


# ARCHITECTURAL RECORD

**GEHRY'S IAC BUILDING  
MAKES NEW YORK JAZZ**

ALSO FEATURING

**MAKI, LEGORRETA, GRIMSHAW**

RESIDENTIAL COMPOUNDS



## Directed

Control natural light from every angle.

No matter the sun's orientation, a combination of automated horizontal and manual vertical aluminum blinds effortlessly manages light.

A 3-tilt function set by celestial clock makes daylighting at this LEED® specified building hands free, and light years ahead.

For more automated daylighting solutions,

visit [www.hunterdouglascontract.com/directed](http://www.hunterdouglascontract.com/directed)



*Product:* 2" Horizontal and 3.5" Vertical Aluminum Blinds  
*Controls:* Solar-tracking system with 3-tilt function  
*Result:* Maximum daylight; minimal glare

Call toll-free 800.727.8953

©2007 Hunter Douglas Inc. ® Trademark of Hunter Douglas Inc.

**HunterDouglasContract**

WINDOW COVERINGS

CIRCLE 145 ON READER SERVICE CARD OR GO  
TO [ARCHRECORD.CONSTRUCTION.COM/PRODUCTS](http://ARCHRECORD.CONSTRUCTION.COM/PRODUCTS)

WINDOWS • CURTAIN WALLS • ENTRANCES • STOREFRONTS

EFCO CURTAIN WALL.  
THE NATURE OF INNOVATION.

CIRCLE 01 ON READER SERVICE CARD OR GO TO [ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/](http://ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/)



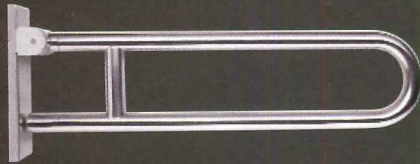
At EFCO, innovative ideas are part of the landscape. How else would you describe a comprehensive line of curtain wall systems that combine smart design, demanding performance and the kind of energy efficiency and sustainability features demanded of today's environmentally aware projects. Discover more about how EFCO is changing your world for the better. Contact your EFCO representative, go to [efcocorp.com](http://efcocorp.com) or call 1-800-221-4169.

WHERE WINDOWS ARE JUST THE BEGINNING.

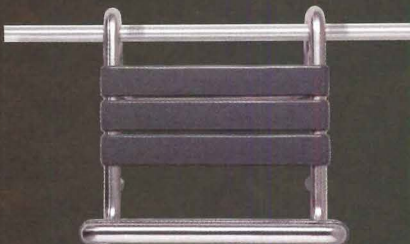




Grab bar



Hinged support rail



Hinged seat

CIRCLE 02 ON READER SERVICE CARD OR GO  
TO ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/

Häfele America  
Showrooms  
in New York, Chicago  
and San Francisco  
800.423.3531  
www.hafele.com

**HÄFELE**  
FINDING BETTER WAYS

# ARCHITECTURAL RECORD

**EDITOR IN CHIEF** Robert Ivy, FAIA, [rivy@mcgraw-hill.com](mailto:rivy@mcgraw-hill.com)  
**MANAGING EDITOR** Beth Broome, [elizabeth\\_broome@mcgraw-hill.com](mailto:elizabeth_broome@mcgraw-hill.com)  
**DESIGN DIRECTOR** Anna Egger-Schlesinger, [schlesin@mcgraw-hill.com](mailto:schlesin@mcgraw-hill.com)

**DEPUTY EDITORS** Clifford A. Pearson, [pearsonc@mcgraw-hill.com](mailto:pearsonc@mcgraw-hill.com)  
Suzanne Stephens, [suzanne\\_stephens@mcgraw-hill.com](mailto:suzanne_stephens@mcgraw-hill.com)  
Charles Linn, FAIA, Profession and Industry, [linnc@mcgraw-hill.com](mailto:linnc@mcgraw-hill.com)

**SENIOR EDITORS** Sarah Amelar, [sarah\\_amelar@mcgraw-hill.com](mailto:sarah_amelar@mcgraw-hill.com)  
Jane F. Kolleeny, [jane\\_kolleeny@mcgraw-hill.com](mailto:jane_kolleeny@mcgraw-hill.com)  
Joann Gonchar, AIA, [joann\\_gonchar@mcgraw-hill.com](mailto:joann_gonchar@mcgraw-hill.com)  
Russell Fortmeyer, [russell\\_fortmeyer@mcgraw-hill.com](mailto:russell_fortmeyer@mcgraw-hill.com)

**PRODUCTS EDITOR** Rita Catinella Orrell, [rita\\_catinella@mcgraw-hill.com](mailto:rita_catinella@mcgraw-hill.com)  
**NEWS EDITOR** James Murdock, [james\\_murdock@mcgraw-hill.com](mailto:james_murdock@mcgraw-hill.com)

**DEPUTY ART DIRECTOR** Kristofer E. Rabasca, [kris\\_rabasca@mcgraw-hill.com](mailto:kris_rabasca@mcgraw-hill.com)  
**ASSOCIATE ART DIRECTOR** Encarnita Rivera, [encarnita\\_rivera@mcgraw-hill.com](mailto:encarnita_rivera@mcgraw-hill.com)  
**ILLUSTRATOR** I-ni Chen

**PRODUCTION MANAGER** Juan Ramos, [juan\\_ramos@mcgraw-hill.com](mailto:juan_ramos@mcgraw-hill.com)  
**COPY EDITOR** Leslie Yudell, [leslie\\_yudell@mcgraw-hill.com](mailto:leslie_yudell@mcgraw-hill.com)

**EDITORIAL SUPPORT** Linda Ransey, [linda\\_ransey@mcgraw-hill.com](mailto:linda_ransey@mcgraw-hill.com)  
Monique Francis, [monique\\_francis@mcgraw-hill.com](mailto:monique_francis@mcgraw-hill.com)

**EDITORIAL ASSISTANTS** David Sadighian, [david\\_sadighian@mcgraw-hill.com](mailto:david_sadighian@mcgraw-hill.com)  
Jenna M. McKnight, [jenna\\_mcknight@mcgraw-hill.com](mailto:jenna_mcknight@mcgraw-hill.com)

**CONTRIBUTING EDITORS** Raul Barreneche, Robert Campbell, FAIA, Andrea Oppenheimer Dean,  
David Dillon, Lisa Findley, Sara Hart, Blair Kamin, Nancy Levinson,  
Jayne Merkel, Robert Murray, Andrew Pressman, FAIA, Nancy B.  
Solomon, AIA, Michael Sorkin, Michael Speaks, Ingrid Spencer

**SPECIAL INTERNATIONAL CORRESPONDENT** Naomi R. Pollock, AIA  
**INTERNATIONAL CORRESPONDENTS** David Cohn, Claire Downey, Tracy Metz

**WEB DESIGN** Susannah Shepherd, [susannah\\_shepherd@mcgraw-hill.com](mailto:susannah_shepherd@mcgraw-hill.com)  
**WEB PRODUCTION** Laurie Meisel, [laurie\\_meisel@mcgraw-hill.com](mailto:laurie_meisel@mcgraw-hill.com)

## MCGRAW-HILL CONSTRUCTION MEDIA

**VICE PRESIDENT, GROUP PUBLISHER** James H. McGraw, IV  
**VICE PRESIDENT, INTEGRATED MEDIA** Laura Viscusi  
**DIRECTOR, MARKETING COMMUNICATIONS** Deborah Smikle-Davis  
**SENIOR DIRECTOR, ONLINE** Dora Chomiak  
**DIRECTOR, ACCOUNT & MEDIA SERVICES** Brenda Griffin  
**DIRECTOR, FINANCIAL OPERATIONS** Ike Chong

**NEWS DIRECTOR** Heather Hatfield  
**GROUP PRODUCTS EDITOR** Rita Catinella Orrell  
**WEB DESIGN DIRECTOR** Susannah Shepherd

**VICE PRESIDENT, MEDIA SALES** Paul Bonington  
**VICE PRESIDENT, CIRCULATION** Maurice Persiani  
**VICE PRESIDENT, CUSTOM PUBLICATIONS** Mark Kelly  
**DIRECTOR, CREATIVE SERVICES** Susan Valentini  
**ASSISTANT, MEDIA DEPARTMENT** Pina Del Genio

**EDITORIAL DIRECTOR, DIGITAL MEDIA** Bryant Rousseau  
**GROUP DESIGN DIRECTOR** Anna Egger-Schlesinger  
**VICE PRESIDENT, EDITORIAL DIRECTOR** Robert Ivy, FAIA

## MCGRAW-HILL CONSTRUCTION

**PRESIDENT** Norbert W. Young, FAIA  
**SENIOR VICE PRESIDENT** Howard Mager  
**VICE PRESIDENT, CONTENT & PRODUCTION** Tim Ryan  
**SENIOR DIRECTOR, FINANCE** Nilo Ramos

**VICE PRESIDENT, MARKETING & PRODUCT DEVEL.** Potoula Chresomales  
**VICE PRESIDENT, ANALYTICS & ALLIANCES** Harvey Bernstein  
**VICE PRESIDENT, TECHNOLOGY** John P. Banks

**ARCHITECTURAL RECORD:** (ISSN 0003-858X) October 2007. Vol. 195, No. 10. Published monthly by The McGraw-Hill Companies, 1221 Avenue of the Americas, New York, N.Y. 10020. Periodicals postage paid at New York, N.Y. and additional mailing offices. Canada Post International Publications Mail Product Sales Agreement No. 40012501. Return undeliverable Canadian addresses to: DPGM Ltd., 2-7496 Bath Road, Mississauga, ON L4T 1L2. Email: [arhcustserv@cdsfulfillment.com](mailto:arhcustserv@cdsfulfillment.com). Registered for GST at The McGraw-Hill Companies. GST No. R123075673. **Postmaster:** Please send address changes to ARCHITECTURAL RECORD, Fulfillment Manager, P.O. Box 5732, Harlan, IA 51593. **SUBSCRIPTION:** Rates are as follows: U.S. and Possessions \$70.30; Canada and Mexico \$79 (payment in U.S. currency, GST included); outside North America \$199 (air freight delivery). Single copy price \$9.95; for foreign \$11. Subscriber Services: 877/876-8093 (U.S. only); 515/237-3681 (outside the U.S.); fax: 712/755-7423. **SUBMISSIONS:** Every effort will be made to return material submitted for possible publication (if accompanied by stamped, self-addressed envelope), but the editors and the corporation will not be responsible for loss or damage. **SUBSCRIPTION LIST USAGE:** Advertisers may use our list to mail information to readers. To be excluded from such mailings, send a request to ARCHITECTURAL RECORD, Mailing List Manager, P.O. Box 555, Hightstown, N.J. 08520. **OFFICERS OF THE MCGRAW-HILL COMPANIES:** Chairman, President and Chief Executive Officer: Harold McGraw III. Executive Vice President and Chief Financial Officer: Robert J. Bahash. Executive Vice President, Human Resources: David L. Murphy. Senior Vice President and General Counsel: Kenneth M. Vittor. Principal Operating Executives: Kathleen A. Corbet, President, Standard & Poors; Henry Hirschberg, President, McGraw-Hill Education; Glenn S. Goldberg, President, McGraw-Hill Information and Media Services. **COPYRIGHT AND REPRINTING:** Title ® reg. in U.S. Patent Office. Copyright © 2007 by The McGraw-Hill Companies. All rights reserved. Where necessary, permission is granted by the copyright owner for libraries and others registered with the Copyright Clearance Center (CCC), 222 Rosewood Drive, Danvers, Mass. 01923. To photocopy any article herein for personal or internal reference use only for the base fee of \$1.80 per copy of the article plus ten cents per page, send payment to CCC, ISSN 0003-858X. Copying for other than personal use or internal reference is prohibited without prior written permission. Write or fax requests (no telephone requests) to Copyright Permission Desk, ARCHITECTURAL RECORD, Two Penn Plaza, New York, N.Y. 10121-2298; fax: 212/904-4256. For reprints call 800/360-5549 X 129 or e-mail [architecturalrecord@reprintbuyer.com](mailto:architecturalrecord@reprintbuyer.com). Information has been obtained by The McGraw-Hill Companies from sources believed to be reliable. However, because of the possibility of human or mechanical error by our sources, The McGraw-Hill Companies or ARCHITECTURAL RECORD does not guarantee the accuracy, adequacy, or completeness of any information and is not responsible for any errors or omissions therein or for the results to be obtained from the use of such information or for any damages resulting therefrom.

**EDITORIAL OFFICES:** 212/904-2594. Editorial fax: 212/904-4256. Email: [rivy@mcgraw-hill.com](mailto:rivy@mcgraw-hill.com). Two Penn Plaza, New York, N.Y. 10121-2298. **WEB SITE:** [architecturalrecord.com](http://architecturalrecord.com).

**McGraw Hill  
CONSTRUCTION**

**ABC MPA**

The McGraw-Hill Companies

Project: Mariposa Residence  
Location: Phoenix USA  
Architect: DeBartolo Architects Ltd.

# ARCHITECTURE.

## Pilkington Profilit™ Channel Glass Systems

Pilkington Profilit will revolutionize the way you incorporate glazing into your designs, giving you the freedom to be creative. With Pilkington Profilit, self-supporting channel glass soars up to 23 feet. Install it vertically or horizontally, forming straight or curved walls. The glass is available in a variety of textures and colors with varying degrees of translucency, allowing light through while maintaining privacy. And Pilkington Profilit can be used in interior or exterior applications, with Nanogel® insulating aerogel to provide energy efficiency.

Visit our newly updated web site  
[tgpamerica.com](http://tgpamerica.com)

800.426.0279

Pilkington Profilit™

CIRCLE 03 ON READER SERVICE CARD OR GO TO [ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/](http://ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/)

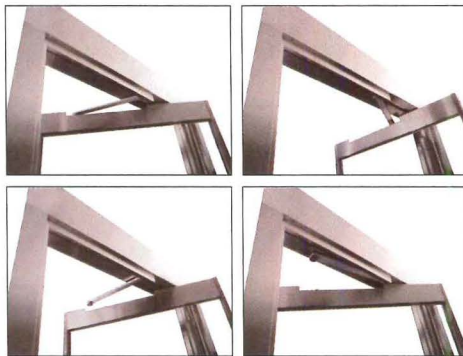


ARCHITECTURAL  
one source. many solutions.®

© 2007 Technical Glass Products. Pilkington Profilit is a trademark of Pilkington plc. Nanogel is a registered trademark of Cabot Corporation. Technical Glass Products and One Source: Many Solutions are registered trademarks of Technical Glass Products.



The Door With A Split Personality



Automatic Operation

When You Need It,

-and-

Balanced Door Operation

When You Don't.

Balanced doors will never be the same thanks to this completely unobtrusive, ingenious, automatic door operator. It's perfect for ADA applications and excellent for smoke evacuation. And, like all Ellison products, it's built to last.

ellison

BALANCED DOORS

& CUSTOM ENTRANCE SOLUTIONS

www.ellisonbronze.com

800.665.6445

CIRCLE 04 ON READER SERVICE CARD OR GO TO ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/

# ARCHITECTURAL RECORD

VICE PRESIDENT & PUBLISHER  
VICE PRESIDENT, MEDIA SALES

Laura Viscusi, [laura\\_viscusi@mcgraw-hill.com](mailto:laura_viscusi@mcgraw-hill.com)  
Paul Bonington, [paul\\_bonington@mcgraw-hill.com](mailto:paul_bonington@mcgraw-hill.com)

DIRECTOR, MARKETING COMMUNICATIONS  
VICE PRESIDENT, CIRCULATION  
DIRECTOR, CIRCULATION

Deborah Smikle-Davis, [deborah\\_smikle-davis@mcgraw-hill.com](mailto:deborah_smikle-davis@mcgraw-hill.com)  
Maurice Persiani, [maurice\\_persiani@mcgraw-hill.com](mailto:maurice_persiani@mcgraw-hill.com)  
Brian McGann, [brian\\_mcgann@mcgraw-hill.com](mailto:brian_mcgann@mcgraw-hill.com)

DIRECTOR, CREATIVE SERVICES  
PRODUCTION MANAGER  
ACCOUNT SERVICES, CONTINUING ED.  
DESIGN SERVICES

Susan Valentini, [susan\\_valentini@mcgraw-hill.com](mailto:susan_valentini@mcgraw-hill.com)  
Stephen R. Weiss, [stephen\\_weiss@mcgraw-hill.com](mailto:stephen_weiss@mcgraw-hill.com)  
Robyn Feller, [robyn\\_feller@mcgraw-hill.com](mailto:robyn_feller@mcgraw-hill.com)  
Angela Haliski, [angela\\_haliski@mcgraw-hill.com](mailto:angela_haliski@mcgraw-hill.com)  
Matthew Healy, [matthew\\_healy@mcgraw-hill.com](mailto:matthew_healy@mcgraw-hill.com)  
Hector Gonzalez, [hector\\_gonzalez@mcgraw-hill.com](mailto:hector_gonzalez@mcgraw-hill.com)

DIRECTOR, SALES, PRODUCT NEWS

Janet McLiverty, [janet\\_mcliverty@mcgraw-hill.com](mailto:janet_mcliverty@mcgraw-hill.com)

DIRECTOR, FINANCIAL OPERATIONS  
BUSINESS MANAGER

Ike Chong, [ike\\_chong@mcgraw-hill.com](mailto:ike_chong@mcgraw-hill.com),  
Tom Maley, [tom\\_maley@mcgraw-hill.com](mailto:tom_maley@mcgraw-hill.com)

ASSISTANT, MEDIA DEPARTMENT

Pina Del Genio, [pina\\_delgenio@mcgraw-hill.com](mailto:pina_delgenio@mcgraw-hill.com)

## ADVERTISING SALES

### BUILDING PRODUCTS

**NORTHEAST:** (Connecticut, Delaware, Massachusetts, Maine, New Hampshire, New York, New Jersey, Rhode Island, Vermont, Eastern PA)  
Joseph Sosnowski - phone: (610) 278-7829 Fax: (610) 278-0936 Email: [joseph\\_sosnowski@mcgraw-hill.com](mailto:joseph_sosnowski@mcgraw-hill.com)

**SOUTHEAST:** (District of Columbia, Florida, Georgia, Kentucky, Maryland, North Carolina, South Carolina, Tennessee, Virginia, West Virginia, Western PA)

Susan Shepherd - Phone: (859) 233-4332 Fax: (404) 252-4056 Email: [susan\\_shepherd@mcgraw-hill.com](mailto:susan_shepherd@mcgraw-hill.com)

**MIDWEST:** (Ohio, Illinois, Indiana, Kansas, Michigan, Nebraska, North Dakota, South Dakota, Wisconsin, Eastern Canada)

Lisa Nelson - phone: (312) 233-7402 Fax: (312) 233-7403 Email: [lisa\\_nelson@mcgraw-hill.com](mailto:lisa_nelson@mcgraw-hill.com)

**SOUTHWEST/CENTRAL:** (Alabama, Arkansas, Iowa, Louisiana, Minnesota, Missouri, Mississippi, Oklahoma, Texas)

Bret Ronk - phone: (972) 437-7877 Fax: (972) 437-7876 Email: [bret\\_ronk@mcgraw-hill.com](mailto:bret_ronk@mcgraw-hill.com)

**NORTHWEST:** (Alaska, Idaho, Oregon, Washington, Utah, Montana, Western Canada)

Bill Madden - phone: (503) 224-3799 Fax: (503) 224-3899 Email: [bill\\_madden@mcgraw-hill.com](mailto:bill_madden@mcgraw-hill.com)

**PACIFIC:** (AR, CA, CO, NM, NV, HI) Sherylen Yoak - Phone: (760) 568-0465 Fax: (720) 559-9818 Email: [Sherylen\\_yoak@mcgraw-hill.com](mailto:Sherylen_yoak@mcgraw-hill.com)

**ASSOCIATIONS:** Charles Fagan - phone: (212) 904-2547 Fax: (312) 233-7488 Email: [charles\\_fagan@mcgraw-hill.com](mailto:charles_fagan@mcgraw-hill.com)

**TECHNOLOGY:** Mark Glasner - phone: (415) 357-8191 Fax: (415) 357-8005 Email: [mark\\_glasner@mcgraw-hill.com](mailto:mark_glasner@mcgraw-hill.com)

**WORKFORCE/RECRUITMENT:** Gilda Falso - phone: (212) 904-2422 Fax: (212) 904-2074

Email: [gilda\\_falso@mcgraw-hill.com](mailto:gilda_falso@mcgraw-hill.com), Diane Soister - phone: (212) 904-2021 Fax: (212) 904-2074

Email: [diane\\_soister@mcgraw-hill.com](mailto:diane_soister@mcgraw-hill.com)

**PRODUCT NEWS SPOTLIGHT:** Elise Rutkowsky - phone: (609) 426-7738 fax: (609) 426-7136 Email: [elsie\\_rutkowsky@mcgraw-hill.com](mailto:elsie_rutkowsky@mcgraw-hill.com) Kameesha Saunders - phone: (609) 426-7703 Fax: 609-426-7136 Email: [kameesha\\_saunders@mcgraw-hill.com](mailto:kameesha_saunders@mcgraw-hill.com)

### INTERNATIONAL

**GERMANY:** Martin Druke - phone: (49) 202-27169-12 Fax: (49) 202-27169-20 Email: [druke@intermediapartners.com](mailto:druke@intermediapartners.com)

**ITALY:** Ferruccio Silvera - phone: (39) 022-846716 Fax: (39) 022-893849 Email: [ferruccio@silvera.it](mailto:ferruccio@silvera.it)

**JAPAN:** Katsuhiro Ishii - phone: (03) 5691-3335 Fax: (03) 5691-3336 Email: [amkatsu@dream.com](mailto:amkatsu@dream.com)

**KOREA:** Young-Seoh Chin - phone: (822) 481-3411/3 Fax: (822) 481-3414

**WEB SITE:** [architecturalrecord.com](http://architecturalrecord.com). **ADVERTISING:** Pina Del Genio: 212/904-6791, [AR.advertising@mcgraw-hill.com](mailto:AR.advertising@mcgraw-hill.com).

**SUBSCRIBER SERVICE:** 877/876-8093 (U.S. only), 515/237-3681 (outside the U.S.). Subscriber fax: 712/755-7423. E-mail: [arhcustserv@cdsfulfillment.com](mailto:arhcustserv@cdsfulfillment.com). If the Post Office alerts us that your magazine is undeliverable, we have no further obligation unless we receive a corrected address within one year. AIA members must contact the AIA for address changes on their subscriptions, 800/242-3837. E-mail: [memberservices@aia.org](mailto:memberservices@aia.org). **INQUIRIES AND SUBMISSIONS:** Letters, Robert Ivy; Practice, Charles Linn; Books, Clifford Pearson; Record Houses and Interiors, Sarah Amelar; Products, Rita Catinella Orrell; Lighting and Interiors, William Weathersby, Jr.; Residential, Jane F. Kolleeny; Architectural Technology, Joann Gonchar and Russell Fortmeyer; Web Editorial, Ingrid Spencer.

**REPRINT:** [architecturalrecord@reprintbuyer.com](mailto:architecturalrecord@reprintbuyer.com). **BACK ISSUES:** 212/904-4653 [phyllis\\_moody@mcgraw-hill.com](mailto:phyllis_moody@mcgraw-hill.com)

**THE AMERICAN INSTITUTE OF ARCHITECTS 2007 BOARD OF DIRECTORS • OFFICERS:** RK Stewart, FAIA, President; Marshall E. Purnell, FAIA, First Vice President; Michael Broshar, FAIA, Vice President; Miguel A. Rodriguez, AIA, Vice President; George H. Miller, FAIA, Vice President; Norman Strong, FAIA, Vice President; David R. Proffitt, AIA, Secretary; Tommy Neal Cowan, FAIA, Treasurer; Greg Skaskiewicz, Assoc. AIA, Associate Representative to the AIA Executive Committee; David Crawford, CACE Representative to the AIA Executive Committee; Christine W. McEntee, Executive Vice President/CEO. • **REGIONAL DIRECTORS:** Dennis A. Andrejko, AIA; Peter J. Arsenault, AIA, NCARB, LEED AP; Michel C. Ashe, AIA; Jonathan Bae, Assoc. AIA; Donald R. Barsness, AIA; David J. Brotman, FAIA; Stephan Castellanos, FAIA; Anthony J. Costello, FAIA; James Determan Jr., AIA; James H. Eley, FAIA; Jonathan L. Fischel, AIA; Marion Fowlkes, FAIA; Maureen A. Guttman, AIA; Walter J. Hainsfurther, AIA; Richard Jackson, MD, MPH; Mickey Jacob, AIA; Diane Van Buren Jones; Leevi Kil, FAIA; Peter G. Kuttner, FAIA; Anne Laird-Blanton, AIA; Evelyn Lee, Assoc. AIA, LEED AP; Michael Lischer, AIA; Clark Llewellyn, AIA; Stephen K. Loos, AIA; Marvin J. Malecha, FAIA; Clark D. Manus, FAIA; John Maudlin-Jeronimo, FAIA; Linda McCracken-Hunt, AIA; Robin L. Murray, AIA, PP; Thompson Nelson, AIA; Celeste A. Novak, AIA; John A. Padilla, AIA; Jeffery Potter, AIA; John W. Rogers, AIA, ACHA; Ken Ross, FAIA; Bonnie Staiger; William J. Stanley III, FAIA; James M. Suihro, FAIA, LEED AP; Leslie J. Thomas, AIA; Edward J. Vidlak, AIA; Enrique Woodroffe, FAIA. • **AIA MANAGEMENT COUNCIL:** Christine W. McEntee, Executive Vice President/CEO; Beth Bush, Vice President, Member Value and Communications; Helene Combs Dreiling, Hon. SDA, FAIA, Vice President, Strategic Initiatives & Relationships; Michael P. Hoagland, SPHR, CAE, Vice President, Human Resources; Richard J. James, CPA, Chief Financial Officer & Vice President, Administration; Paul T. Mendelsohn, Vice President, Government and Community Relations; Barb Sido, CAE, Vice President, Knowledge & Professional Practice; Jay A. Stephens, Esq., General Counsel & Vice President; Elizabeth Stewart, Esq., Vice President, Strategy & Business Development; David Downey, CAE, Assoc. AIA, Managing Director, Communities by Design; James Gatsch, FAIA, General Manager, Contract Documents; Suzanne Harness, Esq., AIA, Managing Director and Counsel, Contract Documents; Maan Hashem, Managing Director, Software Products and Services; Richard L. Hayes, PhD, RAIC, CAE, AIA, Managing Director, Knowledge Resources; Christine M. Klein, Managing Director, Meetings; Carol Madden, Managing Director, Membership Services; Philip D. O'Neal, Managing Director, Information Technology; C.D. Pangallo, EdD, Managing Director, Continuing Education; Terence J. Poltrack, Managing Director, Communications; Andrea S. Rutledge, SDA, CAE, Managing Director, Alliances; Phil Simon, Managing Director, Marketing and Promotion; Terri Stewart, Managing Director, Professional Practice.



The McGraw-Hill Companies



Ellison balanced doors.  
Everything an entrance should be



and more.

They're incomparably beautiful, yet ruggedly hand constructed. They're engineered to open easily under heavy wind loads, and they perform dependably decade after decade in the busiest traffic conditions. For many designers they represent the ideal mix of elegance, functionality and old fashioned work ethic. Ellison Doors. Available in bronze, stainless steel, aluminum or wood. And optionally equipped with our unobtrusive patent pending automatic opening system — PowerNow.

ellison™

BALANCED DOORS  
& CUSTOM ENTRANCE SOLUTIONS

[www.ellisonbronze.com](http://www.ellisonbronze.com)

# Build. Design

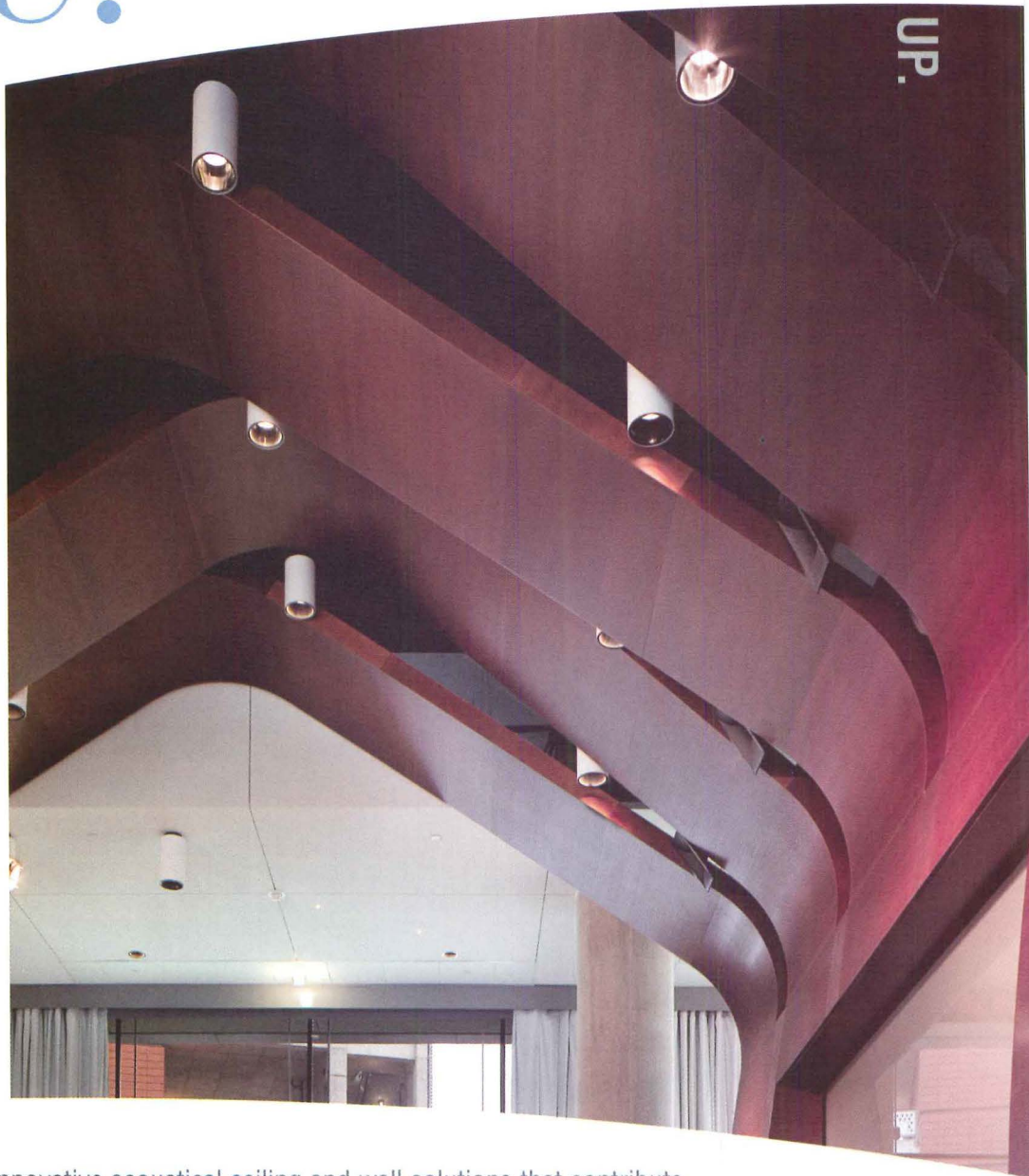
© 2007 CertainTeed Corporation



**EXTERIOR:** ROOFING • SIDING • WINDOWS • FENCE • RAILING • TRIM • DECKING • FOUNDATIONS • PIPE  
**INTERIOR:** INSULATION • WALLS • CEILINGS

# Create.

THINKING UP.



CertainTeed offers you innovative acoustical ceiling and wall solutions that contribute to a superior environment for the eye, the ear and the mind.

Whether you're meeting fundamental performance needs, balancing function and design, or pushing the boundaries of creativity, we'll help you achieve the goal of making any space look, sound, work—and feel—better.

800-233-8990 [certainteeted.com](http://certainteeted.com)

**CertainTeed**   
*Quality made certain. Satisfaction guaranteed.™*

CIRCLE 06 ON READER SERVICE CARD OR GO TO [ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/](http://ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/)



# watertight

## Rain and Storm-resistant Curtain Wall systems from Oldcastle Glass®

Keeping rain out of buildings while allowing natural ventilation and sunlight in has always presented a challenge to building designers.

As the only curtain wall manufacturer that can also custom-manufacture architectural glass, we have the ability to **engineer and test** our glass and curtain wall together as one seamless solution. We call it Oldcastle Glass®

Envelope™. It's a commitment to providing **forward-thinking building**

**envelope solutions.** And if the glass and metal are engineered

together, the water stays on the outside of the building

where it belongs. To find out more about

what Oldcastle Glass® is doing to create better

buildings, call **1-866-OLDCASTLE** (653-2278) or visit

our new website at **www.oldcastleglass.com**.

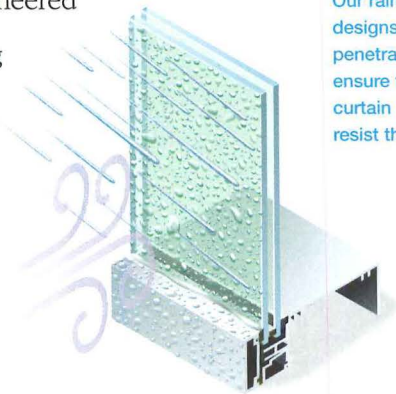


**Oldcastle Glass®**


*Where glass becomes architecture™*



The Colorado Convention Center designed by Fentress Architects. Curtain Wall custom-engineered by Oldcastle Glass®.



Our rain-screen designs and water penetration testing ensure that your curtain wall design will resist the elements.



The playground just got more interesting.

Now, enjoy more design options than ever. Like 19 clad colors at standard pricing, seven new casings, four new subsills—all in cladding exceeding AAMA 2605-05 specification. In addition, we have architectural service reps ready for consultation. What will you create with your new freedom? Visit [marvin.com/clad](http://marvin.com/clad) for our free clad brochure or call 1-800-236-9690.



**MARVIN**   
Windows and Doors

Built around you.™

CIRCLE 08 ON READER SERVICE CARD OR GO  
TO [ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/](http://ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/)



*With CITY MULTI systems an atmosphere of creativity flows freely.*

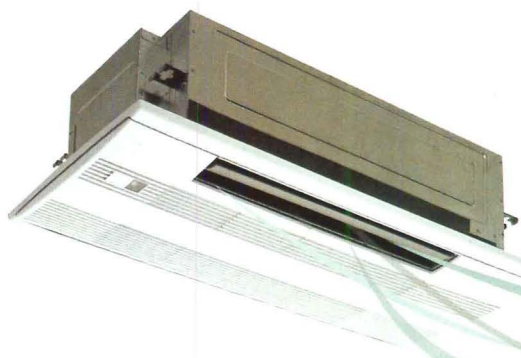
Now there are building comfort solutions that will inspire your imagination instead of limiting it.

CITY MULTI gives you ultimate design flexibility so you can push the building envelope, with options for maximizing interior space and ceiling heights without concerns of concealing bulky ductwork.

Get unparalleled comfort, control and cost effective use of energy. All with great sustainability.

CITY MULTI will transform the way you think about HVAC. Energize yourself at [transforminghvac.com](http://transforminghvac.com)

 **MITSUBISHI ELECTRIC**  
HVAC for HUMANS







CITY MULTI®

The transformation has begun.™ 



## Solarban® z50 proves you don't have to be green to be green

New Solarban z50 solar control glass is a stylish, steely blue-gray glass that blocks up to 70% of total solar energy. That gives it a light to solar heat gain (LSG) ratio that's up to 30% better than that of competing products. And that makes Solarban z50 a worthy addition to the Solarban family of solar control glass products – and a colorful step forward for sustainable design. For your free energy analysis white paper or glass sample, or to learn more about EcoLogical Building Solutions from PPG, call the PPG IdeaScapes hotline: 1-888-PPG-IDEA. Or visit [www.ppgideascales.com](http://www.ppgideascales.com).

CIRCLE 10 ON READER SERVICE CARD OR GO TO [ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/](http://ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/)

Solarban, IdeaScapes, PPG and the PPG logo are trademarks owned by PPG Industries, Inc.

 **IdeaScapes**  
Glass • Coatings • Paint

# ARCHITECTURAL RECORD

## 10.2007

On the Cover: IAC Building, by Frank Gehry. Photograph by Thomas Mayer.  
Right: Lateran University reading room, by King Roselli. Photograph by Santi Caleca.



## News

- 39 **Aga Khan Award winners named**
- 42 **Pittsburgh's new arena**
- 44 **Battle rages over Neutra's Cyclorama**
- 46 **Polshek fuses media and architecture**

## Departments

- 27 **Editorial: Architectural Diplomacy**
- 29 **Letters**
- 63 **Archrecord2: For the emerging architect**
- 67 **Critique: Artists tackle architecture** by Paula Deitz
- 71 **Books: Thinking and theorizing about architecture**
- 75 **Practice Matters: Mergers and acquisitions** by B.J. Novitski
- 79 **Trade Show Review: Coverings** by David Sokol
- 81 **Snapshot: Floating pool** by Beth Broome
- 225 **Dates & Events**
- 256 **Backpage: Kinya Maruyama** by Joann Gonchar, AIA

## Features

- 90 **Shifting Gears** by David Sokol  
Diminutive architectural works enhance Norway's scenic byways.


## Projects

- 104 **Sam Fox School of Design, Missouri** by Robert Ivy, FAIA  
Maki and Associates  
With great restraint, Maki brings together art, student, and campus.
- 112 **InterActiveCorp Building, New York City** by Clifford A. Pearson  
Gehry Partners  
Gehry's milky-white iceberg beaches on Manhattan's West Side.
- 120 **Caixa Galicia Foundation, Spain** by David Cohn  
Grimshaw Architects  
Assertively contemporary, a building fits into its historic context.
- 126 **Pontifical Lateran University, Rome** by Paul Bennett  
King Roselli Architetti  
A reading room squeezes a lot of program into a little space.

## Building Types Study 874

- 139 **Introduction: Hospitality** by Suzanne Stephens
- 140 **Hotel La Purificadora, Mexico** by Suzanne Stephens  
Legorreta + Legorreta
- 146 **W Dallas Victory Hotel & Residences, Texas** by David Dillon  
HKS
- 150 **Adam & Eve Hotel, Turkey** by Leslie Yudell  
Erentalu

## Architectural Technology

- 159 **Safety and Security Without the Fortress Look**   
by Joann Gonchar, AIA  
Incorporating transparency, sustainability, and technology.
- 169 **Tech Briefs** by David Sokol and Russell Fortmeyer

## Residential

- 189 **Introduction** by Jane F. Kolleeny
- 190 **Montauk Compound** by Jane F. Kolleeny  
Pentagram
- 194 **Evans Residence** by Lisa Findley  
Turnbull Griffin Haesloop Architects
- 199 **1+3=1 House** by Sam Lubell  
Steffen Leisner, Ali Jeevanjee, Phillip Trigas
- 202 **Lake Tahoe House** by Stephen Sharpe  
Lake/Flato Architects
- 207 **Residential Products** by Rita Catinella Orrell

## Products

- 215 **Storm-Resistant**
- 218 **Product Briefs**

240 **Reader Service**

**We invite you** to explore architecturalrecord.com, which now offers a **new design** and **powerful tools** that allow you to interact with, and contribute to, the site as never before. You can comment on and rate projects, recommend articles, submit photos of your work, and create an industry profile.



## building types study: design hotels

The proliferation of design hotels continues unabated, and from edgy to luxurious, grandly Minimal to showy, design is playing a major role. With slide shows and product information, we feature seven, from Mexico to Turkey, designed by architects including Legorreta + Legorreta (La Purificadora, left), Pelli Clarke Pelli, and SOM with Yabu Pushelberg.



## project portfolio

From Fumihiko Maki's stunning Sam Fox Arts Center in St. Louis, Missouri (left), to British firm Grimshaw Architects design-intense Caixa Galicia Foundation cultural center in Spain, architects are crossing borders and exploding boundaries of design while respecting context, as these four projects show.



## residential section: compounds

View slide shows, listen to a podcast, and discover three modern-day compound dwellings that exhibit groups of residential buildings created with timeless design intelligence, such as Lake Tahoe House, by Lake/Flato Architects (left).

## residential: house of the month

Exclusively online: Continuing with our special residential section's exploration of compound dwelling, we feature a house by Max Levy Architect (below), comprising a group of small cabins in east Texas (a total of 3,000 square feet) that effortlessly interact with their site while providing the owners with breezy, comfortable living spaces.



## archrecord2

This month, we catch up with the coasts, profiling two talented young firms—Oyler Wu Collaborative (live/work loft, below) and Associated Fabrication—that are leaving their design stamps on New York, Los Angeles, and beyond. Catch other emerging talent in archrecord2's Design, Work, and Live sections online, and leave your own mark in Talk, where you can comment and join forums.



## community

### photo gallery

View more than a thousand images submitted by readers from all over the world in 10 categories, such as the



Architectural Photographers Showcase (above). You can also send us your own photos at [construction.com/community/gallerylist.aspx](http://construction.com/community/gallerylist.aspx).

### blogs

**Off the Record:** Written by the staff of RECORD and the magazine's team of experienced, award-winning editors, who offer their insightful, informal, opinionated takes on architecture-related trends, conferences, exhibitions, projects, and personalities.

### forums

**Your voice matters**—and we have provided you with the ideal forum to express your ideas, suggestions, and gripes. Our discussion forums include such topics as Green Building Projects, Virtual Design, Practice Matters, and a forum for younger architects. You can also create your own discussion threads.

### comments

"This looks to be a terrific little house. However, from what I can see in the photos, the interior materials don't connect very strongly with those outside. Still, the size, proportions, and the exterior materials make for a smart and inviting place."

and more ...

## continuing education

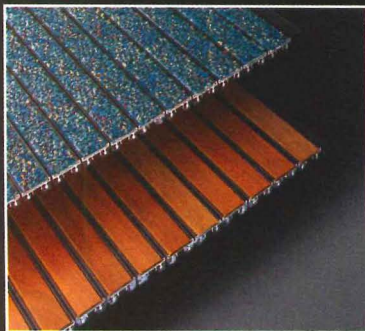


Get CE credits by reading editorial articles and sponsored sections online.

This month, our editorial opportunity explores how the designers of public-sector emergency-response buildings are eschewing the bunker image and incorporating transparency, sustainability, and state-of-the-art technology.



Step into  
the future  
of entrance  
flooring.



Finally a new way to look at entrance flooring. Pedisystems offers designers **three exciting new insert materials**, recycled rubber in 70 colorways, FSC Certified wood and any custom hard-backed carpet you specify. The future is now. To learn more call 1-800-621-3344, or visit [www.c-sgroup.com](http://www.c-sgroup.com).

**C/S Pedisystems® Entrance Flooring**

CIRCLE 11 ON READER SERVICE CARD OR GO TO [ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/](http://ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/)

# Learn & Earn

Architectural Record Continuing Education



## Earn

Health Safety Welfare  
credits with  
**Architectural Record!**

Earn your required continuing education Learning Unit hours (LU's) by reading **Architectural Record**.

This issue includes the continuing education articles featured on this page. These articles will each earn you one AIA/CES Learning Unit (HSW). Annually, AIA/CES accepts up to eight self-study Learning Units.

Just read the article and complete the short quiz to earn your credit. You can also access these and many other continuing education articles online at [construction.com/CE/](http://construction.com/CE/)

Check out our new online Continuing Education Center at [construction.com/CE/](http://construction.com/CE/)

Page

### 173-177

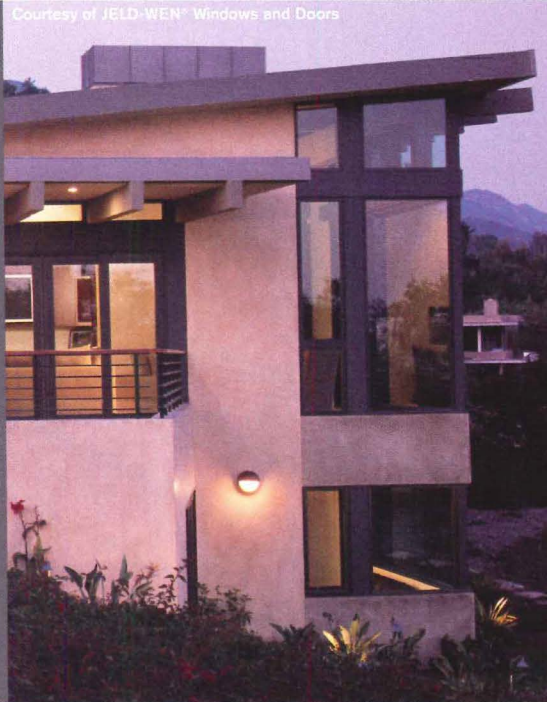
**New Glass Technologies Improve Performance of Architectural Glass**

Fenestration Advances Boost Energy Efficiency and Lower Maintenance Costs

Provided by



Courtesy of JELD-WEN® Windows and Doors



Page

### 179-183

**Designing With Glass Block:**  
Abundant Applications Provide Practical, Aesthetic and Green Solutions

Provided by



Courtesy of Pittsburgh Corning Corporation

connecting people\_projects\_products

**McGraw\_Hill CONSTRUCTION** Architectural Record

[architecturalrecord.com](http://architecturalrecord.com)

The McGraw-Hill Companies

# Reynobond®

Architecture



## Inspiration: Alaska Implementation: Reynobond®

When architects from Kumin Associates and Kaplan McLaughlin Diaz began designing the Alaska Railroad Bill Sheffield Depot in Anchorage, they realized they'd need a material that would not only reflect the beauty of the state, but would also withstand the subarctic climate. They found their answer in Reynobond. When paired with glass, Reynobond enabled the finished structure to enhance tourists' views of the sky and mountains – while reflecting the dramatic tones of red, purple and green in the aurora borealis. From inspiration to implementation, no one's dedicated to your success like the people of Alcoa Architectural Products.



***Dedicated to your Success***

**Alcoa Architectural Products** • 50 Industrial Boulevard • Eastman, GA 31023-4129 • Tel. 478 374 4746 • [www.alcoaarchitecturalproducts.com](http://www.alcoaarchitecturalproducts.com)  
©2007 Alcoa Architectural Products. Reynobond® is a registered trademark of Alcoa Inc.

**CIRCLE 12 ON READER SERVICE CARD OR GO TO [ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/](http://ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/)**



**PROTECTING HER FROM OVER 5,000 PUNISHING DAYS OF SUN, SNOW, WIND AND RAIN  
MAKES THAT GIANT APE THING SEEM LIKE A CAKEWALK**





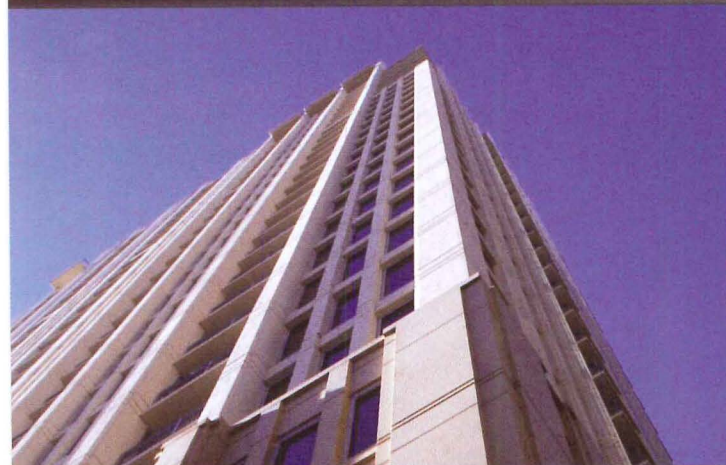
When you're replacing every window in the Empire State Building, you choose Duranar® Coatings from PPG and their one-of-a-kind formulation that includes ingredients like Kynar 500®. With our Certified Applicator Program, choosing

Duranar Coatings means that the color you spec is the color you get—for years to come. Discover the Duranar Coatings difference during its 40th anniversary, and learn how your one-of-a-kind project can be immortalized, at [www.ppgduranar.com](http://www.ppgduranar.com).

**CIRCLE 13 ON READER SERVICE CARD OR GO  
TO [ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/](http://ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/)**



PPG Industries, Inc., 151 Colfax Street, Springdale, PA 15144 1-888-PPG-IDEA [www.ppgideascapes.com](http://www.ppgideascapes.com)



- 1 Michigan Avenue Tower, Chicago
- 2 The School of the Future, Philadelphia
- 3 TWELVE Atlantic Station, Atlanta



3

# > Quality Inspires

Innovative Designs

800.955.9551 [www.ykkap.com](http://www.ykkap.com)

Quality inspires us to produce the world's finest fenestration systems. Quality drives us to provide relevant products, personal service, and proven solutions for today's high performance sustainable buildings. And quality assures you that when YKK AP® is specified, no idea is too big and no blueprint is too green.

Entrances | Storefronts | Curtain Wall | Windows | Sliding Doors

**YKK**  
**ap**®

Quality  
inspires™

Vierti™ | redefining style & function

**Maintain the integrity of your design with the Vierti single-touch dimmer.**

Specify blue, green, or white LEDs to coordinate with architectural-style wallplates – available in 21 colors and two finishes.



To learn more about this product visit  
[www.lutron.com/wtb12](http://www.lutron.com/wtb12) or call 1.888.LUTRON1.

 **LUTRON**®

© 2007 Lutron Electronics Co., Inc.

CIRCLE 15 ON READER SERVICE CARD OR GO TO [ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/](http://ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/)



# Architectural diplomacy

## Editorial

By Robert Ivy, FAIA

**T**he phrase “skin deep” applies to many architectural award programs in this country. One program, however, stands resolutely outside these compromises. For 30 years, the Aga Khan Award for Architecture has looked at architecture in a more holistic way. Since the program’s founding in 1977, process, rather than building-as-object, has dominated the awards program. Limited in scope to a three-year cycle, the Aga Khan Award for Architecture examines submissions from a worldwide network of nominators (including the editor in chief of ARCHITECTURAL RECORD), narrows the field to a manageable number, then sends out professionals to visit the projects, whether in major cities, rain forests, or desert towns. They prepare exhaustive evaluative documents, explaining how intentions play out in real sites for real people, and thus provide a fact-based analysis for a master jury, composed of sociologists, philosophers, and artists, as well as architects—a diverse group that makes the final selections.

For this year’s awards, the 10th cycle conducted by the awards program, nine projects emerged from the rigorous routine. In virtually every case, a narrative accompanied the winners that explained the scope of accomplishments: No single image would suffice. As a poignant example, one award went to the Rehabilitation of the Walled City of Nicosia, in Cyprus. Winners included representatives of the Greek Cypriot and Turkish Cypriot Communities, who overcame political enmity and boundary disputes in 1979, when they met to devise a master plan for the historic city. All involved, including architects, planners, and the mayors of opposing sides of a physical wall, realized that their beloved home city was too valuable to lose. The resulting cooperation “has been successful in reversing the city’s physical and economic decline.” What other program would recognize such courageous heroism?

In early September of this year, representatives of all nine winning projects flew to Kuala Lumpur, the capital of Malaysia, to dress in native finery and receive their hard-earned honors in the Petronas Concert Hall, housed in the Cesar Pelli–designed complex—itsself honored in 2004. In personal attendance, and speaking to the assemblage, His Highness the Aga Khan underscored the principles outlined in his eponymous program, served as host for the awards ceremony, and opened subsequent seminars exploring the meaning of the winners within the context of the program and the larger world. As chairman of the steering committee that governs the awards program, the Aga Khan has personally involved prominent academics and other thinkers, artists, and architects, such as the late Hassan Fathy, Fumihiko Maki, Frank Gehry, and Charles Correa, who have helped him

set the agenda for each cycle of the awards.

This individual, who embodies moral qualities in real life as spiritual leader, or Imam, of the Ismaili Muslims, has spent 50 years of leadership doing good things: 2007 marks his Golden Jubilee. While it might seem easy to dismiss a privileged leader of 15 million people born to wealth and influence, Prince Karim Khan, born in 1936 in Geneva, Switzerland, did not seek his role, as Philip Jodidio points out in his recently released authorized biography of the prince. Instead, he has worked hard to put his gifts and powers to positive uses. Since assuming the mantle as Aga Khan in 1957, he has exercised broad-ranging intelligence, concern, and (to our community of architects) an enlightened belief in the power of architecture to change the world for the better. Uniquely, through the Aga Khan Development Network, he has harnessed that belief to the necessary social and economic forces, combined with the lessons of history, to make decided improvements. At this fractious global moment, voices of reason and hope particularly deserve our admiration and respect.

Why should non-Muslims care? While his focus has rightly been on building within his own Ismaili community, which is far-flung, he nevertheless has reached out to improve the lot of all Muslims, and by extrapolation, the world. In addition to his economic development work, he maintains an active historic-cities program, sponsoring restoration and new projects in Cairo; in Mostar, Bosnia and Herzegovina; in embattled Kabul, Afghanistan; and in Zanzibar, Tanzania, among others. His program for Islamic Architecture at Harvard and the universities that bear his name in Pakistan, London, and Central Asia offer college educations to a new generation of young Muslims.

How refreshing, at a time of international cynicism and cultural fascination with the superficial, of celebrity and instant gratification, that someone recognizes the deeper power of architecture, and how gratifying for architects and planning professionals that someone recognizes architecture’s defining abilities, even to foster international understanding. Honor awards can merely create new generations of architectural celebrity, but if carefully conceived and executed, like the Aga Khan Awards for Architecture, they can articulate values for the larger society. ARCHITECTURAL RECORD salutes the 10th cycle of the Aga Khan Award for Architecture, and to H.H. The Aga Khan, we wish you 50 more productive years. Asalamu alaykum.

**ALUCOBOND®**



**Alucobond Today.  
For Many More Tomorrows.**

Alcan's commitment to the environment is unwavering, and Alucobond® is at the heart of that commitment.

Alucobond is fully recoverable. The polyethylene in its core is one of the most energy-efficient materials to recycle and can be reheated and reused indefinitely. The aluminum that comprises its skins is also one of the most recycled resources in the world. In fact, the aluminum used to manufacture Alucobond already contains, on average, nearly 85% recycled material – an attribute that can help earn points towards LEED® certification.

Plus, our coil coating facility is among the top national performers in terms of emissions control and has been chosen as a benchmark in setting more stringent EPA standards.

That's good for you today and good for many more tomorrows.

**ALUCOBOND®**  
THE WORLD'S FAVORITE ALUMINUM COMPOSITE MATERIAL

CIRCLE 16 ON READER SERVICE CARD OR GO TO [ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/](http://ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/)

**ALCAN COMPOSITES USA INC**  
1.800.626.3365  
[www.alucobond.com](http://www.alucobond.com)

# Letters

## AOC speaks

Regarding your article about the search for a new AOC [September 2007, page 48], as the 10th Architect of the Capitol (AOC), I referred to the responsibilities of the office as a magnificent challenge. The Congressional Accountability Act mandated that starting in 1997 the legislative branch of government comply with OSHA, ADA, and laws relating to fire and life safety. Much was accomplished across the 15 million square feet of Congressional buildings, but billions of dollars of work remains to bring these historic facilities into the 21st century. Your article said that, under my leadership, the cost of the Capitol Visitor Center doubled due to changes in the building's program after 9/11. A nonarchitect would have far greater difficulty controlling the overall budget

and schedule when faced with \$200 million in scope increases to an ongoing project. I respect and understand Congress's concern about this very complex project, but such frustration should not impact the selection of the next AOC. The appointment of a nonarchitect is potentially harmful to health, safety, and welfare concerns across the Hill, as well as the stewardship, historic preservation, and design sensibilities that are so critical to our nation's Capitol.

—Alan M. Hantman, FAIA  
Washington, D.C.

## Another opinion

Sylvia Lavin's critique of the Federal Building in San Francisco [August 2007, page 106] was erudite but, unfortunately, esoteric, missing an opportunity to engage the reader.

The Federal Building is an extraordinary design, establishing new paradigms for office buildings (governmental or otherwise). In this example lay an abundant opportunity for critique, perhaps with insight for how architecture can (or cannot) create momentum and change thinking within the realm of often-oppressive bureaucracies. Critique, I believe, is of most value when it provokes thinking that compels spirited dialogue, which is the genuine catalyst for change. Opinion pieces that dwell on the philosophical and are articulated in arcane language are best published in academic journals.

—Charles A. Higuera, AIA  
Oakland

## Corrections

An article on the Museum of

Contemporary Art San Diego's renovation of the Santa Fe Depot baggage building [June 2007, page 134] incorrectly described the building as "long shuttered." In fact, the Southwest Railway Museum Association housed its library in part of the structure for about a decade. An August article on the Sports City Tower [page 146] incorrectly indicated that the building is located in Doha, Qatar, United Arab Emirates. Qatar is not one of the seven emirates that make up the federation of the United Arab Emirates. A September feature on high-tech hospitals [page 151] incorrectly referred to the "Health Information Patient Privacy Act." It should have been the Health Insurance Portability Accountability Act.

Send letters to [rivy@mcgraw-hill.com](mailto:rivy@mcgraw-hill.com).



Inspiring.  
Majestic.  
Extraordinary...

and the  
architecture  
isn't bad either.

**B-K** LIGHTING  **TEKA** ILLUMINATION

[www.bklighting.com](http://www.bklighting.com) • 559.438.5800 • [www.tekailumination.com](http://www.tekailumination.com)

CIRCLE 37 ON READER SERVICE CARD OR GO  
TO [ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/](http://ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/)

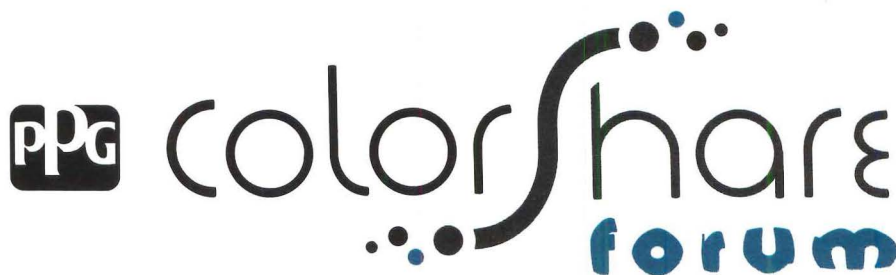




# Surfaces in depth.

Inspire your color and design vision with the experts who are reshaping the surfaces of tomorrow's automobiles, consumer products and buildings.

Experience the future today at a PPG ColorShare Forum - from the only company that provides color, textures and tactile effects to dozens of surfaces that touch your life every day.



ATLANTA  
May 17<sup>th</sup>

NEW YORK  
June 7<sup>th</sup>

TORONTO  
September 28<sup>th</sup>

PITTSBURGH  
October 3<sup>rd</sup>

SAN FRANCISCO  
November

Visit: [www.ppgideasces.com](http://www.ppgideasces.com) to register today. Space is limited.



WWW.PPGIDEASCAPES.COM • 1-888-PPG-IDEA

# EVOLUTION. WITH A PURPOSE.

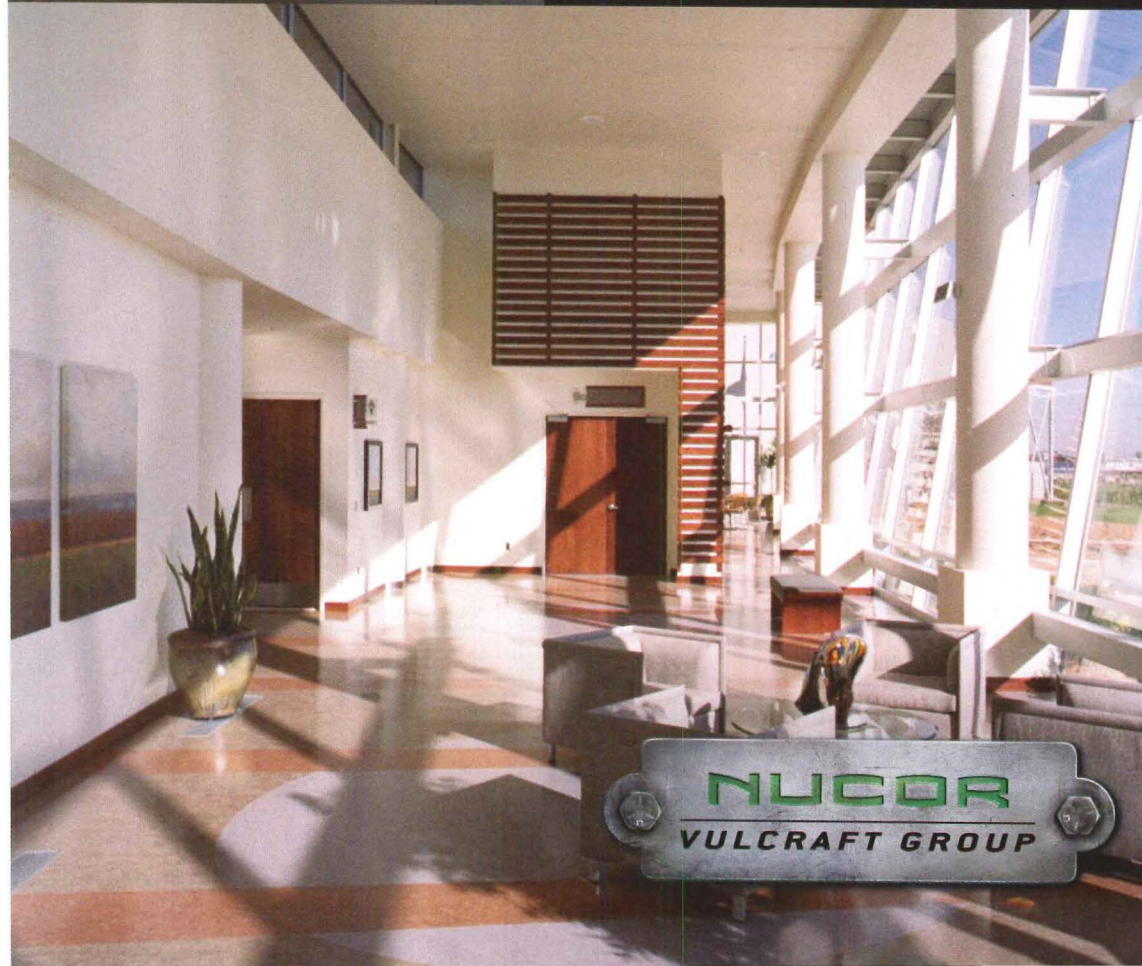


Iconic design is at once refined and revolutionary.

Witness the Gaskins Series of architectural luminaires. Options include a striking reflected downlight or uplight torchiere set atop open or illuminated architectural mounting columns. All come together seamlessly in luminaires that are unique, purpose-built and most of all, a breed apart. Gardco. The natural choice. Turn heads with your next design. Visit [www.sitelighting.com](http://www.sitelighting.com).



  
GARDCO  
LIGHTING



**NUCOR**  
VULCRAFT GROUP

# smashing, darling



## nice shoes, too.

Invision Carpet Systems introduces Invision Rugs, the exclusive line of fine quality, handcrafted area rugs made from our stylish and sophisticated carpet patterns. To order, visit [InvisionRugs.com](http://InvisionRugs.com) and simply select a pattern, a color, and a binding. It's that easy.

*Carpet: Edge Color: Brancusi Binding: Linen Harvest - [www.InvisionRugs.com](http://www.InvisionRugs.com) - 1.800.210.0307*

**INVISION RUGS**



**CIRCLE 50 ON READER SERVICE CARD OR GO TO [ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/](http://ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/)**

Creative Rugs for Creative People™

## Protection from Wind, Rain & Mediocrity

Select a door that's more than a door



ENTRANCES  
IMPACT RESISTANT  
CURTAIN WALL  
STOREFRONT  
OPERABLE WINDOWS  
WINDOW WALL

Why choose an ordinary Terrace Door for a hi-rise when you can select something more?

We build doors that do more than hold out the wind and the rain. We apply more than 50 years of experience to the design and manufacturing of our Series 900 Terrace Door. That translates into exceptional quality, top-flight engineering, outstanding performance, and an elegant style that transforms any space into a room with a view.

Check out our specs and we think you'll agree that for durability and appeal, this door can stand the test of time. Now that's beautiful.



U.S. Aluminum. Build on our experience.

1-800-627-6440 [www.usalum.com](http://www.usalum.com)

**CIRCLE 49 ON READER SERVICE CARD OR GO TO [ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/](http://ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/)**

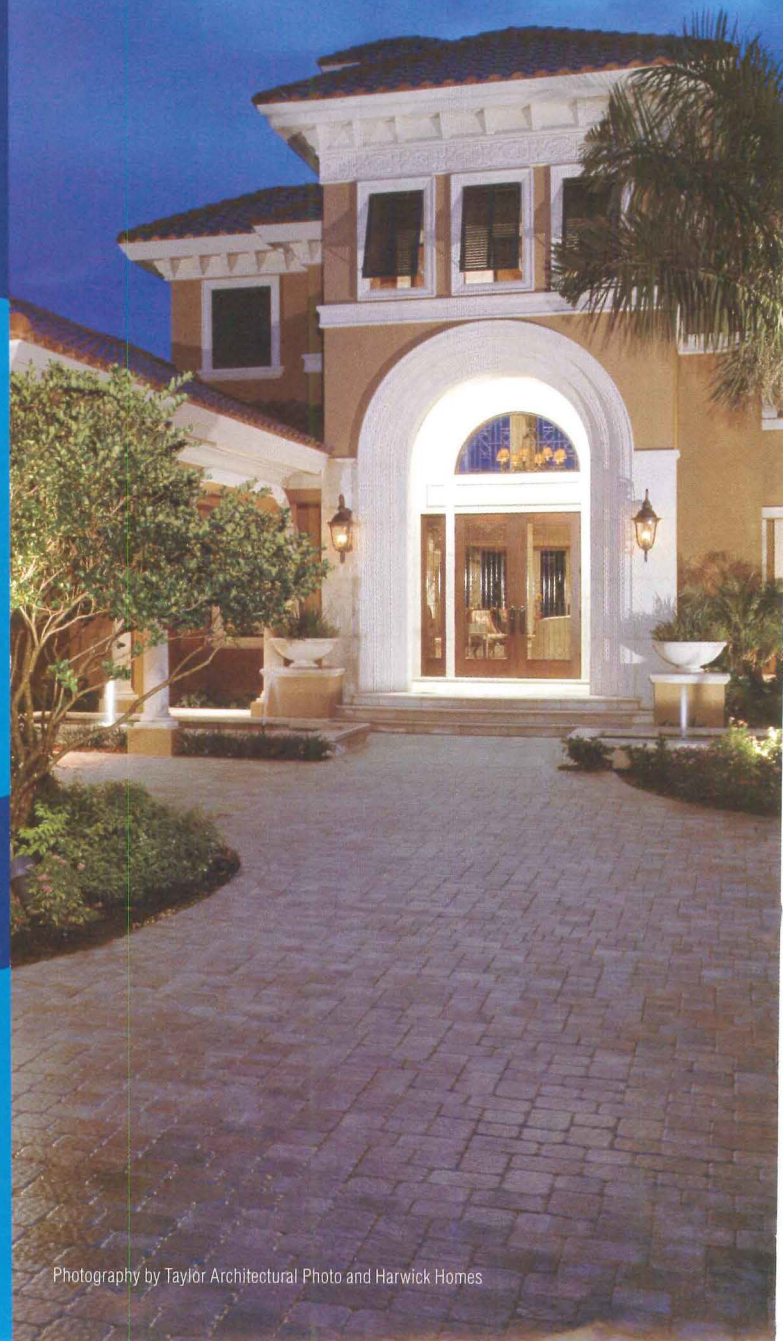
When chosen to construct a dream home in Naples, Florida, the builder needed materials up to the task – functional products with strength to withstand extreme conditions and beauty to inspire. He called the people of CEMEX. The vision began to take form with a concrete block shell for durability, and the selection of a smooth stucco finish for timeless beauty. A three-color blend of CEMEX decorative pavers provided an elegant finishing touch, turning the challenge of building the client's dream home into a stroll on the beach.

**We invite you to learn more about this and other unique CEMEX projects at [www.cemexusa.com](http://www.cemexusa.com).**



Building the future™

**BUILD IT TO INSPIRE.**



**CIRCLE 48 ON READER SERVICE CARD OR GO TO [ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/](http://ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/)**

Photography by Taylor Architectural Photo and Harwick Homes



Because your reputation is on the line every day.

We make DuPont™ Tyvek® CommercialWrap® for professionals who build quality into every job. After all, it's architects and contractors like you who have made us the industry leader for over 25 years. And you're why we continue to develop innovative products, systems and services for the commercial market, like the 10-year Limited Warranty that gives added peace of mind with every job and the DuPont™ Tyvek® Specialist Network that supports you on and off the site. DuPont™ Tyvek® Weather Barrier Systems – they're all about building a better building and an even stronger reputation. For more detailed info and specs, visit [construction.tyvek.com](http://construction.tyvek.com)

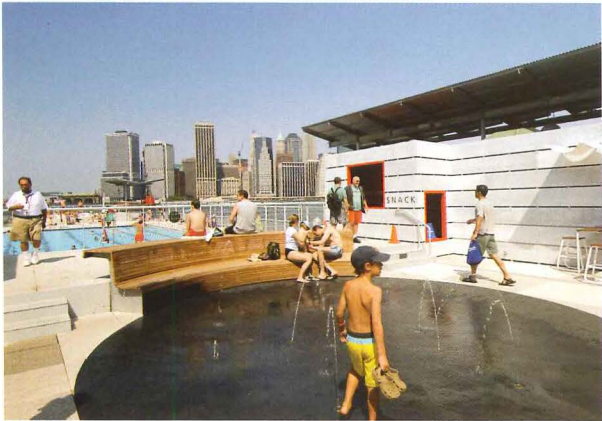
DuPont™ Tyvek®: CommercialWrap® • Wrap Caps • Tape | DuPont™: FlexWrap™ • StraightFlash™ • StraightFlash™ VF  
© 2007 DuPont. All rights reserved. The DuPont Oval Logo, DuPont™, Tyvek®, Tyvek® CommercialWrap®, FlexWrap™, StraightFlash™ and StraightFlash™ VF are registered trademarks or trademarks of E. I. du Pont de Nemours and Company or its affiliates.



**Tyvek.**

CIRCLE 47 ON READER SERVICE CARD OR GO TO [ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/](http://ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/)





**The pool, sunk into the former cargo barge's hull, offers stunning views of downtown Manhattan and the New York Harbor (prior page). New components provide a pleasing counterpart to the barge's rugged exterior (top). The changing-room pavilions create a courtyard that features a children's spray pool and looks down onto the pool below (above).**

Originally, the plan was to create the facility from scratch. Instead, responding to rising steel prices, the foundation purchased an old, 260-foot, single-hull cargo barge in Louisiana, where marine architect C.R. Cushing & Co. completed the mechanical/electrical/plumbing and heavy steel work (go to [archrecord.construction.com/features/](http://archrecord.construction.com/features/) to view excerpts of a film documenting the pool's construction). Steel work included erecting the pavilion structures and cutting the opening for the pool, which involved dropping a section of the original deck down to form the pool's floor. The barge was then towed by tug up to Brooklyn, where final retrofitting was completed before it was towed again to its new home a few piers away on the site of a forthcoming waterfront park. "Building in two places with two different contractors and shipyard technology was definitely an interesting learning experience," says Kirschenfeld modestly.

One accesses the barge, a rugged, sea-worn vessel, by way of two gleaming aluminum gangways and arrives at a court, formed by a series of pavilions, with a children's spray fountain at its center. The pavilions sit under a single canopy of gently pitched galvanized corrugated steel decking and house changing rooms, bathrooms, a snack bar, manager's office, and reception. The modules, with their truncated pyramidal roofs with openings at the top, are made of steel plate painted inside with bright hues and clad with gray cement board spaced so gaps reveal the angle stiffeners behind. A balcony provides views onto the pool below, which is accessed by two long ramps that lead out from both the men's and women's changing rooms and cantilever, along with the rest of the pool deck, 4 feet out over the sides of the barge. (The cantilevers are the result of adapting the original design to the narrower, repurposed vessel.)

The 4-foot-deep steel pool itself is sunk into the barge's 16-foot-deep hold, once used for ballast, and surrounded by precast-concrete pavers that sit 5 inches over the original deck. Two winglike shading pavilions flank a set of stadium steps that grace the bow, providing space for bathers to take in the pool scene or gaze out toward the downtown Manhattan skyline, the Brooklyn Bridge, and the Statue of Liberty out in the harbor.

As Buttenwieser had envisioned, the Floating Pool Lady fit right into its gritty environs, mimicking the linear forms of the neighboring warehouses. But following Labor Day, plans dictated that the barge pack up and head to New Jersey for the winter. It will return, however, perhaps to a port of call in another of the city's boroughs, as soon as the next swimming season beckons. ■

# Snapshot



PHOTOGRAPHY: © PHILIPPE BAUMANN, EXCEPT AS NOTED; JULIENNE SCHAER (BOTTOM)

By Beth Broome

Swimming in New York City's East River has never been so alluring. Late last June, a barge hauling its unusual cargo of a 25-meter, seven-lane swimming pool moored along the Brooklyn waterfront and, since then, has hosted tens of thousands of New Yorkers looking to escape the summer heat.

The facility, named The Floating Pool Lady in honor of its biggest champion, Ann L. Buttenwieser, is the result of a vision the urban planner and historian has worked for almost three decades to realize. While researching her dissertation on the history of the Manhattan waterfront, Buttenwieser came across the floating bathhouses that dotted the borough's rivers in the 19th century. Inspired, she set up the Neptune Foundation with the mission of creating a prototype for a portable pool to provide, free of charge, much-needed recreational facilities for underserved communities.

Buttenwieser called on Manhattan architect Jonathan Kirschenfeld, who had related experience, having designed a 600-seat outdoor floating theater (as yet unrealized). Buttenwieser was a hands-off client, says Kirschenfeld. Beyond the standard programmatic specifications for a swimming pool, her only demand—in light of her strong belief in the coexistence of commercial and recreational interests on the urban shoreline—was that the barge relate to the existing industrial surroundings.

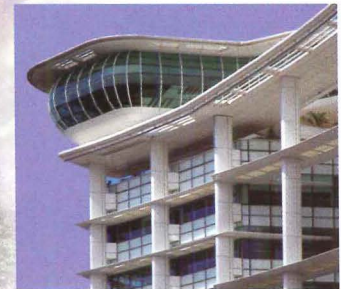
## A floating pool drops anchor in Brooklyn



# CHECK OUT THIS ULTRAMODERN LIBRARY BUILDING, CLAD WITH ALPOLIC.

ALPOLIC IS PROUD TO LEAD THE INDUSTRY IN INCORPORATING ADVANCED FIRE RESISTANT TECHNOLOGY, WHICH COMPLIES WITH FIRE CODES WORLD-WIDE, AS STANDARD IN ALL OUR EXTERNAL CLADDING MATERIALS.

*PROJECT: National Library Board, Singapore*  
*ARCHITECT: T.R. Hamzah & Yeang*  
*FABRICATOR/INSTALLER: Permasteelisa Group*  
*PRODUCT: ALPOLIC/fr, custom white solid color*



**ALPOLIC®**  
MATERIALS

Mitsubishi Chemical FP America, Inc.

innovation • style • performance

You can't judge a book by its cover. But a lot of people are judging this world-class library building by its Alpolic-clad exterior – and raving. Alpolic's light weight, flexibility and selection of beautiful finishes and surfaces have made it a leading fabricating material for landmark public structures all over the world. And because it's backed by Mitsubishi Chemical, Alpolic is sure to stand the test of time and become a classic. One look at a building like this one speaks volumes about the benefits and beauty of Alpolic. For more information, CALL 1-800-422-7270 OR VISIT US AT [WWW.ALPOLIC-USA.COM](http://WWW.ALPOLIC-USA.COM).

