mean, when Shakertown is y siding, your building will move quite quickly. Both before it's done and after.
"Appropriateness" is the standard rallying cry of all parties involved in contemporary urban infill. Regardless of whether they are pro or con a particular construction project, architects, developers, government officials, and community representatives are embroiled these days in wrangling over niceties of "contextualism" and the decorum of our city streets. It is heartening to know that such issues are now discussed almost as a matter of course, even though, as Roger Kimball observes in his commentary on one recent infill building (overleaf), we must bear in mind that the notion of "appropriateness," necessarily a relative concept, can be so subjective or vague as to lose its pertinence for critical judgment. The rightness of style, materials, scale, or any of the other factors that adjust the shades of local color is always debatable and, depending on the vantage point of the viewer, the same "good" architecture that fits comfortably into one city can seem rudely out of place in another.

The three infill projects illustrated in the following portfolio impressed us as far more than respectful newcomers to well-established neighborhoods. Even if discretion were their signal quality, our case-study examples would embody an achievement of sorts, located as they are in communities renowned for vigilant stewardship of a distinguished architectural heritage. Architects James Stewart Polshek and Partners faced the challenge of a block-long site in the heart of Greenwich Village, New York City's most famous designated landmark district, where no historic stone is turned without a hue and cry from bureaucrats and neighborhood activists (pages 90-95). Arthur Cotton Moore/Associates took on a delicate diplomatic mission among the movers and shakers of Washington, D. C., in the equally historic—and jealously guarded—precinct of Georgetown (pages 96-99). Robert A. M. Stern Architects was summoned by commercial developers to another venerable "village," in La Jolla, California, just as angry citizens' groups such as B.L.O.B. (Ban Large Office Buildings) were manning the ramparts (pages 100-103). In each instance, owing to patient, extended dialogue and the designers' sensitivity to community concerns, a tense situation that might have exploded in bitter combat, or halted in an uneasy truce, turned out to everyone's advantage. Besides paying their owners a handsome return, the results enrich the surrounding urban fabric. They may even be models for future infill development—where appropriate. Douglas Brenner
Washington Court  
New York City  
James Stewart Polshek and  
Partners, Architects
A Village vanguard

Washington Court, James Stewart Polshek and Partners' new apartment complex at Sixth Avenue between Washington Place and Waverly Place in Greenwich Village, is the first multiple residence to be built in the Greenwich Village Historic District since the area was so designated in 1969. In addition to providing 28 condominiums, the handsome brick-faced building accommodates some 25,000 square feet of commercial space on the ground floor and below grade. Its carefully proportioned three-bay facade, firmly anchored by square towers north and south, recalls the brick row houses that populate the Village; mullioned windows and limestone and green-tile appointments quietly harmonize with their 19th-century predecessors in the neighborhood.

Yet for all this, there is never any question that we are looking at an essentially modern—indeed a Modernist—building. The punched windows, the rigorous simplicity of the design, the structure subtly but frankly expressed: the underlying feel of the whole building is unmistakably Modernist. And considering that Washington Court replaces not some cherished architectural legacy but a parking lot, one might well assume that from the start the building was heralded for what it is: a model of sensitive, “contextual” urban design.

Appearances, however, are deceiving. From the moment the design for Washington Court was announced, local community groups took up arms against it. Polshek, who lives but a block from the building, recounts going to his garage nearby and encountering flyers protesting the proposed intrusion by a “corporate architect.” Along the way, the design was rejected by both the local Community Planning Board and the Landmarks Preservation Commission, which has the authority to block any new building in a designated historic district, before finally being approved in December 1984.

The primary objection to the design was stylistic: it was not thought “appropriate” for the neighborhood. Now the widespread use of the term “appropriate” in architectural criticism these days is in need of scrutiny. For while there is no doubt the term is often quite pertinent, it is also clear that it is infinitely malleable; like a chameleon, it is quick to adopt the colors of the point of view it is called upon to justify. And when a point of view is uninformed or dubious, its idea of appropriateness will likewise be questionable.

According to Polshek, the design of Washington Court was initially held to be inappropriate because it did not echo the architecture of St. Joseph's Church, an 1834 Greek Revival structure that stands across the street. As he points out, though, neither Greenwich Village nor the immediate neighborhood is predominately Greek Revival; it is rather an eclectically vernacular accretion of styles—including some Greek Revival buildings—but displaying above all a profusion of red brick and a modest, row-house scale.

At bottom, what we see in the charge that Washington Court is “inappropriate” for its neighborhood is a reaction against modern design that stems in part from genuine concern to preserve our architectural heritage, but also in part from a romance with historical pastiche that Postmodernism has done much to encourage. Something of the latter was at work, for example, in an advertisement for the condominiums at Washington Court that offered prospective buyers “a Federal-style duplex.” Of course, the building is no more “Federal-style” than, well, the Greek Revival church across the street. But it is a token of the power of the current, sentimentalizing enchantment with historical stylization that one would call an essentially Modernist brick building “Federal-style” in order to boost sales. In the end, the architect’s original design was accepted with no substantial changes, and by all accounts the public is terribly pleased with the product.

Polshek tells of seeing a couple stopping to inspect his firm’s handiwork. One of the pair pointed admiringly to the building and remarked how easy it was to make good architecture. That, I suppose, is debatable; what is surely difficult is getting the chance to build it.

Roger Kimball
With its facade of warm red brick, limestone, and bands of off-white concrete tile, Washington Court slips inconspicuously into the Washington Square Park neighborhood of New York's Greenwich Village. The building's immediate Sixth Avenue environment, though historic, is perhaps not the most picturesque part of the Village; indeed, one of the best things about the building is the way it interacts with the busy street life along the avenue, all but transforming a nondescript commercial strip. While the building is scaled and detailed to be "context sensitive," especially to the row houses on Washington and Waverly places, it does so without resorting to historical pastiche or what architect James Stewart Polshek referred to as "a lot of surface trickery that would peel off later." (One notices, however, that somewhat haphazard construction renders the detailing less elegant than it might have been.) As Polshek and chief designer James Garrison stress, in its basic design and conception Washington Court remains an essentially Modernist structure, from its steel-frame construction and punched windows to the interior courtyard (opposite), which deliberately recalls Mies van der Rohe's Weissenhofsiedlung in
Stuttgart. Ironically, though the design occasioned considerable outcry when first announced, it was in fact built almost exactly as proposed. The architects rejected a call for a more elaborate cornice and made only two minute changes in the design of the facade: limestone sills were added under the air conditioners, and the few feet of brick on either side of the white bands near the top of the bays were arranged in soldier courses. Polshek emphasizes that while stylistic questions were apparently the sole concern of early critics of Washington Court, style was only one consideration among many in approaching the project (which was, incidentally, built without any variances). In addition to the usual mundane problems of marketing and meeting applicable codes, the building presented substantial technical challenges.

Instead of setting the structure back from the street, the architects decided on a U-shaped building that would reinforce the Sixth Avenue street wall. But this arrangement also placed the first 20 feet of the building directly over city subway and sewer lines, requiring the structure to be cantilevered over subterranean vaults from midblock columns (section below).
The 24 duplex condominiums and four single-story penthouses at Washington Court range in size from 800 to 1,500 square feet. The duplexes each feature a two-story living room (opposite), and many have balconies that overlook the courtyard. All the apartments include oak-strip flooring, wood-burning fireplaces, tile showers, and such contemporary amenities as whirlpool tubs. Because most of the apartments are situated directly over the Sixth Avenue subway line, train vibration and noise were potential nuisances; the architects addressed this problem by specifying compressible neoprene pads, which substantially reduced—if not completely eliminated—the rumble from below. Generously proportioned windows provide an abundance of natural illumination, which is augmented in upper-level apartments by skylights (above).
Buildings of the old school

One of Washington’s major corridors of power extends from monumental porticoes and rotundas along the Mall to intimate drawing rooms on the side streets of Georgetown. Socially and politically, these two domains are barely steps apart. Architecturally, however, they are separated by a disparity of scale and esthetic tenor as unmistakable as the Rock Creek ravine that divides them geographically. Powerful Washingtonians prize the visual contrast between these different realms and wield a formidable array of legal means to keep such distinctions clear (RECORD, January 1986, pages 91-105). Within this urban setting any attempt at infill building is problematic; and from the commercial developer’s standpoint, the task becomes positively herculean when it is complicated by issues of landmark regulation, mixed zoning, as well as the need for negotiation with community groups and both municipal and federal government agencies. All of the above applied to the site for a multiuse complex known as Corcoran at Georgetown, demanding extraordinary strategic skill on the part of its architect and master planner, Arthur Cotton Moore / Associates. The project takes its name from the former Corcoran School, a 97-year-old brick structure at the northwest corner of a 40,000-square-foot parcel auctioned off by the District of Columbia as surplus property. Sadly deteriorated, the Corcoran had most recently housed the D. C. highway maintenance department, which parked its trucks behind cyclone fences in the abandoned playground. Residents of elegant town houses in the surrounding historic district, and businessmen on M Street, the principal neighborhood thoroughfare, deplored the rundown schoolyard. Besides lending an unsavory air to the adjacent stretch of Rock Creek Park, the Corcoran site created a conspicuous, unsightly gap at the eastern gateway to Georgetown from downtown Washington. At the same time, local citizens also feared the intrusion of a hulking modern building. Out in the field, Moore, senior associate Ik Pyo Hong, and their design team patiently addressed these concerns in community meetings; at the drawing board, they grappled with their client’s dauntingly few options for profitable development.

Maximum office and retail space was an economic priority, even though only the strip fronting onto M Street is zoned commercial; the rest of the lot (more than half) is designated residential—a serious dilemma on only 40,000 square feet of land governed by a city-wide 50-foot building-height restriction. The parti that most effectively combined a reasonable financial return with architectural interest was a mid-block “mews” framed by the school, existing storefronts on the southwestern corner (not owned by the present developer), and new construction along M Street and along the northern edge of the site; parking was dug underground. After lengthy hearings before the D. C. Board of Zoning Adjustment, the Old Georgetown Board of the city’s Fine Arts Commission, as well as the full Commission, Moore’s scheme won approval. This success depended on the cogency of an intricate dovetail of architecture and finance. For example, thorough restoration of the school to Department of the Interior standards satisfied preservationists, easing the way to a variance for conversion to offices and ensuring tax credits. The mews provided the theoretical street frontage legally required to lay out lots for five row houses erected to code on the remainder of the residentially zoned area behind the school. By sandwiching additional units of housing in the rear of the M Street office building, Moore not only created a graceful transition from office to residential use, but gained a full 1.5 FAR credit for commercial space (sinking the ground floor partially below grade exempted this entire level from the FAR computation); courtyard access to the apartments obviated wasteful interior circulation. By right, Moore could have stretched the M Street range to fill its zoning envelope, but chose instead to carve into the brick facades, tuck the top story into a glass-mansard attic, and step the roof line down from a corner pavilion. The tower, an echo of older landmarks nearby, gives Georgetown a proper urban gatepost where it meets the “other” Washington. D. C.
A cascade atop the sloping roof of the ramp to underground parking forms an ornamental terminus to the mid-block courtyard, whose reflecting pools and diminutive colonnades whimsically evoke landmarks on Capitol Hill and the Mall. Visibility through metal fences reinforces the courtyard's role as a quasi-public passage, though residents derive a measure of privacy from sunken town-house forecourts (the result of efforts to minimize building heights alongside older dwellings to the north) and walk-up apartment entries. Raising the lobby floor of the M Street building above grade permitted a below-grade zoning bonus, but necessitated the addition of an elevator for the handicapped, which occupies a turret at the northeast corner. Arches and basketweave brickwork repeat decorative motifs on the former school.

Corcoran at Georgetown
Owner: Corcoran Limited Partnership
Engineers: Tadjer-Cohen Associates (structural); Gormley-Wareham (mechanical/electrical/plumbing)
General contractor: Sigal Construction Company
Though their town has always legally been part of San Diego, residents of La Jolla like to think of themselves as dwelling in a quiet enclave far removed from the city. La Jolla was founded as a coastal resort in 1887 and long retained the tranquil charm of a seaside colony; residents still refer to the center of town as “the village.” The survival of this ambience owes much to the wealth and influence of its inhabitants, who include some of San Diego’s richest citizens, and to a gentleman’s agreement about the kind of architecture that seems at home in this setting: small-scale, low-density, and picturesque in a restrained, more-or-less Spanish Colonial manner. Irving Gill, who designed some of his finest houses and public buildings in La Jolla during the first two decades of this century, embodied the discreet romanticism of local taste to perfection. Inevitably, or so it now appears, the idyll was rudely interrupted in the 1960s by developers eager to capitalize on its allure. City approval of a high rise on La Jolla’s Cove galvanized popular opposition to big buildings; but despite the subsequent establishment of a Community Plan, systematic down-zoning, and height ceilings, the town’s commercial space has expanded more than fourfold over the past 20 years, and the concrete, glass, and metal structures that house it are anathema to many who live here.

Patently different from the oversize Modernist office blocks that stir such ire, a new mixed-use building called Prospect Point has become the focus for La Jolla’s most effective campaign to tailor development to its own measure. Drawings of the then-unbuilt project were initially filed for a San Diego Planned Commercial Development permit in 1983, just prior to the city’s enactment of a one-year moratorium on such construction in La Jolla (plans were also submitted to the California Coastal Commission). The moratorium was intended to allow a thorough assessment of the local planning process, a review which in due course yielded a more comprehensive and stringent La Jolla Commercial Area Planned District Ordinance. Ultimate approval of the Prospect Point scheme was doubly significant: having supplied an influential model, in design form, for those who drafted the ordinance, the building would embody the spirit and the letter of the law at one of the most prominent locations in town, a wedge-shaped parcel at the major entrance to La Jolla “village.” Robert A. M. Stern Architects, who designed Prospect Point in association with Martinez/Wong Associates and Wheeler/Wimer Architects, deftly served several masters, installing enough attractive rental office space to justify the client’s investment (without exceeding a statutory 30-foot height limit), creating a sidewalk arcade and bilevel underground garage to further community encouragement of a pedestrian shopping district, and providing two apartments to comply with a Coastal Commission requirement that a pair of houses torn down to clear the site be replaced with an equivalent number of residential units.

To meet all of these demands, the 45,000-square-foot building follows the curved street line to practically fill the available land, although the architects managed to reserve a central courtyard accessible from the sidewalk through a two-story gallery. Lined with stores and a restaurant on the ground floor and loggias above, the patio affords open-air circulation suitable to a southern climate and brings light and views to interior offices. Except for a rear corner taken up by apartments, the two upper stories comprise leasable loft space, laid out on a standard five-foot office planning module adaptable for tenant improvements. Amenities such as French doors, balconies, and trellised terraces belie the pragmatic ordinariness of the basic commercial scheme—and a construction cost just under $50 per square foot.

Clearly, Stern and company have profited from the example of Irving Gill and the architects of other nearby landmarks such as the estimable La Valencia Hotel (small photo). Ornament is sparing at Prospect Point, but skillful massing of stucco walls and placement of openings where they are most likely to tell recall the understated grace of an earlier La Jolla where “the bottom line” was not discussed in polite society. D. B.
Heeding the example of Irving Gill, the architects of Prospect Point abstracted the geometric essence of the Spanish Colonial style to suit a modern economy of means (the structure is poured-in-place concrete with metal studs clad in stucco). Deep, shaded openings and chaste but emphatic moldings, pilasters, and columns articulate the plastic density of simple wall masses. Portals and towerlike bays compose a vertical counterweight to the building’s dominant horizontality; arcades, balconies, and terraces rhythmically vary what could have been the overbearing sweep of a curved facade along the edge of the street. Continuous terra-cotta paving visually draws the sidewalk through the vaulted gallery and into the courtyard. Bougainvillea will eventually cover timber trellises. Irrigation pipes are integral to the building’s mechanical system.

Prospect Point
La Jolla, California
Owner:
The Prospect Point Partnership/
SEG-Southwest Estate Group,
General Partner
Architects:
Robert A. M. Stern Architects—
Thomas A. Kligerman and Graham S. Wyatt, project architects
Associated architects:
Martinez/Wong Associates, Inc., and
Wheeler/Wimer Architects—Gus Bidart, project architect
(Wheeler/Wimer)
Engineers:
Duyn, Lee, Smith, Klein
(mechanical/electrical); Burkett and
Wong (structural)
Consultants:
Cline Bettridge Bernstein Lighting
Design, Inc. (lighting); The
Cambridge Group (landscape)
General contractor:
The Koll Company
Lying low

Although the flashwords efficiency and flexibility invariably top the list of planning objectives, no office building—and certainly no corporate citadel—is merely a business machine. It is also a public profession of what the company is (or wants to be, or wants to be seen as being) and for the people who work there an embodiment, witting or unwitting, of the company ethos. A probe of the agenda underlying the stated requirements seldom need thrust more than skin-deep before striking the sensitive nerves of identity and image.

When Hughes Aircraft Company decided to consolidate its corporate staff in a new building nostalgically near the war-surplus barracks that were its first home, the issue of image was more than ordinarily explicit because more than ordinarily problematic. As a prime supplier of exotic military hardware, Hughes has had scant occasion to curry public favor: missiles need not inspire the consumer goodwill evoked by, say, a familiar red-and-white label on a can of tomato soup. Its aim for its built persona was less to win the community’s affection than to command its respect with a dignified “landmark image” certifying both the firm’s “leadership position” and its fiscal chastity.