CIRCLE 46 ON READER SERVICE CARD OR GO TO [ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/](http://ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/)



# Trade Show Review Chicago • Coverings

This year in Chicago, more than 37,000 people attended Coverings, America's largest ceramic tile and stone trade show, with architects' and designers' numbers nearly doubling. At the show, manufacturers and distributors unveiled new green products as well as patterns inspired by textiles. *David Sokol*

## 1 Matte-metal mash-up

DesignTaleStudio made the floral pattern of its Platinum tiles jump out from the subtle background by adding the name-sake metal to the glaze. Rein Ceramiche, Casalgrande, Italy. [www.refin.it](http://www.refin.it) **CIRCLE 200**

**2 Likable Leather** To produce its recycled leather tiles, the Earth stewards of EcoDomo collect scraps from furniture, shoes, and other tanneries, mix them with natural rubber and Acacia bark, and reform them into  $\frac{1}{8}$ "- and  $\frac{1}{16}$ "-thick sheets that emit no detectable VOCs. EcoDomo, Rockville, Md. [www.ecodomo.com](http://www.ecodomo.com) **CIRCLE 201**

**3 Natural feeling** In an American take on the fabric trend, Stonepeak embraces natural materials with its interpretation of Grey Wool. Stonepeak Ceramics, Chicago. [www.stonepeakceramics.com](http://www.stonepeakceramics.com) **CIRCLE 202**

**4 Inner glow** The Luminaire Tile, a glass tile combined with energy-efficient fiber optics, creates backlit borders and accents. The tiles are mounted in conduit trays and can support 100,000 hours of continuous illumination. Tylerco, Newport Beach, Calif. [www.luminairetiles.com](http://www.luminairetiles.com)

**CIRCLE 203**

**5 Sleek streaks** This series of tiles in 2' x 2' and 1' x 2' standard sizes, features classic herringbone and pique patterns in popular metallic finishes, including platinum. GranitiFiandre, Castellarano, Italy. [www.granitifiandre.com](http://www.granitifiandre.com) **CIRCLE 204**

**6 Buena Vista cement club** The antique cement-tile floors that brighten Cuba's interiors are being lost to neglect. Jorge Aguayo Saladin recorded the designs for the Cuban Heritage Collection from crumbling buildings in Havana and Camagüey, and now reproduces the handmade tiles with partial recycled content from a facility in the Dominican Republic. Industrias Aguayo, Santo Domingo, Dominican Republic. [www.aguayo.com.do](http://www.aguayo.com.do) **CIRCLE 205**



1



2



3



4



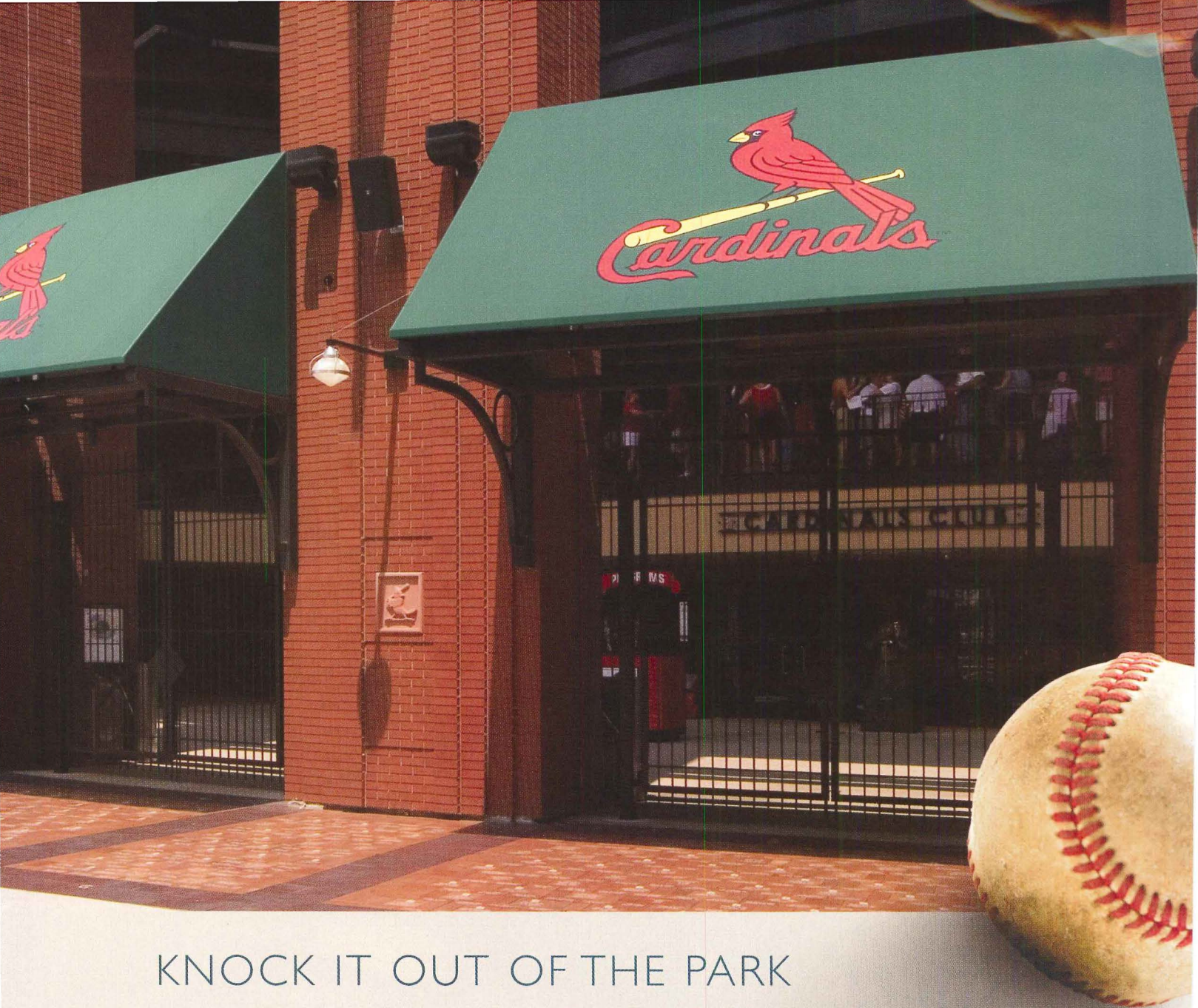
5



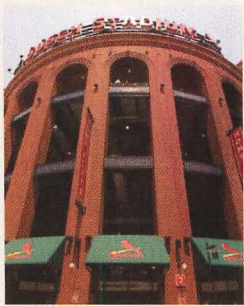
6



For more information, circle item numbers on Reader Service Card or go to [architecturalrecord.com/products/](http://architecturalrecord.com/products/).



## KNOCK IT OUT OF THE PARK with Sunbrella®.



Season after season, the awnings at the St. Louis Cardinals' awesome new Busch Stadium will welcome crowds thanks to Sunbrella® performance fabrics. With Sunbrella you get stunning colors that are permanently embedded into the very fiber of the fabric. This unique Sunbrella process provides vibrant colors and designs that are guaranteed to last five years in any weather. After all, Sunbrella has been the leader in quality fabrics for decades.

For a winning season every year, specify Sunbrella fabric on your next awning project. It will mean less worry for your customers and ultimately less hassle for you. For more information on our variety of styles and colors, contact your Glen Raven sales representative or visit [sunbrella.com](http://sunbrella.com).



[www.sunbrella.com](http://www.sunbrella.com)



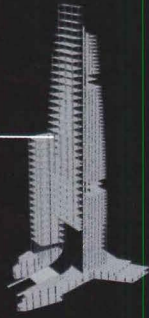
Sunbrella® and GLEN RAVEN are registered trademarks of Glen Raven, Inc. Location courtesy of the St. Louis Cardinals. Awning installation by Lawrence Fabric Structures, Inc., St. Louis, MO.

CIRCLE 45 ON READER SERVICE CARD OR GO TO [ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/](http://ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/)

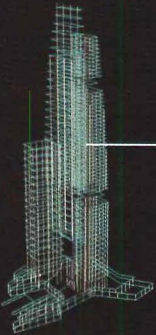


The world is rocked by over 100 damage-causing earthquakes each year, at enormous social and economic cost.

Revit® software, purpose built for BIM, along with industry leading analysis partners, give users the ability to see how a building will behave in reality, and minimize its structural reaction to an earthquake, before ever breaking ground.



Analysis and animation of a design's response to destructive forces give users the knowledge that even their most adventurous designs can stand tall in the face of extreme forces of nature.



## HOW BIM CAN HELP THIS BUILDING SURVIVE A 6.8 BEFORE IT'S BUILT.

[autodesk.com/PowerofBIM](http://autodesk.com/PowerofBIM)

## Practice Matters

small and manageable, growth has its advantages. "At ZweigWhite, we've been big promoters of growth: It's exciting, it challenges people, and it enables more people to have a share of the ownership pie," Gido says. "It expands career and professional opportunities. Organizations that don't grow can get stale; they're forgotten about if they're not keeping up with their competitors."

James P. Cramer, Hon. AIA, principal and chairman of the consulting firm The Greenway Group, is another expert in the area of ownership transition planning. He notes: "It's a complex profession, and good leadership is rare. Consolidations can bring together leadership to create stronger firms." He has observed more architecture and engineering firms joining recently, blurring disciplinary differences in form and process. "Now that we have single-technology platforms," Cramer says, "this is going to require that each discipline works simultaneously and interactively, no longer linearly. This is bringing everyone on the team closer together. BIM technology is one reason there will be more integrated professional teams." He sees mergers as a coming together of the talents of successful firms. "They're trying to integrate as a more collaborative profession. I think the quality of the design can often be enriched because of these collaborative minds working in concert."

Cramer says some firms sell to realize the built-up equity. He claims there is more wealth creation in ownership of firms today than in the history of the profession. "It's because of the strength of management and leadership in practices," he states. "The return on investment for being an owner of a design firm is often better than the ROI in other investment categories."

### Cautions during transitions

The owners of CRS Serrine were not the only ones to recognize culture clashes as serious dangers

for merged firms. Both Gido and Cramer consider this issue as important as negotiating financial terms. Selling a firm is not like selling real estate because a firm is largely an intangible collection of talent and good will. Staff who feel disrespected, or who don't respect the work of the parent company, can walk out and devalue the sale.

According to Gido, the hardest, riskiest part of a merger is not the hammering out of terms but the integration of the resulting combined firm. "How do you link these global forces together?" he asks rhetorically. "Who's going to be a practice leader? If one firm is organized by geography and another by market sector, how does that work? A lot of time and energy has to go into the integration process." There can be culture clashes between two architecture firms if one takes pride in high-end libraries, for instance, and the other cranks out chain stores. Or one firm may be internally competitive, while the other is more collegial. One way to maintain the cultural identity of the combined firms is to make sure the leaders remain even after they've benefited financially from the sale. Gido says, "The real challenge is to get them motivated to grow the organization under the umbrella of a new, larger organization."

The Greenway Group has developed a method to evaluate firm compatibility. Their proprietary LEAP Analysis tool measures firms on leadership, empowerment, accountability, and processes. The evaluation looks at the culture of an organization through the quality of financial management, operations, marketing, and professional services. It probes questions such as, "Is the leadership of the organization steady and strong and without an alienating, egotistic pride?" and "Is there healthy rapport, respect, and admiration among members of the staff?" Once the firms considering a merger have undergone this

evaluation, Greenway can graph the results on a diagnostic scoring sheet and produce an overlay indicating how likely the firms are to be able to work well together. Cramer says this comparison is useful in helping prospective partners assess the risks of culture clashes and predict whether the merger will be exciting or a turnoff for staff.

An article in the August 2007 issue of *Principal's Report*, a publication of the Institute of Management & Administration, suggests several ways to ease the transition by keeping key staff happy. Open communications are important, including honesty about who is likely to lose their job in the combined firm. The article advocates "rerecruitment," offering challenging new positions to existing staff. Retention bonuses can be useful, but only if they are tied to ongoing performance. Timothy J. Galpin, of Katzenbach Partners, is quoted: "Managers will be doing well to have retained 80 percent of the employees they wanted to keep."

### Should you sell?

Given all the apparent advantages of successful sales and mergers, how can a firm evaluate if it's right for them? According to Cramer, if the sole owner of a firm is close to retirement, it's probably the wrong time to sell. He notes, "We like to see an ownership transition plan designed five to 10 years prior to retirement, whether it's an internal or external transition."

Nevertheless, the number one reason AE firms decide to sell, Gido believes, is because they can't put together an effective internal ownership transition plan. "A lot of small firms sell because they don't have the managerial talent, the recruiting resources, the financial resources to compete. For those firms (fewer than 200 people) it is attractive to join forces with larger firms because they may offer more opportunities.

Selling may also be a good option, says Gido, for midsize firms with \$75–500 million in annual revenue. "They're too small to compete with national firms to get existing client work or lack broad leadership

and financial resources. But they're too big to be nimble, to compete with the 50-to-200-person firms who are dedicated to a certain client sector or geographic region. I think these firms have to decide which strategic direction they want to go."

As the examples of RTKL and Hillier show, a firm suitable for selling is not necessarily small or weak in leadership. Indeed, according to Cramer, sometimes a smaller firm will buy a larger firm to quickly develop the capacity to address a strong backlog. Or a large firm may want to buy a small one because the smaller firm has stronger leaders, who will become top leaders of the merged organization. Underlying all these decisions, Cramer advises, should be the goal of improving future service to clients.

Firm salability is the focus of Paul Collins, managing director of Equiteq, a firm specializing in mergers and acquisitions in the consulting industry. His article in RainToday.com, "11 Must-Dos for Creating a Highly Profitable (Highly Sellable) Firm," cites the strengths a firm should have if it expects to profit from a merger. He lists quantitative factors like a work backlog and repeat clients and qualitative factors like prominence within the profession and a strong marketing history. Depending on the strength of these factors, the sales value of the firm could range from 5 to 15 times the firm's annual profit.

Do the Hillier and RTKL acquisitions foretell a trend? The experts think so. The globalization of the construction industry makes it desirable for large firms to have a presence in many locations. The currently weak dollar, compared to European and Japanese currencies, makes U.S. firms attractive purchases for large international companies. There may once have been "conventional wisdom" about architecture firms being poor investments, but the booming domestic construction economy, under strong architectural leadership, has weakened that truism. Don't be surprised by news about more changes in firm ownership soon. ■

# What's fueling the firm mergers and acquisitions trend? Growth.

## Practice Matters

By B.J. Novitski

In the summer of 2007, two large American architecture firms made news when they announced they were being sold to larger European firms. The 1,000-person RTKL was acquired by 11,500-person Dutch environmental and infrastructure engineering giant Arcadis. And, 350-person Hillier by 750-person Scottish architecture firm RMJM. Why are these firms selling? And why now? Do these moves represent a trend, and if so, what is its significance for the rest of the U.S. architecture profession?

RTKL and Hillier ranked eighth and 25th, respectively, in the 2006 Top 150 Architecture Firms [RECORD, June 2007, page 71] list, compiled by ARCHITECTURAL RECORD's sister publication, *Engineering News Record*. The firms' change in ownership follows that of 61st-ranked, formerly 100-person Davis Brody Bond, which joined the 1,700-person British-based architecture firm Aedas in 2006.

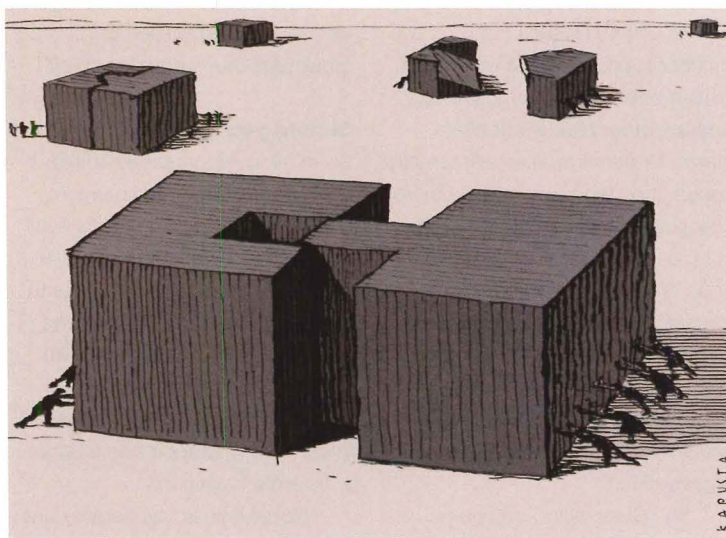
It is easy to understand why a large firm might want to buy a smaller firm. SmithGroup, for example, has successfully grown in the past 10 years from 500 employees to more than 800 today by acquiring or merging with five other firms from all over the United States (Keyes, Condon, Florence; Stone, Marraccini & Patterson; Architects Four; Tobey + Davis; and AREA Design). As a result, SmithGroup now enjoys a broader geographic reach and a

*B.J. Novitski writes about architecture and sustainability. She was formerly managing editor of ArchitectureWeek and can be reached at [bjn@efn.org](mailto:bjn@efn.org).*

greater diversity of talent. The smaller firms have presumably benefited from sharing the prestige and expanded resources of the parent firm. But why would an already large, prestigious firm like RTKL or Hillier opt to sell to an international firm? Why not form a more-equal partnership to reap some of the same advantages, as the merger of Kling

its architectural work. In the process, CRS went public, becoming the first architecture firm on the American Stock Exchange.

Authors Jonathan King and Philip Langdon describe the culture clashes CRS experienced with some of the firms they acquired in their fascinating book, *The CRS Team and the Business of Architecture*.



and the Stubbins Associates did in 2003?

Mergers and acquisitions have been a component of business practices within architecture firms for decades. In Texas, CRS grew from a two-architect practice in 1946 to become, by 1985, the largest AEC company in the United States. They expanded by acquiring interior design, engineering, construction, and construction-management firms. Eventually known as CRS Sirrinc, the company undertook environmental and infrastructure engineering projects that dwarfed

There were differences of opinion, for instance, about the size and type of preferred projects. In some cases, the owners of purchased firms took the money and ran, leaving a demoralized staff. The CRS partners eventually learned that mergers were better than acquisitions because midlevel staff could be better motivated to stay and work for a merged firm. But CRS Sirrinc suffered other problems, such as the 1982 collapse of the Saudi construction industry, in which they were heavily invested. By 1994, the architecture group was sold to HOK

and the rest to Jacobs Engineering. It was a sad end to what had been by far one of the profession's most innovative practices.

### Anatomy of an acquisition

According to Steve Gido, a principal with the consulting firm ZweigWhite, the distinctions between the terms "partnerships," "mergers," "sales," and "purchases" can be subtle, even misleading. He prefers to call them all "external transition plans." Regardless of which term is used in the press release, the new ownership structure is probably not a true partnership. Ninety-five percent of "mergers," Gido says, are actually structured financially as acquisitions. But to promote family harmony and help smooth the coming integration, many of the deals are publicly described as mergers. So there have probably been many more outright architecture firm sales in recent years than are generally acknowledged.

There are many reasons a firm can consider selling to another entity. One is to provide a path to ownership succession for a firm headed by one or a few partners who are planning to retire soon. In many cases, the firm is sold internally to the younger generation of associates. But sometimes this is not a viable option if, for instance, the younger staff lack the capital, leadership skills, or entrepreneurial ambition to become owners.

Another motivation for selling externally, says Gido, is that it can be a quick way to grow. Although many firms are content to stay





new **edges.**  
new **finishes.**



**Indiana Limestone Vanderbilt Classic™**

Presenting exciting new designer edge treatments and finishes for Vanderbilt Classic—an innovative, precision cut, genuine Indiana Limestone building veneer. Its modularity offers you the look of custom cut stone at a surprisingly lower cost. Discover Limestone Classics® at [IndianaLimestoneCompany.com](http://IndianaLimestoneCompany.com) or call (800) 457-4026.



Smooth  
Abrasive  
Bush-Hammered  
Straight Edge  
Reveal Edge  
Chamfered Edge Two Sides  
Chamfered Edge Four Sides

INNOVATIONS  
**INSTONE**



CIRCLE 44 ON READER SERVICE CARD OR GO  
TO [ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/](http://ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/)



paint on comfort.

SW 7608 | ADRIFT  
from the *Concepts in Color*™ collection

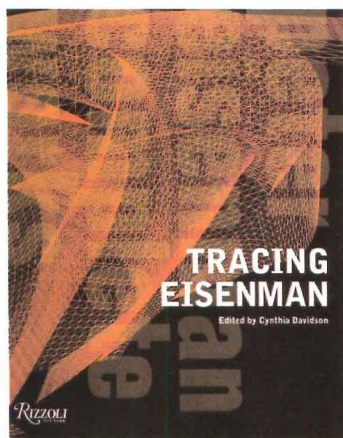
We know you're not just specifying a color, you're specifying a mood. And whether you want to make your space relaxing or invigorating or somewhere in between, we have the hues to help. So choose Sherwin-Williams COLOR™ and take comfort in knowing that your room will feel exactly the way you intended. To order large size color samples and fan decks, go to [sherwin-williams.com](http://sherwin-williams.com) or contact your local Architectural or Designer Account Executive.

©2007 The Sherwin-Williams Company

**CIRCLE 43 ON READER SERVICE CARD OR GO  
TO [ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/](http://ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/)**



[sherwin-williams.com](http://sherwin-williams.com)  
Architect and Designer Answerline 800-321-8194



Intriguingly, Cynthia Davidson chose “tracing” as part of the title of this retrospective volume to satisfy her husband/subject’s peculiar wish that no book with his “complete works” be published unless it be in the form of a detective novel. This book does not resemble a detective tale, in spite of the enigmatic persona and oeuvre that have made the transgression of rules Eisenman’s professional habit. Greg Lynn tries in his essay to depict Eisenman as a “criminal on the run,” metaphorically leaving no “traces” for those who would punish him for violating architectural convention, but the analogy seems strained given Eisenman’s seemingly intentional courting of controversy.

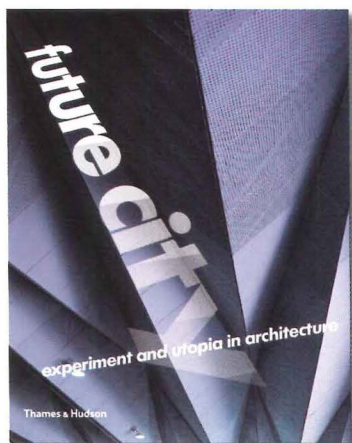
Since this isn’t a detective novel, what is it? Perhaps it’s an assembly of devout panegyrics, characterized by a sophism exemplified by Davidson’s opening essay, “The Absence of the Presence; or, The Void.” Know any void that isn’t the absence of presence? Sarah Whiting is an outstanding exception to this portentous obfuscation. She thoughtfully assesses Eisenman’s major value as an intellectual agent provocateur, while noting how some of Eisenman’s buildings aren’t user-friendly. The other contributing architect/educators don’t contextualize Eisenman’s projects in a way that summons their strengths. Stan Allen shares Eisenman’s appreciation of the architectural diagram as a research tool, but doesn’t clarify

Eisenman’s. Lynn and Guido Zuliani might have offered insights drawn from being Eisenman’s collaborators.

Yet the book transcends these failures by offering splendid photographs of built projects, like the Wexler Center, and finely detailed drawings and diagrams of imagined ones. These images present a phantasmagoric panorama of provocations from an architect/educator exemplifying Socratic sass. *Norman Weinstein*

**Future City: Experiment and Utopia in Architecture**, by Marie-Ange Brayer, Jane Alison, Frederic Migayrou, and Neil Spiller. New York: Thames & Hudson, 2007, 336 pages, \$35 (paperback).

We may forget that some of the most imaginative designs of the 20th century owe their inspiration to a 16th-century English saint. When Thomas More coined the term utopia in his book by that name in 1516, he cleared the path for generations of architects to



investigate the notion of what he called a “non-place,” a sort of unachievable paradise. Though radically diverse in concept and form, most utopias have secured places in the canon of architectural history because they use architecture to improve a world gone wrong.

*Future City: Experiment and Utopia in Architecture*, which

accompanied an exhibition at London’s Barbican Centre in 2006, presents a broad collection of inventive designs (mostly unbuilt) from the mid-1950s to the present, including Constant’s New Babylon, Archigram’s Inflatable City, and FOA’s Yokohama Ferry Terminal.

Because of its flexible definition, the term *utopia* can be applied to a dizzying spectrum of architectural investigations. Some of the chosen projects are a surprise, but most have been seen before. The presentation suffers from a lack of organization and a coherent narrative connecting the designs. Some subjects are grouped according to form (“inflatable city”), some according to geography (“radical architecture in Italy”), some according to art-historical periods (“Deconstruction”), and yet others according to vague concepts (“experimental living,” “non-standard architecture”). Project texts are consigned to an appendix, and the editors largely fail to explain what the designs respond to or how they are related. The result is an arbitrarily grouped, miscellaneous catalog of projects.

Many of the designs engage social, political, or material issues, but the book reduces architecture to surface and shape, easily leaving the general public with the impression that architects do little more than make imaginative drawings of buildings that never get built.

*John P. Gendall*

**The Architect, the Cook and Good Taste**, edited by Petra Hagen Hodgson and Rolf Toyka. Basel: Birkhäuser, 2007, 157 pages, \$33.

The Academy of the Hesse Chamber of Architects and Town Planners counts among its missions addressing architecture’s “interfaces with other culture spheres” such as music, film, theater, and cooking. *The Architect, the Cook and Good Taste* offers the Hesse-sponsored program’s explorations into the links between building and cooking, between making good architecture and preparing gourmet meals.



Like most books composed of symposia lectures transcribed into essays, the result is uneven and repetitive. (How many times must you remind your audience that cooking and architecture feed the soul as well as the eye, or that good ingredients are basic to any artistic endeavor?) The score of European essayists includes artists, architects, ethnologists, historians, cooks, and food chemists; their thoughts range from sociocultural analyses to discussions of an architect’s work without any mention of food. One contributor, Claudio Silvestrin, has actually designed a restaurant, the Panatteria Princi in Milan (“My architecture can be best compared with traditional Italian cuisine,” with its dearth of cream and fat, simple but tasty).

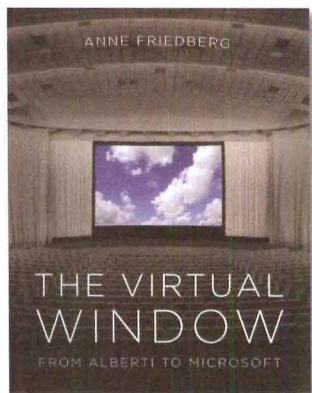
The illustrations are equally meandering and quirky. Artful pictures of buildings join photographs of sushi, potatoes, and lemons, and the butchering of a pig, not to mention a Big Mac (with fries). Giotto’s *Last Supper* and Manet’s *Le Déjeuner sur l’Herbe* grace these pages, along with a watercolor rendering of a Deco restaurant in London.

This *pot au feu* may not provide a workable definition of good taste, but it is provocative and lively. Swiss art historian Stanislaus von Moos spins riffs on Gehry’s carp and Venturi’s duck, and labels Le Corbusier’s League of Nations the equivalent of fast food. At the end, *The Architect, the Cook and Good Taste* becomes an argument for slow food—sensual and environmentally and ethically sustainable. Which is not a bad recipe for architecture, either. *William Morgan*

# Thinking and theorizing about architecture

## Books

**The Virtual Window: From Alberti to Microsoft**, by Anne Friedberg. Cambridge, Mass.: MIT Press, 2006, 448 pages, \$35.



This is a dense, erudite overview of issues on visual perception and representation. Friedberg writes well and displays a mastery of theoretical topics ranging from Renaissance perspective to digital design, but the sheer amount and complexity of the material she addresses may prove daunting to even the most enthusiastic general reader. Her thesis is that there has been a profound shift in human perception from the perspectival, windowlike viewpoint of Alberti and Renaissance art to the contemporary visual field of the computer "window." *The Virtual Window* is an effort to trace the steps along the way.

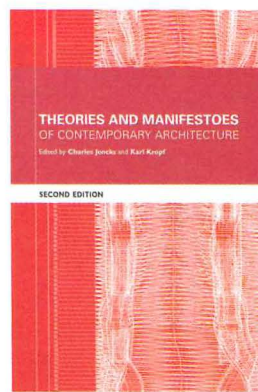
It is organized into five chapters, beginning with a discussion of perspective, the tools used to draw it, the new ways of seeing it provoked, and the manner in which these ways changed architectural approaches to organizing the world. This is followed by a more rambling chapter,

"Heidegger's Frame," which attempts, less coherently, to bind together the history of glass windows with theories of dematerialization from Sigfried Giedion and Walter Benjamin to Colin Rowe. Friedberg continues with a chapter on the French philosopher Henri Bergson's concept of the "virtual" and his attention to what he called the "cinematographical" aspects of thought, a topic of considerable interest still today. This leads her into an interesting brief history of theaters and cinemas. Completing the book are chapters on Paul Virilio and the "screen," Warhol's "multiple," various questions of cinematography, the well-known software innovations of Macintosh and Windows, and 100 pages of footnotes. In her book, Friedberg raises a key issue: To what extent is the viewer aware of the nature of the "apparatus," the means by which visual representations ranging from paintings through film to interactive software programs are framed and defined? In her perhaps too brief conclusion, Friedberg argues that a "new logic to framed visuality" has now taken hold, one that relies "more on the multiple and simultaneous than on the singular and sequential." Her book clarifies the continuing and recognizable links between framed, perspectival Renaissance representations of the world-as-picture and the new visual logic. *Eric Mumford*

**Theories and Manifestoes of Contemporary Architecture (second edition)**, edited by Charles Jencks and Karl Kropf. New York: Wiley, 2006, 378 pages, \$40 (paper).

If you are an architecture student, you should have a copy of this book. If you like to follow the intellectual life of the discipline, this book should be on your shelf, as well. Charles Jencks and Karl Kropf have assembled 144 essays written by leading architectural theorists and practitioners during the past half century.

Anyone familiar with Jencks's work as one of the foremost architectural taxonomists of our time won't be surprised by his choice of essayists for this book. They include Venturi and Scott-Brown, Rossi, Rykwert, Graves, Vidler, Frampton, Banham, Kipnis, Johnson, Eisenman, Ando,



Portoghesi, Hejduk, Tafuri, Libeskind, Tschumi, Wigley, Koolhaas, Hadid, the Prince of Wales, and not unexpectedly, Jencks himself. (Charles Moore, one of this period's best architectural thinkers and writers, is underrepresented by a single essay coauthored with Kent Bloomer.)

The book also includes folks outside of Jencks's usual line-up: Ian McHarg, Christopher Alexander, Dolores Hayden, Andres Duany and Elizabeth Plater-Zyberk, Greg Lynn,

James Wines, William McDonough, and Hassan Fathy. Then there are the inexplicably excluded, such as Cesar Pelli, Samuel Mockbee, Moshe Safdie, Michael Pyatok, Stephen Kieran and James Timberlake, and Avi Friedman.

Jencks and Kropf organized the essays in the first (1995) edition according to four main periods they call: Post-Modern (including Post Modern Ecology), Traditional, Late Modern, and New Modern, offering no explanation for why the periods are presented out of chronological sequence. For the second edition, they added a new category, Complexity Paradigm, covering developments brought about by globalization and computers. Ultimately, these pigeonholes do not make much difference; the same authors are found in different categories. Despite his painstaking explanations of the different periods and what they mean, Jencks never defines what "contemporary" architecture encompasses. The implied definition of these collected essays is, to put it kindly, a bit loose. Would we really describe as "contemporary" all architecture completed since Eisenhower was president?

In the end, this book achieves what Jencks says any collection of theories and manifestoes must: a full range of architectural worldviews. *Michael J. Crosbie*

**Tracing Eisenman: Complete Works**, edited by Cynthia Davidson, with essays by Greg Lynn, Sarah Whiting, Stan Allen, and Guido Zuliani. New York: Rizzoli, 2006, 400 pages, \$75.



**IF YOU'RE BUILDING WITH CONCRETE, WE'VE GOT WHAT YOU NEED.**



For over 65 years, QUIKRETE® has been helping America's job sites run smoothly. We offer over 50 ASTM specified concrete building and repair products, all available from 50 to 3,000 pound bags. For a free construction product guide, visit [quikrete.com](http://quikrete.com).

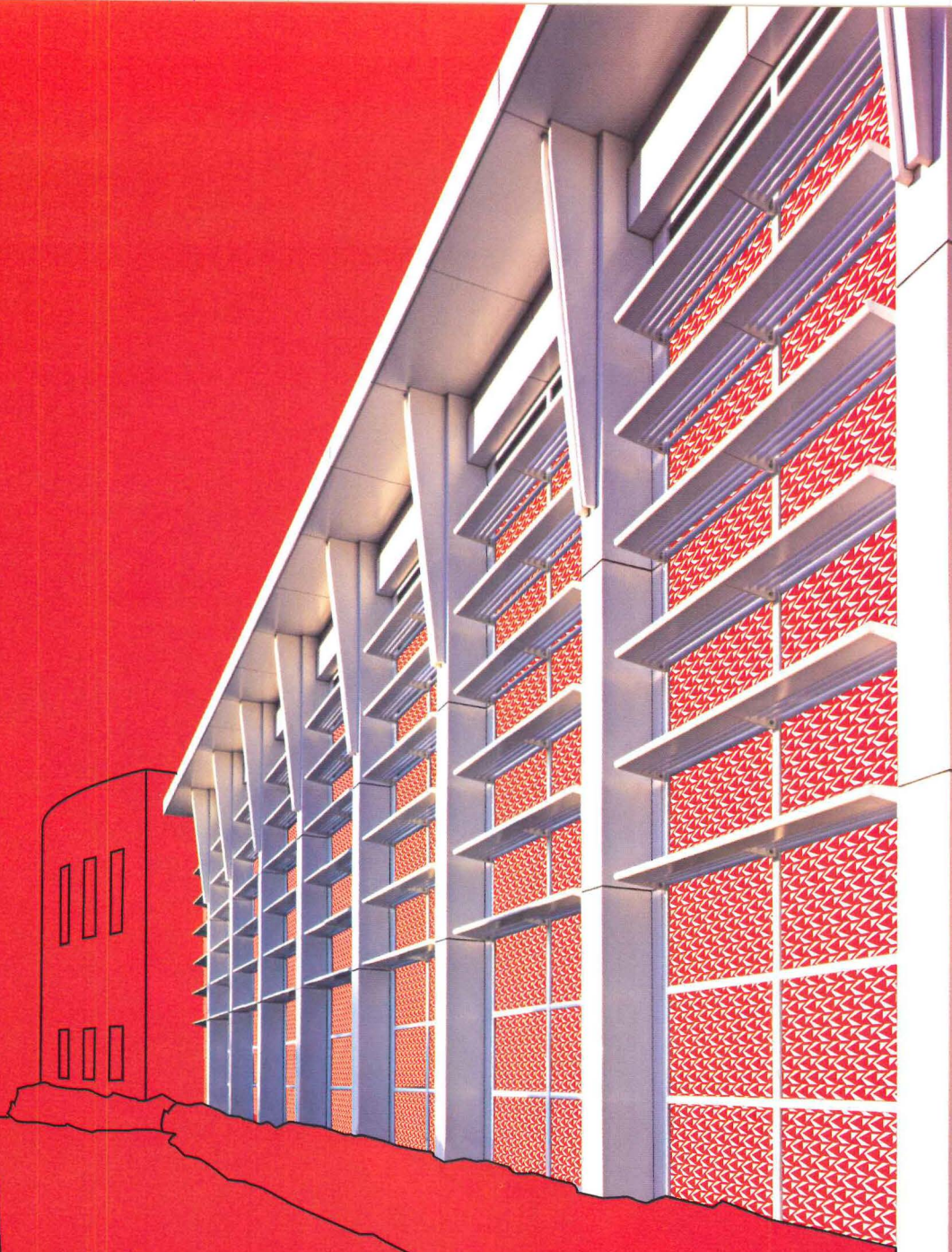
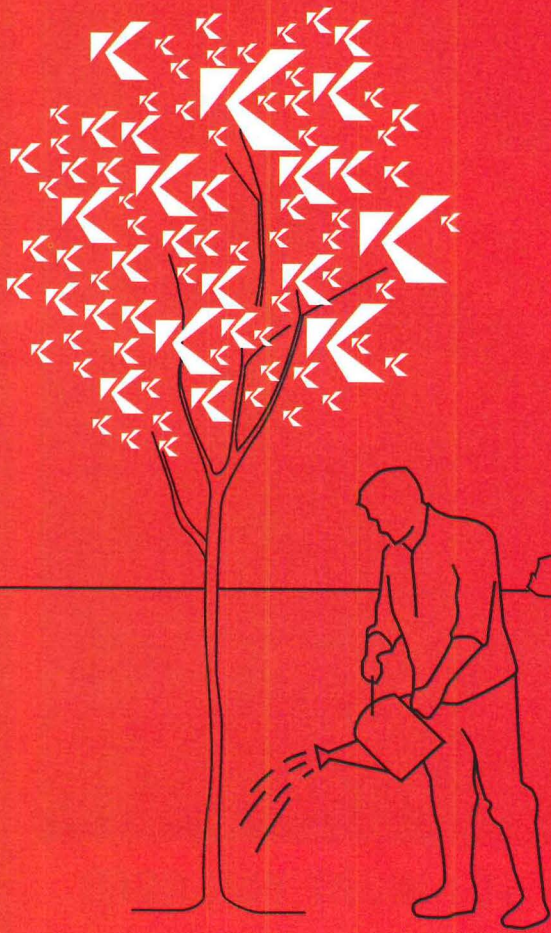
for a free construction product guide, visit [www.quikrete.com](http://www.quikrete.com)

**QUIKRETE®**  
CEMENT & CONCRETE PRODUCTS™

©2007 QUIKRETE International, Inc.

CIRCLE 42 ON READER SERVICE CARD OR GO  
TO [ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/](http://ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/)

sustainable



Sustainable solutions that support the environment.

**Putting our mark on the future**

architectural aluminum systems • entrances + framing • curtain walls • windows

[kawneer.com](http://kawneer.com)

See us at booth 1424



CIRCLE 41 ON READER SERVICE CARD OR GO TO [ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/](http://ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/)



In *Blind Light*, Gormley asks visitors to enter a glass room filled with fog.

the pavilion retains a special intimacy and scale that make viewers feel they are entering an architectural model itself. On the outside, Putrih assembled a seemingly random (though actually precise) criss-cross installation of rusted trusswork bolted into place. Inside, he hung a white canvas curtain that darkens the interior and designed an inner wall with plywood baffles cut into wiggling, biomorphically shaped slats that recall the Paradise's decorative forms.

During the biennale, the pavilion served as a venue for documentary films. But the main event was between shows, as it once must have seemed to children at the Paradise Theater. The canvas curtain is drawn back, and slowly, the undulating plywood slats are brought alive by flames of gold, then red light, like a spectacular sunrise. The theater becomes a place apart from its surroundings, a regal folly in the garden. And just before the colored lights subside, the pavilion's shallow-domed ceiling grabs your attention with projected clouds that gradually dim into a starry night. Leaving *Venetian, Atmospheric* at night is like leaving one of those lively, brightly lit Venetian *campi* filled with joyous crowds and heading out into the dark, narrow, and quiet streets.

### Meanwhile in London ...

British artist Antony Gormley's succession of cast-iron and fiberglass sculptures molded from his own body would appear to be a self-absorbed art, but his recent exhibition at the Hayward links his particular image to the more universal theme of individual alienation within architectural



Aluminum rods puncture space in Gormley's *Hatch*.

surroundings. As he writes in the exhibition guide, "I think that architecture is another kind of body, another container." You can see the ideas behind his architectural sculptures in a haunting series of photographs that he took between 1979 and 2007. Entitled *Quads* (as

they're grouped in fours), these images meld shades of blue with an occasional gleam of golden light. In one group, for example, figures walking on the crest of a mountain emerge from the early morning fog; a deserted power plant stands in the light of dawn; a lone cable car drifts across a dark, misty sky; and a single man waits on a brightly lit subway platform among a forest of columns. The message is one of isolation.

Human figures abound in this exhibition, from heavy cast iron to dematerialized wire mesh, and sometimes take the measure of space in the fashion of Leonardo de Vinci's *Man of Perfect Proportions*—in one work by bending at right angles in the corners of a room. But Gormley also asks viewers to take their own measure by confronting complete isolation in his *Blind Light* installation. Anyone who has driven at night in thick fog knows what it feels like to enter this freestanding glass room filled with a dense cloud made more intense by white neon light. It takes courage to step inside, but I did. I thought immediately of

Gormley's photograph of a man standing in fogbound woods not knowing which way to turn. I stood stock still, totally disoriented, and then, like everyone else, I gingerly sought an exterior wall to feel my way around. Once outside again, I watched the disembodied hands and arms of the people inside searching for solidity and thought this is what Gormley must experience when seeing visitors bring his sculptures to life and to terms with consciousness.

In an installation titled *Allotment II*, the artist proved his point that the "body is our first habitation, the building our second." Here he built a miniature city of vertical structures, each based on the measurements and features of some 300 inhabitants of the

Swedish city of Malmö, adults and children. What first looked like hulking reinforced-concrete structures on a grid of streets suddenly appeared more human as their differences revealed themselves. (A good lesson there.) In another piece, *Hatch*, Gormley deals more directly with perception by enticing the viewer into a room of white plywood and Plexiglas lined with peg-board-like walls of square apertures. Inside, long and short rectangular aluminum rods spike out in every direction from the walls and floor (dangerous for more than two people at once). While most people in the room looked through the rods to see kaleidoscopic images of pixelated cubes, I enjoyed looking through the square holes from the outside to see ever-increasing circles of light.

### Figures against the sky

Not satisfied with occupying just the interior galleries with his work, Gormley used the Hayward's three outside terraces as a viewing platform for his largest architectural installation, *Event Horizon: 27* life-size casts of the artist mounted on buildings around the Hayward on the South Bank and on the horizon across the Thames far in the distance. You begin counting the cast figures nearby and then squint into the "expanding universe," a cosmological phenomenon from which he takes his title. But suddenly, there it is, all of London, appearing almost in miniature from a distance, with Gormley's figures merely pencil-thin lines against the sky, sculpture inhabiting architecture in an atmospheric theater in the round.

By constructing impermanent, illusionary, and fictional worlds with architecture, both Putrih and Gormley enlist the participation of viewers to complete their art. What remains is the memory and the perceptions gained through these experiences of imagination rather than function. ■

**ONLINE:** Can architects learn much from artists? Respond at [architecturalrecord.com/community/critique](http://architecturalrecord.com/community/critique).

# Artists tackle architecture and find new ways of looking at it

## Critique

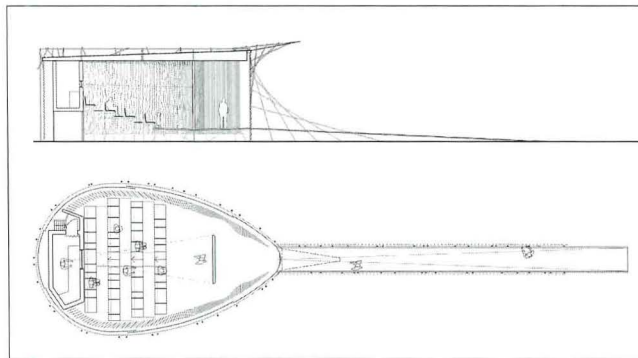
By Paula Deitz

In the catalog for Antony Gormley's recent exhibition, *Blind Light*, at the Hayward Gallery in London, the curator Jacky Klein cites Brancusi's dictum that "architecture is inhabited sculpture." But since the onset of the Constructivist movement in Russia in the early 20th century, sculpture itself has become architectonic and inhabited, if not physically, then mentally, in the seductive manner that the imagination allows the viewer to experience its interiority.

Not satisfied merely to imply habitation, two artists developed sculptural projects this year that work as architecture and engage viewers to complete the perceptual concepts behind them: Tobias Putrih's *Venetian, Atmospheric*, which represented Slovenia at the 52nd International Art Biennale in Venice, and Gormley's *Blind Light* at the Hayward. Both extract ideas from the artists' early memories of buildings and the consciousness of the self within space to produce a transforming experience for others.

As an artist, Putrih became enchanted by the fantasy world of old movie palaces from the 1920s and '30s, buildings that mediated between drab streets and the projection of celluloid fictions. He was also fascinated by multiplex cinemas and made cardboard models with white, ribbonlike screens that countered the blandness of the

*Paula Deitz is the editor of The Hudson Review, a magazine of literature and the arts, and writes about art, architecture, and landscape design.*



generic interiors. At Manifesta4 in Frankfurt in 2002, he put three of these small cardboard constructions (of theaters in Frankfurt) on pedestals, indicating his talent for encapsulating an illusion.

Transfixed by the theater's vanishing role as both a social venue and an escapist mechanism, Putrih envisioned a model that would suggest a fantasy environment and be large enough to function as a real space for gathering people. Taking his cue this time from London's Art Nouveau Odeon theaters from the 1930s and the 1928 New Victoria Theatre designed in German Expressionist style by Ernest Wamsley Lewis, he worked in 2005 with architect Luka Melon to build a "cineclub" at the Thomas Dane gallery in London. Called *A Certain Tendency in Representation*, after an essay by François Truffaut, the piece had a cardboard floor; slatted, undulating plywood walls; and foam-cushioned seats, all bathed in the same warm glow of yellow and red lighting found in Lewis's theater. Though films were projected on a regular basis, the "model" itself was the show.

Now based in New York, Putrih

has discovered the paragon of the "atmospheric" movie palaces in Loew's 1929 Paradise Theater on the Grand Concourse in the Bronx. The auditorium is surrounded by elegant Venetian Baroque-style facades with sculpture niches, colonnades, and exuberant carving creating the illusion of being in a Venetian *campo*, making it a kind of Teatro Olimpico *all'americana*. The designer of this and a hundred other such places was the Romanian-born American architect John Ebersson, who fairly invented the idea of turning cinemas into illusory settings of exotic locales.

After creating a series of evocative collages from torn photographs of the Paradise's interior and drawings tracing the longitudinal outlines of its decorative elements, Putrih built *Venetian, Atmospheric* as a full-fledged, freestanding cinema. A major sculptural attraction of the Biennale, it brought Venice, inspired by Ebersson, back to its origins. Before reaching the piece, though, visitors stopped at Galleria A+A near the Palazzo Grassi, which served as an orientation to the main event and included the scored draw-

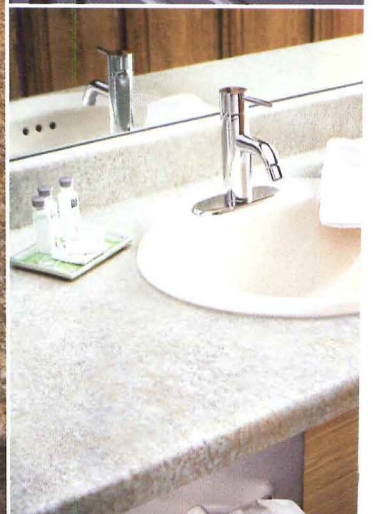
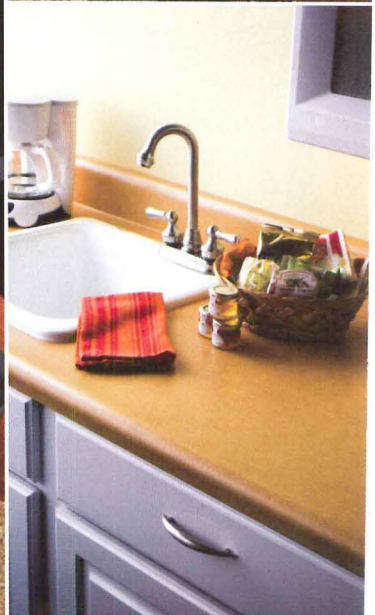
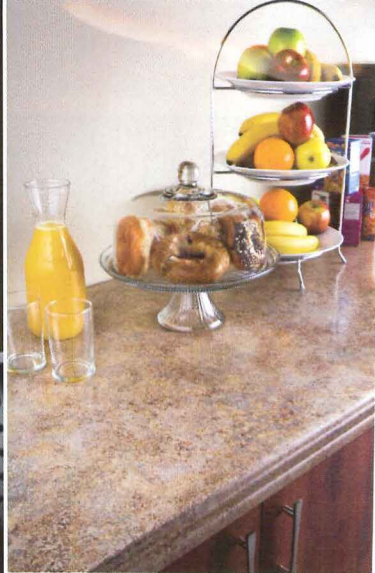
**For the Venice Art Biennale in 2007, Putrih created *Venetian, Atmospheric* (above two), which recalls old movie palaces.**

ings of the Paradise's interior.

The setting for *Venetian, Atmospheric* itself was not a crowded *campo* or the Giardini, cheek by jowl with other national exhibitions, but isolated under tall trees on the bucolic Island of San Servolo at the picturesque campus of Venice International University, the site of a former Benedictine monastery. Traveling the 10 minutes by vaporetto from Piazza San Marco, away from the hurly-burly of the city and the biennale, provided a welcome respite to clear your mind and prepare for a remarkable project.

After landing at the dock and walking through the parklike serenity of this walled island, you finally catch a view of the cinema, a pavilion with the same oval roundeur, says the artist, as the great Fenice Theater. Though it functions as a theater showing documentary films and holds an audience of 35 to 40 on its stepped rows of square seats,





Using postformed laminate instead of solid surface can save you hundreds of dollars. And that's just at the front desk. Imagine how much you can save on the guest rooms. But that's the beauty of VT countertops. You get the look of stone at a fraction of the cost, so you can make the most of your budget without compromising your project's aesthetics. Their incredible durability makes them perfect for any high-use area and because they're postformed, they don't have seams to collect dirt or grime. For more information about VT commercial grade countertops or to locate a VT PRO Team fabricator, simply log on to [www.vtindustries.com](http://www.vtindustries.com).

**VT** Fine Laminate  
INDUSTRIES Countertops

CIRCLE 40 ON READER SERVICE CARD OR GO TO [ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/](http://ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/)

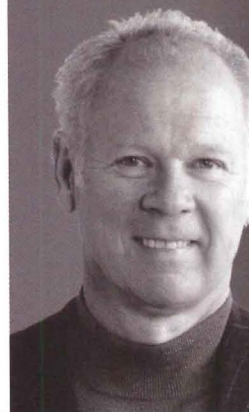
PEOPLE ARE TALKING

“Oldcastle Glass® embraced our vision and custom-engineered a complex curtain wall for the Colorado Convention Center.”

—Curtis W. Fentress, FAIA, Fentress Architects

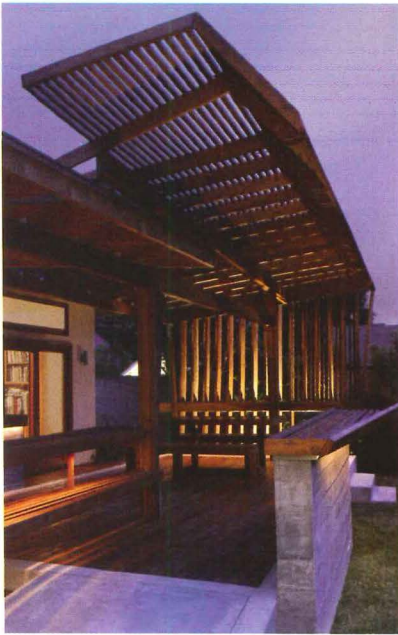
**Colorado Convention Center by Fentress Architects—  
Custom-Engineered Curtain Wall by Oldcastle Glass®**

Often compared to the opera house in Sydney, Australia, the Colorado Convention Center—with its high-peaked, 662-foot roof line and curtain wall—has transformed Denver’s skyline. “When you are starting with a clean sheet of paper, you need design partners who bring more to the table than the ability to manufacture. Oldcastle Glass® was engaged with us throughout the entire design, engineering and testing process—they were a critical part of our team,” noted Curtis Fentress. Call 1-866-OLDCASTLE (653-2278) or visit us at the new [www.oldcastleglass.com](http://www.oldcastleglass.com). Photo:©Ron Johnson



**Oldcastle Glass®**

*Where glass becomes architecture™*



**Suburban Intervention, Los Angeles, 2006**

*A backyard component added to an existing home comprised multiple horizontal planes including a deck; a slatted, cantilevered roof canopy; a tea table; and a long shelf.*



**Taipei Tower, Taipei, Taiwan, 2009**

*In a bustling neighborhood in the heart of Taipei, this 15-story project features undulating balconies unique to each of its 28 floors.*

**ONLINE:** To view additional photos and projects by Oyler Wu Collaborative, and to comment on this article, go to [architecturalrecord.com/archrecord2/](http://architecturalrecord.com/archrecord2/).

While both Oyler and Wu reject the notion of a particular style repeating itself in their work, they do admit to a consistent approach to design. “We insist on looking at the big picture, and the intimate details,” says Oyler. Material experimentation, digital renderings that explore layers and texture, and physical models help lead them to the right forms for the job at hand. “We both worked for firms that really taught us how to appreciate detail,” says Wu.

Oyler says they were influenced by the masters they worked for in many ways, including how to run a small practice. “As different as Toshiko and Lebbeus Woods were, they both trusted the people around them. We strive for that, and run our firm like a studio.” Because both partners are design faculty members at SCI-Arc, many of their collaborators are students. “It’s great having access to that pool of talent,” says Oyler. “We struggle to run an office that is driven by experimentation, and we find that the students we bring in are open to that.” Oyler says the practice is feeling some growing pains. He likens the current state of the firm to a “wild animal.” Sounds appropriate for this stage of a thickening plot. *Ingrid Spencer*

**Work**

**Associated Fabrication: Heavy metal/light touch**



The border of Brooklyn’s Williamsburg and Greenpoint neighborhoods is an industrial-zone ballet. Behind garage-door prosceniums, pallet drivers turn pirouettes in loaded vehicles. A welder performs a pas de deux with a giant unfinished steel luminaire.

For the brains behind the brawn, consider the choreographers of Associated Fabrication. Inside a derelict factory that had once been used for dyeing textiles and stamping steel, Associated’s four partners control the *ronde de jambe*-like movements of their Thermwood CS45-510 three-axis CNC mill, which produces architectural elements for a wide range of designers—including themselves, working under the moniker 4pli. Bursts from the drain valve on the mill’s air compressor provide orchestral accompaniment.

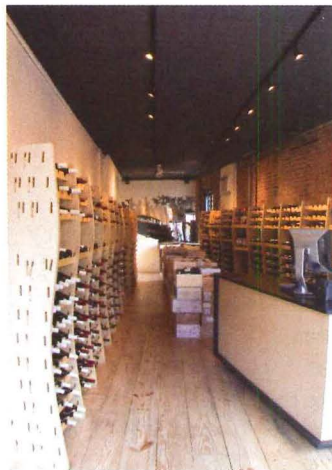
William Mowat, Amy Stringer, Jeffrey Taras, and Ken Tracy, who range in age from 30 to 35, all earned master’s degrees from Columbia University Graduate School of Architecture in May 2005. They’re not the only recent graduates to go into the business of making: Associated shares space with Caliper Studio, two of whose partners also went to school there.

Tracy thinks this is a counterpoint to his alma mater’s promotion of digital design. “It was tiring just being in Maya and being able to make anything curvy. We wanted to make things physical.” The members started working through the impulse at Columbia, which had installed a high-tech fabrication workshop in 2004. Today, Associated fields queries from school ties working at firms like Asymptote and Michael Maltzan Architecture.

The quartet hadn’t originally set out to start a fabrication business. In May 2005, Taras had also snagged a job to design the office interior for Brainpop, a Web-based educational service, when he first assembled the team. A minuscule budget combined with their interest in hands-on materialization compelled the friends to design case furniture they could assemble



*Under the name 4pli, the partners of Associated created the Petal5 nesting stools (above left). Also shown are wine storage units (left) and a wall exhibit (above) for Thirst Wine Merchants in Brooklyn, N.Y.*



themselves. “We made things with technology we trusted, using stacking techniques,” Taras recalls. They outsourced the CNC milling, and sweated to put together 24 plywood-and-aluminum desks, a conference table, and other pieces.

The experience opened their eyes to the potential market for a New York City-based operation that could strongly sympathize with an architect’s vision, and which would support 4pli until it took off. Now, Taras says, “We’ve been able to incorporate lessons that someone else paid for,”

and points to a curved maple-veneer wall at the 19,000-square-foot New Dance Group studio in Manhattan, fabricated for Spivak Architects, as an important training in lamination. “We are willing to try something new and different,” Mowat says of Associated’s mission. That enthusiasm for learning informs 4pli’s own growth and has helped the partners dance into the hearts of clients like SOM, who are rewarding their fabrication knowledge with ever bigger, more challenging commissions. *David Sokol*

**ONLINE:** To view additional information about Associated Fabrication, and to comment on this article, go to [architecturalrecord.com/archrecord2/](http://architecturalrecord.com/archrecord2/).

# For and about the emerging architect

## archrecord2

This month, we catch up with the coasts, profiling two talented young firms, Oyler Wu Collaborative and Associated Fabrication, that are leaving their design stamps on New York, Los Angeles, and beyond. Catch other emerging talent in archrecord2's Design, Work, and Live sections online, and leave your own mark in Talk, where you can comment and join forums. ONLINE: What served as your firm's "calling-card" project? Respond at [construction.com/community/forums.aspx](http://construction.com/community/forums.aspx).

### Design

#### Oyler Wu Collaborative: Layers and texture



Their resume reads like an architect's fairy tale: two aspiring architects, Dwayne Oyler and Jenny Wu, met at Harvard's Graduate School of Design, graduated, and moved to New York to hone their craft working with prestigious architects and firms—he for

Toshiko Mori and Lebbeus Woods, she for Architecture Research Office and Gluckman Mayner Architects. They decided to start their own firm, Oyler Wu Collaborative, get married, and go West. Like most fairy tales, Oyler and Wu had to journey through unknown territory (moving across the country and starting an office with no clients in hand) and experience conflict to get to their current state of a busy practice in Los Angeles with myriad projects completed and on the boards, local and overseas.

"We were both so into the work. We'd fall in love with it and get wrapped up in it," says Oyler about the mental struggles the couple went through before coming to an agreement about how their practice would be run. Though the two had grown used to criticism at school, they didn't know how to take it from each other. "We realized that it's not about me or Dwayne," says Wu. "We left the 'that's your thing, this is more my thing' behind."

Six years later, consensus has been reached. With projects on the boards as diverse as an 8,000-square-foot meditation/classroom building in Downey, California, to a 15-story residential tower in Taipei, Taiwan, the office of three (size fluctuates, but three is a constant) is gaining recognition and clients. It's the firm's office, literally, that serves as a calling card. In the iconic American Cement Building, in downtown L.A., Oyler and Wu renovated a 1,400-square-foot live/work loft for a materials cost of \$2,500, designing an office separated from the couple's living space by a partition with built-in storage units and translucent fabric doors. The workmanship and versatility of the space shows how the firm can perform transformative architecture with a small budget and common materials.



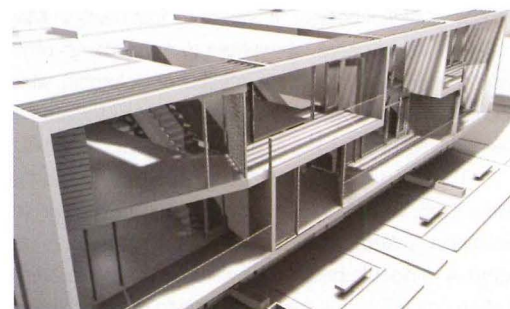
**American Cement Building Loft, Los Angeles, 2005**

*This 1,400-square-foot loft has a partition with storage shelves and translucent fabric doors that separate live/work areas and celebrate views.*



**Venice Lofts, Venice, California, 2006**

*Located between industrial and residential areas, this 9,000-square-foot apartment building has terraces in varied geometrical configurations along the facade.*



IMAGES: COURTESY OYLER WU COLLABORATIVE



More natural looking.  
More comfortable feeling.  
More years of proven performance.  
In other words, more happy clients.

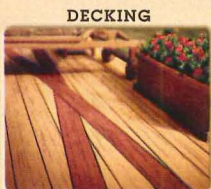
Decking: Trex Brasilia® Color: Burnished Amber and Cayenne Railing: Trex Designer Series Railing®

**Show your clients how great outdoor living can feel with Trex®**

When your clients want the best outdoor living has to offer, let them know that they want Trex. No other product comes close.

**THE CUSTOMER HAS SPOKEN**

Trex offers a natural beauty and barefoot comfort that no composite product can match. It's why Trex is asked for by more people than any other name in the industry. We have developed a broad portfolio of decking and railing choices, with finishes from subtle to bold, in a wide variety of rich, inviting colors and options. So no matter what style your clients ask for, you can always deliver the quality that only comes with Trex.



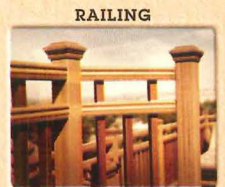
DECKING

**THE PROOF IS IN OUR RECORD**

Hands down, Trex has the longest record of proven performance in the field. Trex never rots, warps or splinters, so it requires little maintenance. We're so confident in the durable beauty of Trex, we back it



with our 25-Year Limited Warranty. You'll find Trex cuts, routs and fastens easily, for an outstanding workability. We've also made installing Trex railing a snap with our time-saving TrexExpress™ system. And you can even shape and bend Trex to create dramatic, sweeping curves.



RAILING

**WE'VE GOT YOUR BACK**

When you choose to build with Trex, we will provide all the tools you need to build your business too: a dedicated help-line, a powerful lead generation machine, effective marketing materials, a rewarding incentive program, along with comprehensive field support and training. It's the best trade partner support program in the business. For the best trade partners in the business: ours.



*How outdoor living should feel.*

Learn how easy it is to build your business with Trex. Visit [trexpartners.com](http://trexpartners.com) today or call 1-800-BUY-TREX, ext. 6358.

CIRCLE 38 ON READER SERVICE CARD OR GO TO [ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/](http://ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/)

# Hang with the Best

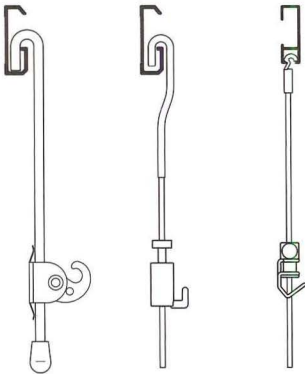
Contemporary or Traditional.  
Hospitality, Residential or Contract.

Whatever the challenges of your next project,  
you may find your presentation solutions from us.

- Protect valuable wall surfaces
- Minimize wall damage and maintenance
- "Footprintless" easels increase white collar productivity
- Enable infinitely flexible presentation

With over 7,000 successful installations in  
North America and an extremely broad  
product offering. We have both the  
experience and products to help with your  
presentation needs.

Request our "Architect's Sample Kit".



Hanging Systems

Montreal, QC (Canada) • Champlain, NY (USA)

866 935 6949 • [www.ASHanging.com](http://www.ASHanging.com)

Hang with the best.  
Hang with AS Hanging Systems.

CIRCLE 36 ON READER SERVICE CARD OR GO  
TO [ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/](http://ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/)



With vision comes responsibility.



That's why we offer a comprehensive lineup of **green Dulux®** paints.



You're not just planning for today... you're building for the future. That's why Dulux is committed to supporting your vision by offering environmentally friendly paints. With Dulux, you'll discover finishes that meet MPI Green Performance standards, help you qualify for LEED certified projects, and meet low VOC regulations while providing outstanding performance and durability. All are available in the more than 2,000 colors Dulux offers — to help you deliver a beautiful environment, in more ways than one. See for yourself. Visit [www.duluxpaints.com/green](http://www.duluxpaints.com/green) for additional information on green Dulux paints.



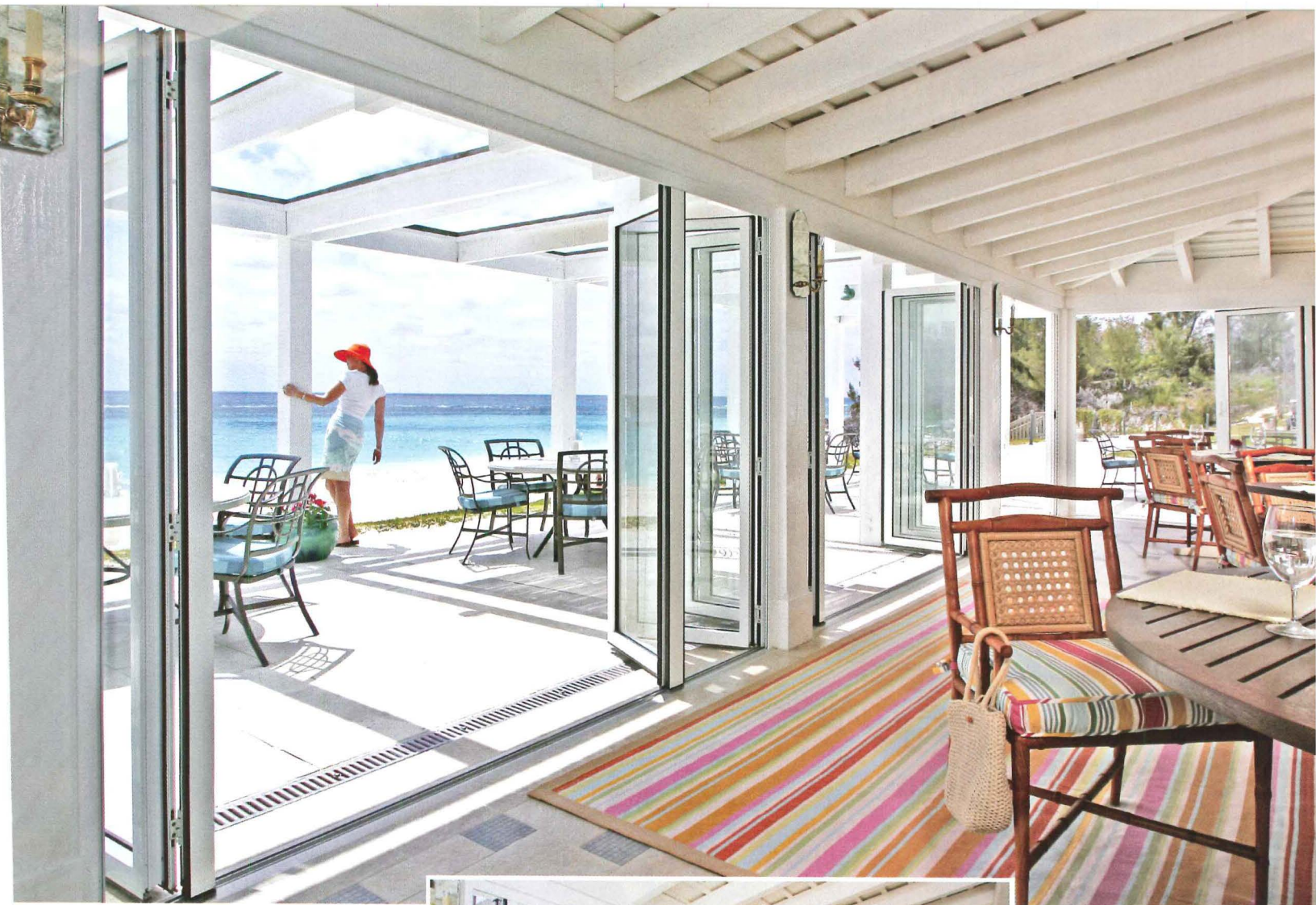
Call 800-984-5444 for more information.  
©2007 ICI Paints. All Rights Reserved.

**Dulux®**  
Your Vision. Delivered.™

Visit us at Greenbuild 2007  
in Chicago—Booth #1075

Dulux is a registered trademark of  
Imperial Chemical Industries PLC.

CIRCLE 35 ON READER SERVICE CARD OR GO  
TO [ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/](http://ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/)



Tucker's Point Beach Club, Bermuda  
Hans Hentschel, Architect

Open the door to exhilaration  
Enjoy the best of both worlds: a room with a view that opens to  
the outdoors yet gives you the peace of mind only a weathertight  
NanaWall provides.

CIRCLE 34 ON READER SERVICE CARD OR GO TO [ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/](http://ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/)

800.873.5673

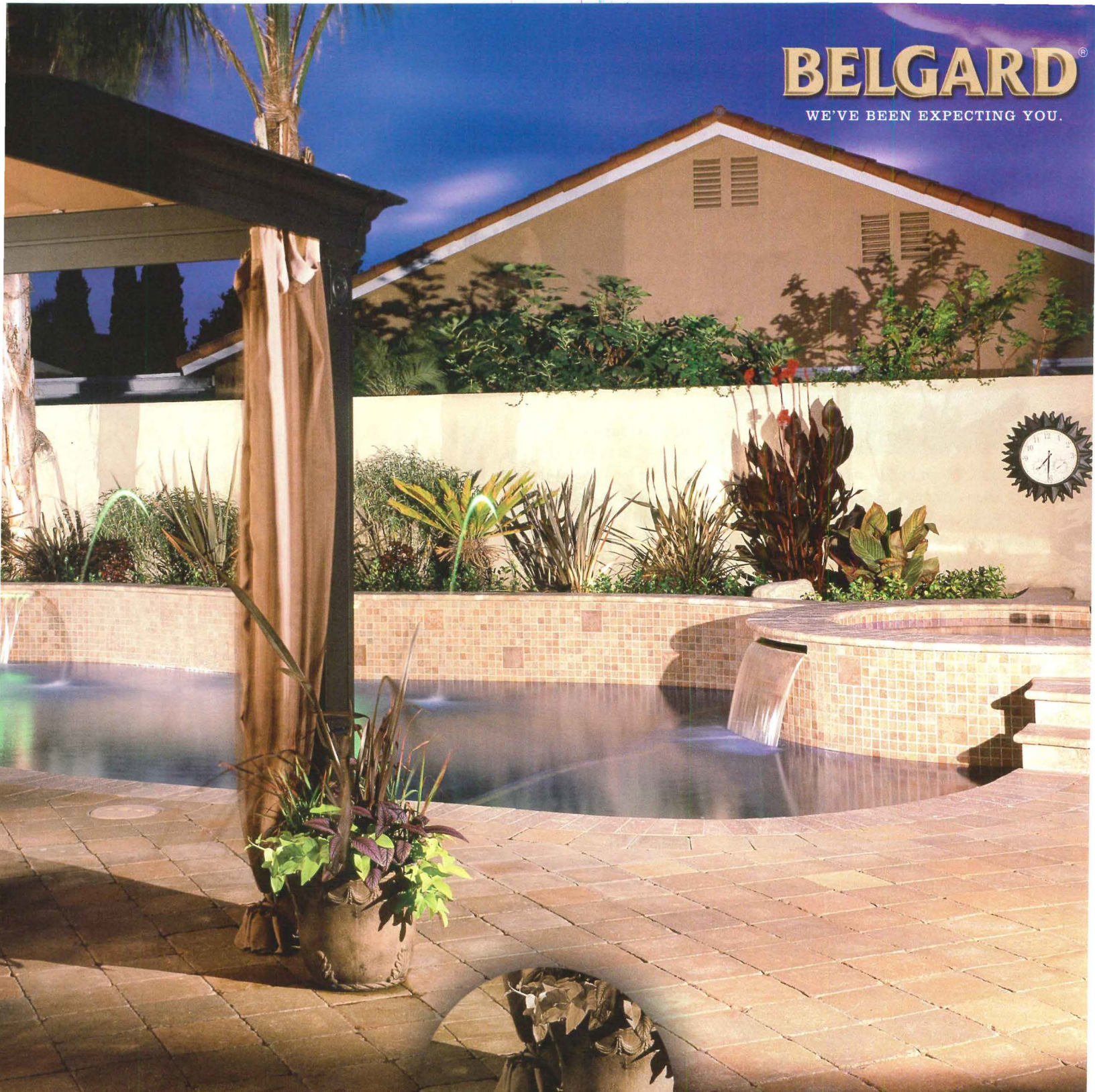
[nanawall.com](http://nanawall.com)

**NanaWall**<sup>®</sup>  
The Leader in Opening Glass Walls



# BELGARD®

WE'VE BEEN EXPECTING YOU.



THE CLIENT HIRED YOU  
BECAUSE YOU UNDERSTOOD  
THEIR DREAMS. [*Show them they were right.*]

*Your clients are uncompromising* when it comes to choosing the right professional to bring their plans to life. They're also confident, knowing you'll make the right choice when it comes to selecting premium hardscape components. To preview the complete Belgard line of Pavers, Walls, and Veneers call 1-877-BELGARD or visit [www.belgard.biz](http://www.belgard.biz).

CIRCLE 33 ON READER SERVICE CARD OR GO TO [ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/](http://ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/)

**The Philadelphia Museum of Art** opened its first new structure in 80 years on September 14. Designed by Gluckman Mayner Architects, the 184,000-square-foot Ruth and Raymond G. Perelman Building allows the institution to dis-



play 130,000 art works—more than half its total collection—that had previously sat in storage. The Perelman originally opened in 1927 as the Fidelity Mutual Life Insurance Company Building. Gluckman restored its Art Deco features and added 59,000 square feet connected by a glass-roofed Galleria. *Joseph Dennis Kelly*

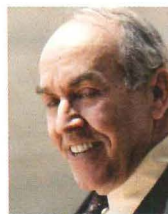
**Robert A.M. Stern Architects** was selected to design the George W. Bush Presidential Library at Southern Methodist University, in Dallas—a high-profile historicist for an institution that wants only collegiate Georgian architecture. Stern bested a dozen Texas-based and national firms for the roughly \$200 million commission; a five-member committee led by first lady Laura Bush interviewed the architects. The initial RFQ called for a 145,000-square-foot library and a 40,000-square-foot public-policy institute. No word yet on when conceptual schematic designs will be ready. *David Dillon*

**Ludwig Mies van der Rohe's** Tugendhat Villa, a 1930 landmark of early Modernism in the Czech Republic city of Brno, is set to close October 31 for renovations. Although the job was announced in 2004, it stalled after Daniela Hammer-Tugendhat, whose Jewish parents fled the country in 1938, demanded that the house be returned to her family as war reparations. The project was also delayed when an architect filed a lawsuit to protest the city's selection of a restoration team calling itself the Association for the Reconstruction of the Tugendhat Villa. The work will take up to four years at a cost of \$10 million. *Russell Fortmeyer*



**Women make up just 26 percent** of architecture staffs; do critics and museum curators treat their work any differently? "Women in Modernism," a symposium to be jointly presented on October 25 at New York's Museum of Modern Art (MoMA) by the Beverly Willis Architecture Foundation and MoMA, explores this and other questions. Speakers include Columbia University professor Gwendolyn Wright, Harvard University professor Toshiko Mori, Graham Foundation director Sarah Herda, writer Karen Stein, and MoMA curator Barry Bergdoll. *James Murdock*

**Russell Johnson** died on August 7 at the age of 83. As the founder of the 37-year-old acoustics and theater-planning firm Artec Consultants, he raised the visibility of acousticians in the design and construction of performance venues.



Although Johnson championed the shoe-boxlike auditoriums of older, renowned concert halls, he pioneered adjustable acoustics systems. He often used a combination of motorized reflectors and cloth systems, secondary acoustics chambers, and adjustable seating—all of which contribute to acoustical flexibility. Johnson's recent projects included the Jean Nouvel-designed Concert Hall in Lucerne, Switzerland, and Rafael Viñoly's Jazz at Lincoln Center in New York City. *David Sokol*

#### ENDNOTES

- Foster + Partners will oversee Libya's \$3 billion plan to transform 180 miles of coastline into an ecologically sustainable destination for tourists.
- Larry Silverstein announced that his development firm will put out to bid 70 construction packages for three office skyscrapers at the World Trade Center site by November, with foundation and steel work set to begin in January.
- The Barnes Foundation's fitful quest to build a new art gallery for itself in Philadelphia marked a new chapter in September when its trustees selected Tod Williams and Billie Tsien over six semi-finalists in a two-stage competition.
- Frank Gehry is designing a \$2 billion, 85-acre development in Lehi, Utah, that will feature a 450-foot-tall hotel tower—the state's tallest building—retail, residences, and nearby, a 10,000-seat arena for the Utah Flash basketball team.
- The National Council of Architectural Registration Boards launched a new online application for pursuing certification as well as the Intern Development Program.

**PRODUCE.  
PERSUADE.  
PERFORM.  
ON PAPER.  
WITH CANON  
GENUINE  
TONER,  
PARTS AND  
SUPPLIES.**



**Canon**  
image*ANYWARE*

[www.usa.canon.com](http://www.usa.canon.com) 1-800-OK-CANON

Canon is a registered trademark of Canon Inc. in the United States and may also be a registered trademark or trademark in other countries. IMAGEANYWARE is a trademark of Canon. © 2007 Canon U.S.A., Inc. All rights reserved.

**CIRCLE 32 ON READER SERVICE CARD OR GO TO ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/**



## Pilkington Eclipse Advantage™ Reflective Low-E Glass

There was a time when architects could choose glass by color alone. Then along came Low-E, solar heat gain considerations, and all the inherent problems and compromises of soft coats. Pilkington Eclipse Advantage™ Glass, is the world's first pyrolytic reflective Low-E. An innovative Low-E glass that combines low emissivity with solar control, high visible light transmittance and glare control. For more information or glass samples, contact Pilkington at 800 221 0444, or visit [www.pilkington.com](http://www.pilkington.com).

### Pilkington Building Products North America

811 Madison Ave., P.O. Box 799 • Toledo, OH 43697-0799

Main Office Phone: 419 247 3731; Fax 419 247 4517

E-mail: [building.products@us.pilkington.com](mailto:building.products@us.pilkington.com) • Website: [www.pilkington.com](http://www.pilkington.com)

©2003 Pilkington. Eclipse Advantage™ Glass, Arctic Blue™ Glass and EverGreen™ Glass are trademarks of Pilkington.



# PILKINGTON

A member of NSG Group

CIRCLE 31 ON READER SERVICE CARD OR GO TO [ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/](http://ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/)

**IN THE WORLD OF LARGE-FORMAT PRINTING,  
THE BIGGEST THINGS I WANT TO SEE ARE SPEED,  
ACCURACY AND CONSISTENCY.**



**THE CANON IMAGEPROGRAF IPF9000 SERIES AND IPF700 SERIES  
PRODUCE. PERSUADE. PERFORM. ON PAPER.**

 **imagePROGRAF®**

[www.usa.canon.com](http://www.usa.canon.com) 1-800-OK-CANON

Canon and IMAGEPROGRAF are registered trademarks of Canon Inc. in the United States and may also be registered trademarks or trademarks in other countries. IMAGEANYWARE is a trademark of Canon. © 2007 Canon U.S.A., Inc. All rights reserved. Products shown with optional accessories.

**Canon**

*image*ANYWARE

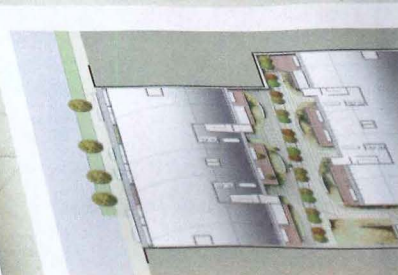
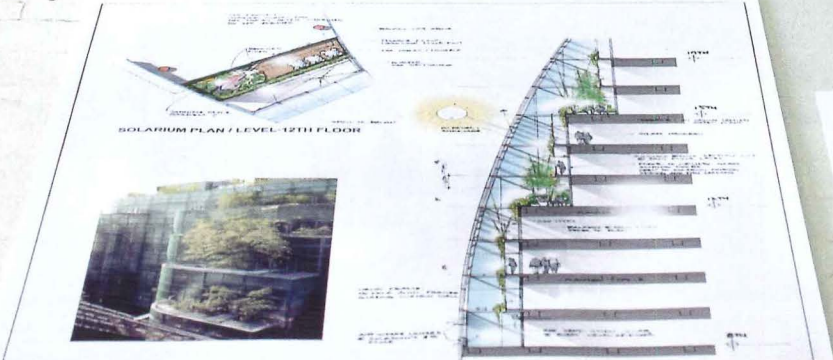
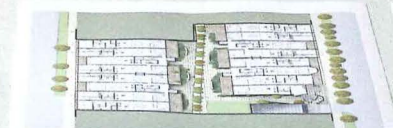
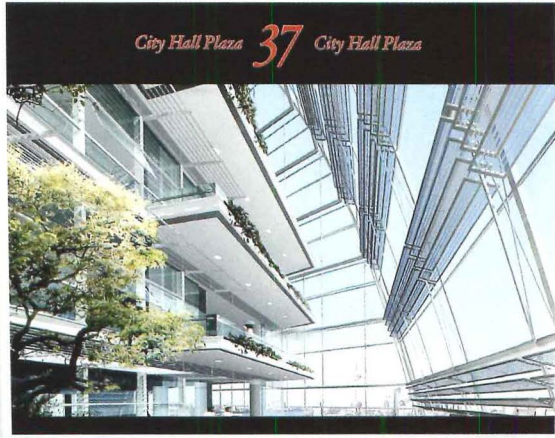
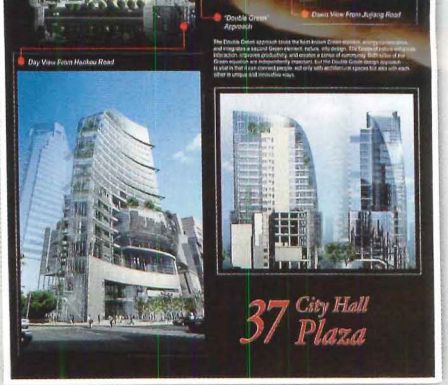
**CIRCLE 30 ON READER SERVICE CARD OR GO TO [ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/](http://ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/)**



Luxury Has A New Address

# 37 City Hall Plaza

Coming Spring 2008





**Formaldehyde-free panels.  
People might start calling you a ceiling-hugger.**

Though you might not have known it, most ceiling panels contain formaldehyde. USG has an alternative: a reformulated line of cast ceiling panels that are formaldehyde-free at no additional cost. Not only do these panels help improve indoor air quality, they're durable and feature enhanced antimicrobial properties. It's all part of USG's commitment to sustainable design. And to healthy interiors.

[www.SustainableCeilings.com](http://www.SustainableCeilings.com)

**USG**

## Can architects help fix construction's "busted budgets"?

Barry LePatner, a Manhattan-based attorney who counts Frank Gehry and other big-name architects among his clients, sees a problem with the construction industry in the United States—clearly indicated by the title of his book *Broken Buildings, Busted Budgets*, published October 1. "This is the industry that time has forgotten," he says. "Mom-and-pop shops, composed of 20 people or less, make up 92 percent of the industry. They are hugely inefficient, and they have no money to spend on improving performance and technology."

The result, LePatner continues, is tremendous waste in a \$1.2-trillion-a-year business—nearly half of labor expenses on a project, according to some studies, are squandered due to schedule conflicts and late deliveries. Problems arise because, unlike the automobile industry and others in which manufacturers benefit from economies of scale and accurate scheduling, construction managers are forced to coordinate dozens of smaller, unreliable subcontractors. LePatner also says that the construction industry suffers from "the winner's curse": Contractors bid so low that the profit margin erodes and the only way to reclaim it is by filing change orders. Unsurprisingly, construction leaders are troubled by his claims.

"The word that captures the feelings of our members is 'insulted,'" says Stephen Sandherr, chief executive of the Associated General Contractors of America (AGC). Few contractors abuse change orders to drive profits, he contends, and "to say that the construction industry has not embraced innovation or collaboration is naïve. Just look at the innovations in the past 20 years: design-build, construction management at-risk, and value engineering. Look at building information modeling (BIM), which embraces new technology and allows for enhanced collaboration between designers, contractors, and suppliers."

LePatner remains unimpressed by these advances—and as promising as BIM looks, he adds, few contractors have embraced it, let alone architects. Speaking of architects, what of their role? LePatner, an honorary AIA member, has some pointed words: "You've become so focused on design, you've lost the respect of contractors and clients. Your clients desperately need you to become more involved in pricing what you design, and as a check against contractors who take liberties with your designs in the field. You need to restore yourselves to the role of master builder."

RK Stewart, FAIA, president of the American Institute of Architects (AIA), is not sure that archi-

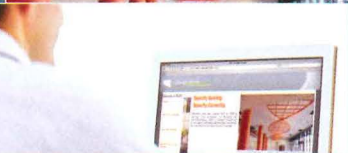
itects should reclaim the mantle of master builder, but he notes that greater collaboration between designers, contractors, and clients will create efficiencies. "In almost every project, there are some tense times as people seek to align expectations about cost, schedule, programming, and what they're trying to achieve. That's why you've seen growing interest in integrated delivery." This new model, Stewart explains, brings architects and contractors together early in the design process to coordinate accurate construction documents. The AIA has also been working with the AGC and the Construction Users Roundtable—which represents building owners—to redefine risk and reward.

LePatner welcomes such developments, but believes more systemic changes are needed. He recommends consolidation within the commercial construction industry, creating vertically integrated firms like Toll Brothers, Pulte, and other large residential builders. LePatner also contends that every contract should be a fixed-price agreement: "We live in a society of fixed prices."

Sandherr disagrees that such contracts are possible. Assembling an automobile is not the same thing as erecting a building, he notes, and plenty of transactions occur without fixed prices—such as purchasing the services of an attorney.

But LePatner hopes that the business will redefine itself. "If we save only 10 percent in the construction industry, we put back \$120 billion a year into the economy." *James Murdock*

Online specification  
and design tools  
at the click of a mouse.



### Spec the possibilities.

USG Design Studio™ A powerful new online resource to help you quickly, easily and accurately design, specify and find just the right products and systems for your interiors.

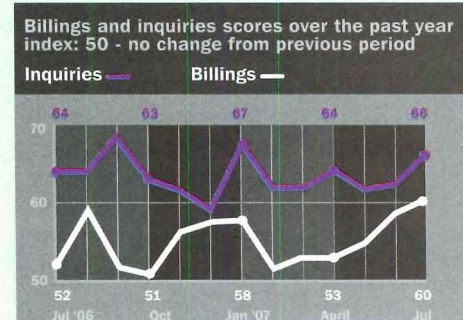
Spec the possibilities at [www.usgdesignstudio.com](http://www.usgdesignstudio.com), or contact your USG representative for a guided tour.

**USG** | *Design Studio*  
an Architectural Solutions Center

## Billings near two-year high

The American Institute of Architects' Architectural Billings Index gained 7 points in July for a score of 60, its highest level since September 2005.

Although the volume of new inquiries also rose, neither index reflected recent credit-market turmoil. Studies show a correlation between billings and future construction levels. *James Murdock*



*Introducing...*

# *Wagnerail<sup>TM</sup> Railing System*

*Beautiful Railings  
Begin With  
Wagner*

## THE WAGNERAIL<sup>TM</sup> RAILING SYSTEM

- Stainless Steel
- Components and Assemblies
- Mechanical, Non-Weld Connections
- Lumenrail<sup>®</sup> LED Lighted Railing
- Multiple Infill Options
  - 3Form Ecoresin<sup>TM</sup> Panels
  - Glass Panels
  - Ultra-Tec<sup>®</sup> Cable Railing
  - Banker Wire Archimesh<sup>TM</sup>

The Wagner Companies  
[www.wagnerail.com](http://www.wagnerail.com)  
(888) 243-6914





**Ultra-tec®**  
CABLE RAILING SYSTEM

## Beautiful, Easy-to-Install, Low-Maintenance Cable Railings.

Sleek stainless steel swageless fittings are attached to the cables by hand, totally eliminating the need for special swaging equipment. Use them with wood or metal framed railings, indoors or outside.

Contact us today to learn how easy it is to design a cable railing you and your client will be proud of.

**Ultra-tec®**  
CABLE RAILING SYSTEM

The Cable Connection  
800-851-2961  
775-885-2734 fax  
E-mail: [info@ultra-tec.com](mailto:info@ultra-tec.com)  
[www.ultra-tec.com](http://www.ultra-tec.com)



CIRCLE 28 ON READER SERVICE CARD OR GO  
O [ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/](http://ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/)

## Ground breaking could signal brighter future for Destiny USA

After some highly publicized fits and starts, developer Robert Congel's Pyramid Companies quietly started construction in late July on a 1.3-million-square-foot expansion of the Carousel Center mall in Syracuse, New York. It is intended to be the cornerstone of Destiny USA: a 75-million-square-foot retail, hotel, and entertainment complex touted as the world's most sustainable project.

Congel is moving forward on Destiny thanks to a financing package worth \$540 million, including \$228 million in federal, tax-exempt green bonds designated for energy-conserving projects. This money, secured in February, was an important vote of confidence for a project that seemed dead in the water in early 2006. At the time, Pyramid and the city of Syracuse were deadlocked in a legal battle over tax abatements, and the community was suffering "promise fatigue" after Congel laid off most of its 210-person workforce.

But Pyramid's legal troubles are now largely resolved. Construction teams from Cianbro are prepping the 10-acre Carousel site—work that includes driving steel piles 140 to 320 feet deep into lakeside clay soil—and Dal Pos Architects, a local firm that designed the original Carousel mall, is working on plans for the expansion's first phase, which is due to be finished by the end of 2008. "A lot of people are breathing a sigh of relief: Okay, finally, here we go," observes Michael Wasylenko, an economics professor at Syracuse University. "We've been talking about this long enough. Now it's happening."

In the short term, Destiny's future is more modest than Congel once envisioned. The first phase will nearly double the 1.5-million-square-foot Carousel Center; unassuming, stepped concrete facades will mimic the existing, 17-year-old mall's architecture. But Destiny could one day feature 1,000 shops and restaurants, 80,000 hotel rooms, a 40,000-seat arena, a water park, aquarium, and technology park. An enormous glass canopy would encase a large portion of the complex, shielding it from the 110 inches of snow that Syracuse receives on average each year.

Perhaps the most nontraditional aspect is who would actually build Destiny—and how. Congel has conceptualized what he calls a "unified workforce model," whereby the same people who operate power tools on the construction site will later operate cash registers and stock shelves in stores at the mall. While building Destiny, these laborers will follow assembly instructions using handheld computers rather than paper blueprints.



**Despite delays, Pyramid has high hopes for Destiny.**

(RECORD's parent company, McGraw-Hill, is sponsoring a conference about some of these techniques.)

Destiny will also showcase sustainability. The complex will have its own renewable-energy power plant, enabling it to operate independently of fossil fuels. A horizontal elevator system will transport people around the car-free mini-city, and a monorail will connect it to Syracuse's airport and downtown. Pyramid also plans to incorporate more than 3,000 tons of coal ash into sidewalks and other concrete elements—one feature that led the U.S. Environmental Protection Agency to describe Destiny as "the world's largest structure to be built from recycled industrial materials." Congel is beginning to deliver on his green promises in the project's first phase, which aims for LEED Gold certification. Construction vehicles are powered by 100 percent biodiesel fuel, and the building features a storm-water-capture system. In a show of support, the U.S. Green Building Council purchased \$50,000 of the tax-exempt green bonds awarded to the project.

As for Destiny's future, the Syracuse Industrial Development Agency agreed to provide Pyramid an undetermined amount in bonds for two additional phases, a 1,000-room hotel and 350,000 square feet of mixed-use space, which must be completed by 2013. But the developer still has a long way to go before securing the estimated \$20 billion needed for the entire complex. "There are a lot of people who doubt [the expansion of Carousel] will ever lead to Destiny," says Rick Moriarty, a reporter at *The Post-Standard* who has written hundreds of stories about the project since it was introduced in 2001. "So many delays, so many false starts. A lot of people think, 'I'll believe it when I see it.'"

David Aitken, a member of Destiny's executive team, responds to such comments by taking the long view: "Like any large project, a lot of coordination needs to take place. We went through a period of challenges getting it off the ground. That is behind us now." *Jenna M. McKnight*

IMAGE: COURTESY PYRAMID COMPANIES

## Foster, URS unveil designs for space tourism's giant leap



Passenger areas cap Spaceport America's hangar.

As NASA prepares to retire the space shuttle by the end of the decade, just in time for completion of the International Space Station, the tourism industry is planning to take its own giant leap into the void. Conceptual plans for the world's first tourist spaceport, designed by Foster + Partners, were unveiled September 4.

Known as Spaceport America, the terminal and hangar complex in Upham, New Mexico, will be home to Richard Branson's Virgin Galactic enterprise. To ferry tourists into space and back, a transport plane, called a White Knight, will carry a spaceship—designed by Burt Rutan—to an altitude of 49,000 feet, at which point the spacecraft launches into suborbital space and reaches a height of 84 miles before returning to Earth. A round-trip journey will last 2½ hours. Virgin expects to begin regular flights as early as 2009 and is currently accepting deposits on \$200,000 space tickets.

The program for Spaceport America includes a hangar for two White Knights and five space-ships, pre- and post-flight training facilities, mission control, viewing galleries, and passenger lounges. Foster designed the low-slung, 100,000-square-foot structure to be viewed from the ground and from above. It is capped by a rolling, concrete roof whose shape resembles a manta ray. The terminal hall features 50-foot ceilings and large windows facing the main runway at Spaceport's eastern edge. "It is an extraordinary location with the views of the mountains and the rolling plains," says Grant Brooker, executive director and architect in charge of the project at Foster. "We became very concerned about how the building would be seen in this setting. The building is grown up out of the ground to make it a more organic part of the landscape."

Spaceport America's design addresses earthly concerns, too. Sustainable features include electricity-generating photovoltaic panels and a system to store and reuse water. URS Corporation, known for its work on the Denver International Airport and the National Aeronautics and Space Administration's Marshall Space Flight Center, is working with Foster on the project.

The New Mexico Space Authority, a state agency created to develop commercial space travel, will provide funding for the \$31 million project. It expects to solicit construction bids during the first half of 2008 and break ground that same year. *Dianna Dilworth*

## Team of architects to green Chennai International Airport

The Airports Authority of India has selected plans by a team of architects, including Frederic Schwartz Architects, Hargreaves Associates, Gensler, and New Delhi-based Creative Group, to expand the Chennai International Airport. When completed in 2010, the \$300 million project will transform Chennai, located in the city formerly known as Madras, into India's greenest airport. The new Kamraj Domestic Terminal, in particular, will showcase sustainable technologies. The 23-year-old building currently measures 139,931 square feet and handles 4.74 million passengers a year; its revamped design will allow it to accommodate twice as many passengers in a space five times as large. Two lush gardens, measuring nearly an acre apiece, will



Gardens will surround and punctuate the Kamraj terminal.

separate the landside and airside portions of the terminal. A parking garage with a green roof will create what the designers describe as a "green gate" to the complex. Its landscaped, folding geometry will capture and direct rain water, creating shimmering "rain curtains" as water falls through the garage into cisterns below. Stored water will irrigate the plants. *Neelam Mathews*

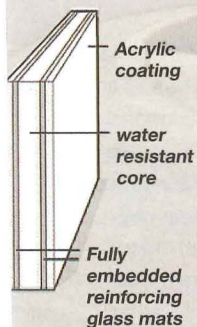
"As we sped toward completion of the Kalahari Resort Kondos, Phase 2, there wasn't a day to spare – we had to begin interior construction even before the exterior finish was up. We depended on GlasRoc® panels to provide moisture and mold resistance during that time. Not only did GlasRoc® Sheathing stand up to the area's harsh weather coming across Lake Erie, we never had to replace a panel due to delamination."

It takes tough exterior sheathing to create a quality finish and now you have a new alternative. GlasRoc® Brand Sheathing. The next generation in High-Performance Gypsum Sheathing.

For an interesting, illuminating look at the GlasRoc® High-Performance Gypsum Sheathing story, visit this special website:

[www.nextgenerationsheathing.com](http://www.nextgenerationsheathing.com)

**GlasRoc® Sheathing features a water-resistant gypsum core between fully embedded glass mats, with a protective acrylic coating on the exterior face that makes them easier to handle. Their uniform field and edge hardness makes them easier to trim and fasten.**



“GlasRoc<sup>®</sup> Sheathing was crucial  
to the success of our fast-track project.”

*Larry Stone, Architectural Department,  
PLANNING Design Build, Inc., Madison WI  
Project: Kalahari Resort Kondos, Phase 2, Sandusky, OH*

© 2007 CertainTeed Corporation



Toll Free: 1-800-233-8990 • [www.certainteed.com](http://www.certainteed.com)

**CertainTeed**   
Quality made certain. Satisfaction guaranteed.<sup>™</sup>

**EXTERIOR: ROOFING • SIDING • WINDOWS • FENCE • DECKING • RAILING • MILLWORK • FOUNDATIONS • PIPE  
INTERIOR: INSULATION • WALLS • CEILINGS**

® <sup>™</sup> CertainTeed and the tagline “Quality made certain. Satisfaction guaranteed.” are trademarks of CertainTeed Corporation. All other trademarks are the property of BPP plc or it's affiliates and related companies.

TO SEE HOW FLUSH THE E SERIES FITS CABINETS,  
RUN YOUR HAND ACROSS THIS PAGE.



*With Wolf you can. The performance that cooks have come to love about Wolf is now available in the streamlined, integrated design of our sleek new E Series ovens. This innovative line can be flush-mounted for a contemporary look, and you get the same 10 cooking modes and dual convection system as in our L Series ovens. So performance is still robust as ever. Learn more at [wolfcookingtrade.com](http://wolfcookingtrade.com) or call 800-332-9513.*



## Polshek fuses media and architecture

Polshek Partnership Architects is spreading the news—literally. The Manhattan-based firm has designed three journalism-related projects featuring design elements that explicitly express the building's program.

In its new headquarters for public broadcaster WGBH, Polshek created what it hopes will be an iconic moment along the Massachusetts Turnpike just outside Boston. The 310,000-square-foot complex opened on September 17. It features a 30-foot-by-40-foot LED screen on the northern end of a 480-foot-long office and production zone dubbed the "beam." The screen cantilevers toward the heavily traveled road and can be seen from nearly 2 miles away. Each day it displays a single image taken from WGBH's programs, such as *Frontline* and *Nova*. "You might see a picture from Mars one day and something



microscopic the next," says Richard Olcott, FAIA, a partner at Polshek. Strips of the LED screen punctuate the beam's aluminum-and-glass curtain wall. The screen and strips are coplanar with the facade, creating what Polshek partner Tomas Rossant, AIA, describes as a digital skin: "We want to think of it as a skin that came alive rather than something tacked on as ornamentation."

Polshek applied the same rationale in Newhouse III. This new,



WGBH's new headquarters (above); Newhouse III at Syracuse University (left).

75,000-square-foot structure, dedicated on September 19, extends a mini-campus for the S.I. Newhouse School of Public Communications at Syracuse University. Its east facade, made of precast-concrete and fiber-cement panels, matches the staid aesthetic of existing buildings by I.M. Pei and Skidmore, Owings & Merrill. In contrast, the west facade's kinetic, sinuous form evokes old news tickers in Times Square. The ample use of glass along this elevation holds symbolism, Rossant says, because this material communicates transparency, a quality integral to journalism. And in one part of the facade, the text of the First Amendment is sandwiched

between a double-layer glass curtain wall using tiny dots of white paint on a PVC sheet.

The First Amendment also figures in the facade of the Newseum, Polshek's 250,000-square-foot journalism museum in Washington, D.C., scheduled to open in early 2008. Here, though, the amendment text is engraved on a giant stone tablet.

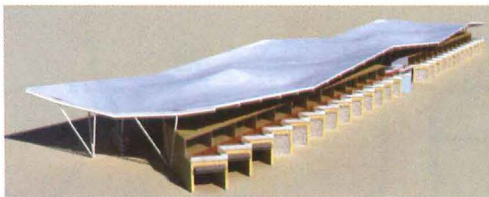
While Polshek has no plans to focus exclusively on journalism projects, Rossant says that mixing media and architecture offers exciting possibilities. "As soon as you can integrate those two things together, you have a new type of architecture." *Jenna M. McKnight*

## Sincere flattery or something worse?

Athletes are no doubt excited about the Beijing 2008 Summer Olympics, but before the games begin at least one architect is crying foul. Whitefield McQueen Architects, of Melbourne, Australia, claims that the Chinese government's design for the Shunyi Olympic Rowing-Canoeing Park, a "floating boathouse" with an undulating roof, resembles a scheme that it submitted for a design competition in 2005. Tim Whitefield has no proof that his design was intentionally stolen, but he finds the similarities suspicious—and disappointing. "We are a young firm, so it would have been a substantial opportunity for us. I am saddened by the experience."

Attempts to contact the Beijing Organizing Committee were unsuccessful. Architecturally speaking,

though, China is often cited for lax protection of intellectual property rights. And it's not alone. Accusations



Parts of the "floating boathouse" (right) resemble Whitefield McQueen's scheme (left).

of plagiarism continue to haunt competitions even in the United States. Detractors alleged that Eero Saarinen's 1947 Gateway Arch in St. Louis, for example, was lifted from Le Corbusier's 1931 Palace of the Soviets. Copycat charges also hung over Maya Lin, designer of the Vietnam Veterans Memorial in Washington, D.C., after her 1982 win.

The latest contested competition is a memorial to Flight 93, the hijacked plane that went down near

Shanksville, Pennsylvania, on September 11, 2001. Sculptor Lisa Austin alleges that the National Park Service appropriated elements of her competition entry and incor-



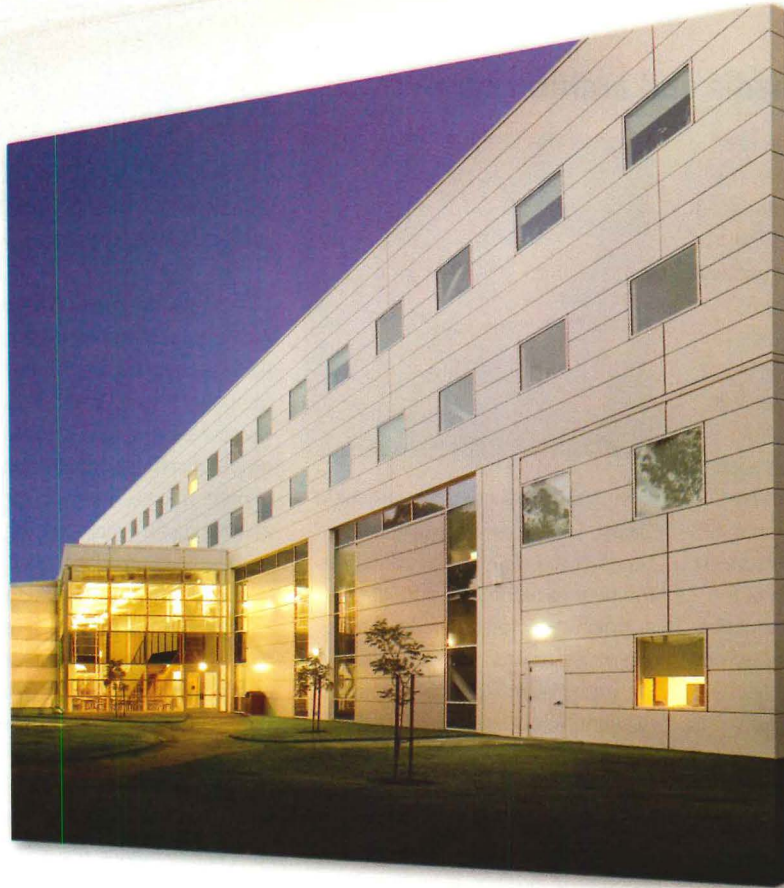
porated them into the winning scheme by architect Paul Murdoch. William Hayworth, a spokesman for the memorial project, disputes her claim, saying that many submissions shared common design traits. Besides, he adds, "nothing is wholly original in the universe."

Rather than trying to prove plagiarism, come up with a better public design process, says architect Paul Spreiregen, FAIA, of Washington, D.C. Multistage compe-

titions provide "ample opportunity for ideas to be taken from one design and used for another," he wrote in an editorial last fall in *Competitions* magazine.

Even if mimicry is unintentional, better to avoid it altogether, says Jared Della Valle, a principal of Della Valle Bernheimer. When he discovered that Herzog & de Meuron's de Young Museum, in San Francisco, was to have a perforated copper skin, he opted to redesign a house in Connecticut that was to have a similar feature. "We all like to believe we are independent thinkers," Della Valle says.

Clients, too, should shoulder some blame, since their influence on plans can produce look-a-like buildings, contends Lee Skolnick, an architect based in Manhattan. Another culprit? Self-promotional architects: "They're expected to come up with a facsimile of what brought them to prominence," he says. *C.J. Hughes*



**Business & Technology Center**  
California State University  
VBN Architecture  
Formawall Dimension Series  
Insulated Metal Wall Panels  
FormaBond  
Metal Composite Wall Panels

# Great Works

## The art is yours. The palette is ours.

Your project is not merely a building, but a work of art. CENTRIA can help you bring your vision to life. Our architectural metal wall systems are crafted to the highest aesthetic standard. And, with features such as Advanced Thermal Moisture Protection (ATMP®) and Cradle-to-Cradle certification, our products are just as functional as they are beautiful. CENTRIA also offers an experienced sales team and a dedicated installer network to ensure that your design is executed successfully — just as you envisioned it.

To learn more about our palette of products, call us or visit our website.

800.752.0549 | [CENTRIA.com](http://CENTRIA.com)

CIRCLE 25 ON READER SERVICE CARD OR GO TO [ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/](http://ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/)



**CENTRIA**

Architectural Metal Wall  
and Roof Systems

Formawall® Dimension Series®

Formawall® Graphix Series™

FormaBond®

Concept Series®

Profile Series

## Battle rages to save Neutra's Cyclorama Center

The Battle of Gettysburg lasted three days. The battle over the fate of Richard Neutra and Robert Alexander's Cyclorama Center at the Gettysburg National Military Park has dragged on for 10 years—and now, with the park poised to raze the building, it has shifted to the federal courts.

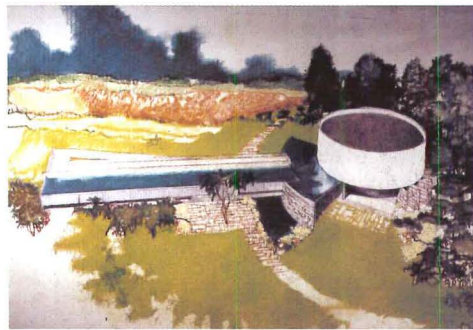
Opened as a visitor center in 1961, the Cyclorama Center was built as part of the Park Service's Mission 66 program, which erected roughly 100 Modernist visitor centers and hundreds of other tourist buildings between 1956 and 1966. It housed a life-size, narrative oil painting of 1884, by French artist Paul Philippoteaux, depicting the pivotal Civil War battle. Cyclorama paintings are hung in 360-degree circular spaces. The Gettysburg painting's 27 panels have been restored and will be moved to a new facility.

The Gettysburg National Military Park's 1999 management plan calls for the removal of the Cyclorama Center as part of the "rehabilitation

of major battle action areas, where features on the landscape affected the fighting," says spokeswoman Katie Lawhon. The park's period of historical significance runs from 1863 to 1938, she adds, and applies to the battlefield, cemetery, and commemorative elements, including monuments and carriage roads.

Critics contend that the park officials' approach shows an anti-Modern bias. They note that the master plan retains automobile parking on the spot—a key section of the Union line on Cemetery Ridge, where Pickett's Charge was turned back—and thus fails to restore the historic acreage. "Their claims about the authenticity of the battlefield are myopic," says Dion Neutra, one of Neutra's sons and his former business partner. "They should come to their senses and realize that Cyclorama Center deserves to stay where it was sited by their predecessors. If all else fails, move it to a site nearby."

Dion Neutra and the Recent



Neutra's Cyclorama Center at Gettysburg could be gone by 2009.

The World Monuments Fund included the Cyclorama Center on its 2006 Watch List. Dion Neutra has lobbied vigorously to save it and other

Past Preservation Network (RPPN) are suing officials of the Department of the Interior, the National Park Service, and the Gettysburg park in an effort to halt demolition of the Cyclorama's old home. They allege that officials failed to heed environmental and preservation laws in deciding to raze the 30,000-square-foot building, that they neglected its upkeep, and that officials failed to consider alternative uses for it.

In the meantime, the park is forging ahead on construction of a new, 139,000-square-foot museum and visitor center two thirds of a mile southeast of the Neutra building. Designed by Cooper Robertson & Partners, it is scheduled to open in April 2008. Lawhon says that within a year of its opening, the park will demolish the Cyclorama Center.

remaining examples of his father's work. His efforts include a petition requesting that President Bush issue a White House pardon for the Gettysburg center—although the tactic's symbolism is questionable.

"I wouldn't compare the building to a turkey," says RPPN president Christine Madrid French, "but, in the sense of forgiving the building's appearance after such neglect and moving past the bias against Modernism, it works." The Washington, D.C., federal district court will hear the case in November, according to French.

"I'm just glad my dad didn't live to experience this," Neutra says. "The project meant so much to him as an immigrant." The elder Neutra practiced in his native Austria before emigrating to the United States in 1923. *Ted Smalley Bowen*

## Breuer-designed Wolfson House on the block



Marcel Breuer's trailer house is going, going ...

Following his successful sale of Case Study House #21, Chicago's Modernist-design auctioneer Richard Wright is putting another mid-20th-century residence on the block. But instead of a Pierre Koenig icon, the lot up for grabs on October 7 is an arguably kitschy work by Marcel Breuer. The idiosyncratic house, located in Dutchess County, New York, is the result of an

equally outlandish invitation from client Sidney Wolfson. The brief: to design a structure that incorporated a loaf-shaped aluminum Spartan Trailer, manufactured in 1947.

Despite his initial resistance to this charge, Breuer began work in 1949 after taking on a commission at nearby Vassar College. He nestled the trailer beneath a pergola, making it one terminus of a perpendicular entrance hall; the opposite, permanent wing features several Breuer trademarks, such as a wood-clad second story cantilevered on a stone base and an open interior with a freestanding fireplace. Wolfson later

commissioned Tip Dorsel to build an artist's studio on the property in 1960. To relate to Breuer's contribution, Dorsel used oversize gestures, including double-height ceilings and a tall entrance door that, viewed from the trailer, appear equivalent in scale. David Diao, who has owned the 10-acre Wolfson property with his wife, artist Maureen Connor, since 1996, wants to sell it because he says his heart "belongs to the city."

The December 2006 winning bid for Case Study House #21 exceeded \$3.5 million, but Wright estimates that the Wolfson Trailer House might fetch between \$1 million and \$1.5 million at auction. And while the Case Study House went to a Korean collector who frequents Wright's regular auctions, he expects that the Wolfson's proximity to Manhattan—a 2-hour drive

south—will appeal to buyers seeking a weekend residence.

The Wolfson sale also reinforces the trend of auction houses getting into the Modernist-residence business. Wright says that Christie's and Sotheby's, which have already sold the Farnsworth House—the Philip Johnson-designed Manhattan town house—and Jean Prouvé's *Maison Tropicale*, "are absolutely looking at the success we had."

Wright admits that taking on another Modernist house is potentially lucrative, but adds that selling these works is intellectually satisfying. "It speaks of a place and time—the quirkiest side of America in the late '40s. The mix of optimism, consumerism, and naïveté in postwar America has always fascinated me." That said, he has no plans to focus on real estate exclusively. *David Sokol*

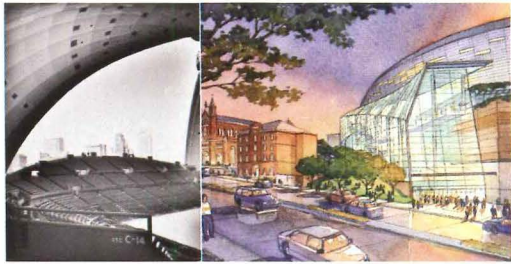


Nobody ever said, “Hey, there goes that architect who made that tiny little plexiglass model of a really cool building.”

To get the recognition you deserve, your idea has to make that leap from concept to reality. Travelers knows architecture and can provide coverage for every part of your business. Our specialists are with you every step of the way, from start to finish, and everything in between. For more information on Travelers insurance for architects, contact your independent agent or call 877.237.6588, ext. 32253. And then nothing can come between you and your well-earned kudos.



## Pittsburgh's new arena: Back to the future?



**HOK Sport's new arena (left) will replace the Pittsburgh Penguin's 1961 home (far left).**

But the Penguins, who have played there since 1967, threatened to leave

Pittsburgh unless they got a new, publicly subsidized venue. HOK Sport unveiled plans in August for a new \$290 million hockey arena in Pittsburgh's Hill District, at the eastern edge of downtown. The project, which was announced earlier this year by the city's Sports and Exhibition Authority (SEA) and the Pittsburgh Penguins, has reopened old wounds in the contentious relationship between development authorities and the community.

Designed by Mitchell and Ritchey, the existing Mellon Arena is hockey's oldest operating arena, opened in 1961. As RECORD reported in its November issue that year, the building's retractable roof was a first.

Pittsburgh unless they got a new, publicly subsidized venue.

In HOK Sport's preliminary renderings of the new building, a metal-and-glass-clad, oval-shaped arena with an estimated seating capacity of 18,000, fits tightly into its sloping site. It presents an 80-foot-tall, crystalline entry volume to Centre Avenue, adjacent to Epiphany Church. On its Fifth Avenue elevation, a masonry facade—some 130 feet long and 55 feet high—alludes to the aesthetic of the few remaining historic structures nearby. Final designs are expected to be ready this fall, and the building is scheduled to open in 2010.

## Home-plate home

Chicago's Wrigley Field, which for a century has brushed up against apartments, used to be the exception among major-league ballparks, which tend to sit enveloped by asphalt on a city's fringe. Not anymore. As stadiums move downtown, developers are constructing high-rise residences that offer box-seat-worthy views of games.

In 2004, Antoine Predock Architects' PetCo Park debuted in San Diego's East Village, a district once dominated by car-repair shops. Guided by San Diego's economic development group, Centre City Development Corporation, the neighborhood has since welcomed 3,040 condominium units and apartments, with 5,273 more under way now or in the offing. Opening this fall is the Legend. Designed by Perkins & Company, the 23-story

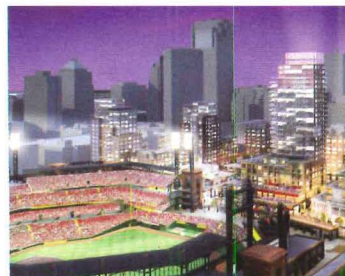
tower contains 183 condo units, many of which command a premium for their sight lines to batters. At its closest point, the building is roughly 100 yards distant from the ball field. Those who don't have home-plate views—roughly half the units—can still enjoy games from a 2,800-square-foot deck on the seventh floor. The tower's precast-concrete panels and sandy-colored-brick podium match the aesthetic of PetCo Park and nearby warehouses.

Following the Padres' lead, the St. Louis Cardinals began work this summer on Ballpark Village, a 9-acre mixed-use development abutting the current Busch Stadium, by HOK Sport, which opened in 2006. The first phase of the \$650 million project, designed by Beyer Blinder Belle, will include a 30-story retail, office, and residential tower with 250 condos, many of which will overlook left field. "It may not be for everybody,

To pay for construction, Pennsylvania's governor helped broker a bond issue that will be paid with revenue from a new casino. The deal also gave the Penguins rights and a \$15 million incentive to redevelop the old arena's site. That land resulted from demolishing the culturally rich, primarily African-American Lower Hill District during the 1950s to make way for a largely unrealized cultural and residential redevelopment. Adjoining neighborhoods continue to struggle, and resentment runs high.

"The Penguins have never been a friend of the Hill District, as far as I'm concerned," Lois M. Cain, a long-time Hill resident and activist, said at a public meeting this summer. As to any agreements about community benefits and accommodations from a new stadium, she warned, "You better make sure it's legal and it's in writing."

Neighborhood groups, led by the One Hill Community Benefits Agreement Coalition, are lobbying for grants, a share of development funds, and 30 percent minority hiring in development projects. Thus far, there are only agreements for the Penguins but not for the community.



**Condos will overlook Busch Stadium.**

but for Cardinals fans, it will be the coolest thing in the world," says Bill DeWitt III, vice president of business development for the team, which partnered with developer Cordish Company on the project.

Developers in Washington, D.C., are hoping the same holds true at the new stadium for the Nationals, which is set to open in time for the 2008 season. Architect Joe Spear, AIA, kept the stadium's walls low to maximize views from the street. Residents of two pro-

To follow a city-mandated process, the Penguins and the SEA hired Don Carter, FAIA, of Urban Design Associates Architects, to conduct a separate series of community meetings. Among the groups that hope to give their input is Preservation Pittsburgh, whose executive director, Steven Paul, laments the demolition of historic properties earlier this year under an outdated master plan. His organization wants to identify and preserve remaining historic properties, such as the childhood house of playwright August Wilson, and the New Granada Theater, an Art Deco movie house that hosted musical performances and political rallies.

But Carter cautioned that his community meetings will address only the new arena, "not the 28 acres [of redevelopment] or the Community Benefits Agreement." While many observers find these negotiations a welcome step, they believe that the current master plan, adjacent development, and the Community Benefits Agreement must be considered more holistically to avoid repeating mistakes of the past. *Charles Rosenblum*

posed condo towers in the surrounding Anacostia neighborhood will also get a view of the action. Even if it means giving away their product for free, Spear says, team owners like next-door neighbors because "if it's all offices, it will be lifeless after business hours."

Is a field without players worth a front-row seat? Detroit hopes so. This month it will raze 80 percent of the bleachers that ring Tiger Stadium, which closed in 1999, but leave the diamond intact. Eventually, 300 market-rate condos will surround the grass, says Peter Zeiler, a development representative with the Detroit Economic Growth Corporation, which is orchestrating the project with Hamilton Anderson Associates. "There have been iterations of baseball on that site for 140 years," Zeiler says. "It's very sacred ground." And, many hope, a real estate grand slam. *C.J. Hughes*

# THE WAIT IS OVER.

## SLOAN WELCOMES GREEN BUILDERS TO CHICAGO.

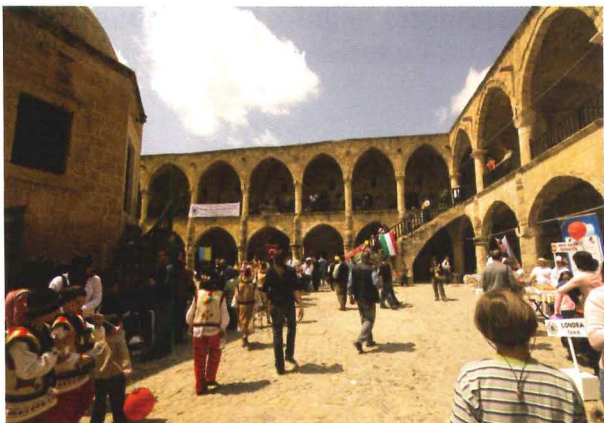


Visit Us  
at GreenBuild  
Booth #1100

# SLOAN<sup>®</sup>

800.9.VALVE.9  
(800.982.5839) ext. 5034  
[www.sloanvalve.com](http://www.sloanvalve.com)

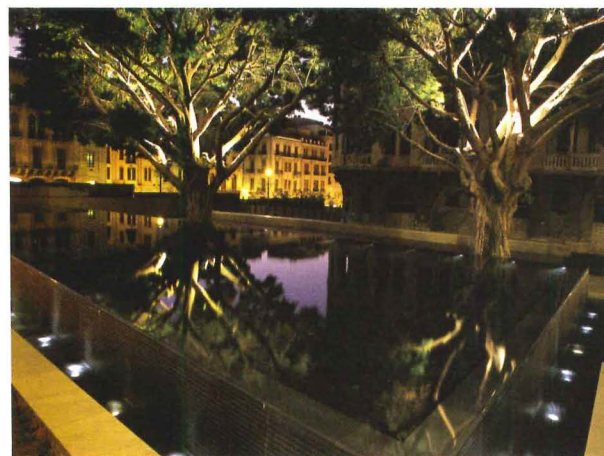
CIRCLE 23 ON READER SERVICE CARD OR GO  
TO [ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/](http://ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/)



5



7



8

**5. Rehabilitation of the Walled City of Nicosia**, Nicosia, Cyprus. Working together under a historic 1979 agreement, the Greek Cypriot and Turkish Cypriot communities used architectural restoration as a catalyst to improve quality of life in a divided city. **6. University of Technology Petronas**, Bandar Seri Iskandar, Malaysia. Foster + Partners, of the U.K., and GDP Architects, of Malaysia, employed canopies and other low-tech

features to cool the campus of a technology institute built by Petronas. **7. School in Rudrapur**, Dinajpur, Bangladesh. Architects Anna Heringer and Eike Roswag, officials from the Bangladeshi aid agency Dipshikha, and local volunteers hand built a village school with loam, straw, bamboo, and other simple materials. **8. Samir Kassir Square**, Beirut, Lebanon. Locally based landscape architect Vladimir Djurovic



6



9

designed a serene, pocket-size respite from the frenzied streets of Beirut's central business district. **9. Rehabilitation of the City of Shibam**, Wadi Hadhramaut, Yemen. The government of Yemen, the German Technical Cooperation, and the community of Shibam collaborated to rehabilitate housing and infrastructure in a town of mud-brick, high-rise buildings. The project also helped restore Shibam's economy.



in a statement. This "problematic terrain," jurors added, in fact provided positive opportunities for cultural revision and intercultural communication. Other themes shared by many entries included preservation and the use of sustainable design principles. *James Murdock*

### Master Jury

The jurors for the 2004–2007 cycle were professor **Homi Bhabha** of Harvard University; **Okwui Enwezor**, curator, dean of academic affairs, and senior vice president at the San Francisco Art Institute; **Homa Farjadi**, principal of Farjadi Architects; **Sahel Al-Hiyari**, principal of Sahel Al-Hiyari and Partners; artist **Shirazeh Houshiary**; professor **Rashid Khalidi** of Columbia University; **Brigitte Shim**, a partner in Shim Sutcliffe Architects; **Han Tümertekin**, a principal of Mimarlar Tasarım Danismanlık; and **Kenneth Yeang**, a principal of Llewelyn Davies Yeang, and Hamzah & Yeang.

# Record News

Inside the News

p.44 Battle rages over Neutra's Cyclorama

p.49 Foster makes giant leap in space tourism

p.50 Can architects help fix "busted budgets"?

For daily Record News updates and weekly podcasts:

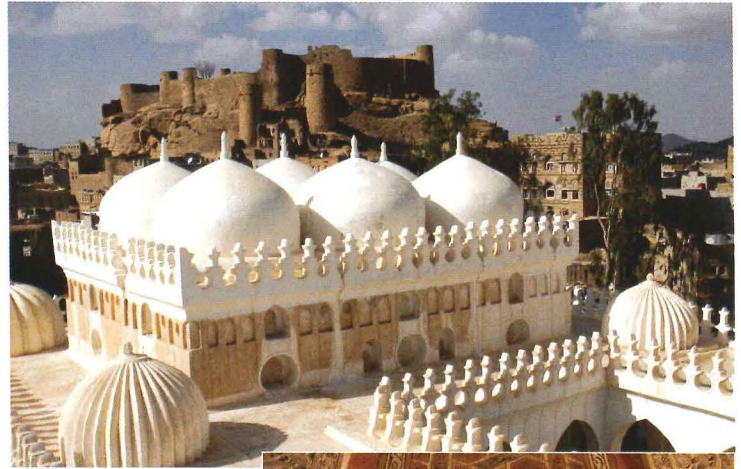
[architecturalrecord.com/news/](http://architecturalrecord.com/news/)

## Aga Khan Award for Architecture 2007 winners named

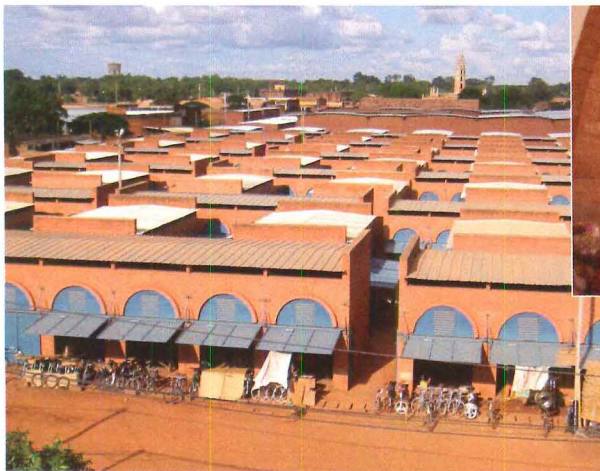
The nine projects that were honored with the 2007 Aga Khan Award for Architecture, announced on September 4, range from a sustainable residential tower in Singapore to a village school hand-built by local volunteers in Dinajpur, Bangladesh. This year marks the 10th cycle of the triennial awards. His Highness the Aga Khan, Imam of the Shia Imami Ismaili Muslims, created the program to recognize how architecture and the built environment influence Muslim societies; the prize fund totals \$500,000, the

largest purse among architectural honors. A nine-person, independent master jury selected the winners from a field of 343 entries and a short list of 27 entries.

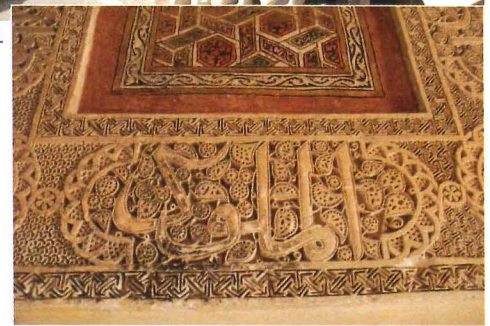
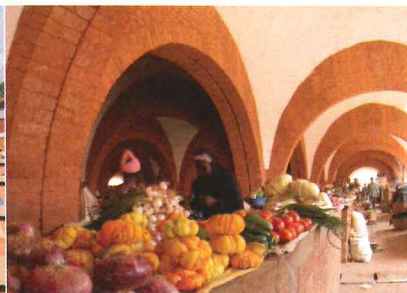
Jurors noted several themes that were common among entries in the current cycle. "Many of the projects occupied the problematic terrain between traditional homes and diasporic movements, recognizing that Muslim realities have come to be rooted in historical and social circumstances beyond their usual 'national' or traditional settings," the jury said



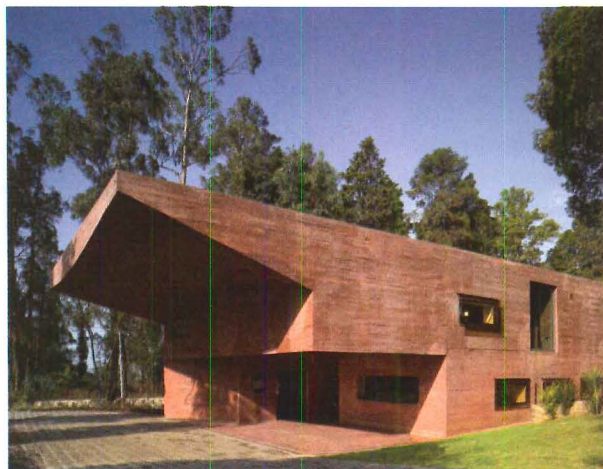
1



2



3



4



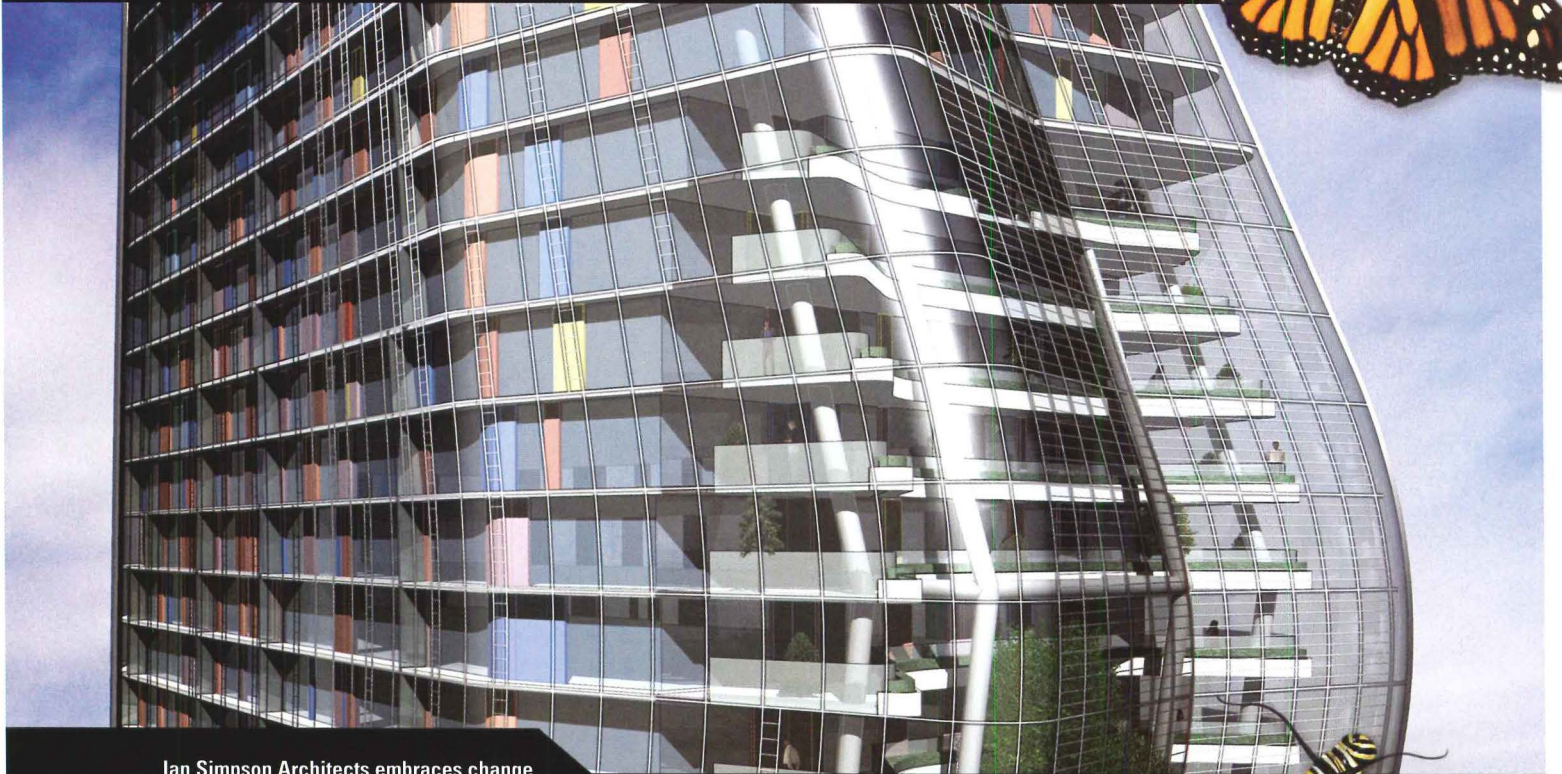
**1. Restoration of the Amiriya Complex**, Rada, Yemen. Archaeologists Selma Al-Radi, of Iraq, and Yahya Al-Nasiri, of Yemen, revived traditional building techniques in restoring an ornate monument commissioned by Sultan Amir ibn 'Abd al-Wahab in the 16th century. **2. Central Market**, Koudougou, Burkina Faso. The Koudougou Municipality, the Swiss Agency for Development and Cooperation, principal architect Laurent Séchaud, and consultant Pierre Jequier used simple, earthen material to build a monumental civic hub.

**3. Moulmein Rise Residential Tower**, Singapore. Locally based WOHA Architects, led by Wong Mun Summ and Richard Hassell, used innovative natural ventilation systems, sky gardens, and other sustainable features to green a developer-built apartment tower. **4. Royal Netherlands Embassy**, Addis Ababa, Ethiopia. Dutch architects Dick van Gameren and Bjarne Mastenbroek, working with the Ethiopian firm ABBA Architects, designed a modern building that respects the local vernacular and landscape.

PHOTOGRAPHY: © ANNE DE HENNING (1); AMIR-MASSOUD ANOUSHFAR (2, RIGHT); LAURENT SÉCHAUD (2, LEFT); TIM GRIFFITH (3); CHRISTIAN RICHTERS (4)



**BENTLEY + BIM**



Ian Simpson Architects embraces change.



# CHANGE IS GOOD

**The building industry is full of change.**

And you are constantly trying to keep up. With the big changes in how the profession does business. With the countless small changes made on every project, every day.

How well do you respond to change? Are you sure that every change you make is good for business?

Bentley's **Building Information Modeling** and Management solutions make change a good thing. By equipping your team to respond to changes effectively, they'll embrace change and see it as an opportunity, rather than a challenge. And so will you.

By changing the way you think about change – you can transform your business.

Make change good for you.



**BENTLEY**

[www.MakeChangeGood.com](http://www.MakeChangeGood.com)

© 2007 Bentley Systems, Incorporated. Bentley and the B logo are either registered or unregistered trademarks or service marks of Bentley Systems, Incorporated or one of its direct or indirect wholly owned subsidiaries. Other brands and product names are trademarks of their respective owners.

# Option

#184

Finish Above the Rest

Every project is different, so using the same window or door for each project won't do. You need options. Who better to provide you with those options than Kolbe? With virtually endless options, including an array of cutting edge, anodized finishes for extruded aluminum clad exteriors, you'll be sure to get the look you need. For more information visit [www.kolbe-kolbe.com](http://www.kolbe-kolbe.com) or call 1.800.955.8177.

**KOLBE**  
■ WINDOWS & DOORS ■

*See the Difference Quality Makes*

CIRCLE 21 ON READER SERVICE CARD OR GO TO [ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/](http://ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/)

# NEW

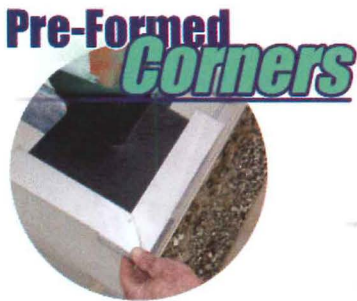
## TOTALFlash Cavity-Wall Drainage System

# Slashes Labor Costs Improves Protection.

TOTALFlash by Mortar Net USA is a historic breakthrough for controlling moisture-damage and mold-growth in masonry cavity walls. All the "best practices" of today's moisture-control have been ingeniously **factory-assembled** onto handy, pre-cut panels of flexible flashing!

There's no waiting for multiple deliveries, no field-cutting of flashing-rolls, no time spent installing separate components! That's why TOTALFlash installs twice as fast as common alternatives, slashing time & labor by 50% (or more)! **And it's available in sizes for easy use in Renovation/Remediation!**

1. All key components arrive **pre-assembled** onto **5-ft. Panels of Pre-Cut Flexible Flashing**.
  2. **Built-In Termination Bar** allows one-man installation.
  3. **Built-In Vertical Edge-Dam** sends moisture down to weep system.
  4. **Built-In No-Clog Drainage Matte** for unobstructed drainage to Weep Tabs.
  5. **Built-In No-Clog Weep Tabs** deliver moisture outside the building.
  6. **Built-In Stainless Steel Drip-Edge** releases moisture away from building.
  7. **Clearly Specified Lap-Joints** enforce complete coverage.
- **Screws & Adhesive** included.
  - **Pre-formed Corner Boots, Stainless Steel Corners, & End Dams** available, for quick installation and foolproof corners.



# TOTALFLASH

CAVITY-WALL  DRAINAGE SYSTEM  
by Mortar Net USA, Ltd.

800-664-6638  
[www.MortarNet.com](http://www.MortarNet.com)



ONE MAN'S TRASH IS ANOTHER MAN'S  
CORPORATE HEADQUARTERS.

When Boldt Construction decided to build an environmentally friendly corporate headquarters, it's only natural they asked for help from Vulcraft. As a part of Nucor, the world's largest recycler, our joists and decking are made from recycled steel. So we not only provided the support Boldt's Southern Headquarters needed, we helped Boldt apply for Oklahoma's first ever LEED® certification. Although, the real reward was helping to prove that supporting big business and the environment are not so different after all.

[www.vulcraft.com](http://www.vulcraft.com)

*It's Our Nature.®*





Develop new perspectives for our future.  
Enter the global Holcim Awards competition  
for projects in sustainable construction.

Prize money totals USD 2 million. Apply at   
[www.holcimawards.org](http://www.holcimawards.org) \* 

**CLOSING**  
**FEBRUARY**  
**29, 2008**  
Entry Statistics:  
[www.holcimawards.org/entries](http://www.holcimawards.org/entries)

\* In partnership with the Swiss Federal Institute of Technology (ETH Zurich), Switzerland; the Massachusetts Institute of Technology, Cambridge, USA; Tongji University, Shanghai, China; Universidad Iberoamericana, Mexico City; and the University of the Witwatersrand, Johannesburg, South Africa. The universities define the evaluation criteria and lead the independent juries in five regions of the world. Entries at [www.holcimawards.org](http://www.holcimawards.org) close 29 February, 2008.

The Holcim Awards competition is an initiative of the Holcim Foundation for Sustainable Construction. Based in Switzerland, the foundation is supported by Holcim Ltd and its Group companies and affiliates in more than 70 countries. Holcim is one of the world's leading suppliers of cement and aggregates as well as further activities such as ready-mix concrete and asphalt including services.

This competition is supported by  
Holcim (US) Inc.  
St. Lawrence Cement Inc.  
Aggregate Industries US



**Holcimawards**

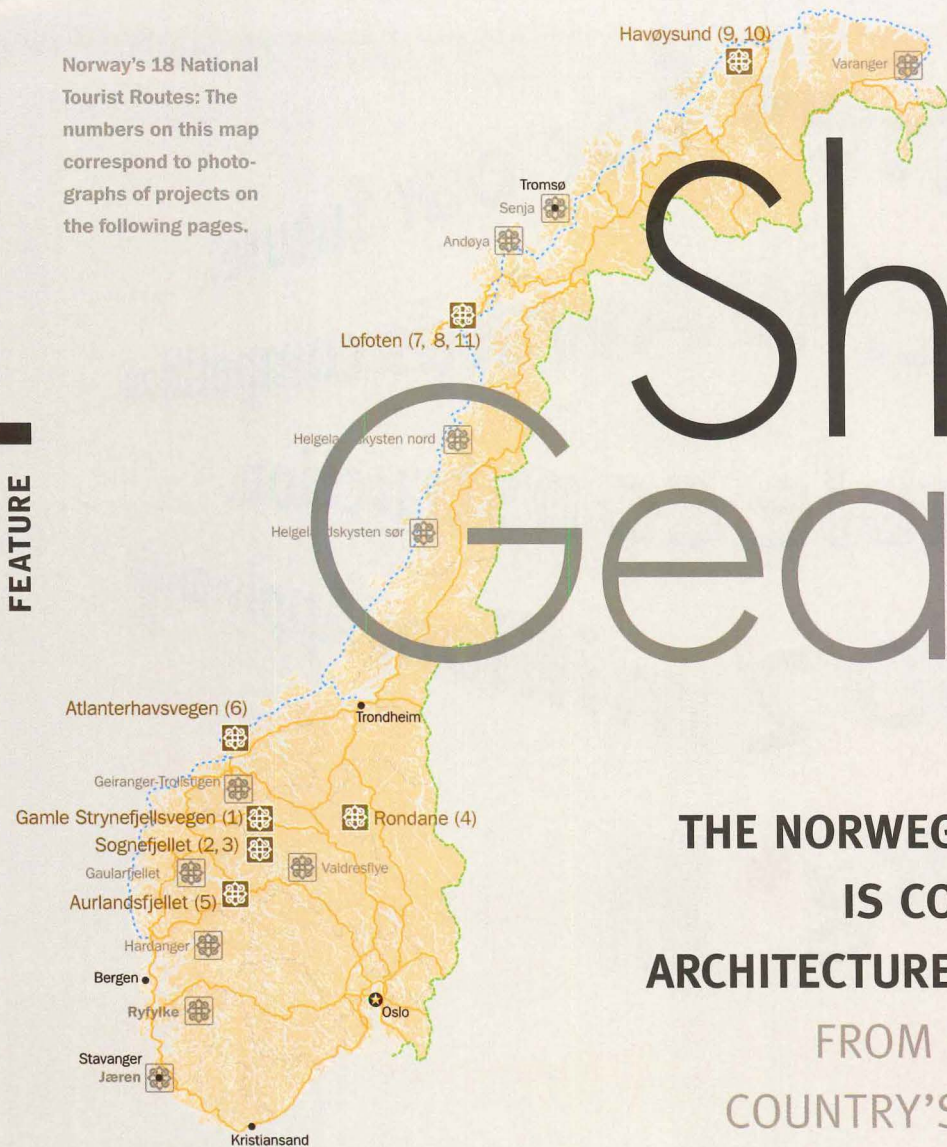
for sustainable construction



CIRCLE 53 ON READER SERVICE CARD OR GO TO [ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/](http://ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/)

Norway's 18 National Tourist Routes: The numbers on this map correspond to photographs of projects on the following pages.

FEATURE



# Shifting Gears

**THE NORWEGIAN GOVERNMENT IS COMMISSIONING DISTINCTIVE ARCHITECTURE TO LURE TOURISTS FROM MAJOR HIGHWAYS TO THE COUNTRY'S LESS BEATEN PATHS**

By David Sokol

To drive from Lillehammer to Hjerkind, most people take Norway's E6 highway. The valley passage features sturdy pines, stands of fluttering white birch, and fields of dandelions—as well as an 80-kilometer-per-hour speed limit, about as fast as this Scandinavian country permits. Or you can choose Rv. 27, as I did last June. A steep switchback snakes past thimble-size villages and recreational vehicle parks, then slowly meanders through the exotic sub-Arctic landscape of the Rondane mountains, where moss and scrub juniper punctuate what's left of spring snowpack. The temperature has dropped 10 degrees in just one hour, a distant patch of gray sky will soon scatter hail across my windshield, and the Earth takes on a menacing aspect. The detour is worth it.

Toward the northern end of Rv. 27, as it descends through a gentler alpine habitat, a newly completed rest area beckons a stop and a stretch. Three other cars already have unloaded their weekenders into the steep forest, while hidden among the trees, the year-and-a-half-old Sohlbergplassen viewing platform welcomes less intrepid tourists. Two ribbonlike walkways connect the parking lot to this poured-concrete structure, which weaves around the pines. Steel floor grates ensure that

David Sokol is a freelance writer and frequent contributor to RECORD.

rain reaches the area below the platform to quench the trees' thirst, and pilotis capture every angle but the 90 degrees of the rod-straight trunks.

Sohlbergplassen, the work of Norwegian architect Carl-Viggo Hølmebakk, was built as one component of the National Tourist Routes Project. This \$200 million, publicly funded initiative is being undertaken by the Norwegian Public Roads Administration to boost automobile and RV tourism on 18 secondary roads that trace beautiful landscapes. Sohlbergplassen is one of 180 already completed works—all of the program's 400 scenic overlooks, public bathrooms, picnic areas, and other sites should be done by 2015—and its design and execution encapsulate the strongest features of the project, from fostering young talent to an insistence that architects innovate in a way that celebrates the landscape.

To learn about the project's origins, I double-back to Lillehammer and a faded green 1960s-era office building. There, Jan Andresen, trained as an engineer, and an employee of the roads administration since 1981, is approaching his ninth year as head of the tourism initiative. He has the demeanor of a high school physics teacher, but don't trust the unassuming surface. When he helped initiate the Tourist Routes on a trial basis during the mid-1990s, Andresen, then a lower-ranking project manager, took some of the greatest risks in commissioning young architects to prove the effort's potential.



1

1. The Vidersteterfossen waterfall is located on Gamle Strynefjellsveg, one of four trial roads that launched the National Tourist Routes Project in the mid-1990s. Oslo-based architecture firm Jensen & Skodvin outlined a natural outcropping in folds of Cor-Ten steel to replace an unsightly barrier fence. 2. Carl-Viggo Hølmekbakk designed Sognefjellet's Nedre Oscarshaug lookout. He would later design the highly acclaimed Sohlbergplassen. 3. Jensen & Skodvin also designed the rest stop at Liasanden, on the Sognefjellet trial route. Cars and pedestrians share space on a datum dotted with salvaged trees.



3

2



In 1993, when the trial project began, there was room for experimentation, as long as someone dared to ask for it. The first person to do so was Siri Legernes. An architect employed by a government office largely composed of engineers, she was put in charge of four projects and devised the idea of creating dynamic attractions rather than well-situated parking lots. Of the four roads, Legernes assigned Andresen to the Sognefjellet and Gamle Strynefjellsveg routes. At the time, Oslo-based architects Jan Olav Jensen and Børre Skodvin had won just enough commissions to start their own office. Among them was a competition to build a public restroom at Liasanden, which sits near one terminus of the Sognefjellet road. The ensuing collaboration between Andresen and Jensen & Skodvin sealed the road administration's culture of moxie.

"The client had decided that we should create a system of accessories, like benches and toilets, but we thought there should be a different approach," Jensen explains. While certain furniture pieces would be consistent from place to place throughout the entire road, "we proposed that everything that touched the ground should be looked upon as an architectural project and treated individually." For Liasanden, that meant commenting on the typical treeless parking lot: Jensen & Skodvin created a raised-gravel "side road" that preserved all the site's big trees, which the

architects wrapped in rope bumpers. "I still think that was a really good decision," Jensen says of his rebellion. "Now there's a happy anarchy in the tourist project, because everybody is designing their own different things."

Asked why the government would choose to fund a happy anarchy, Nina Berre, director of architecture at the Norwegian professional society Norsk Form, responds by pulling out a clipping from the newspaper *Aftenposten*. It's a survey that ranks Norway 14th in its appeal to tourists worldwide. "We're famous for nature, but people aren't so interested in it," Berre notes. If there are only so many times a person can look at lush fjords and snowcapped mountains without becoming indifferent, the government reasoned that perhaps architectural intervention could add a degree of insight and uniqueness to these vistas.

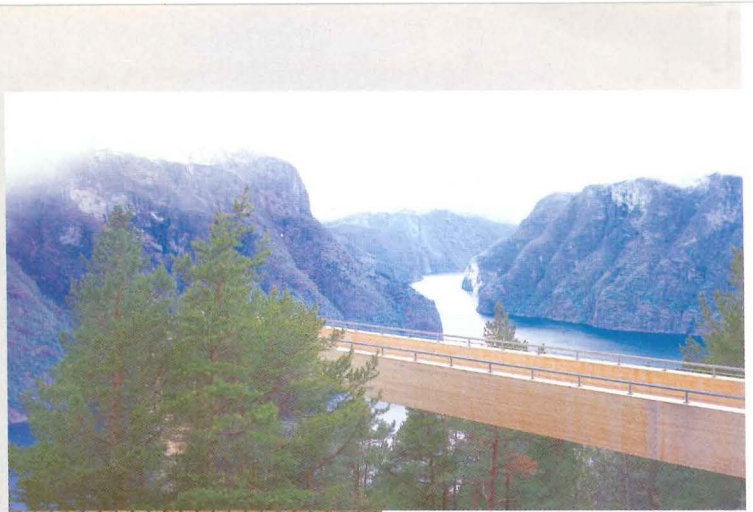
Tourism is an increasingly vital component of the national economy, adds Hege Lysholm, a spokesperson for the Tourist Routes. "Now that fishing and agriculture are becoming more and more organized, it has become more difficult for rural residents to make a living," she says. Tourist roads, in other words, are really about economic development—an exercise in dispersing the wealth accrued by Norway's oil and natural-gas sector.

But the Tourist Route projects are somewhat paradoxical. If you're not looking for them, in fact, you might miss some of these attractions entirely. That's partially Andresen's doing. He chose roads that

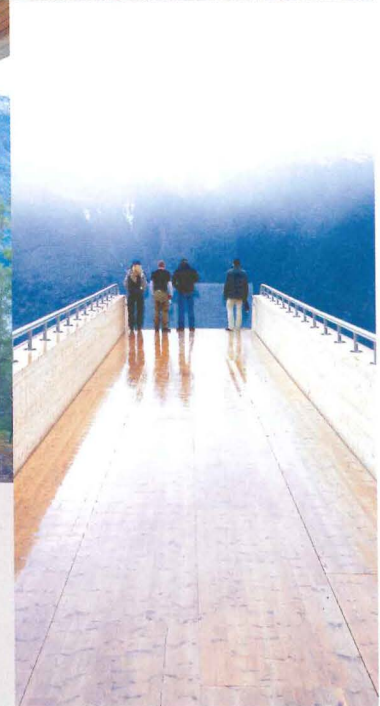


4

4. The form of the Sohlbergplassen platform was generated directly by landscape conditions: It meanders around existing trees, and only one specimen was removed for construction. 5. Stegastein,



5



on the Aurlandsfjellet road, juts out from a switchback and folds underneath itself. The lookout gives viewers the opportunity to gaze at a long stretch of fjord, and gives them the impression of hovering in air.

## FEATURES

exemplify the Norwegian landscape, and the roads administration then commissioned signature buildings for only a few signature sites. Geiranger-Trollstigen, one route still in development, confirms that scenery comes first. Lysholm has supplied me with a map for the drive. Wherever a light green dot demarcates a future construction site, there is just enough of a gravel shoulder or matted-down grass patch proving the area's gravitational pull for amateur photographers. Here, the water is magnificently clear and tinged in a mineral-laden celadon. There, a perfectly framed view appears of the massive waterfall that peaks at Trollstigplatået. Click, click.

Besides nestling into beautiful scenes, building sites also represent important cultural milestones or problems solved. Sohlbergplassen, for example, captures the exact view that the Norwegian artist Harald Sohlberg painted in his 1914 *Winter Night in the Mountains*, which the National Gallery, in Oslo, has in its permanent collection. "Everybody was stopping at this dangerous turn and we needed to control that," Lysholm says of a spot on the Aurlandsfjellet road. The solution was Stegastein, which not only includes an audacious lookout platform designed by Saunders & Wilhelmsen, but also a parking area and public bathroom carved into a switchback.

Rather than create icons, tourist-route architects have aspired to

a dialogue with nature. Holmebakk's Sohlbergplassen is poetic and light-handed; the structure wraps around the site's existing trees, and only one specimen was felled during construction. In its five tourist-road projects, the Bergen-based architecture firm 3RW created modest forms that express man-made intervention materially. Underneath the concrete platforms of Ørnesvingen, an amber-colored sheet of acrylic cantilevers over a canyon, redirecting snowmelt into a waterfall. Flydalsjuvet, located on the Geiranger-Trollstigen road, repurposes logs from a neglected farm building and stacks them atop a sandblasted glass base. Askvågen, one of three works already finished on the Atlanterhavsvegen road that trails upward from the small fishing village of Bud, features a short, ribbonlike Cor-Ten stair attached to a granite jetty.

Other projects play counterpoint to the landscape. A bird blind and bicycle-storage house along the Lofoten archipelago route, designed by architects 70° Nord, are rectilinear toys in a rugged landscape. The Aurlandsfjellet platform at Stegastein is a V-shaped surface of pine that curves underneath itself, leaving the viewer dangling precariously in the sky.

Such intelligently modest work comes from the hands of young talent. Norway's usual suspects, in fact, are barely involved in the tourist roads: Snøhetta is working on a single parking area for campers, and Sverre Fehn's name isn't mentioned. Even mid-career practitioners such

# WARPO™

## VISUAL STEALTH ILLUMINATION

A concept long overdue yet one that is light years ahead of its time.

CONTACT YOUR LOCAL AGENT FOR A PRIVATE SCREENING

PRESENTED  
BY

**KIM LIGHTING**

A DIVISION  
OF

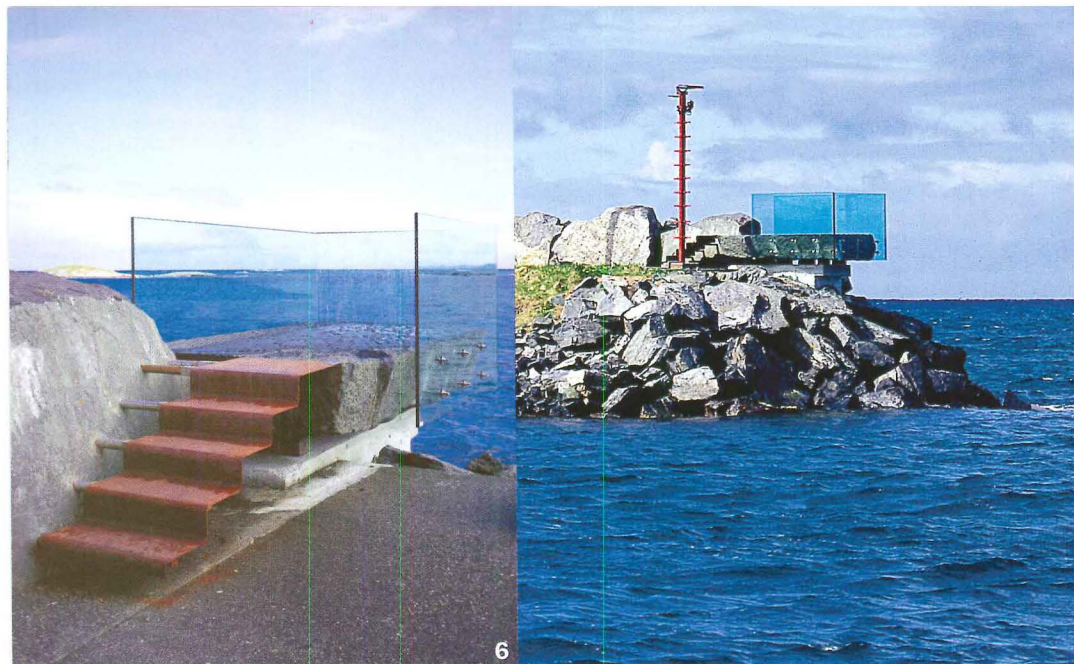
**HUBBELL LIGHTING, INC.**

**WP9**



**KIM LIGHTING**

Site/Roadway • [www.kimlighting.com](http://www.kimlighting.com) • 626.968.5666

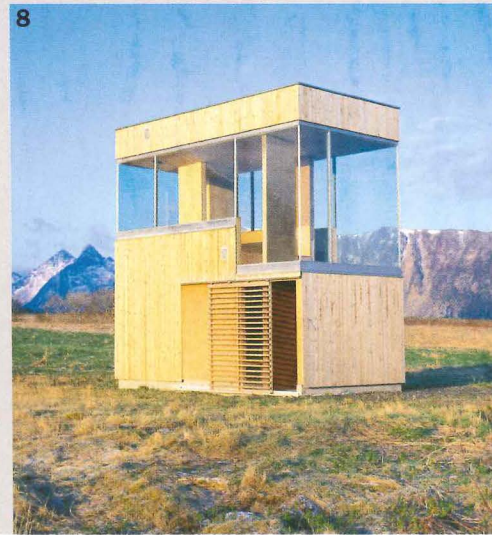


6

6. Among 3RW's five Tourist Routes projects is Askvågen, on the Atlanterhavsvegen route. The observation deck appears sculpted from the jetty, except for a ribbon stair made of Cor-Ten. 7. For the bird-watching towers on Lofoten's Skjerpvatnet and Gårdsvatnet routes, 70° Nord used a strong steel structure to resist vibration and minimize disturbance. The cladding is untreated wood. 8. The Lofoten route also features a 70° Nord-designed bicycle-storage shed that includes rooms for food prep and resting.



7



8

FEATURES

as Sixten Rahlff, a partner in 3RW, admits that his office is aging out of the program. Andresen's team has taken pains to launch newcomers rather than celebrity architects. For young architect Camilla Langeland, the break came in 2002, shortly after she graduated from the Oslo School of Architecture and Design. "My thesis juror just recommended me as best in my diploma class," Langeland remembers. "Then they gave us two projects." By 2005, she and three of her classmates had quit their jobs to work full-time under their own shingle, Pushak Arkitekter.

One of Langeland's partners, Sissil Morseth Gromholt, says the roads program's leaders are open to architects testing their limits. At Snefjord, a site along the far northern Havøysund route, Pushak was commissioned to replace an existing slate windscreen and log benches with more modern versions. "We didn't want to do that," Gromholt says, because blocking the wind also obstructed the best views. Instead, Pushak integrated the functions into two-sided, steel-and-wood boxes "where you can place yourself according to the view or to the wind. It's quite simple, but it was a radical change for the program."

Although Gromholt says her firm's work on Tourist Routes has helped it earn spots in other competitions, it is perhaps too soon to say if the program will propel Pushak to fame more quickly than a typical array of single-family houses and paper architecture. If past experiences pro-

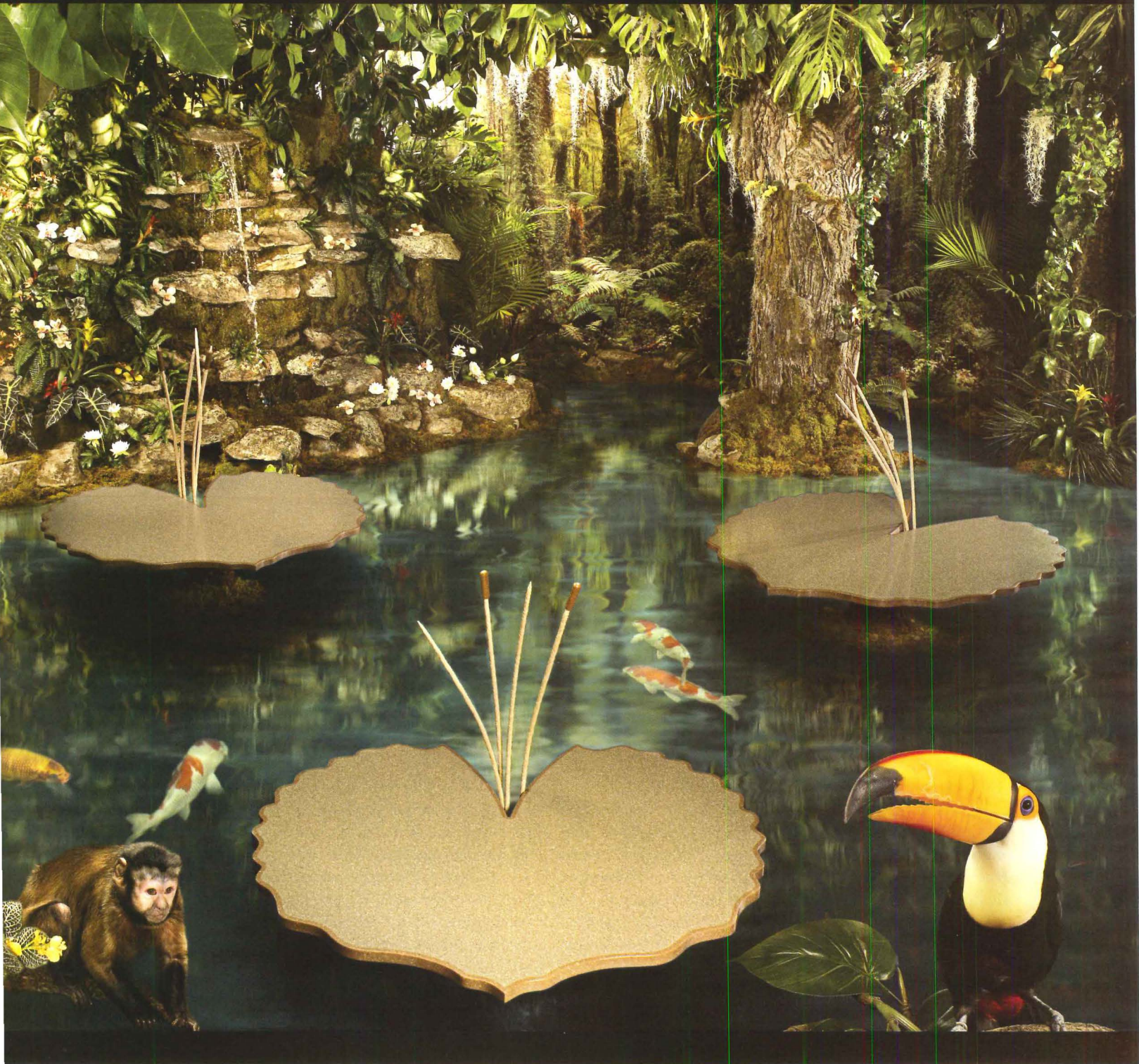
vide any indication, though, the projects may deeply inform the young architects' formal and conceptual outlook.

Jan Olav Jensen, for one, says that he and his partner's early projects on the Sognefjellet and Gamle Strynefjellsveg routes influenced their aesthetic direction later on. "It was a definite departure from the idea of the Cartesian object that lands in a place—that it's only the architect who can make decisions," he says of using topography and other in-situ characteristics to generate a built form. He and Skodvin are still pursuing this nature-based approach. Their Mortensrud Church is unrelated to the tourist roads program, for example, but it includes a stone wall whose gaps let in a patchwork of sunlight; the high tolerances for laying the stone was born from an attentive respect to locality acquired working on their tourist-roads projects. "You can recognize nature as having value and influencing geometry, and you can get something that will never happen anywhere else," Jensen says.