Shaping that image, however, was contingent on the successful wooing of a small resident public which was courted not out of courtesy but of necessity. The chosen site was a 20-acre hillside parcel that presented in its 100-foot rise a splendid panorama across a wetlands preserve to the Pacific. It also presented two drawbacks. First, to build there would require changing the local zoning from residential to commercial, amending the city’s general plan for the area, and vacating public streets. Second, the affluent and politically influential homeowners on the bluff above the site enjoyed the panorama too.

Since gaining the necessary entitlements for use of the site hinged on the neighbors’ approval, it was agreed from the outset that the building’s placement and configuration would keep the hilltop community’s unblemished ocean view in sight, and the building and its parking out of sight—provisos that not only set a four-story height limit and forced parking underground but curtailed the available depth. With one dimension left, and a program calling for 450,000 square feet of office space plus a 1,150-car garage, the structure could only stretch endwise in the ungainly 865-foot-long equivalent of a toppled 25-story skyscraper pushed so claustrophobically tight against the bluff that half its occupants would overlook only a steep embankment.

The designers’ response was to push it tighter still. Half of the building is stepped into the hillside; the forward half, a more conventional office block, replicates the original face of the bluff. And the found space between the two is a sweep of skylit atrium (pages 108-109 and 110-111) at the heart of a serene inner landscape that startles with a largesse and lift scarcely hinted by the lumpen exterior.

Rising without ceremony from a narrow strip of formal lawn, the austere facade marches relentlessly—only slightly slowed by such scale-relieving gestures as light-catching faceted spandrals and a generously glazed entrance—through heavy bays whose chilly surface of polished gray granite and blue-tinted glass seems almost to rebuke the warm greens and golds of the grassy blanket spread before it. The tentative promise of the entry, though, is fully redeemed by an interior where open-plan office spaces preserve broad vistas across the atrium and beyond to the sea. From planted terraces on one side, balconies on the other, the span is crossed by pedestrian bridges, with escalators and stairs to link office levels to the landscaped ground-floor street lined by store-front employee services that culminate in a dining area open to an outdoor garden terrace. Though lively with movement, the airy court shuns the forced vivacity such spaces too often borrow from the dubious model of the shopping mall for a low-keyed control supported by sensitive small-scale detailing, conveying a composure the more remarkable for manifesting a corporate culture driven by hardnosed, hard-working scientists and engineers. Margaret Gaskie

© Gregory Murphey photos
The tripartite division of the Hughes headquarters is best expressed at the south end of the building, where the repetitive bays carried from the long front elevation are lightened by the glass wall terminating the atrium and by the strong modeling of the rear office block, which for construction economy was terraced into a self-stabilizing 1-in-2 slope. (Even so, the excavation for the building and the 550,000-square-foot, three-level underground garage beneath it was extensive enough to float an aircraft carrier.) To minimize its intrusion on the view from the residential community on the upper bluff and the fragile wetlands below, the building was crammed into a 5-acre sliver of its 21-acre site and the landscaping confined to the grounds immediately adjacent to the building and its embracing side embankments.

Along the front, an access boulevard set off from the building face by a narrow sloping lawn leads to a formal entry plaza. The steep embankments at the ends, however, are informally planted to frame the structure with natural landscaping, elaborated on the south to a garden courtyard enclosed by terraced balconies, which provides a popular outdoor dining and lounge area for employees as well as a visual terminus for the atrium. A moat beside the dining island off the cafeteria brings the garden within the building’s security envelope and introduces a series of weirs and waterways rising to a large pool centered on a water sculpture. Around them, granite-paved walks amid richly varied plantings lead to a stair that climbs the terrace to a jogging track stretched along the bluff at the rear of the building.
For seismic control, each of the long shallow office blocks was constructed in four 225-foot segments demarked by paired columns (drawing below) and accented on the walls facing the atrium by open joints, which at the balconied face are also framed with cruciform columns (opposite). The structural divisions further suggested abetting the flow of movement through the building with an efficient circulation pattern based on spanning between the seismic packages of the forward and rear office blocks with pedestrian bridges at the center of each segment, from which stairs and escalators interconnect the three upper office levels and the ground-floor street. Internal stairs and elevators add to the circulation options, as do corridors through the compact cookie-cutter service cores that divide and define the open office areas.

To assure ocean views as well as interior views from both sides of the building, 80% of the work spaces are open to the atrium and divided only by low privacy panels. Full-height walls are confined to the fourth-floor executive suite and to support areas, including such street-level enterprises as personnel services, training facilities, auditorium, credit union, health club, and food services. Although the street at its base is relatively narrow, the upper terraces expand the atrium’s usable space to 80,000 square feet. To balance the daylight pouring from above with the office lighting, the coffered skylights are glazed with laminated glass that cuts light transmission to 15 percent.
On entering the Hughes building one immediately faces (apart from a tight security gamut) the escalators traversing the terraced north end, so the full volume of the atrium is introduced gradually. Despite its size the space revealed is rather welcoming than overbearing, its austerity warmed by the filtered brightness of the Southern California sun, the lush planting that screens and domesticates its forbidding length, and the sensitive calm of its detailing and palette. The stern gray exterior facing is transmuted to elegance in a tartan floor of honed granite plaided with polished strips (whose rhythm is echoed in brushed stainless and enameled steel balcony and stair railings) and the polished-granite copings of the terrace faces, which are also underscored by the black-painted linings of the linear air returns. In addition to the breaks at the seismic joints, the crisscrossing pedestrian bridges, a recurring carpet stripe, and terrace and plaza plantings of varied height help to reduce the atrium's long expanse to comfortable human scale.

Corporate Headquarters
Hughes Aircraft Company
Los Angeles, California
Owner: Hughes Aircraft Company
Architects/engineers: Skidmore, Owings & Merrill / Los Angeles—Richard Ciceri, project partner; Maria Peiko, design partner; John Mattheus, project manager; Ron Frink, senior designer; Bruce Toman, technical coordinator; Lauren Carpenter, structural engineer; Karen Mukshi, landscape designer
Engineers: James A. Knowles Associates (mechanical); Levine and Seegel (electrical); Psomas Associates (civil)
Consultants: Environmental Planning and Research, Inc.; Interior Architects, Inc. (interior design); David A. Mintz (lighting); Rafe Afeck Studio (water sculpture)
Developer/contractor: The Koll Company
Child's play

Grownups who recall a child's world as a realm where solemnity and purpose reign hand in hand with discovery and delight will greet this unassuming school for the very young with a nod of recognition. Its simple, clear forms might have been constructed from a set of building blocks; its artless schoolhouse imagery rendered in Crayola. But it sidesteps the condescending cuteness too often mistaken for child-appeal in favor of a lighthearted dignity proper to its place and use.

By a quirk of timing, the Countryside Montessori School was the first building up and occupied in the emerging 250-acre residential and commercial core of a much larger planned community sparked by the combustive growth of the nearby campus of the University of North Carolina at Charlotte and an affiliated research park. This unwonted prominence, heightened by the conspicuousness of a large site along the principal thoroughfare through the complex, prompted architect David Furman to announce the school with brick "billboards" on the public facades, where lopsided, sawtoothed gables thrust low walls around an enclosed play yard, coming together at a cozy peak-roofed playhouse made to the measure of pint-sized people. Half concealing, half revealing the school they embrace, the sedate screens at first suggest a solemnity quickly deflated by engaging details: a twisty metal spire atop the playhouse; a tall wind-whipped flagstaff; giant
concrete jawbreakers balanced on chubby columns; and the stencil
cutouts of a four-square window, a not-quite-circle punched through a
chunky non-chimney, and an arched portal guarded by wrought-iron
“Mr. Gate” (photo top right), sporting a bowtie, buttons, and a smile.

On closer approach the snug domesticity hinted by glimpses of the
school across the play-yard wall is confirmed by a simple L-shaped
building spreading long, low, cedar-shingled wings beneath a gently
sloping dormered roof. At the drive-by corner entry, arriving
youngsters are welcomed by a paradigm of the old-time country
schoolhouse, from the broad sheltered porch nestled behind a shallow
arch to the sketched-in turret with a bull’s-eye opening for a pretend
schoolbell. Coming into the building (plan page 115), they can peek
through the administrative office for an anticipatory (and orienting)
peek at the play yard and the little pavilion at its far corner before
traveling the branching perimeter corridors that take them to their big
sunny classrooms. Dormers and clerestories above each classroom door
mark their destinations along a path cheered by light and views from
child-high openings alternating with ordinary adult-height windows.
From the exterior, the same bouncing rhythm of window and dormer
brightens the long elevations and reinforces the duality of scale that is
among the school’s subtle salutes to its small inhabitants. M.F.G.
In keeping with the tenet that play is the work of children, the interior of the Countryside school provides a neutral noncompeting envelope for the tools and activities concentrated within its spacious uncluttered classrooms. Expanded upward by what architect Furman refers to as "token vaults" rising to 12-foot-high window walls tucked under broad eaves and latticed sun visors, the spaces also extend outward to the terrace edging the play court, where low semicircular sitting walls define private patios used as outdoor classrooms. Similarly, the court opens out, courtesy of Mr. Gate, to a big bermed playground for organized games. Modest by necessity—the budget was only $35 a square foot—as well as conviction, the simple frame structure is clothed in muted colors and homely materials: white and grape trim against gray shingle siding for the schoolhouse, mauve-gray sandbrick with crisp white-block rick-rack edging for its billboard enclosure.

Countryside Montessori School
University Place
Charlotte, North Carolina
Owner:
Carley Capital Group
Architects:
David Furman/Architecture—
David Furman, principal; Pete Ebersole, project architect; Andrew Lustig, Michael O'Brien
Landscape architects:
LandDesign, Inc.
General contractor:
Strickland, Inc.
Splendor on the grass
No gentle quad, the heart of Wesleyan University is an immense meadow with a cinder track, goal posts, and the well-worn circuit of a baseball diamond where one looks for stately groves. The affections of the college community are engaged by this scruffy playing field not only for its dominating presence or the games people play there but for the pleasures of its frame. In fast-descending New England dusks, its western border of capacious, well-spaced manses, known to insiders as Brownstone Row, silhouettes against the panorama of the Connecticut River Valley a dotted line of solids and voids continued on the south by a trio of buildings centered on the library. The latter, a 1928 McKim Mead & White classic with a handsome rear wing is fondly recalled by generations of students as the backdrop for graduation ceremonies held on a marble terrace and podium descending to Andrus Field.

In middle age, the library's design remained distinguished, but makeshift efforts to cope with a quadrupled student body and doubled collections had rendered its once-proud interiors, as a professor complained, "shabby, overcrowded, maltreated, and uninviting." Unable to find seats, students spilled into halls and stairwells. The majestic reception hall was embarrassed by a welter of bookshelves and study tables. Resources were fragmented; services suffered.

When the college at last brought to Perry, Dean, Rogers & Partners its decision to undertake a major renovation and addition—and a long wish list—the first task was whittling the program to fit the budget. As predesign moved to design, though, a more delicate question arose: where to put the needed addition? To the college the facade looking to Andrus Field was succosant; the architects were reluctant to dilute the distinctive broken profile of the ensemble it starred in. Early schemes, principal-in-charge Steven Foote recalls, proposed placement "fore and aft, left and right, and underground," but all would uncouple the reference departments requiring the largest single floor area, or remove them from the main level—both anathema to the librarian. In the end, symbolism gave way to the sense of wrapping a graceful U-shaped extension around the existing stack wing. Sense, though, was tempered by sensitivity to the totemic importance of the classical facade, which was preserved as the inner wall of the new reference room and echoed in an outer wall curved deferentially to maintain the integrity of the buildings and intervening spaces on either side.

The plan reflects the logic of a compositional sequence from grand entrance to grand destination via corridors along the stacks, reinforced by carrying through the existing vertical module of 7 1/2-foot-high stack floors multiplied to 15 feet in most rooms and corridors and 30-foot ceilings in reception areas. It was also shaped, however, by the decision to disengage intermediate floor structures from the exterior with a slot of "waste" space—stauchly but unsuccessfully resisted by some of the library staff—that allowed outer windows to rise independent of the disparate interior spaces. The inner enclosures were then made permeable to bring even to the depths of the stacks a link with the outdoors or the soaring sun-bathed reference room. More directly, cunningly placed interior windows tease the eye to miniature vistas and telegraphic views, creating a pervasive sense of openness and ordered interrelationships as well as the delights of surprise.

In composing the new facade, the designers were blessed, they say, by the last-gasp uncovering of the misfiled, crumpled, dirty—but original—McKim Mead & White drawings. Their magnified and simplified interpretation reproduces the dominant arched windows, with the sole refinement of replacing the architrave with a band of green glass to enlarge the glazed opening. The brickwork and limestone detailing, however, aimed for streamlining profiles to the extent possible without sacrificing boldness of relief, and excluding static vertical detail that would mar the taut sweep of the curve. In its stately repose, the facade the building presents to Andrus Field breathes the care with the outdoors or the soaring sun-bathed reference room.
The admirably simple plan moves from reception hall to reference atrium by way of corridors around the stack block, with subsidiary functions on either side. The architects contrived the three-story-high reference atrium (opposite), while adding 300 study spaces, in part by filling in the imposing but inefficient 15-foot-high "super-corridors"—and every other unassigned cranny, plus an attic floor (not shown)—with carrels or shelving. Again using the old to enhance the new, they salvaged stout oak study tables and brass lamps for the reference room. And ignoring the shibboleths of library illumination, they relied wherever possible on downlighting and task lighting that gives the scholar a private pool of brightness, augmented in the reference room by little half-rounded bookshelf fixtures.

Foote's own shibboleth, though—play with light and transparency—is indulged: openings in the corridors marching to the rear wall converge on tiny oriel windows and timier attic windows, from a third-floor bridge (top) matched, dentil-like windows look out to Andrew Field and in to the facade that oncefronted it; in the reference room, students in suspended, glass-edged reading rooms (above) survey the field through a grid layered against the outer windows, with side glances to the atrium. The multiple vantages framing it also heighten the theatrical impact of the classical facade. Intended for viewing from afar, its rough-hewn details acquire at 6 feet (or 16) a surreal grandeur oddly combined, as an admiring recent graduate notes, with intimacy: "You can walk through its windows and stroke its marble."
"The trick," Foote says, "was to make the old building more efficient so the new one could be smaller." The architects did, and it is—by half—the college’s first space estimate. The greater trick was to do so (and also revamp the mechanical systems) while preserving the important period rooms—a feat achieved "by shuffling the smaller pieces" to rationalize their organization, using found space wherever found, and exploiting the high ceilings with such devices as lofts in the microforms department and rooms within-rooms in the special-collections area (ground floor plan). Many of the spaces needed only cosmetic work—"repairs and a coat of paint," according to Foote, who in fact stitched them together with carefully thought out and beautifully executed transitional details—but the more splendid rooms were fully restored. Memorial Hall, the imposing reception room (opposite), for example, was rescued from years of grime obscuring its ornate elegance, a maze of shelves and tables blocking the circulation desk (now relocated), and the crowning indignity of a copier stuffed in a corner once graced by a palm. The more sedate Smith Reading Room (above right) was similarly scrubbed and polished and painted in modulated tones of rose to set off white trim and "used" tables and lamps refurbished and joined by new seating. The consistent attention to detail is evident even in the basement, where the old foundation is exposed in newly encircling corridors, and a piece of the balustrade removed when the windows of the original classical facade became doorways adorns the windowed wall between the periodicals reading room and the technical services area (right).
On the waterfront
On a spring day in Cincinnati, Michael Graves is more than likely to find the Riverbend Music Center under water. No matter: By early summer the 5,000-plus plastic seats will have dried off, the dressing-room windows will have been unboarded, and the electrical and sound-system wiring (94 miles of it) will have been lowered from the ceiling in time for the reopening of the summer home of the Cincinnati Symphony Orchestra.

The siting of Riverbend on a flood plain was no accident; in fact, the 15-acre lot along the Ohio River was donated by a local philanthropist, who envisioned the swampland transformed by an open-air music hall. Located 13 miles east of downtown on Old Coney Island, the pavilion replaces an amusement park that in its heyday had rides and attractions to rival its East Coast namesake. In addition to hosting a brief season of orchestral concerts, Riverbend provides a temporary spotlight to performers ranging from Jean-Pierre Rampal to Linda Ronstadt, Pat Boone to the Eurythmics, and Liberace to Pete Seeger—a lineup much in the spirit of the "come one, come all" extravaganza that once stood on the same ground. Riverbend's program offers something for everyone, and its architecture is equally eclectic.