These dialogues with the landscape are not without critics. Ingerid Helsing Almaas, editor of Norway's professional architecture magazine *Byggekunst*, says some of her readers complain that participating architects have not been modest enough. The most bitter criticism is directed at Stegastein, which detractors claim is more a spectacle than a vehicle for understanding the landscape.



15 Year  
Fully Transferable  
WARRANTY



L G e d e n . c o m

© 2007 LG HI-MACS LG-011701 5/07

CIRCLE 55 ON READER SERVICE CARD OR GO TO [ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/](http://ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/)

LG | LG HI-MACS  
**EDEN**  
COLLECTION

The secret's in the surface.

Participants in the Tourist Routes project also admit there are a few kinks still to be worked out. The advisory boards only recently began promoting sustainability as a criterion for design excellence. And Andresen notes that the roads administration will need to implement a maintenance plan that lasts well beyond 2015: The glass at Flydalsjuvet has already broken under the stress of the old logs, for example, and information signs along Sognefjellet have been vandalized. The administration also will need to create a post-2015 architecture watchdog group, since municipalities could lose their tourist-road status if they build adjacent projects that don't abide by current standards.

Earlier complaints, such as the one bemoaning local communities' lack of involvement, are already being resolved. Einar Jarmund, a principal of the Oslo-based Jarmund/Vignæs, points to Gimsøystraumen, a rest area that his firm designed for the Lofoten route. Although the building displays its share of architectural flourish—its roofline reflects the ridge of nearby mountains—its program was expanded to include a local youth center after the existing facility was destroyed by fire. Similar community-oriented buildings are planned for other tourist roads.

The Tourist Routes project is also reinforcing its strengths, challenging architects to create unique, site-specific designs. In May, the roads administration announced that 15 young firms had earned prequalifica-

9. At Lillefjord, a site along the Havøysund route, the young architects of Pushak wedded seating and storage to a sculptural bridge. 10. For Havøysund's Snefjord, Pushak worked with a local fabricator to devise boxes that provide travelers with a

place to sit that offers shelter from the wind or opens to fjord scenery.

11. The Lofoten route also includes Gimsøystraumen, designed by the Oslo-based firm Jarmund/Vignæs to combine a rest area with a local community center.





# Copper without the cost.

If the soaring cost of copper has caused your project costs to soar — or if you've stopped using copper altogether — we have a suggestion:

Take a close look at CopperPlus™. It gives you everything you look for in copper, plus a whole lot more. And remarkably ... for less.

CopperPlus is made the same way as quarters and dimes. But the material consists of outer layers of copper metallurgically bonded to stainless steel.

Result? The classic beauty of solid copper at a much lower price. Plus greater strength, increased durability, lower weight, reduced thermal expansion, and complete formability.

CopperPlus. Who'd have thought so much more could be had for so much less?

**CopperPlus™**

*More than copper for less than copper.*

Get the whole story at  
[www.CopperPlus.com](http://www.CopperPlus.com)



Engineered Materials Solutions

CIRCLE 62 ON READER SERVICE CARD OR GO  
TO [ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/](http://ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/)

At the new Mildred Lane Kemper Art Museum (this page), fine-grain limestone blocks reference neighboring Neoclassical buildings while a high clerestory glazing continues Maki's pure, Modernist vocabulary.



# Fumihiko Maki returns to Washington University in St. Louis, where his career began, to create the **SAM FOX ARTS CENTER**



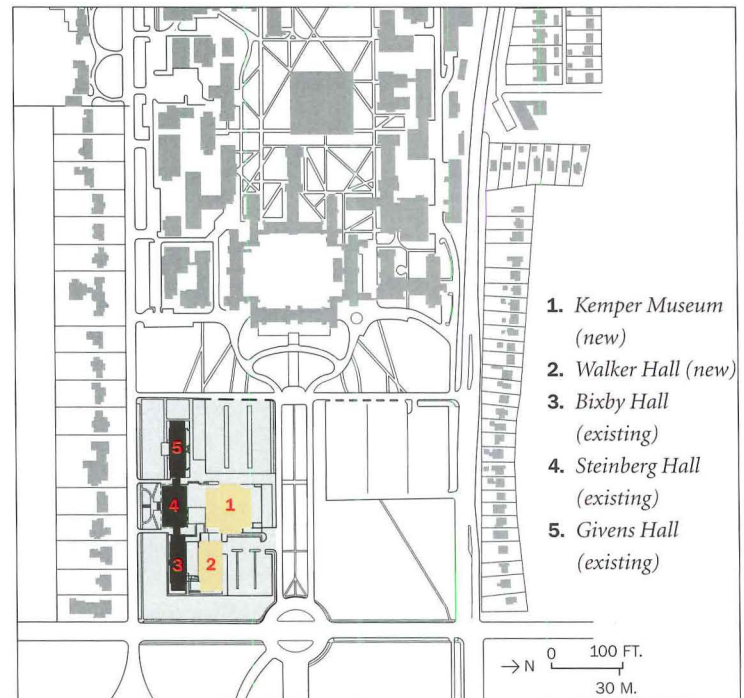
Two new buildings (left) across from existing ones form a small quadrangle on the southeastern edge of the Washington University campus.

By Robert Ivy, FAIA

Rarely does an architect get the chance to add significantly to, much less transform, work done decades before. For the Japanese architect Fumihiko Maki, the potential for a new arts center at Washington University in St. Louis brought him back to the campus where he had taught and designed his first project, more than 40 years ago. The Sam Fox Arts Center, situated at the southeastern border of the 13,500-student campus, tested Maki's powers of urban and collegiate planning over the nine-year period of its gestation. Opened in 2006, the center's two primary buildings bring modernity to the red-granite Collegiate Gothic campus while knitting together formerly disparate disciplines and three existing structures into a unified place.

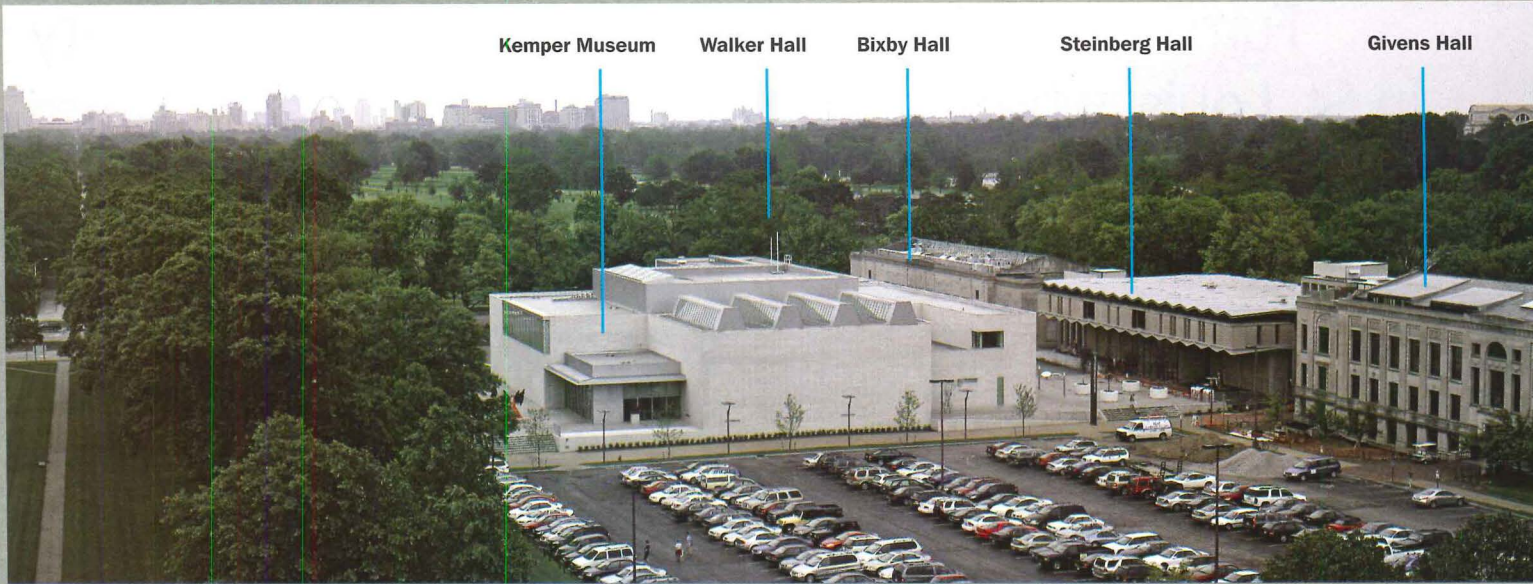
The story begins with Steinberg Hall. Called as a teacher to the campus from Harvard University by former dean Buford Pickens in 1958, young Maki, identified with the Japanese Metabolist movement, received a commission to design a new structure adjacent to the existing architecture building to house the art history and archaeology departments, an art gallery, an art and architecture library, and an auditorium. Considered one of his two "first" jobs (the other, Toyoda Memorial Hall for Nagoya University in Japan), the strongly articulated Steinberg opened in 1960 to favorable reviews in *Architectural Forum* and wide attention.

Fast forward to 1997, when a committee under the tutelage of then-dean Cynthia Weese, FAIA, selected former faculty member Maki to conduct a study for a "visual arts center." With strong support from the uni-



**Project:** Sam Fox School of Design and Visual Arts, St. Louis, Missouri  
**Architect:** Maki and Associates—Fumihiko Maki, principal; Gary Kamemoto, director; Jun Takahashi,

Kota Kawasaki, Hiromi Kouda, Ryuji Takaichi, project team  
**Architect of record:** Shah Kawasaki Architects  
**Structural engineer:** Jacob Facilities Inc.



**A view of the courtyard where students and faculty now congregate (above middle). The primary entrance to the Kemper Museum (above).**

iversity’s chancellor, Maki faced an ambitious program that included a long list of needs, all to be accommodated in a single structure: new gallery space with substantial supporting facilities; space for sculpture, ceramics, and graphics; increased library facilities; and room for art history and archaeology, among other requirements. “We knew he would be able to successfully deal with extremely complex programmatic elements and campus design issues,” Weese said. “And we all felt that his clear and very serene Modernist vocabulary would be compatible with the existing buildings.”

After calculations proved the large enterprise to be too costly, the project restarted in 2001 with a modified budget. Maki realized that the spatial requirements for a gallery, which included high floor-to-floor demands, required one kind of building; studio arts, another. Consequently, he broke the project into two buildings, for height requirements and for the budget, he states. Programmatically, the new design would consist of a 65,000-square-foot museum, library, and classroom building and a 38,000-square-foot hands-on art school, all tied to existing structures. The total design then became an “urban design exercise—what the east campus could be,” according to the architect.

The decision to divide structures programmatically had beneficial site implications. In studying the morphology of the earlier campus plan, accomplished in 1899 by the firm of Cope and Stewardson, Maki acknowledged the prevalence of a series of clustered courtyards at the original hilltop campus, created by an interlocking series of 70-foot-wide buildings. He determined to bring the pattern, what he refers to as the “fabric,” forward to the east campus, while achieving greater accessibility for faculty, students, and visitors, creating a strong axis for the university and visibility for passersby on the street adjacent to Forest Park.

Limestone, which faced the existing older campus buildings on the east campus, helps unify the newer structures with the older. The contemporary architects found a lack of consistency in the older stone, and settled on a solution limited to what a single workman could lift. The modular unit they designed (8 inches high by 30 inches long by 3 inches thick) creates a horizontal texture that works “like a knitted fabric,” says Maki, with unit sizes larger than tile and smaller than full-size concrete panels.

Key to his larger plan, a mall at the core of the new complex uni-



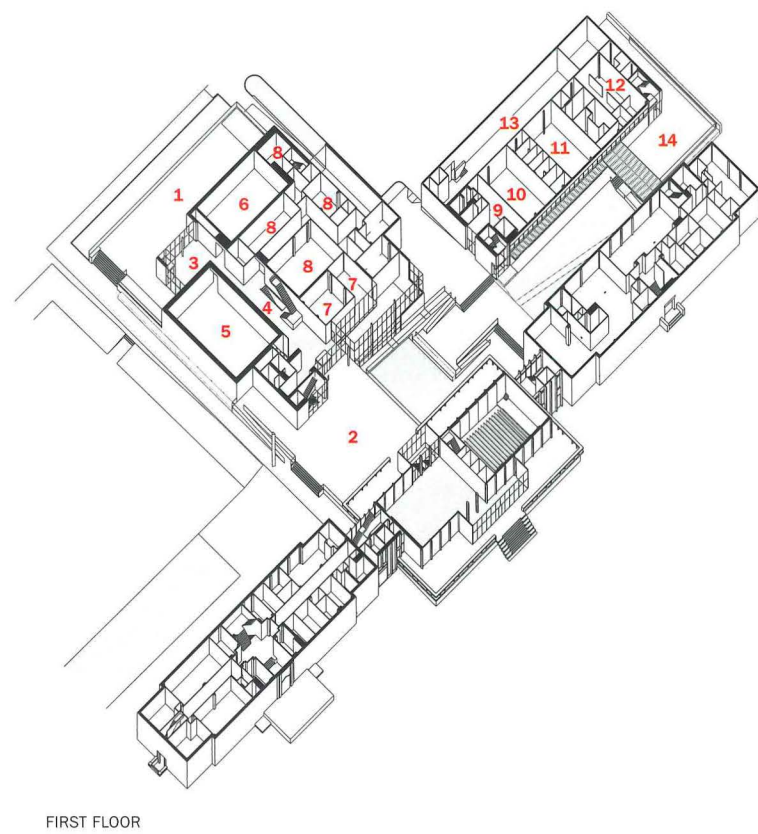
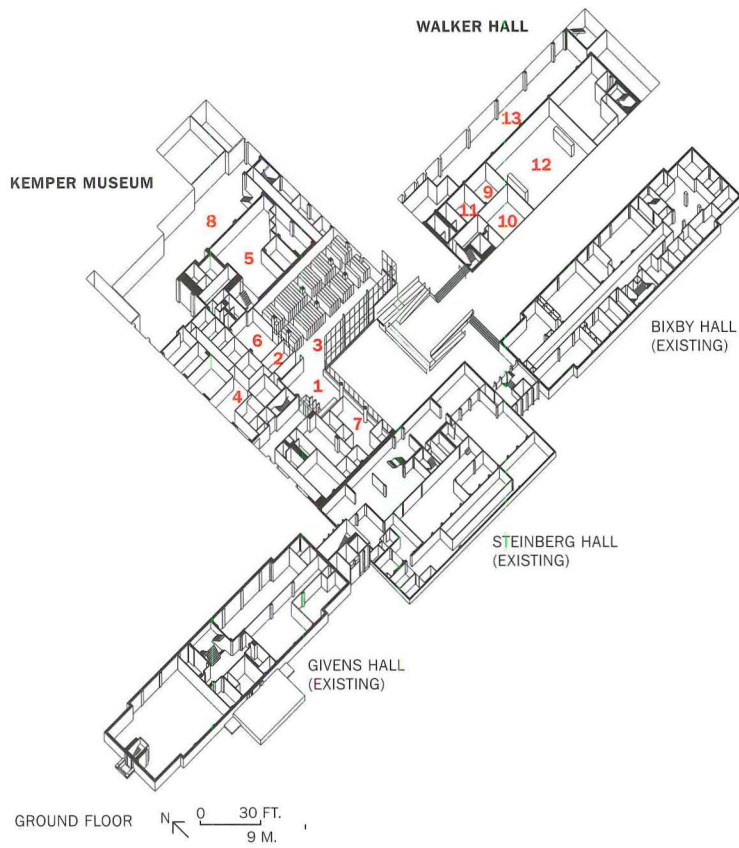
An overview of the arts complex, looking south toward Forest Park and, in the distance, St. Louis and its iconic arch (opposite, top). The renovated Steinberg Hall, designed by Maki and completed in 1960, is connected to the new buildings through a subterranean passage (left).

THE TOTAL DESIGN THEN BECAME “AN URBAN DESIGN EXERCISE—WHAT THE EAST CAMPUS COULD BE,” ACCORDING TO MAKI.



The multilevel plaza as seen from Steinberg Hall to the northeast. The building faces the Kemper Museum, on the left, and the Earl E. & Myrtle E. Walker Hall, on the right.

The museum's north-west entrance (right) is flanked by a sculpture court. A ribbon of windows on a 32-foot-tall, limestone-clad wall ushers light into an interior gallery (left in photo). The building's lean, simple forms create a new doorway to the historic campus (opposite).



- KEMPER MUSEUM**
1. Library
  2. Seminar room
  3. Reading room
  4. Learning lab
  5. Money museum
  6. Research room
  7. Work area
  8. Mechanical room

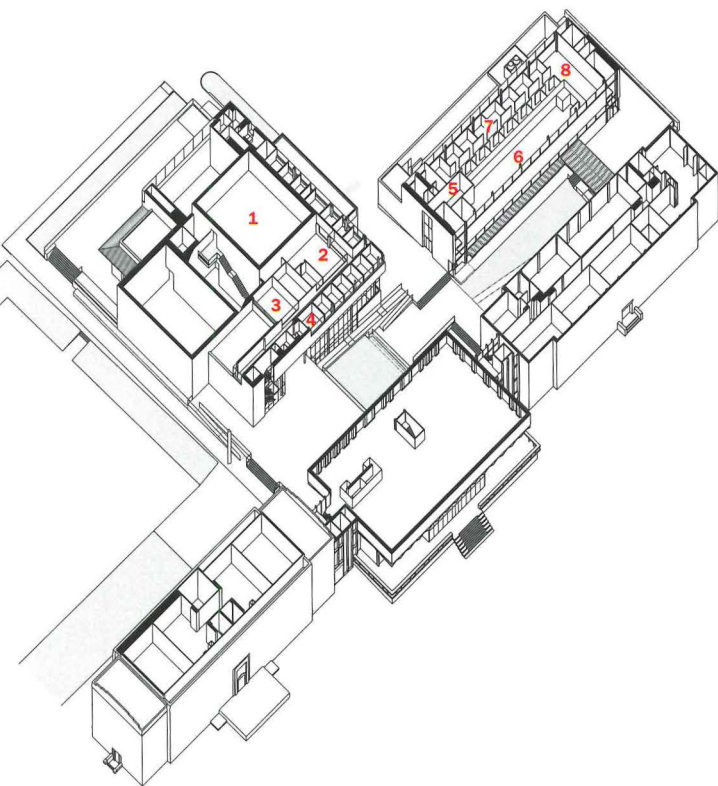
- WALKER HALL**
9. Office
  10. Conference room
  11. Performance/  
installation studio
  12. Undergraduate  
sculpture studio
  13. Mechanical room

- KEMPER MUSEUM**
1. Sculpture plaza
  2. Central plaza
  3. Foyer
  4. Atrium
  5. Temporary display
  6. College of Art gallery
  7. Classroom
  8. Storage

- WALKER HALL**
9. Foyer
  10. Metal sculpture studio
  11. Wood sculpture studio
  12. Graduate sculpture  
studio
  13. Working court
  14. Terrace



ASSOCIATE DEAN PETER  
MACKETH DESCRIBES THE  
PROJECT AS “ELECTED  
ECONOMY—A RESTRAINT IN  
ARCHITECTURAL EXPRESSION.”



SECOND FLOOR

**KEMPER MUSEUM**

1. Permanent collection gallery
2. Office, museum director
3. Offices, art history and archaeology departments
4. Offices

**WALKER HALL**

5. Foyer
6. Illustrated-book studio
7. Undergraduate painting studios
8. Student art review room

fies the total complex of five major buildings and creates an inner courtyard that, on a smaller scale, recalls spaces alongside Florence, Italy’s supreme Uffizi Gallery. Complex and multipartite, simultaneously serving as a transitory space, a gathering place, and a sunken corridor between the new arts center and the aforementioned Steinberg Hall, the courtyard embodies the Japanese term *oku*. In his book of essays entitled, *Selected Passages on the City and on Architecture* (2000), Maki describes *oku* as, “the innermost area ... lying at the core of this multilayered, dense spatial composition (similar to the layers of an onion).”

The result allows “multiple points of access,” says Peter MacKeith, associate dean of the Sam Fox School of Design and Visual Arts. As constructed, the layered spaces allow the visitor to pass through visually, to pass under or through the buildings, to ramp over them, and to observe the composition from other places outside and within the buildings themselves.

Facing the mall, transparency at the entry characterizes the Kemper Museum, which serves as a cross-axis to the mall’s linear spine. Immediately on entry, the light-filled, two-story atrium mounts upward to a second level by simple stairs, but more importantly by an elevator that embodies the pragmatic spirit of the entire building—a stainless-steel, oversize elevator for transporting artwork and people. Gary Kamemoto, Maki’s partner in charge of the project, insists, “A working museum for university students needed a 10-foot elevator.”

In the Kemper, movement systems and passageways link five different ambiances for encountering art, each with a distinct purpose. On the first floor, two galleries, one for art students and one for traveling exhibitions, “like a kunsthalle,” says Maki, rise 25 feet in height. The university’s superb permanent collection resides in more generous spaces on the second level. All are open to the public.

In studying the options for Walker Hall, team members visited other sites in which raw industrial space had been converted into working studios for sculpture, painting, and book design. They found that while many created dynamic working and teaching environments, they lacked essential services, such as adequate heating, ventilation, and air-conditioning, required in a teaching environment. Natural light proved critical. The new studio arts building balances the costs of the total proj-

An atrium in the museum houses a distinguished collection of art (this page). Your *Imploded View*, Olafur Eliasson's 600-pound aluminum globe, is suspended from the ceiling. An elevator with stainless-steel doors embodies the pragmatic spirit of the building.

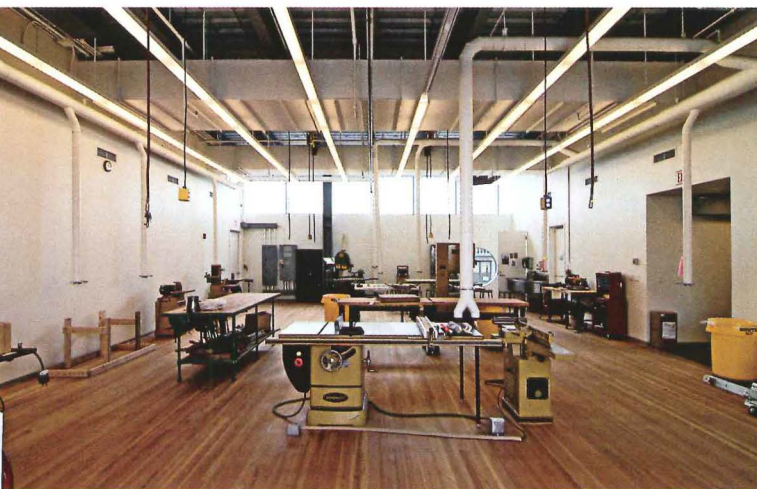






Light plays a prominent role in Maki's interiors, as shown in the College of Art gallery (left). The HVAC system serves as a design element in the woodworking studio (below left). A spare sensibility characterizes

the two-story library (bottom left) that opens onto the courtyard. The foyer (below) in the northwest corner of the 65,000-square-foot Kemper Museum overlooks an exterior sculpture court.



ect between the more finished adjacent galleries and the straightforward studios with simplicity, clearly organizing the location of structure, ducts, sprinkler piping, and lighting.



### Analysis

Simplicity should not be confused with lack of subtlety, however. The Sam Fox Arts Center, while marked with Maki's characteristic restraint, achieves a pared-down dignity in the smallest details. If the galleries lack the formal exuberance of certain contemporary museums, they also embody and honor their purpose, that of a university museum, in a way that bespeaks confident self-knowledge. MacKeith has called it "an elected economy—a restraint in architectural expression" that could only come from an architect who knows himself and his subject at a bedrock level. While Maki's hallmark restraint may not engage the public with dramatic bravado, the flow and the ease of the interlaced composition will draw the crowds in, allowing easy interactions between art and the observer, between student and the whole campus. At the larger scale, the complex suggests how to complete the total campus through specific placemaking that allows for complementary expansion adjacent to this complex and across the university's entrance drive. At the Sam Fox Arts Center, Maki revisited Washington University 40 years later and added not only a building, but a "college of the arts." ■

### Sources

**Exterior window system and aluminum curtain wall:** *Kawneer*  
**Skylights:** *Supersky*  
**Gallery lighting:** *Parscan* by *ERCO*  
**Doors:** *Kawneer* (entrance); *Hufcor* (glass sliding); *Modernfold* (gallery sliding); *Adam Rite* (fire control);

*Cookson* (rolling overhead)

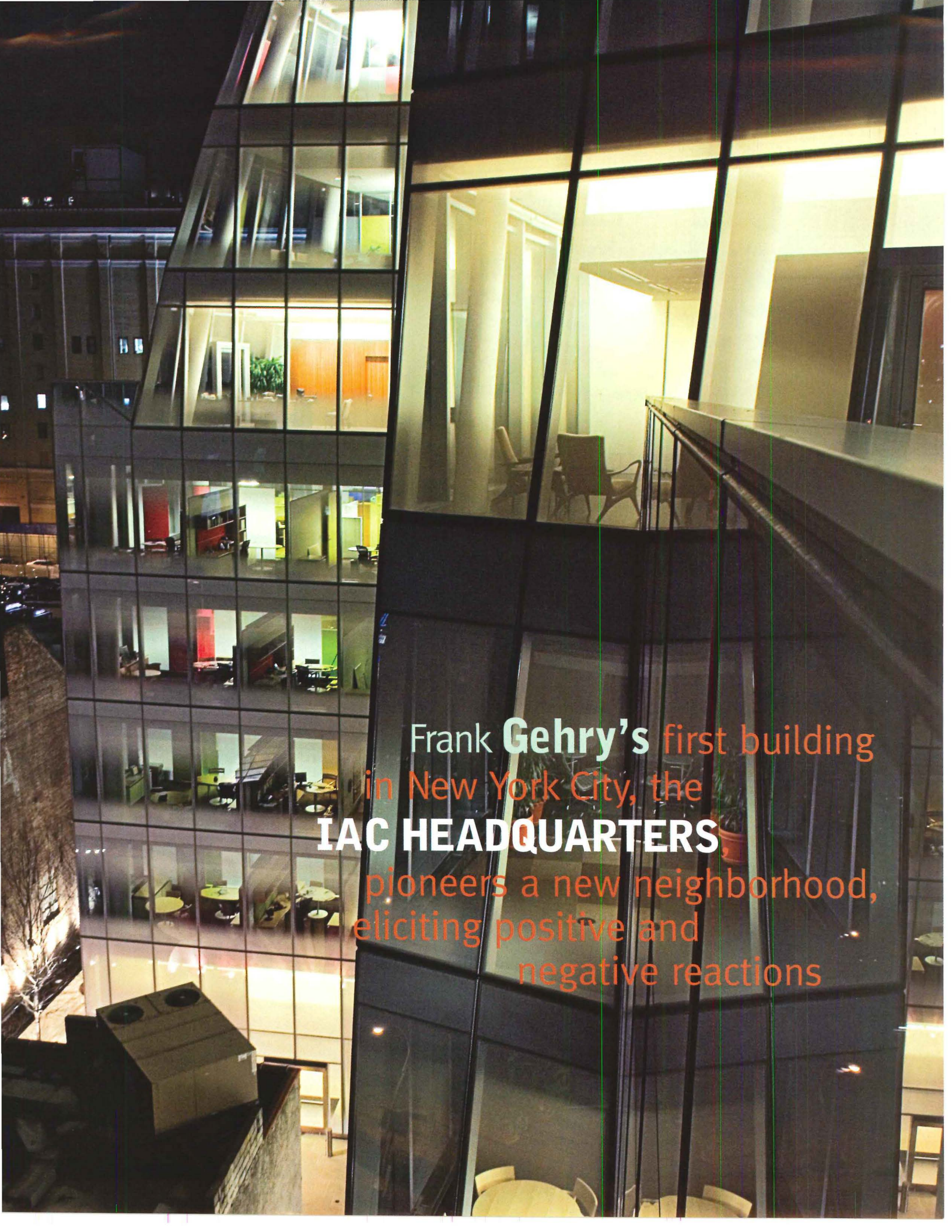
**Linoleum flooring:** *Marmoleum* by *Forbo*

**ONLINE:** To rate this project, go to [architecturalrecord.com/projects/](http://architecturalrecord.com/projects/). Submit your project to [construction.com/community/gallerylist.aspx](http://construction.com/community/gallerylist.aspx).

The building's curtain wall ranges from transparent glass to 90 percent fritted. During the day, it appears milky white, almost opaque (this page), but at night becomes more transparent (opposite).

PROJECTS





Frank **Gehry's** first building  
in New York City, the  
**IAC HEADQUARTERS**,  
pioneers a new neighborhood,  
eliciting positive and  
negative reactions



The IAC stands between the Chelsea Piers recreation center and the elevated High Line (above) in a neighborhood that will soon see a number of expensive apartment towers by big-name architects. A 120-foot-long media wall glows inside the lobby facing West Street (left).

**W**ith its ethereal, milky-white skin and faceted curves, Frank Gehry's IAC Building stands out against the heavy, industrial structures surrounding it on the western fringe of Manhattan's rapidly evolving Chelsea neighborhood. Even as its context changes in the next few years with the conversion of an abandoned elevated rail (the High Line) into a 1.5-mile-long public park and the addition of apartment towers by Jean Nouvel, Shigeru Ban, Neil Denari, Winka Dubbeldam, Annabelle Selldorf, Robert A.M. Stern, and others, the IAC will remain unique in both its architectural expression and its function as a corporate office building. Its status as a Greta Garbo kind of building, however, highlights the project's weaknesses as well as its strengths.

While no one hires Gehry to design a quiet, background building, Barry Diller, the chairman and C.E.O. of IAC/InterActiveCorp, envisioned his new headquarters as a catalyst for transforming a part of town he has long championed. An early and generous supporter of the High Line, Diller—along with his wife, fashion designer Diane von Furstenberg, whose new headquarters is just a few blocks south—prides himself on being an urban pioneer. So you might expect the IAC to reach out and engage its neighbors more directly than it does. As Gehry proved with his Disney Concert Hall—where a truly public lobby and a series of outdoor gardens invite everyone to spend time—standing out doesn't have to mean standing apart.

As a piece of architectural sculpture, the building conjures a range of imagery—from the billowing sails of a boat to a beached iceberg. By wrapping the structure's listing concrete frame with a fritted-glass curtain wall that has no exterior mullions, Gehry emphasizes the purely formal aspects of the building and underscores its role as an object inserted in the landscape. But this object has no base to sit on, so you get the impression it could be lifted up and taken away as easily as it was placed here.

Most office buildings in New York have stores or restaurants on their ground floors that tie them to the street life of the city. But Diller decided to reserve the IAC's first floor for a sprawling lobby, which doubles as a special-events space. So his headquarters seals itself off from its neighborhood, providing only small, cheap-looking emergency-egress doors on its long West Street facade. Neither the main entrance on 18th Street nor a secondary one on 19th Street do much to engage the sidewalk, either, their flat profiles on flat portions of the building's envelope seeming more stealthy than welcoming. And the curtain wall, which ranges from transparent to 90 percent fritted, appears mostly opaque during the day, further separating what's happening inside from the rest of Chelsea.

Visitors who get inside, though, are treated to an elegant lobby enlivened by two impressive media walls—one behind the reception desk that projects information about the nearly 70 brands under the IAC corporate umbrella and the other that faces West Street and stretches 120 feet long and 11 feet high. Video projectors (18 for the long wall and three for the short one) beam images from behind the walls, and computers coordinate them, creating attention-grabbing visuals that can be

**Facing West Street and the Hudson River, the nine-story building has no retail or restaurant space to engage the street (right) and invite pedestrians inside.**

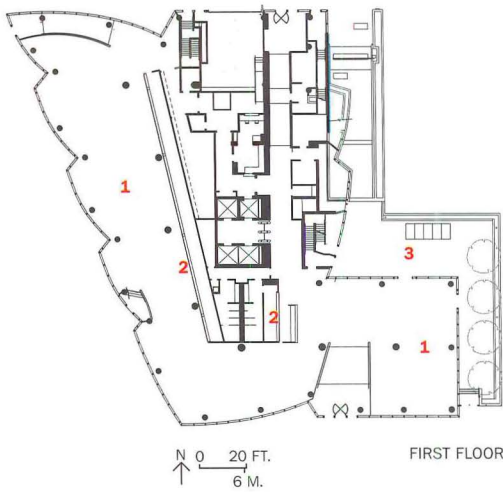


either informative or just seductive. Also equipped with LEDs, the walls can switch from video projections to light shows. Though sophisticated technologically, the media walls don't sport in-your-face gadgetry. "We didn't want lots of bells and whistles," says Jason Stewart, IAC's chief administrative officer. "We wanted the technology throughout the building to be seamless with the architecture," explains Stewart. "Everyone spent a lot of time making this stuff easy to use," states Todd DeGarmo, AIA, the principal in charge of the project for STUDIOS Architecture, which designed the interiors.

Before moving into the building in April, IAC had offices in a host of buildings in midtown Manhattan. The company—which owns the Home Shopping Network, Ticketmaster, LendingTree, Match.com, Ask.com, and Evite—wanted to bring all of its businesses under one roof. The Gehry building provides 150,000 net square feet on nine floors (each a different size) and can accommodate 500 employees—most in open-plan workstations. The STUDIOS team placed most of the private offices around the building's core so the open-office areas could enjoy the views and more direct daylight. Customized workstations that combine wood-veneer and painted-metal panels rise 52 inches, high enough to provide privacy when workers are seated, but a sense of connection when they're standing. "We offered Barry a choice of wood or white metal for the workstations," recalls DeGarmo, "and he said, 'Both.'" Indeed, Diller encouraged the designers to develop multiples of almost everything in the interiors—carpeting, finishes, and colors—an approach that creates a certain amount of visual chaos but seems appropriate for the kind of employees IAC attracts (young and media-savvy, many of whom are

**Project:** IAC/InterActiveCorp Building, New York City  
**Architect:** Gehry Partners—Frank O. Gehry, FAIA, partner  
**Interior architect:** STUDIOS Architecture—Todd DeGarmo, AIA, Tom Krizmanic, AIA, Brian Tolman,

AIA, Geoff DeOld, David Burns, Sara Schuster, Joshua Rider, design team  
**Engineers:** DeSimone (structural); Cosentini (m/e/p)  
**Consultants:** Israel Berger (curtain wall glass); Bruce Mau (graphics)  
**General contractor:** Turner



FIRST FLOOR



SECOND FLOOR

1. Lobby
2. Media wall
3. Terrace
4. Kitchenette
5. Open offices
6. Private office
7. Conference
8. C.E.O. suite
9. Boardroom



SIXTH FLOOR



SEVENTH FLOOR

Each floor plate in the 150,000-square-foot building is different (plans, left), creating a challenge for interior designers at STUDIOS who needed to provide space for up to 500 employees.

A double-height atrium on the sixth floor (below) provides a sitting area just outside the office of C.E.O. Barry Diller. Gehry designed the offices on this, the executive floor.

involved in new Web sites and other start-up enterprises). The architecture and interiors complement each other—defining a workplace that’s energized without being wacky or contrived. The top floor, instead of being reserved for muckety-mucks, serves as the company’s social hub, with a pantry and café wrapped on two sides by the best views in the building.

Top executives occupy the sixth floor, so Diller would be in “the center of things, not at the top,” says Stewart. Gehry worked with STUDIOS on the interiors here (including Diller’s office and a high-tech boardroom) and designed a curving, glass-and-steel stair leading to the seventh floor. Calmer and more elegant than the other interiors, the executive floor strikes different notes, some not quite in tune with the other floors.

When first announced, the Gehry-Diller match seemed to promise an architecture animated by a new-media ethos. While the IAC Building delivers an appealing sculptural presence in the urban landscape and some attractive work spaces, it doesn’t connect with its neighbors in any way comparable to the interactive businesses going on inside it. ■

**Sources**

**Curtain wall:** *Permasteelisa Group*

**Carpet:** *Shaw*

(*L7 collection by Bruce Mau*)

**Interior glass partitions:** *Depp*

*Glass (custom colors)*

**Workstations:** *Unifor*

**Chairs:** *Aeron*

**Doughnut-shaped pendant light:**

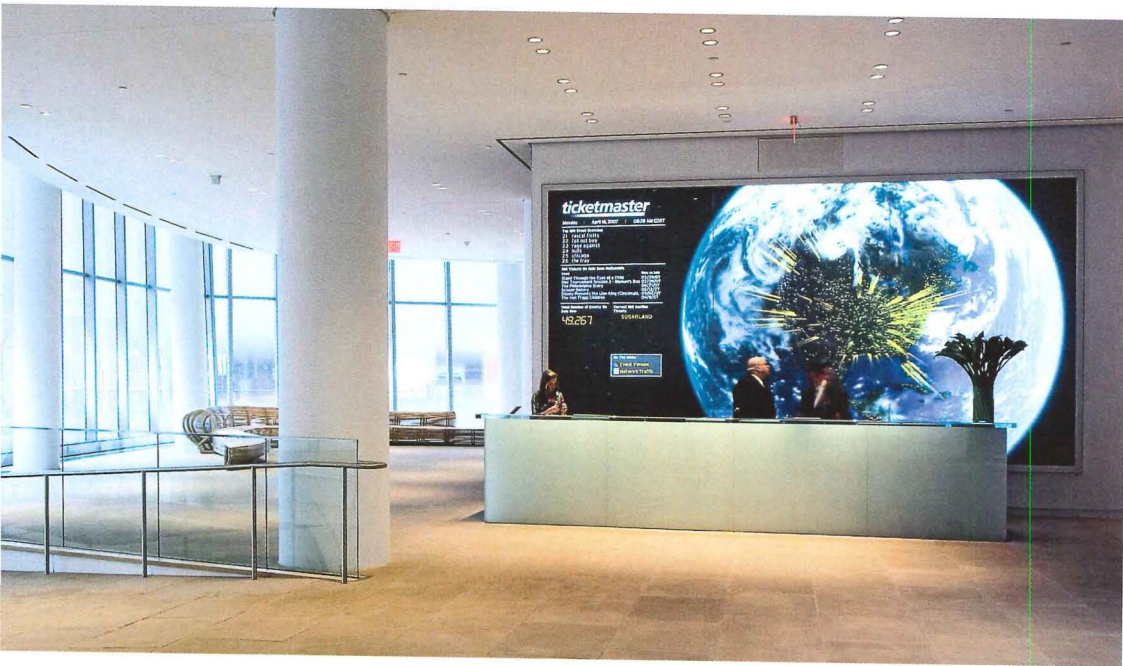
*SPI Lighting Options*

**Paints:** *Benjamin Moore*

**ONLINE:** To rate this project, go to [architecturalrecord.com/projects/](http://architecturalrecord.com/projects/).

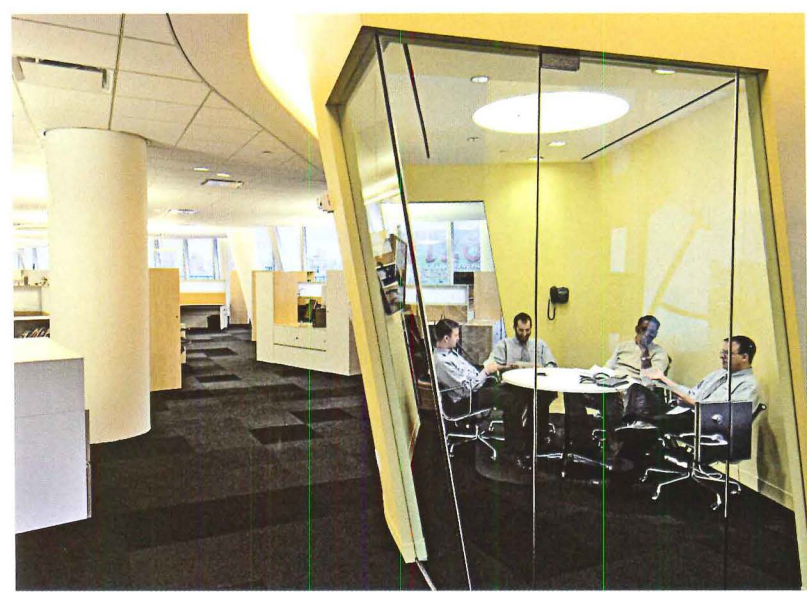
Submit your project to [construction.com/community/gallerylist.aspx](http://construction.com/community/gallerylist.aspx).





In the lobby, a 20-foot-long media wall behind the reception desk, presents information about IAC and its brands (left). A snaking bench (left in photo) was designed by Gehry. An internal stair (below) connects executives on the sixth and seventh floors.





**STUDIOS** designed each floor with both open and private offices (top) and a variety of conference rooms (above). Colors and finishes change

from floor to floor and even within one floor, reflecting the diversity of IAC's many brands. Colored-glass panels provide further accents (opposite, top).

## **ANALYSIS: Martin Filler looks at Gehry's struggle with fenestration**

Frank Gehry's current big-budget projects—especially his controversial Atlantic Yards in Brooklyn, New York—overshadow most of the smaller projects he has done recently. However, the modestly sized IAC headquarters has attracted widespread attention, not only thanks to Gehry, but because of his boldface-name client, media entrepreneur Barry Diller, founder of IAC and a former chairman of Paramount Pictures and Fox. Not since onetime Hollywood über-agent Michael Ovitz tapped I.M. Pei to design the CAA headquarters in Beverly Hills (completed in 1989) has a mogul commissioned a celebrity architect to create a bijou trophy scheme that amounts to a veritable microcosm of the designer's signature style.

The billowing, glass-skinned forms of this

*Martin Filler is the architecture critic of House & Garden and contributes to other publications.*





nine-story structure are firmly in the architect's post-Disney mode, and both his Los Angeles concert hall and Manhattan office building are reflexively likened to sailing ships. But IAC represents a real breakthrough for Gehry. Its cleverly handled exterior surface suggests an adaptable solution to his problem with reconciling repetitive windows and idiosyncratic, biomorphic forms.

The halo effect of Bilbao and Disney has obscured the fact that several of Gehry's designs during the decade leading up to those two masterpieces were marred by serial fenestration working at cross-purposes to eccentric massing. In those long-ago days when a Gehry project could be more or less boxlike—such as his 1982 Burns Hall at Loyola Law School in Los Angeles—individual windows did not compromise the facades. But the undulating forms of such 1990s schemes as his Neue Zollhof development in Düsseldorf and “Fred and Ginger” building in Prague did not gracefully accommodate rows of rectangular windows. Due to their internalized functions, neither Bilbao nor Disney need the quantity of windows required for office or apartment buildings. Indeed, museums and auditoriums have traditionally been among the

most inward-turning, even hermetic, of buildings.

At IAC, Gehry specified white, ceramic-fritted glass in vertical panels with horizontal gradations ranging from opaque to translucent to transparent. The progressively shaded glazing serves two main purposes: providing a taut exterior that conceals structural and service components, and bringing generous amounts of daylight into the office interiors. The typically irregular patterning of recent Gehry buildings with through-wall windows—including his Stata Center of 2004 at MIT in Cambridge, Massachusetts—is superseded at IAC by broad, continuous bands that wrap around the structure and give it a vaguely Streamline Moderne feel.

Despite the apparent sleekness of IAC's skin when viewed from afar, closer inspection reveals its assembly to be acceptable but hardly elegant. However, meticulous detailing has never been Gehry's strong suit, and its lack has never compromised his work. More to the point, Diller has boasted of keeping the visionary architect on a short budgetary leash. Frankly, this building would not have been appreciably better if more millions had been lavished on it.

Diller's rationale for hiring Gehry—whose corporate clients have been outnumbered by private, cultural, and educational patrons—echoes the motivation of the advertising executive Jay Chiat, who believed that Gehry's Chiat/Day building (completed in 1991) in Venice, California, would stimulate his young employees' creativity. The buoyant quality of the office spaces at IAC, some of the most delightful corporate interiors in recent memory, shows how well Gehry still responds to an engaged, demanding client.

Despite the vast, amorphous street-level lobby left vacant for nighttime party rentals, several flourishes on the stories above signify that this is capital-A architecture, such as the curving stairway that connects the building's sixth and seventh stories, and the employee cafeteria, with dramatic views of the Hudson River to the west. The building's overall effect is that of a recognizable master working in a playful but not frivolous mode. Gehry's IAC is a welcome adornment to a city where corporate architecture is almost always pompous and overbearing, and one hopes this is a harbinger of what we can expect from its protean creator as he approaches his ninth decade. ■



# Grimshaw Architects bends over backwards to address historical context for Spain's CAIXA GALICIA FOUNDATION

By David Cohn

The Caixa Galicia Foundation, a regional cultural center designed by Grimshaw Architects, packs a lot of design intensity into a small but prime port-side site in La Coruña, on Spain's northwest Atlantic coast. Only 72 feet wide, its custom-designed facade forms a single eccentric gesture, parabolic and off-kilter in section, that nevertheless takes a respectful place among the glazed wooden galleries of the city's traditional seafront buildings. It plunges three floors below the sidewalk to bring natural light to an underground gallery and auditorium, and rolls over the top of the building to drop down to the intimate scale of the pedestrian alleys behind it. A full-height central interior atrium stuffed with stairs and glass-floored bridges echoes this curving, unbroken exterior surface as it slices through the building.

The foundation is one of the philanthropic ventures of a local savings bank, which commissioned the building as the flagship of its eight cultural centers throughout the politically autonomous region of Galicia. "They were looking for very high standards in everything," says project architect Kirsten Lees, "exceeding what you would normally expect for what is actually a relatively small gallery." The clients also encouraged the architects to "break new ground." Lees, based in Grimshaw's London office, says the client "wanted to be the first to explore a lot of different elements and innovative materials." Such attention required an extended development and construction period (as well as a substantial budget, although the client has not disclosed costs). Grimshaw won a limited competition for the project in 1997, edging out Foster + Partners in the final round, and spent more than two years in design development and almost six in construction for the 83,000-square-foot structure.

The building is straightforward in concept, although the large program for the limited site added complexity. Its massing completely fills the permitted zoning envelope's setback outline at the rear of the plot, which is literally traced by the curving back of the building. The atrium brings light from the boulevard and park facing the main entry into the pedestrian rear alley, while the ground floor, with its bookshop and cyber-



Along a historic promenade in a dense city, the Caixa Galicia Foundation combines Grimshaw's technological prowess with an appreciation of established urban patterns.

**Project:** Caixa Galicia Foundation, La Coruña, Spain

**Architect:** Grimshaw Architects—Neven Sidor, director; Kirsten Lees, associate director

**Engineer:** Arup

**Acoustics:** Arup

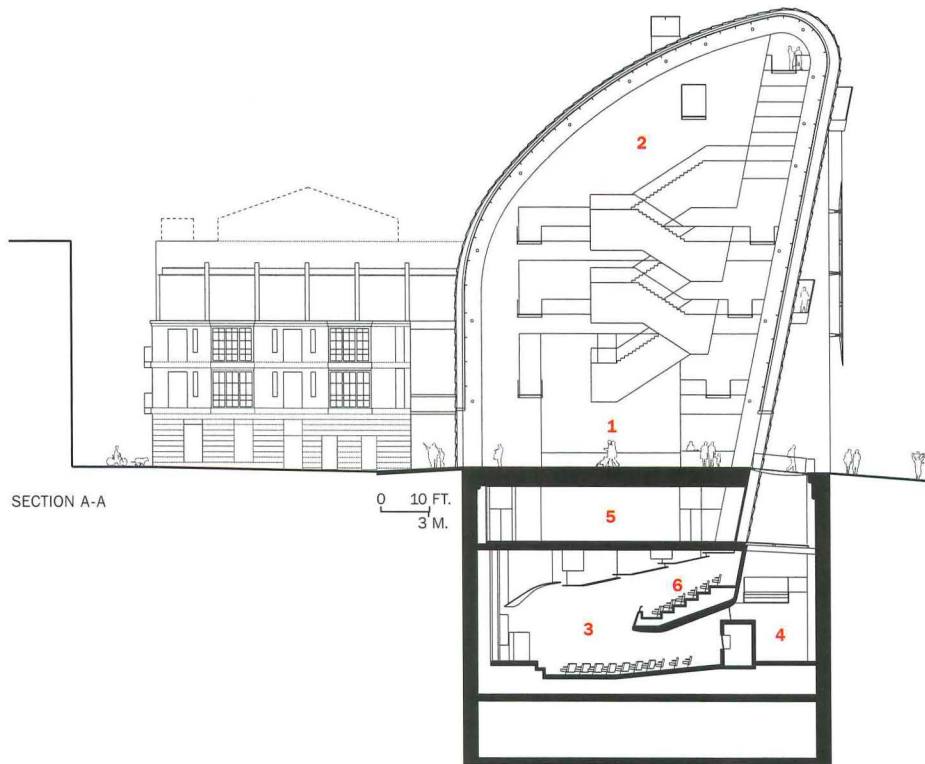
**General contractor:** Dragados

**Cost consultant:** Davis Langdon & Edetco

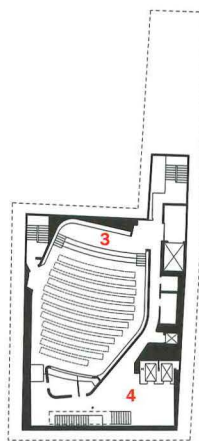
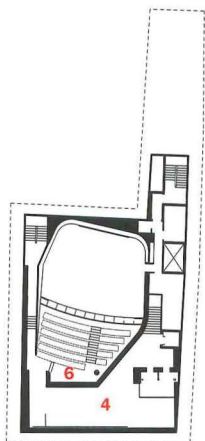
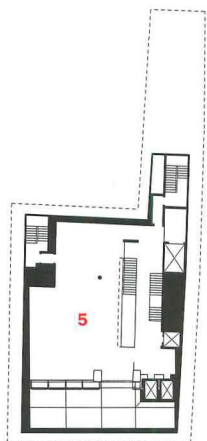
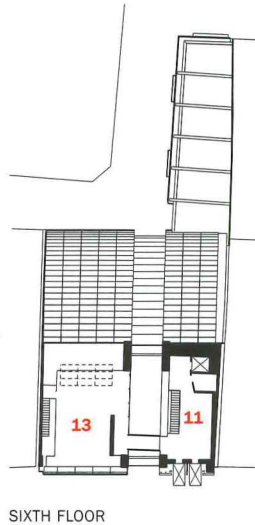
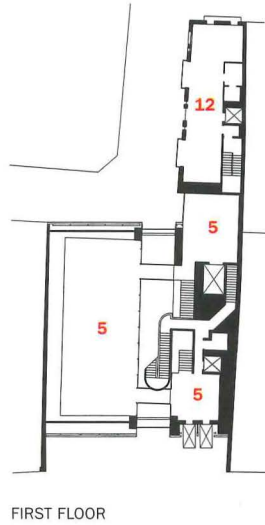
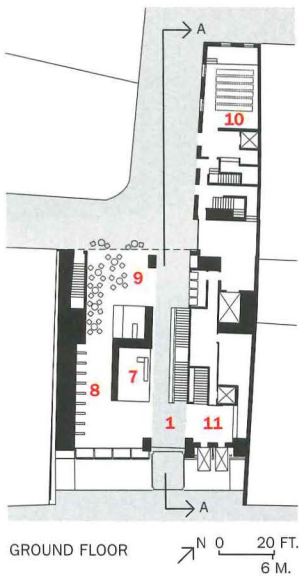


Grimshaw designed the building as an extension of the sidewalk, allowing pedestrians to pass from front walk to back alley via the interior atrium (this page). The facade's transparent holographic projection screen serves the center's publicity needs (above).

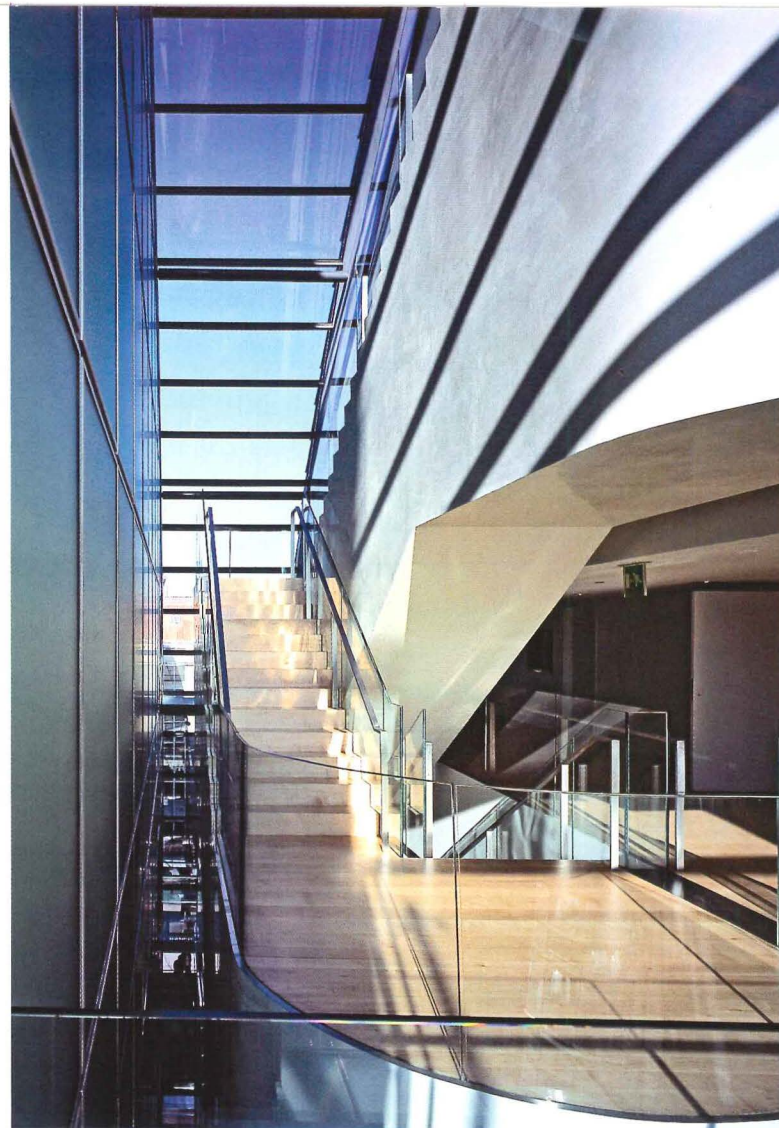




1. Lobby
2. Atrium
3. Auditorium
4. Foyer
5. Gallery
6. Auditorium balcony
7. Bookshop
8. Internet café
9. Café
10. Pressroom
11. Reception
12. Offices
13. Dining room



**Project architect**  
**Kirsten Lees** talks about the “bespoke” nature of many of the building’s features, such as the atrium, as if commenting on a custom-tailored suit, an apt metaphor for what she calls the clients’ “high aspirations” for the project.



Inside the building, foundation director Fernando Prieto praises the flexibility of the galleries, with their 16-foot ceilings and entry and exit bridges that facilitate organizing a clear route through exhibitions (this page). The floors and casework of the curvilinear fourth-floor gallery, tucked under the roof, are maple (right).



café, forms a visual and physical bridge between them. Above, three levels of galleries are crowned by the two private floors of the penthouse reception suite and the foundation boardroom.

The plunging main facade angles inward from the street wall as it descends, dropping to a below-grade sculpture court with a glazed floor—designed for point loads of more than 1,000 pounds—covering a double-height lobby for the 286-seat auditorium in the second basement. A glass-floored entry bridge, detailed like the atrium bridges with laminated-glass balustrades and stainless-steel handrails, spans this court at street level.

The design of the facade proved to be the architects' greatest challenge. Lees explains, "We were looking for an all-enveloping skin that adapts to all the main elements of the building, so that on first impression it's very simple, but as you get closer you read the different levels of complexity." Working with the fabricators Seele Austria GmbH, they developed a system of angled horizontal panels, like clapboards in appearance, that roll over the entire building. Solid panels are composed of translucent marble framed in glass, only 0.15 inches thick and more than 6 feet long, which can be backlit at night. Lees reports the panels can bring a muted glow of light into the galleries during the day, although they are currently blocked off for exhibition purposes. The panels were produced by laminating 0.3-inch-thick sheets of marble between glass and slicing the composite in half, relying on the strength of the glass to maintain the stone intact. The architects found that exposed marble would have been too fragile for the corrosive, rainy seaside climate. Nevertheless, the marble loses much of its tactile quality under glass, making the effort expended in its elaboration seem questionable.

The system includes several other curious details. On the rear facade, the marble panels overlap one another as they rise, like traditional angled clapboards, but as the assembly rolls over the building, they drop down the main facade at a reverse, outward-leaning angle, with hidden drains to carry away rainwater caught in the exposed ridges between them. Lees explains that this detail is calculated to avoid "a dripping facade" in La Coruña's rainy climate. "At 11.5 degrees, water still adheres to the surface of the panel, and is actually pulled down. Then the hidden gutter takes it out." However, site architect Naiara Montero reports that, to the delight of many visitors, rainwater cascades down the curving glass of the atrium's rear wall "like a waterfall." In this sense, the design team seems to have gotten carried away in addressing some of the issues raised by their facade concept while overlooking others. Together with the custom-designed, all-glass elevator cabs, which glide up and down the leaning front of the building at a jaunty angle, the overall visual effect of the angled panels is kinetic, like an enormous strip-mine excavator or water wheel ready for action.

Only a generation or two ago, it would have been difficult to find a large, international practice contributing with such distinction to a consolidated historic context in a foreign land. The confidence and skill with which Grimshaw's team has inserted such an assertively contemporary structure into the parade of proud provincial commercial buildings along La Coruña's seaside promenade proves that a respect for the past by no means precludes cutting-edge technical and formal experimentation—a testament to the vibrant complexity of the traditional city as a living cultural artifact. ■

#### Sources

**Glass curtain wall:** *Seele/Fiberstone*

**Skylights:** *Seele*

**Entrance doors:** *Seele*

**Acoustical ceilings:** *Dytecса*

**Door hardware:** *Arcon*

**Paints and stains:** *Pintanor*

**Fixed seating:** *Poltrona Frau*

**Exterior lighting:** *Zumtobel*

**Elevators:** *Schindler*

**ONLINE:** To rate this project, go to [architecturalrecord.com/projects/](http://architecturalrecord.com/projects/). Submit your project to [construction.com/community/gallerylist.aspx](http://construction.com/community/gallerylist.aspx).



Maple and cherry veneers define the lower-level auditorium (above) and its foyer (top), which is crisply complemented with white leather seating.

Arup's acoustic specialists in New York engineered vertical wood slats to conceal sound-absorbing adjustable curtains in the auditorium.

Spiraling ramps, integrated with reading desks, wind around a central, skylit atrium. A vertical expanse of periodical display racks

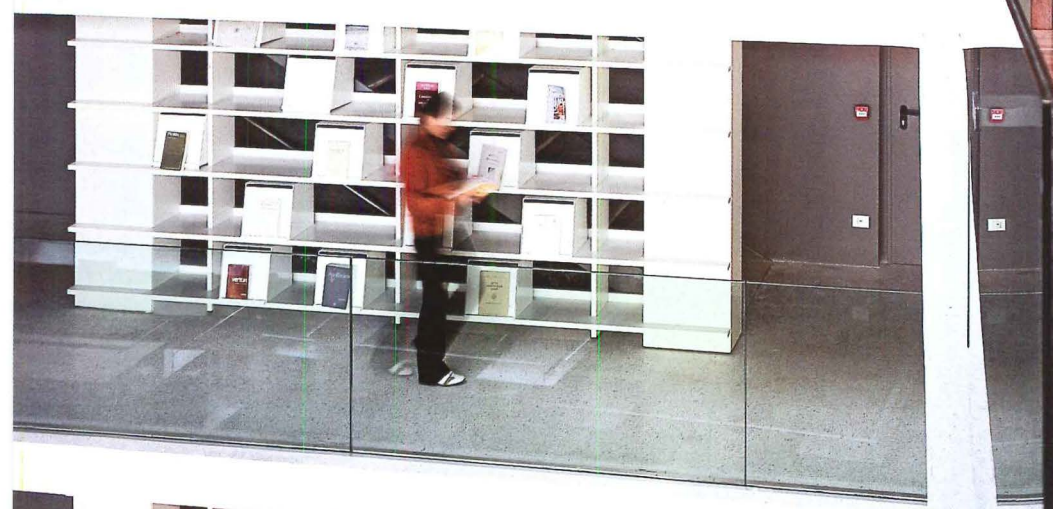
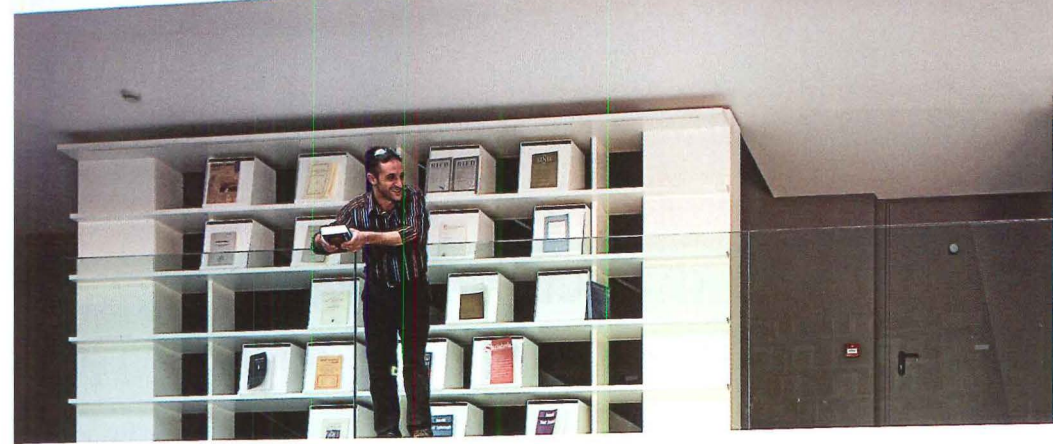
appears as a single structural unit, although concrete pillars with a steel frame actually support the atrium and the entire building.





The image shows a large, modern interior space, likely a library or reading room. The architecture is characterized by clean lines and a mix of materials, including wood, metal, and glass. The space is multi-level, with a prominent wooden desk and black chairs in the foreground. A glass railing is visible, overlooking a lower level. The background features a large, open area with a brick wall and a window. The overall atmosphere is bright and airy, with natural light streaming in from the windows.

**King Roselli** creates a miraculously soaring and luminous reading room for Rome's **PONTIFICAL LATERAN UNIVERSITY**



Clear glass parapets, or railings, bring out the implied vertical continuity of the periodic display racks. Custom desks of

mahogany block board, a material composed of long, thin strips, accentuate the length of each workstation.

People have been living in Rome, the longest continually inhabited place on the planet, for the past 3,000 years. Every square inch of the city has, at some point, been the site of a building, road, or park—and most inches have seen all three—making space hard to come by. So, when the directors of the Pontifical Lateran University, one of Rome’s Vatican-sponsored institutes of higher learning, needed to build a reading room for its library, they immediately thought of how little land they could spare and how much they needed to squeeze onto it.

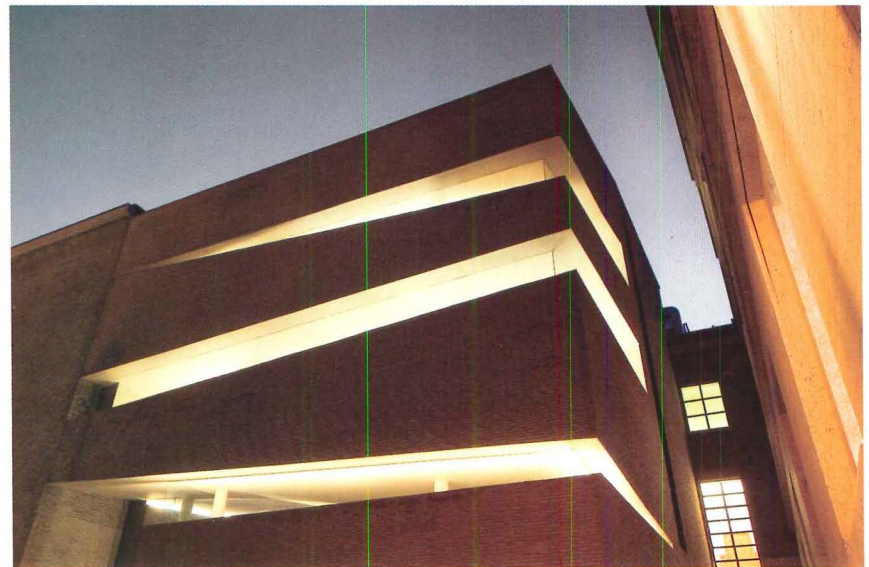
The university, which grants undergraduate and graduate degrees in sacred philosophy and canonical law (prerequisites for many occupations in the Holy See), occupies a single building within the larger Lateran complex, the seat of the Roman diocese. A stolid and undistinguished stone-clad structure, erected in the 1930s during Italy’s Fascist era, the original edifice is E-shaped in plan with three wings separated by two semi-open courts (one occupied by a 1.5-story portico from the 1930s and the other by a porchlike entryway added some 60 years later). The university—just yards from the basilica of San Giovanni in Laterano and its 3rd-century baptistery—barely had room to expand, except by demolishing the older portico. There, on a 4,410-square-foot parcel, the school’s directors imagined accommodating spacious desks for 120 readers, plus storage and display for some 750 periodicals, as well as access to over 70,000 books (supplementing the existing library’s holdings).

Enter King Roselli Architetti [RECORD, December 2005, page 84], a young, English-Italian partnership that shook up Rome’s rather static architectural scene in 2002 with its ES Hotel, now a Radisson SAS, near the Termini train station. Beyond ES’s much-publicized flourishes—including a Philippe Starck-inspired interior with custom furnishings—it proved the firm’s ability to complete a major project in a city that has interminably delayed, if not entirely thwarted, an impressive roster of architects. (Notable examples include Richard Meier, with both the Ara Pacis and Jubilee Church [RECORD, February 2004, page 100], and Rem Koolhaas, with his still-unbuilt shopping center, just beyond the city’s ancient walls.) Adding to Rome’s spatial constraints, its uneven, often shoddy construction practices, coupled with a subterranean layer full of valuable antiquities, can make the city a tough place to practice.

At Lateran University, the natural inclination may have been to build upward. But Vatican authorities required that the facade retain visual continuity with the existing three-story building, in part by not rising above it. (Only the reading room’s back wall was permitted to poke a couple of feet above the old elevation it now abuts.) Pressure from so many different sides can cause an object to topple or implode—but here, perhaps it helped inspire the new library’s architectural solution: a brick structure that virtually shifts and teeters like a tower of books. “This building is about movement,” says Jeremy King, who founded the firm with partner Ricardo Roselli. “It’s the idea of things stacked, about to fall.”

From the exterior, the 21,500-square-foot addition subtly melds

**Abstractly evoking a teetering stack of books, the exterior volumes project between deeply recessed, tilting windows (right two).**



with its context, while starkly distinguishing itself from it. With the same long, narrow brown brick (itself proportionally derivative of the ancient Roman version) and clean, simple lines and geometry as the 1930s building, the reading library blends in neatly—at first glance. But then you notice how its tilted volumes, cantilevered as if suspended in air, deconstruct the box’s straightforward geometry, making a strong 21st-century statement.

The major formal move here was to angle and deeply recess the windows, wrapping them around the building’s exposed corner, where the new structure pulls back from the original one, suggesting distinct architectural volumes that float and zigzag up the exterior, rather than a conventional facade hung on a rectilinear frame. The effect is an eye-catching fancy—a fun building to look at. But step inside, and you recognize a scheme that not only opens up the space, but also integrates the reading areas ingeniously into a spiral of rectilinear ramps.

To fit in so much program

**Project:** *Library Extension/Reading Room, Pontifical Lateran University, Rome*

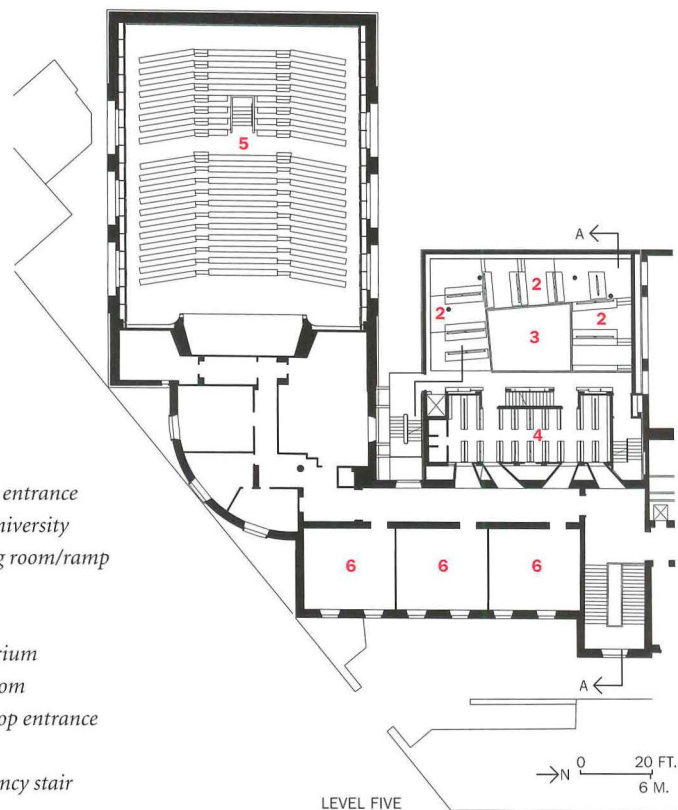
**Architect:** *King Roselli Architetti—Ricardo Roselli, Jeremy King, partners in charge; Andrea Ricci, project architect; Giandomenico Florio, Ulich Grosse, Christina Hoffmann, Arianna Nobile, Enrica Testi, Katia Scarioni, Toyohiko, project team*

Paul Bennett, based in Paris and Rome, frequently writes about architecture.



SECTION A-A

1. Library entrance from university
2. Reading room/ramp
3. Void
4. Stacks
5. Auditorium
6. Classroom
7. Bookshop entrance
8. Foyer
9. Emergency stair



LEVEL FIVE



**The atrium skylight, the white undersides of the spiraling ramps, and the periodicals racks' electric illumination all contribute to the space's luminous quality (above**

**and opposite). The clear glass railings allow for a pure, unencumbered reading of the ramps and mezzanine floors, with their crisp, shelflike edges.**

without making the interior closetlike, the architects created an expansive, light-filled core, surrounded by relatively low ceilings, only 10 feet high. Unlike the vast closed stacks in the existing library's basement, the reading room's 70,000-volume collection is freely accessible to readers, though shielded behind fire doors. For the periodicals, however, completely open display racks rise the full height of the back wall. From afar, these vertical elements look like one continuous structural unit on which the building hangs—an idea inspired by Rem Koolhaas's competition scheme for Paris's Grand Bibliothèque (1992). The Lateran building actually hangs from a steel frame with concrete pillars, many exposed on the interior. King Roselli's structural system not only supports the atrium—as well as the entire new building—but also allows the facade to cantilever out.

Functionally connecting the addition to the everyday lives of the students, the architects routed their library's main access through the original building via a simple staircase, instead of creating a grand new formal street entrance. (The project also included a small bookshop at grade and the refurbishment of an auditorium inside the old building.) In the reading room, a ramp and staircase, formed by thin slabs of concrete surfaced in

mahogany block board (with travertine edges), wind up and around the soaring, skylit void. Custom desks of the same wood, by King Roselli with carpenter Claudio Devoto, overlook the open well. The material's long, thin strips accentuate the work surfaces' length. From the ramp, as you gaze over these handsome desks, through the glass parapet, across the atrium, and toward the periodicals racks—that seem to emerge from the floor and hold up the ceiling—you perceive the room as far larger than it truly is.

Balancing the interior experience with views out became an obsession for the architects, says King. Since library users move continually along the ramps, the windows needed to slant, but without always literally echoing the sloping floor planes. In fact, the windows often tilt in directions opposite to the ramps. "The views are extremely calculated," says King. At one moment, you see a framed tableau of the basilica across the street; a few steps farther, its Baroque portico; then, a glimpse of the clear Roman sky and a piece of the baptistery. "We played with cardboard for a long time," he says, referring to the several dozen models his firm constructed, testing many facade variations. The final result may look haphazard and playful, but it serves the very real function of making 2,000 square feet feel like 20,000. ■

#### Sources

**Glazing:** *Illi Serramenti*  
**Hardware:** *Iseo; Geze; Hafele; Cisa*  
**Lighting:** *iGuzzini; Baldieri*  
**Furniture:** *Devoto Arredamenti; Poltrona Frau (custom)*

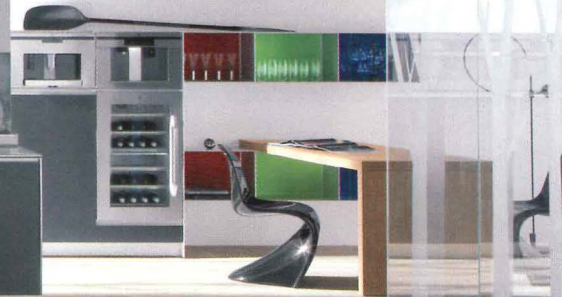
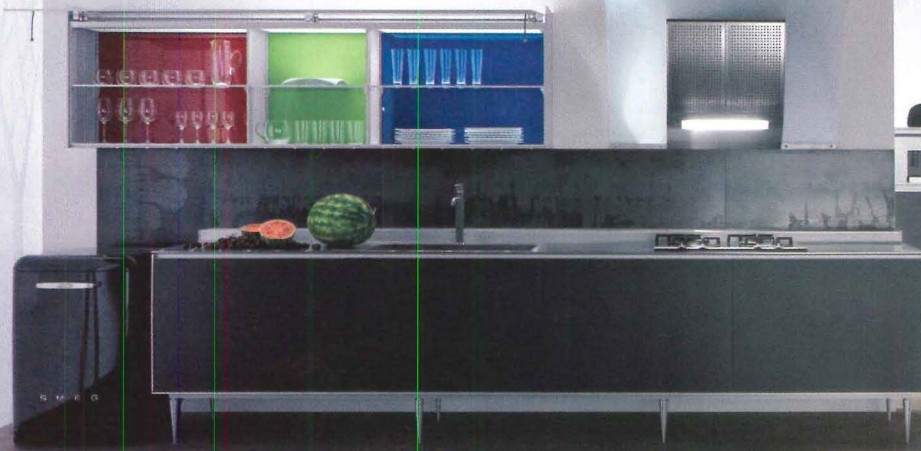
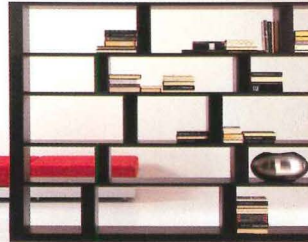
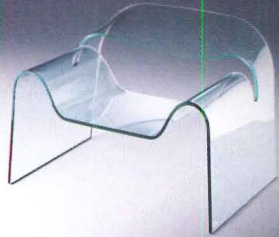
**ONLINE:** To rate this project, go to [architecturalrecord.com/projects/](http://architecturalrecord.com/projects/). Submit your project to [construction.com/community/gallerylist.aspx](http://construction.com/community/gallerylist.aspx).

**VALCUCINE**  
MisuraEmme  
**Res**  
TOSCOQUATTRO  
**Tacchini**

**arper**  
**EmmeBi**  
SERRALUNGA  
**VANGE**  
KRISTALIA

LIMITED EDITION  
**ALPES**  
**pallucco**  
**FIAM**

**Max Fire**  
**AXIA**  
**Bellato**  
**steel time**  
LACUCINA**ALESSI**



Showroom and dealership inquiries 800-311-0681 | [info@domshowrooms.com](mailto:info@domshowrooms.com) or visit [www.domshowrooms.com](http://www.domshowrooms.com) | Showroom locations: New York ■ Los Angeles ■ Chicago ■ San Diego ■ Minneapolis ■ Detroit ■ Baltimore ■ San Jose ■ Toronto ■ Vancouver

CIRCLE 63 ON READER SERVICE CARD OR GO TO [ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/](http://ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/)

**DOM**  
A RESOURCE  
FOR LIVING

# One: HOTEL LA PURIFICADORA

## Puebla, Mexico

Legorreta + Legorreta blend Modern, vernacular, and historic influences in a spaciouly elegant hotel in a 16th-century city.

By Suzanne Stephens

**Architect:** Legorreta + Legorreta—Ricardo Legorreta and Victor Legorreta, principals; Miguel Almaraz, Adriana Ciklik, Carlos Vargas, partners

**Associate architect:** Serrano Monjaraz Arquitectos—Juan Pablo Serrano, partner in charge; José Martín González, project architect

**Client:** Grupo Habita—Carlos Courturier, Moises Micha, Rafael Micha, Jaime Micha

**Engineers:** Elizarrarás Ingenieros Consultores (civil); García Jarque Ingenieros (structural); Proyectos de Ingeniería Eléctrica y Sistemas Automatizados (m/e/p)

**Consultants:** CENTRO (graphic design); Luz + forma (lighting)

**Size:** 12,680 gross square feet

**Cost:** \$5,116,600

**Completion date:** May 2007

### Sources

**Masonry and concrete:** Grupo Huitzilín

**Metal/glass curtain wall:** Original Misión Tile

**Custom restaurant tables:** Grupo Mueblero Sertor

**Custom guest-room glass closets:** Arquicrise

**Custom guest-room desk, headboard:** Luis Manuel; Lara Hernández

**ONLINE:** Rate this project and access additional sources at [architecturalrecord.com/bts/](http://architecturalrecord.com/bts/).

In the late 1960s, Ricardo Legorreta's Camino Real Mexico, in Mexico City, stunningly demonstrated that a hotel could be High Modern and ultra-glamorous. During a time when hotel-chain file boxes and souped-up Miami slabs dominated hospitality architecture, Legorreta's hotel, with its polychromatic, taut, planar stucco forms, interspersed with lushly landscaped outdoor rooms, set a new standard.

Fortunately for Puebla, a city about 80 miles southeast of Mexico City founded by Spaniards in 1531, the 76-year-old architect, now working with his son Victor, has brought his distinctive imprimatur to the heart of its historic section, listed by UNESCO as a World Heritage site. La Purificadora, the hotel Legorreta + Legorreta designed (along with the firm of Serrano Monjaraz Arquitectos), occupies the remains of an 1844 stone-walled factory where water was bottled and purified for ice. The team's knowing combination of Modern, vernacular, and historic architecture brings an appropriate sensibility to this locale.