The challenge of waterproofing the pavilion and counterbalancing the sonic loss experienced during alfresco performances were met without apparent compromise to Riverbend's fanciful imagery. (For details on Riverbend's acoustical design see pages 130-133.) Set into a grassy hillside that supplies additional room for spectators, and bounded by a 660-foot-long colonnade (right), the Riverbend pavilion looks like some castle out of a fairy tale. Having graduated from the University of Cincinnati, Graves was particularly in tune with the milieu. Influenced by the forms of the truss bridges spanning the Ohio River and the Victorian steeples of Music Hall, the orchestra's permanent downtown home, Graves's architectural "references" at Riverbend are unusually to the point. The painted concrete box, framed by latticed towers and capped with steel flags, is right at home in the idyllic waterfront setting. "It's not a controversial project," admits Graves, perhaps with welcome relief, since for the most part his work has met with anything but ready acceptance. But for those who may fear, or rejoice, that Graves's penchant for architectural storytelling has dulled, the figures on the roof will offer evidence to the contrary. Unwilling to sacrifice the "façade" to the basic necessities of an open-air pavilion, Graves made the enormous roof a decorative backdrop for eight 20-foot-high "statues." The result is a false front more typical of a Western movie set than a theater for live-audience performances, which
The J. Ralph Corbett Pavilion at the Hulbert Taft Jr. Center for the Performing Arts, as Riverbend is formally called, was named for the principal contributors to the building fund. The former is a Cincinnati entrepreneur, who made his fortune on a patented door-chime and was perhaps eager to repay his debt to the music business; the latter is a local philanthropist and a descendent of our 27th president.

Located on a bend of the Ohio River, the pavilion was designed to withstand spring's rising waters. The concrete block (left), which contains generous-size dressing rooms and offices, forms a retaining wall to the eroding shores. On more popular nights, the audience is spread from the front lawn to the back water, where people anchor their boats for a free sampling of the evening's program.

supplements the pavilion's narrative potency. Inspired by 18th-century grisaille paintings, whose seemingly full figures fooled even Graves on a recent visit to a Bavarian church, the architect enlisted New York artist Edward Schmidt to design billboard-like sculptures that would stand, inexpensively, as symbols for the program. "I know what three-dimensions cost," insists Graves, who also knew that the modest $7.5-million budget did not have what it took. After dismissing the idea of modeling the cutouts on composers (prompted by the Cincinnati Symphony Orchestra board's inability to agree on exactly who the top eight composers of all time were), or on instruments, Graves and Schmidt decided to create their own version of the musical muses.

Schmidt's designs were translated into elaborate silkscreens that were mounted on porcelain enamel panels by printmaker John Nichols. Ancient-style instruments in hand, the octet strike suggestive, close-heeled contrapposto poses, and their columnar shape recalls the caryatids supporting the Erechtheum's Porch of the Maidens (in this case, however, the draped female figures hold up only air). Whether the evening's musical fare is classical, "easy listening," or hard rock, the rotund ladies march along the cornice line, stomping to a distant beat of their own making. Karen D. Stein
Although Riverbend celebrated its official opening on July 4, 1984, the pavilion was not entirely complete until July of this year, when the eight 20-foot-high figures were finally placed on the roof. The "statues," along with the 660-foot-long semicircular colonnade that forms an end-piece to the grassy berm, contribute to Riverbend's stylistic cacophony. Concession stands, public bathrooms, and offices, entered from the parking lot, are housed inside the pergola, providing a humorous twist to Graves's classical reference. The front lawn can accommodate over 10,000 spectators (in addition to the 5,000-plus seats under the roof), who come well-prepared for an evening of entertainment with folding chairs and picnic dinners in tow, and its contours mimic the controlled slope of an indoor performance hall. Although Riverbend may conjure up visions of ephemeral outdoor tents, don't let the imagery fool you. The open-truss steel columns and towers, which increase the opportunities for river views, and the flat statues are decidedly permanent. However, the castle-like assemblage set into a lush backdrop does invite fantasy, as our photographer, who couldn't resist being immortalized in the sweeping panorama, will attest (below).
Riverbend Music Center
J. Ralph Corbett Pavilion
Hubert Taft Jr. Center for the Performing Arts
Cincinnati, Ohio
Owner: Cincinnati Symphony Orchestra
Architect: Michael Graves, Architect—Michael Graves, principal-in-charge; Thomas Hanrahan, job captain; David Teeters, project manager; Karen Wheeler Nichols, associate-in-charge; Yossi Friedman, Nick Gonser, Robert Martino, Victoria Meyers, Anita Rosskam, Steven Sivak, and Keat C. Tan, project team
Associated architects: Carl Strauss and Associates—Ray Roush, project manager
Engineers: DeSimone Chaplin and Associates (structural), Lorenz and Williams (mechanical/electrical/civil)
Consultants: Christopher Jaffe (acoustics), Roger Morgan Studio (theater)
General contractor: Frank Messer and Sons—Peter Strange, project manager
Statues: Edward Schmidt (artist); John Nichola Printmakers (fabrication)
Sounding out Riverbend

By Mark Holden

Michael Graves's pavilion (preceding pages) is not only a viable, successful concert hall for the Cincinnati Symphony Orchestra but also a multipurpose, 5,000-seat vehicle for the Cincinnati Opera, touring Broadway productions, as well as country-and-western and rock-'n-roll concerts. Jaffe Acoustics, Inc., Riverbend's acoustical consultants, brought to this handsome new music center lessons learned from its work at Blossom Music Center, Concord Pavilion, Ravinia, and other outdoor pavilions. Mark Holden, a principal in the firm, describes the design of Riverbend as the first fully integrated, high-tech outdoor multipurpose performing arts pavilion using ERES (electronic reflected energy system), while discussing the center's other acoustical applications.

Traditional symphonic music was written for and performed in "live" reverberant rooms. The liquidity and resonance of traditional concert halls enhance the music experience for audience and musicians alike. Unfortunately, that same wonderful environment, which creates warmth and resonance in symphonic music, can cause havoc with amplified performances. High power speakers can fill the reverberant space with sound energy, creating a boomy, muddied performance instead of the tight, crisp, modern sound one experiences in recordings done in studios. The requirement of a variable acoustic environment for symphonic, operatic, and amplified performances within the confines of an outdoor, seasonal shed required imaginative solutions.

The key elements required for symphonic performances are reverberation, warmth, and early reflections in a subtle balance. A different balance, one with less reverberation and warmth, is needed for popular programming. The variability is achieved at Riverbend through a combination of physical acoustics and the ERES electro-acoustic system. ERES is not amplification. It does not affect the direct sound from any source on stage. Rather it produces three-dimensional tuned reflections emanating from a multitude of directions identical to the "natural" reflection that would occur were the real surfaces of a concert hall actually there. For example, early reflection speakers are affixed to the underside of a catwalk (photo above). From these devices, carefully delayed, shaped replicas of the direct sound are produced, much as a large overhead sound reflecting surface weighing many tons would provide. (Such a reflector would be more expensive and would lack the fine adjustment capabilities possible with calibrated controls.)

In effect, ERES creates an invisible analogy of a smaller, narrower concert hall of carefully planned characteristics within the Riverbend pavilion. Early reflections are provided simulating the surface sizes, shapes, and materials characteristic of the finest halls. Warmth is added, analogous to halls such as Carnegie, where low frequencies bloom and increase in level after the first few milliseconds, then gradually decrease in level after the first few hundred milliseconds. Reverberation, less than optimal in a space with no side or rear walls, is augmented providing liveness and body reminiscent of the great concert halls. With ERES off, the pavilion's acoustics are more sympathetic to amplified events.

Critical to any musical performance facility today is the sound reinforcement system, particularly at a pavilion where the lawn audience's (10,000 + people) entire experience comes via the system. Riverbend's sound system was custom designed to meet not only the widely varying program but also the harsh condition of yearly floods (50-year flood levels 30 feet above the stage).

The reinforcement system within the pavilion was designed for a range of uses from subtle amplification of soloists to heavy metal rock 'n roll. It consists of six primary speaker clusters mounted on the catwalks for ease of service. Each cluster is tri-amplified with the addition of sub low frequency (SLF) supplements for a total of 1600 watts each. Because of the flood conditions, all amplifiers are located at the catwalk level along with their connectors and power (plan diagram page 133). The main sound reinforcement console position is semipermanently located at the pavilion rear. At season's end, all sound cables retract into the ceiling, safely above the ice floes and logs.

The lawn system is similar to the pavilion system in concept: 12 tri-amplified speaker arrays with sub low frequency supplements are located behind the sound transparent grilles and roman crosses that comprise the pavilion fascia (lower photo, page 132). Most listeners are bathed with sound from three or more arrays because of their tight spacing along the fascia. This creates more than extra sound punch for the lawn; it tends to enlarge the apparent speaker location by providing multiple replication of the image at the listener, much as ERES reflection patterns tend to "fatten" symphonic sound.

Now in its third season, Riverbend has held almost every type of musical performance for which it was acoustically designed, and has turned out to be an acoustical, as well as a popular success.

©Paul Warchol photos
To create an "electronic architecture" where an architecture of walls could not exist, Jaffe Acoustics developed ERES (electronic reflected energy system). The ERES at Riverbend employs six tiny flush-mounted microphones, two at the rear of the concert enclosure for chorus, two at the stage front for overall balance, and two in the forestage reflectors for soloists (plan diagram, opposite). Signals from these devices are processed, shaped, and set at precise calibrated levels. Outputs are sent to either the early reflection speakers on the catwalks and at the pavilion rear, or to the warmth and reverberation sections in the stagehouse where a patented reverberation device creates multiple replications of the input signal, shaped to augment the pavilion's own reverberation for liveness, liquidity, and immersion. (Here, reverberation is defined as the time for sound to diminish by 60 decibels). This state-of-the-art system provides early reflections by simulating surfaces correctly positioned for ideal reflections in all parts of the pavilion, thus augmenting clarity, articulation, and brightness. In compensation for the pavilion geometry, ERES provides the tonal "body," richness, and the bloom of the bass tones, which together are critical to a positive symphonic experience. The cohesion and majesty required for symphonic music was developed through coupling the reverberation in the concrete stagehouse with a lightweight fiberglass concert enclosure. In addition, the roof of the pavilion was made of 3-inch-thick wood decking for superior sound reflection. To solve the problem of providing a long reverberation time for symphony and a shorter one for amplified music, permanent sound absorption panels were affixed to the rear portion of the ceiling, and reverberation augmented by the ERES was utilized. When the ERES is on, the reverberation time is increased by approximately four-tenths of a second. Body and richness of bass tone (warmth) must develop within the space. Late-arriving low-frequency energy is produced in the concrete stagehouse volume above and around the concert enclosure and augmented through the ERES warmth system. Early reflections (sounds received by the ears during the first 30 thousandths of a second after the arrival of the direct sound) contain information essential to definition, articulation, and intelligibility of music and speech. If these reflections are not present, or occur too late, music will be dull and lifeless (even if "loud" enough). In the pavilion, early reflections are developed by the concert enclosure, the suspended forestage acoustic reflectors and the pavilion ceiling. The physical immensity of a 5,000-seat pavilion precludes the possibility that surfaces will deliver these early reflections to all seats at correct time arrivals. Therefore, the ERES early reflection system was employed to provide those reflection patterns that were lacking.

Riverbend Music Center
J. Ralph Corbett Pavilion
Hulbert Taft Jr. Center for the Performing Arts
Cincinnati, Ohio

Owner: Cincinnati Symphony Orchestra
Architects: Michael Graves, Architect; Carl A. Strauss & Associates, associated architects
Acoustical consultants: Jaffe Acoustics, Inc.—Christopher Jaffe, principal; Mark Holden, principal and project consultant; Gregory Kachtronich, concert enclosure designer; Marc L. Beningson, sound system project consultant; Chuck McGregor, sound system designer; William Lobb, ERES designer; Louise Frymann, designer
INITIAL TIME DELAY GAP

\[ \text{ITDG} = \frac{d_R - d_D}{C} \]

WHERE:

- \(d_R\) = REFLECTED SOUND PATH, FT.
- \(d_D\) = DIRECT SOUND PATH, FT.
- \(C = 1128.5\) FT/SEC. (SPEED OF SOUND)

1. ERES microphone
2. Early field speaker (ERES)
3. Late field speaker (ERES)
4. Sub low-frequency speaker (ERES)
5. Implantation microphone (ERES)
6. Cluster-mounted amplification speakers
Acoustics: handcrafted in Jamaica

By Mark Holden

The bustling city of Kingston on the Caribbean island of Jamaica is the economic, industrial, and governmental heart of this nation of 2 million. While famous for being the birthplace of reggae, Kingston hasn’t the white beaches, waterfalls, and nightlife to attract visitors and foreign currency. The Urban Development Corporation of Jamaica (UDC) vied long and hard with larger and more established nations to attract a new body of the United Nations, the Seabed Authority, to the island. The architect in charge of the project was the U.S.-trained, UDC staff architect, Patrick Stanigar. Stanigar and the UDC staff architects and planners designed a showcase of Jamaican art and crafts while at the same time meeting the complex needs of a U.N. international lawmaking body. My firm, Jaffe Acoustics, Inc., did the acoustical design for all the simultaneous interpretation systems and acted as consultants for the many public and technical spaces.

Of course, central to the conference center facility are the conference rooms themselves. The conference hall (page 136) is the largest space with the most extensive facilities. In addition, there is a 556-seat conference room, and three meeting rooms (page 137) each of which can accommodate 156 persons. All of these spaces have state-of-the-art, six language simultaneous translation facilities, sound-isolated interpretation booths, and control rooms for complete system operation. The largest meeting room, known as the bamboo room (page 137), is the most popular of the facilities. Privacy and confidentiality are critical to many of the sensitive meetings held in the conference center. Sound isolation doors, common in this country, are expensive and rare in the Third World. As a result, we designed heavy wood doors sealing all acoustic vestibules at every conference room entrance. In these rooms and elsewhere in the building we used brightly painted woven wicker baskets containing loose bat fiberglass stuffed in garbage bags to provide efficient full frequency sound absorption. This acoustic basket concept was used in all corridors, the cafeteria, and private dining spaces and, in a flattened version, in the harbor lounge.

As these examples illustrate, it was clear to us that traditional solutions to providing acoustic control were too expensive, unavailable, and most importantly, not part of the overall concept of making the space uniquely Jamaican in character. The strong desire on the architect’s part to use locally available materials and crafts such as bamboo, wicker, reeds, and limestone, required rethinking the formulae for room acoustics. The results, described on the following pages, are a unique blend of high-tech acoustical concepts carried out through low-tech local craftsmanship, a happy combination responsible for the building’s rich playfulness.
Treatment of the large public circulation and gathering places typified Jaffe Acoustics' low-tech approach. The concrete waffle slab ceiling, concrete walls, and ceramic tile floors required acoustic treatment to eliminate the boomy, cave-like sound. A common solution, the installation of acoustic tile, seemed inappropriate. Taking a cue from a wicker wastebasket Jaffe developed the "acoustic basket."

Wicker baskets, containing lightweight black plastic garbage bags stuffed with fiberglass were fixed to the center of the waffle slab coffers with stainless-steel straps and large handcrafted ceramic washers (top right and bottom left and right photos). The coffers around the sea of baskets reflect sound into the baskets where it is then absorbed. Shown at top left is the entrance court.
Accommodating up to 900 persons, with 241 delegates at desks, the conference hall (this page) has simultaneous translation systems for six languages and an electronic voting system, both custom designed by Jaffe. In addition to the podium, there is a portable circular stage, which is used for dramatic, music, and dance programs. Overhead acoustical reflectors provide early sound reflections to the seating area for presence and clarity while sound-absorptive fiberglass material placed on the rear walls behind giant 4-by-10-ft hand-woven wicker panels, control reverberation. The bamboo room (opposite page) and the other two meeting rooms were created within an existing concrete, barrel-vaulted warehouse on the site. To minimize destructive sound focusing from the curved vaults and to optimize the acoustic environment for ease of intercommunication required sound-absorptive materials on the underside of vaults. The use of 3-to-4-in. diameter bamboo with 2-to-3-in. gaps, makes the undulating bamboo ceiling sound transparent but appear solid. This allows sound penetrating between stalks to be partially absorbed by the two-inch thick absorptive material on the vault surfaces. Because the sound absorption does not cover 100 percent of the vault, but rather is patched 50/50, diffused reflected sound returns through the bamboo evenly, providing a warm room sound to match the warm golden bamboo ceiling. The side walls are bent mahogany plywood covered with macramé hangings. The plywood not only works as a sound diffuser, eliminating flutter echoes from parallel side walls, but also provides low-frequency sound absorption.
Entry hall plan:
1. Meeting room
2. Caucus room
3. Interpreters' room
New products

Tea is served

When you hear the splash
Of the water drops that fall
Onto the stone bowl
You will feel that the dust
Of your mind is washed away.

Sen Rikyu, 16th-Century Japanese Tea Master

Design ed with the ancient precepts
of Chado, the Way of Tea, in mind, the
Space of Nippon prefabricated, portable tea rooms (shown above) are decidedly 20th-century adaptations of the sacred Chashitsu (tea room). Although Japan’s first tea seeds were brought from China in 805, it was not until the mid-15th century that Chanoyu, as the Japanese tea ceremony is called, actually began to be practiced. Performed in a small, bare room, the ritual exhibits the four virtues set forth by Sen Rikyu, Japan’s renowned tea master. These virtues—Wa (Harmony), Kei (Respect), Sei (Purity), and Jaku (Tranquility)—represent an integral part of the ceremony, the central point being not so much the drinking of the frothy, green liquid as attaining a feeling of serenity. The simple design of the tea rooms also adopts these same principles. The Chashitsu is bare, with the possible exception of a seasonal flower arrangement, hanging scroll, or simple ornament in a tokonoma (alcove). The Space of Nippon rooms are available in six models; may be ordered in custom colors and sizes and with special options; and can be adapted to an existing room or entryway. An outdoor model for patios or gardens is also available.

Kan, a 3-mat room (top left), is the smallest model and features a tokonoma ceiling made of a bamboo-rod lattice over a woven pattern of narrow cedar strips. Two sliding, wood-lattice doors covered with a layer of rice paper serve as the entryway for both guests and master. En (top right), the largest model with six mats, may be specified with an optional veranda or sunken sitting well. Ku, another 3-mat room (bottom right), features an alcove, a separate arched entryway (left) for the tea master, a tsuridana (hanging shelf), and a central pillar of Japanese cedar. This model also features a daimegiri, or three-quarter host’s mat, that is typical of the soan (thatched hut) style of architecture. The Space of Nippon tea rooms combine the raw materials, natural lighting, and spirit of design that Sen Rikyu himself would perhaps be happy to serve in. Fuji Group America, Inc., Los Angeles. Eileen Gabrielle Circle 300 on reader service card
The Bradley 90-75

Until Bradley designed the 90-75, savings from metering faucets seldom outweighed the headaches.

Faucets that turn off too quickly or stay on too long, sprays that either splash or dribble, maintenance that never seems to end — the Bradley 90-75 has eliminated these headaches once and for all.

Unlike many faucet designs that severely restrict an orifice to vary their metering cycles, the 90-75 utilizes a generously sized bypass orifice and variable piston stroke. The orifice is protected from waterborne sediment by two filters; one at the stop and one within the cartridge. This unique configuration assures consistent timing — at water pressures from 20 to 100 psi.

All working parts, including the flow control, are contained in a compact cartridge. Because it’s hidden inside the faucet, the cartridge can’t be removed by vandals. Yet if maintenance is ever needed, a new cartridge can be popped into place in seconds — just about as easily as you’d change a flashlight battery.

The 90-75 keeps a reliable rose spray pattern, thanks to a unique self-cleaning feature. Every time the faucet is turned on, water pressure forces a rubber diaphragm inside the spray former to “flex” off any mineral deposits. So the nonsplash action stays nonsplash.

Easy to adjust, the 90-75 can be set for cycles from 5 to 20 seconds by turning a screw — without turning off the water.

And because it’s so easy to activate, the 90-75 meets all barrier-free codes.

These are just a few of the ways our 90-75 meters water better. Find out the rest by returning the coupon, by calling 1 414 251-6000, or by contacting your Bradley Representative.

I’d like to know more.

☐ Send me the comprehensive Bradley brochure with acetate overlays showing exactly how the 90-75 gets the job done better.
☐ Have a Bradley representative call to show me how the 90-75 works better.

Name/Title __________________________

Company __________________________

Address __________________________

City __________________________ State ______ Zip ______

Telephone __________________________

Return coupon to: Bradley Corporation, Dept. AR102, Fountain Blvd., Menomonee Falls, WI 53051.

Bradley 90-75 is a trade name and not an ASHRAE designation.
The architects wanted a distinctive glazing. An appearance that would set their building apart. But that wasn’t all they wanted. They also needed the glazing to effectively screen solar heat and the damaging effects of UV radiation on draperies, carpeting and upholstery. Tough challenge? Yes, but there was even more. The glazing also had to deliver the safety performance essential in a large, busy hotel.

The answer turned out to be easy. Laminated glass with a Saflex® interlayer could match the desired color.

When the building is mostly glass, you want the most beautiful glass you can find.

Beautiful! It was an unusual, distinctive shade of blue. And only one glazing—laminated glass with tinted Saflex interlayer could match the desired color.

Controlling costs by controlling the sun.

Add up cooling costs and replacement of sun-faded furnishings, and you’ve got a sizeable expense.
Glass and safety have to be considered together.

The risk of impact with glass can be high in a hotel like the Anaheim Hilton & Towers which bustles with people on the go. But with laminated glass, the danger of injury from broken glass is minimized. Laminated glass has the unique characteristic of remaining integral if broken because of the adhesion of the glass to the interlayer.

If you have a design challenge for laminated glass or want more information, call 314-694-5450 or write Monsanto Polymer Products Company, 800 N. Lindbergh Blvd., Dept. 804, St. Louis, MO 63167 for a laminated glass brochure.

Laminated Glass. The more challenges you have, the better it works.

Monsanto

SAFLEX® PLASTIC INTERLAYER
Walker’s new Triple-Service Afterset cuts the initial cost of an infloor system by up to 20%.*

*Percentage shown is the average share of total roughing-in cost for cellular raceway, in Walker’s experience.

3-service access in a single recessed unit— a Walker exclusive.

Double-duplex capability.

Installs in concrete—drilled hole at any time.

Shown installed on Walkerdeck™ cellular deck for steel construction.

Activation can be completely hidden, with only wires showing.

A Walker infloor system for PL (power, lighting, electronics, communications) distribution can be the key to providing the wiring capacity, flexibility and aesthetic appeal which business and owners expect from today’s “intelligent” building. Until now, approximately 20% of the initial cost of these systems was eaten up by a network of preset inserts (in the concrete) that allowed services at specific points. The development of our unique Triple-Service Afterset offers a way for developers and owner-occupants to save on initial costs and still maintain the inherent advantages of both.
I and Walkerdeck systems.

-Service Afterset is installed
crete is poured, even after
said. Cost savings are realized
illing aftersets only when
re service activations are
instead of making the larger
ment for a complete system
. This option allows you to plan
ing's PLEC distribution with
re preset system, complete
ystem, or a combination of both.

Afterset offers recessed
ivation in a single unit.
iple-Service Afterset is
to bring services out of the floor
rom a recessed activation which can be
pletely hidden under carpet or fitted
lange rings which are flush with
carpet or tile. So installing or relocating
ervice activations has no adverse effect
on interior aesthetics. All three services
ower, data, telephone) are accessed
om the same unit—a major advantage
enied with other products
hich require separate above-floor
tings for each service.

If initial cost has stood in the way of
giving your building the most capacity
nd the greatest flexibility any PLEC
istribution system can offer, find out
ore about the new Walker Triple-Service
fitting.

Also compatible with WalkerCell™
cellular raceway for slab-on-grade
or reinforced concrete construction.

Afterset. Our infloor systems are already
atching the complex needs of the
"intelligent" building. Now they can also
fer a more attractive match with your
ottom line.

Contact us: P.O. Box 1828, Parkersburg,
WV 26102. (304) 485-1611.

Circle 67 on inquiry card
Round and round
CenterCore's *Spacemakers* line of open-office systems addresses several of the most pressing problems facing automated offices today—efficient use of space, wire management, and improved air quality. According to the manufacturer, the use of circular configurations can reduce required square footage by 40 percent and increase the size of actual work surfaces by up to 75 percent as compared with conventional rectilinear systems. The *Spacemakers* line is available in a variety of configurations, designed to serve three or more persons, including the *Penta Pod* (top right), *Pod, Four Plus One*, and *Tripod Plus Two* (clockwise bottom). These units may be specified in oak, walnut, cherry, and almond, and can be ordered in sound-absorbing fabrics. Additional options include 48- or 60-in. walls, adjustable keyboard drawers, and storage shelves and cabinets. Since all wiring, including dedicated computer lines, telephone lines, and electrical wiring, is done through the central core, each unit exists in an electronically independent state. This independence, in turn, allows equipment and wiring to be adjusted at a single workstation without disrupting the entire office. Designed in part to avoid the effects of "passive smoking," the *Spacemakers* line also features an air filtration system called *Air Flow Plus*. According to Mike Martin, CenterCore's executive vice president, this system goes a step beyond conventional hvac systems in that it actually removes microscopic particles from the atmosphere. Each workstation is equipped with a fan that draws the air into the central core. Once there, a filtration system containing electrostatically charged fibers attracts the microscopic particles and removes them from the atmosphere. In addition to making the working environment more comfortable for workers, the filtering of dust and smoke is also said to help protect sensitive computer hardware. The *Spacemakers* line of open-office systems with *Air Flow Plus* helps architects and interior designers "round a new corner" in office specifications. CenterCore, Inc., South Plainfield, N. J. E. G.

144 Architectural Record October 1986

For more information, circle item numbers on Reader Service Card
There's a low-cost, in-paper engineering pier that can do what your diazo machines can. And much more.

The Xerox 2510 Engineering Copier gives you sharp, permanent, black-on-white, -sized copies up to 36" wide in any of your drawings, plots, or sepias. Copies blue lines. Imagine the convenience of making copies of blue lines—marked-up blue lines—on bond, vellum, or film right when you need them. Now one who needs a copy can be one.

It's yours for just $3,695. For all it can do to make your job easier, the Xerox 2510 Engineering Copier is a breakthrough product at a breakthrough price.

XEROX® 2510 designed and manufactured in the U.S.A.
Sign system
Illuminated and nonilluminated fiberglass signs designed for interior and exterior applications are described in a 4-page product binder. Also included in the literature is information regarding screen-printed plaques, dimensional graphics, and directories. Whitney Veigas Architectural Products, Inc., Randolph, Mass.
Circle 400 on reader service card

Building system
A 4-page design guide features the Thermastructure building system, composed of interlocking load-bearing insulation panels. The brochure includes a detailed product description, structural and fire resistance data, dimensional diagrams, and drawings of typical connection details. Radva Corp., Radford, Va.
Circle 401 on reader service card

Ceramic-coated products
A 4-page color brochure describes the relative costs and benefits of the Millennium Collection of shale-bodied, ceramic-coated products with comparative exterior wall types. Included in the comparison are granite, marble, metal panels, limestone, glass, and precast concrete. Stark Ceramics, Inc., Canton, Ohio.
Circle 402 on reader service card

Seating
The manufacturer’s line of office seating, designed to control static electricity, is described in a 6-page color brochure. The ESD—electrostatic discharge—option is said to allow the chairs to act as conductors of the static electricity that might damage sensitive electronic equipment. Steelcase, Inc., Grand Rapids, Mich.
Circle 403 on reader service card

Dimming system
A 4-page color brochure describes the Nova Omnislide incandescent wallbox dimming system. The system is said to provide dimming from two locations with the movement of the slider at either location. The system uses standard 3-way wiring and is available in four models. Lutron Electronics Co., Inc., Coopersburg, Pa.
Circle 404 on reader service card

Heating boilers
Residential heating boilers are highlighted in a 4-page color brochure. The guide defines a line of oil-fired, steel, hydronic units and describes the features and benefits of the line’s TE and GEM series. Cutaway sections and installation information are also included. Columbia Boiler Co., Pottstown, Pa.
Circle 405 on reader service card

Leasable buildings
A 4-page brochure, based on research by BOMA, describes the manufacturer’s building solutions to tenant expectations. The points described include: quality repair and maintenance, temperature control, security, building flexibility, energy efficiency, air quality, and interior lighting. Johnson Controls, Inc., Milwaukee.
Circle 396 on reader service card

Fluorescent fixture
A 2-page brochure features the manufacturer’s Circle Miser low-wattage fluorescent fixture series. The literature includes a detailed product description, dimensional sideview diagrams, photometric data, ordering information, and a maintenance-cost record. Kenall Manufacturing Co., Chicago.
Circle 407 on reader service card

Security system
The manufacturer’s building security and access control systems are featured in an 8-page color brochure. The literature is divided into three sections reviewing: consultation and planning; system design and testing; and hardware modification and detailing. Architectural Control Systems, Inc., St. Louis, Mo.
Circle 408 on reader service card

Hardware
The HG Series of pull and push/pull door hardware combinations is highlighted in a 4-page color booklet. The booklet includes photographs, dimensional diagrams, and detailed descriptions of several available models. Also described are optional finishes and fastening details. Hiawatha, Inc., Bloomington, Minn.
Circle 409 on reader service card

Pipe insulations
A 36-page catalog features the manufacturer’s Micro-Lok line of fiberglass pipe insulations for commercial, residential, and industrial air-conditioning and heating systems. The catalog includes product descriptions, application recommendations, specification data, and installation methods. Manville, Denver.
Circle 410 on reader service card

Laminated panels
Ultra-Board building boards, standard insulated panels, and veneer panels are reviewed in a 4-page brochure. The literature includes information regarding the manufacturer, as well as detailed descriptions of the panels’ core and facing materials. General specifications are also included. Panels Plus, Independence, Mo.
Circle 411 on reader service card
SHINING SUCCESS.

The assignment: Remodel a family den to create an Eighties-right multimedia entertainment center for an active family of four.

The media: WILSONART Brand Decorative Metals and Color Quest™ Decorative Laminates.

The designer: Gerald Tomlin, ASID, I.E.S., Dallas, Texas.

Tomlin comments: "WILSONART Polished Natural Aluminum served this space well, minimizing the bulk of storage units and adding grace instead of heaviness.

"I wanted to create a sleek, but comfortable feeling throughout this space. The family — a businessman, his athletic wife, a college-age son and a high school boy — needed a room that could go easily from family workout center to business client conference area to social center for the boys, without changes. WILSONART gave me the solution."

Throughout the room, WILSONART Polished Natural Aluminum adds light play, from the recessed bases of couch and cocktail table to half columns on shelves. The metal provides a shimmering aura for wall-hung bar and TV-computer desk units.

To continue the neutral color scheme and easy maintenance of Tomlin's plan, he chose to line the cabinet interiors in WILSONART Dove Grey decorative laminate.

The results: Very pleased clients, with a room which now supports a purely Eighties family lifestyle.

HOTLINE:
If you have a project you think belongs in this space, please call on us.
For product samples, literature and technical information, call toll-free (within the continental USA):
1-800-433-3222
In Texas: 1-800-792-6000

Circle 69 on inquiry card

Gerald Tomlin, ASID, I.E.S.
Dallas, Texas

©1986, Ralph Wilson Plastics Co., Temple, TX
Product literature continued

**Rigid foam insulation**

**Access doors**
A 6-page foldout brochure features the manufacturer's line of metal access doors intended for various applications including drywall surfaces, plastered surfaces, and acoustical tile. The brochure includes detailed diagrams and charts highlighting construction features. The Williams Brothers Corp., East Moline, Ill. Circle 413 on reader service card

**Planters**
The manufacturer's Metalwall Planters are described in an 8-page foldout brochure. The literature includes a selection of floor, tabletop, wall-mounted, and hanging planters. Product features and benefits are reviewed, along with available finishes and ordering information. Architectural Supplements, New York City. Circle 414 on reader service card

**Hardwood flooring**
Pennwood hardwood flooring is featured in a sample folder which includes tiles, technical data, maintenance information, and specifications. The folder is designed to be a resource for architects, designers, and specifiers. PermaGrain Products, Inc., Media, Pa. Circle 415 on reader service card

**Filing systems**
An 8-page color brochure reviews the manufacturer's mobile storage and filing systems. The brochure details five basic configurations, including file centers between workstations, file centers designed for multiple workstations, and files as dividers between departments. Spacesaver Corp., Fort Atkinson, Wis. Circle 416 on reader service card

**Contract carpet**
The manufacturer's 1986 contract carpet selection and specification guide contains photographs and specifications for a selection of 114 contract broadloom and carpet tile lines from 49 manufacturers. The guide also describes the Zeftron and Zeftron 500 nylon yarn systems. BASF Corp., New York City. Circle 417 on reader service card

**Building components**
A 2-page color brochure describes the manufacturer's light-gauge structural-steel building components for single-family and multifamily buildings, as well as commercial and multistory complexes. Thermoseal of Missouri, Inc., Strafford, Mo. Circle 418 on reader service card

**Handicapped entrances**
A 16-page catalog includes information on designing entrance accessible to the handicapped and product information on a line of handicapped-related door control products. Also included are suggested specifications, drawings, and application photographs. LC Closers, Div. of Schlage Lock, Co. Princeton, Ill. Circle 419 on reader service card

**Sprinkler system components**
A 6-page brochure reviews the manufacturer's XL, SK10, and SK50 steel sprinkler pipes, conduits, and supplemental components. The brochure describes the pipes' physical properties, corrosion resistance, joining methods, test results, classification ratings, and available sizes. Allied Fire Protection, Harvey, Ill. Circle 420 on reader service card

**Marble**
A 10-page booklet features the Peperino and Perlato marbles recently being imported to the U.S. from the Latium region of Italy. The booklet provides a description of the historical development of marbles, as well as a detailed analysis of their physical properties. R.O.M.E. Consortium, Italy. Circle 421 on reader service card

**Outdoor electrical products**
The Perfect-Line line of weatherproof outdoor electrical products is reviewed in a 16-page color brochure. The literature illustrates and describes electric outlet boxes, covers, lighting fixtures, and accessories for wet locations, damp locations, and locations with closed covers. Midland-Ross Corp., Pittsburgh. Circle 422 on reader service card

**Metal oxide pigments**
A 4-page booklet includes a color chart with 86 of the manufacturer's inorganic, mixed metal, oxide pigments. The pigments are said to be nonimmigratory and compatible with most thermoplastic and thermoset resin systems. The color chart includes sample masstones and letdowns. Ferro Corp., Cleveland. Circle 423 on reader service card

For more information, circle item numbers on Reader Service Card
Worth A Second Look

First, look for quality and performance

They're the hallmarks you look for, and expect from, a window manufacturer. Workmanship that guarantees the highest quality. Performance that promises trouble-free service for generations.