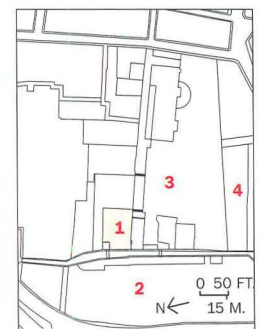
### Program

It helps to have the right client. Grupo Habita, an adventurous boutique hotel operation in Mexico City, was properly launched in 1998 when it had Enrique Norten turn a down-at-the-heels structure into the small, sleek, glass Habita Hotel [RECORD, March 2001, page 106] in



the Polanco district.

With its latest (and sixth) hotel, Grupo Habita was asked by a Spanish/Mexican real estate and construction company to conceive and operate the 26-room luxury hotel in Puebla. The hotel was to be knitted into the dense urban fabric adjacent to the Spanish Colonial San Francisco church, a convention center, sculpture park, a new shopping mall—all part of an urban-development plan known as Paseo San Francisco. Because the National Institute of Anthropology



1. Hotel
2. Convention center
3. Sculpture park
4. Shopping mall

## HOSPITALITY

# Expanding Design

When design hotels began proliferating in the 1980s, they were small, boutique operations. Now they may be that, and more, in size and the nature of the offerings.

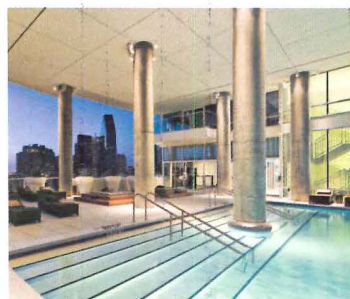
By Suzanne Stephens



### HOTEL LA PURIFICADORA

Puebla, Mexico

*Within the walls of an old water purification plant, Legorreta + Legorreta creates an arresting array of open and closed spaces, using both Modern and historic vocabularies.*



### W DALLAS VICTORY HOTEL & RESIDENCES

Dallas, Texas

*A hotel and condominium tower designed by HKS serves as a linchpin for a new mixed-use development near downtown Dallas.*



### ADAM & EVE HOTEL

Belek, Antalya, Turkey

*Istanbul-based architect and designer Eren Talu has created a vast pleasure palace on the Turkish Riviera, which features mosaic-tiled public spaces, mirrored interiors, and Minimally white guest rooms.*

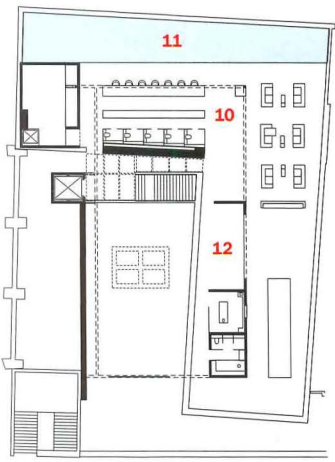
The proliferation of design hotels continues unabated. As we have noted in the past [RECORD, August 2004, page 135], hotels that emphasized Minimal or Minimal-with-a-twist design began to be identified as a genre in the 1980s, owing much to Ian Schrager's arrival on the scene. Yet even they had been preceded in the 1970s by antique-filled boutique hotels, often in renovated town houses or small commercial structures, which had sprung up in response to the kudzulike growth of monotonous, file-box chain hotels.

Now, more and more, large hotel chains see a future in design. Starwood, which owns Sheraton and Westin, proved with the W hotels it formed in 1999—the W Dallas Victory is featured here—that it could create a youthful design image with a medium-size hotel. And Schrager, who left the hotel company he founded, has joined up with Marriott International to start a boutique operation. Since this is a chain whose name is synonymous with boring, no-style accommodations, Schrager's role is clear.

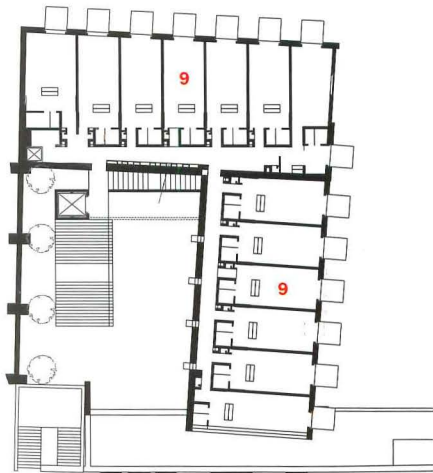
There are still other Schragers out there: Grupo Habita, the Mexican boutique hotel operation, which had Legorreta + Legorreta design La Purificadora in Puebla, Mexico, was started up by three brothers, Rafael, Moises, and Jaime Micha, along with Carlos Couturier, nine years ago. Their edgy hotels run the gamut from rough-cut to luxurious. Another company, Riva Hotels, belongs to the Kayi Group in Turkey, an international a-to-z tourist enterprise that also includes a travel agency, a car rental service, and an airline. The 500-room Adam & Eve Hotel designed by Eren Talu, which Riva opened last year near Antalya, Turkey, might be categorized as more of a department store than a boutique. But it clearly aims to be a design hotel, and in spite of its hugeness (or because of it), it is unique—a grandly Minimal environment that achieves an over-the-top showiness by virtue of size, lighting, and mosaics redolent of Byzantium.

As the three hotels shown on the following pages indicate, hotels of all sizes seek to attract locals and keep residents close to home by the addition of celebrity-chef restaurants and fanciful rooftop bars and pools—or in the case of Adam & Eve, the longest pool and the longest bar in creation. If Adam & Eve seems to desire to be a city in its own right, La Purificadora and W Dallas Victory are conceived to be integral to the urban contexts in which they exist. La Purificadora, closely knitted into the historic section of Puebla, should do much to reinforce the urbanity and vitality of the place. W Dallas Victory anchors a new mixed-use development near downtown Dallas and is adjacent to a sports arena. Since all three hotels forge their own versions of urbanity, they expand a design sensibility that goes beyond previous parameters—beyond the boutique. ■

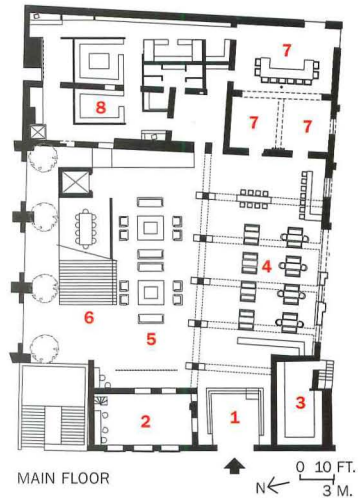




ROOF PLAN



THIRD FLOOR



MAIN FLOOR

At the front entrance of the hotel is the reception area (in center, below), a vestibule that retains the palimpsest of the factory, and the library/lounge beyond. Ramp and stairs lead to the restaurant (right) and lobby/patio with the grand stair.

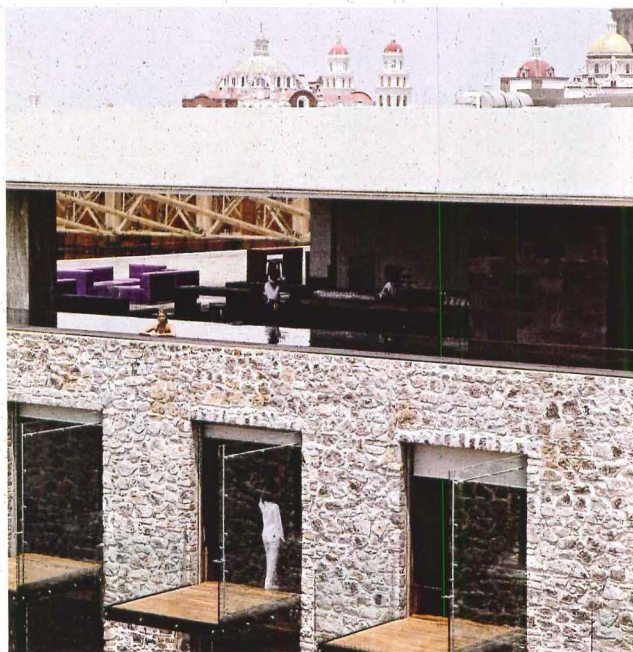
1. Entrance vestibule
2. Reception
3. Library/lounge
4. Restaurant
5. Lobby/patio
6. Grand stair
7. Event spaces
8. Kitchen
9. Guest room
10. Bar/lounge
11. Pool
12. Exercise room



The entrance to the hotel still displays the name of the owner of the water purification factory (opposite). The hotel's south-facing guest rooms overlook an outdoor dining court and a sculpture park (right). The lobby/patio and grand stair (below) are sheltered by a skylighted roof, from which is suspended a columnar lantern.



The fourth-floor roof terrace offers enticing views of the old Spanish Colonial city (right). The third-floor guest rooms come with glass-enclosed balconies (right and below), cantilevered from the stone walls. A second-floor suite (below) features a large terrace.



concrete floor slabs, and beams of concrete and steel. In order to incorporate historical elements into the whole, Legorreta + Legorreta salvaged and reused the factory's original materials. The architects recycled the timber from the original structure's beams for the thick wood piers separating the lobby/patio from the more enclosed dining room. Additionally, end-grain blocks cut from the timber beams reappear as flooring. In the bedrooms, one often finds the floors surfaced with specially made ceramic tile reminiscent of the historic Talavera ceramic that sheathes much of the local architecture, and a buttery onyx, indigenous to the area, clads the stalls of the showers and toilets. The combination of old, historic materials with glass window walls set within stainless-steel frames or glass-enclosed balconies offers a constant reminder of the manner in which the architects pay attention to current-day technology.

### Commentary

Those expecting the radiant, saturated colors for which Legorreta is known are in for a surprise. The hotel's overall color scheme is basic black and white with a deep purple for furnishings. However, owing to the palimpsest of old, weather-beaten walls and the rich amber hues of the wood and onyx, not to mention the glimpses of trees and planting available through various apertures, the hotel exudes a plush ambience.

Admirers of the Camino Real will still find much evidence of Legorreta's volumetric play of space and light in this newer, smaller caravansary. Yet the intersection with history in the traces that have been left by the purification plant and incorporated into the hotel design give it a gently layered dimension. In an essay, "Hapticity and Time: Notes on Fragile Architecture," Juhani Pallasmaa, the Finnish architect and theorist, wrote that the best architecture "does not struggle against time; it reifies the course of time and makes it acceptable." And so with La Purificadora. ■

and History (INAH) had designated the building as part of the city's historic patrimony, the hotel design was given a fair amount of scrutiny by archaeologists.

Habita sought out Legorreta because of his impeccable reputation. Legorreta, however, was leery of designing a "fashionable" hotel: So many boutique hotels in Europe and the U.S., he finds, get a bit tired after a while, and tend to be poorly planned. Here, both father and son saw a different challenge. "We wanted to maintain the roots of history and culture, yet be contemporary," says the elder Legorreta.

### Solution

While keeping the local stone walls of the original one-story structure, Legorreta + Legorreta added three additional stories to the hotel—with a restaurant on the ground floor and a bar-lounge on the roof, complete with a long, glass-sided swimming pool and even a gym. The team reworked the original ground-floor entry to the old factory for the hotel entrance; it now opens onto a stone-walled vestibule, flanked by a small reception room on one side and library on the other. The hotel's spaces, including guest rooms, are arranged in an L around a large, sheltered, open-air patio warmed by open, stone fireplaces and a grand stair. "We have lost the pleasure of stairs," notes Ricardo Legorreta, who designed the dark volcanic stone staircase for sitting as well as for circulation. Where the stair terminates at the second floor, glass open-riser stairs continue to the third level and, finally, the sheltered roof terrace overlooking the city. (An elevator is available, as well.)

The guest rooms seem extremely spacious owing to the glass-enclosed, freestanding "closets" that divide the room between a sleeping space and dressing/sink area with stalls for shower and toilet. On the third level, glass doors open onto glass-enclosed balconies cantilevered elegantly from the masonry structure.

For new construction, the architects relied on masonry walls,



The architects recycled the old timber beams in the factory to create large piers that separate the dining room (left) from the patio, where custom-designed seating is organized around the fire pits (below).





On the roof, a 95-foot-long outdoor pool edges the bar and the lounge (above). Open-riser stairs with glass treads leading to the third level (left) end with the glass floor of the rooftop lounge. The typically 388-square-foot guest rooms are subdivided by glass-enclosed closets (right). Floors are covered in a Talavera tile.



# Two: W DALLAS VICTORY HOTEL & RESIDENCES

## Dallas, Texas

HKS signals the Victory Park development in Dallas with a shimmering, 33-story hotel and condominium tower.

By David Dillon

**Architect:** HKS—Nunzio De Santis, AIA, Eddie Abeyta, AIA, Brad Schrader, AIA; Karen Yeoman, design team

**Clients:** Hillwood Development; Gatewood Capital; Starwood Hotels & Resorts Worldwide

**Consultants:** Shopworks (hotel interiors); Bentel & Bentel (interiors for Craft restaurant)

**Engineers:** Brockette Davis Drake (structural); James Johnston & Associates (mechanical); JMEG (electrical); Half Associates (civil)

**Size:** 810,000 gross square feet

**Cost:** \$70 million

**Completion date:** May 2006

### Sources

**Masonry:** Leudders Limestone

**Metal-and-glass curtain wall, windows, entrance doors:** Kawneer

**Exterior insulation finish systems:** Arkansas Precast

**Glass:** Viracon

**Acoustical ceilings:** Celotex Gridstone; USG

**Demountable partitions:** Kwik Wall

**Resilient flooring:** Armstrong

**Plumbing:** Kohler

**Upholstery:** Valley Forge

**Interior ambient lighting:** Scott Lighting

**ONLINE:** Rate this project and access additional sources at [architecturalrecord.com/bts/](http://architecturalrecord.com/bts/).

Dallas is a city of iconic objects, flashy stunts on the freeway, and a skyline that looks spectacular from a distance but often flops up close. Lots of panache with little connective tissue best describes the results.

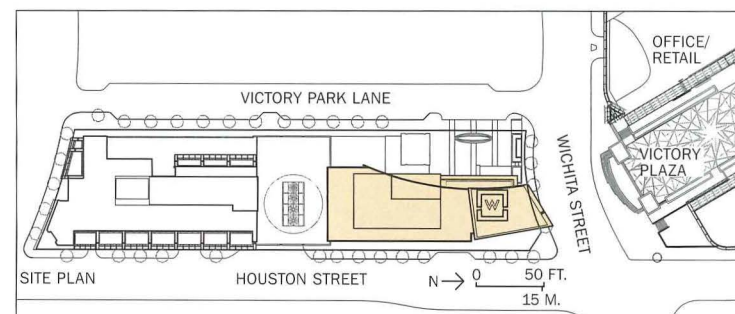
### Program

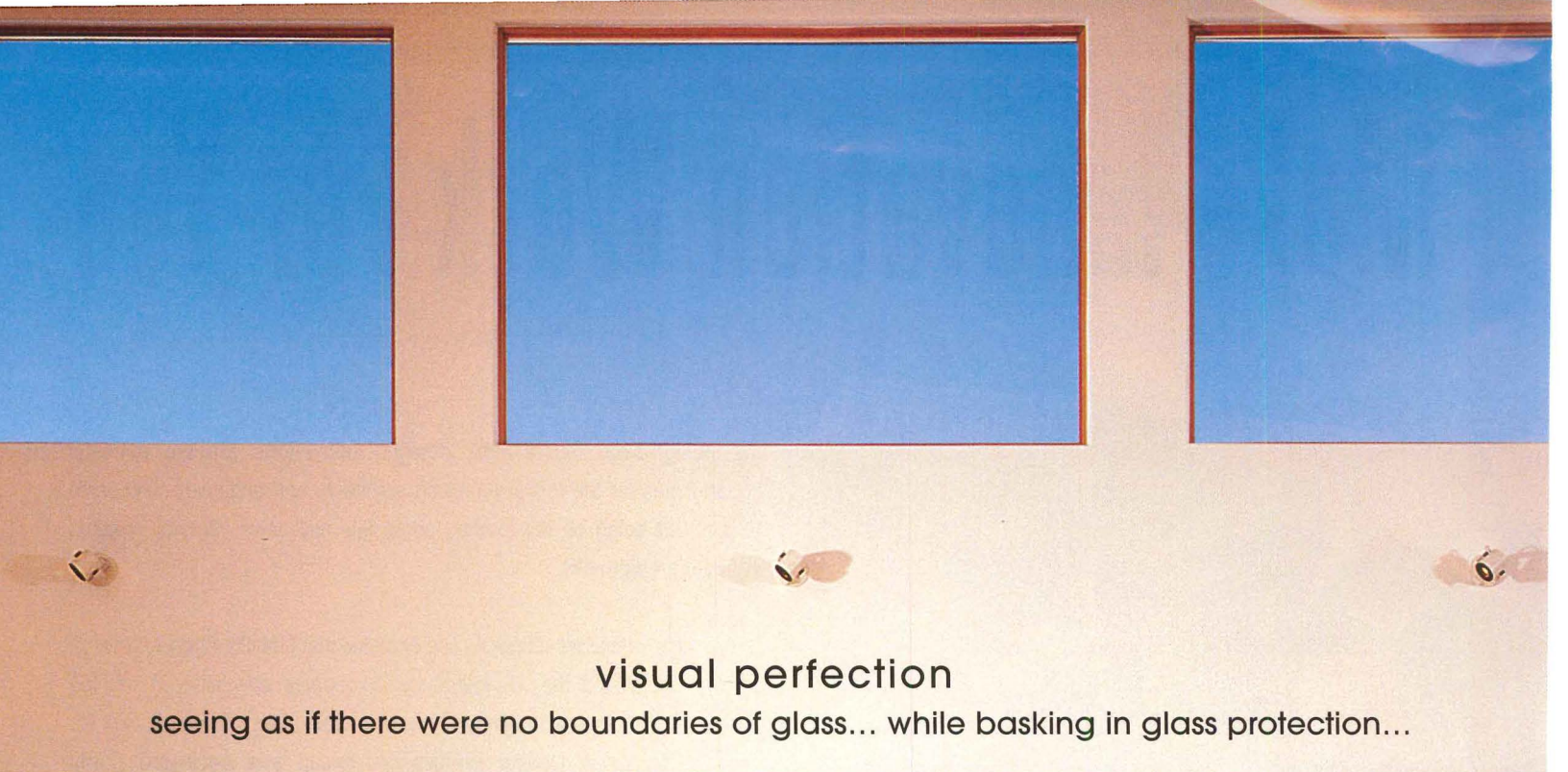
The W Dallas Victory Hotel & Residences tower is trying to change that. It is an object both for the skyline and the freeway, yet unlike many of its competitors, it is also a smart urban building that frames streets, squares, parks, and other public spaces while visually connecting the massive Victory Park development—93 acres and a \$3 billion budget—back to downtown.

### Solution

The W Dallas tower is effectively two concrete-framed buildings joined at the 16th floor by an outdoor pool and spa, a kind of floating Roman bath offering panoramic views of the city. The base is a 252-room W Hotel, with a Texas limestone facade and a grid of square, businesslike windows. The tower, containing 63, six-figure condos, is a lighter, more transparent blend of steel and glass topped by the superluxe Ghostbar and a helicopter pad for Victory's developer Ross Perot, Jr.

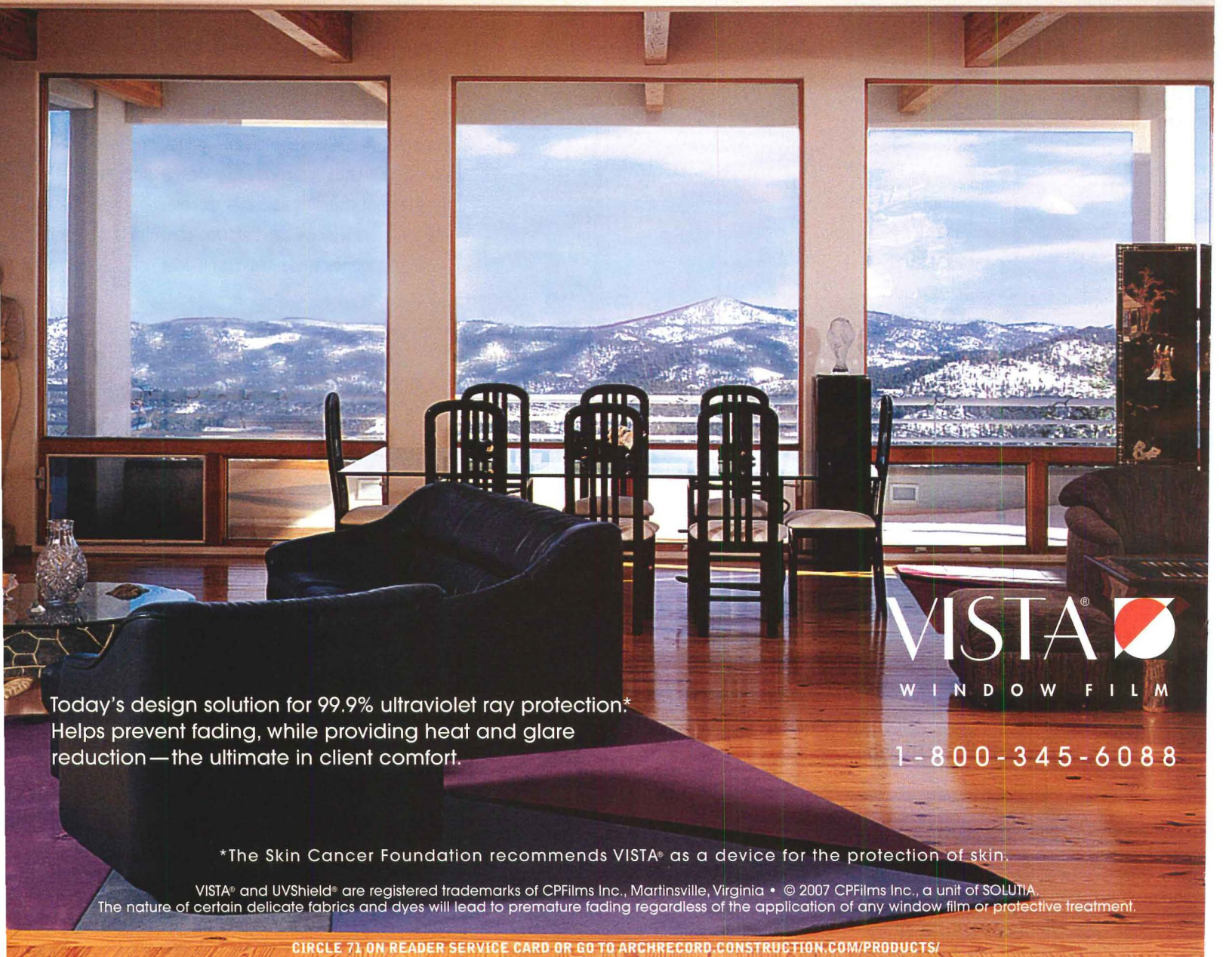
The watery void on the 16th floor liberates the tower from its base and gives it a freewheeling independence. The curving west facade responds to a bend in the street and





## visual perfection

seeing as if there were no boundaries of glass... while basking in glass protection...



Today's design solution for 99.9% ultraviolet ray protection.\*  
Helps prevent fading, while providing heat and glare  
reduction—the ultimate in client comfort.

**VISTA**<sup>®</sup>   
WINDOW FILM

1-800-345-6088

\*The Skin Cancer Foundation recommends VISTA<sup>®</sup> as a device for the protection of skin.

VISTA<sup>®</sup> and UVShield<sup>®</sup> are registered trademarks of CPFilms Inc., Martinsville, Virginia • © 2007 CPFilms Inc., a unit of SOLUTIA.  
The nature of certain delicate fabrics and dyes will lead to premature fading regardless of the application of any window film or protective treatment.

CIRCLE 71 ON READER SERVICE CARD OR GO TO [ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/](http://ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/)

# Make Innovation Work For You

BIM, design-build, sustainable design: Innovations present fantastic opportunities for the forward-thinking architects and engineers who seize them. But being on the leading edge cuts two ways. Greater rewards mean greater risks.

That's where we come in. The Professional Liability Agents Network (PLAN) and the XL Insurance companies specialize in helping architects and engineers manage their risks. Together, the XL Insurance Design Professional group and dedicated PLAN agents deliver customized insurance and risk management solutions available nowhere else. A prime example is *The XL Insurance Contract Guide for Design Professionals: A Risk Management Handbook for Architects and Engineers*. This authoritative guide focuses on issues and trends in contracts, claims and practice management including valuable loss prevention advice. It's one more way we can help you confidently take on new challenges while minimizing your risks.

Let us show you how XL Insurance can help you safely conquer your new frontiers. Visit [www.xldp.com/primer](http://www.xldp.com/primer) to receive your complimentary copy of *Professional Services Agreements: A Primer*, introductory information from the *Contract Guide*.

## PLAN

Professional Liability Agents Network

Go to [www.plan.org](http://www.plan.org) to find the agent nearest you.

## XL INSURANCE

FUNDAMENTAL STRENGTH – CAPITAL AND PEOPLE

For more information visit [www.xldp.com](http://www.xldp.com) or phone 800-227-8533, x 210-2508.

"XL Insurance" is a registered trademark of XL Capital Ltd. XL Insurance is the global brand used by member insurers of the XL Capital Ltd group of companies. Coverages underwritten by Greenwich Insurance Company, Indian Harbor Insurance Company, XL Specialty Insurance Company, and XL Insurance Company Limited – Canadian Branch are subject to underwriting requirements. Coverages not available in all jurisdictions.

The Contract Guide and the clauses in it are for informational purposes and should not be construed as legal opinion or advice. The Contract Guide publisher is not engaged in rendering legal or other professional services. The user of the Contract Guide should seek the services of competent counsel or professional if legal advice or expert assistance is or may be required.

CIRCLE 70 ON READER SERVICE CARD OR GO TO [ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/](http://ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/)



Guest rooms are equipped with hot tubs, jacuzzis, steam and massage showers, and programs for color, sound, and light therapy. There are also suites with expanded spa facilities (below), including private saunas, Turkish baths, and treatment rooms.

**Program**

Adam & Eve marries Modernist design and massive scale in a luxurious, self-contained complex comprising a six-story rectangular block with additional private villas on a hillside above the sea. It is positioned as an upscale resort destination in Antalya province, an area once legendary for its beauty—its coast now called the “Turkish Riviera”—but only recently attracting high-end development. The hotel is the first in a chain planned by its owners, the Kayi

Group, which is based in the provincial capital and has been promoting the region’s tourism for 20 years. The project’s grandiosity and its architect’s high-design profile, coupled with novel effects, have been deployed to distinguish it from more conventional hotels and attract an affluent, international clientele to the area.

**Solution**

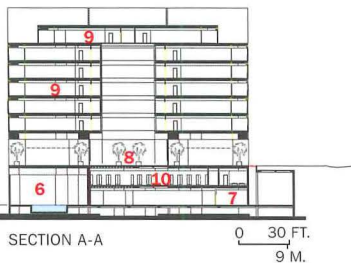
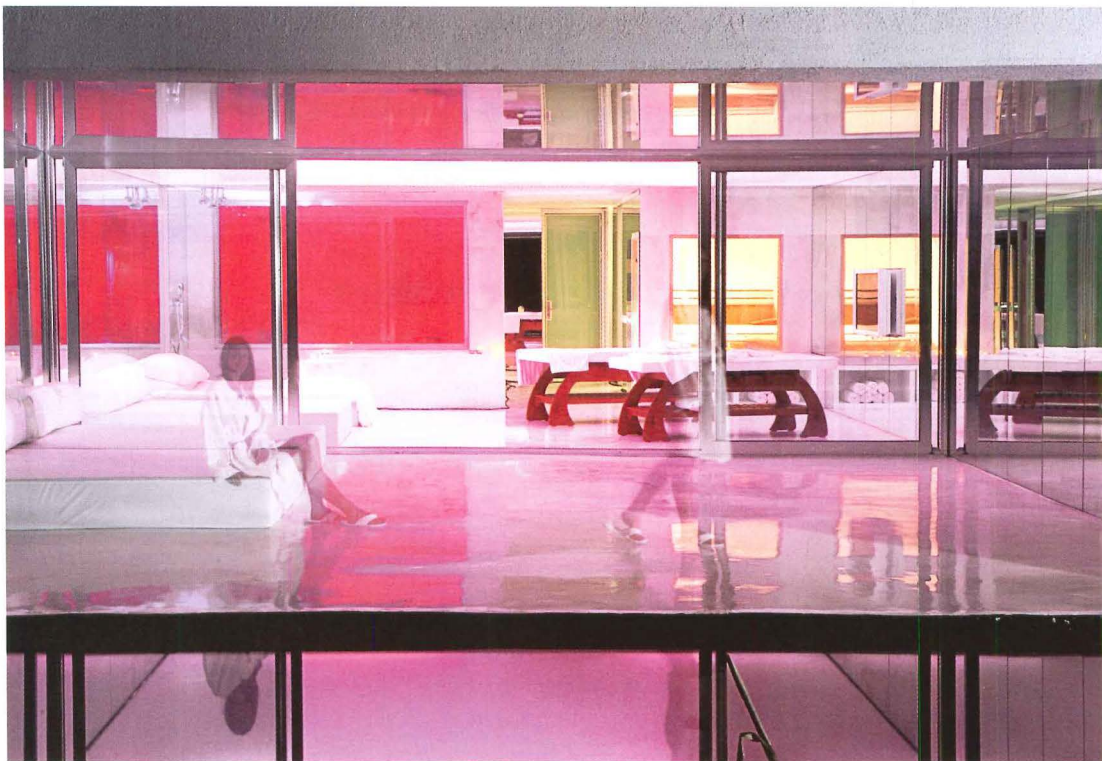
The 497-room complex maximizes its Minimalism with outsize accommodations and a huge array of

amenities. The standard, 689-square-foot rooms occupying the main building each include a 172-square-foot terrace. Every room is equipped with concealed music and lighting systems controlled by guests to create color-and-sound environments to fit their mood. There are also 24 villas on the grounds that range from 1,378 to 6,889 square feet and have private gardens and pools. In addition, there is a 53,820-square-foot spa, seven pools, and state-of-the-art conference and meeting facilities.

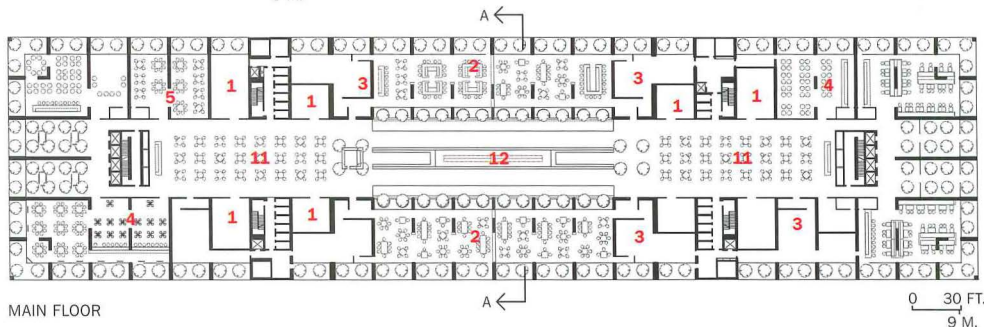
Whereas Versailles has only one Hall of Mirrors, Adam & Eve is lined with them, reflecting sea and land by day and your every move around the clock. The ceiling of the hotel’s 108,000-square-foot Atrium, its hub, is covered with 2-by-2-inch, hand-laid mirrored tiles that sparkle with an otherworldly splendor rivaling the Hagia Sophia as the space is bathed in dazzling colored light. Off the Atrium, you can browse in eight shops, relax in any of several lounges, and have drinks in a choice of four bars before dining in one of the nine restaurants that surround the great hall. Later you can party all night in the two-story disco.

**Commentary**

After an aggressive promotional campaign prior to its opening last year, the hotel has received mixed reviews. Some visitors have found its vaunted impeccable service wanting; others have been put off by the stark, unvaried decor—one reviewer lamenting, “Bring back chintz.” The wall-to-wall mirrors have made others uncomfortable, and guests may be surprised that the Trees of Life decorating the place aren’t alive. More notably, Talu’s bloated Minimalism, accessorized with light shows and glitter, its catchphrase “more is more,” seems inspired by Morris Lapidus rather than Mies van der Rohe. It will be interesting to see if this unlikely, oxymoronic union will bear fruit, drawing vacationers to Turkey’s Mediterranean coast, or even serving as a model for resort developments elsewhere. ■

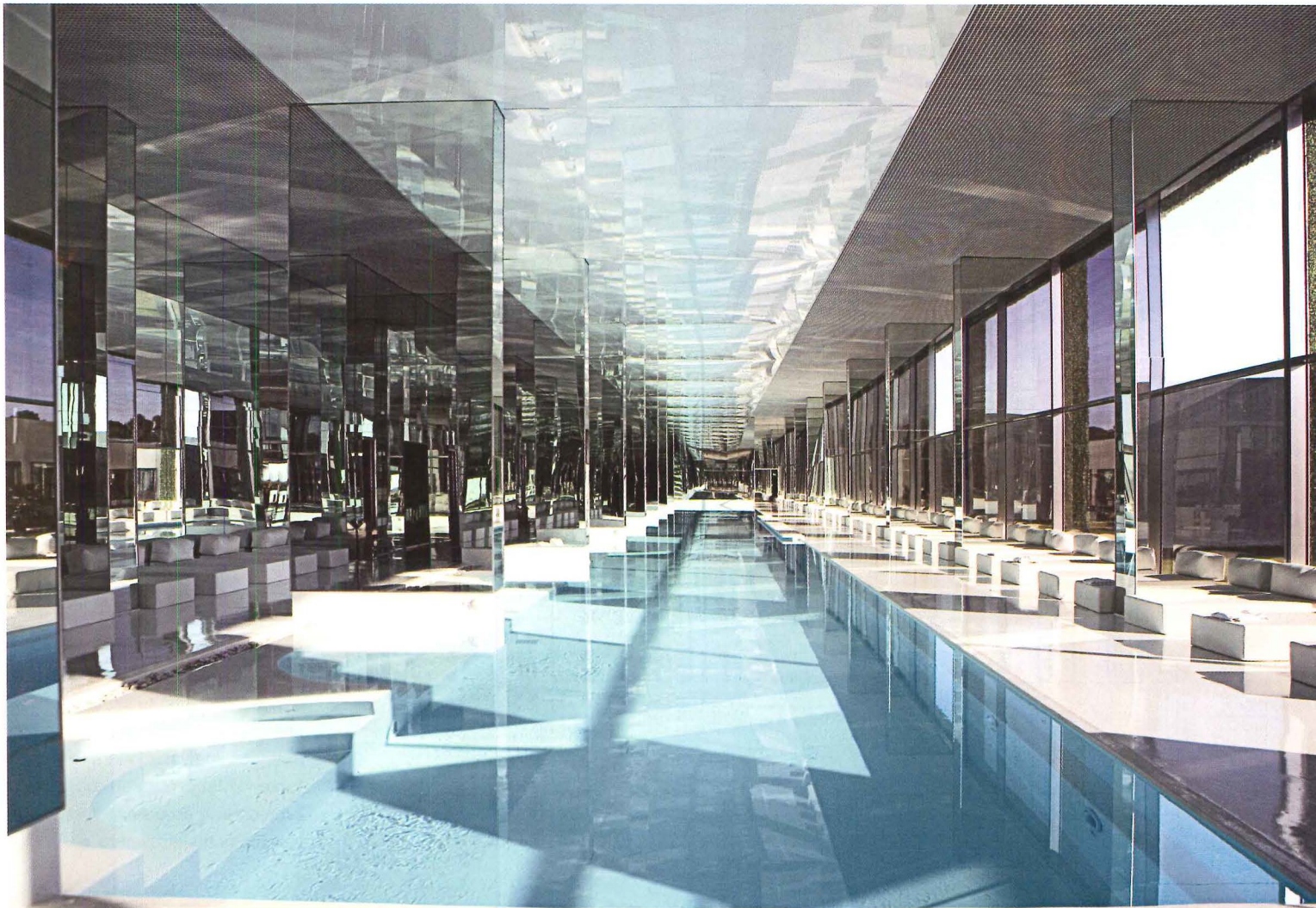
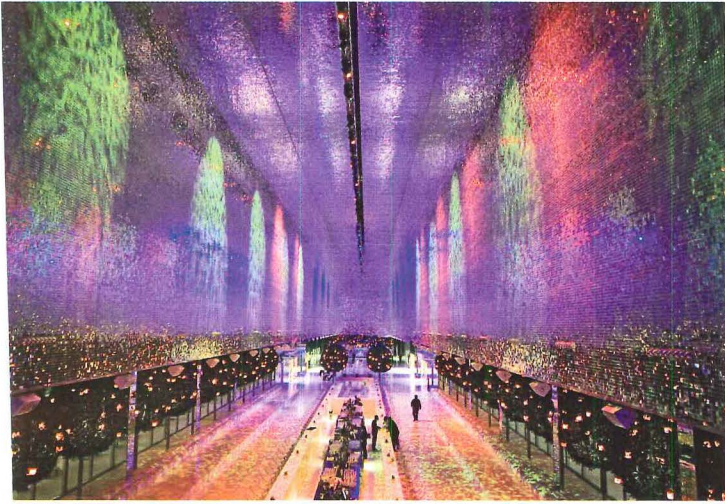


- 1. Retail shop
- 2. Restaurant
- 3. Kitchen
- 4. Bar
- 5. Card games
- 6. Indoor pool
- 7. Spa
- 8. Atrium
- 9. Guest room
- 10. Dressing room
- 11. Atrium lounge
- 12. Atrium bar

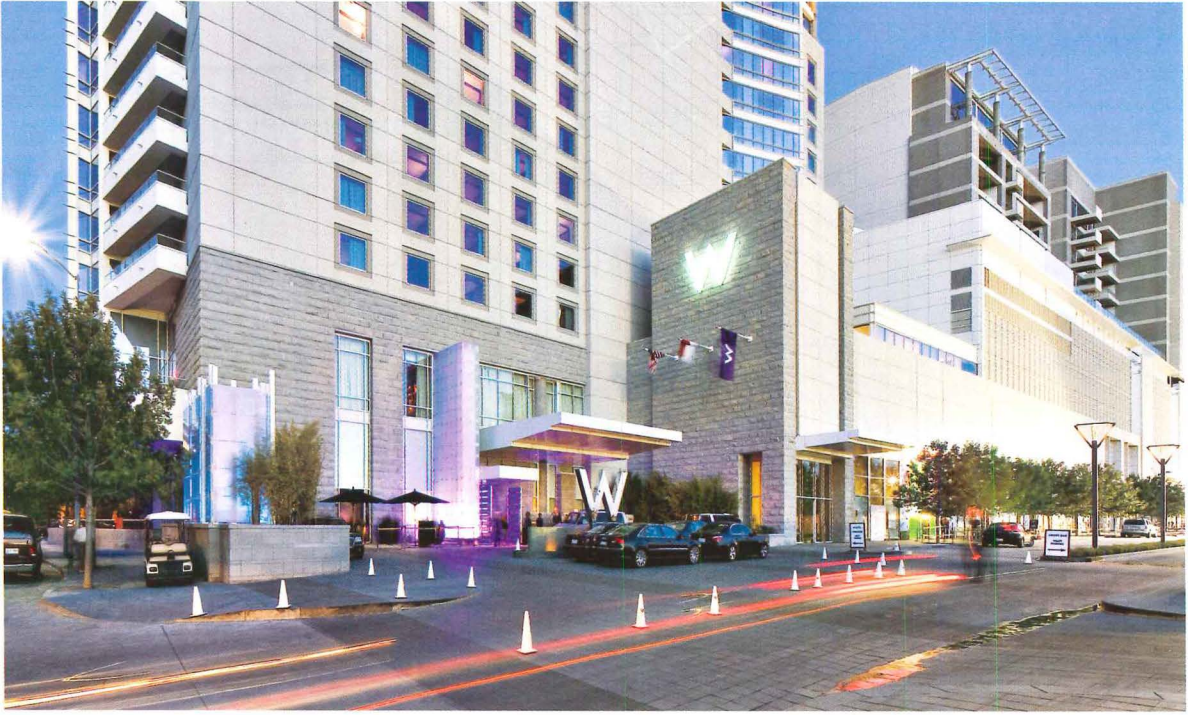


The main, reinforced-concrete building (opposite, center) is sheathed in artificial moss to blend in with the surrounding pine forest. Villas with private gardens and pools (opposite, bottom) overlook the sea. The 574-foot-long ceiling of

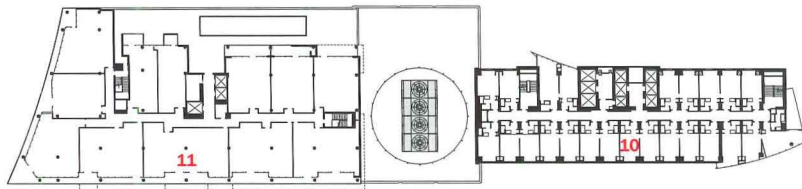
the Atrium (below and right), the hotel's hub, is covered in tiny, mirrored tiles that sparkle in the glow of changing colored lights. Mirrors line the indoor pool (bottom), a serene space that reflects the sky by day and lush, tinted illumination at night.



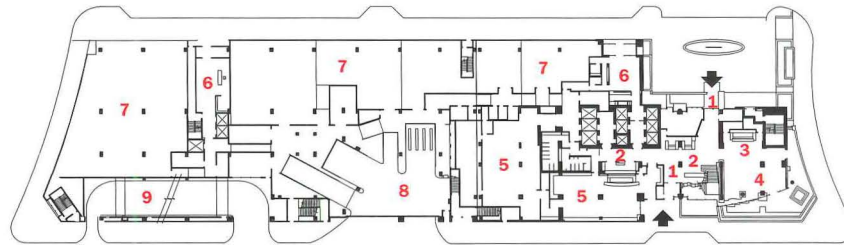
The W hotel and condominium tower (opposite) anchors the southern edge of Victory Plaza (site plan, opposite, bottom). The hotel rooms are grouped in the lower portion of the tower, above the entrance (right), with the condominiums located in the glazed portions above. Bentel & Bentel designed the Craft restaurant (below) to intentionally play off the tower's concrete structure, and softened surfaces with bleached oak.



1. Hotel entrance
2. Front desk
3. Bar
4. Lounge
5. Restaurant
6. Condominium lobby
7. Retail
8. Loading dock
9. Parking garage entrance
10. Hotel guest rooms
11. Condominium units



TYPICAL FLOOR



GROUND FLOOR

the sweep of a nearby interstate, while the more linear east wall extends the geometry of downtown skyscrapers, like an exclamation point at the end of a long architectural sentence. The two facades come to a point at Victory Plaza, a vast outdoor room trimmed with pulsating neon and sliding digital screens flashing scores, headlines, and ads. It is the closest downtown Dallas has come to an urban space, even though it's jumping mostly after Dallas Stars and Mavericks games.

### Commentary

The W Dallas tower is the best building in years from HKS Architects, known mainly for hospitals and sports facilities and turning out production drawings for star architects. But the interiors, mostly by Shopworks, are an unresolved mix of West Coast cool and self-conscious Texana. The Living Room, a dramatic lounge off the lobby, is welcoming, but the rest of the lobby is a hodgepodge of forms and materials. The guest rooms, with their pale teak doors and ubiquitous deep-purple surfaces, are luxuriously dull; corridors and elevator lobbies very dark. The best interior by far is the Craft restaurant by Bentel & Bentel, who also designed other Craft enterprises in New York [RECORD, November 2002, page 245]. In Dallas, Craft's decor is refined and supremely self-assured, with fine materials—oak, brass, leather—used cleanly and honestly, rather than for distracting special effects.

The whole development began in 2001 with a hunkering Art Deco arena (the American Airlines Center) in a brownfield, and then evolved rapidly, and surprisingly, into a collection of contemporary hotels, shops, apartments, and office buildings, including projects by Kohn Pedersen Fox and Philippe Starck. Ross Perot, Jr., of Hillwood Development, sought to create a "city within a city." Obviously, he's on the right track with the density and urbanity of this signature tower. ■

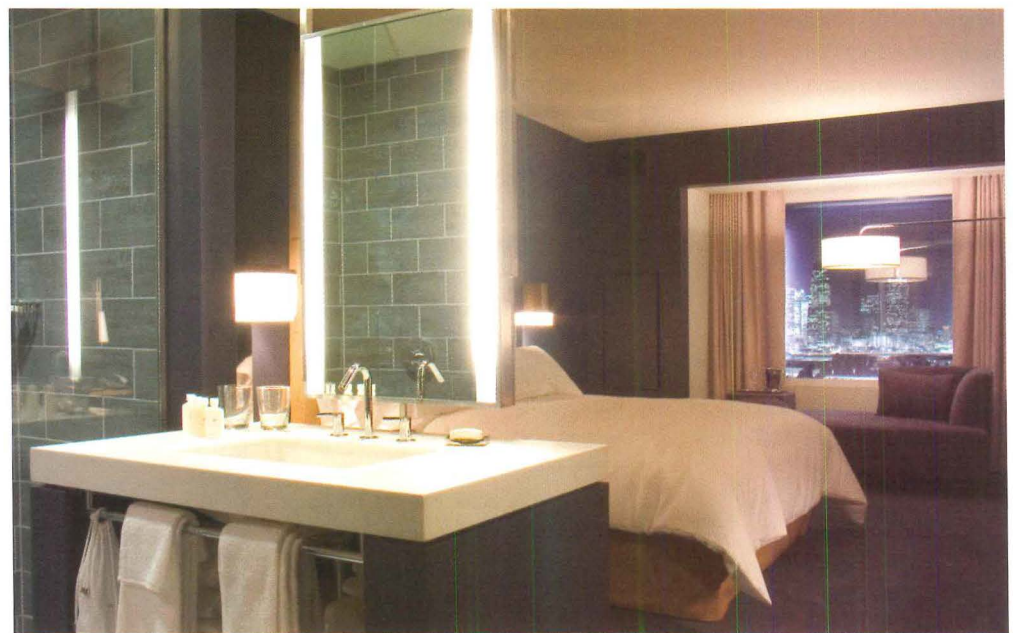
*David Dillon writes on architecture in Dallas and teaches at Amherst's School of Architecture in Massachusetts.*

**The architects reduced the sense of monotony of walking down a long hotel corridor by framing the various entrances to the guest rooms with light bands, teak trim, and a blue-gray color scheme.**





Both hotel guests and condominium residents share the 16th-floor infinity pool. Overlooking downtown Dallas, it is sheltered by a dramatic, 25-foot-high ceiling. Efficiently planned guest rooms (right) blur distinctions between public and private areas, notably where the sink is treated as a room divider.



# Three: ADAM & EVE HOTEL

## Belek, Antalya, Turkey

Eren Talu heralds the charms of Turkey's Mediterranean coast with a Minimalist pleasure palace built on a grand scale.

By Leslie Yudell

**Architect:** Erentalu—Eren Talu, principal; Asli Bigat, Tugba Sipahioglu, Meric Guran, Burcu Timocin, project team

**Owner:** Kayi Group

**Consultants:** Eng N Kember (mechanical); BST Engineering (structural)

**Size:** 1,291,669 gross square feet

**Cost:** \$150 million

**Completion date:** December 2006

### Sources

**Exterior cladding:** Knauf (aqua-panel); Kuk (imitation boxwood)

**Windows:** Akel Aluminium (aluminum)

**Glazing:** Sisecam (mirrors); Genpas (Profilit glass panels)

**Doors:** Akel Aluminium; Mooodoor; Matriks Building Control Systems

**Hardware:** Ar Ticaret (locksets)

### Interior finishes:

HunterDouglas—Luxalon, Ibrisim Construction (metal-grid-cell ceiling system); Aspen A.S. (partition walls); Okyanus Group (white polyurethane floors and coverings)

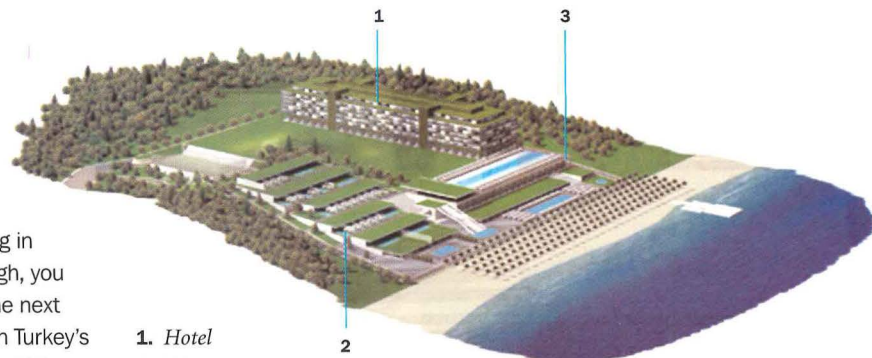
**Furnishings:** Kartell—Mood (barstools, chairs); Gardiablasc (outdoor furniture)

**Lighting:** Damla-Vetas Electric & Lighting (RGB line LED); Telesine (atrium truss lighting)

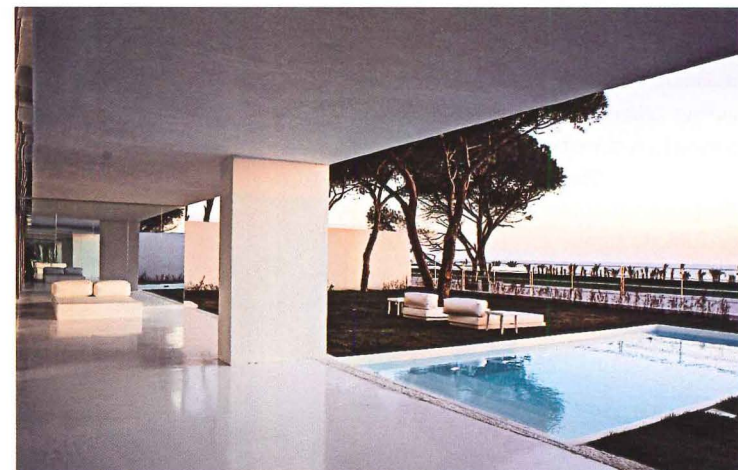
**ONLINE:** Rate this project and access additional sources at [architecturalrecord.com/bts/](http://architecturalrecord.com/bts/).

"If you've a date in Constantinople," as the old song goes, "she'll be waiting in Istanbul." These days, though, you would do better to catch the next 1¼-hour flight to Antalya, on Turkey's Mediterranean coast, take a ½-hour cab ride to nearby Belek, and check in at the Adam & Eve Hotel, designed by Turkish architect Eren Talu as "the world's sexiest." Its claims also include the world's longest swimming pool (341 feet, twice Olympic size), largest lounge (108,000 square feet), and longest bar (315 feet). With a Garden of Eden theme dedicated to sybaritic delights on a grand scale, it should make for a memorable tryst. But your date will need a cell phone to locate you in the pleasure dome's vast premises.

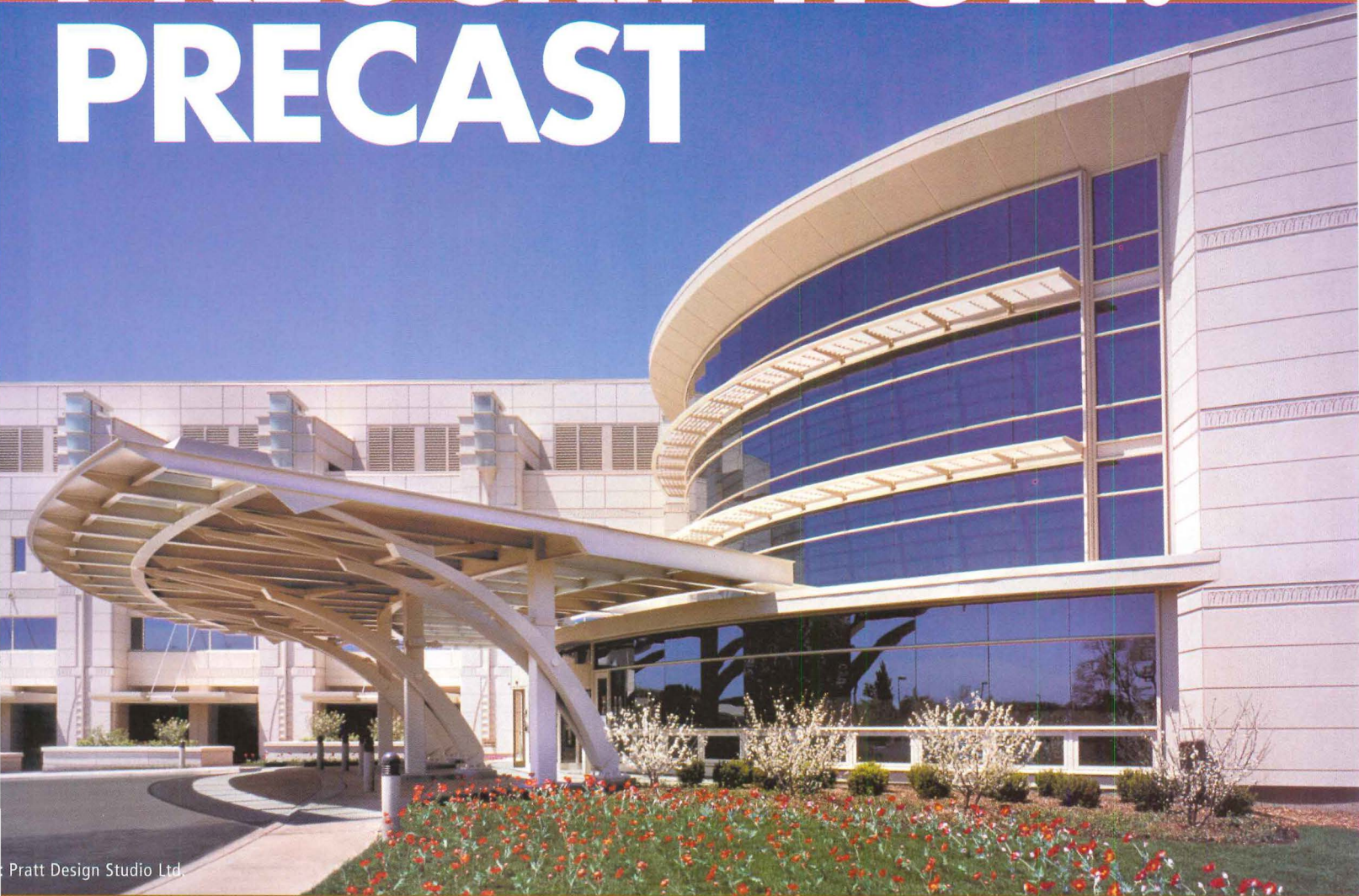
Adam & Eve is situated on 25 acres of landscaped grounds in a pine forest facing the Mediterranean, with the Taurus Mountains in the distance. It is the third of Talu's boutique hotels built in the fast-growing resort area of southwestern Turkey. It follows the Hillside Su Hotel, which opened in Antalya in 2003, and the EV Turkbuku, built in Bodrum—the "St. Tropez of Turkey"—on the country's Aegean coast, in 2004. All three properties share the architect's signature hotel style: a sleek, Minimal vocabulary of stark white concrete relieved by floor-to-ceiling glazing, with interiors sheathed in mirrors that reflect continually changing colored lights.



1. Hotel
2. Villas
3. Outdoor pools



# PRESCRIPTION: PRECAST



Pratt Design Studio Ltd.

Precast was the right prescription for the award-winning Condell Medical Center in Libertyville, IL. Architects chose High's precast because the uniquely articulated, stacked architectural panels were self-supporting, with vertical loads carried directly by foundation walls, which reduced structural steel framing costs significantly. And since designers were not sure when the facade would be constructed, precast ensured it could be done in any weather. High's unparalleled commitment to new technology and innovation has led to solutions like this and advancements including carbon fiber reinforced CarbonCast™—


precast that's stronger, lighter, better insulating, and more durable, allowing a virtually unlimited selection of colors, textures, and finishes. And High's exclusive 15' and 16'-wide MEGA-Tee deck systems enable wider spans and more open plans with shallower tees in total precast buildings and parking garages. Projects such as Condell are possible with High's expert technical assistance in all phases of a project, from design to erection. High gives architects the flexibility to explore unique solutions while ensuring a job is completed on schedule and on budget. Call High to learn how precast can fill your prescription.



HIGH CONCRETE GROUP® ■ CONCRETE INNOVATIONS & ANSWERS® ■ CALL US AT 800-PRECAST ■ [WWW.HIGHCONCRETE.COM](http://WWW.HIGHCONCRETE.COM)

CIRCLE 74 ON READER SERVICE CARD OR GO TO [ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/](http://ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/)

New Gold Bond® BRAND  
SoundBreak™ Gypsum Board



WHAT HAPPENS  
IN UNIT #1273  
STAYS IN UNIT #1273

Let's face it – there are some things you'd rather not hear. And that's why we created SoundBreak. Using this easily installed gypsum board, you can make any space quieter and more livable with high STC wall partitions that are thinner, more reliable and more cost-effective. Choose SoundBreak. Because you can't choose your neighbors.

**National**   
**Gypsum**®

Technical Info: 1-800-NATIONAL  
or visit [www.soundbreak.info](http://www.soundbreak.info)

*Excellence Across The Board®*

CIRCLE 75 ON READER SERVICE CARD OR GO  
TO [ARCHRECORD.CONSTRUCTION.COM/PRODUCTS](http://ARCHRECORD.CONSTRUCTION.COM/PRODUCTS)



# Safety and Security Without the Fortress Look

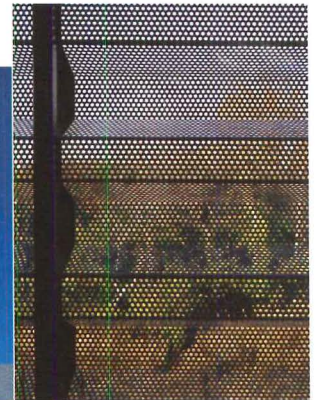
**DESIGNERS OF PUBLIC-SECTOR EMERGENCY-RESPONSE BUILDINGS ESCHEW THE BUNKER IMAGE AND INCORPORATE TRANSPARENCY, SUSTAINABILITY, AND STATE-OF-THE-ART TECHNOLOGY**

By Joann Gonchar, AIA

**B**y the morning rush hour on August 8, personnel from New York City's Office of Emergency Management (OEM) had already shifted into high gear. Just as New Yorkers were preparing to begin their commutes, an intense summer storm dumped 3 inches of rain on the city in an hour, flooding and crippling the subway system. OEM officials were closely monitoring public transit system conditions and at the same time were coordinating the agencies sent to assess damage in the Brooklyn neighborhood of Bay Ridge, where heavy winds, later determined to be a tornado, toppled trees and tore roofs off houses. And they were keeping track of the weather forecast, readying cooling centers around the city to help residents cope with expected temperatures in the 90s and high humidity.

The nerve center of this activity was the OEM's new headquarters in downtown Brooklyn. Completed in the fall of 2006, it is just one of several of the generation of public-sector emergency-response buildings designed and built in the U.S. after the terrorist attacks of September 11, 2001. It is the agency's first permanent home since its former headquarters, at Seven World Trade Center, was destroyed in those attacks.

Though a variety of configurations are possible, emergency-response centers like that in New York City generally have similar programs. They include a large room that is dormant most of the time, but activated during emergencies. The room, known sometimes as the emergency operations center or the incident-response center, provides workstations for



A copper scrim at the Illinois State Emergency Operations Center screens the interior but allows daylight into the building and provides views of its wooded site.

ARCHITECTURAL TECHNOLOGY

## CONTINUING EDUCATION



Use the following learning objectives to focus your study while reading this month's ARCHITECTURAL RECORD/AIA Continuing Education article. To earn one AIA learning unit, including one hour of health safety welfare credit, turn to page 166 and follow the instructions. Other opportunities to receive Continuing Education credits in this issue can be found beginning on page 173.

## LEARNING OBJECTIVES

After reading this article, you should be able to:

1. Describe the design requirements for emergency-response centers.
2. Explain the typical program of an emergency-response center.
3. Identify redundancies needed in mission-critical facilities.

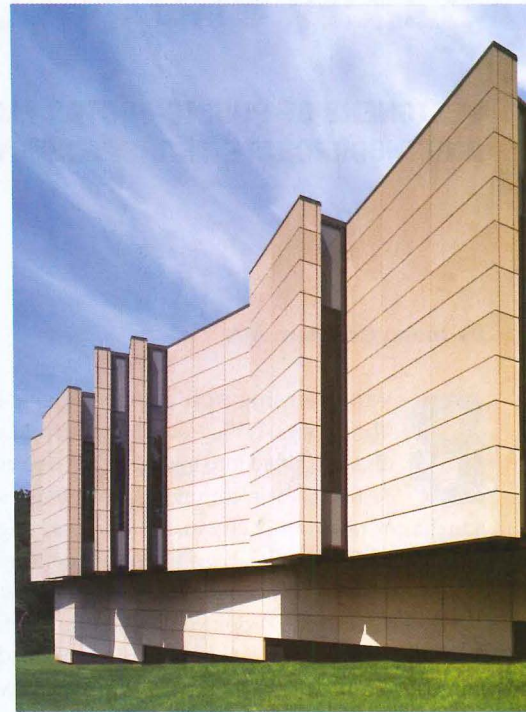
For this story and more continuing education, as well as links to sources, white papers, and products, go to [architecturalrecord.com/tech/](http://architecturalrecord.com/tech/).

representatives of federal, state, and city agencies. Usually adjoining this often double-height space is a smaller meeting room for high-ranking officials to gather and develop a coordinated response.

A key element of emergency-service buildings is one room—called the “watch command” at New York City's OEM—staffed 24-hours a day. From here, personnel continuously monitor information sources such as news broadcasts, weather data, 911 calls, and police and fire dispatch systems. Emergency-response centers also generally include facilities such as press rooms, conference rooms, kitchens, and sometimes sleeping areas. And they also must provide office space for full-time staff engaged in activities such as preparing evacuation plans, developing responses to specific hazards, and educating the public. In New York, about 150 people are focused on such efforts. “We are more like a think tank than a heavy-duty emergency-response organization,” says Rachel Dickinson, the agency's deputy commissioner of administration.

For New York City's OEM, officials chose a downtown site with an existing low-rise office building built in 1954. The location was attractive because of its easy access to public transportation and City Hall in Lower Manhattan, within walking distance just over the Brooklyn Bridge. In addition, the existing building, at the edge of a city park, had no immediately adjacent structures—a rarity in such a dense urban environment. “The building had the advantage of being stand-alone and securable,” says Henry Jackson, OEM deputy commissioner.

As part of the \$50 million gut renovation and addition, contractors demolished interior partitions, finishes, and the exterior enclosure.



The choice of a rain-screen facade for the Illinois SEOC (far left and above two) provided a weatherproof envelope early in the construction process so that interior fitout could proceed. Although the limestone-clad entry elevation (above two) seems impervious, the lobby beyond is filled with daylight (near left).

Using the existing reinforced-concrete structure, they built a state-of-the-art facility that incorporates features including redundancies in its mechanical and telecommunications systems, enhanced blast resistance, perimeter security, and monitoring and filtration of outside air, intended to protect it from a variety of threats, both natural and man-made.

Despite these precautions, New York City's OEM does not look like a fortress. In keeping with the agency's public mission, the architect, Swanke Hayden Connell, worked to endow the building with a civic presence. "The OEM is not a bunker or a container for technology," says Joseph Aliotta, Swanke Hayden Connell principal.

Aliotta and his team relocated the core of the building from the center of the floor plan to the main facade. The new configuration allowed creation of a large clear-span space for the third-floor emergency-operations center and a loftlike open office area below. Within this new

core, the architects carved out terraces that help screen generous expanses of glass. By using the depth of the core to create a screen, and by cladding the building with a combination of zinc panels and limestone—the facade material of a federal courthouse at the southern edge of the park and a group of other nearby civic building—the architects provide transparency and acknowledge the context.

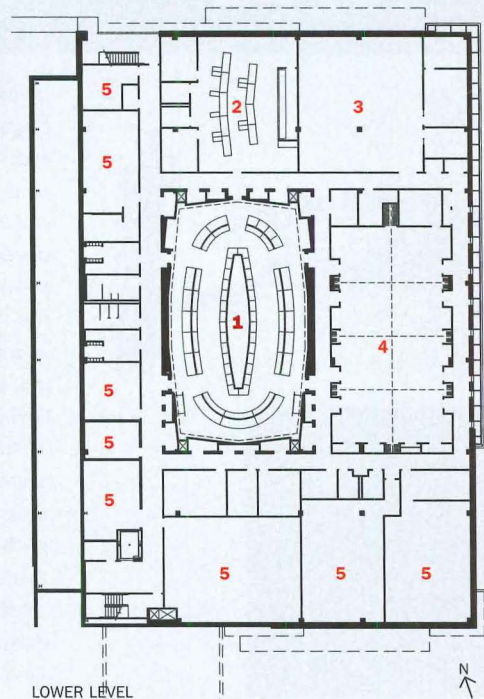
#### Information-technology overload

Emergency-response facilities require a great deal of information technology. Shoehorning this infrastructure into the framework of an existing structure, as the design team was required to do in New York, often calls for inventive solutions. Just some of the services in the watch-command room, for example, are satellite, broadband, cable, radio, wireless, and land lines. A constrained floor-to-floor height of only 12 feet precluded also making the raised floor depth large enough to house an under-floor



During an emergency, Illinois decision makers gather in the SEOC incident-response center. The two-story room contains a range of telecommunications technology to help them track events throughout the state.

1. Incident-response center
2. Communications center
3. Data center
4. Conference center
5. Support and infrastructure



air system. Instead, contractors threaded air-handling units and ducts through open-web trusses supporting the roof. And in order to create the ideal sight lines from the room's four workstations to wall-mounted rear projection units, they eliminated the raised floor in half of the room, explains Steven Emspak, Shen Milsom Wilke principal, the project's communications, multimedia, and acoustical consultant.

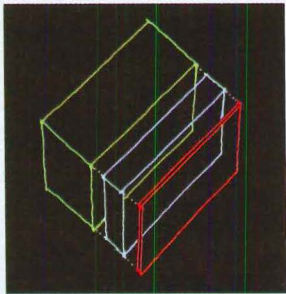
As designers had done in New York City, the architects DeStefano and Partners created a veiled facade for their Illinois State Emergency Operations Center (SEOC) in Springfield, completed in 2005. Partly motivated by an aggressive schedule that allowed only 19 months for design and construction of the 50,000-square-foot facility, DeStefano enclosed the two-story, steel-framed structure with a rain-screen system, providing a weatherproof envelope early in the construction process so that interior fitout could proceed. Contractors installed the finish cladding of limestone panels and perforated copper near the end of the construction process.

This facade strategy also screened the interior from view while allowing daylight into the building. For example, the "folded" entry elevation, clad in limestone, presents a seemingly impervious facade from the street. But hidden between the folds are windows that provide plenty of

## PROTECTING A BUILDING FROM NATURAL DISASTERS CAN BE AS CHALLENGING AS SAFEGUARDING IT FROM TERRORISTS.

daylight for the reception area. Similarly, the copper scrim protects office windows, but allows daylight to filter through its perforations. "We tried to turn the project requirements into an architectural opportunity," says Avi Lothan, DeStefano design partner.

The veiled approach not only addressed scheduling and security concerns, but also provided protection from natural disasters. The impact



Designers of New York City's OEM worked with the structure of an existing building, moving its core from the center to the south elevation (above left). They used the new core as a screen (bottom left) by carving out terraces and the lobby (middle left). The configuration allowed for a large, clear-span space for the emergency operations center (right) with its immediately adjacent situation room (above right).



load of a tree thrown into a window during a hurricane or tornado can be more difficult to design for than terrorist activity, according to Lothan. However, the screens act as a “sacrificial” layer and safeguard the glazing from such loads, he says. The copper, also used to create an enclosure for rooftop equipment, has the added benefit of shielding electromagnetic interference that could disrupt telecommunications, points out Michael Kuppinger, senior vice president of ESD, Chicago, the project’s mechanical and technology consultant.

In case a natural disaster or terrorist activity compromises municipal services providing power, water, or sewage disposal, the SEOC, like most mission-critical facilities, incorporates many redundancies. It has a diesel generator and storage for potable water and mechanical system make-up water, allowing the building to function independently for up to three days, even in a “doomsday scenario,” say Lothan.

Natural disasters were also a key concern for designers of the

Los Angeles Emergency Operations Center (LA EOC), a county facility now under construction at the edge of Little Tokyo. “The building must remain operational after a major event,” says Ernest Cirangle, AIA, HOK design principal. “And the most likely event here is an earthquake.” To ensure that the LA EOC can withstand a large magnitude temblor, the 82,000-square-foot, two-story building is base-isolated and surrounded by a 4-foot-wide moat. Complicating the design of the friction-pendulum seismic-isolation system is an immediately adjacent fixed-base fire station that shares dispatch facilities with the EOC. The two buildings are connected on two levels with a corridor, but are otherwise separated by an 11-foot gap.

The EOC’s structural integrity after a quake was not the design team’s only worry. Because the building’s “lifelines” must also remain intact, its power, gas, and water supply all have flexible connections to accommodate ground motion, says Cirangle.

# Design with light.



WindowManagement® solutions:

SolarTrac® 3 computer-automated window-shading system.

EcoVeil® sustainable PVC-free solar shade cloth.

Mecho®/5 solar shading system, recipient of the Cradle to Cradle™ Silver Certification from MBDC.

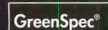
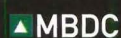
And much more....

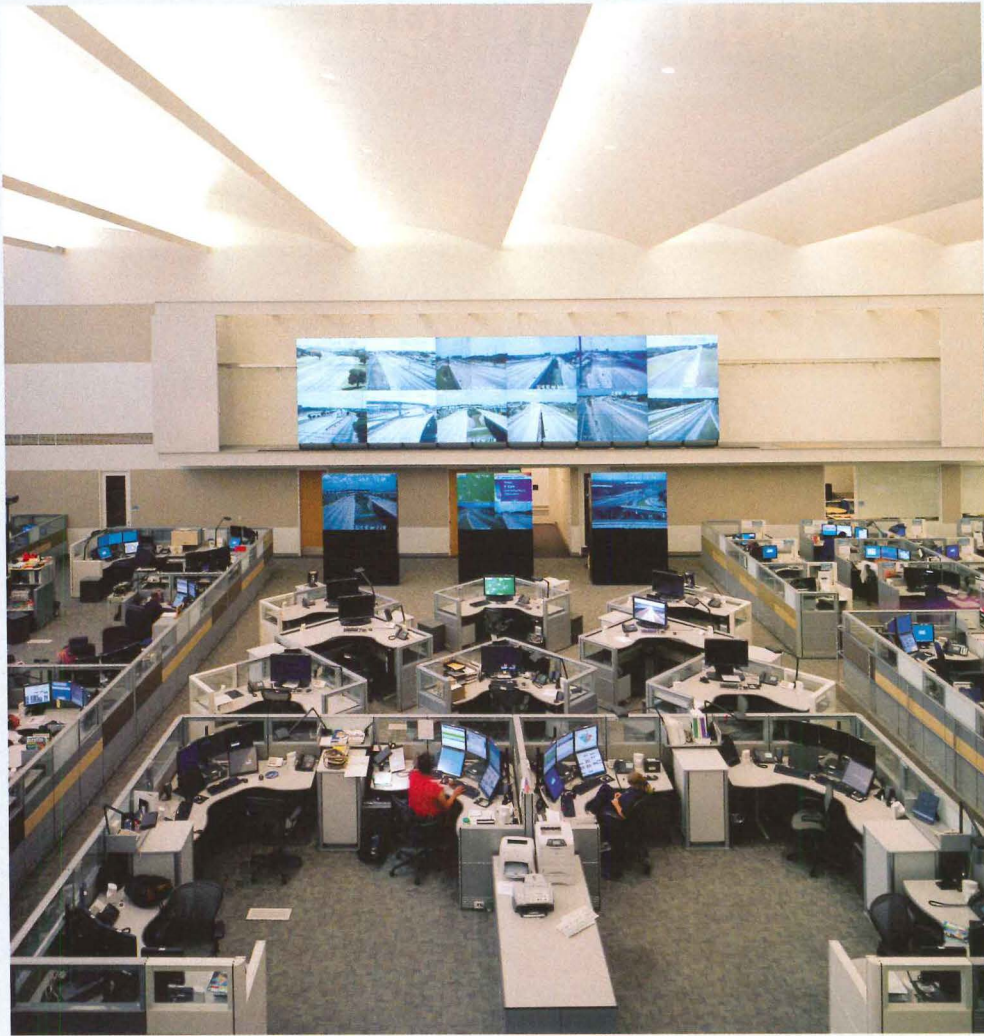
GreenBuild (11/6/07-11/8/07)  
Chicago, IL Booth # 612

## **MechoShade Systems** The Architect's Choice™

Tel: 718-729-2020 / Toll Free: 877-774-2572  
Fax: 718-729-2941 / [www.mechoshade.com](http://www.mechoshade.com)

West Midtown Ferry Terminal, New York.  
Architecture: William Nicholas Bodouva + Associates. 50 monumental ElectroShades, 25 feet high. © 2007 MechoShade Systems, Inc. All Rights Reserved. Photography: Jim Roof Creative, Inc.





The design for Austin's emergency and communications center (this page) responds to an analysis of possible exposure to terrorism and related threats, but

its lobby (above left) is transparent and welcoming. Workstations in the operations and dispatch center (above) allow individual environmental control.

### Designed to evolve

Telecommunications and mechanical consultants stress the importance of careful planning in order to achieve designs that provide flexibility. Features such as raised floors and spare conduit and cabling in the right

## CAREFUL PLANNING IS THE KEY TO FLEXIBLE FACILITIES THAT ACCOMMODATE CHANGE AS TECHNOLOGY MATURES.

locations are key to allowing alterations and upgrades as technology inevitably matures and agency needs change. "A crystal ball also helps," jokes Shen Milsom Wilke's Emspak.

One development that Illinois SEOC officials see in their crystal ball is an eventual tripling of data-center staff. This anticipated growth not only has space-planning and data-infrastructure implications, but

electrical and mechanical ramifications, as well, points out Thomas Condon, a senior consultant with Chicago-based SDI, the project's systems-integration consultant. "The density of computing power is directly related to heat generation," he says.

In order to mitigate the increased heat production, the data center will eventually require additional computer-room air-conditioning units, or CRACs, says ESD's Kuppinger. The piping and electrical service sufficient to handle these equipment additions are already in place, allowing CRAC installation without complicated or costly changes to the mechanical and electrical infrastructure, he explains.

### The LEEDing edge

Like building owners throughout the country, emergency-response agencies are increasingly aware of the effect that the construction and operation of their facilities has on the environment and are taking steps to



WALTER P MOORE  
ENGINEERING POSSIBILITIES

800.364.7300

[www.WALTERPMOORE.COM](http://www.WALTERPMOORE.COM)

ENGINEERING FOR AIRPORTS, COMMERCIAL BUILDINGS, EDUCATION, ENTERTAINMENT, EXISTING STRUCTURES,  
GOVERNMENT BUILDINGS, HEALTHCARE, HOSPITALITY, MIXED-USE AND RETAIL, MOVEABLE STRUCTURES, PARKING STRUCTURES,  
PUBLIC ASSEMBLY, PUBLIC WORKS, ROADWAYS, SCIENCE AND TECHNOLOGY, SPORTS, TALL BUILDINGS AND TRANSPORTATION

CIRCLE 77 ON READER SERVICE CARD OR GO TO [ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/](http://ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/)



The Los Angeles EOC will seek LEED certification after completion in 2008.

make their buildings more sustainable. One example is Austin, Texas's Combined Transportation, Emergency & Communications Center, which earned LEED Silver certification from the U.S. Green Building Council (USGBC) after its completion in 2003, and is designed to use 20 percent less energy than a building that complies with code. The center's exterior envelope incorporates shading devices and high-performance

glazing. The interior paints and sealants emit low levels of volatile organic compounds. And each workstation has a personal environmental-control system that includes a sound-masking device and allows occupants to change air flow and temperature. Many of these strategies not only improve building performance, but also enhance indoor air quality and acoustics, provide access to daylight and views, and generally create a

## GREEN STRATEGIES IMPROVE CONDITIONS FOR THOSE MAKING CRITICAL DECISIONS IN STRESSFUL SITUATIONS.

more comfortable environment for employees, who sometimes work long shifts and are responsible for making difficult decisions in stressful situations, points out DMJM's Jose Palacios, the project's design principal.

In Los Angeles, county officials plan to pursue LEED certification for the new OEM building after its completion next year. And this summer, the facility in Brooklyn became the first New York City-owned building to earn LEED certification when it was awarded a Silver rating. The agency decided to pursue certification even before passage of Local Law 86, which now requires that new city facilities adhere to USGBC standards. A green building is a good fit for the OEM, points out Dickinson, "since so much of our work revolves around issues that affect the environment." ■



### AIA/ARCHITECTURAL RECORD CONTINUING EDUCATION

#### INSTRUCTIONS

- ◆ Read the article "Safety and Security Without the Fortress Look" using the learning objectives provided.
- ◆ Complete the questions below, then fill in your answers on the next page.
- ◆ Fill out and submit the AIA/CES education reporting form on the next page or download the form at [archrecord.construction.com](http://archrecord.construction.com) to receive one AIA learning unit.

#### QUESTIONS

1. During which situation would an emergency-operations center activate?
  - a. tornado
  - b. earthquake
  - c. terrorist act
  - d. all of the above
2. Emergency-response centers generally include all except which?
  - a. a press room
  - b. offices for full-time staff
  - c. urgent-medical-care facilities
  - d. a kitchen
3. The purpose of the incident-response-center space is to provide which?
  - a. a staging area for emergency supplies
  - b. workstations for representatives of federal, state, and city agencies
  - c. temporary shelter for victims of an emergency
  - d. meal preparation for emergency responders
4. The existing building chosen as the site of New York City's OEM was selected for which reason?
  - a. it had an open floor plan
  - b. it was in Lower Manhattan
  - c. it was stand-alone and securable
  - d. it had a state-of-the-art telecommunications system
5. Moving the core in the New York City building allowed for all except which?
  - a. a large, clear span for the emergency-operations-center space
  - b. compliance with the Americans with Disabilities Act
  - c. an open, loftlike office area
  - d. creation of a screenlike facade
6. The Illinois SEOC's veiled facade provided all except which?
  - a. blocking visibility into the interior
  - b. daylight in the building
  - c. protection from natural disasters
  - d. added space for telecommunications infrastructure
7. Which is not a feature of the seismic design of the Los Angeles Emergency Operations Center?
  - a. the base of the building is isolated
  - b. it shares some facilities with an adjacent, fixed-base fire station
  - c. the building's lifelines have rigid connections
  - d. a moat surrounds the building
8. Which is not an example of redundancies for mission-critical facilities?
  - a. a diesel generator
  - b. storage for potable water
  - c. storage for mechanical system make-up water
  - d. all of the above
9. Which would be the ramification of an increase in staff?
  - a. the need for more electrical service
  - b. the need for more computing power
  - c. the need for more mechanical equipment
  - d. all of the above
10. Examples of the sustainable features of Austin's Combined Transportation, Emergency & Communications Center include all except which?
  - a. a photovoltaic array
  - b. shading devices
  - c. high-performance glazing
  - d. sealants with low-volatile organic compounds



**Program title: "Safety and Security Without the Fortress Look," Architectural Record (10/07, page 159).**

107EDIT1

AIA/CES Credit: This article will earn you one AIA/CES LU hour of health, safety, and welfare credit. (Valid for credit through October 2009.)