TRACO is the industry’s only fully integrated manufacturer of custom-designed, custom-made aluminum window and sliding door products—controlling every phase of production from extruding to manufacturing of double-sealed insulated glass, through application of standard and custom architectural finishes. We give you the highest quality through this in-house control of all elements that affect window and door performance.

TRACO has 42 years of manufacturing experience, offering prime windows for new construction and custom-made replacement windows for retrofit, and for the critical requirements of historic preservation projects.

Second, look for beauty

When you specify TRACO, you have the choice of beautiful architectural high-performance coatings—standard and custom colors in acrylic and fluoro-polymer coatings, and including anodized finishes.

You can choose from narrow sightline vertical and horizontal ribbon systems, dual-action, double hung, sliding and fixed windows, sliding glass doors and spandrel glass—all meeting the new AAMA Commercial and Heavy Commercial standards. Plus specially shaped windows and custom historical panning and historical muntins for preservation projects.

Choose TRACO and you choose quality and the best performing windows and doors available.

TRACO
A Three Rivers Aluminum Company
We Put Quality Between You and the Elements
Box 805 • Warrendale, PA 15095
(412) 776-7000
or 1-800-922-1830

Circle 70 on inquiry card
Long distance or local, Pacific Telesis gets great reception with the MasterCard BusinessCard.

Pacific Telesis chose the new MasterCard BusinessCard™ because it is consistent with the company's philosophy—progress, intelligently planned. It's a philosophy Pacific Telesis is bringing to life in many ways—from providing quality phone service in California to operating a paging company in Thailand. And, it's a philosophy that warrants the best corporate card program possible.

Whether it's a technician in California or an executive in New York, the BusinessCard makes every employee's work easier. It's welcome in four times more places than any other corporate card and offers cash access at 110,000 locations.

The BusinessCard program enables Pacific Telesis to control business expenses with virtually no administrative effort. It offers individual credit limits and monitoring for each of the 12,000 cardholding employees at Pacific Telesis.

Finally, the BusinessCard offers unparalleled flexibility. The program was tailored for Pacific Telesis by its bank so the company chose services that were right for its business. In addition, each card carries the Pacific Telesis logo.

The distinctive silver BusinessCard is an investment in progress for Pacific Telesis. The program is helping the company live up to its corporate philosophy by keeping it in touch with all the possibilities.

For more information call 1-800-821-7700. Ext. 706
Roofing assembly

The HEX Assembly is a computederigned, mechanically attached method of single-ply roofing application. Recommended for use on most commercial and industrial buildings, the assembly goes down in a hexagonal pattern. Each fastener and plate is covered with a round seal of uncur ed Neoprene rubber and butyl tape. American Hydrotech, Inc., Chicago.

Circle 302 on reader service card

Drafting tables

The Futur-Matic T/C Naturalist drafting table features a solid wood core, basswood veneer drafting top, and black steel end cleats. The oak veneer-laminated bases are available with black accent hardware, and straight or angled solid oak legs. Two 3-wire grounded outlets and adjustable floor levelers are also included. Mayline Co., Inc., Sheboygan, Wis.

Circle 303 on reader service card

Doors

The manufacturer's Diamond Madison four-panel, exterior wood door is available in pine or fir with either single-glazed or insulated glass. The door features raised moldings around all panels and glass and 1/4-in.-double beveled hip raises designed to accent the panels. Morgan Products, Ltd., Oshkosh, Wis.

Circle 305 on reader service card

Copier

The manufacturer's 2510 engineering copier produces prints on vellum or polyester film, as well as paper. Engineering drawings, diazo prints, sepias, blueprints, and two-sided or mounted originals up to 1 1/8-in.-thick can be reproduced. Copies can be made of originals up to 36-in.-wide. Xerox Corp., Rochester, N.Y.

Circle 306 on reader service card

Sink


Circle 307 on reader service card

Some designs are hard to live with.

Expecting comfort and safety, when you accept the lowest bid on the design of a building's internal systems, can leave you hot and cold at the same time. Because that design affects your project's construction efficiency, long-term operating reliability and maintenance costs, you should call on the expertise and experience of consulting engineers. You'll get workable, manageable, creative solutions and the quality design assurance that responds to your specific needs, while it amounts to less than 1% of the project's total lifetime cost, come rain or shine.

For a brochure on consulting engineer services, contact us.
Everything
You Thought Vinyl
Could Never Be.

Used to be, vinyl siding looked like, well, vinyl siding. Most architects probably thought that this would always be the case. Not so.

Now there's Restoration solid vinyl siding. Restoration looks like real painted wood. You have to see it to believe it. Budget and aesthetics often pull at a design from opposite directions. When a client not only wants the appearance of painted wood, but also the economy and durability of vinyl, Restoration solid vinyl siding provides the balance. It has all of the advantages of vinyl – lower cost, durability, low maintenance; plus all the aesthetic advantages of real wood.

Through sophisticated technology we've achieved a smooth low gloss finish on a panel that's guaranteed to last a lifetime.* To provide flexibility, we've created the Restoration Collection, a full line of architecturally accurate vinyl accessories.

For more information on the entire Restoration Collection, call 1-800-521-9020 (in Michigan, call 313-386-0800).

After all, seeing is believing.

RESTORATION
COLLECTION™

Enduring Appearance, Uncommon Economy.

* A copy of the Lifetime Warranty is available by writing Wolverine Technologies Inc., 1650 Howard Street, Lincoln Park, Michigan 48146. ©1986 Wolverine Technologies Inc.

Circle 72 on inquiry card
Outdoor lighting
The manufacturer's post-top lighting fixtures are designed for campuses, industrial complexes, and other outdoor locations. The post-mounted lighting system is available with a variety of shrouds, housings, and mounting posts. The system's basic design component is a one-piece, two-chamber polycarbonate lens housing. Crouse-Hinds Lighting, Vicksburg, Miss. Circle 308 on reader service card

Infrared heaters
The Solarbeam electric quartz lamp infrared heaters, designed to heat high bay buildings, may be positioned as easily as fluorescent lights, according to the manufacturer. The units require no venting and are equipped with solid silver butt contacts. The heaters are available in 1 to 5kW models. Aitken Products, Inc., Geneva, Ohio. Circle 309 on reader service card

Cove bases
The manufacturer's line of vinyl cove bases is available in eight colors and features an additional wear layer said to prevent cracking. The bases are available in three sizes: 2 1/2-in. cove base and no toe, 4-in. cove base and no toe, and a 6-in. cove base. Roppe Rubber Corp., Fostoria, Ohio. Circle 310 on reader service card

Plotter pens
A series of plotter pens includes four fiber-tip models designed for all general-purpose plotting applications. Each pen is molded in plastic to fit specific plotter pen blocks without requiring an adaptor. The tips are designed to minimize deterioration and line variation. Koh-I-Noor Rapidograph, Inc., Bloomsbury, N. J. Circle 311 on reader service card Continued on page 180

Kalcurve™
The most highly insulating light transmitting curved material for skyroofs and curtainwall systems.

See Sweet's 8.14/Kal, 7.8/Kal, 13.11a/Ka, 13.2c/Stu.

Kalwall®
CORPORATION
P.O. Box 237, Manchester, NH 03105
Phone 800-258-9777

Cox Cable
Richard Fleischman, Architect

Circle 73 on inquiry card
Here's the laser beam printer from the company that pioneered desktop laser beam printing.

From the shortest memo to the longest report, the Canon LBP-8 A1 makes everything you print look hot off the presses. Your output will look so professional you'll think it came from a print shop.

The LBP-8 A1 is incredibly fast, producing copy at a rate of 8 pages per minute, and because it's non-impact, it prints so quietly that you'll hardly know it's working.

This versatile printer lets you use a wide range of plug-in fonts. And Canon's replaceable cartridge system makes it virtually maintenance-free.

To set up your own personal print shop, get the Canon LBP-8 A1, or the LBP-8 A2 with full graphics capability. You're sure to make a favorable impression with everything you print. To learn more about Canon's advanced laser beam printers as well as the complete line of wire dot matrix and bubble-jet printers, call 1-800-453-3307. (In Utah, 1-800-662-2500.)

Canon presents your personal print shop.
TAKE THESE TWO GIANT REFERENCES FOR ONLY $14.95

when you join the Architects' Book Club®
You simply agree to buy 3 more books — all at handsome discounts — within the next 12 months.

An Extraordinary Offer!
A $164.00 Value

Here, at enormous savings, are two books from the renowned Time-Saver Standards series — master reference works which are filled with professional building data, design procedures, facts, definitions, and real-life examples. They help you produce better designed, more cost-effective buildings because they're practical, thorough, and specific. Every page of each giant volume has detailed information you'll use to save time and money. And to make all material perfectly clear, powerful graphics support the text — over 1,000 illustrations for each book.

TIME-SAVER STANDARDS FOR SITE PLANNING
Edited by Joseph DeChiara and Lee E. Koppelman
• covers every aspect of good site selection, development, and use
• gives construction details for all phases of site development
• provides basic design criteria for all types of buildings
• organized to follow the actual design sequence
• 864 pages are filled with easy-to-use drawings, charts, tables, and cutaway views
(Pub. Pr., $79.00)

TIME-SAVER STANDARDS FOR ARCHITECTURAL DESIGN DATA Sixth Edition
Editor-in-Chief, John Hancock Callender
• shows — through some 1,300 illustrations — every important design procedure, practice, and standard
• gives you instant access to the best technical data available
• reflects the full range of specialties — architectural, interior design, engineering, and construction
• presents major contributions by 57 top authorities
• 1,184 information-packed pages
(Pub. Pr., $85.00)

TAKE THESE TWO GIANT REFERENCES FOR ONLY $14.95

more reasons to join today!

• Best and newest books from ALL publishers! Books are selected from a wide range of publishers by expert editors and consultants to give you continuing access to the best and newest books in your field.
• Big savings! Build your library and save money, too! Prices range up to 40% or more off publishers’ list prices — usually 20% to 30%.
• Bonus books! You will immediately begin to participate in the Bonus Book Plan that allows you savings up to 70% the publishers’ prices of many professional and general interest books!
• Convenience! 14-16 times a year (about once every 3-4 weeks) you receive the Club Bulletin FREE. It fully describes Main Selection and alternate selections. A dated Reply Card is included. If you want the Main Selection, you simply nothing — it will be shipped automatically. If you want an alternate selection — or no book at all — you simply indicate it on the Reply Card and return it by the date specified. You will have at least 10 days to decide. If, because of late delivery of Bulletin you receive a Main Selection you do not want, you may return it for credit at the Club's expense.
• Club member you agree only to the purchase of three additional books during your first year of membership. Membership may be discontinued by either you or the Club at any time after you have purchased the three additional books.

Take out the card and mail today!

If the card is missing, write to:
Architects' Book Club®
J. Box 582, Hightstown, New Jersey 08520-9959
HIGHLY INTELLIGENT.

Smart FM-1 type commercial construction begins at the top with fire-rated NCFR®/Thermasote® nailbase R/24 roof insulation panels.

Raise the roof on the efficiency of your next commercial project. Cut your labor time. Boost insulation value. Improve flame spread ratings.

You can do it all in a one-step application, by joining the smart architects who routinely select NCFR®/Thermasote®.

This unique composite of UL Class A listed and fire-rated NCFR® nailable sheathing, plus polyisocyanurate foam core with fiberglass facer, is unequalled for FM-1 type commercial construction on metal decks.

You can attach shingles, slate, tile, or your choice of other roofing such as BUR or single-ply membrane directly to the NCFR®/Thermasote® nailbase panels.

You’ll raise insulating efficiency. Improve flame-spread ratings. And boost productivity. That’s highly intelligent.

For a free sample, and complete details, call (609) 883-3300. Or write:

homasote COMPANY
PO. Box 7240, West Trenton, NJ 08628-0240

Circle 77 on inquiry card

Call Sweet's BUYLINE 1-800-447-1982 for details today!
Manufacturer sources

For your convenience in locating building materials and other products shown in this month’s feature articles, RECORD has asked the architects to identify the products specified.

Pages 90-95
Washington Court
James Stewart Polshek and Partners


Pages 96-99
Ciceroan at Georgetown
Arthur Cotton Moore/Associates, P.C.


Pages 100-103
Prospect Point

Pages 100-102—Tile paving (throughout): Del Paso. Windows, doors and storefronts: custom by architects, fabricated by Tweed & Gamsbrell.

Page 103—Wall lights and wrought iron railings: custom by architects, fabricated by International Iron.

Pages 104-111
Hughes Aircraft Headquarters
Skidmore, Owings & Merrill/ Los Angeles


YOU:

If you travel a lot you can benefit from the AT&T Card. The AT&T Card will free you from coins and delays, give you an itemized record and AT&T's lowest rates for state-to-state calling, next to direct dialing. And it costs less than calling collect, or making coin calls out-of-state.

So, if you travel frequently, get the AT&T Card. It's as simple as dialing

1 800 CALL ATT, Ext. 229.

© 1986 AT&T
Pedestals and mirrors
The Radio City collection of pedestals and mirrors, designed by Lawrence Peabody, FASID, combines smoked chrome and polished brass. The mirrors are handcrafted using 1/4-in. beveled float glass with parallel metallic accents. The pedestals incorporate concave brass corner accents and smoked chrome panels, and are available in various sizes. Autumn Guild, Easthampton, Mass. Circle 315 on reader service card

Acoustical shells
The manufacturer's pre-engineered acoustical shells are constructed of molded fiberglass-reinforced gypsum and feature built-in lighting, an omni-directional tri-caster base, and leveling casters. Designed for renovations, historic restorations, or new construction, the shells may be customized to match any architectural styles. Wenger Corp., Owatonna, Minn. Circle 316 on reader service card

Oak receptacles
The Oak Collection of litter receptacles, planters, and benches feature kiln-dried, solid red oak exteriors. The units are available in 14- and 25-gal. capacities, and may be combined to form in-line or corner resting areas. All units are stained and sealed with light urethane varnish. Clean City Squares, Inc., St. Louis. Circle 317 on reader service card

Continued on page 162

© 1986 AT&T

DOES IT DO?

It’s called the pound button. And it lets you make multiple calls faster when you use an AT&T Card.

Once you enter your AT&T Card number, the AT&T Network automatically remembers it. So between calls, just press the pound button and make your next call.

So, if you travel frequently, get the AT&T Card and save some time. Because time is something we can all use. Simply call

1 800 CALL ATT, Ext. 229

The right choice.

Continued on page 162
Concrete pavers
The PowerMate lightweight, polystyrene pedestal is said to provide consistent below-surface drainage for concrete paving blocks. According to the manufacturer, by supporting the blocks above the substrate and creating uniform spaces between pavers, the system reduces damage to waterproofing and insulation layers. GeoTech Systems Corp., Sterling, Va.
Circle 318 on reader service card

Access control systems
The manufacturer's multidoor electronic access control system is available in two models. The 804S model can control up to four doors and monitor 16 alarm points and the 808S model controls up to eight doors and monitors up to 32 alarm points. Authorized access is gained by presenting a credit card-sized command key within inches of a passive sensor. Schlage Electronics, Santa Clara, Calif.
Circle 319 on reader service card

Software support
The manufacturer's high-resolution color graphics controller is designed to work with AutoCAD and MS/Windows packages. The Prism hardware/software combination includes a port that allows the direct connection of a mouse, digitizer, or local printer. Modgraph Inc., Concord, Mass.
Circle 320 on reader service card

Continued on page 163
Cooling systems
The manufacturer’s line of enclosure cooling systems operates using only compressed air as its power source. Both thermostatically controlled and continuous operating versions are available. The units incorporate a system featuring built-in sealing and relief valves. Vortec Corp., Cincinnati.
Circle 321 on reader service card

Fabric
Mandarac is a 100 percent wool, satin-weave jacquard imported from Great Britain. The fabric features a geometric basketweave design in three multicolorways. It is 60-in. wide with a 66-in. repeat. Kirk-Brummel Associates, Inc., New York City.
Circle 322 on reader service card

Skylight system
The manufacturer’s Standing Seam skylight system, designed for residential, commercial, and industrial use, may be installed on metal, shake, flat tile, asbestos, or slate roofs. The system features continuously formed 1 1/2-in. to 2 1/2-in. vertical risers angled at 90 deg. on both outside edges. The double- or triple-glazed skylights consist of Lexan polycarbonate sheet. Kenergy Corp., Orlando, Fla.
Circle 323 on reader service card

Continued on page 164
What is a Best Western?

The right place at the right price.
Make reservations at any Best Western, see your travel agent, or call toll-free 1-800-528-1234

ARCHITECTS

MARRIOTT

Building hotels and restaurants or building a rewarding career—all require careful planning. Especially if you’re thinking big. And at Marriott, we are. Our well-laid plans call for over 600 new hotels, restaurants, and life care facilities in the next 5 years. If your career blueprint calls for an exciting opportunity with a competitive salary and comprehensive benefits, then come to Marriott. We’ve got plans for you.

Architects: We need architects with 5-10 years experience in the development and review of documents for complex construction (hotels, hospitals, restaurants, etc.). Your background should include management of multiple projects and coordination of outside design consultants. Degree required, registration preferred.

To apply for these positions, located at our corporate headquarters in Bethesda, MD, please send your resume and salary history to: MARRIOTT CORPORATION, DEPT. 222.Z, Marriott Drive, Washington, D.C. 20058. If you are unable to send a resume, please call (301) 493-2220 in confidence. Lines are open 24 hours a day.

An Equal Opportunity Employer m/f
Fiberglass is the key. Georgia-Pacific's new Dens-Glass™ is the revolutionary gypsum sheathing with "built-in" fiberglass matte facings that shrug off weather, moisture and job-site hazards.

In fact, only Dens-Glass has a six-month limited warranty against deterioration due to weather exposure. That's important when you consider the time, labor and dollars involved in replacing damaged, paper-faced panels.

Plus, in independent tests, Dens-Glass protected framing from fire damage far longer than paper-faced panels of comparable thicknesses, with zero smoke development.*

New Dens-Glass is now available nationwide from over 140 Georgia-Pacific Distribution Centers and Sales Offices. And that makes the G-P commercial building products line stronger than ever.

For Dens-Glass exposure test results, product information and the Distribution Center nearest you, call 800-225-6119, or write: Georgia-Pacific, 133 Peachtree St., N.E., Atlanta, GA 30303.

Circle 81 on inquiry card
Circle 122 on inquiry card

Georgia-Pacific

SOMETHING AMAZING HAPPENS WHEN NEW DENS-GLASS® IS EXPOSED TO FIRE OR MOISTURE: ABSOLUTELY NOTHING.
Cold Spring Granite. Its beauty is its strength.
Kawneer 3200 DesignWall. Its strength is its beauty.

The grandeur of granite requires the strength of design integrity to maintain its lasting impression. And now, Cold Spring Granite and Kawneer have put the two together in a single curtainwall system engineered to retain its beauty through the years.

Kawneer 3200 DesignWall allows Cold Spring Granite panels to be installed in a clean, flush appearance. Structural silicone holds the vision glass to the aluminum curtainwall vertical mullions. And, the result is a high performance package with aesthetic appeal. (Performance results are available on request.)

Cold Spring Granite panels for Kawneer 3200 DesignWall are available in nine different and distinctive colors and three handsome finishes—polished, honed, and thermal.

Cold Spring Granite and Kawneer 3200 DesignWall. Put them together by contacting your Kawneer Sales Representative or writing:
The Kawneer Company, Dept. C, Technology Park Atlanta, 555 Guthridge Court, Norcross, GA 30092

Circle 82 on inquiry card
New PANTONE® Coatings Color Paper:

You'll wonder how you ever did without it.

Now the design world gets a special set of tools for its own special needs. New PANTONE Coatings Color Paper in 250 of the 1001 PANTONE Professional Color System colors.

Whatever your design discipline—architecture or interiors, industrial or fashion, textiles or cosmetics—now the colors you design with can be faithfully reproduced.

Make no mistake. These are true coatings papers. Fully opaque to reflect the colors achievable in manufactured products. Colors, from intense to delicate, unattainable in transparent printing inks. A carefully researched spectrum of colors that reflect current and forecast color trends. All available from your artist material dealer in 10"x13" satin matte sheets that list for just $2.95 each.

To get you started, if you buy any 10 sheets of our coatings color paper between now and November 30, 1986, you'll get the color selector free.

And, once started, you'll wonder how you ever did without them.

Act now: Buy any ten sheets by November 30. Get a PANTONE Coatings Color Paper Selector ($15† retail) free!

PANTONE 55 Knickerbocker Road, Moonachie, NJ 07074

†Suggested retail price

*Pantone, Inc.'s check-standard trademark for color reproduction and color reproduction materials. Process color reproduction of PANTONE® identified colors may not match solid color standards. Use current PANTONE Color Reference Manuals for accurate color.

Circle 83 on inquiry card
PROBLEM...bulging and sagging tiles are the sad result of inferior tile-setting mortar.

SOLUTION...wall tiles set with thoroughly tested sag-resistant mortar developed in the laboratories of the Tile Council of America Inc.

Have confidence in your tile installation

Tile Council's triangular seal is your assurance of tile-setting products that meet the highest standards of quality. Look for this hallmark if you insist on excellence. For more information on this program, write to Tile Council of America Inc., P.O. Box 326, Princeton, N.J. 08542.

Tile Council of America Inc.
QUALITY LICENSED PRODUCTS

Circle 85 on inquiry card

MUSSON
DISC-O-TILE® Safety rubber flooring &
DISC-O-TRED® Safety stair treads

The unique raised circular disc design allows drainage, easy cleaning. Durable, stain-resistant, fire-retardant (Meets ASTM-E84 Flame Spread Rating of 25 or less), non-fading and non-slip. Ideal for shopping malls, airport terminals, schools, hospitals, heavy traffic areas. TILES are 24" sq. TREDs 1/4" thick, standard lengths. COLORS: Brick Red, Brown, Gray, Sand, Blue, Black, Slate and Wine.

Meets ASTM-E84 flame spread rating of 25 or less

For Free Brochure & Samples, write
MUSSON RUBBER CO.
1322 Archwood Avenue • Akron, Ohio 44306

Circle 86 on inquiry card
The Cirkel-Line Entrance brings entryway design to the threshold of a new era. Impressive in scale, appearance and performance, it is the kind of product you would expect from a quality-conscious company such as Haven-Busch.

Available in diameters up to 16 feet, Cirkel-Line eliminates in most cases the need for additional emergency doors. Its wings fold out to provide two traffic lanes whenever needed. At all times, two of the wings are in contact with the inner wall of the entrance, keeping outside air where it belongs—outside. Stack draft is significantly reduced with Cirkel-Line, and the option to heat and cool the air inside the entrance to building temperature is available. A motor drive with detectors rotates the door to the speed of traffic. If someone stops moving, so does the door.

As for aesthetic considerations, Cirkel-Line offers a clean, European styling combined with almost unlimited possibilities for finish materials and colors. Come and stand at the threshold of new entrance design possibilities. The view is wonderful.

During normal operations, two wings are always in contact with the entrance's inner wall.

In emergencies, all four wings can be folded as shown to clear two traffic lanes through the entrance.

For a free brochure on the Cirkel-Line Entrance, contact us at Haven-Busch Company, 3443 Chicago Drive S.W., Grandville, Michigan 49418/(616) 532-3641/Telex 292-879/Telecopy 532-7585. Circle 84 on inquiry card
In the turbulent sea of today’s professional liability insurance market, one company still represents the old school.

When the water was calm, it seemed there were a lot of fish in the professional liability sea. Some even seemed a little out of their league. But when the market got rough, many of them ended up outside the water.

Schinnerer was able to stay in the swim because of an unwavering commitment to time-proven underwriting practices. Underwriting that allows for creative solutions without jeopardizing stability.

Call your agent or broker.

Victor O.
Schinnerer
& Company, Inc.
The Bright Spot in the Insurance Industry.
Glass Fiber Reinforced Concrete (GFRC) architectural cladding panels...strong...lightweight...versatile. A portland cement composite reinforced with glass fibers for superior flexural, tensile and impact strengths.

GFRC’s lightweight...variety of colors, forms, textures, veneers...allow unlimited design options. Ideal for new, low or high-rise buildings, rehab or retrofit projects...including the reproduction of ornamental details.

Fire resistant...quickly erected...energy efficient...GFRC minimizes structural framing needs, and reduces foundation costs in new construction.

Ask for our brochure: “Glass Fiber Reinforced Concrete Cladding.”
HOW TO MAKE A BRILLIANT REDUCTION

(ACTUAL SIZE 39-WATT FLUORESCENT)
At a mere 16.5 inches long, the new General Electric Biax™ 2850 lumen fluorescent lamp gives you more spacial design freedom than ever before. Compared with standard four-foot F40’s, it lets you fill a space with light, not with luminaires.

The compact configuration of the GE Biax 39-watt lamp produces a full 2850 lumens of good color-quality fluorescent light, in a lamp one-third the overall length of conventional linear fluorescents. And it offers a long-rated average lamp life of 12,000 hours.

The 2850 lumen lamp represents only the first in a complete family of GE Biax fluorescents, which will range from an 8.4-inch version to 22.3 inches. So you’ll have even more lighting and spacial design flexibility as this line of lamps continues to grow.

Call your Lighting Specialist at the local GE Lamp Sales Office or your fixture manufacturer and discuss your lighting applications, concepts and designs with them. They can help you make a brilliant reduction on your own.

We bring good things to life.
Until now, about the only way you could reduce the heat of the sun was with windows that also reduced the light of the sun. That made for buildings that looked like mirrors on the outside, and a bit like caves from the inside.

Now, Andersen has developed a window that reduces the sun's heat 2 1/2 times better than ordinary single-pane glass, yet it lets in twice as much light as mirror-like reflective glass.

**ANOTHER DESIGN OPTION, WITH WINDOWS THAT WORK.**

Andersen® High-Performance Sun windows don't have the impenetrable and inscrutable look of most reflective glass. Yet for all their effectiveness against heat gain, they are able to provide more natural light, too. And, unlike most windows you find in commercial buildings, ours open and close.

**BETTER LOOKING FROM OUTSIDE. BETTER LOOKING FROM INSIDE.**

These Andersen windows have a soft bronze tint that looks handsome from the outside, yet it doesn't distort colors for the people looking out. In fact, it makes these colors look much richer. The greens are greener and the blues are bluer.
PLANTS FLOURISH, COLORS FADE LESS.

One more wonder. This window filters out 88% of the ultraviolet rays that fade brics, yet there's still plenty of visible light for people and plants to flourish. Add to all that two more pertinent points: these windows are eminently affordable and readily available off the shelf.

WHERE AND HOW. (IT'S NOT DONE WITH MIRRORS.)

It takes a truly remarkable window to control the awesome power of the sun. We call it the Andersen High-Performance Sun window. You can find out more about what's available and how it works by calling your Andersen distributor. And by consulting Sweet's File 8.16/An. Or write Andersen Corp., Box 12, Bayport, MN 55003.
Miss Osgood, I have some Splendid News: The Company has decided to install AT&T's Extraordinary NEW SYSTEM 25 a Digital PBX that will give us "Big Business" Features—and cost us less than the system we're using now. Somehow, Miss Osgood, I'd thought you'd be more excited... Miss Osgood, can you hear me in there......?
Introducing AT&T's System 25, a state-of-the-art small PBX that can help the state of your business.

Not to mention the state of Miss Osgood. System 25—from AT&T’s Small Business Connection—is an instant solution to outmoded, over-the-hill equipment. It can give any company with 20-150 telephones the kind of special features once found only on “big business” systems. For instance, callers can reach everyone in your business without going through the receptionist. Its unique Personal Dial Code allows your calls to follow you around from office to office. And you can activate the code from any location on your route.

System 25’s digital technology lets voice and data travel the same telephone lines. So you can add computers or other data equipment now or whenever the need arises.

What’s more, it doesn’t require special telephones. You can probably use the traditional telephones you have now. That makes System 25 perhaps the most cost-effective way to upgrade your phone system.

And it’s cost-effective after you upgrade. For instance, System 25 sends all long-distance calls over the least expensive route. And keeps detailed records of those long-distance calls so you can charge clients or track expenses. But most important, you know your telephone investment is protected, because System 25 is from AT&T.

Plus, with System 25, Miss Osgood will have less work on her hands and a permanent smile on her face.

For more information about System 25, call 1 800 247-7000.

AT&T’s Small Business Connection / 1 800 247-7000
This toll-free number connects you to the office in your area. In Hawaii call 1 808-946-2509.

AT&T
The right choice.
When you specify a Bilco horizontal door or fire vent, you specify a product that is designed to operate smoothly, easily, reliably. One that has earned its reputation for dependable performance.

Shown are three examples of how Bilco product design translates to client benefits. The Type S ladder access roof scuttle, with its floating cover and the safety and convenience of one hand operation. The Type DSH automatic fire vent with the exclusive Thermolatch mechanism for prompt release in an emergency, and security against inadvertent opening. The Type JD walk-over access door with built-in compression spring mechanisms for easy operation of the heavy plate doors.

Bilco. Roof scuttles, sidewalk doors, floor and pit doors, equipment hatches, ceiling access doors, basement doors and automatic fire vents. Products that give satisfaction. By design.

See our catalog in Sweets.

The Bilco Company, P.O. Box 1203, Dept. New Haven, CT 06505

Circle 93 on inquiry card

avoid
smudges and nicks

SpiroSliner parallel ruling cutting straightedge

WITH STANDARD FEATURES FOUND IN NO OTHER STRAIGHTEDGE — ONE MODEL DOES IT ALL!

ELIMINATES SMUDGING: Elevated slightly above the drawing surface, SPIROLINER glides on wheels at each end of the blade. No rollers in bottom to smudge drawing.

NICK-PROOF CUTTING EDGE: The hardened anodized aluminum SPIROLINER blade provides “nick-proof” cutting edges when ruling edge is removed.

TRANSPARENT ACRYLIC RULING EDGE: is removable and replaceable.

DUAL BRAKE/LOCK SYSTEMS: Standard on all SPIROLINERS provide friction braking and dead locking simultaneously.

TOP MOUNTS TO ANY DRAWING TABLE: Versatility, elegance and competitive pricing makes SPIROLINER the first choice of architects, engineers, and graphic designers.

CALL 800-342-2063
Massachusetts 413-499-4209

Circle 94 on inquiry card
**NATURAL STONE COLLECTION**

Art mirrors nature...and with the Natural Stone Collection, LAMINART® mirrors nature at her grandest. Two elegant granites, a Moonstone and a Faux Stone are reproduced in all their subtlety and translated into laminate as only LAMINART® knows how. The colors and textures of the stone, every nuance, are captured by state-of-the-art color printing; they are then incorporated into the laminate to bring you the rich appearance of the finest finished stone. The Natural Stone Collection...an alternative that provides the visual character of stone and the contemporary simplicity of laminate; light weight, economy and ease of handling.
Fire. It's the ultimate nightmare. And when you've solved every other problem in a project, it's the last thing you want to worry about. But for Richmond Rossi Montgomery Architects, it actually was.

Their primary problem was to build a business and professional complex on a virtually unbuildable site—and at the same time maintain the natural harmony of the environment. The solution was a design for a series of gracefully shingled pyramids with gently sloping roofs. The only fly in the ointment was the Class B fire code requirement for the roofs. But since cedar shingles and shakes can be pressure treated to meet fire retardancy specifications, that dilemma was easily solved.

For free information on specifying and fire treating red cedar shakes and shakes for a project of yours, write to:
Red Cedar Shingle & Handsplit Shake Bureau, 515-116th Ave. NE, Suite 275, Bellevue, WA 98004

Red Cedar Shingle & Handsplit Shake Bureau
The recognized authority

These labels on the bundles of red cedar shakes and shakes are your guarantee of Bureau-graded quality. Insist on them.
MARAZZI'S "NOBEL" CERAMIC TILE
Classical Inspiration For Today's Living & Working Environments

"Nobel", with its five sizes ranging from 8" x 8" to 24" x 24" and its nine unique granite colors, allows specifiers total design flexibility for those residential and commercial installations where elegance and function are required. Produced by Marazzi's patented manufacturing process, "Nobel" offers a durable glazed finish, easily maintained for a timeless appeal. For more information, contact American Marazzi Tile's Marketing Department at (214) 226-0110.
It’s what your door stops that counts.

Lots of traffic through your doors is generally a good sign in the world of business. But when heat and cold come to call, your doors — especially your insulated overhead sectional doors — shouldn’t let them in.

When your building specs call for minimum heat transfer through overhead sectional doors, you should specify Thermospan™ insulated doors.

In a series of head-to-head installed-door tests conducted by Architectural Testing, Inc., the Thermospan 2" door proved to be significantly more energy efficient than other leading insulated doors.

Thermal (Uc) Test Results

Thermospan sections have high-tensile steel skins with roll-formed integral struts. Sections are bound together by foamed-in-place polyurethane insulation. A complete thermal break along joints and end caps reduces heat transfer between skins.

Rubber bulb joint seals minimize air infiltration. Integral vinyl jamb seals raise with the door to retard seal damage when the door is open. U-shaped bottom seal won’t ice up, seals against uneven floors. The factory-installed top seal reduces infiltration between header and door.

Thermospan 2"
Top of the line. At least 43% more energy efficient than other non-Wayne-Dalton doors tested.

Thermospan-150 1½"
Competitively priced, premium door features, more energy efficient than the best non-Wayne-Dalton door tested.

When heat and cold are regular visitors, specify Thermospan. Call or write for our new test results and complete Thermospan specifications. Wayne-Dalton Corp., P.O. Box 67, Mt. Hope, OH 44660, Phone: (216) 674-7015.
Got a question about metal roofing?

Perhaps Follansbee can help. Call us toll-free 800-624-6906

FOLLANSBEE
MANUFACTURERS OF TERNE AND TCS (TERNE-COATED STAINLESS STEEL)... THE LIFETIME ROOFING METALS
FOLLANSBEE STEEL CORPORATION
FOLLANSBEE, WEST VIRGINIA 26037

Circle 99 on inquiry card
EFCONOMICS:
The proper balance of aesthetic window design and cost control.

Historical EFCONOMICS.
A Case for Replication.

Do you require a window that replicates a century-old design, but one that’s built to reduce today’s energy demands? Contact EFCO for a course in Historical EFCONOMICS.