Directions: Select one answer for each question in the exam and completely circle appropriate letter. A minimum score of 80% is required to earn credit. Take this test online at <http://archrecord.construction.com/continuinged/default.asp>.

- |      |   |   |   |       |   |   |   |
|------|---|---|---|-------|---|---|---|
| 1. a | b | c | d | 6. a  | b | c | d |
| 2. a | b | c | d | 7. a  | b | c | d |
| 3. a | b | c | d | 8. a  | b | c | d |
| 4. a | b | c | d | 9. a  | b | c | d |
| 5. a | b | c | d | 10. a | b | c | d |

Last Name \_\_\_\_\_ First Name \_\_\_\_\_ Middle Initial or Name \_\_\_\_\_

Firm Name \_\_\_\_\_

Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Tel. \_\_\_\_\_ Fax \_\_\_\_\_ E-mail \_\_\_\_\_

AIA ID Number \_\_\_\_\_ Completion date (M/D/Y): \_\_\_\_\_

**Check one:**  \$10 Payment enclosed. (Make check payable to *Architectural Record* and mail to: Continuing Education Certificate, P.O. Box 5753, Harlan IA 51593-1253.) For customer service, call 877/876-8093.

**Charge my:**  Visa  Mastercard  American Express **Card#** \_\_\_\_\_

**Signature** \_\_\_\_\_ **Exp. Date** \_\_\_\_\_

**Check below:**

**To register for AIA/CES credits:** Answer the test questions and send the completed form with questions answered to above address, or fax to 888/385-1428.

**For certificate of completion:** As required by certain states, answer test questions, fill out form above, and mail to above address, or fax to 888/385-1428. Your test will be scored. Those who pass with a score of 80% or higher will receive a certificate of completion.

**Material resources used:** Article: This article addresses issues concerning health and safety.

**I hereby certify that the above information is true and accurate to the best of my knowledge and that I have complied with the AIA Continuing Education Guidelines for the reported period.**

**Signature** \_\_\_\_\_ **Date** \_\_\_\_\_

ARCHITECTURAL TECHNOLOGY

**A floor, or perhaps a canvas.**

If you want to turn your next flooring project into a true work of art, choose flooring with capabilities as limitless as your imagination. Anything is possible with General Polymers terrazzo from Sherwin-Williams. Our knowledgeable flooring experts will provide you with the products and support you need to achieve your aesthetic goals and satisfy your customers. To learn more, contact your Sherwin-Williams representative or call 1-800-524-5979 to have a rep contact you.



Pilkington Planar™  
*The World's Leading Structural Glass System*

# It's All About The Glass!

W&W GLASS, LLC  
800.452.7925  
[www.glass.com](http://www.glass.com)



*Photographer: Adrian Wilson*

CIRCLE 79 ON READER SERVICE CARD OR GO TO [ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/](http://ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/)

# Tech Briefs

A cartoonish frivolity of light structure invades Norway with **Snøhetta's Tubaloon**, while three new **sustainable design books** add more voices to the literature of green building

## A structural riff in Norway: Snøhetta's Tubaloon band shell

Now hear this. For a giant, cochlear band shell called Tubaloon, which hovered over Norway's annual Kongsberg Jazz Festival this past summer, the designers of Norwegian architecture firm Snøhetta caught an echo from architectural history. Project architect Joshua Teas says his team drew inspiration for Tubaloon from the curving walls and warped twists of the steel-cable-supported Philips Pavilion, which Le Corbusier and Iannis Xenakis created for Brussel's World Expo of 1958.

But to realize the homage, Snøhetta riffed on an innovative engineering concept developed in 2000 by Swiss engineer Mauro Pedretti. Called Tensairity, Pedretti's proprietary technology features long-span beams that minimize strut material by using low-pressure air to prevent compression elements from buckling. The basic Tensairity girder, now produced by Pedretti's Swiss company Airlight, features an air-filled fabric tube connected along the length of a compression element. The tube is then wrapped in two spiraling cables that tie into and strengthen the strut. The effect is a strong strut member with considerably less structural weight and construction time.

In 2003, Ole Gustavsen, who heads Snøhetta's Oslo office, volunteered his firm's services to design a band shell for the annual jazz festival, which occurs in a square opposite a recently renovated 242-year-old church in Kongsberg. Teas says a design workshop concluded "with an intuitive sketch of what we thought could suit the space and the festival's needs nicely—an expressive air-filled shell that we called 'The Jazz Heart.'"

Snøhetta's architects were acquainted with Tensairity, but had envisioned Tubaloon as entirely inflatable. "At this point, we thought



**Snøhetta's Tubaloon features an air-filled, cable-wrapped strut member that can be quickly constructed or disassembled (above and above right). A compressor recharges the strut a few times each day to prevent sagging.**

of many more cable stays and support masts than we ultimately ended up with," Teas notes, adding that achieving their desire for effortless buoyancy frustrated them: "It was going to be tough to get a big, saggy balloon to 'poing' up the way we wanted it." Pedretti, who then came to Oslo, promised that Tensairity would eliminate any need for masts.

Pedretti's son Andrea engineered the structure. He and Teas adapted the traditional Tensairity girder, substituting a galvanized-steel armature for spiral cables. It is composed of segments with brackets, which the air tubes nestle into. Instead of a by-the-book application of Tensairity, Tubaloon represents "an inflatable, tension-membrane structure in which most of the supporting structure is internalized," Teas explains. The frame mounts to two poured-concrete foundation pads, with four additional connection points for cables and a compressor that maintains air pressure.

In addition to achieving buoyancy without a forest of masts, the

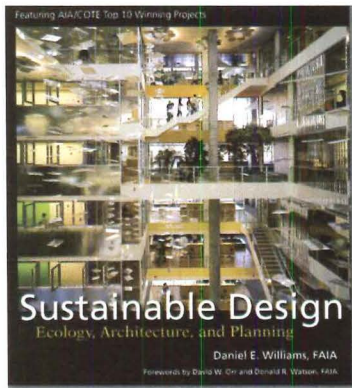


hybrid structure yields other benefits. The air tubes stabilize the steel and provide tension for the polyvinylidene difluoride-coated PVC membrane that drapes over the skeleton, while the segmented steel frame assembles in a matter of days,

otherwise storing in simple containers until next year's three-week-long jazz festival. By day, it's a visual cymbal crash in the historic context, and at night it is washed in a moody progression of colors that evoke the northern lights. *David Sokol*

## Tech Briefs

### Book Reviews: Sustaining the conversation on sustainable design



**Sustainable Design: Ecology, Architecture, and Planning**, by Daniel E. Williams, FAIA. Hoboken, New Jersey: John Wiley & Sons, 2007, 304 pages, \$75.

**High-Performance Building**, by Vidar Lerum. Hoboken, New Jersey: John Wiley & Sons, 2007, 304 pages, \$70.

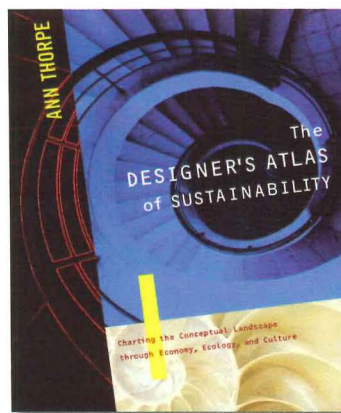
**The Designer's Atlas of Sustainability**, by Ann Thorpe. Washington, D.C.: Island Press, 2007, 225 pages, \$29.95.

We seem to have two camps emerging in the nascent field of sustainable design: an informed one that remains sensitive to the high aims of architecture, ecology, and site, and then one we might call “design services 2.0,” a kind of appliqué of green technologies onto the leftover bin of expired architecture. The literature reflects this, as many books focus on the latter camp, simply exploiting a trendy market. One good exception is the second edition of *The HOK Guidebook to Sustainable Design* (2005), which has become almost required reading on the subject. There are several books following this how-to approach, all couched in a larger question of what constitutes sustainability. And aside from the more philosophical books, such as *Natural Capitalism: Creating the Next Industrial*

*Revolution*, by Hawken, Lovins, and Lovins (1999), and McDonough and Braungart's *Cradle to Cradle: Remaking the Way We Make Things* (2002), another common route is the detailed technical manual on building performance and technologies. In that genre, the American Society of Heating, Refrigerating, and Air-Conditioning Engineers's *ASHRAE GreenGuide* (2006) stands out [RECORD, March 2007, page 172].

Clearly, any new book—and in 2007 there have been many—needs to do something different to stay relevant to the sustainable design community. This is especially true given that the various characteristics of sustainable design—daylight, natural ventilation, and responsible site orientation, to name a few—don't really change. In the case of the new book, *Sustainable Design: Ecology, Architecture, and Planning*, by the Seattle architect and urban planner Daniel E. Williams, FAIA, the intended reader is likely an architect new to sustainability, looking to follow up the HOK book. In that respect, Williams serves them well with an authoritative introduction to key issues and terms, most notably a persuasive argument defining sustainable versus green design. For Williams—borrowing conceptually from the theorist Manuel Castells—a sustainable design is one that embeds itself into the “flows” of the natural world, where a building must respond to a changing world. His benchmark is the natural catastrophe: If your building still functions as necessary during a blackout without relying on nonrenewable energy, you are approaching sustainability. Green design, on the other hand, merely concerns itself with efficiency and reducing fossil-fuel dependency.

The second half of Williams's book includes an overview of the award program of the American Institute of Architects's Committee on

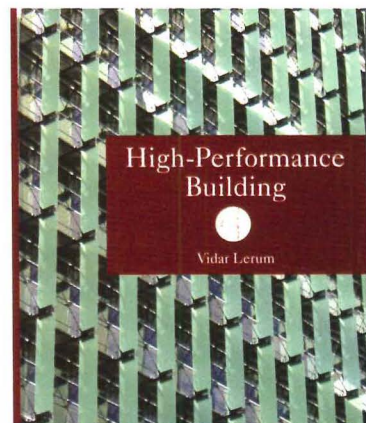


the Environment (AIA/COTE). Williams recounts, in part, each of the 10 annual award-winning projects since the program's inception in 1997 through 2006. He should know, as he served as chair of AIA/COTE in 2003. A review of case studies included in the book—such as SmithGroup's 2001 Chesapeake Bay Foundation Headquarters in Annapolis—reveals how important this program has been to sustainable design advocates.

On the other hand, *High-Performance Building*, by the Illinois architect and educator Vidar Lerum, eschews larger philosophical issues in favor of establishing step-by-step directions for analyzing the performance of existing buildings. Lerum considers performance as “annual specific energy use,” situating that as a base from which architectural form emerges to serve a sustainable end. He then explains his process—including reviewing design documents, talking to the architect and owner, and modeling the building in energy software—for gauging the performance of an existing building, presumably because you, too, would want to analyze an existing building. Like Williams, but with more technical depth, Lerum dedicates the second half of his book to case studies, seven in total, including Morphosis's 2006 San Francisco Federal Building. While these are helpful, the book's first half seems misguided and perhaps better directed toward building retrofits, rather than analysis alone.

Ann Thorpe, a design educator in London, seems to establish a separate category of sustainable design book with her *Designer's Atlas of Sustainability*, which lays out a

broader map of sustainability for designers (though it seems geared toward product design). She looks at terms like “ecology,” “economy,” and “culture” in order to establish a sort of fundamental world view for designers wanting to embrace sustainability. She aims to provide “ingredients rather than recipes,” giving the reader a highly visual and accessible tutorial in subjects as diverse as lifecycle analysis and materials production to the effects of economic globalization and corporate responsibility. Whether these ingredients already pepper your practice depends in large part, according to Thorpe's agenda, on how much you care. Thus, the book would most help the young student of design, rather than the established



professional who is not likely considering something like public sector design for the first time in a career.

That these three worthwhile books fill different niche interests suggests a broader concern—hardly surprising—for sustainable design, but you wonder how we can maintain this publishing cycle and what role it plays in what's actually getting built (or not). There is enormous talent being poured into thinking about sustainability right now, but you get the feeling that it's too disconnected and hasty, that many of these books exist more for their authors than for the reader. That most sustainable design literature still begins with a primarily materialist assumption—*building new must never stop*—while often only briefly mentioning concepts of inhibition, surely lends doubt to any book's underlying ambitions toward effecting true change. *Russell Fortmeyer*

Dream. Shower.

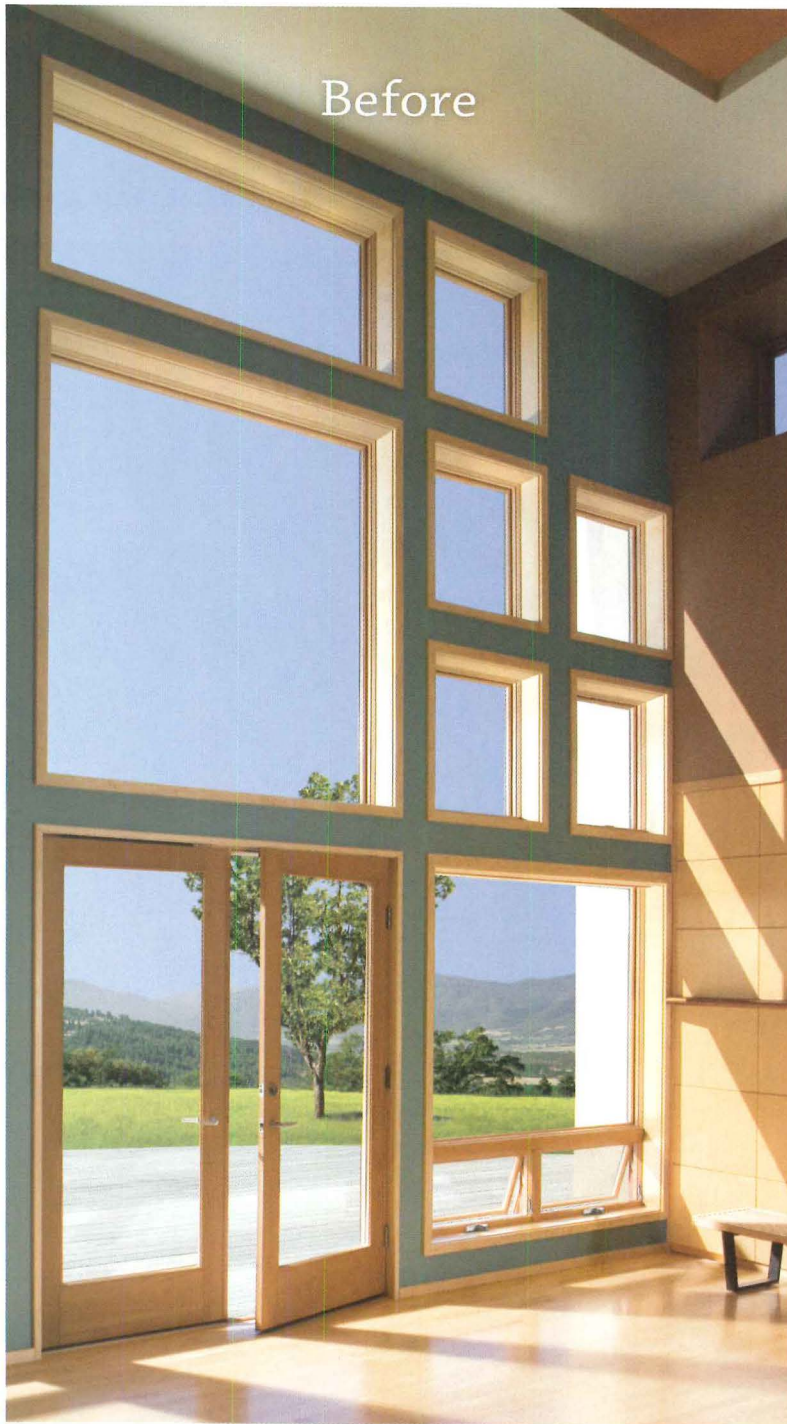


BRIZO

Jason Wu dress inspired by Brizo | [brizo.com](http://brizo.com)

CIRCLE 80 ON READER SERVICE CARD OR GO TO [ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/](http://ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/)

For more information and complete product warranties, see www.jeld-wen.com. ©2007 JELD-WEN, Inc. JELD-WEN, AuraLast and Reliability for real life are registered trademarks of JELD-WEN, Inc., Oregon, USA.



**JELD-WEN® windows and doors will look just as great tomorrow as they do today.**

That's because each one is built to last. We prove this with features like our 20-year warranty for products built with solid pine AuraLast® wood, which protects against wood decay, water absorption and termites. To learn more call 1.800.877.9482, ext. 1401, or visit [www.jeldwen.com/1401](http://www.jeldwen.com/1401).

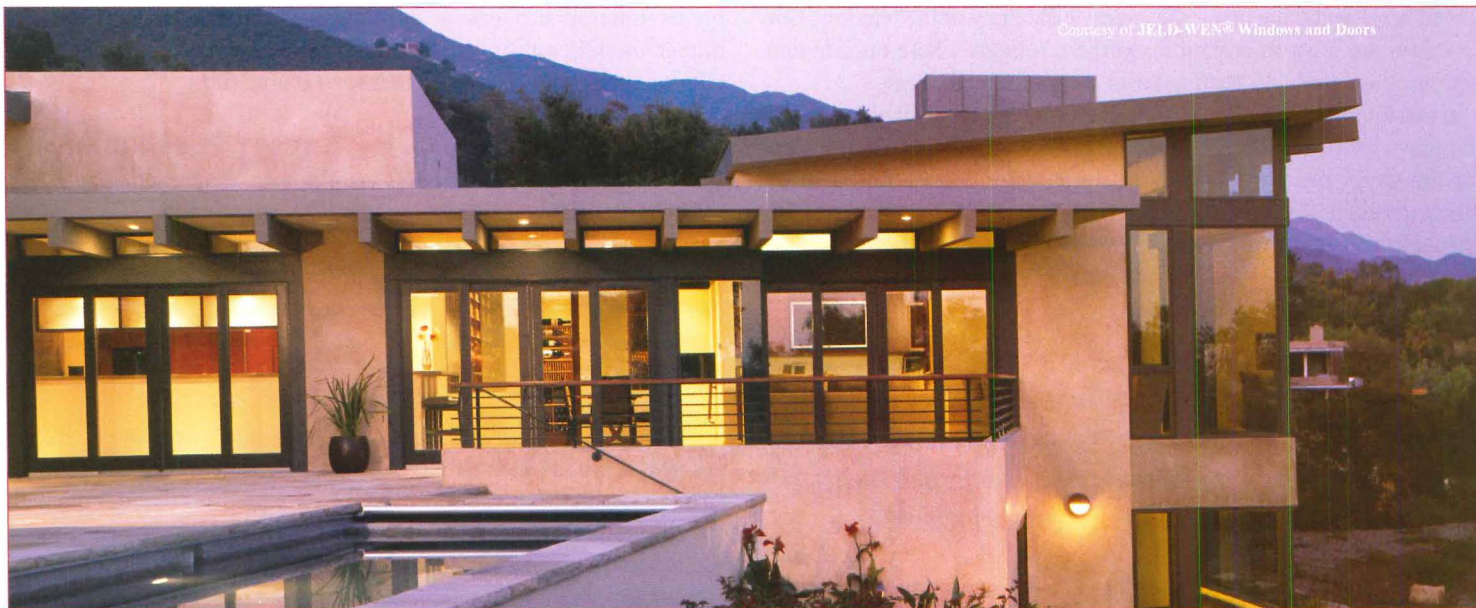


**RELIABILITY** *for real life*®

**JELD-WEN**  
WINDOWS & DOORS

# New Glass Technologies Improve Performance of Architectural Glass

## Fenestration Advances Boost Energy Efficiency and Lower Maintenance Costs



Courtesy of JELD-WEN® Windows and Doors

Santa Barbara, California Residence. Architect: Mark Kirkhart, Design Arc of Santa Barbara; Builder: Mark Trabucco

Provided by JELD-WEN® Windows and Doors

Windows have traditionally provided daylight and fresh air for building occupants and given character to the building's façade. One of the most important elements in an architect's palette, windows work to establish the style and rhythm of a structure, and their design and placement are a key aesthetic concern.

Yet windows can surpass these traditional aesthetic and practical considerations and become even more significant partners in creating sustainable buildings. As manufacturers continually improve their products to meet the needs of their customers, architects should be aware of new and emerging technologies in order to specify the most appropriate windows on their projects and realize the potential of windows to enhance sustainability goals.

During the past two decades, advances in glass technology have produced a new generation of materials that offer improved energy efficiency, easier maintenance, lower operating costs and higher performance. This article will define the parameters used in measuring the energy performance of fenestration, and detail how technological advances in the fenestration industry are achieving savings in energy and life cycle costs.

### Measuring Energy Performance in Windows

Fenestration—including windows, doors and skylights—has the ability to reduce the heating, cooling and lighting requirements of a building, and has become critical to achieving good energy performance in a

structure. It is critical to note, however, that no one window is suitable for every application. A first step is to understand how energy performance is calculated. The main energy characteristics that form the basis for quantifying a window's energy performance are described as follows:

#### CONTINUING EDUCATION



Use the learning objectives below to focus your study as you read **New Glass Technologies Improve Performance of Architectural Glass**. To earn one AIA/CES Learning Unit, including one hour of health safety welfare credit, answer the questions on page 177, then follow the reporting instructions or go to [construction.com/CE/](http://construction.com/CE/) and follow the reporting instructions.

#### Learning Objectives

After reading this article, you should be able to:

- Interpret the energy performance characteristics of windows.
- Discuss the newest window glass technologies.
- Specify appropriate impact-resistant and easy-to-clean windows for your projects.

## U Values

Manufacturers usually represent the energy efficiency of windows in terms of their U-values (measure of heat loss). When there is a difference between the ambient air temperatures inside and outside a structure, heat is either lost or gained through a window. The U-value (or U-factor) is a measure of heat escaping the interior of the home. U-value ratings generally fall between 0.20 and 1.20. The lower the U-value, the greater a window's resistance to heat flow, the better its insulating value, and the lower the heating costs. In other words, the lower the U-value the better the energy efficiency of the window. Low U-values are most important in northern regions where outside temperatures are cold and heating costs are traditionally high.

In product literature, some manufacturers list the U-factor only for the glass itself, rather than for the entire window unit. If it is only for the glass, the U-value may be much better than a rating of the whole-product. Low-E (low-emissivity) and gas fills can provide cost-effective energy efficiency. The lower the U-factor, the greater the energy savings; U-factors between .3 and .4 are optimal.

*Fenestration—including windows, doors and skylights—has the ability to reduce the heating, cooling and lighting requirements of a building, and has become critical to achieving good energy performance in a structure.*

## Solar Heat Gain Coefficient

The solar heat gain coefficient (SHGC) measures how well a product blocks heat caused by sunlight. SHGC is expressed as a number between 0 and 1. The lower a window's solar heat gain coefficient, the less sun-induced warmth it transmits into a building or house.

According to the U.S. Department of Energy, the solar heat gain coefficient of clear double-strength glass is 1.0. Glass with a solar heat gain coefficient of 0.5 transmits half of that solar energy, and glass with a solar heat gain coefficient .75 transmits three-quarters of that let through by clear double-strength glass. As the measure of effectiveness of blocking sun and heat, the shading coefficient is what drives air-conditioning loads. The lower the number, the more solar heat it resists, and the lower the cooling costs. Low SHGC ratings are most important in southern regions where outside temperatures are hot and cooling costs are traditionally high.

## Visible Transmittance

Visible transmittance (VT) measures how much daylight comes through a window. VT is also expressed as a number between 0 and 1, and correlates directly with the percentage of light passing through the glass. In other words, a product with a .66 VT rating means that 66 percent of visible light is transmitted through the glass. The higher the VT, the more daylight is transmitted. A high VT is desirable to maximize the amount of daylight entering the occupied spaces. The more daylight entering a home or building, the greater the opportunity to reduce electric lighting.

## Air Leakage

Cracks in the window assembly cause heat to enter and leave the building unchecked. Air leakage is measured in terms of the air that passes through a given unit area of window, such as 5 cubic feet of air passing through 0.5 square feet of window assembly. The lower the value, the less air will unintentionally pass through.

## Condensation Resistance

How well a fenestration product resists the forming of condensation on its interior surfaces is its condensation resistance (CR). The higher the CR rating, the better that product resists condensation. CR is expressed as a number between 0 and 100.

## Window Technologies for Energy Performance

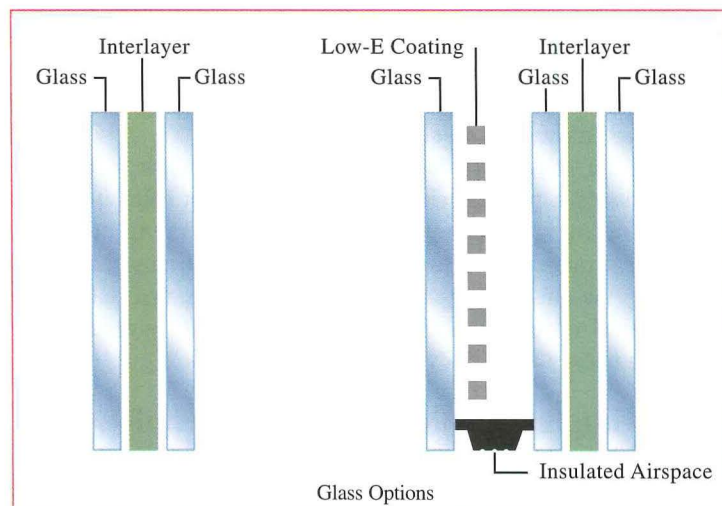
All of the energy-efficiency parameters discussed above are affected by the various components of a window: glass panes, low-E coatings, inert gas fills, edge spacers and frame materials. At their most effective, and in the proper climate and arrangement, these components lead to improvements in solar control, thermal comfort and energy savings.

## Glass Layers

Standard single-pane glass has very little insulating value. Before the 1980s, a window's energy performance was improved primarily through the addition of glass panes, on the premise that double pane glass, in which two panes of glass enclose air space between them, has twice the insulating power of a single pane of clear glass. The trapped layer of air between the two panes creates the insulator that prevents warmth from escaping or entering the structure. Because the inner pane does not come into contact with the cold outside air, it stays warmer than the outside pane. Double pane windows can also insulate sound and eliminate condensation if the air space contains a moisture absorbing chemical.

## Air Space

The depth of the air space between the glass panes will also affect energy performance: Spaces that are either too wide or too narrow tend to have higher U-values. Thicker air spaces insulate more effectively than thinner air spaces—up to a point. The optimal air





space for energy performance is 1/2-inch, which translates into a 3/4-inch insulating glass unit.

### Gas Fills

By substituting a denser, lower-conductivity gas such as argon for the air in a sealed insulated glass window, heat loss can be reduced significantly. Argon is much denser than air, and has a lower thermal conductivity, resulting in lower heat transmission between the panes of glass, and providing even more insulation for double pane windows. Many major window manufacturers offer argon-gas fill as an option. Other gases that are being used in windows include carbon dioxide (CO<sub>2</sub>), krypton (Kr), and argon-krypton mixtures.

### Edge Spacers

The element that holds the panes of glass apart and provides the airtight seal in an insulated glass window is known as an edge spacer. Edge spacers are designed to interrupt the transfer of heat between the two panes of glass. Aluminum, a material with high thermal conductivity, was the traditional material used for edge spacers. But as more effective glass coatings became available, aluminum edge spacers were found to offer fewer benefits than those made of other materials. Stainless-steel edge spacers, for example, are preferable to aluminum because of their lower conductivity. This new generation of edge spacers helps maintain higher temperatures at the edge of the window unit, improving insulation and reducing condensation. Aluminum with thermal breaks, silicone foam and butyl rubber are other new technology options for edge spacers.

### Frames

Window frames may be composed entirely of aluminum, wood, vinyl, and fiberglass, or they may be a combination of materials such as wood-clad vinyl or aluminum-clad wood. Because the frame occupies about one-quarter of the total window area, frame materials should be thermally non-conductive. Aluminum frames tend to have low interior surface temperatures even during the heating season and for that reason may not be suitable for all climates.

Wood frames have lower U-values, are not affected by temperature extremes, and usually do not promote condensation. Vinyl frames, too, have low U-values, and offer the benefit of reduced maintenance and competitive pricing. Generally speaking, wood, vinyl and fiberglass provide better insulating value.

### Low-E Coatings

More than any other single improvement, the development of low-emissivity (low-E) coatings in the 1980s revolutionized window technology. Low-E glass is coated with microscopically-thin, optically transparent layers of silver sandwiched between layers of antireflective metal-oxide coatings. According to the U.S. Department of Energy, which has made substantial investments in a series of energy-efficiency research and development projects over the years, low-E glass coatings have saved the nation more than \$8 billion in energy costs. According to industry estimates, over 50 percent of windows now sold have low-E glass.

In order to understand the benefits of low-E coatings, it is important to note the components of sunlight. Among other things,

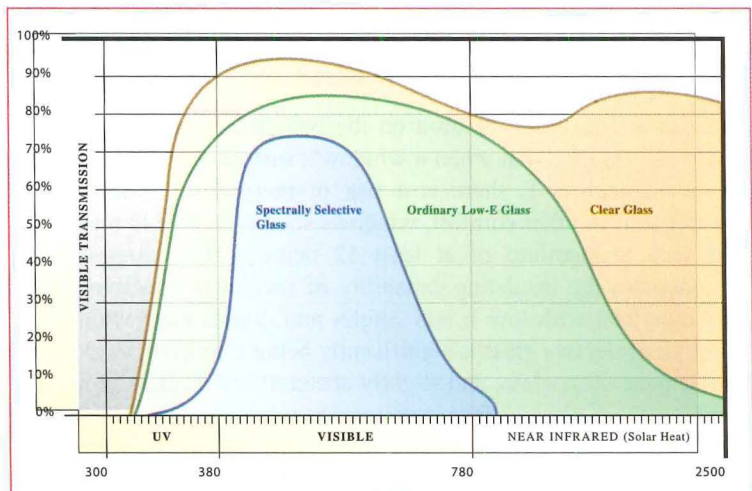
sunlight contains visible light, ultraviolet (UV) light, and infrared (IR) light. Visible light enables us to see things and is welcome in a building interior. Ultraviolet light damages skin, wood, and fabrics and causes colors to fade; it is also associated with premature aging and skin cancer. The infrared portion of the spectrum consists of varying wavelengths. Short-wave IR light is absorbed by objects both inside and outside the building and is transformed into long-wave energy or heat. Infrared energy is desirable when the goal is to heat a room's interior by natural means; however, it is undesirable whenever building interiors become too hot, and excessive demands are placed on air-conditioning and ventilation systems.

The thin, transparent low-E coatings allow visible light to pass through, but they effectively reflect infrared heat radiation back into the room, which keeps interiors warmer and reduces heating costs. This reduces heat loss through the windows in the winter. In the summer, low-E glass windows admit visible sunlight while blocking infrared and ultraviolet solar energy that drives up cooling costs and damages window treatments, carpeting and furnishings. According to the DOE's Energy Efficiency and Renewable Energy Clearinghouse, windows manufactured with low-E films typically cost about 10 percent to 15 percent more than regular windows, but they reduce energy losses by as much as 30 percent to 50 percent. Further, advanced glass with spectrally selective coatings can reduce the cooling requirements of new homes in hot climates by more than 40 percent.

Not all low-E coatings are the same. Placement of the coatings and the types of light wavelengths that they block affect their overall performance. A variety of low-E windows are now available for various climate zones and different applications in any particular location.

### Spectrally Selective Glass

Widely considered to be the next generation of low-E glass, spectrally selective coatings provide all the benefits of low-E glass along with increased heat-gain protection and greater energy savings. Special coatings distinguish between desirable light and unwelcome UV and infrared light; these coatings admit light but not heat by



Spectrally selective coatings distinguish between visible light, unwelcome UV and near Infrared rays. The result is improved solar heat control, fading protection, and visibility.

selectively transmitting or reflecting specific wavelengths, achieving a good shading coefficient and good visible transmittance.

Traditionally, optimum solar block was achieved at the expense of visible light transmittance. Spectrally selective coatings deliver a balance of solar control and high visibility, with the most efficient products blocking as much as 95 percent of the sun's damaging ultraviolet rays, thereby protecting furniture, carpets, curtains and wall coverings and reducing premature fading. Their energy performance derives from a manufacturing process known as "sputter deposition," which enables manufacturers to deposit a super-thin coating of alloys and metals—including titanium and silver—onto the window film to block more infrared energy, or heat, and let through more visible light. Though the ideal would be to allow through all visible light and no infrared or UV light, the technology, though rapidly evolving, has not yet achieved that capability. Some of the most advanced versions have three coatings of silver, and are virtually clear, with a visible light transmittance of 66 percent and a solar-heat-gain coefficient of 0.22, significantly better than that of tinted, ordinary low-E glass. These values represent the highest visible light transmittance and the lowest SHGC commercially available.

Spectrally selective coatings promote thermal comfort. During the cold weather, a window's insulating capability has a direct impact on occupant comfort. The Efficient Windows Collaborative, which

Inside glass and outside temperatures	-20°F	+20°F
Single-pane clear	0°	31°
Double-pane clear	37°	51°
Low-E	47°	58°
Specialty Selective	52°	61°

This table compares the interior glass temperatures of different glass types in two outdoor conditions.

provides unbiased information on the benefits of energy-efficient windows, suggests that when a window's surface temperature falls below 52 degrees F, there is a risk of thermal discomfort. For optimal cold weather comfort, windows should be able to maintain a surface temperature of at least 52 degrees. The chart below demonstrates the insulating capability of spectrally selective glass in comparison with low-E and single- and double-pane windows. Spectrally selective glass is significantly better than both single and double pane clear glass, and slightly ahead of low-E glass in maintaining a warm glass surface in spite of frigid outdoor temperatures.

**Tinted Glass**, sometimes called absorbing glass, has energy-absorbing materials within it that lower the shading coefficient and also provide a colored tint—generally bronze, gray, blue, or green. Tinted glass and tinted window films have long been used in

commercial buildings to reduce heat gain through windows. Improved, lightly tinted windows are becoming more common for the residential market in the cooling-dominated climates of the Southern United States. These new coatings cut solar heat gain without reducing visibility to the extent that older tinted glasses and films have. The tinted or colored glass helps reduce glare, and by absorbing the sun's heat it reduces energy consumption and creates a more comfortable interior without obstructing the view outside. This glass is ideal for climates with intense sunlight: It reduces glare and visible light transmittance, while also keeping home and building interiors more comfortable in warm weather.

**Reflective glass** has better solar heat gain coefficients than tinted glass because they reflect rather than absorb most of the infrared heat. The reflective coating is made of thin layers of metals or metallic oxides deposited on the surface of the glass. While tinted and reflective glass achieves low solar heat gain coefficients, they also make the window appear dark, with traditional window films reducing the amount of natural light entering the building by as much as 88 percent.

### Overall Performance

The energy efficiency of an entire window assembly can differ significantly from that of its glass. For optimal value, the energy performance of the entire window assembly is the key, including the frames and insulating glass spacers.

In addition, the building design should take into account the climate, the total window area of the building, choice of heating and cooling system, and the level of insulation. All of the factors will affect the choice of window that will produce the greatest energy savings and occupant comfort in a given situation. To determine the best choices, national rating systems have been developed to enable effective comparisons between windows.

### Rating Systems

*The National Fenestration Rating Council (NFRC)* is a non-profit organization that administers a widely accepted, uniform and independent rating and labeling system for the energy performance of windows, doors, skylights, and attachment products. By providing a reliable way to determine a window's energy properties and to compare products, NFRC ratings enable architects and builders to determine how well a product will perform the functions of helping to cool a building in the summer, warm a building in the winter, keep out wind, and resist condensation. By using the information contained on the label, architects and builders can reliably compare one product with another, and make informed decisions about the windows, doors, and skylights they specify or buy.

NFRC adopted a new energy-performance label in 2005. It lists the manufacturer, describes the product, provides a source for additional information, and includes ratings for one or more energy performance characteristics. ■

This article continues online at  
<http://construction.com/CE/articles/0710jeldwen-1.asp>

See Quiz on the Next Page

To receive AIA/CES credit, you are required to read the additional online text, which can be found at <http://construction.com/CE/articles/0710jeldwen-1.asp>  
The quiz questions below include information from this online reading.

Program title: "New Glass Technologies Improve Performance of Architectural Glass" (10/07, page 173). AIA/CES Credit: This article will earn you one AIA/CES LU hour of health, safety, and welfare credit. (Valid for credit through October 2009). **Directions:** Refer to the Learning Objectives for this program. Select one answer for each question in the exam and fill in the box by the appropriate letter. A minimum score of 80% is required to earn credit. **To take this test online, go to [construction.com/CE/](http://construction.com/CE/)**

**Learning Objectives**

After reading this article, you should be able to:

- Interpret the energy performance characteristics of windows
- Discuss the newest window glass technologies
- Specify appropriate impact-resistant and easy-to-clean windows for your projects

**Questions**

1. U-Values measure:

- a. Resistance to heat
- b. Light admitted
- c. Heat escaping the interior of the structure
- d. Ultra violet light absorbed

2. A high visible transmittance (VT) in a window signifies:

- a. that heat is resisted.
- b. high degree of sunlight is blocked.
- c. low shading value.
- d. high degree of daylight is admitted.

3. Before the 1980s, a window's insulating value was primarily improved through:

- a. additional glass layers.
- b. aluminum clad frames.
- c. weatherstripping.
- d. argon-krypton mixtures.

4. More than any single improvement, window technology was revolutionized by:

- a. high-impact glass.
- b. low-E glass.
- c. spectrally selective coatings.
- d. self-cleaning glass.

5. Spectrally selective coatings:

- a. decrease visible light
- b. block 95 percent of the sun's damaging ultraviolet rays
- c. are available in blue, brown and gold
- d. may cause thermal discomfort

6. Reflective glass

- a. must be double pane
- b. are not used anymore
- c. has better solar heat gain coefficients than tinted
- d. permit maximum light into the building

7. The National Fenestration Rating Council:

- a. rates only the glass portion of the window unit
- b. requires air leakage and condensation resistance ratings
- c. does not require U-value ratings
- d. rates the entire window assembly

8. Standards for impact-resistant glass

- a. were developed in response to tornado damage
- b. involve two parts: impact testing and cyclic wind loading.
- c. are published only by ASTM
- d. do not allow window glass to be broken

9. Easy-cleaning glass

- a. will not work on cloudy days
- b. causes water to bead up on the glass surface
- c. contains a layer of TiO<sub>2</sub> that acts as a photocatalyst
- d. is only available for vertical glazing applications

10. The coating on easy-cleaning glass

- a. causes water to "bead up" and roll off the glass
- b. gives the glass a heavy tint that helps block UV rays
- c. decreases the surface tension of water causing it to sheet off the glass
- d. dramatically lowers the u-value

Last Name _____	First Name _____
Job Title _____	
Firm Name _____	
Address _____	
City _____	State _____ Zip _____
Tel. _____	Fax _____
E-mail _____	
AIA ID Number: _____	Completion date (M/D/Y): _____

Check one:  \$10 Payment enclosed. (Make check payable to McGraw-Hill Construction and mail to: Continuing Education Certificate, PO Box 5753, Harlan, IA 51593-1253.) For customer service, call 877/876-8093.

Charge:  Visa  Mastercard  American Express

Card# \_\_\_\_\_

Signature \_\_\_\_\_ Exp. Date \_\_\_\_\_

Check below:

To register for AIA/CES credits: Answer the test questions and send the completed form with questions answered to address at left, or fax to 888/385-1428.

For certificate of completion: As required by certain states, answer test questions, fill out form, and mail to address at left, or fax to 888/385-1428. Your test will be scored. Those who pass with a score of 80% or higher will receive a certificate of completion.

Material resources used: Article: This article addresses issues concerning health and safety.

I hereby certify that the above information is true and accurate to the best of my knowledge and that I have complied with the AIA Continuing Education Guidelines for the reported period.

Signature \_\_\_\_\_ Date \_\_\_\_\_

107SPONA



At JELD-WEN, meeting your aesthetic requirements is just as important as ensuring our windows and doors are reliable, durable, secure and energy efficient. Our architectural consultants are available to assist with your most challenging design plans. What's more, JELD-WEN wood windows and doors built with AuraLast® wood come with a 20-year warranty against wood decay and termite infestation.  
[jeld-wen.com](http://jeld-wen.com)

Great architecture is built with strong support.



**Join the AIA and plug into a support network of 80,000 people who care about great design as much as you do.**

The *American Institute of Architects* is the resource you trust for all things architecture.

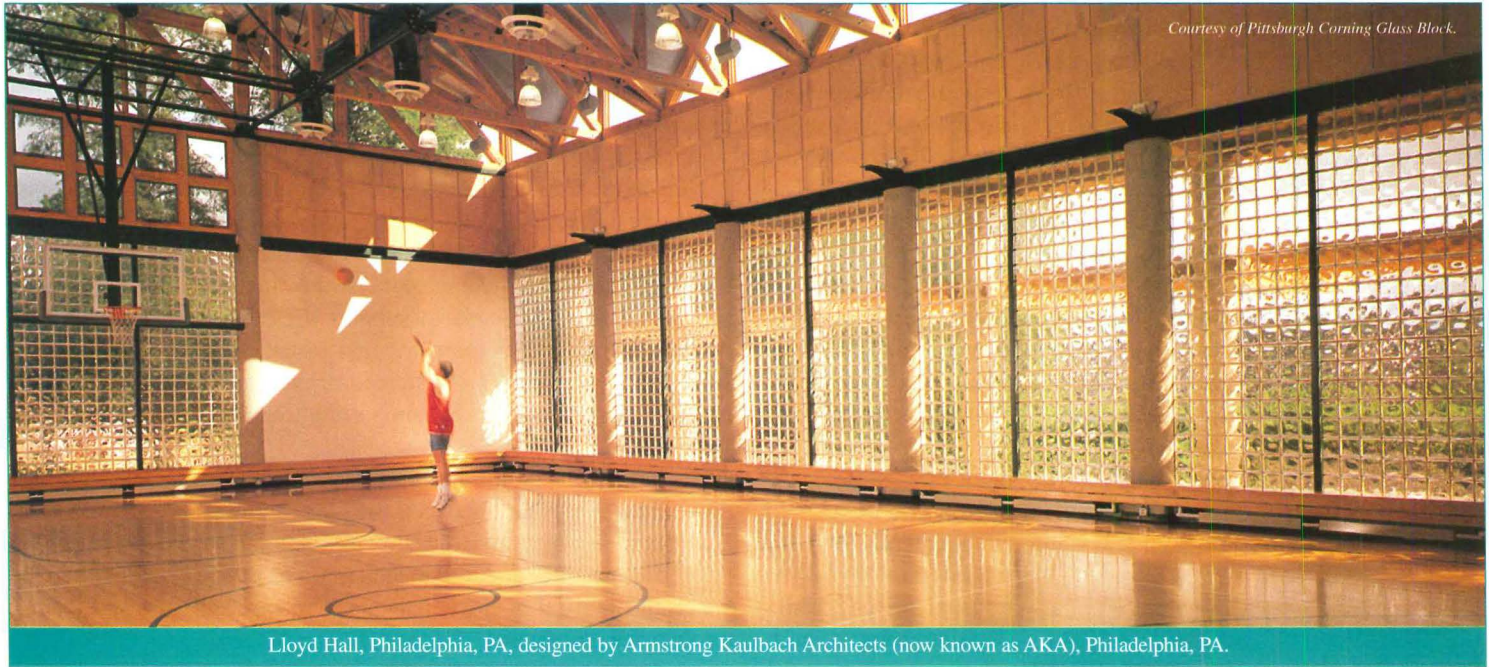
Join the AIA and add your voice to the organization that speaks for the architecture profession. Your AIA membership is more than just a commitment to your career—it's a commitment to changing the world, one building at a time.

Contact us today.

[www.aia.org/join](http://www.aia.org/join)



# Designing With Glass Block: Abundant Applications Provide Practical, Aesthetic and Green Solutions



Lloyd Hall, Philadelphia, PA, designed by Armstrong Kaulbach Architects (now known as AKA), Philadelphia, PA.

Provided by Pittsburgh Corning Corporation

**G**lass block is a unique building material. It has a dynamic relationship with light—both natural and artificial. As light changes so do the material's appearance and the surrounding environment. A great range of light and privacy is available depending on the pattern and transparency of the glass block. Used creatively, this building material can produce dramatic aesthetic effects.

The transparency of light depends on the pattern of glass block used. The results range from maximum light transmission to increasing degrees of privacy. Even with the most opaque block, or when using glass blocks as accent pieces, the result is the same—a visual connection from inside to out, or connecting to inside spaces. This sensory stimulant offers more than just aesthetics—it is considered a necessary component of a psychological and physiological healthful living and working environment. This brick made of glass also provides energy efficiencies, sound control, security and even visual texture. Today, with the growing commitment to green building, its properties and benefits may contribute to U.S. Green Building Council (USGBC) LEED® (Leadership in Energy and Environmental Design) certifications.

Glass block can be used in residential as well as commercial projects, as non-load bearing walls, windows, or partitions. An astonishing range of applications is possible with a corresponding variety of aesthetic results. Glass block have been used in police

stations, subway terminals, schools, parking garages and gymnasiums, in addition to numerous private and commercial new construction and renovations. Consider some interior uses: as a contemporary shower stall, a kitchen island or backsplash, or as the sidelights at the front door. Yet, before building aesthetics and even

## CONTINUING EDUCATION



Use the learning objectives below to focus your study as you read **Designing With Glass Block: Abundant Applications Provide Practical, Aesthetic and Green Solutions**. To earn one AIA/CES Learning Unit, including one hour of health safety welfare credit, answer the questions on page 183, then follow the reporting instructions or go to [construction.com/CE/](http://construction.com/CE/) and follow the reporting instructions.

## LEARNING OBJECTIVES

*After reading this article, you should be able to:*

- Identify the structural properties of glass block when used as a building material.
- Discuss the unique performance abilities of glass block, such as fire protection, heat and light transmission, sound resistance, vandal resistance, and hurricane and earthquake resistance.
- Assess some of the economic and aesthetic implications of specifying glass block in specific building projects.

design can be considered, it is crucial to become familiar with the technical properties of glass block. Working with glass block requires a certain level of skill and a thorough understanding of the material.

## Structural Properties

Glass block is manufactured through a simple, yet exacting process. Silica sand, soda ash, and limestone are mixed and melted in tanks heated to 2,300 degrees Fahrenheit. From those tanks a precise amount of molten glass is poured into a half-block mold. Two halves are sealed together, creating a partial vacuum within the unit, and then fed into an oven (called a lehr) to slowly cool and, in the process, strengthen. This is the annealing process. Each block is then treated with a special edge coating of polyvinyl butyral to increase mortar bond and allow for expansion and contraction. Each block is tested for clarity and consistency.

The unit can be hollow or solid and come in a variety of sizes, shapes, patterns, and textures. The most commonly used units are square (6-, 8-, or 12-inch sizes). Rectangular units (4x8-inch and 6x8-inch) are also available, as are bull-nosed edge blocks for finishing horizontal and vertical panels, and various corner and angular blocks.

What makes the choice of block all the more interesting is the wide range of patterns. Clear block with its smooth face offers high visibility and light transmission. Wavy and fluted patterns allow for

*What makes the choice of block all the more interesting is the wide range of patterns.*

moderate levels of visual privacy while maintaining high light levels. Even greater privacy comes with stippled, diamond, and tightly

ribbed designs. Fibrous glass inserts are also available to provide maximum privacy and further temper light and heat transmission.

Since glass block is made of glass and typically bonded together with mortar, it does not require any maintenance or special care. The durability is therefore exceptional because of the thickness of the faces and mortar bonding of the blocks. Unlike a typical glazing system or window, whereby the whole glass pane requires replacement upon damage, breakage in a glass block wall or window typically only requires a single block replacement. Many installations are over 50 years old, well beyond the typical life cycle of a window. This represents a considerable savings in material and maintenance.

Generally, two thicknesses are available. The standard 3-7/8-inch glass block includes the largest selection of patterns, sizes and shapes. Each 3-7/8-inch thick glass block is designed to provide stability and durability, as well as good insulation values, sound transmission, and fire resistance ratings. Thinner 3-1/8-inch block is specifically designed for prefabricated panels of limited size, for use as windows.

In exterior applications, maximum wall areas are based on design wind pressure. Twenty pounds per square foot is a commonly accepted value for wind load resistance for wall construction. The maximum area for exterior panels constructed of standard block is

144 square feet, with a maximum height of 20 feet or a maximum width of 25 feet. This panel is designed to withstand a 20 psf wind load—equivalent to about an 88-mph wind—with a 2.7 safety factor. If larger panels are required, horizontal and/or vertical stiffeners or shelf angles and expansion joints need to be incorporated to maintain the maximum areas recommended per component panel. Design of these structural members must be based on the design wind load and to an L/600 deflection (where L equals the distance between supports).

Interior walls are designed to a lateral load of 5 psf. Interior glass panels are permitted to be larger (up to 250 square feet) than similar exterior panels because of the lower load levels.

**Non-load bearing.** Sometimes referred to as “bricks,” glass blocks do not have the load-bearing capabilities as do other masonry products. In fact, glass block can only carry the load of its own weight. Therefore, where panels are inserted into openings, provisions must be made to support the construction above. The available structural support systems assure that the load from the surrounding wall is not transferred to the glass panel and that the possible deflection of the supporting members does not crack the panel.

At the same time, adequate provisions must be made for differential movement between the glass and the surrounding wall. It is recommended that expansion joints in the surrounding wall be located at the sides and top of each glass panel. This will isolate the panel and prevent a movement crack in the wall from projecting through the glass panel.

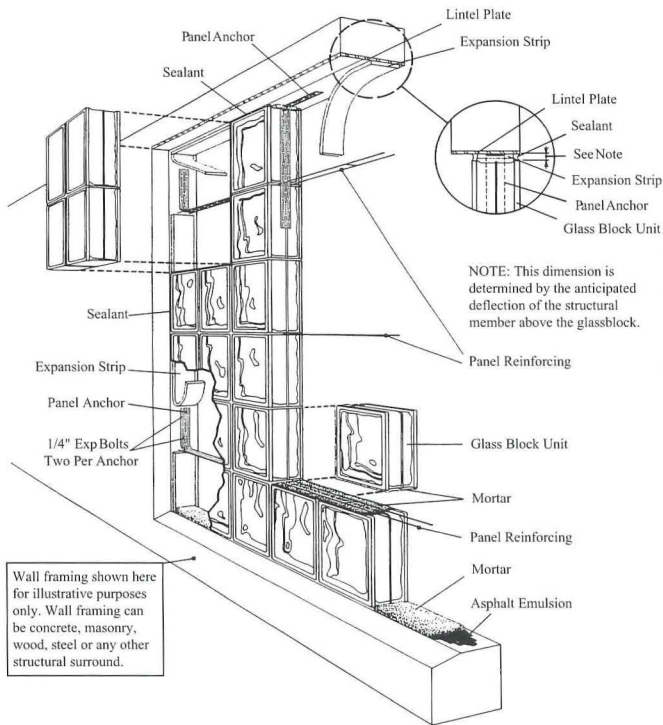
**Mortar considerations.** Unlike other masonry products (i.e., brick, concrete block, etc.), glass block is non-porous and does not absorb any moisture. Because of this, the consistency of glass block mortar must be stiffer (like peanut butter) than the wetter mortar used with other masonry products. All head and bed joints must be completely filled with mortar, and all joints struck smooth to prevent penetration and migration of moisture.

All model building codes allow the use of Type “S” or “N” mortar with glass unit masonry construction. Type “S” mortar is recommended for exterior applications. Type “S” consists of 1 part Portland cement, 1/2 part lime, and sand equal to 2-1/4 to 3 times the amount of cementitious material (cement plus lime), all measured by volume. (For exterior glass block panels, an integral type waterproofer is recommended.) No antifreeze compounds or accelerators should be used.

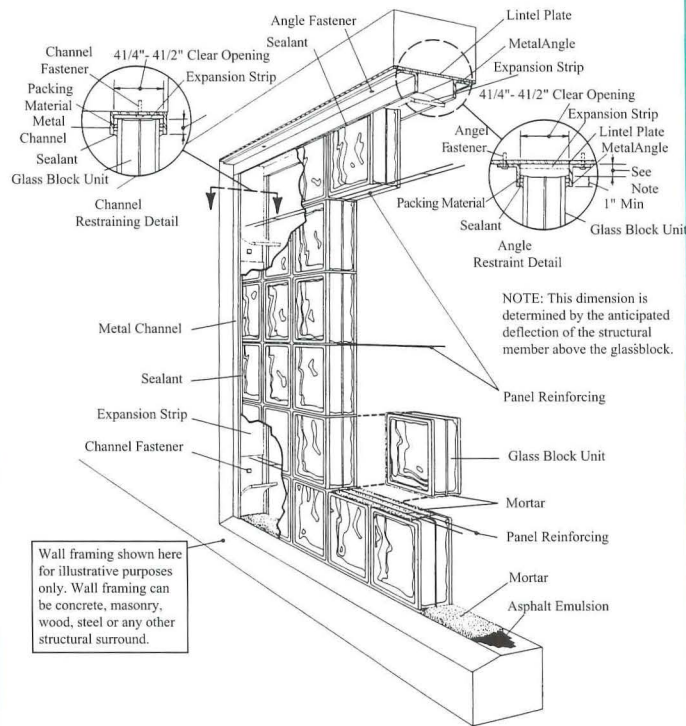
During final cleaning, common mortar-removing chemicals (muriatic acids of any strength) should not be used. Not that these chemicals are detrimental to glass; however, if they are strong enough to remove mortar off the faces of the block, they are also strong enough to remove the thin cement/lime film off the mortar joints, thereby exposing the sand aggregate. Rough joints such as these are highly susceptible to water intrusion.

**Panel reinforcement.** Horizontal joint reinforcement is important to control cracking due to expansion and contraction. This joint reinforcement should be spaced no more than 16 inches

**Panel Anchor Construction**



**Channel-Type Restraint Construction**



on center and extend horizontally the length of the panel. Stainless steel or hot-dipped, galvanized, 9-gauge steel, ladder-type reinforcement is made of two parallel wires with butt-welded cross wires at regular intervals.

Joint reinforcement should also be placed in the bed joint immediately above and below openings in the glass block panel. For curved walls, the inner wire is cut periodically so the reinforcement can be bent to the radius of the curve. The reinforcement is pressed into the partially filled mortar joint, then covered with the remaining mortar and trowelled smooth. Mortar joints should not be furrowed.

Expansion strips, made of dense fibrous glass, polyethylene, or mineral wool replace mortar at the jambs and head and at intermediate structural locations to allow for panel expansion and contraction.

**Panel anchoring.** Three methods for anchoring glass block panels are recommended to accommodate lateral support along the top and sides of each panel — panel anchor, channel, and chase systems. These supports are designed to resist the applied loads, or a minimum of 200 pounds per lineal foot of panel, whichever is greater.

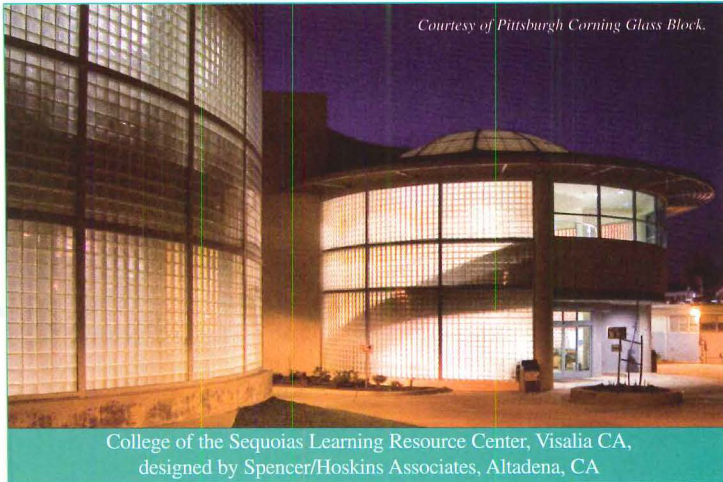
**Panel anchors:** Available in stainless steel or hot-dipped galvanized steel, panel anchors tie glass block panels into the surrounding frame at head and jamb locations. Anchors are used along the jambs and at the head, or they can be used in combinations with channel construction where one type of detailing is at the jambs and the other at the head. Anchors are normally placed a maximum of every 16 inches on center. This means that for an 8 x 8-inch block, panel anchors would be placed in every other course.

**Channel framing:** Either a metal channel or metal angles combined to form a channel can be used. The channel opening (for a nominal 4-inch-thick block) must be 4-1/4 inches to 4-1/2 inches wide by a minimum of 1-3/8 inches deep to allow for a 1-inch minimum recess of glass block into the channel and for placement of the expansion material inside the channel. It is critical that the channel opening be square, not tapered as in standard channels, so as not to pinch the edges of the glass block. The oversized opening allows the insertion of packing material and sealant between the recessed faces of the glass block and channel legs.

**Chase method:** A recessed chase can be inserted into concrete or masonry jambs and head, eliminating the need for anchors or metal channels. The dimensions described must be similar to those described above for metal channels.

**Expansion joints.** To accommodate movement of the glass, expansion strips 3/8-inch thick, are required along the top and sides of glass block panels. These joints are filled with a resilient material such as polyethylene, which allows the panel to expand and contract. In exterior walls, joints must be well caulked to prevent water penetration.

At the bottom of the opening, a water-based asphalt emulsion is placed on the sill prior to laying the first mortar bed. This provides a slip plane for the panel and also prevents water from being drawn out of the glass block mortar by absorbent sill materials, such as concrete, brick, wood, or other porous products.



*Courtesy of Pittsburgh Corning Glass Block.*

College of the Sequoias Learning Resource Center, Visalia CA,  
designed by Spencer/Hoskins Associates, Altadena, CA

**Curved walls.** Curved panels require additional structural support where the curved section joins a straight section and at inflection points in multi-curved walls. One method is to connect the panel to a structural member with panel anchors. Installing a steel plate in a vertical head joint can provide a less visible support. Also, panel reinforcing should be modified to follow the contour of the curve by periodically cutting the innermost parallel wire and bending appropriately.

The inside minimum radius of a curved wall is influenced by the size of block being used. Creating a tighter curve means creating a thinner inside joint, which is not recommended, and a thicker outside joint, which may not be aesthetically pleasing.

### Health, Safety and Environmental Benefits

The unique properties of glass block are especially applicable to health and safety issues, in addition to providing a number of environmental advantages. They offer special performance characteristics regarding fire resistance; resistance to surface condensation, light, heat, thermal and shading performance; sound transmission; and hurricane and earthquake resistance. Equally significant is the potential role in green building and contribution to several categories in LEED certifications—both in quantifiable and qualitative measures.

Green building now includes far more than data and performance of building products. Occupants' comfort and well-being and factors such as daylight are critically important for Green Building—especially when designing for the unique needs of children of all ages. Another factor in Green Building is life cycle analysis, which quantifies the impact of a product or building from raw materials used through its disposal or reuse. While life cycle analysis is, as yet, hard to quantify, it is certainly an issue to consider when specifying green products. Glass block has the advantage of having a relatively low life cycle impact, being both recyclable and manufactured from unlimited natural resources. Moreover, being 100 percent glass, it does not emit any harmful volatile organic compounds (VOCs).

**Fire-protection.** Presently, no glass block assemblies qualify as fire-rated wall assemblies. Unlike the wall assembly test that

measures a material's integrity, stability and thermal transmission, the glass block window test only determines the ability of the assembly to remain structurally sound and prevent passage of smoke and other noxious fumes during the fire test. Therefore, all assemblies must meet standards set for windows (ASTM E-2010) and NFPA 257) rather than for walls (ASTM E-119).

All UL fire-rated glass block on the market meets a 45-minute or longer duration test. Thicker faced and solid units are available with ratings of 60 minutes and 90 minutes. Basically, the window assembly test consists of exposing a panel to a fire under controlled temperature conditions in a furnace. The panel is removed from the furnace after 45 (or 60 or 90) minutes and immediately subjected to a standard water hose steam test to determine impact and thermal shock effects. A glass block window assembly passes the hose stream test if at least 70 percent of its glass blocks do not develop openings through both faces of the block. ■

### Lloyd Hall, Boathouse Row, Philadelphia, PA

Sited along Boathouse Row in Philadelphia, PA, Lloyd Hall was expected to serve a variety of needs. Funded jointly by the Commonwealth of Pennsylvania and the City of Philadelphia it also needed to be durable enough to withstand the rigors of a demanding public, seven days a week. "We designed Lloyd Hall to be as multi-functional as possible," says Lisa Armstrong, AIA, Armstrong Kaulbach Architects (now known as AKA), Philadelphia, PA. "It is intended to be all things to all people, while having a highly crafted design to fit in with Boathouse Row. Aesthetically, we were trying to make a statement in connecting with the past and the present, while also reflecting the needs and the look of the future."

The two-story, 12,000-square foot building features a grand gymnasium, restrooms, banquet facilities, cafe concessions, information center and balcony. Outside, there are accommodations for a large public terrace, stepping down to the water's edge.

The 4,500-square foot gymnasium, Lloyd Hall's focal point, houses events ranging from basketball games to weddings. It required materials that were vandal-resistant yet attractive. To meet the dual requirements of high-durability and pleasing aesthetics, Armstrong specified solid glass block for three of the gym's four walls. From both interior and exterior vantage points, the solid glass block is visually appealing while connoting the sense of openness. The solid glass block transmits 80 percent of available light in both directions, while brightening the interior with natural light. A variety of traditional glazing options were ruled out because of vandalism concerns. "If we didn't use glass block, we would be looking at a rec center without windows, which would not be appropriate for the park setting," said Armstrong.

This article continues online at  
<http://www.construction.com/CE/articles/0710pittsburgh-1.asp>

See Quiz on the Next Page



To receive AIA/CES credit, you are required to read the additional online text, which can be found at <http://www.construction.com/CE/articles/0710pittsburgh-1.asp>  
The quiz questions below include information from this online reading.

Program title: "Designing With Glass Block: Abundant Applications Provide Practical, Aesthetic and Green Solutions" (10/07, page 179). AIA/CES Credit: This article will earn you one AIA/CES LU hour of health, safety, and welfare credit. (Valid for credit through October 2009). Directions: Refer to the Learning Objectives for this program. Select one answer for each question in the exam and fill in the box by the appropriate letter. A minimum score of 80% is required to earn credit.

To take this test online, go to [construction.com/CE/](http://construction.com/CE/)

## Learning Objectives

After reading this article, you should be able to:

- Identify the structural properties of glass block when used as a building material.
- Discuss the unique performance abilities of glass block, such as fire protection, heat and light transmission, sound resistance, vandal resistance, and hurricane and earthquake resistance.
- Assess some of the economic and aesthetic implications of specifying glass block in specific building projects.

## Questions

1. What is the maximum square footage for an exterior standard glass block wall built without stiffeners or shelf angles?

- a. 4 square feet  
 b. 12 square feet  
 c. 144 square feet  
 d. 350 square feet

2. Since glass block is nonporous and does not absorb any moisture, the consistency of the mortar used must be?

- a. wet.  
 b. soft (like butter).  
 c. stiff (like peanut butter).  
 d. dry.

3. What should horizontal joint reinforcement do?

- a. Control cracking due to expansion and contraction  
 b. Be placed no more than 16 inches on center and extend horizontally the length of the panel  
 c. Be pressed into the partially filled mortar joint, then covered with the remaining mortar and troweled smooth  
 d. All of the above

4. Glass block anchoring methods include the

- a. panel anchors, chase and running methods.  
 b. channel, running and panel anchors methods.  
 c. panel anchors, channel and chase methods.  
 d. channel, chase and running methods.

5. Additional structural support for curved walls

- a. should be placed where the curved section joins a straight section and at inflection points in multi-curved walls.  
 b. is not necessary if glass block meets hurricane code.  
 c. does not need to follow the contour of the curve.  
 d. is independent of the size of the block used.

6. All UL fire-rated glass block on the market meets a 45-minute or longer duration test meeting what standard?

- a. ASTM E-2010 and NFPA 257.  
 b. ASTM E-119.  
 c. ASTM E-02.  
 d. ASTM E-30.

7. Solid 3-inch glass block has

- a. an R-value of 1.75.  
 b. U-value of 0.87.  
 c. less thermal resistance than single-glazed 1/8-inch-thick plate glass.  
 d. a shading coefficient of 3.5.

8. Solid 3-inch glass block units that have been ballistics-tested and component-recognized provide what level(s) of ballistics?

- a. No resistance  
 b. UL level 1  
 c. UL levels 1 and 2  
 d. UL levels 1, 2, and 6

9. Hollow glass block has an STC

- a. higher than a solid glass block.  
 b. lower than a solid glass block.  
 c. equal to flat sheet glass.  
 d. higher than a 4-inch brick wall.

10. Hurricane-rated glass block must

- a. have a lesser face thickness than standard block.  
 b. meet 150 psf design pressure in Dade County.  
 c. be mounted in a panel measuring less than 4 feet by 4 feet.  
 d. meet ASTM E-1886 and ASTM E-1996 requirements.

Last Name		First Name	
_____			
Job Title			
_____			
Firm Name			
_____			
Address			
_____			
City	State	Zip	
_____	_____	_____	
Tel.		Fax	
_____		_____	
E-mail			
_____			
AIA ID Number:		Completion date (M/D/Y):	
_____		_____	

Check one:  \$10 Payment enclosed. (Make check payable to McGraw-Hill Construction and mail to: Continuing Education Certificate, PO Box 5753, Harlan, IA 51593-1253.) For customer service, call 877/876-8093.

Charge:  Visa  Mastercard  American Express

Card# \_\_\_\_\_

Signature \_\_\_\_\_ Exp. Date \_\_\_\_\_

Check below:

To register for AIA/CES credits: Answer the test questions and send the completed form with questions answered to address at left, or fax to 888/385-1428.

For certificate of completion: As required by certain states, answer test questions, fill out form, and mail to address at left, or fax to 888/385-1428. Your test will be scored. Those who pass with a score of 80% or higher will receive a certificate of completion.

Material resources used: Article: This article addresses issues concerning health and safety.

I hereby certify that the above information is true and accurate to the best of my knowledge and that I have complied with the AIA Continuing Education Guidelines for the reported period.

Signature \_\_\_\_\_

Date \_\_\_\_\_

107SPONB

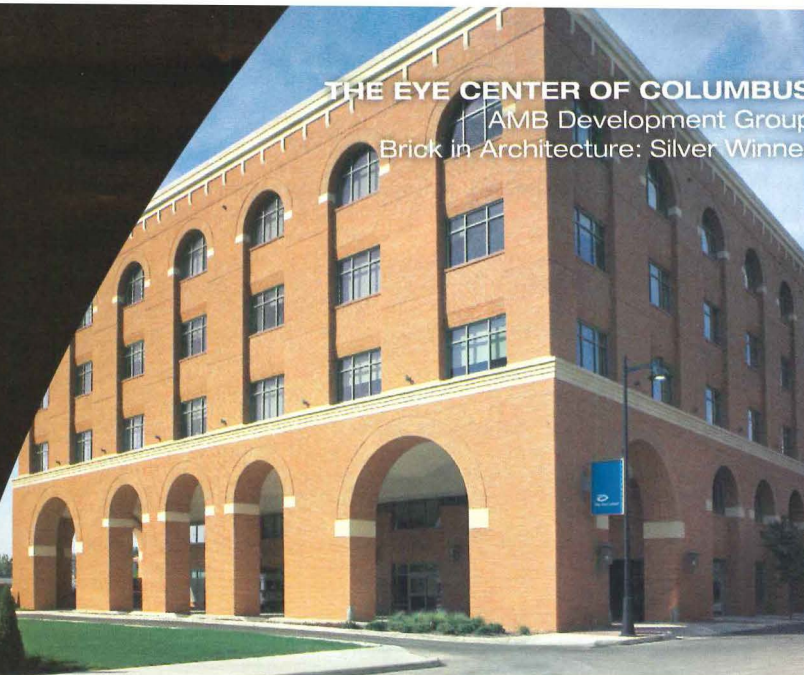


Pittsburgh Corning Glass Block products are available from authorized Pittsburgh Corning distributors and retailers across the country. For more information, readers can call Pittsburgh Corning's Glass Block Resource Center at 800-624-2120 or visit [www.pittsburghcoming.com](http://www.pittsburghcoming.com). Located in suburban Pittsburgh, Pittsburgh Corning is a manufacturer of applied glass technology and systems. The company has been a major producer of glass block for commercial and residential use since 1937. [pittsburghcoming.com](http://pittsburghcoming.com)

# AWARD WINNING

THE EYE CENTER OF COLUMBUS

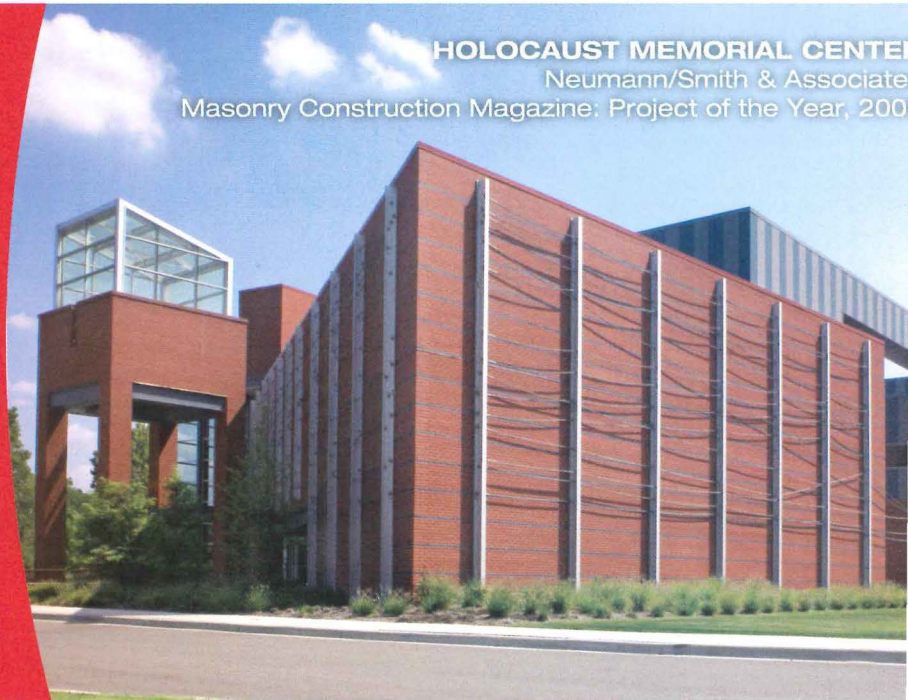
AMB Development Group  
Brick in Architecture: Silver Winner



Belden Brick received eleven awards in the 2006 Brick in Architecture and Brick in Home Building Awards competitions sponsored by the Brick Industry Association. An award-winning manufacturer of the very highest quality brick for more than 122 years, Belden Brick offers architects beauty, versatility, unlimited design potential and enduring appeal. For your next award-winning project, specify Belden Brick.

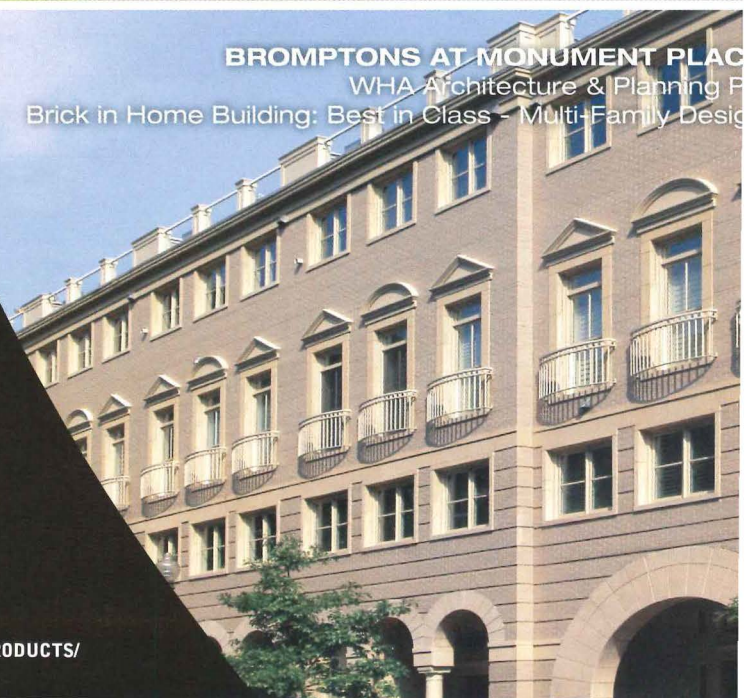
HOLOCAUST MEMORIAL CENTER

Neumann/Smith & Associates  
Masonry Construction Magazine: Project of the Year, 2006



BROMPTONS AT MONUMENT PLACE

WHA Architecture & Planning Firm  
Brick in Home Building: Best in Class - Multi-Family Design



An ISO 9001:2000 Registered  
Quality Management System

**BELDEN**  
THE BELDEN BRICK COMPANY

Canton, Ohio / 330-456-0031  
[www.beldenbrick.com](http://www.beldenbrick.com)

CIRCLE 84 ON READER SERVICE CARD OR GO TO [ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/](http://ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/)



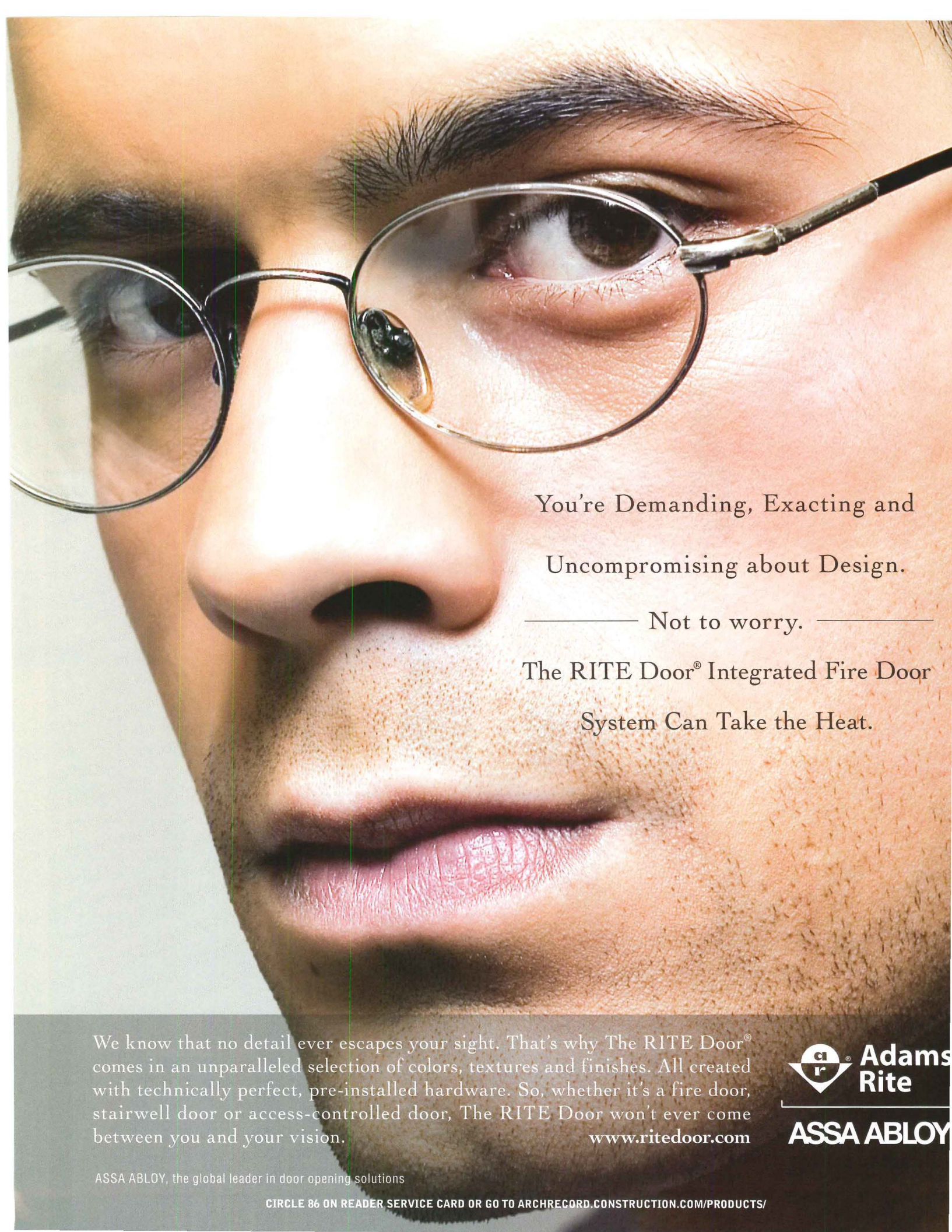
**AT AAMA, WE GO THROUGH A LOT OF TROUBLE TO MAKE SURE YOU DON'T HAVE TO.**

At the American Architectural Manufacturers Association, we're serious about window and door quality. In fact, our certification shows that a window or door's design has passed tough independent tests for resistance to air leakage, water penetration and wind pressure. What's more, AAMA Certification Program manufacturers submit to two surprise plant inspections a year as part of the program's quality assurance requirement. They also certify that the products you specify, when installed properly, match the quality of the sample product tested. When we say we thoroughly test for quality, we're not blowing a lot of hot air. To learn more, call 847-303-5664 or go to [aamanet.org/certification](http://aamanet.org/certification).



**AAMA STANDS  
FOR YOU.**

CIRCLE 85 ON READER SERVICE CARD OR GO TO [ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/](http://ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/)



You're Demanding, Exacting and  
Uncompromising about Design.

———— Not to worry. —————

The RITE Door® Integrated Fire Door  
System Can Take the Heat.

We know that no detail ever escapes your sight. That's why The RITE Door® comes in an unparalleled selection of colors, textures and finishes. All created with technically perfect, pre-installed hardware. So, whether it's a fire door, stairwell door or access-controlled door, The RITE Door won't ever come between you and your vision.

[www.ritedoor.com](http://www.ritedoor.com)

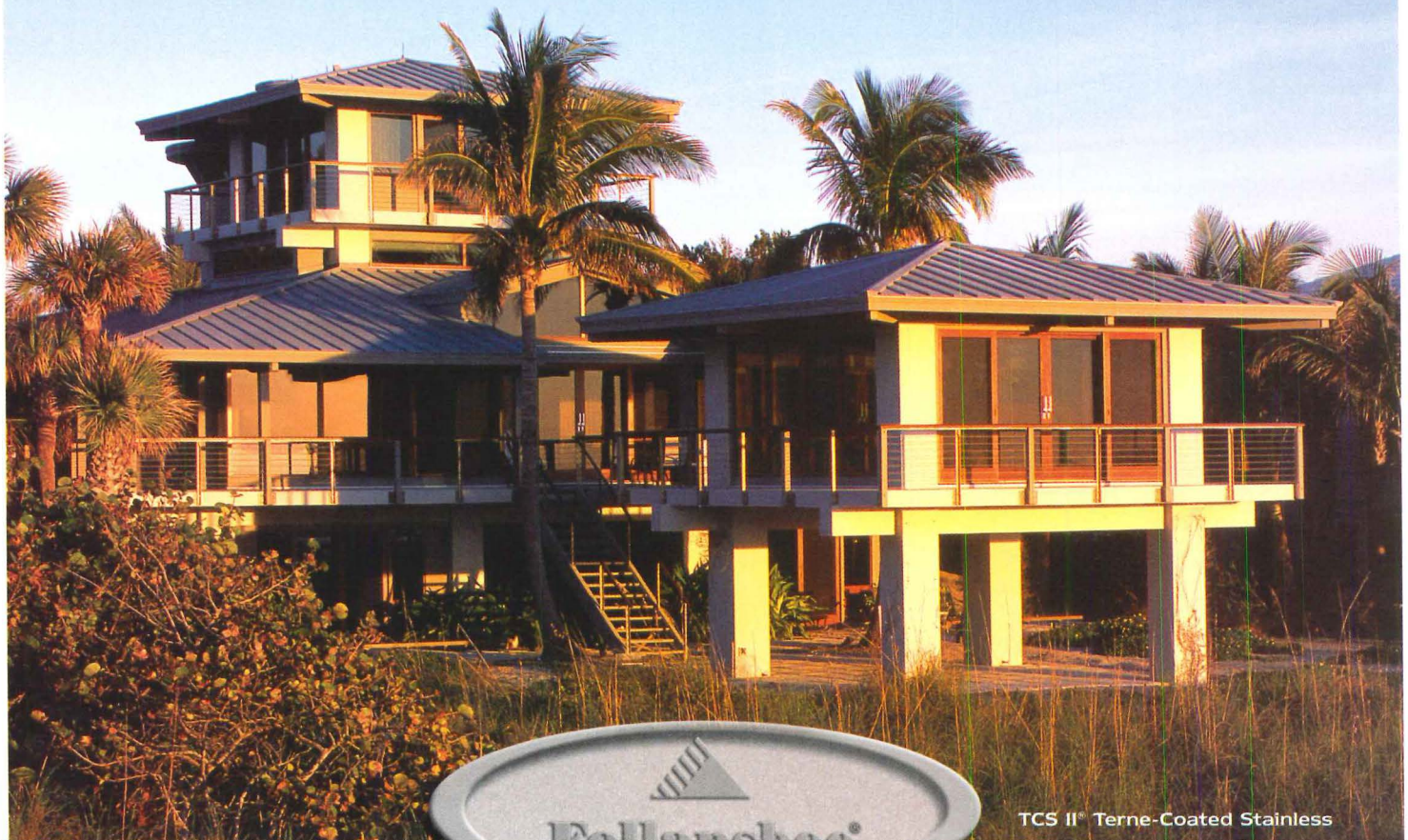
 **Adams  
Rite**

**ASSA ABLOY**

ASSA ABLOY, the global leader in door opening solutions

CIRCLE 86 ON READER SERVICE CARD OR GO TO [ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/](http://ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/)

The best roof money can buy.™



TCS II™ Terne-Coated Stainless

Boca Grande, the home above, and its Follansbee roof were directly in the path of Hurricane Charley. The storm had given way to a week of clear blue Florida skies, so we thought it was about time to call our customer. "Everybody okay?" "Yes, we were up North at the time. But a couple of our neighbors got hit pretty hard." "How's the roof?" "Perfect. Like the day it was installed. No damage, no leaks." So we talked about golf and fishing instead.

Learn more about this project at [follansbeeroofing.com/BocaGrande](http://follansbeeroofing.com/BocaGrande).

**Follansbee – for those who demand the very best.**

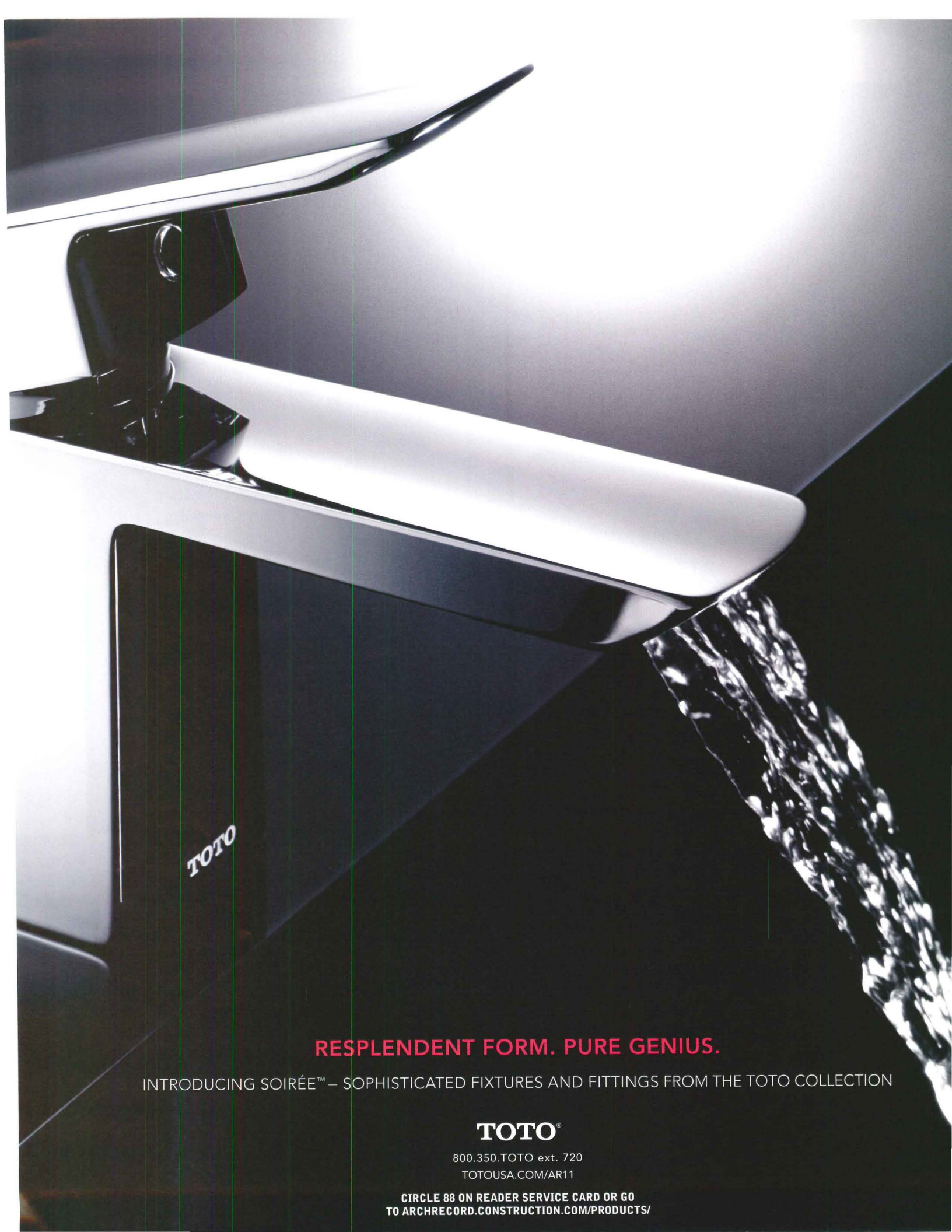
Call or visit Follansbee online today to learn more.

**800.624.6906 [follansbeeroofing.com](http://follansbeeroofing.com)**

CIRCLE 87 ON READER SERVICE CARD OR GO TO [ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/](http://ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/)



Earn 1-hour AIA learning credit online today. Visit [follansbeeroofing.com](http://follansbeeroofing.com)



TOTO

**RESPLENDENT FORM. PURE GENIUS.**

INTRODUCING SOIRÉE™ – SOPHISTICATED FIXTURES AND FITTINGS FROM THE TOTO COLLECTION

**TOTO®**

800.350.TOTO ext. 720

TOTOUSA.COM/AR11

CIRCLE 88 ON READER SERVICE CARD OR GO  
TO [ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/](http://ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/)

# Residential

## Modern-day compounds exhibit timeless design intelligence

### BRIEFS

#### **Founded in 1999 by Cameron Sinclair and Kate Stohr,**

Architecture for Humanity started on a shoestring but always had an ambitious mission—to provide architectural solutions to communities in need. In 2006, it won the prestigious TED Prize, allowing it to create the Open Architecture Network (OAN), an open-source community tool that allows architects to collaborate online. Unveiled in February 2007, the site today has over 3,700 volunteer designers working on about 217 different projects. Among these is the Biloxi Model Home Project. The project—a joint effort of the Biloxi Relief Recovery and Revitalization Center, the Gulf Coast Community Design Studio of Mississippi State University, and AFH—invited 12 architects to submit residential designs. See [www.architectureforhumanity.org](http://www.architectureforhumanity.org), Robert Ivy's blog about his recent trip there at [architecturalrecord.com](http://architecturalrecord.com), and continuing coverage in RECORD.

#### **According to the AIA Home Design Trend Survey,**

healthy activity in home improvement during the second quarter of 2007 continues with a decidedly green flavor, despite housing-market woes. "Structural insulation panels, geothermal heating/cooling systems, tankless water heaters, and green flooring products such as bamboo and cork are all in high consumer demand," said AIA chief economist Kermit Baker, Hon. AIA. A recent AIA poll revealed that 91 percent of registered voters said they would be willing to pay \$5,000 more for a house that uses less energy. See the full report at [www.aia.org/aiarchitecture](http://www.aia.org/aiarchitecture).

**The Getty Center** in Los Angeles holds a substantial archive of the work of mid-20th-century residential designers. In 2005, photographer Julius Shulman donated an image library illustrating more than 7,000 projects by Frank Lloyd Wright, Richard Neutra, R.M. Schindler, Charles Eames, Pierre Koenig, and others—creating a centerpiece for further collections. This summer, the archives of Ray Kappe and John Lautner became the property of the Getty. The collections will eventually be made available to the public.

**The Discovery Channel** plans to help rebuild Greensburg, Kansas, a city ravaged by a tornado this past May. With Leonardo DiCaprio serving as executive producer, *Eco Town*, a 13-part series that chronicles the rebuilding efforts, will be the centerpiece of the launch of Discovery's new cable channel Planet Green. See [www.planetgreen.discovery.com](http://www.planetgreen.discovery.com).—Jane F. Kolleeny

### CONTENTS

#### **190 Montauk Compound**

*Pentagram Architects*

#### **194 Evans Residence**

*Turnbull Griffin Haesloop Architects*

#### **199 1 + 3 = 1 House**

*Steffen Leisner, Ali Jeevanjee, Phillip Trigas*

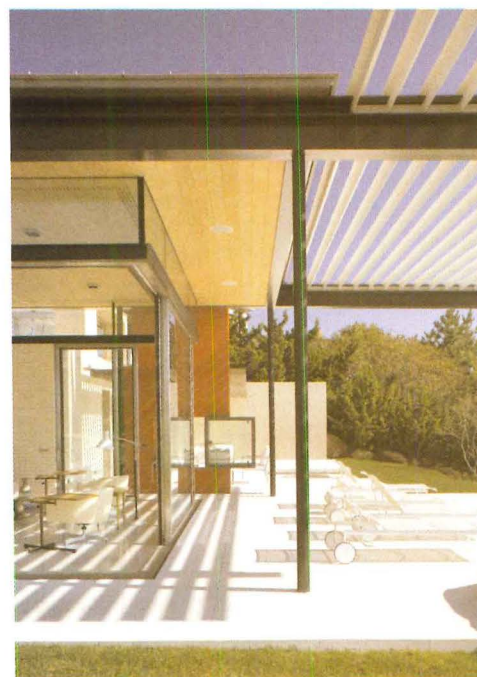
#### **202 Lake Tahoe Residence**

*Lake/Flato Architects*

#### **207 Residential Products**

**ONLINE:** For a complete list of sources, go to [architecturalrecord.com/residential/](http://architecturalrecord.com/residential/). Submit your residential project to [construction.com/community/gallerylist.aspx](http://construction.com/community/gallerylist.aspx).

In agricultural societies, people have built residential compounds for thousands of years because such multibuilding dwellings neatly separate different functions (sleeping, eating, cooking) and occupants (family, guests, farm animals). While the owners of the compounds shown here need not worry about the cooking fire burning down the house or the pigs invading the dining room, they have their own reasons for compound life. In the Montauk, New York, and Lake Tahoe, Nevada, houses, freestanding guest quarters provide privacy for visitors and homeowners alike. Separate public and private areas in the Evans Residence and the 1 + 3 = 1 House in California create convenient hierarchies of access. In all featured projects, the buildings define interspersed outdoor areas for gardens, pools, spas, porches, and courtyards. Some villagelike, some more formal, these four ensembles provide exciting design challenges for the architects and inviting benefits for owners. *Jane F. Kolleeny*

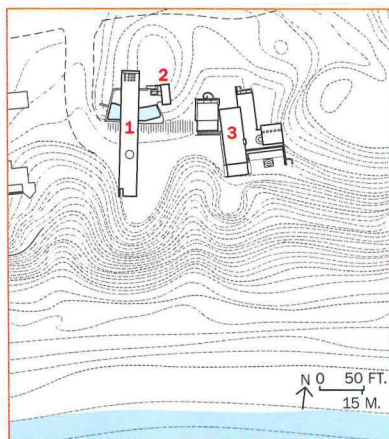
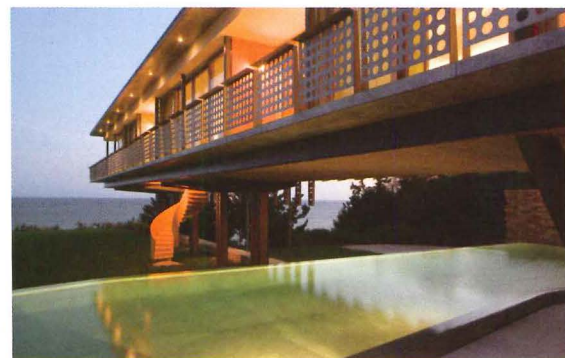




Both the main house and guesthouse extend longitudinally toward the ocean (top). The main house at dusk shows the intimate coordination of indoor and outdoor spaces (bottom).



# Case Study Houses inspire Montauk Compound



Wood louvers cover the back, south-facing side of the guesthouse (far left top). A continuous outdoor balcony with a distinctive slotted railing wraps its north side (far left bottom). An infinity pool, raised up and tucked into the guesthouse, offers ocean views (far left bottom). Full-height windows in the main house open to a porch and the sea beyond (below).

1. Guesthouse
2. Pool house
3. Main house



By Jane F. Kolleeny

Jim Biber, FAIA, worked with his clients for seven years on this residential compound on a ridge overlooking the Atlantic Ocean in Montauk, New York. But instead of being exhausted by the long process, with its delays in approvals and construction, everyone involved in the project readily admitted their love for design kept them motivated and engaged from start to finish. Biber, a partner at the international design firm Pentagram, has designed 12 projects for the clients, a couple, including this one. He describes the clients as more patrons than owners. They in turn have succinctly presented their point of view: “We could buy a Picasso, but this was a lot more fun.”

Inspiration for the project came from Midcentury Modernism, in particular the Case Study Houses program, run by *Arts & Architecture* magazine in the 1940s, '50s, and '60s. The program, which commissioned houses by Charles and Ray Eames, Craig Ellwood, and others, epitomized a new, less formal lifestyle characterized by an easygoing relationship between indoors and out, and an emphasis on bringing design in close proximity to nature. Biber's Montauk residence embodies these qualities, driven to a large extent by the owners' Midcentury Modern furniture collection, considered by their dealer to be one of the finest in America. “The furniture, rather than being something we simply poured into the houses, was the inspiration for the houses and a part of the design ethic itself,” says Biber.

At the beginning of the project in 1999, the architect and owners took a guided tour, organized by the Cooper-Hewitt, National Design Museum, of Modern postwar houses in Los Angeles and Palm Springs, California. The trip allowed them to expand their knowledge and develop

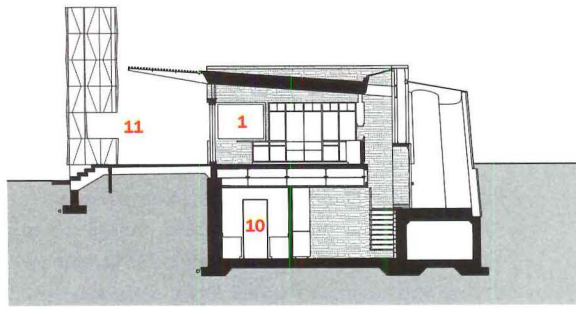
a common vocabulary, which became the basis for communication during the design process.

The site created enormous challenges and opportunities. Working with two contiguous, 2-acre building lots with zoning and easement restrictions, and limitations imposed by the bluffs, the deep beach, and neighbors on both sides, the architect used the restraints to evolve the design gradually. “With the goal of a porous outdoor room, boundaries were developed over time. The impact of the main house became clear, and the neighbors built a house overlooking the property. Like a chess game, each move was a reaction to the previous one, with a big idea in mind,” explained project manager Michael Zweck-Bronner.

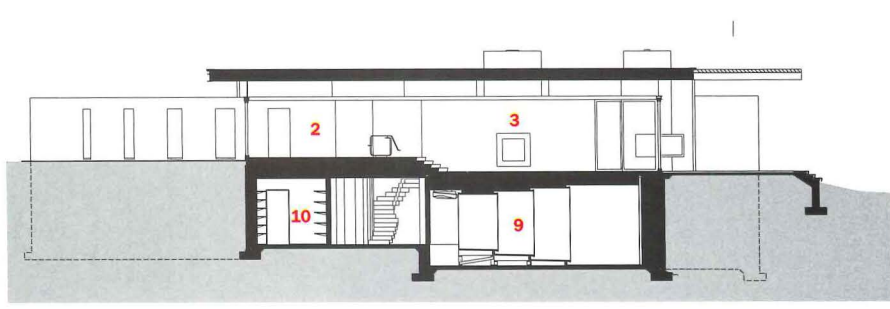
The low-slung, 7,192-square-foot main house consists of two back-to-back, L-shaped sections: a glass-and-steel unit in the front containing the living, dining, and kitchen areas; and in the back, a more densely packed private wing with a master-bedroom/sitting-room suite and a guest suite. A tiny second-story study tops the house, and a full

**Project:** Montauk Compound, Montauk, New York  
**Architect:** Pentagram—James Biber, FAIA, design partner;

Michael Zweck-Bronner, project manager  
**Engineer:** Anchor Consulting  
**General contractor:** Men at Work



MAIN HOUSE SECTION A-A

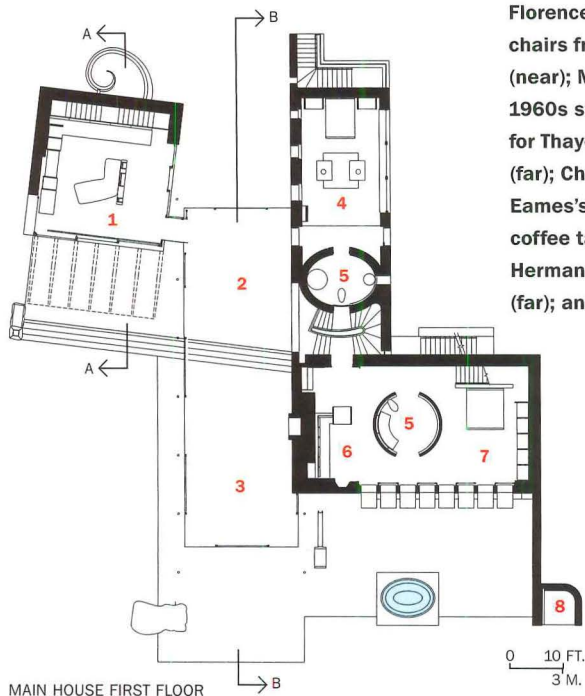


SECTION B-B



1. Kitchen
2. Dining room
3. Living room
4. Guest bedroom
5. Bath
6. Sitting room
7. Master bedroom
8. Outdoor shower
9. Screening room
10. Storage
11. Outdoor fireplace

**Outdoor rooms (above left) can be found tucked into shoulders of the houses. The living-room furniture (above right) includes a Hvidt and Nielsen 1950s coffee table; Florence Knoll armchairs from the 1950s (near); Milo Baughman 1960s swivel chairs for Thayer-Coggin (far); Charles and Ray Eames's "Surfoard" coffee table for Herman Miller, c. 1954 (far); and much more.**



MAIN HOUSE FIRST FLOOR

basement contains a screening room, gym, darkroom, and utility areas.

Across the courtyard, the architect raised the 2,475-square-foot guesthouse one story above ground and gave it a vibrant yellow circular outdoor stair. Its long, rectilinear form and single-loaded balcony access was a reference to the indigenous motel typology, explains Biber. Splashes of beach-ball color accent its robust interior and exterior design. Biber says working on the guesthouse was like sitting at the kids' table at Thanksgiving: more fun and fanciful than being at the adults' table.

For the main house, Biber specified materials that include terrazzo for floors in the public areas, walnut and cypress wood paneling in the bedrooms, Alaskan yellow cedar ceilings in the living/dining rooms, and ceramic floor tiles designed by Gio Ponti in the bedrooms. He used patterns made from circles and rectangles as a repeating motif in the guesthouse balcony rail, the main-house skylights and bathrooms, and the entry gate to the compound. Enormous sliding glass doors open to the courtyard and the ocean, blurring the distinction between indoors and out. Two terracotta chimneys outside, one blue and one red, along with the yellow stair, provide dashes of color and verticality to the mostly quiet rectilinear forms.

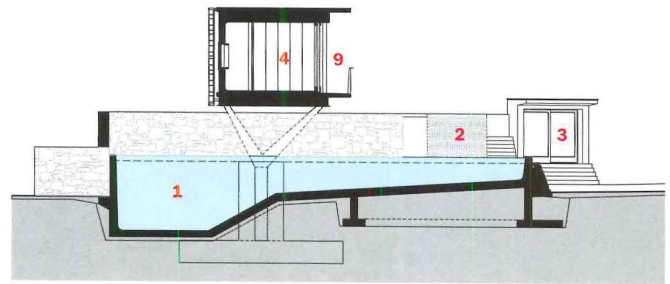
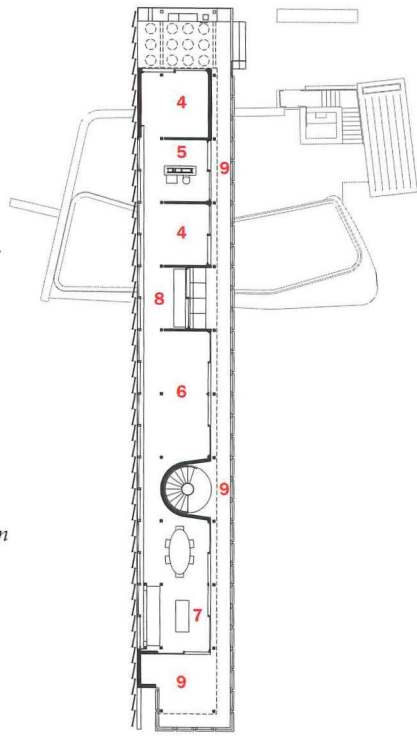
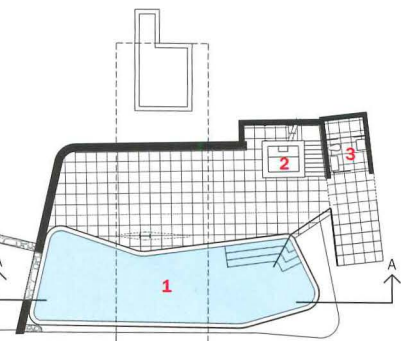
The elusive boundaries between the buildings and outdoor spaces pay tribute to the Case Study House program. Here, the architect considered not only his design's visual impact, but how it would engage other senses, as well. In particular, he wanted the residential compound to embrace nature by capturing the omnipresent sound of the ocean. As Biber describes it, "The house is like a vessel for listening to the sea." ■

#### Sources

**Windows and glazing:** Fenevations  
**Wood windows, cabinetwork:** Rising Sun Woodworking  
**Hardware and cabinetwork:** D-Line

#### Hardware

**Paint:** Benjamin Moore Paints  
**Cork floor:** Expanko  
**Terrazzo flooring:** Maurice Sedaka; Du  
**Furniture:** Lin Weinberg Galleries



GUEST HOUSE SECTION A-A

0 10 FT.  
3 M.

1. Pool
2. Hot tub
3. Pool house
4. Bedroom
5. Bath
6. Living room
7. Kitchen
8. Studio
9. Deck

GUEST HOUSE FIRST FLOOR

GUEST HOUSE SECOND FLOOR

N 0 10 FT.  
3 M.



The kitchen/dining area in the guesthouse overlooks the ocean (right). Whimsical beach-ball colors and motel style of the 1950s informs the compound's overall design aesthetic. Raising the guesthouse up one story (above right) was a way to create a gate to the compound and capture some extraordinary views—as well as screen out some less-desirable ones.





SECTION A-A

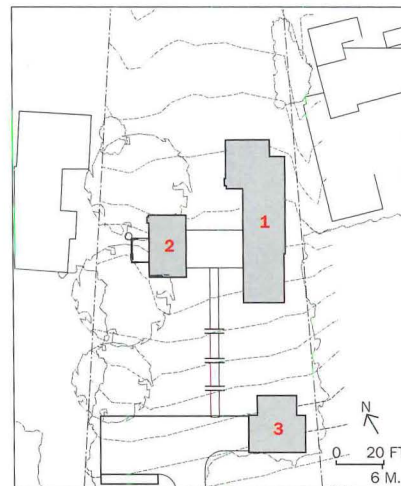
The deck serves as an arrival point, as a connection between the living/dining and bedroom buildings, and with its generous table, as the heart of daily life.

0 3 FT.  
1 M.

# TGH's Evans Residence frames an ocean view



1. Main living spaces
2. Privacy suite
3. Garage/studio



By Lisa Findley

Steep cliffs, crashing waves, and wild natural beauty characterize the coastal enclave of The Sea Ranch, 90 miles north of San Francisco. Even in summer, rolling fog and mist are more likely than sun, and the chilly onshore wind is a predictable afternoon visitor. As a result, houses here tend to be contained boxes with large windows and cozy fireplaces. Life takes place inside after brisk walks along the cliff tops or sweater-clad investigations of the pocket beaches. In the open meadows nearest the sea, most outdoor spaces consist of either inward-looking courtyards, gardens carefully sheltered by house or fence, or decks that embrace the view but are fitted with high glass walls.

It comes as a surprise, then, that the carefully composed Evans house sits on the bluffs at Sea Ranch. This compound of three modest buildings—a living/dining-room building, a master-bedroom suite, and a garage/studio building—with outdoor spaces connecting them, defies the pattern here. An unenclosed deck, with a view of the adjacent coastal meadow and the Pacific horizon, lies at its center. Across the yard on the landward side, the one-car garage and tiny studio combine to make a third building that straddles the redwood fence hiding the house from the road.

The house's focus around exposed outdoor space is not a result of naïveté about the conditions at Sea Ranch; in fact, quite the opposite. The architects, Turnbull Griffin Haesloop (TGH), are among those most familiar with the place. William Turnbull, who died in 1997, was the *T* in MLTW, the firm that in 1964 designed the progenitor of all Sea Ranch buildings, Sea Ranch Condominium 1. When MLTW dispersed, Turnbull stayed in San Francisco, and the firm now has dozens of Sea Ranch houses to its credit. "Our early buildings at The Sea Ranch were sealed like spaceships due to the wind and weather," says partner Mary Griffin, FAIA. "But we are now learning to compose buildings so that people can live outside."

Contributing editor Lisa Findley is an architect and teacher. She wrote the book *Building Change: Architecture, Politics and Cultural Agency* (Routledge 2005).

**Rather than being centrally located, the three structures of the residence face diagonally across their own lot out to the Pacific, permitting the meadow to flow through the site.**

The Evanses purchased the last open lot wedged into a long row of already finished vacation homes. The slightly sloped site features a line of mature cypress trees along its eastern edge and, to the west, a dense thicket of native scrub planted by the neighbors to maintain privacy. "Our first instinct was to push the house as close to the cliff as the lot would allow," partner Eric Haesloop, AIA, recalls. "But we quickly discovered that by setting the buildings back, views of the houses on either side could be minimized." With this in mind, the architects carefully sited the three buildings and built a fence to complete the enclosure of the site.

Passing through the modest gate in this fence, visitors begin a carefully choreographed procession. First they take a narrow path that crosses the vegetation-lined yard and brings them to the deck and the view. To the west (or on one's right when standing on the deck looking toward the view), the beautifully detailed building with the main living spaces steps gently down the site, while its roofline holds even. As a result, the interiors unfold as a series of spaces with different proportions, from the intimacy of a sunny guest room at the top to a skylit bath next to it to an inward-facing living room below, and finally, to a soaring gourmet kitchen at the lowest level. The sequence ends at a great wooden table in a view-filled dining area that occupies what Turnbull used to call a "saddlebag" appended to one end of the building. Turnbull developed the

**Project:** Evans Residence, The Sea Ranch, Calif.

**Architect:** Turnbull Griffin Haesloop Architects—Mary Griffin, FAIA, Eric Haesloop, AIA, design principals;

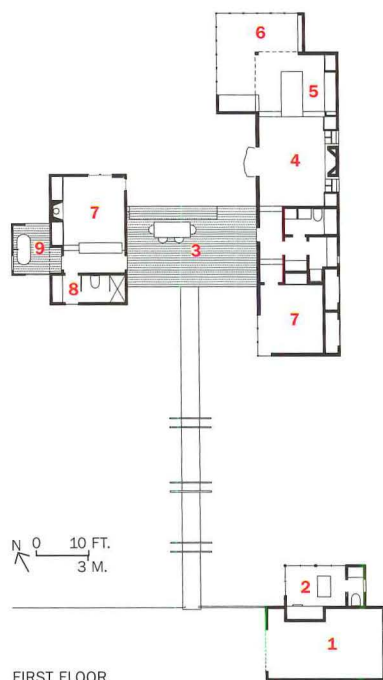
Molly McGrath, project manager

**Interior designer:** Margaret Simon

**Engineer:** Fratessa Forbes Wong

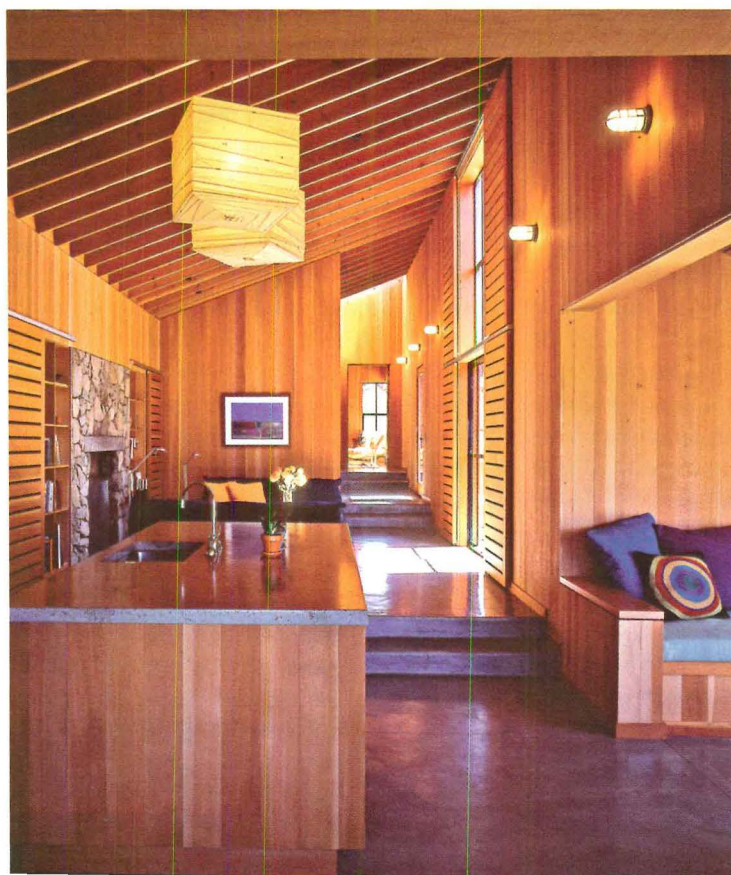
**General contractor:** Timothy Carpenter

1. Garage
2. Studio
3. Deck
4. Living room
5. Kitchen
6. Dining room
7. Bedroom
8. Bath
9. Outdoor tub



In the building holding the public spaces, the dining-room/kitchen bay opens up in a long horizontal sweep to the

bluff and ocean beyond (above), while the living-room area (below) displays an inward-facing perspective.



saddlebag as a reference to the vernacular architecture of California's north coast. On the outside, it looks like a lean-to, but on the inside, it works as a light-filled extension into the landscape. At the Evans house, the saddlebag blocks part of the scenery visible from the deck, making the view that remains all the more precious. The length of the saddlebag building shields the deck from the near-constant westerly wind, creating a protected microclimate for outdoor living.

Along the east edge of the site, the building with the master bedroom and bath nestles against and reinforces the row of cypress trees. Inside, steps follow the slope of the site leading from the bath to a lower sleeping area. An outdoor bathtub, sheltered by a tiny lean-to and low tree boughs, hides behind the master bedroom suite.

In the decade since Turnbull's death, Griffin and Haesloop have carried on his tradition of exquisite sensitivity to site and extraordinary craftsmanship, while evolving fresh ways to shape light, program, and space. Although modest in size and demeanor, the Evans house embodies a living legacy of architectural knowledge. ■

#### Sources

**Metal windows and doors:** Bonelli

**Glazing:** Cardinal

**Hardware:** Schlage

**Interior ambient lighting:** Stonco

Wall Lights

**Downlights:** BK Lighting

**Dining table:** Ed Clay Fine Furniture

**Concrete stained floor:** Scofield

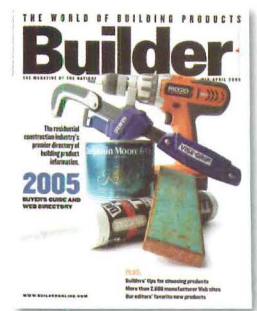
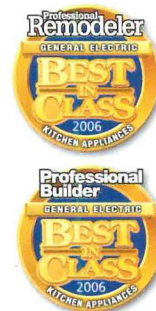
# expect answers at 463Kb per second



GE has made a large investment in communications technology. On the job site, your GE sales manager can order parts as well as check inventory levels, availability, and shipping status. Your GE sales manager and service techs are there for you, because they know responding to your requests in a timely manner keeps you on schedule. And that means getting answers now.

For more information on GE appliances, please call 866.251.1753.

More builders were familiar with GE, and used GE, than any other brand. *Builder Magazine, 2005 Brand Use study*



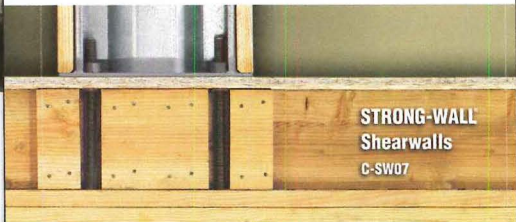
CIRCLE 89 ON READER SERVICE CARD OR GO TO [ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/](http://ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/)



We took the “never” out of  
“never in your wildest dreams”.



SIMPSON  
Strong-Tie

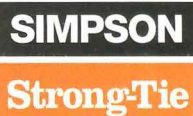


**STRONG-WALL**  
Shearwalls  
C-SW07



For years our shearwalls have allowed you to meet structural demands without sacrificing freedom of design. Now all of your solutions are conveniently in one place—the new *Strong-Wall*® Shearwalls catalog. Consolidated technical information, structural details and design examples provide you with all the tools you need to make the best choices for your project. And our new Strong-Wall applications create new opportunities for two story structures. From bigger windows to smaller wall sections—you provide the artistic vision, we'll provide the innovative products. Vision accomplished.

To find out how our products can help you in unexpected ways, visit us at [www.strongtie.com](http://www.strongtie.com) or call 800-999-5099.



SIMPSON  
Strong-Tie

CIRCLE 90 ON READER SERVICE CARD OR GO TO [ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/](http://ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/)

©2007 Simpson Strong-Tie Company Inc. SWARCO



# An asymmetrical collage named 1+3=1 House



By Sam Lubell

**H**ow do you triple the size of a house when it sits on a small lot in Venice, California? Young Los Angeles architects Steffen Leisner, Ali Jeevanjee, and Phillip Trigas faced this challenge when they collaborated on expanding a house for a couple living in a 970-square-foot, avocado-colored Venice bungalow with shingled siding and a gabled roof near Abbot Kinney Boulevard, the town's vibrant central drag.

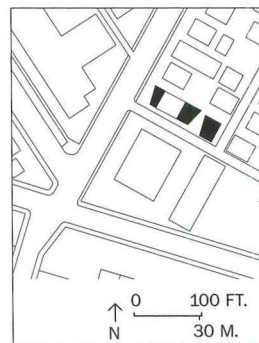
The owners—a filmmaker and a multimedia artist—asked the architects to provide them with 2,500 square feet of new space on the bungalow's long, narrow lot, including living and office areas as well as an art studio and rental unit. Since the bungalow, which contains a kitchen and an entertainment area, had been renovated only five years before, there was no point in knocking it down and starting from scratch. Knowing that a large addition would dwarf the existing home, the architects added three multi-story structures that distribute the new program around the site, making the existing bungalow a vital part of a new complex.

In front of the bungalow, which sits sideways on its narrow site, the architects built a 7.5-foot-wide, 26-foot-long, dark concrete pool, and added a 450-square-foot, two-story structure that includes a small, carved-out front porch, a work space, and a top-floor meditation studio. Behind the bungalow, the architects added a 1,000-square-foot structure that accommodates a sunken, 12-foot-tall living room, attached via an archway where they tore down the bungalow's east wall and a 160-square-foot second-floor bedroom. In the backyard, separated from the other two structures by a small, paved courtyard, they built a 1,065-square-foot building that contains a small, first-floor studio for renters, and a high-

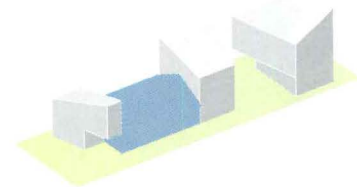
*Sam Lubell is the editor of the California edition of The Architect's Newspaper. He contributes regularly to ARCHITECTURAL RECORD.*

**Project:** 1+3=1 House, Venice, Calif.  
**Architect:** Steffen Leisner, Ali Jeevanjee, Phillip Trigas

**Engineer:** David H. Lau & Associates  
**General contractor:** Calasia Construction



The facade of the front structure angles upward (far left in photo, above left, and drawing, below). The walls of the living addition that flanks the original house (in blue below) and the adjacent rental unit/art studio building both cant outward, helping shape the unique courtyard (above and below).



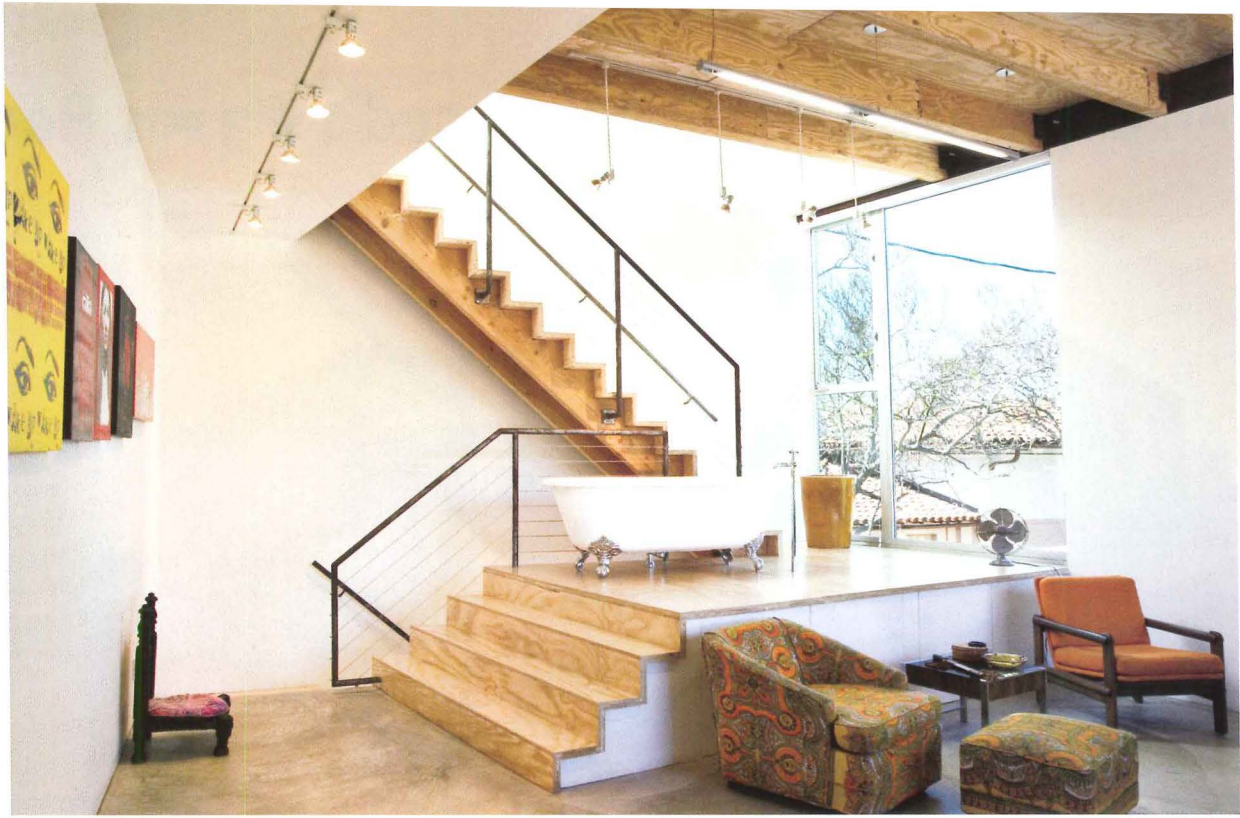
FIRST FLOOR



SECOND FLOOR

1. Pool
2. Spa
3. Deck
4. Library
5. Office
6. Dining
7. Living
8. Courtyard
9. Rental unit
10. Meditation room
11. Master suite
12. Art studio

The kitchen/dining room in the existing bungalow opens onto the living room (bottom). Tucked under a plywood ceiling, the second-story master bedroom suite resides in the addition at the back of the bungalow (below). The art studio is on the second floor of the back addition (right, with a functioning bathtub on the landing).



ceiling, second-floor artist's loft. Above this, the architects provided the basic infrastructure for a rooftop lounge.

Spaces flow smoothly into one another: For example, the entrance hall and newly renovated kitchen in the existing bungalow open onto the new living room. A full-height window in the living room connects the space visually to the courtyard, while an open, wall-size window in the artist's loft offers views of the neighborhood.

By clearly differentiating the new structures, the architects complemented the bungalow rather than imitating it. In the process, they used a sophisticated modern palette of construction materials, specifying modestly priced items such as polished concrete floors, exposed plywood ceilings and doors, and greenish-blue windows with aluminum frames that kept the cost down to \$700,000. The structures too are inexpensive: simple wood-frame construction with gray hard-trowel stucco walls.

The architects designed the unusual progression of indoor and outdoor spaces and the house's intriguing geometries to generate visual drama, expand the sense of space, and maximize interior daylight, says Leisner. They also needed to meet Venice's often-quirky building codes, which, among other things, call for several parking spots on the site. Steeply pitched corrugated-metal roofs above the new structures face in different directions, frame lofty views out, and create what looks like a miniature village in elevation.

While the differences in scale, shape, and color between the existing house and the additions can be jarring at first, they create a small urban collage that seems appropriate for the makeshift quilt that is Venice. "We started with a strong idea," says Leisner. "Then we threw in the constraints and let the design happen." ■

#### Sources

**Exterior cladding:** *La Habra*

**Roofing:** *Galvalume Plus*

**Windows:** *Metal Window*

*Corporation*

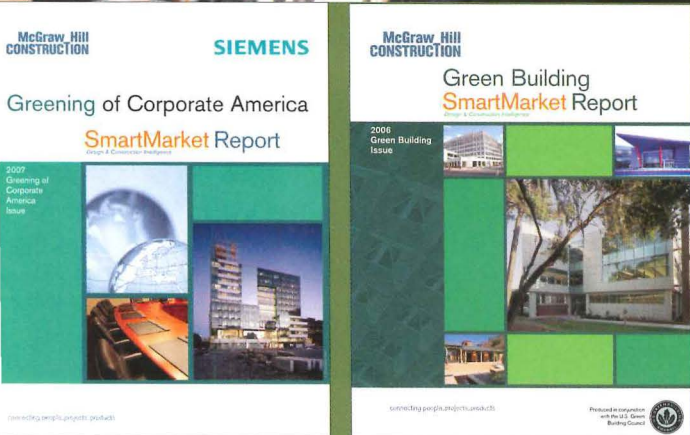
**Glazing:** *Solarban 60*

**Bathroom tile:** *Bisazza*

**Paint:** *Behr*

**Bath fixtures:** *Kohler*

**Toilets:** *Toto*



# McGraw-Hill Construction: Your source for green market intelligence

**McGraw-Hill Construction:**  
We know the green marketplace.

Let us help you turn  
'green' into green \$.

Call 1.800.591.4462

**McGraw-Hill Construction can answer your questions about how green affects all aspects of the construction marketplace.**

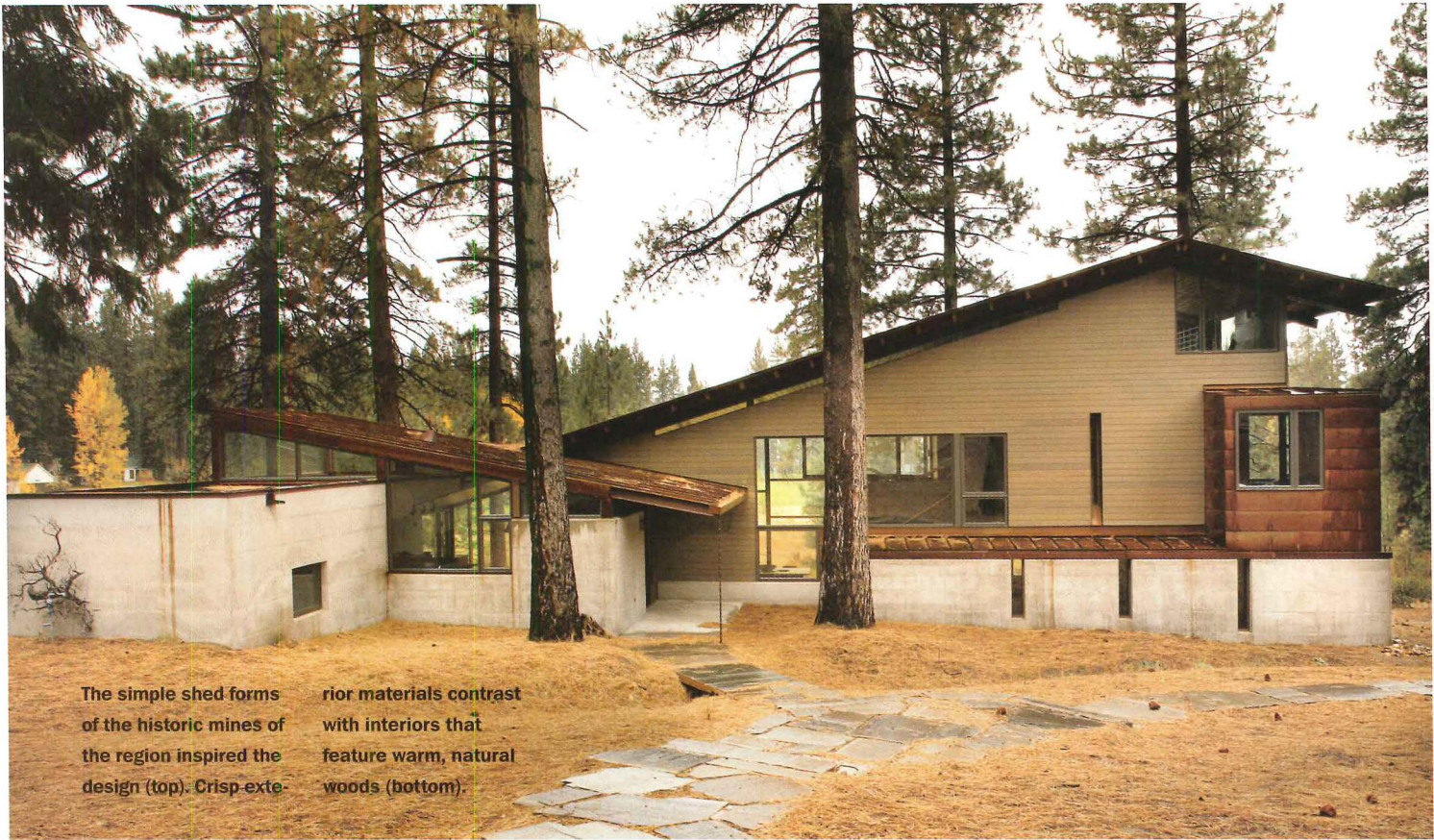
Whether you're interested in the commercial, residential, education, healthcare, or another building segment, we have the intelligence, know the trends, can tell you what the market is thinking, and the impact of your brand.

We have conducted research on the 'greening' of corporate America, and we can help you determine how you can grow your green business and increase your market share.

**Our custom research and analytics can help you**

- assess your brand identity
- know how much of the green market you are capturing
- learn how to move your business forward
- gain more of this fast growing market

**For McGraw-Hill Construction's Green SmartMarket Reports, visit [www.construction.com/greensource/reports.asp](http://www.construction.com/greensource/reports.asp)**



The simple shed forms of the historic mines of the region inspired the design (top). Crisp-exte-

rior materials contrast with interiors that feature warm, natural woods (bottom).



# Lake/Flato Architects' Lake Tahoe House performs the duties of a camp compound for its owners

By Stephen Sharpe

The notion of a camp compound appealed to the project's client, an active family wanting to be outdoors as much as possible at their vacation home near the north shore of Lake Tahoe, Nevada. This underlying design concept allowed the architect, David Lake, FAIA, of Lake/Flato Architects in San Antonio, to spread out the program and divide its components among three buildings sited along the edge of the ¼-acre tract. The strategy also protected the site's most distinctive features, particularly its towering Ponderosa pines. "It was a way of preserving the character of the site and leaving as much open space as possible," says Lake.

The multibuilding plan loosely forms a courtyard that slopes downward and culminates in a 2,950-square-foot, three-story main house, referred to as "the lodge," which consists of a kitchen; a large, open living/dining room; smaller reading rooms; and two bedrooms with separate bathrooms. The profile of the second building, a long and narrow garage/shop/playroom, mimics the incline of the hill and helps block views of the neighbors. An open arbor connects the garage building to the lodge, while a detached guest house, the third building in the set, sits on the other side of the lodge. Simple shed forms inspired by the old mining structures and small barns common to the region characterize all three buildings. Low-maintenance materials, including board-formed concrete, weathered cedar siding, and rusted Cor-Ten steel, make up the rugged exterior palette. Metal roofs, the typical snow-country "cold" variety that retains a blanket of snowfall as insulation, top the three buildings and ward off potential damage from wildfires.

By breaking up the program, the architects also reduced the scale of the project, which encompasses 5,845 square feet of indoor space. The client didn't want a big house that might overwhelm the neighbors' modest-size residences, says Lake. The neighborhood, developed in the 1950s, represents a throwback in time compared to newer developments in the area. For example, homes built more recently tend to range from 12,000 to 15,000 square feet—significantly larger than his clients' buildings, says Lake. Standing about 5,500 feet above sea level and 800 feet below a ridgetop, the site is protected from north and northwest winds while also benefitting from ample direct sunlight. Lake describes the buildings as energy-efficient, designed with passive solar strategies that include south-facing glass and stained-concrete floors to capture the

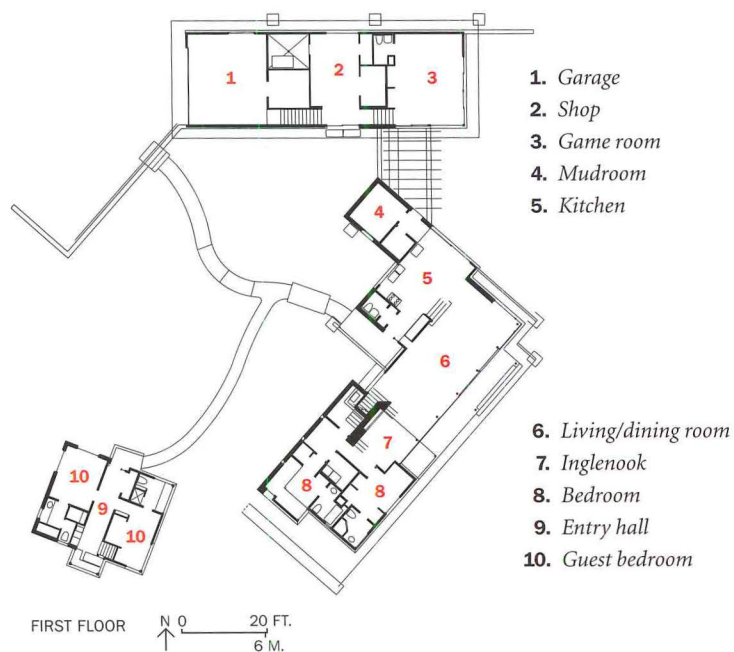
Stephen Sharpe is the editor of *Texas Architect*.

**Project:** Lake Tahoe House, Lake Tahoe, Nev.  
**Architects:** Lake/Flato Architects—David Lake, FAIA, design principal; Billy Johnson, Tenna Florian, AIA; Heather Degrella, design team

**Engineers:** Datum Engineers (structural); Gray & Associates (civil); Electrotech (electrical); RHP Mechanical (m/e/p)  
**General contractor:** Q&D Construction



The main house (above right) anchors the compound. Inside, abundant glazing, concrete floors, and wall-to-ceiling wood paneling frame the kitchen/family room (right).





Small bedrooms feature bunk beds built into compact niches to accommodate children

(above). The modestly scaled guest house sits apart from the main house (below).



abundant daytime sunshine that keeps the interiors warm during winter nights. Radiant heat in winter and open ventilation in summer keep indoor temperatures comfortable.

Modeled after a classic lodge, the main house serves as the primary gathering area. Even overnight guests bunking in the two smaller buildings can share meals in the central dining room. However, a small kitchenette in the guest house (915 square feet on two levels) allows visitors the option of making some of their own meals. “The design as a compound enables the owners to host lots of guests,” Lake says. “Families can come and have their own privacy.” The playroom in the garage building (1,980 square feet on one level) is a favorite place for kids to sleep, he says. Large rolling doors open the main house’s living/dining room to the outdoors. And with its interior balcony, the central space doubles as a venue for staging theatrical productions put on by the youngsters. Intimate reading rooms offset these lofty living spaces. A private office on the third floor offers a crow’s-nest view of the blue waters of Lake Tahoe ½ mile away to the south.

Getaways for this family fulfill the promise of year-round outings along the lakeshore and in the surrounding mountains. The clients’ love of the outdoors, together with the limitations of a challenging site, drove the multibuilding design that emphasizes an active lifestyle. ■

#### Sources

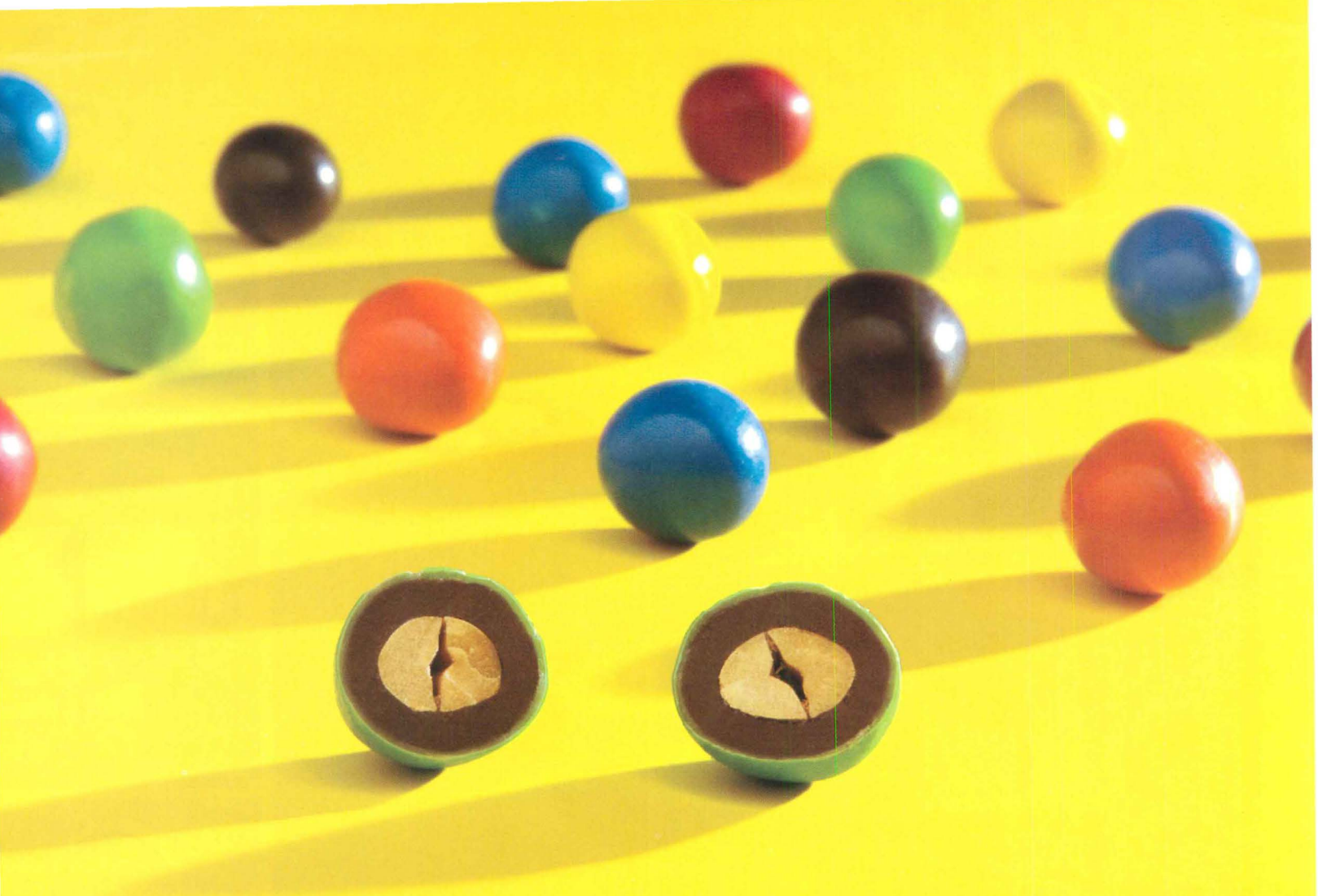
Concrete floors: *L.M. Scofield*

Concrete countertops: *BJ Concrete*

Metal roofing: *RHP Products*

Sliding patio doors: *Albertini*

Interior finishes: *Dianda*



**PELLA ADVANTAGE NUMBER 59: AN ASSORTMENT OF  
COLORFUL EXTERIORS WITH A RICHLY SATISFYING INTERIOR.**



Aluminum and wood — a sweet combination. Aluminum cladding provides a colorful, durable exterior, while wood creates a beautiful, warm interior. With Pella® Commercial wood windows and doors, you'll find solutions to meet any design performance or budget requirement. A spectrum of products created to complement your good taste. That's **The Power Of Yellow.™** Put it to work for you — call **888-21-PELLA** or visit [pellacommercial.com/cpg](http://pellacommercial.com/cpg) to request your **FREE Pella® Commercial Products Guide**.



**VIEWED TO BE THE BEST.®**

CIRCLE 91 ON READER SERVICE CARD OR GO TO [ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/](http://ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/)



GROHE Ladylux™

The Original  
with No Equal



Ladylux Plus™



Ladylux Café™



**new**  
Ladylux Pro™

Celebrating 25 years of excellence in the kitchen, America's #1 premium pull-out faucet line boasts three highly prestigious members: GROHE Ladylux Plus™ with an unmistakable profile; GROHE Ladylux Café™ with an ergonomically designed pull-down spray; and the newest member, GROHE Ladylux Pro™ with a suite of five sleek and streamlined, professional grade faucets. Through precision engineering, exclusive GROHE technologies create the ultimate "enjoy water" experience.

- GROHE RealSteel® solid, grade 304 stainless steel to last a lifetime
- GROHE SilkMove® for lifelong precision and effortless fingertip water control
- GROHE SpeedClean® anti-lime system

To learn more, visit [www.groherealsteel.com](http://www.groherealsteel.com) or your local kitchen and bath showroom.

Ladylux™ from GROHE...Performance You Can Feel





## Residential Products



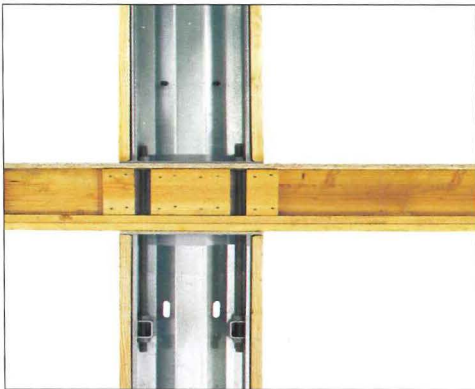
### ▲ Beaux-Arts breakfast

Designed in the United States and manufactured in Germany, the Beaux Arts kitchen system from SieMatic is intended to blend the contemporary European kitchen aesthetic with the more traditional and country American styles. The system is designed in segments: The cooking area, cleaning area, and prep areas are all separate. Depending on the segment, different dimensions, materials, and handles are used for surfaces and appliance and cabinet fronts. SieMatic, Feasterville, Pa. [www.SieMatic.com](http://www.SieMatic.com) **CIRCLE 206**



### ▲ Countertop necessity

Designed by Peter Arnell, the streamlined HomeHero fire extinguisher is meant to be kept in sight and in mind when a fire occurs. HomeHero's gauge is large and simple to read, and the instructions face the user when in use. HomeHero has the capability of being networked via a base unit to HomeHero smoke/CO detectors throughout the home, alerting the entire household in the event of a fire. Winner of a 2007 IDEA Gold Award, HomeHero is available exclusively at Home Depot this month. Home Hero, Atlanta. [www.homehero.net](http://www.homehero.net) **CIRCLE 207**



### ▲ Shrinking wall space solution

Simpson Strong-Tie's two-story, stacked Steel Strong Wall solution for narrow walls is an engineered, premanufactured shear wall made from steel and wood with an allowable load capacity between two and three times higher than the company's Wood Strong-Wall, offering some of the highest loads in the industry. The stacked wall design transfers the compression load through the nut and rod, reducing deflection under seismic load. Simpson Strong Tie, Pleasanton, Calif. [www.strongtie.com](http://www.strongtie.com) **CIRCLE 208**



### ▲ Southwest flavor

Created exclusively to complement the design styles of the Southwest, Fypon's new Southwest Collection features 140 wood-grain SKUs, including faux beams, shutters, rafter tails, corbels, and knee brackets. The lightweight urethane pieces complement stucco finishes and add both rustic texture and a Southwest feeling to projects. All pieces come factory-primed in a neutral oatmeal color ready to be painted or stained. The collection's Mesa style offers a smoother look, while the Tahoe style gives a hammered, weathered appearance. Fypon, Archbold, Ohio. [www.fypon.com](http://www.fypon.com) **CIRCLE 209**

## Natural Light

Introducing the ambia collection. More than 40 new lighting products featuring lenses with embedded textiles, graphics, organic elements, and more. See them all at [manningltg.com](http://manningltg.com)

ambia  
collection

Manning Lighting Inc. Sheboygan, WI USA  
p 920.458.2184 f 920.458.2491

For more information, circle item numbers on Reader Service Card or go to [architecturalrecord.com/products/](http://architecturalrecord.com/products/).

**CIRCLE 93 ON READER SERVICE CARD OR GO TO ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/**

## LUXAR® Anti-Reflective-Glass

Perfect for any glass application  
where glare and reflection are not wanted.

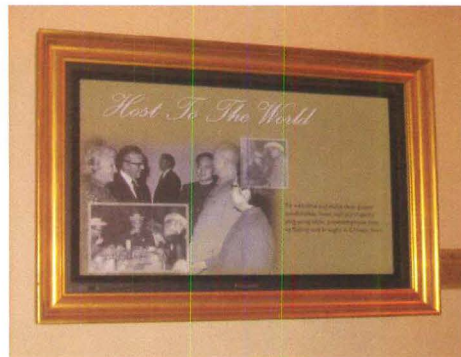


Glas Trösch AG Phone (480) 767-8220

HY-TECH-GLASS Fax (480) 767-8267

Industriestrasse 12 www.luxar.ch

CH - 8922 Bützberg hytechglass@glastroesch.ch



CIRCLE 94 ON READER SERVICE CARD OR GO  
TO ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/

## Residential Products



### ▲ Pretty fab retreat space

KitHAUS's 117-square-foot K3 prefab module is ideal for a backyard studio, office, playhouse, or yoga retreat. Designed on a raised adjustable footing, the \$23,000 structure is delivered flat, precut, marked, and drilled, and can be erected in as little as two days on-site without heavy equipment or a concrete foundation. A permit is not required in most municipalities. The structure features SIP wall panels, dual-glazed low-E glass, and exterior cladding in Ipé wood or anodized aluminum. kitHAUS, Van Nuys, Calif. [www.kithaus.com](http://www.kithaus.com) **CIRCLE 210**



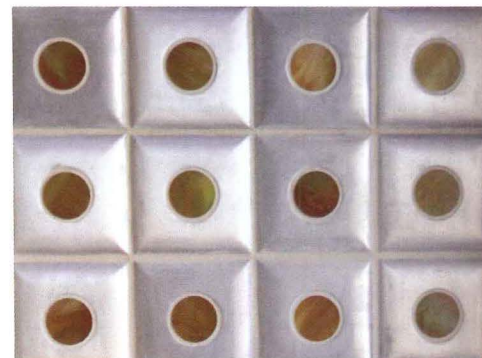
### ▲ Concrete wall panels

Precast, insulated Superior Walls advanced foundation systems feature concrete wall panels that are custom made for each home with built-in openings for windows and doors. Pre-engineered access for wiring or small plumbing elements is included, as are smart stud facings for easy drywall installation. High-strength Xi wall panels have a concrete face shell backed by 2½" of Dow extruded-polystyrene insulation. Superior Walls, New Holland, Pa. [www.superiorwalls.com](http://www.superiorwalls.com) **CIRCLE 212**



### ▲ Light squeeze

Pirouette window shadings offer soft fabric vanes that float in front of a fabric sheer. When opened, the top and bottom of each vane shift closer together in the back, creating a soft, outward fold and allowing light to filter gently through the fabric sheer. When closed, the vanes slide into a flattened position for light blockage and a smooth look similar to a classic window shading. Vanes can also be partially raised for a gently contoured look that still maintains privacy, or adjusted to different levels between open and closed for variable light control. Hunter Douglas, Upper Saddle River, N.J. [www.hunterdouglas.com](http://www.hunterdouglas.com) **CIRCLE 211**



### ▲ Material connections

Designer Erin Adams and Mexico-based Alumillennium Tile collaborated on the design of the Luna collection of glass-and-metal tile. The tiles are made of recycled aluminum, and the oil used to heat up the metals during production is recycled car oil. The handcrafted tiles are available in sizes ranging from 1" x 6" to 6" x 6" and a variety of 36 colors. Aluminum tiles range from \$100 to \$160 per square foot; brass tiles range from \$170 to \$260 per square foot. Ann Sacks Tile & Stone, Portland, Ore. [www.annsacks.com](http://www.annsacks.com) **CIRCLE 213**

For more information, circle item numbers on Reader Service Card or go to [architecturalrecord.com/products/](http://architecturalrecord.com/products/).



**Introducing PGT® Architectural Systems.**

**We're taking our legendary service  
and support to the next level.**

Your multi-family, high-rise designs deserve our high-quality, impact-resistant windows and doors. This new line, the Series 3000, is robust and completely configurable. The products meet the strictest codes for design pressure and water performance in an extended range of sizes, so you won't have to compromise your design. On top of that, they also meet your need for options with a variety of colors, finishes, glass types and hardware styles. And then there's the PGT Architectural Systems Team, technical experts who will be there for you every step of the way. Don't settle for less. Specify Series 3000, the high-performing, high-rise windows and doors designed to protect your design.

**Find out more, visit [pgtindustries.com/as3000](http://pgtindustries.com/as3000) or call 877-550-6006.**

**PGT**<sup>®</sup>  
Visibly Better.<sup>®</sup>

ARCHITECTURAL  
SYSTEMS

CIRCLE 133 ON READER SERVICE CARD OR GO TO [ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/](http://ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/)



connecting people\_projects\_products



“We want to connect to decision makers online and drive qualified customers to our website”

Now you can

## McGraw-Hill Construction Online Marketing Solutions

- Email Newsletters
- Content Sponsorships
- Banners
- Slideshows
- Podcasts
- Webcasts
- Classified and Workforce Solutions
- Custom Programs

McGraw-Hill Construction's Online Marketing Solutions connect you to the leaders in the industry. With 20 specialized websites which are the most trafficked in the industry, McGraw-Hill Construction can help you maximize exposure, generate leads, increase brand awareness and boost your ROI.

Let us show you how!

Contact us today for a consultation on how we can help you start your online marketing program.

Just call us at 1-866-239-4261 or email [Advertise@construction.com](mailto:Advertise@construction.com).

Go to [www.construction.com](http://www.construction.com)

**FOR THOSE CLIENTS WHO WANT TO ADD  
PERSONALITY TO THEIR BUILDING THAT  
ONLY REFLECTIVITY CAN OFFER!**



Hiway Federal Credit Union  
St. Paul, MN  
Architect: Crosby Group

Rely on E. Dillon & Company's Reflective Series to impress even the most discriminating clients. Our Reflective Series of Architectural Concrete Masonry is unlike any concrete masonry product you've seen before.

**DILLON**  
& COMPANY™

For more information or to locate  
a dealer near you, please call  
800-234-8970  
[www.edillon.com](http://www.edillon.com)

AN AMERICAN OWNED COMPANY SINCE 1868

CIRCLE 134 ON READER SERVICE CARD OR GO TO [ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/](http://ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/)

# A NEW PERSPECTIVE ON BUILDING DESIGN

New Jersey  
**SmartStart**  
BUILDINGS®

NJ SmartStart Buildings® is a registered trademark. Use of the trademark without permission of the NJ Board of Public Utilities is prohibited.



- Think energy efficiency requires too much upfront cost?
- Looking for design support in evaluating alternatives?

Contact a NJ SmartStart Buildings® program representative and learn about the significant incentives NJ makes available for energy-efficient technologies in new construction and retrofit projects. Ask about design support opportunities and technical assistance.

Visit [njcleanenergy.com/ssb](http://njcleanenergy.com/ssb)

You might just see the world with  
a whole new perspective.



## CERTIFIED WOOD OPTIONS ARE THE ABC'S OF GREEN BUILDING DESIGN.

**BUILDING MATERIALS FROM BRITISH COLUMBIA ARE A GREAT START.** Recognized as a world leader in voluntary, third-party sustainable forest management certification, BC has an abundant supply of the building materials you need to design your next green project.

And now suppliers of BC's quality certified wood products are easy to find. Simply click on the certification search tool at [www.bcforestinformation.com](http://www.bcforestinformation.com). You can learn more about green building and BC forests at our website, or by calling 1.866.992.2266.



BC Market Outreach Network

23rd annual Build Boston  
November 13 – 15, 2007  
Seaport World Trade Center

www.buildboston.com  
800-544-1898

The convention and tradeshow  
for design, building and  
management professionals.

FREE admission to the exhibit hall  
and workshop discounts if  
you register by October 19, 2007.

Earn your continuing  
education and  
AIA/CES Learning Units  
(LUs)

350 exhibits and new products

225 workshops

Daily Boston tours

Gala/Design celebration and  
other special events

Tuesday, November 13

**McGraw-Hill Construction  
Keynote Luncheon**

"The Construction  
Outlook for the U.S. and  
New England"

with Robert A. Murray,  
Chief Economist  
and Vice-President of  
Economic Affairs  
McGraw-Hill Construction

Sponsored by:

Boston Society of Architects/AIA

AIA New York Chapter

McGraw-Hill Construction

Vanderweil Engineers

Marc Truant & Associates

# Build Boston

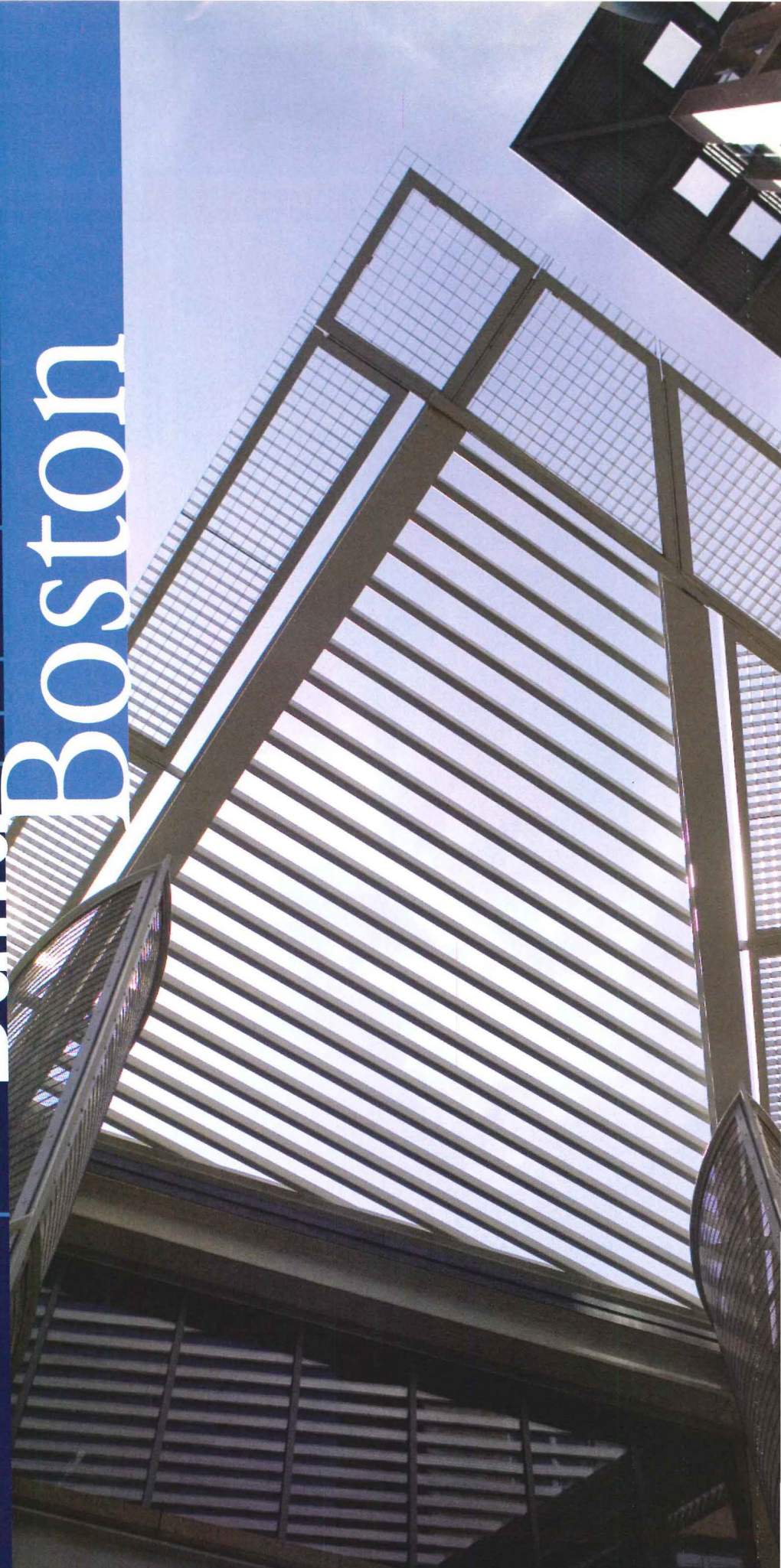
BSA



McGraw Hill  
CONSTRUCTION

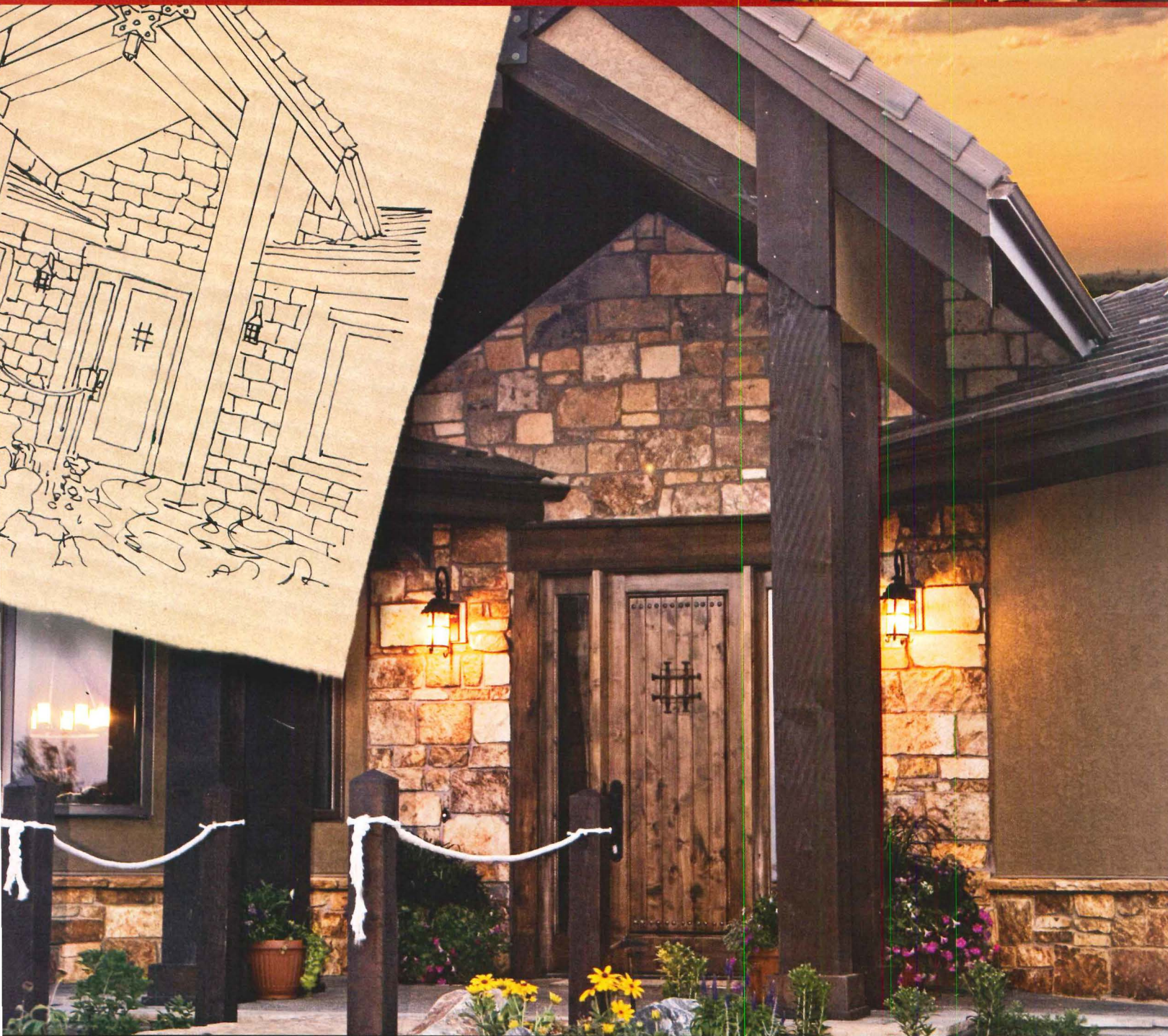


truant  
CONSTRUCTION  
MANAGERS





Real vision.