Providing exceptional quality, a specified approach, and the ability to replicate original shapes and colors, EFCO creates custom windows without aesthetic compromise. Historical replicas which have the beauty of wood and the benefits of aluminum.

Take a look at the company that wrote the book.

Contact EFCO, and rest your case.

For specifics call EFCO toll free for the name of your local representative.

Call 1-800-221-4169
In Missouri: 417-235-3193

More windows, more ways, than anyone.

EFCO CORPORATION
P.O. Box 609 Monett, Missouri 65708-0609
TELEX: 33265 EFCO CORP MT

Circle 100 on inquiry card
HIGH-IMPACT PRESENTATION GRAPHICS
Perform like a pro at your next presentation with exciting full color custom visual presentation!
SUPERB QUALITY - FAST - RELIABLE
Call today for free packet:
(702) 798-5995
ACCENT PRESENTATIONS
2255A Renaissance Dr. Las Vegas, NV 89119

FOR SALE
Graphics Host System including Prime 2250
CPU, interactive design station, digitizing tablet, and CAD software. Bed platter available for lease or purchase. Make offer to:
F.I.L.C.
P.O. Box 26, Tarpon Springs, FL 33589
Or call Peter K. Hawkins, V.P.
(813) 937-6123

POSITIONS VACANT

Architect with broad design skills. Experienced in all phases of Architecture, for senior position with long established national consulting engineering firm in heavy structure, bridges, parking structures, buildings, etc. Should have capabilities to head Architectural Division of Engineering Architectural firm. Minimum 10 years of qualifying experience. Have good bearing, be self-disciplined and can assume management assignments. Write in confidence to: Konski Structures, buildings, etc. Should have capabilities to head Architectural Division of Engineering Architectural firm. Minimum 10 years of qualifying experience. Have good bearing, be self-disciplined and can assume management assignments. Write in confidence to: Konski Engineers, P.C., Old Engine House No. 2, 727 North Salina Street, Syracuse, New York 13208.

ARCHITECTS
Our continued growth and success has provided career opportunities in our employee-owned professional firm. We provide a professionally satisfying state-of-the-art environment and an equally attractive compensation package. We are currently seeking individuals for the following positions in our Rochester, NY office:

PROJECT ARCHITECT
License preferred with degree in Architecture and 7-10 years' experience in institutional, commercial and industrial projects.

JOB CAPTAIN
Degree in Architecture with 5-10 years' experience in professional office coordinating contract documentation and specifications. Requires complete understanding of materials.

DESIGNER
Degree in Architecture with 5-10 years' experience in institutional, commercial and industrial design. Must have ability to work with a group. Please send your resume, in confidence, to: SEAR-BROWN ASSOCIATES, P.C., 85 Metro Park, Rochester, NY 14623. An Equal Opportunity Employer M/F.

SEAR-BROWN ASSOCIATES, P.C.
Engineers/Architects
Surveyors/Landscape Architects

Texas Tech University — Dean — College O Architecture — The College previously operated as a division and was recently organized into an independent college. Candidates should have the capacity to exercise leadership, experience in academic administration and program planning / development, and should be architects, possessing minimum of a masters degree. Available June 1987. Send nominations / applications, with 5 references and brief statement of educational philosophy, by early November to: Dr. Carl H. Stem, Chairperson, Architecture Search Committee, Texas Tech University P.O. Box 4320, Lubbock, Texas 79409. Equal Opportunity / Affirmative Action Employer.

MATERIALS WANTED
Wanted: Photographs or perspective renderings of houses that can be made available for plaques. 500,000 circulation offers good royalty to architect. Write Country Living Magazine, Bo 622, Princeton, New Jersey 08540, 609/924 9655.
Structural Analyst — Responsible for preparing the analysis of the structural design of the members of multi-story buildings relying mainly on software program SAP4 with necessary modifications to determine, among other things, the exact location of inflection points for calculating height to width ratio for 5 to 100 story structures on a cost efficiency basis. Direct three to four structural engineers in the preparation of drawings, calculations and computer programming analysis. M.S. Structural Analysis and Design Specialist. B.S. Structural Engineer. 17.5 hours per week. 10 hours overtime. 9:00-5:30; $29,120 per year. D.O.T. code 005.06.034. Please send resumes to: NYS Job Service, Order No. NY0807401, 97-45 Queens Boulevard, Rego Park, NY 11374.

FACULTY POSITIONS VACANT

Interior Design — Assistant Professor, tenure track. — Teach and advise undergraduates, work with graduate students. Degree in Interior Design, Architecture or related field. Professional experience as imaginative, sensitive Interior Designer using AIA/ASID phases of work. Inquire: rank Morigi, Design, Smith Hall, Syracuse University, Syracuse, NY 13244-T180. An Equal Opportunity / Affirmative Action Employer.

---

**XEROX 295 TELECOPIER**

To enable you to get your Classified Advertising typewritten copy into this section at the last possible minute, we've installed a XEROX 295 TELECOPIER (which also receives copy from other makes) in our New York home office.

If you have a telecopier, just call the number below to see if your equipment is compatible. If you don't have a telecopier, call and we'll help you locate the nearest one. It could even be in your own firm or building.

**NOTE:** The Xerox 295 cannot accept photos or art, but as always, there is no charge for typesetting and layout service.

**CALL (212) 512-6800**

---

**COMPUTER SOFTWARE**

**ANNOUNCING**

**DESIgn ESTIMATOR II**

**from Dodge MicroSystems**

The first self-contained microcomputer program that allows you to access the Dodge Cost Information Data Base, and produce fast, accurate, reliable estimates.

**Call Now**

1-800-257-5295

In New Jersey 1-609-426-7300

(Ask for Rita Prince at either number)

Cost Information Systems


---

Group 4, Inc. now has available the Disk Library service for MASTERSPEC Specifications System. This automated specification production system will save you time and money.

The MASTERSPEC Disk Library is available for use with WordPlus-PC and Word Perfect word-processing software systems for IBM and IBM-compatible desktop computer systems. It is available in the Basic and Short Language Versions.

The Disk Library is easy to use. No special training is necessary. You can use the MASTERSPEC Disk Library immediately upon arrival.

Call (409) 775-7472 today for more information on the Group 4, Inc.-MASTERSPEC Disk Library service.

---

**GEOCAD**

GEOCAD, a low cost drafting system for architects, is gaining widespread acceptance among architects and other design professionals. It is based on AutoCAD (TM) the most popular CAD program in the world.

The complete GEOCAD Turkey System based on the NEC APC1 computer, Hitachi digitizer, Houston instrument plotter, complete with AutoCAD and GEOCAD software, including on-site installation and two days of training is priced at...

The same system based on the NEC APC IV computer (AT compatible) lists at...

GEOCAD software package...

GEOCAD genetic menu and custom symbol templates...

GEOEST estimating module which estimates directly from the drawing and counts all blocks entities and areas and places them in an independent spreadsheet at...

For detailed information contact...

---

**COMPUTER DESIGN STUDIO**

**COURSES - HANDS-ON TRAINING - TUTORIAL**

**MARINHA MASCHERONI**

212-580-3004

20 W. 84th St., N.Y., N.Y. 10024

**CALL IN YOUR SOFTWARE ADS**

**ILENE FADER**

212/512-2984

---

**PROFESSIONAL ACCOUNTING & MANAGEMENT SYSTEM**


ACS (800) 962-4092 PO Box 4811 SB CA 93140

---

Architectural Record October 1986 189
Now you see them. Now you don't.

Dor-O-Matic Pocket Pivot Hinges present the "invisible" fire doors.

This "disappearance act" doesn't rely on magic. It hinges on the design technology built into Dor-O-Matic pocket pivot hinges.

The fire doors seemingly vanish into the wall because Dor-O-Matic pocket pivot hinges allow the doors to fit flush into the wall pockets, out of harm's way. So corridors have a smoother, cleaner look when the doors are open.

Dor-O-Matic's pocket pivot hinges are UL listed with a 3 hour rating for metal fire doors and a 20 minute rating for wood fire doors. So they provide critical, unsurpassed protection when the doors are closed.

If you want Dor-O-Matic beauty, safety (and reduced maintenance), you've got to specify Dor-O-Matic Pocket Pivot Hinge #91105F. For information, call or write:

**DOR-O-MATIC**

Division of Republic Industries, Inc.
7350 West Wilson Avenue • Chicago, IL 60656
(312) 867-7400 • 1-800-543-4635 • Telex 281-063

Circle 101 on inquiry card
$200 SAYS YOU'LL LOVE THE KROY 190.

Kroy would like to make you an offer you can't refuse:

Buy our new Kroy 190™ Lettering System and we'll throw in over $200 worth of tape cartridges, typediscs and accessories.* All this in addition to the most advanced lettering system for the money you can buy today: The Kroy 190. For professional quality lettering that gives your printed messages — flyers, reports, brochures, presentations and more — the attention they deserve.

You'll get a lot more than free accessories when you buy a new Kroy 190, however. You'll also get a host of exclusive features that make the Kroy 190 the finest value on the market today.

Features like a detachable keyboard that lets you do your work anywhere you choose.

A 6,000-character permanent memory so you'll never have to type the same headline more than once.

An easy-to-follow prompting function for effortless operation.

Plus a huge selection of available supplies and accessories — including Kroy's exclusive Display™ Lettering tape — designed to complement the Kroy 190's versatility.

Kroy also has a wide range of other easy-to-use machines — all with the same professional quality lettering that's made Kroy the leader of the lettering industry.

To get your free $200 worth of Kroy accessories, just call 1-800-328-KROY or send in the coupon below. We'll send you a voucher you can redeem when you buy your Kroy 190 Lettering System.

Let Kroy show you how to look good for less. Give us a call or mail in this coupon today.

GET A FREE $200 STARTER KIT.

Please send me more information about the complete line of Kroy® Lettering Systems, a sample of Kroy lettering and my free $200 accessories voucher.

NAME

TITLE

PHONE

COMPANY

ADDRESS

CITY

STATE

ZIP

Kroy Inc., PO. Box C-4300

Scottsdale, AZ 85261

The leader in lettering.

*At participating dealers only. Offer ends Nov. 30, 1986.
For the first time ever, a foam plastic insulation is guaranteed to retain its "R" value for 20 years. Our 8.3 "aged" "R" value per inch is the best in the industry.

Koppers Rx Insulation will not lose "R" value over time. Koppers Rx is a rigid, thermally efficient phenolic foam board insulation, providing superior long-lasting energy efficiency.

Rx Insulation is the best value in roofing, wall, and ceiling insulation today...tomorrow...and into the 21st century. Koppers guarantees it!

The Koppers Guarantee
If the "R" value of Koppers Rx Insulation fails to meet our published specifications—anytime within 20 years of installation—Koppers will pay the resulting difference in heating and cooling costs. See warranty for conditions and details.

Are you getting the long-term "R" value you specified?
The standards of the Roof Insulation Committee of the Thermal Insulation Manufacturers Association (RIC/TIMA) require an evaluation period of 6 months for determination of "aged" "R" value of foam plastic insulations. The Midwest Roofing Contractors Association has sponsored research studies which conclude that the RIC/TIMA 6-month room temperature "aged" "R" value claims...are not realistic to use as the basis for the design of 10 to 20-year roof life.” (See RSI Magazine article, July, 1986, p. 38).
Koppers Rx goes much further than the "standard 6-month "aged" "R" value rating, guaranteeing its high in-service "R" value into the 21st century!

**Rx advantages**

Kallying Koppers Rx will provide you with much more than superior, long-lasting energy efficiency. For instance:

- Insulation is the only plastic foam insulation duct on the market which passed one, one-half and two-hour UL fire resistive tests when the insulation was directly applied over a treated metal deck. Also, Rx has low smoke-developed and flame-spread ratings.
- Insulation is non-corrosive.
- Insulation is dimensionally stable and exceeds industry standards.

**Value-added "R" value**

Koppers stands behind the best insulation value with the best guarantee in the industry. Rx Insulation is a truly "value-added" material. It adds value in terms of most "R" per inch and long-term energy savings...so why settle for less.

To learn more about Koppers unprecedented 20-year guarantee, call 800-558-2706 or write:

Koppers Company, Inc.
Dept. #58H-4
Pittsburgh, PA 15219

**KOPPERS RX**

The 21st Century Insulation

Circle 103 on inquiry card

Thinking quality is a way of life at Merillat. In fact, quality is really a tradition that began here over 40 years ago and is carried out by each and every one of us every day.

That "Merillattitude" commitment to the quality of our products begins in our minds long before it comes to life on our assembly lines. It's that commitment that keeps us exploring, thinking ahead to the next step—the new design, or material, or the improved method. It keeps us building plants nationwide, as our customers' needs grow. It keeps us pioneering new technology, as well.

Quality construction is the trademark of our company—a reflection of the way we think and work as a team.

I'm proud of the Merillattitude reflected in our products. This is the Merillattitude quality we deliver that can help you become the best in your business.

Richard D. Merillat, President
Merillat Industries, Inc.
Find out how good
Business Class can be.

TWA AND AMERICAN EXPRESS MEAN BUSINESS. Discover the peace of mind that comes with TWA's Airport Express® service. TWA recommends you reserve and pay for your tickets ahead of time with the American Express® Card, and get your boarding passes even before you get to the airport. Plus, Business Class travelers enjoy many other services like priority luggage drop-off and pick-up.

OUR COMFORT IS OUR BUSINESS. TWA goes to great lengths and widths to ensure your comfort with extra leg and shoulder room. And on our 747s, Business Class travelers can find themselves sitting in the luxury of our spacious Business Class—the widest seat in the sky. And all of this special Business Class comfort is available not only across the Atlantic, but also on TWA widebodies across America.

AMERICAN EXPRESS INTRODUCES GLOBAL ASSIST. Wherever business takes you, American Express' new Global Assist service provides worldwide emergency referrals. With one call, toll free, 24 hours a day, American Express will help Cardmembers find a lawyer, doctor, dentist, pharmacist, interpreter—or even suggest which visas or inoculations are needed for specific trips. And American Express has Travel Service Offices worldwide to help you with any changes in your travel plans.

THE BEST TRAVEL AWARDS FOR FREQUENT FLYERS. Only TWA offers frequent flyers the opportunity to earn a free trip for two, First Class, around the world, as well as free travel to a variety of exciting, exotic places. And members of TWA's Frequent Flight Bonus® program who travel Business Class will earn 25% bonus miles on every flight.

THE IDEAL TRAVEL PARTNERS: TWA AND AMERICAN EXPRESS. There's a new spirit and vitality at TWA and we're determined to make sure your Business Class travel goes as smoothly and conveniently as possible. To ensure this ease, TWA gladly accepts the American Express Card with its instant acceptance at TWA counters worldwide. Don't leave home without it.

TODAY'S TWA. FIND OUT HOW GOOD WE REALLY ARE.
WE'VE CLEARED THE AIR!
THE BLU-RAY MODEL 250 SCAVENGER PLUS PRODUCES SUPERB PRINTS VIRTUALLY ODOR-FREE.
Complete with quality features you've come to expect from Blu-Ray — a 50” Throat, Dual-Range Heat, Pump and Speed Controls, Printing Speeds from 1/2 to 25 Feet per Minute — The Model 250 Scavenger Plus represents an innovation in ammonia reduction.
Inquire about our complete line of Whiteprinters.

Manufacturer of Quality Whiteprinters Since 1957

BLU-RAY
BLU-RAY, INCORPORATED • Westbrook Road
Essex, Connecticut • (203) 767-0141

Now You Can Fully Protect a Single Ply Membrane with an Attractive, Non-combustible Surface.

At only 11.5 psf, the ROOFBLOK Ballast System provides the most complete membrane protection possible against puncture, cutting, scouring, ultra-violet rays and wind uplift. The ROOFBLOK System is the result of 4 years of research and extensive testing.

SEND FOR FREE DESIGN CRITERIA & SPECIFICATIONS MANUAL Use Reader Service Card, write or call: ROOFBLOK Limited, P.O. Box 2624, Fitchburg, MA 01420 (617) 582-9426

Payroll Savings really works ...and that's no CROCK!
Design Professionals predict the future
AFTER ELECTRONIC SWEET'S DEMONSTRATIONS AT FOUR MAJOR INDUSTRY SHOWS, NEED IS SEEN FOR MANUFACTURER CATALOGS TO REFLECT FUTURE SELECTION HABITS.

Following demonstrations at AIA, CIS, A/E/C Systems, and Electric '86 shows, 437 design professionals completed questionnaires regarding their evaluation of Electronic Sweet's impact on product search when launched in '89. Highlights of importance to manufacturers:

- Over 4 out of 5 say Electronic Sweet's will be "extremely" or "very" useful to them.
- 98.8% feel it's "very easy" or "easy" to use.
- Almost 9 out of 10 will use it on over half of their searches in Sweet's, and 1 out of 2 will use it on three quarters of their searches in Sweet's.
- Stated another way, firms whose catalogs don't reflect Electronic Sweet's selection programming criteria may lose up to 60% of referrals to their products.

With launch of Electronic Sweet's set for 1989, Sweet's Sales VP Chuck Nash emphasizes importance of manufacturers to participate now in working with Sweet's in programming criteria. Only Sweet's customers can input search criteria, giving them a competitive edge by having their key product features written into the program.

Manufacturers are urged to request free consultation with Sweet's catalog design professionals ASAP.

Over 100,000 expected at CONEXPO © 87
ENR PUBLISHER HEADS SEMINAR COMMITTEE FOR CONSTRUCTION MACHINERY SUPERSHOW; NOV. 13 IS AD CLOSING FOR ENR PREVIEW.

Las Vegas Convention Center is Feb. 21-26 site of exposition held every 6 years by Construction Industry Manufacturers Assn. (CIMA).

Exhibit expected to exceed 1,000,000 sq. ft. for latest technology, including machinery, robotics, electronics, and outdoor demos of equipment at work. International scope of show is reflected in IRF Symposia simultaneously translated into French, Spanish, Chinese, Arabic.

New feature: comprehensive seminar program (English only), with ENR Publisher Dave McGrath heading up seminar committee. Thirty six lectures fall into 5 categories, from technical to marketing.

ENR preview coverage of CONEXPO 87 begins in Dec. 11 issue. Coverage to continue in Feb. 12 issue, to be distributed at show. Follow-up coverage to appear in Feb. 26 and March 5 issues.

New Dodge Software
"REMODELING/RETFIT ESTIMATOR" PROVIDES "COST-BY-ROOM" PROGRAMMING FOR RESIDENTIAL AND COMMERCIAL JOBS; KEY FACTOR IS DODGE DATA BASE.

With renovation currently accounting for about 50% of the construction market, accurate estimates in the segment take on added importance.

New "Remodeling / Retrofit Estimator" software covers spectrum of categories from site to roofs, with 697 different renovation tasks. Dodge Data Base includes labor/productivity/materials costs broken out for 720 local geographic areas in U.S. and Canada and is updated semi-annually.

Floppy disk is IBM PC-compatible. Fast, accurate program is enhanced with flexibility to over-ride Dodge cost data with estimator's own numbers. Demo disks available for $25.

Another "First" from Dodge: The 4 Dodge Cost Data Publications covering "Assemblies", "Unit", "Square Foot", and "Heavy Construction" costs are now available in both book and diskette formats.

1987 NATIONAL ELECTRIC CODE © SEMINARS BEING HELD IN CHICAGO AND SEATTLE: DRASTIC CHANGES, STRICTER ENFORCEMENT REQUIRE VISUAL EXPLANATION FOR CLARITY.

As part of its on-going conference program, Electrical Construction & Maintenance magazine has scheduled seminars across the U.S. to explain new articles and regulation changes in the NE Code.

Because of complexity of changes and number of new applications, emphasis will be on visual presentation, with hundreds of diagrams, photos.

Cont'd...
and charts. Seminars will be led by EC&M Editorial Director Joe McPartland and a blue-ribbon panel of Code specialists to clarify and answer questions. Following last month’s sessions in Boston, the conferences move to Chicago, Oct. 30-31, and Seattle, Nov. 20-21.

Besides electrical-specific firms, architectural and engineering firms should have representatives attend to ensure having an “in-house expert” on regulations which will be in effect over next 3 years.

Circle 109 on inquiry card

Update on Dodge DataLine®

ELECTRONIC DODGE REPORTS TEST MARKET SEES RAPID REFINEMENTS AFTER 9 MONTHS; EXPANSION TO TO BE EXPLORED FOR ’87

Currently 38 firms are testing the DataLine prototype electronic data base of Dodge Reports information in the six New England states. With input from users, Dodge is streamlining and adding features to provide customized access to information beyond even the selective capabilities of printed/mailed Reports. Using personal computers linked to phones, DataLine functions as an “electronic mailbox.” Hard copy can be printed as needed.

Besides early alert on new jobs, continual tracking of jobs of special interest becomes more efficient. The menu allows quick customized searches for such categories as valuation, job phases, competitor activity, and mention of specific trades, materials and equipment. Speed of menu selections and retrieval has increased 400% since testing began in April. Downloading capability is expected by Nov.

Additional market tests will be explored in ’87 with a national rollout planned in 1987 or 1988.

Circle 110 on inquiry card

ENR ON-LINE test results:

80% OF TRIAL USERS RE-SUBSCRIBE;
24-HOUR-A-DAY NETWORK PROVES WORTH AS HEADSTART JOB LEAD SERVICE FOR WORLD-CLASS CONSTRUCTION FIRMS.

Initial 6-month market test of ENR ON-LINE indicates subscribers get strong competitive edge via up-to-the-minute early leads on major national and international opportunities. Shortly after CIG made it available for general subscription, original subscribers were joined by 2 major Design/Construction firms and a General Contractor.

Key to the $16,800-per-year service is a network of 250 correspondents worldwide, plus daily updating of on-line data. News briefs and project leads are reported at very early stages, even including funding announcements of major activity to come. Info is gathered specifically for ENR ON-LINE, is targeted for major firms with marketing sophistication to take fast action on news not yet available to design/construction community at large.

In-office demonstrations available from Dodge/DRI and Dodge National Account reps.

Circle 111 on inquiry card

TAX REFORM: 

BACK TO BASICS

The sweeping overhaul of the nation’s tax system will change a few things for the construction industry.

—Real estate tax shelters. To no one’s great surprise, real estate tax shelters head the list of reforms. The pending legislation provides that depreciation on commercial buildings will be extended from the current 16 years to 31.5 years, and prohibits the use of “passive” investment losses to offset other income. For developers of office buildings, hotels, and apartments, this means that rental properties must exist by income alone—without the generous subsidy provided since 1981 when the Economic Recovery Tax Act (ERTA) allowed fast write-offs. The change shouldn’t leave these construction markets at any more of a disadvantage than before ERTA, except for the temporary problem of digesting a glut of vacant buildings—the legacy of over-stimulation by accelerated depreciation. The inevitable short-term adjustment: a sharp cutback of new construction until the surplus is absorbed.

—Tax free bonds. Public issues will retain their tax free status, but private bond issues will be restricted by the new legislation. Preferential tax treatment currently enjoyed by industrial development bonds, private waste treatment projects, hospitals, and even low income housing, for example, will be limited (“capped”). However, public issues for roads, waste water treatment, schools, and hospitals will remain eligible for low cost financing. The favored tax treatment of state and local government borrowing is entirely consistent with the spirit of the “New Federalism” which requires local governments to assume a greater share of domestic programs which were once the domain of the Federal government.

One benefit of the new legislation will be to take the recent “artificiality” out of the real estate market. Viable projects—buildings that are intended to shelter people rather than income—will still be built.

—George A. Christie, Vice President and Chief Economist

CONSTRUCTION INFORMATION GROUP

Construction Information Group, McGraw-Hill Information Systems Company
1221 Avenue of the Americas, New York, NY 10020
Quality and Beauty, From Square One.

And that's where it all begins with the versatile, easy to install Luxalon® Cell Ceiling System. Call for more information.

HunterDouglas
Architectural Products

P. O. Box 724568 • Atlanta, GA 30339
(404) 432 1364 • (800) 432 7462

To contact your nearest Hunter Douglas representative, call Sweet's Buyline (800) 447 1980.

Circle 112 on inquiry card
The National Building Museum. A home for all members of the building community. A place to exchange ideas, information, and opinions. A rallying point to celebrate and promote building. A center to enhance public understanding and appreciation of the building arts and sciences.

The National Building Museum’s program of exhibitions, films, and publications covers all aspects of the built environment. Its information center supplies the building industry with current and historical technological data. Its documentation center collects both written and visual materials to aid writers, teachers, and researchers.

The home of NBM is the century-old Pension Building in Washington, D.C., an architectural and engineering marvel whose Great Hall is pictured above.

A nonprofit institution, NBM needs your support in order to support you. Join us.

**Become a charter member of the National Building Museum**

Members are sent BLUEPRINTS, the museum’s publication, and receive discounts on special activities. NBM is a nonprofit corporation. Your membership is tax-deductible.

Name: ___________________________
Address: ________________________
City: __________ State: ___________ Zip: ______

<table>
<thead>
<tr>
<th>Membership Level</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regular</td>
<td>$15</td>
</tr>
<tr>
<td>Sponsor</td>
<td>$50</td>
</tr>
<tr>
<td>Patron</td>
<td>$500</td>
</tr>
<tr>
<td>Benefactor</td>
<td>$100</td>
</tr>
<tr>
<td>Student</td>
<td>$5</td>
</tr>
<tr>
<td>Overseas</td>
<td>$22</td>
</tr>
</tbody>
</table>

Make checks payable to: National Building Museum and send to:
Membership/National Building Museum
Pension Building
Judiciary Square, N.W., Washington, DC 20001
Building and landscape architects joined forces to give the new Showboat Hotel and Casino a roof that will stand out—even in the flamboyant world of Atlantic City casinos.

Landscape and site design specialists Cairone Mackin & Kaupp, of Philadelphia, worked closely with casino architects Martin Stern Associates, of Beverly Hills. They produced a nautical design that combines multicolored crushed stone graphics (such as the compass rose above) with live plantings, trellises and other traditional garden landscaping elements.

Underneath it all went a 45 mil Firestone RubberGard® EPDM roof and Firestone-supplied Foamular® insulation, the value-engineered recommendations of Thomas Roofing & Sheet Metal Co., the Atlantic City contractor for the job. “It would have been prohibitive to put down a built-up roof—more labor, more materials,” said Mike Thomas, of Thomas Roofing, explaining why he chose Firestone EPDM.

Dave Rudzenski, the Martin Stern field rep on the job, agreed. “I personally feel it’s a better product. Much easier to work with. And the life is long.”

Architects across America are finding that Firestone RubberGard® EPDM provides the strength, durability, economy and ease of installation they need to feel true confidence in a roof. And that confidence is increased by Firestone’s unsurpassed field support, from architectural consultation to installation to final warranty inspection.

Firestone’s good name insures your good name, even on the most distinctive projects. Call 1-800-428-4442.
sales offices

Main Office
McGraw-Hill, Inc.
1221 Avenue of the Americas
New York, New York 10020

Director of Business and Production
Joseph R. Wunk (212) 512-2793

Director of Marketing
Camille Padula (212) 512-2858

 Classified Advertising
Camille Padula (212) 512-2856

Strict Offices

R:直销 Offices

corner of Sales East

Burlington, Vermont

Director of Sales-West

John W. Maisel

4000 Town Center, Suite 770
Southfield, MI 48075
(313) 352-9760

Los Angeles

3333 Wilshire Blvd., Suite 407
Los Angeles, California 90010
Stanley J. Kassin (213) 437-1160

New York

1221 Avenue of the Americas
New York, New York 10020
Theodore C. Rzempoluch
(212) 512-3603

Philadelphia

Three Parkway
Philadelphia, Pennsylvania 19102
Blair McClenachan (215) 496-3840

Pittsburgh

6 Gateway Center, Suite 215
Pittsburgh, Pennsylvania 15222
George Gots (412) 227-3640

San Francisco

425 Battery Street
San Francisco, California 94111
Stanley J. Kassin 1 (800) 621-7881

Stamford

777 Long Ridge Road
Stamford, Connecticut 06902
Louis F. Katcher (203) 985-7111

President Market Development

ral Government

R. D'Armento
K Street NW
1-170
Washington, D.C. 20006
463-1725

Beadex wants to keep you from cracking up...

SOFTLINE
Softline corner and Cove products help create the appealing, rounded inner and outer corners favored by many designers. Paper tape laminated to galvanized metal surfaces excellent adhesion. The 1/4" radius adapts well to either 1/4" or 1/2" drywall.

So Beadex is offering their tape-on trim!

Beadex Tape-On Corners are free floating. Unlike Nail-On Corners, Tape-On Corners will not crack along the outer edges if stud movement or shrinkage should occur.

- Ease of application
- No nail pops
- Shallower bead means less shrinkage
- More rust resistant
- Better surface for joint compound adhesion
- Paint adheres better to bead portion than to bare steel
- Available in 90 degree and 1/4" radius corners

DETAIL

DIMENSIONS

A B C D

DESCRIPTION

BEADEX OUTER CORNER

Concealed Metal
Galvanized metal corner bead laminated to exposed paper tape offers an excellent finish for joint compound application and paint. For use on any thickness of wallboard.

BEADEX SOFTLINE

Softline corner and Cove products help create the appealing, rounded inner and outer corners favored by many designers. Paper tape laminated to galvanized metal surfaces excellent adhesion. The 1/4" radius adapts well to either 1/4" or 1/2" drywall.

BEADEX MANUFACTURING COMPANY, INC.

833 Houser Way North
Renton, Washington 98055
(206) 228-6600

1325 El Pinal Drive
Stockton, California 95205
(209) 462-6600

Other products pending...

Circle 114 on inquiry card
Use your STAC card!

Need product information fast? Your Architectural Record Subscriber Telephone Access Card can help speed information to you about a product or service in these pages.

When you key your more-information requests directly into our computer through a touch-tone telephone—from Architectural Record’s exclusive system—you save days, even weeks of mail-delivery, handling and processing time.

The day after you call, advertisers can access your request by phone from our computer and begin the process of mailing you the materials you request. When you need information for a right-now project, fast, free help is as close as your STAC card. And STAC service is available to you 24 hours a day, seven days a week.

BEFORE YOU DIAL:
1. Write your STAC ID number, as imprinted on your STAC card, in the boxes in Step 4 below. Do not add Os.

2. Write the Reader Service numbers for those items about which you want more information in the boxes in Step 6 below. Do not add Os.

CALL STAC:
3. Using a standard touch-tone telephone, call 413/442-2668, and follow the computer-generated instructions.

ENTER YOUR STAC NUMBER AND ISSUE NUMBER:
4. When the recording says, “Enter your subscriber number...” enter your STAC number by pushing the numbers and symbols (# or *) on your telephone keypad. Ignore blank boxes.

5. When the recording says, “Enter magazine code and issue code...” enter these numbers and symbols:

END STAC SESSION:
7. When you have entered the last Inquiry Selection Number, the recording prompts, “Do you have another inquiry?”, call by entering:

ENTER YOUR INQUIRIES:
6. When the recording says, “Enter (next) inquiry number...” enter the first Inquiry Selection Number, including symbols from your list below. Do not add Os.

If you are a subscriber and need assistance, call 212/512-3442. If you are a subscriber, fill out the subscription card in this issue, or call Architectural Record Subscription Services at 914/628-0821.
Summitville is everywhere quality is needed—in restaurants, shopping malls, processing plants, offices and homes across the country.

Summitville is in design—colors, shapes and styles that make up one of the most extensive tile lines available.

Summitville is in innovation—we’ve been coming up with new ideas for ceramic tile for over 75 years.

Summitville is in mortar, epoxy and grout—the only tile maker that goes that far to ensure quality control in your installations.

Most important, Summitville is in an attitude that leads to quality craftsmanship which meets or exceeds ANSI building standards. It’s the kind of attitude that makes Summitville a better company to deal with, from expert service and exceptional products to on-time delivery.

So where can you find Summitville? You’ll see it in quality installations all over America. And it’s in your Sweet’s File 9.18/Sum.
Hurd is the innovative leader of the window industry.

Hurd standards are designed to perform.

Hurd makes classic windows in the most carefully controlled modern environment, infusing the best of today's technology into our craft. We offer the sizes, shapes and window types necessary to produce buildings of character and imagination. We also offer R-Values above 4.0, superior comfort and economy.

Consider the Hurd clad casement. A standard product for us, by any other criteria, this is a very exceptional window. The .050 inch thick aluminum cladding on the frame and sash is electrostatically coated so it won't chip, fade or peel. The full one-inch insulated glass is also available with two different Heat Mirror™ glazings. Top performance is further guaranteed by triple weatherstripping and a thick wood frame.

Although a single glance qualifies this Hurd window as a good choice, further investigation of the adherence to details will convince you that it's the only choice. You can build a reputation with Hurd gears' efficiency to specific climates.

Different areas of the country have different solar exposures and varying heating and cooling demands. Plus, some climates are extremely hot in summer but bitter cold in winter. Hurd won't pretend that one window could be right for all these conditions. Instead, we offer specific glazing options, such as Heat Mirror 88 and Sunbelter™66 for cold climates and Sunbelt™66 for hot climates. Each is intended to minimize energy usage and maximize interior comfort. Yet neither restricts or limits the view. Although you can include this custom feature as a premium, it's a standard offering from Hurd.

Join the leader. Specify Hurd. You can improve the efficiency and beauty of every project by joining the innovative leader. Don't you deserve the best?

Call: 1-800-2BE-HURD

The full line filled with leading ideas

<table>
<thead>
<tr>
<th>GLAZING OPTIONS</th>
<th>U Values</th>
<th>R Values</th>
<th>Relative Heat Gain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clad Casement w/1&quot; insulating</td>
<td>.43</td>
<td>2.31</td>
<td>186</td>
</tr>
<tr>
<td>Clad Casement w/1&quot; Heat Mirror 88</td>
<td>.25</td>
<td>4.05</td>
<td>149</td>
</tr>
<tr>
<td>Clad Casement w/1&quot; Sunbelter 66</td>
<td>.24</td>
<td>4.20</td>
<td>103</td>
</tr>
<tr>
<td>Clad Casement w/Bronze Sunbelter 66</td>
<td>.24</td>
<td>4.20</td>
<td>86</td>
</tr>
</tbody>
</table>

1Standard ASHRAE (1981) winter conditions.

Heat Mirror is a trademark of Southwall Technologies.