## Real Rock.

Your vision is as big as Mother Nature herself. When only real will do, choose Robinson Rock™. Inspired by your vision. Brought to life by Robinson Brick Company.

800.477.9002 ■ [RobinsonBrick.com/BuildOn](http://RobinsonBrick.com/BuildOn)

**ROBINSON  
BRICK  
COMPANY**

SINCE 1880

**Build On.™**

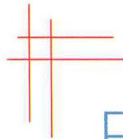
A General Shale Brick, Inc. Company

CIRCLE 96 ON READER SERVICE CARD OR GO TO [ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/](http://ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/)



SOLOSO™

Get. Give. Grow.



Become part of the  
new knowledge resource  
custom-built for architects.



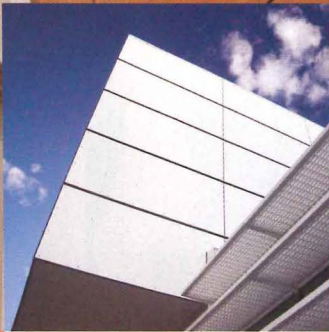
Soloso connects you to the most current and emerging information on architecture that can serve your practice and career. Through Soloso, you're linked to a continuous flow of dynamic sources with insights on important trends, solutions, products, and strategies. One visit gets you started.

Soloso grows exponentially with your participation. The more you use it, the better it gets. Post a professional profile and blog. This innovative Web site fosters and facilitates the sharing of knowledge and exchange of ideas among architects like never before. See what it can do for you on a daily basis.

**It's FREE. Sign-in at [Soloso.AIA.org](http://Soloso.AIA.org)  
to use this valuable online tool every day.**



# Need 50 years, think Trespa



Top architects, designers and specifiers around the globe know that Meteon® is the preferred material for rain screen cladding systems and a host of other exterior applications including balconies, facade components and architectural furniture.

Meteon composite panels are extremely durable and weather resistant. Panels are not affected by rain or moisture and are not susceptible to mold or rot. Color stability remains excellent – even in the most severe climates or in heavily polluted industrial areas. And with dimensional stability and workability comparable to hardwood, Meteon is also easy to handle, cut and install. For extended engagements, think Trespa.

**More info? [www.trespa.com](http://www.trespa.com)**

**TRE|SPA®**

CIRCLE 97 ON READER SERVICE CARD OR GO  
TO [ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/](http://ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/)

**Trespa North America Ltd.**  
12267 Crosthwaite Circle  
Poway, CA 92064  
Tel.: (1)-800-4-TRESPA  
Fax.: (1)-858-679-0440  
[info@trespanorthamerica.com](mailto:info@trespanorthamerica.com)

# create instant rhythm

Eventscape's custom ceiling solutions

The Bay School of San Francisco - California | Undulating custom framed fabric ceiling panels | Eventscape - fabrication | LMS Architects - design

**Infinite flexibility.** We will build any structure at any scale, with no restriction on form or material. Our obsession with craftsmanship and detail guarantees that every structure is as beautiful as it is functional.

See creative visions become reality at [www.eventscape.net](http://www.eventscape.net)

T 416.231.8855 F 416.231.7225 E [info@eventscape.net](mailto:info@eventscape.net)

The Bay School of San Francisco

Winner of 2007 AIA Honors in Interior Architecture

CIRCLE 144 ON READER SERVICE CARD OR GO TO [ARCHRECORD.CONSTRUCTION.COM/PRODUCTS](http://ARCHRECORD.CONSTRUCTION.COM/PRODUCTS)

**eventscape**  
create without boundaries

# Product Focus Storm-Resistant

Products that protect property and lives in the event of harsh weather conditions need to work reliably, **whether or not anyone is present in the structure.** Some of these products defend against the effects of a storm, while **others go to work after other systems fail.** *Rita Catinella Orrell*



The SL70 system was used in an East Hampton, New York, residence (above and left) by Silberstang-Lasky Architects and (right) a Manhattan Motorcars dealership in West Hampton, New York, by Shawn F. Leonard, AIA.



## Hurricane-resistant and thermally broken glass wall system gains AAMA approval

While NanaWall Systems' SL72 folding-glass-wall system is already Miami-Dade-rated to withstand hurricane-force wind, rain, and flying debris, the company has added another hurricane-resistant option to its line with the SL70 thermally broken system. The SL70, an aluminum folding system designed to provide an opening glass wall up to 36' wide, offers a thermally broken design tested to American Architectural Manufacturers Association (AAMA) hurricane standards.

According to NanaWall president Ebrahim Nana, the thermally broken design was added after customers requested a hurricane-

approved system with better U-values for colder climates. The system is thermally broken with a 3/4" polyamide plastic reinforced with glass fibers. The thermal barriers provide increased strength, superior humidity control, improved acoustics, and energy savings.

The system is ideal for the Eastern Seaboard, where both impact-resistance and cold weather issues arise. "We see there is a need in [places like] Long Island where projects are near the water and need to be energy-efficient," says Nana. "We are seeing it even as far south as Hilton Head, South Carolina, where they prefer AAMA standards."

NanaWall has successfully tested and passed the SL70 insulated hurricane-impact glass in both inswing and outswing applications for 53 stacking configurations with both the raised sill and saddle sill. Testing for large missile impact was conducted per ASTM E1886, and testing for cyclic pressure was conducted per ASTM E1996. The SL70 system has also received statewide approval in Florida. The system can be fully or partially opened with a swing entry/exit panel(s) option.

Thermal breaking does not add to the cost of the SL70 system, but making it hurricane-resistant doubles the price point compared to a

nonapproved system. Nana warns architects to be wary of companies that try to save costs by claiming to have done testing but have not, or those that "rent" an approved products' Miami-Dade NOA (Notice of Acceptance) to gain a permit, and then swap out the units for cheaper options. He suggests architects check the Miami-Dade Web site, [www.miamidade.gov/buildingcode](http://www.miamidade.gov/buildingcode), to make sure everything is valid. Nana Wall Systems, Mill Valley, Calif. [www.nanawall.com](http://www.nanawall.com) **CIRCLE 214**

For more information, circle item numbers on Reader Service Card or go to [architecturalrecord.com/products/](http://architecturalrecord.com/products/).

# Products Storm-Resistant



## ◀ Certified windows/doors

Kolbe offers 99 impact-certified products in its line of K-Force impact windows and doors tested to meet or exceed the strict building codes of the high wind zones extending from Texas's Gulf Coast to Maine's North Atlantic seaboard. K-Force's impact-laminated glass and specialized glazing-retention system provides security without extra locks, unsightly brackets, or visible rods. Kolbe's Heritage Series wood, Classic Series clad products, and Ultra

Series extruded aluminum-clad units can be specified with K-Force impact performance in casement, awning, and double-hung windows, and sliding and swinging doors. Kolbe & Kolbe Millwork, Wausau, Wis. [www.kolbe-kolbe.com](http://www.kolbe-kolbe.com) **CIRCLE 215**



## ◀ Impact-resistant curtain wall

The StormMax HR-250 and HR-251 impact-resistant curtain-wall systems from Vistawall have been engineered to meet the most demanding requirements of the South Florida and International Building codes. The HR-250 system has been designed to accommodate 5/8" to 5/8" insulated impact glass; the HR-251 impact-resistant curtain-wall system accommodates 1 1/4" to 1 5/8" insulated impact glass. Both systems offer a dry-glaze option for both large and small missile impact and are available with MS-375 impact-resistant entrance doors. Vistawall, Terrell, Tex.

[www.vistawall.com](http://www.vistawall.com) **CIRCLE 216**

## ▶ Impact-resistant sliders

Coastal-area builders and remodelers now have the ability to install impact-resistant vinyl-framed sliding doors in projects that reach up to 8' high and span an opening of 12' with Simonton StormBreaker Plus sliding impact vinyl doors. The sturdy doors come in two- and three-panel configurations and range in size from 5' x 6.8' to 12' x 8'. The doors are made with one pane of tempered glass and one pane of impact-resistant laminated glass.

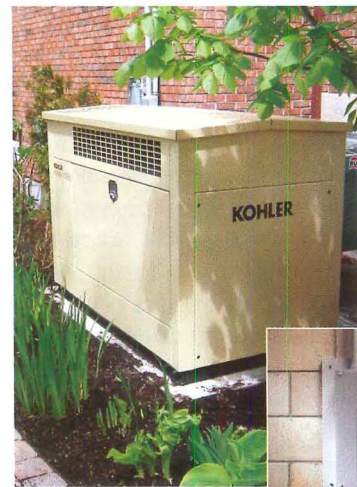
Simonton Windows, Parkersburg, W.Va. [www.simonton.com](http://www.simonton.com) **CIRCLE 217**



## ▶ Hurricane-tough blocks

Pittsburgh Corning's hurricane-impact glass-block system is specifically developed for new construction and renovation projects in hurricane-prone areas. The Thickset 90 glass block used with the Kwik'n Ez silicone installation system meets hurricane impact code requirements for residential and commercial buildings located in hurricane-sensitive areas. The block also provides all the benefits of standard glass block, including light transmission, privacy control, and security. Pittsburgh Corning, Pittsburgh.

[www.pittsburghcorning.com](http://www.pittsburghcorning.com) **CIRCLE 218**



## ◀ When the power goes out

Kohler Power Systems has added a 17-kilowatt, air-cooled standby generator (top left) to its home power products. The new Kohler generator is fueled by either natural gas or liquid propane gas. Kohler has also introduced the first and only combination load center and transfer switch package available for the residential standby power market with its new Intelligent Transfer Switch (bottom left). The two-in-one load center provides the owners of new homes with a generator-ready residence. Kohler, Kohler, Wis.

[www.kohlerpower.com](http://www.kohlerpower.com) **CIRCLE 219**



## ◀ Keeping out the weather

In response to customer demand, DuPont's StormRoom with Kevlar (left) is now available in customized and standard prebuilt sizes. StormRoom is an in-home storm shelter that can help safeguard families from the impact of hurricanes and tornados. DuPont Thru-Wall Flashing (below) is being introduced as a flexible, self-adhered membrane that can be used as thru-wall flashing, a surface-mounted flashing, or a transition membrane. It is made with DuPont Eivaloy, a copolymer that adds improved flexibility, weatherability, and UV-resistance. DuPont, Wilmington, Del.

[www.construction.tyvek.com](http://www.construction.tyvek.com), [www.stormroom.dupont.com](http://www.stormroom.dupont.com) **CIRCLE 220**

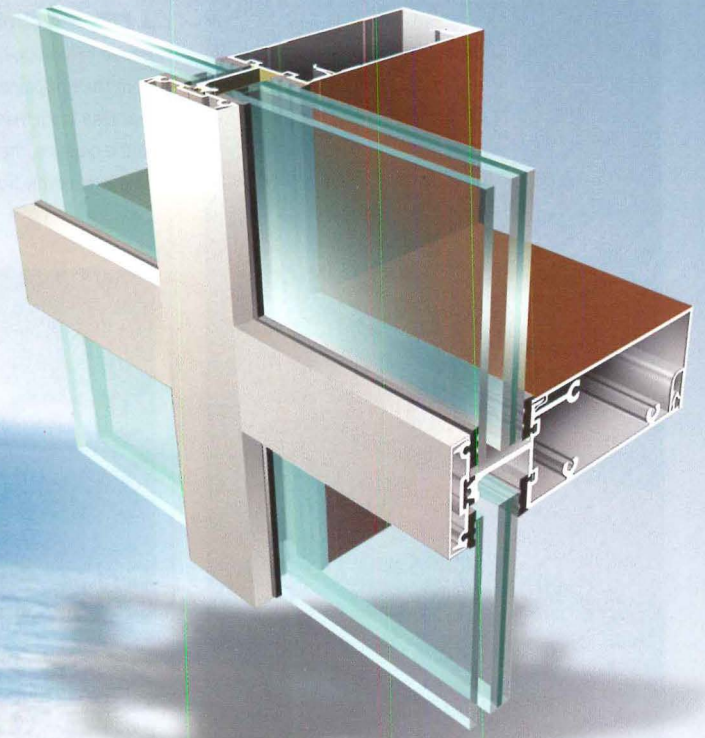


For more information, circle item numbers on Reader Service Card or go to [architecturalrecord.com/products/](http://architecturalrecord.com/products/).

taking a wider view

THE  
**VISTAWALL**  
GROUP

**StormMax™ products provide  
more than just a port in a storm.**



# StormMax

Vistawall Group offers a complete line of StormMax™ impact-resistant dry-glaze & wet-glaze  
rain walls & storefronts, entrances and skylights, which meet the most demanding requirements of  
South Florida and International Building Codes.

CIRCLE 98 ON READER SERVICE CARD OR GO  
TO [ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/](http://ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/)

For more information on the StormMax line, e-mail [StormMax@vistawall.com](mailto:StormMax@vistawall.com), or call 1-800-869-4567

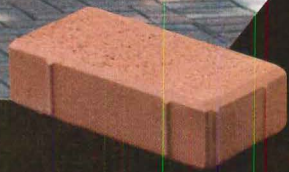
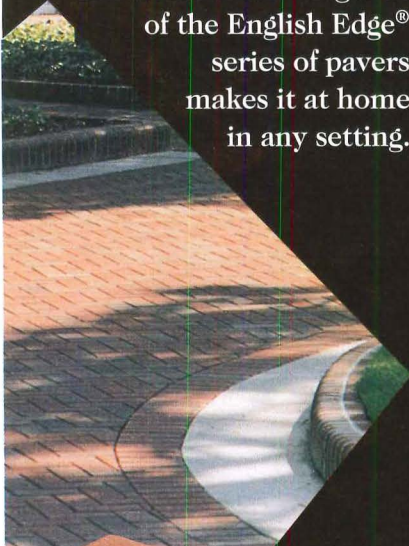
# English Edge<sup>®</sup> Pavers

Classic Elegance  
and Warmth from



**Pine Hall Brick**

The warmth and elegance  
of the English Edge<sup>®</sup>  
series of pavers  
makes it at home  
in any setting.



Our full line of pavers meets or  
exceeds ASTM C902 SX Type 1 PX

Call 1-800-334-8689 to talk to one of the  
trained paving specialists on our staff.

English Edge<sup>®</sup>  
AMERICA'S PREMIER PAVER<sup>™</sup>



Pine Hall Brick Co., Inc.  
P.O. Box 11044  
Winston-Salem, NC 27116-1044

CIRCLE 99 ON READER SERVICE CARD OR GO  
TO ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/

## Product Briefs



### ▲ Filipino finds

Based in Manila, but with offices in the U.S. and Canada, Coniex International exports a range of building products from the Philippines, including a line of wall plaques (above) that can be used either as interior wall decorations or as wall tiles in themselves. The plaques, produced exclusively for Coniex, are also available in custom designs. In addition to the plaques, the company carries Mactan stone tile and laminated tiles for residential or commercial projects, available exclusively from the Philippines. Coniex International, Buckley, Wash. [www.coniexintl.com](http://www.coniexintl.com) **CIRCLE 221**

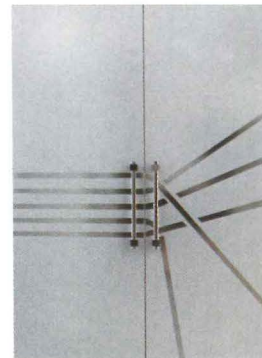


### ◀ Clouds on the horizon

The Armstrong Ceiling family of SoundScapes now includes 10 new standard shapes, ranging from squares and rectangles to circles, trapezoids, hexagons, and softly rounded contours. Designed for use in exposed structures and other areas that require improved acoustics, the new canopies can be installed as individual units or grouped together. The shapes are engineered for use in seismic zones, have a Class A fire rating, and a recycled content of 40 percent. Armstrong World Industries, Lancaster, Pa. [www.armstrong.com/cloudsandcanopies](http://www.armstrong.com/cloudsandcanopies) **CIRCLE 222**

### ▶ Fire-rated doors with new etching process

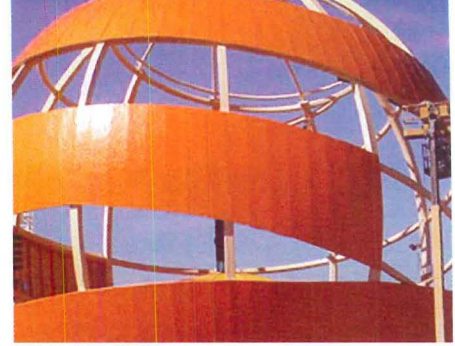
Eco-Etch Doors is the most recent addition to the Forms+Surfaces line of fire-rated doors as well as the launch of a new ecofriendly process for creating etched designs. Using the largest physical etching system in North America, etched designs are applied to metal door faces with the company's advanced photolithographic bead-blasting system instead of with harmful acids or chemicals. The mask used to create each design is water soluble and removed using water alone. The doors are available in standard sizes up to 4' x 10' and with 45-, 60-, 90-, and 180-minute UL fire ratings. Shown here is the ECO201 stainless steel door with a polished finish. Forms+Surfaces, Carpinteria, Calif. [www.forms-surfaces.com](http://www.forms-surfaces.com) **CIRCLE 223**



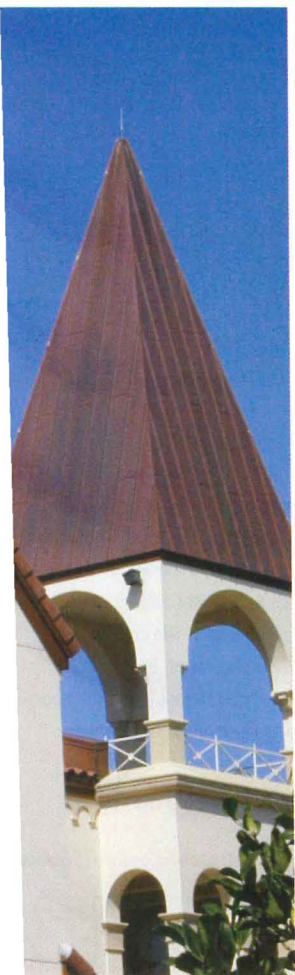
### ◀ Mesh video screen

Cambridge Architectural has introduced two new visual enhancements for its metal fabric systems: Integrated LED and Integrated Lighting. Dubbed Mesh/FX, applications include the ability to wash a building in spectrums of light, display animated graphics, or use the building facade as an HDTV for advertising. With one method of integration, strips of LEDs are engineered to fit perfectly into the continuous horizontal and vertical channels of the mesh (left). Cambridge Architectural Mesh, Cambridge, Md. [www.cambridgearchitectural.com](http://www.cambridgearchitectural.com) **CIRCLE 224**





You Design It.  
We Build It.



...all we add is plenty of expertise

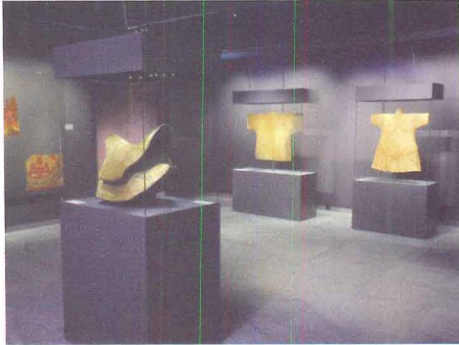


The Architectural Metal Expertise Team  
CIRCLE 100 ON READER SERVICE CARD OR GO TO [ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/](http://ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/)

Visit us at [www.asm-expertise.com](http://www.asm-expertise.com)

## LUXAR® Anti-Reflective-Glass

Perfect for any glass application  
where glare and reflection are not wanted.



Glas Trösch AG Phone (480) 767-8220

HY-TECH-GLASS Fax (480) 767-8267

Industriestrasse 12 www.luxar.ch

CH-8922 Bützberg hytechglass@glastroesch.ch

**CIRCLE 101 ON READER SERVICE CARD OR GO  
TO ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/**

## Product Briefs

### ► Color additions

Tarkett hired designer Karim Rashid to expand its SolidAir line of resilient flooring by creating 10 new colors in large-format, 16"-square tiles. The Karim Kolor tiles (right) are specially designed to withstand the demands of commercial settings. Tarkett has also expanded the existing ColorWorks system with the launch of 27 new colors in the Cortina line, ranging from vibrant Pistachio and Pomegranate to calmer Butternut and Natural Moon. In addition to the new colors, the line also features a new pattern of monochromatic coloration—a tone-on-tone visual that will provide a more striated look with richer color. Tarkett Commercial, Houston. [www.tarkett.com](http://www.tarkett.com) **CIRCLE 225**

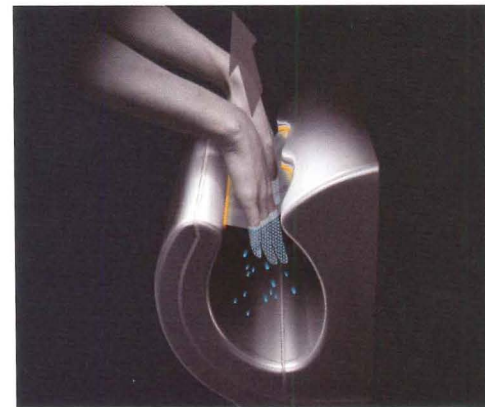


### ◀ Slim European frame

Introduced to the U.S. market last May, the strong and slim SteelBuilt Curtainwall system allows larger spans of glazing than traditional aluminum framing. The steel framing members have substantially lower deflection than aluminum, proving three times the wind-load capacity. In addition, the lower thermal expansion of steel allows greater design flexibility with fewer or no extension profiles. The system uses a plug-and-screw connection system for the framing components, which provides for crisp corner joints without a visible weld bend. Technical Glass Products, Kirkland, Wash. [www.tgpamerica.com](http://www.tgpamerica.com) **CIRCLE 226**

### ► Wipe your hands, on a sheet of air

The Dyson Airblade, the latest invention by James Dyson, produces a 400-mph stream of clean air, blown through a gap no thicker than an eyelash. This sheet of air acts like an invisible windshield wiper, wiping moisture from hands, leaving them dry in 12 seconds. The Airblade uses a HEPA filter to remove more than 99.9 percent of bacteria from the air used to dry hands. It also features touchless infrared sensor technology and an antimicrobial additive coating to reduce bacteria and fungal growth. The dryer saves energy, as well, using up to 80 percent less energy than traditional hand dryers. Dyson, Chicago. [www.dysonairblade.com](http://www.dysonairblade.com) **CIRCLE 227**



### ◀ Restroom door handle cleaner

Answering the prayers of public-bathroom germ phobes everywhere, the Hyso sensor-operated door-handle dispenser automatically releases a burst of cleaner on a door handle on a preset basis. The battery-operated dispenser is ideal for handles on public restroom exits and stalls, as well as doorknobs and handles in hospital patient rooms, assisted-living facilities, medical centers/labs, and school classrooms. The dispenser mounts inches above the target surface and only releases cleaner when the sensor detects users are out of range. The dispenser reduces the chance of cross-contamination that occurs when touching a germ-ridden surface after hand-washing. Sloan Valve Company, Franklin Park, Ill. [www.sloanvalve.com](http://www.sloanvalve.com) **CIRCLE 228**

For more information, circle item numbers on Reader Service Card or go to [architecturalrecord.com/products](http://architecturalrecord.com/products)

# The Natural Carpet Company

Hand Knotted Tibetan Hemp Rugs

Hand Knotted Tibetan Wool Rugs

Hand Knotted Tibetan Silk Rugs

Hand Woven Seagrass Rugs

Hand Woven Abaca Rugs

Hand Woven Wool Rugs

Abaca Jacquard Carpet

Hand Woven Raffia Rugs

Class "A" Abaca Wall Covering

Class "A" Abaca Ceiling Covering

14 S. Lincoln Blvd.

San Francisco, CA 90291 USA

310-664-1420

310-664-1421

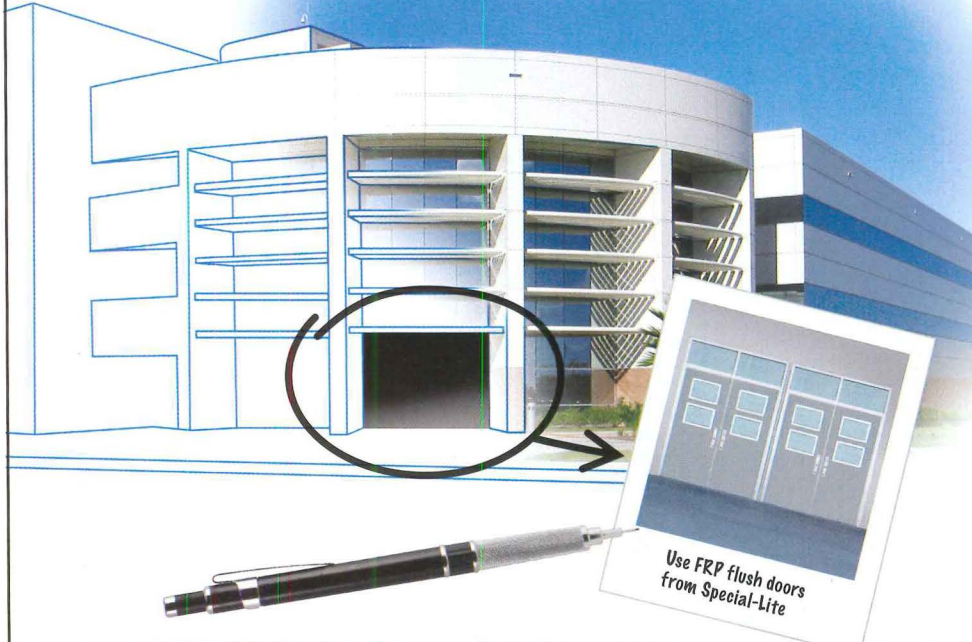
[www.naturalcarpetcompany.com](http://www.naturalcarpetcompany.com)

[info@naturalcarpetcompany.com](mailto:info@naturalcarpetcompany.com)



# Designing High-Performance Buildings?

Don't forget to make your entrances high-performance, too.



Specifying run-of-the-mill entrance systems in your exterior openings can leave holes in your best green designs. But when you choose flush doors that eliminate regular repainting, don't off-gas VOCs, and provide a good thermal barrier, they can help you earn LEED points—and make points with facility owners, too.

### Superior performance reduces life cycle cost

Independent lab testing proves Special-Lite flush doors deliver superior thermal and emissions performance. Plus, the durability of our custom entrance systems provides longer life with far less maintenance for the lowest possible lifetime cost—even in the toughest applications.



For product literature, test results and specifications, visit our website at: [www.speciallite.com/performance](http://www.speciallite.com/performance).



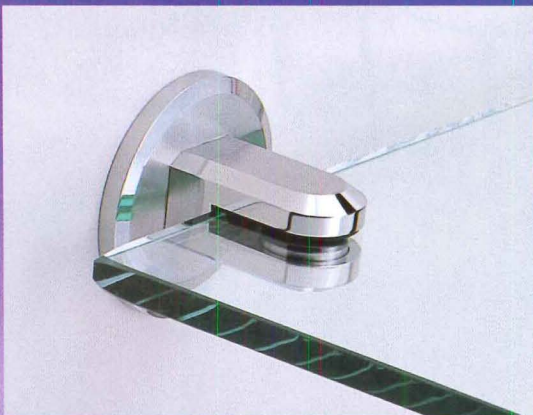
[www.speciallite.com/performance](http://www.speciallite.com/performance)  
1-800-821-6531

CIRCLE 103 ON READER SERVICE CARD OR GO TO [ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/](http://ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/)

## *Optimum Luxury in Decorative Hardware*

# Zwei L

Zwei L, a new series of 316 stainless steel hardware collection from Sugatsune. The mirrored and fine satin finish creates remarkable visual appeal combined with the forged construction that makes this collection a one of a kind. The Zwei L collection will accent any home or venue with an ultra modern impression.



Sugatsune America, Inc.  
800-562-5267  
[www.sugatsune.com](http://www.sugatsune.com)  
[sales@sugatsune.com](mailto:sales@sugatsune.com)  
[www.ZweiL.com](http://www.ZweiL.com)

CIRCLE 104 ON READER SERVICE CARD OR GO TO [ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/](http://ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/)

Visit our booth at  
IBEX Show 2007 (#2)



# burning desire

Reinstating the gas fireplace as a choice for the modern home.

Tel. 1.866.938.3846  
www.sparkfires.com



**SPARK**  
modern fires

CIRCLE 105 ON READER SERVICE CARD OR GO TO  
ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/

## Turning Gray Concrete GREEN

These microscopic, glassy spheres are fly ash – and at Headwaters Resources, we sell millions of tons of them every year.

Produced by burning coal at electric power plants, fly ash might be destined for disposal in a landfill. But when added to concrete, fly ash makes concrete easier to work, stronger and more durable.

Fly ash also enhances the environmental performance of concrete. Mining and manufacturing of natural raw materials can be reduced along with decreasing greenhouse gas emissions. In fact, using a ton of fly ash can save almost a ton of CO<sub>2</sub> emissions from being introduced into the atmosphere. In addition to concrete, fly ash is used in mortars, stuccos, paints, artificial stone, carpets, ceiling tiles, soil cement, pervious concrete and a variety of other building materials.

*That's an improvement worth specifying.*

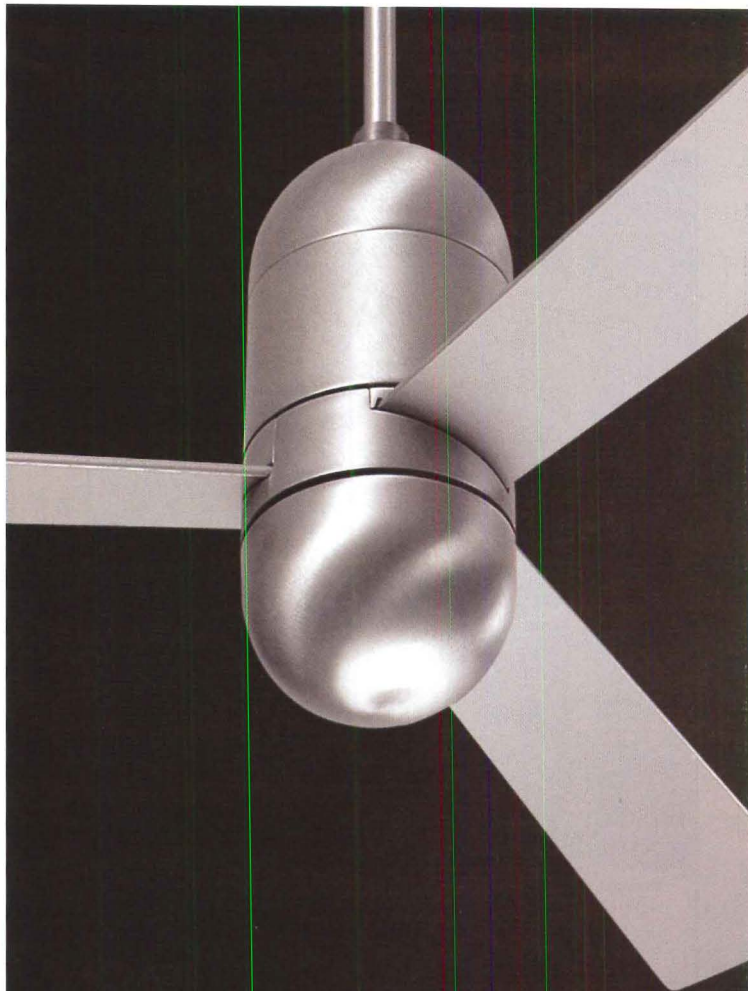
Contact Headwaters Resources for free technical literature and information on how fly ash use benefits the environment.



**HEADWATERS**  
RESOURCES

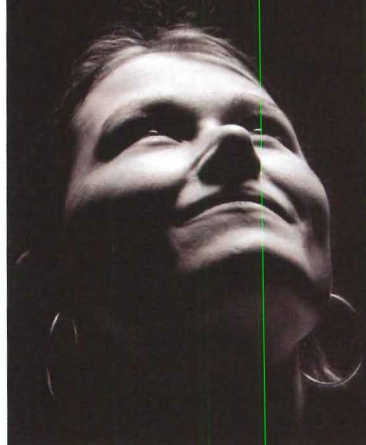
www.flyash.com • 1-888-236-6236

CIRCLE 106 ON READER SERVICE CARD OR GO TO  
ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/



LOOK UP

**MODERNFAN.COM**



CIRCLE 107 ON READER SERVICE CARD OR GO TO  
ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/



## HOT-DIP GALVANIZED STEEL + PAINT



Mission Valley East  
Light Rail  
San Diego, CA

### ■ Design Freedom

Hot-dip galvanized steel can be painted to achieve any look you desire.\*

### ■ Longevity

The synergistic effect of the two coatings extends the service life for unparalleled corrosion protection.

### ■ Durability

The metallurgically bonded galvanized coating serves as an ideal primer providing an impervious barrier for the base steel.



American Galvanizers Association

\*With proper surface preparation per ASTM D 6386.

**What will you galvanize?**

Visit [www.galvanizeit.org/galvpaint](http://www.galvanizeit.org/galvpaint) to maintain corrosion protection without sacrificing aesthetics.

CIRCLE 108 ON READER SERVICE CARD OR GO TO [ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/](http://ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/)



“We’ve used (ICC®) for more than a decade to help us keep our customer service and quality top notch. Better yet, the ICC plans examiner stays with our inspectors throughout the project life as part of the overall service. If we have questions or problems, they’re there to help out.”

LARRY BALLARD, CHIEF BUILDING OFFICIAL, DESTIN, FL

## PLAN REVIEW AT ITS BEST!

Years of experience and expert knowledge in all code disciplines, makes ICC the best choice for your plan review needs.

VISIT [www.iccsafe.org/prar](http://www.iccsafe.org/prar) and let our customers tell you why.



People Helping People Build a Safer World™

CIRCLE 109 ON READER SERVICE CARD OR GO TO [ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/](http://ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/)

It also covers the most fashionable neighborhoods.



 **Hanson**  
The face of brick™

HANSONBRICK.COM  
1.877.HANSON8

# Height Couture



Your customers want roofing materials that reflect their personal style and Hanson Roof Tile has the exceptional products they desire. With hundreds of combinations of colors and profiles from which to choose, Hanson Roof Tile crowns the buildings you design with a look that appeals to style conscious buyers.

For the finest roof tile and service in the industry visit us at [www.hansonrooftile.com](http://www.hansonrooftile.com).

\*Roof tile shown: Regal Marigold

 **Hanson**

*The name you can look up to*



# Dates & Events

## New and Upcoming Exhibitions

### Architecture for Humanity: Gulf Coast Reconstruction Projects

#### St. Louis

October 13, 2007–January 26, 2008

This exhibition features a selection of residential designs, created under the auspices of the not-for-profit humanitarian group Architecture for Humanity, for displaced Gulf Coast communities like Biloxi, Mississippi, following Hurricane Katrina in 2005. The exhibition includes seven projects, some of which are already in construction, by architects from across the country. At the Bernoudy Gallery of Architecture. Visit [www.thesheldon.org/galleries](http://www.thesheldon.org/galleries).

### Michael Maltzan: The Dark Side of the Moon

#### Los Angeles

October 19–December 9, 2007

This new site-specific installation by the Los Angeles-based firm Michael Maltzan Architecture introduces a new threshold in the gallery, creating a space between two worlds that provokes interaction and a simultaneous experience for, and between, those who visit. At SCI-Arc. Call 213/613-2200 or visit [www.sciarc.edu](http://www.sciarc.edu).

### Eero Saarinen: Shaping the Future

#### Bloomfield Hills, Michigan

November 17, 2007–March 30, 2008

Traveling from Europe, this exhibition is the first retrospective of the life and works of one of the more celebrated designers of the Modern era. Saarinen is best known for his postwar masterpieces, including the 630-foot tall stainless-steel St. Louis Gateway Arch, the TWA terminal at New York's John F. Kennedy Airport, numerous university campus plans and buildings, and the General Motors Technology Center near Detroit. At the Cranbrook Art Museum. Call 248/645-3323 or visit [www.cranbrookart.edu/museum](http://www.cranbrookart.edu/museum) or [www.eerosaarinen.net](http://www.eerosaarinen.net).

## Ongoing Exhibitions

### Lost Vanguard: Soviet Modernist Architecture, 1922–32:

#### Photographs by Richard Pare

#### New York City

Through October 29, 2007

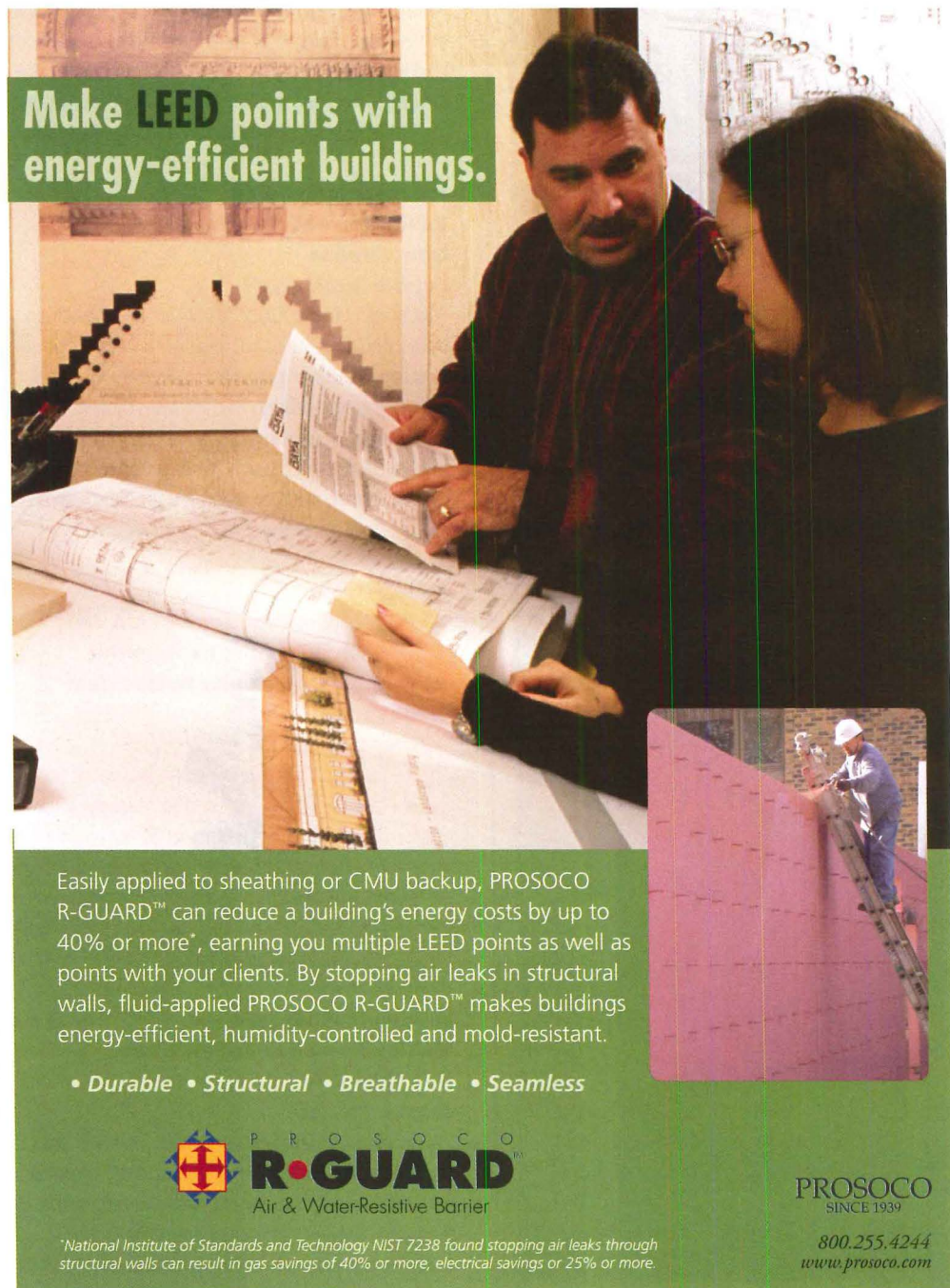
This exhibition examines Soviet avant-garde architecture in the post-revolutionary period. It highlights 81 photographs by architectural photographer Richard Pare, who made eight extensive trips throughout the former USSR between 1992 and 2002. Pare created nearly 10,000 images to compile a timely documentation of these structures, which are now in various states of decay, transformation, and peril. At the

Museum of Modern Art. Call 212/708-9400 or visit [www.moma.org](http://www.moma.org).

### Farnsworth House Tour Chicago


Through October 2007

A comprehensive bus tour featuring Farnsworth House and other significant works by master architect Ludwig Mies van der Rohe is offered by



Easily applied to sheathing or CMU backup, PROSOCO R-GUARD™ can reduce a building's energy costs by up to 40% or more\*, earning you multiple LEED points as well as points with your clients. By stopping air leaks in structural walls, fluid-applied PROSOCO R-GUARD™ makes buildings energy-efficient, humidity-controlled and mold-resistant.

- Durable • Structural • Breathable • Seamless

 PROSOCO  
**R-GUARD™**  
Air & Water-Resistive Barrier

\*National Institute of Standards and Technology NIST 7238 found stopping air leaks through structural walls can result in gas savings of 40% or more, electrical savings of 25% or more.

PROSOCO  
SINCE 1939  
800.255.4244  
[www.prosoco.com](http://www.prosoco.com)





**Berman**

editions

designer glass  
affordably priced  
ready now

Joel Berman Glass Studios  
www.jbermanglass.com  
1 888 505 4527

## Dates & Events

ignored the contributions of women. Curators, architects, historians, and critics will address the process of selection and the values they employ each time they design a course or exhibition, or publish a book or article. At The Celeste Bartos Theater, Museum of Modern Art. For more information, call 212/708-9400, visit [www.bwaf.org/events](http://www.bwaf.org/events) or [www.moma.org](http://www.moma.org).

### Architect as Developer

#### Los Angeles

October 28

Jonathan Segal, FAIA, will host a seminar presentation in Los Angeles to explain the role of the architect as developer. He will highlight case studies from his own work, walking attendees through the entire process from start to finish, including how to develop a single-family residence, how to develop a multifamily rental project, title insurance, proformas, bank financing, insurance, permanent take-out financing, and construction contracts. Seating is limited. Visit [info@architectasdeveloper.com](mailto:info@architectasdeveloper.com) to learn more.

### Competitions

#### Solar Decathlon 2007

Washington, D.C.

October 12–20, 2007

The Solar Decathlon consists of 20 university teams competing on the National Mall to design, build, and operate the most attractive and energy-efficient solar-powered home. This year, teams have been selected from the United States, Puerto Rico, Germany, Spain, and Canada. On the National Mall. For more information, visit [www.solardecathlon.org](http://www.solardecathlon.org).

#### Portland Courtyard Housing

#### Competition: Creating Spaces for Families, Community, and Sustainability in the City

Deadline: October 24, 2007

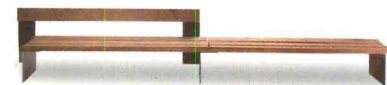
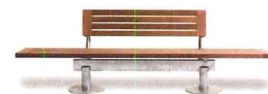
This competition will explore possibilities provided by housing oriented to shared courtyards as an additional infill housing type for Portland, Oregon. Architects, landscape architects, builders, developers, students, and others interested in the competition are eligible. Multidisciplinary teams are encouraged. Visit [www.courtyardhousing.org](http://www.courtyardhousing.org).

#### Benjamin Moore Hue Awards

Deadline: October 26, 2007

As it has for the past two years, Benjamin Moore

The new word on the street is **Santa & Cole**. The Santa & Cole Collection from Landscape Forms brings together great European design and the quality manufacture and superior service of the most trusted source in site furniture.



  
SANTA & COLE

landscapeforms®

800.430.6208 • [landscapeforms.com](http://landscapeforms.com)

Elegant design with  
a touch of color.



Ferric™ offers complete design flexibility with a variety of colors. Choose glass or stainless steel panels or infill rails. Wood or stainless steel handrails complete the look. For the full color selection, visit [hdrailings.com](http://hdrailings.com).



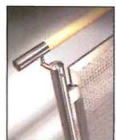
Optik™



Ferric™



inox™



CIRCUM™



HEWI®



d line™

**HDI** Railing Systems

3905 Continental Drive • Columbia, PA 17512 USA  
PH: 717-285-4088 • FAX: 717-285-5083  
Email: [info@hdrailings.com](mailto:info@hdrailings.com) • [www.hdrailings.com](http://www.hdrailings.com)

## Dates & Events

once again is conducting a search among North American architects and interior designers for those who have brought color to their work in the most respectful, novel, and celebratory ways, and will honor the best of the best with its Hue Awards. Visit [www.benjaminmoore.com](http://www.benjaminmoore.com).

■AIA150

### 2007 AIA Florida Emerging Professionals Design Problem Competition

October 26–27, 2007

A two-stage open competition focused on the design, socioeconomic, and environmental issues associated with Mass Transit on the West Coast of Florida. The core of the design problem is the design of a prototypical light rail station for the Sarasota region. Stage 1 submissions will be reviewed and discussed by a panel of jurors as part of the 2007 Emerging Professionals Conference. Visit [www.aiafla.org](http://www.aiafla.org).

### The Buckminster Fuller Challenge

Deadline: October 30, 2007

Established to catalyze the vanguard of a global design revolution, the Challenge will award a single \$100,000 prize annually to support the development and implementation of a solution with significant potential to solve the world's most pressing problems in the shortest possible time while enhancing the Earth's ecological integrity. Visit [www.challenge.bfi.org](http://www.challenge.bfi.org).

### 2nd Annual Student Design Competition

Intent to Compete Submittal Deadline:

October 30, 2007

Deadline: January 16, 2007

The Architectural Commission of the United States Institute for Theatre & Technology (USITT) is holding its second annual competition to design an "ideal theater" on an academic campus. The competition is open to any architecture or theater student at an accredited U.S. college or university. Visit [www.usitt.org](http://www.usitt.org).

### 2G Competition: V

■AIA150

### CAE Educational Facility Design Awards

Submissions Deadline: December 7, 2007

The CAE Educational Facility Design Awards program is a marketplace of ideas. Through this forum, the committee disseminates quality ideas on educational-facility planning and design to clients, architects, and the public. This awards program is an opportunity to engage in critical

for the  
**GREENERGOOD**  
conversations that will change the world



DOMESTIC ENERGY NUCLEAR  
SECURITY CARBON FREE  
ATOMIC WASTE INDEPENDENCE  
RESPONSIBILITY

### Gone Fission:

Can the Nuclear Industry Help Save  
the Environment?

Monday, October 22, 2007 • 6:30 – 8:00 pm

\$12 for museum members; \$20 nonmembers.  
Register online at [www.nbm.org](http://www.nbm.org).

For the Greener Good lecture series is presented by  
The Home Depot Foundation.



at the  
**NATIONAL BUILDING MUSEUM**  
Washington, DC

401 F Street NW Washington, DC 20001 | 202.272.2448 | [www.NBM.org](http://www.NBM.org)  
Red Line Metro, Judiciary Square

## THE SKYSCRAPER MUSEUM

39 Battery Place | New York, NY  
www.skyscraper.org

### Exhibition

FUTURE CITY 20 | 21  
NEW YORK MODERN

opens October 24

The first in a cycle of three exhibitions that juxtapose the American vision of the city of the future with an exploration of Chinese cities today.

### Programs

Fall Booktalk Series  
at The Skyscraper Museum

October 23

Alice Sparberg Alexiou on  
her work, *Jane Jacobs:  
Urban Visionary*

skyscraper.org/programs

## Dates & Events

evaluation and experimentation in the context of clients and their needs. Visit [www.aia.org/cae](http://www.aia.org/cae).

#AIA150

### The American Institute of Architecture Students' (AIAS) 2nd Annual National Student Design Competition

Deadline: November 5, 2007

Developed for advanced students, this competition will challenge participants to design a pediatric outpatient rehabilitation center and family support facility utilizing architectural aluminum building products and systems. For more information, visit [www.aias.org/kawneer](http://www.aias.org/kawneer).

### Palladio Awards

Deadline: November 15, 2007

This program recognizes individual designers and/or design teams whose work enhances the beauty and humane qualities of the built environment through creative interpretation or adaptation of design principles developed through 2,500 years of the Western architectural tradition. For more information, call 718/636-0788 or visit [www.palladioawards.com](http://www.palladioawards.com).

### Venice Lagoon Park

Deadline: November 15, 2007

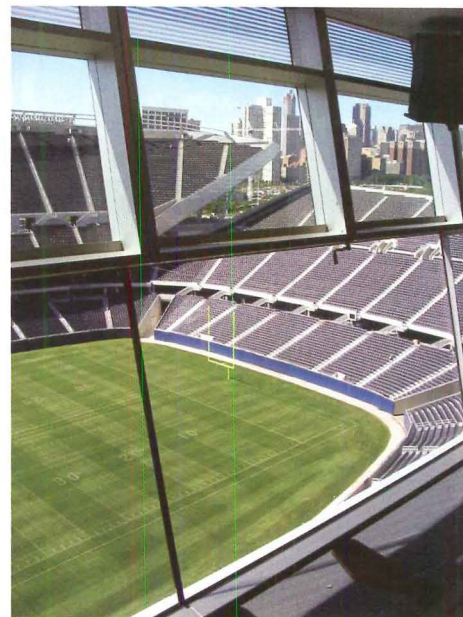
In celebration of the magazine's 10th anniversary, 2G launches an international ideas competition. This theoretical initiative is intended as a reflection on the contemporary metropolis that pays attention to the tension between global interests and local needs. For more information, visit [www.2Gcompetition.com](http://www.2Gcompetition.com).

### Califia Sketchbook Design Competition

Deadline: December 1, 2007

The purpose of developing the Califia Sketchbook Design Competition is to express what life will be like in Califia, a proposed next-generation ecocity. People worldwide are invited to enter a conceptual sketch conveying their view of "slices-of-life" within Califia, revealing smarter ways of building, powering, and maintaining the urban fabric. For more information, visit [www.greencenturyinstitute.org/tellmemore.html](http://www.greencenturyinstitute.org/tellmemore.html).

E-mail event and competition information  
two months in advance to  
[elisabeth\\_broome@mcgraw-hill.com](mailto:elisabeth_broome@mcgraw-hill.com).



### LUXAR® Anti-Reflective-Glass

Perfect for any glass application

where glare and reflection are not wanted.

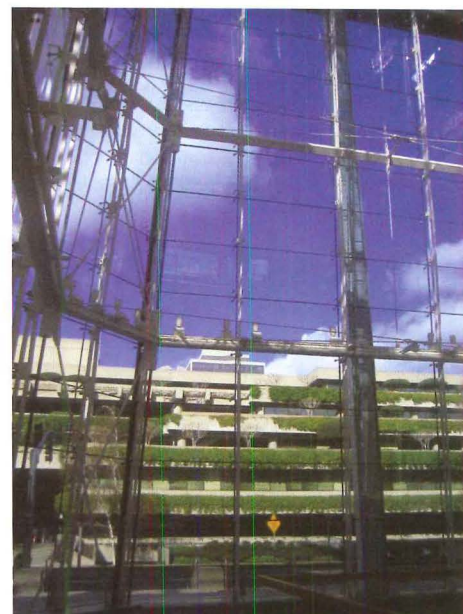


Glas Trösch AG Phone (480) 767-8220

HY-TECH-GLASS Fax (480) 767-8267

Industriestrasse 12 [www.luxar.ch](http://www.luxar.ch)

CH - 8922 Bützberg [hytechglass@glastroesch.ch](mailto:hytechglass@glastroesch.ch)



CIRCLE 116 ON READER SERVICE CARD OR GO  
TO [ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/](http://ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/)

# Play Like the Pros

## Quality, Value and Longevity

Maple Flooring  
Manufacturers  
Association—  
The Sports  
Flooring  
Authority



Visit our Web site at:  
[www.maplefloor.org](http://www.maplefloor.org)

60 Revere Drive, Suite 500 • Northbrook, Illinois 60062 • Phone: 888/480-9138 • email: [mfma@maplefloor.org](mailto:mfma@maplefloor.org) • © 2007 Maple Flooring Manufacturers Association, Inc. All Rights Reserved.

CIRCLE 117 ON READER SERVICE CARD OR GO TO [ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/](http://ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/)

## Say Goodbye to Tacky Shelves

No more tacky supports that look bad, really bad. Now we offer over 20 models of sleek design shelves and shelf supports so your furniture looks its best.

SH20

**Epomeo Shelf.** Shelves do not get more hip than this! Extruded of one piece satin finish aluminum with mild serrations; concealed mounting system. 11" deep and 3" high at back. Five stock lengths: 39<sup>3</sup>/<sub>8</sub>", 59", 78", 98<sup>3</sup>/<sub>8</sub>" and 118<sup>1</sup>/<sub>8</sub>".



"FINE ARCHITECTURAL HARDWARE FOR YOUR FINE FURNITURE"®

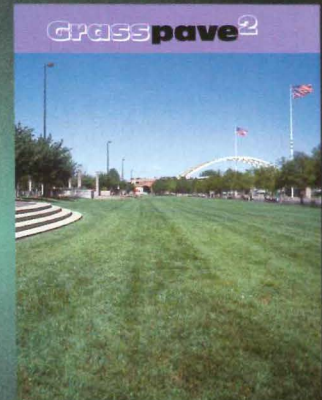
Doug Mockett & Company, Inc. • Manhattan Beach, CA • 800.523.1269

**MOCKETT**  
DOUG MOCKETT & COMPANY, INC.

[www.mockett.com](http://www.mockett.com)

CIRCLE 118 ON READER SERVICE CARD OR GO TO [ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/](http://ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/)

## Don't Do It Half-Grassed!



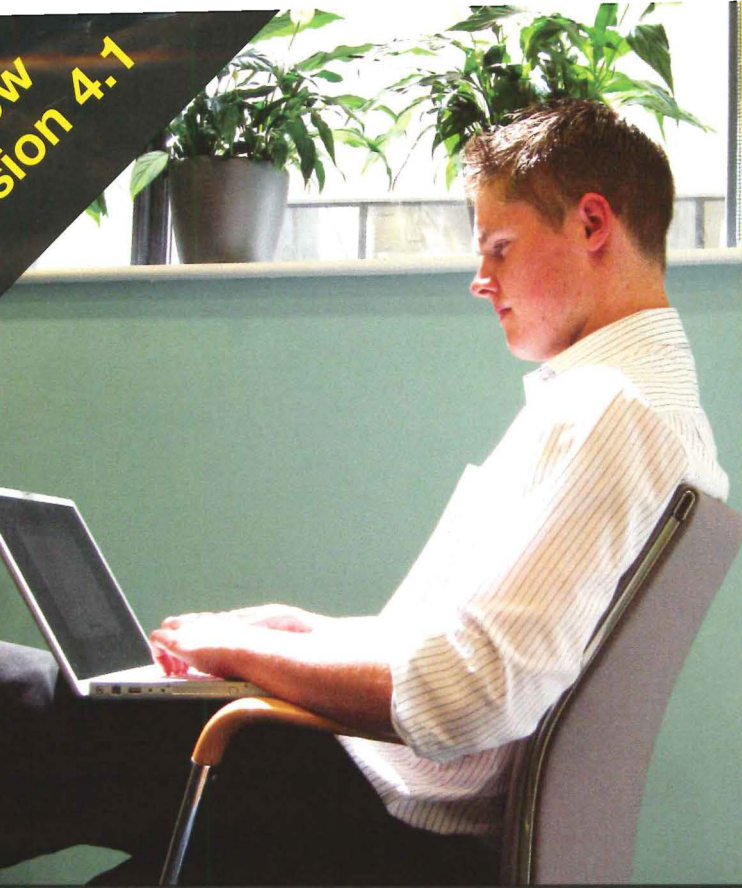
Grasspave2 (right) has 100% grass coverage, 5721 psi compressive strength, 92% void space for the healthiest root zone, and is made from 100% recycled plastic. Gravelpave2 (not shown) is beautiful too!

800-233-1510  
[invisiblestructures.com](http://invisiblestructures.com)



CIRCLE 119 ON READER SERVICE CARD OR GO TO [ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/](http://ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/)

ew  
sion 4.1



FREE 30 day trial, download from:  
[www.oasys-software.com/mailmanager](http://www.oasys-software.com/mailmanager)



# Mail Manager

File, find and share

### Benefits:

- Reduces inbox size and email server space requirements
- Ensures emails are filed according to office standards
- Learns as you file
- One place to look - keeps emails in the same folders as other documents
- Easily adheres to data retention legislation
- No 'lock-in' - uses standard MS Office file formats
- Batch archive
- Works off-line - ideal for mobile workers

# Oasys

The software house of Arup

CIRCLE 120 ON READER SERVICE CARD OR GO TO [ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/](http://ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/)



## pinta acoustic

formerly illbruck acoustic, inc.

# Ceiling tiles to design a room around.



SQUARELINE



Your clients count on your ability to create a striking lobby, office or entertainment facility — right down to the last ceiling tile. That's why pinta acoustic is working to help you realize your vision.

SQUARELINE® Metal Ceiling Tiles provide a modern look at a sensible price. Available in three patterns and constructed from 35 to 55 percent recycled material, these expanded metal tiles are galvanized and powder-coated. When pre-bonded to our innovative willtec® FM acoustical backer, you get better acoustical performance than traditional metal ceiling tiles offer. Plus, these tiles are thoughtfully-designed and easy to install in pinta's or any standard ceiling grid system.

For more information about our attractive acoustical ceiling and wall solutions, contact us or visit our web site. We'll help make your vision real.

1-800-662-0032

[www.pinta-acoustic.com/metal](http://www.pinta-acoustic.com/metal)

CIRCLE 121 ON READER SERVICE CARD OR GO TO [ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/](http://ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/)

© 2007 pinta acoustic, inc. All rights reserved.



## Best choice, now better than ever

Architects and designers specify Best Sign Systems because they know they're getting superior quality, short turn-around and unparalleled customer service. Precision architectural additions: ImPressions™ and Illuminants™ now make that choice better than ever.

bestsigns.com | 800.235.2378

CIRCLE 122 ON READER SERVICE CARD OR GO TO ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/

**Club Sugar**  
Santa Monica, California

Benny Chan / Photography - John Friedman Alice Kfimi Architects

**CASCADE COIL DRAPERY**  
www.cascadecoil.com  
800-999-2645

CIRCLE 123 ON READER SERVICE CARD OR GO TO ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/

O R G A N Z A

**Loomis**  
CHARLES LOOMIS, INC.  
425.823.4560 / 800.755.0471 / www.charlesloomis.com

CIRCLE 124 ON READER SERVICE CARD OR GO TO ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/



You create your dream.  
We provide the comfort.  
Guaranteed.

Your comfort begins at  
[www.unicosystem.com/iah](http://www.unicosystem.com/iah)



## The Unico System®

Small-Duct Central Heating  
& Air Conditioning



CIRCLE 125 ON READER SERVICE CARD OR GO TO [ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/](http://ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/)

## The industry leader in Quality Mailboxes



[mailboxes.com](http://mailboxes.com)  
1-800-MAILBOX

Contact us today for a  
**FREE quote or catalog!**



1010 East 62nd Street • Los Angeles, CA 90001-1598 • Phone: 1 800 624 5269 • Fax: 1 800 624 5299

CIRCLE 126 ON READER SERVICE CARD OR GO TO  
[ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/](http://ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/)

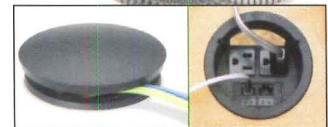
## Now... Hard Wired!

Two of our most  
popular power  
& data grommets are  
now hard-wired to meet  
local requirements.

### PCS1A/HW

Features the same removable cap as the original but has 6' conduit for hard wire connection. Standard with two 110v outlets and two Cat 5E data ports. UL Listed. US Patent 6,024,599 and others.

PCS3/HW also available, with four 110V outlets and six Cat 5E data ports. 6' conduit, UL Listed.



"FINE ARCHITECTURAL HARDWARE FOR YOUR FINE FURNITURE"®

Doug Mockett & Company, Inc. • Manhattan Beach, CA • 800.523.1269

**MOCKETT**  
DOUG MOCKETT & COMPANY, INC.

[www.mockett.com](http://www.mockett.com)

CIRCLE 127 ON READER SERVICE CARD OR GO TO  
[ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/](http://ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/)

connecting people\_projects\_products

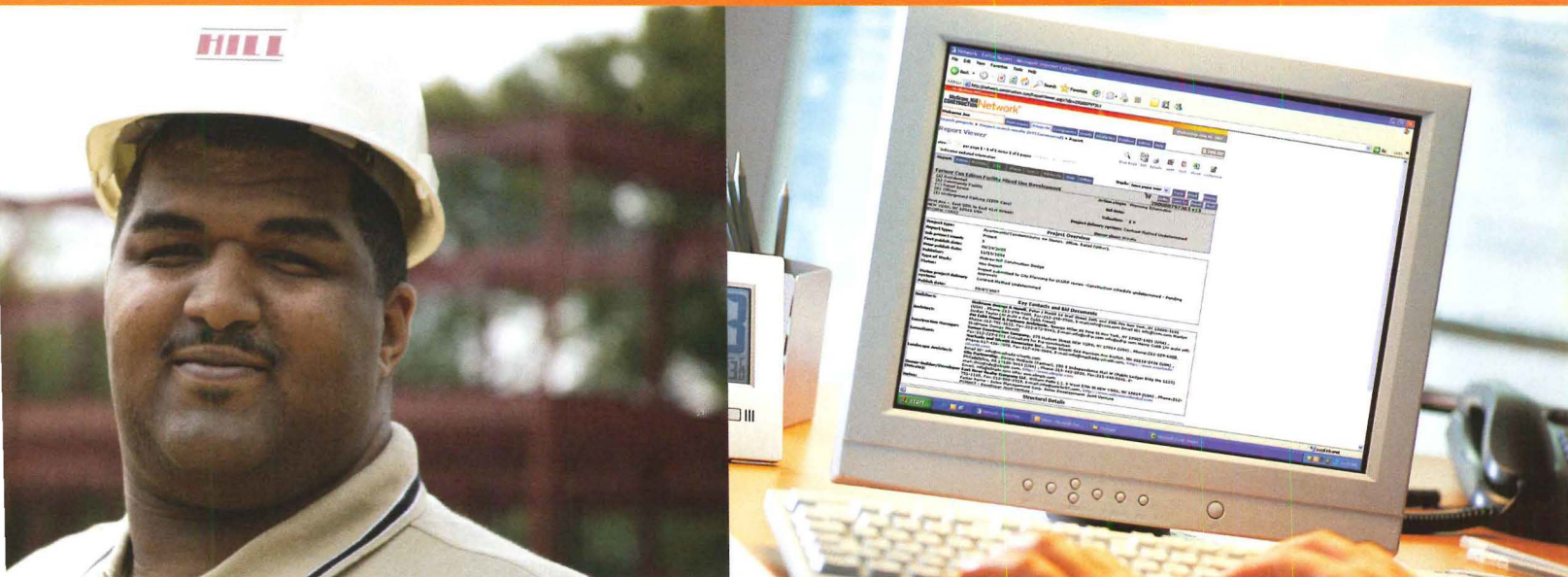


“Through the use of McGraw-Hill Construction’s project database, combined with Project Document Manager and our existing management tools, we were able to integrate everything on a collaborative scale.”

Shawn Pressl  
Project Controls Engineer  
Hill International

Connect. Collaborate. Control. Online.

## Introducing the new McGraw-Hill Construction ReproMAX Project Document Manager (PDM)



Across the entire project lifecycle, today's AEC professional relies on **ReproMAX Project Document Manager (PDM)**—your online answer to more efficiently manage the entire workflow process. And now with PDM integrated into our McGraw-Hill Construction Network® service, you have even greater opportunities to:

- Connect all your business tools
- Manage your project's bidding & communication
- Mitigate risk

**Take control of your project documents. Take advantage of interoperability.**

**Find out more. View a demonstration today or call 1.866.239.4261.**

Go to [www.construction.com/documentmanager/](http://www.construction.com/documentmanager/)

MAR8PDM

The McGraw-Hill Companies



This is big business.

It's attorneys and artists,  
start-ups and hand-me-downs.

It's views that make clients swoon  
and bottom lines grow.

This is success.

What do you see?

It's not about what this neighborhood is today; it's about what it can become. The Center for Communities by Design welcomes architects who believe their craft is the beginning of the solution. Be inspired by the results others have had in their communities, and learn how you can make a difference by downloading the tools and resources you need from our Web site, [www.aia.org/livable](http://www.aia.org/livable).

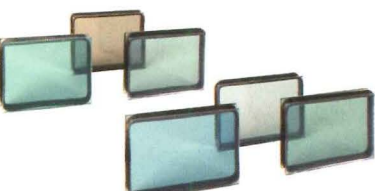


THE AMERICAN INSTITUTE  
OF ARCHITECTS

AIA Communities by Design   
ENVISION. CREATE. SUSTAIN.

Innovative Products from Innovation Sponsors

**Energy-Efficient Glass**  
PPG Industries, Inc.

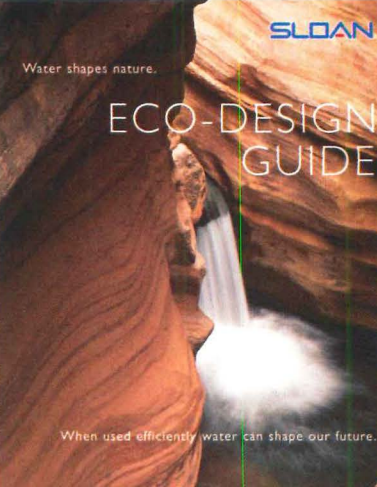


Solarban® z50 glass is a stylish solar control low-e glass with an LSG ratio of 1.61 that is up to 30 percent better than competing products. Studies show that Solarban z50 glass has the potential to reduce upfront HVAC equipment costs in a glass-walled eight-story office building by more than \$400,000 while cutting annual energy consumption by up to 10 percent compared to dual-pane tinted glass.

888-PPG-IDEA  
www.ppgideaspaces.com

| Circle Reader Service #150

**Eco-Design Guide**  
Sloan Valve Company



Sloan Valve Company's new "Eco-Design Guide" describes the sustainability challenge and how specifying water- and energy-efficient plumbing systems can make a significant difference. A product chart displays the water-savings estimates of Sloan's water-efficient products — including Waterfree Urinals, manual and sensor-operated Flushometers, pressure-assist flushing technology and 0.5-gpm faucets. Calculations of potential savings, based on number of uses, fixture type, and flow rate and duration, help substantiate water-efficient fixture purchases.

800-9-VALVE-9  
www.sloanvalve.com

| Circle Reader Service #152

**New Daylighting Program**  
MechoShade Systems, Inc.



SolarTrac® is MechoShade Systems' groundbreaking WindowManagement® daylighting program that integrates new digital, addressable motorized shades with automated, sunlight-control software. The system tracks the sun, and the digital light sensors detect excessive glare. This changes the shade heights to diminish glare and provide occupant comfort. When a window zone is in shadow, an optional 3-D modeling feature raises the shade. Manual overrides and sensor data, another unique option, are logged, correlated and periodically analyzed.

718-729-2020  
www.mechoshade.com

| Circle Reader Service #151

**Lighting Control System**  
Lutron



The new energy-saving GRAFIK Eye® QS preset lighting control system adjusts lights and shades from one elegant control. With push-button lighting presets and direct connection to eco-friendly occupancy sensors, the new control conveniently enhances the ambience and comfort of a space, while reducing its impact on the environment. GRAFIK Eye QS is available in a broad variety of colors and finishes, and can control up to six zones of light and three zones of shades.

888-LUTRON1  
www.lutron.com/grafikeyeqs

**LUTRON**

| Circle Reader Service #153

connecting people\_projects\_products

All renderings © MTA Capital Construction/NYCT.



Key Corporate Sponsors:



**McGraw Hill CONSTRUCTION Architectural Record**

# Architectural Record Innovation 2007: Architecture in an Age of Transformation

October 10-11, 2007—New York City

**Earn 7.5 AIA CEU Credits Be the future. Register today!**  
See full agenda and register: [www.construction.com/event/Innovation07/](http://www.construction.com/event/Innovation07/)

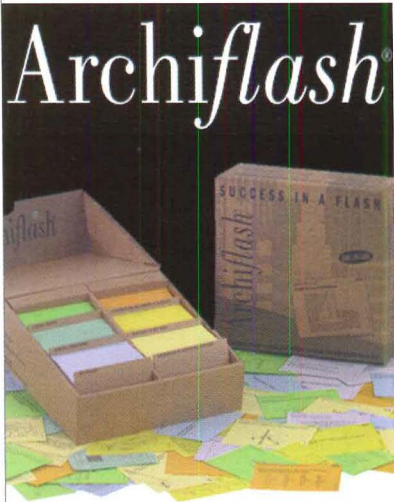
[www.architecturalrecord.com](http://www.architecturalrecord.com)

MENR79INN1

The McGraw-Hill Companies

**Pass the ARE 3.1. Study With Archiflash**

Nalsa



Get the new 6th Edition. Celebrating over 13 years of success. Prepare for the Architect Registration Exam with Archiflash. Each set contains 1,152 expertly written flashcards covering all six multiple choice tests: Pre-design, General Structures, Lateral Forces, Mechanical & Electrical Systems, Building Design/Materials & Methods, and Construction Documents & Services. Learning is easy with time-saving charts, definitions, diagrams, and multiple choice Q & A. More information than you ever thought possible in an easy-to-use flashcard format. Only \$109.95. Individual divisions available for \$27.00 each.

800-411-7314  
www.archiflash.com

| Circle Reader Service #154

**Mold/Moisture Resistant CMU**

Trenwyth Industries



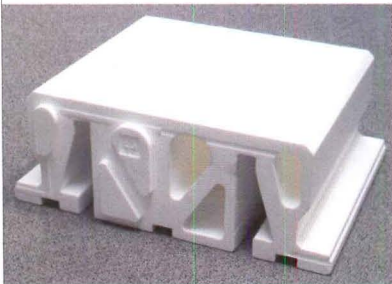
Exceptional high-performance buildings begin with Trenwyth premium architectural concrete masonry units. Astra-Glaze-SW+® recycled glazed units offer the beauty of ceramic tile and the durability and structural integrity of concrete masonry. Available in colors, shapes and sizes you won't find anywhere else, Astra-Glaze-SW+ units are mold/moisture resistant, easy-to-clean and stain/graffiti resistant. www.trenwyth.com

800-233-1924  
www.trenwyth.com

| Circle Reader Service #157

**Floor & Roof System**

Amvic Building System



AmDeck™ is a lightweight, modular stay-in-place form made of EPS for concrete floors/roofs. One-way concrete floor/roof joists can span up to 30- to 35-ft. and shoring can be placed up to 20-ft. on center. Overall, AmDeck™ is well engineered and easy to use. A perfect addition to your next project.

877-470-9997 / 416-410-5674  
www.amvicsystem.com

| Circle Reader Service #155

**Weave Panel System**

Móz Designs, Inc.



The Weave Panel System is created with their unique metal surfaces and adds color, texture and movement to your environment. Interweaving their 2-sided aluminum material between extruded aluminum poles creates their Weave Panel System. This dynamic artwork is available in 12 unique patterns and 16 different colors. Select the subtle or vibrant combination for your environment and unique message. Their custom artwork is available in a variety of sizes. Fax number 510-632-0852

510-632-0853 ext. 17  
www.mozdesigns.com

| Circle Reader Service #158

**Underslab Vapor Retarder**

Raven Industries, Inc.



Raven leads the industry with the introduction of Vapor Block® underslab vapor retarder. Vapor Block VB6, VB10, and VB15 are high performance underslab vapor retarders designed to retard moisture migration through concrete slabs. Vapor Block is made from state-of-the-art polyethylene resins that provide superior physical and performance properties that exceed ASTM E-1745 (Water Vapor Retarders Used in Contact with Soil or Granular Fill Under Concrete Slabs) Class A, B, and C requirements.

800-635-3456  
www.vaporblock.com

| Circle Reader Service #156

**Solid Hardwood Flooring**

Lumber Liquidators



With its exclusive high abrasion aluminum oxide finish and 50-year warranty, Bellwood is the premier manufacturer of pre-finished solid hardwood flooring. When you choose Bellwood Pre-Finished Hardwood Floors there's no messy sanding or smelly fumes. Domestic and exotic species, like Australian Cypress and Brazilian Walnut, are available to complement any design. Bellwood is available at Lumber Liquidators.

800-FLOORING  
www.bellwood.com

| Circle Reader Service #159

**Columns, Balustrades & Cornices**

**Melton Classics**



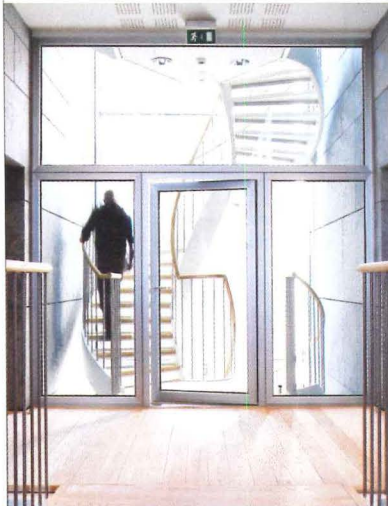
Melton Classics provides the design professional with the most comprehensive selection of quality architectural products in the industry, including architectural columns, balustrades, mouldings, cornices, and a wide array of architectural elements. Architectural columns are available plain or fluted, load-bearing or column covers, round or square in fiberglass, fiberglass/marble composite, synthetic stone, cast stone, GFRC, and wood for paint or stain. Melton Classics offers a maintenance free balustrade product ideal for any application.

800-963-3060  
www.meltonclassics.com

| Circle Reader Service #160

**Fire-Rated Aluminum Products**

**Aluflam North America**



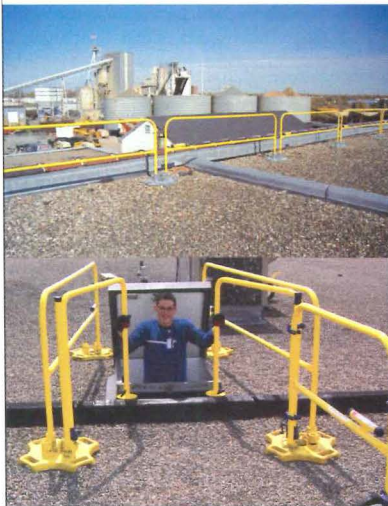
Imagine being able to specify a fire-rated system that looks so good you wouldn't know it's fire-rated. Imagine the clean, rich lines of clear glass. With ALUFLAM storefront and curtainwall systems, this is reality. Contact them for further information.

714-899-3990  
www.aluflam-usa.com

| Circle Reader Service #163

**Non-Penetrating & OSHA Compliant Guardrail System**

**Bluewater Mfg.**



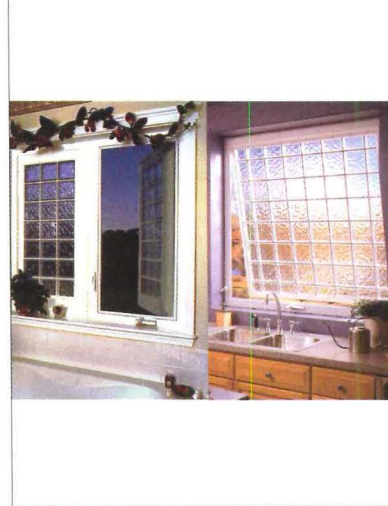
A non-penetrating guardrail system, SafetyRail 2000 exceeds OSHA regulations for permanent guardrails. There is no need to drill into the roof deck, building or roof hatch and void warranties and create potential leak hazards. The new Stealth-Rail folds down when not in use to keep the building aesthetics in place. The rail sections can mount in infinite directions. No intermediate counter weights are required. Three men can set up over 600-ft. in an hour. Galvanized bases and rails are available as well as special color rails. OSHA requires fall protection around roof hatches.

866-898-5237  
www.bluewater-mfg.com

| Circle Reader Service #161

**Awning & Casement Acrylic "Glass" Block Windows**

**Architectural Products by Outwater, LLC**



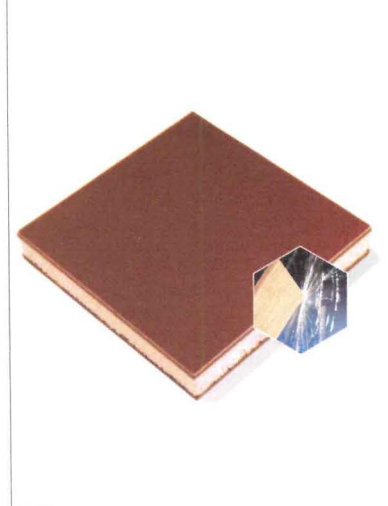
Lightweight yet nearly indestructible, Outwater's new series of fully manufactured and ready to install Vinyl Framed Awning & Casement Acrylic "Glass" Block Windows are not only 75% lighter than traditional glass block, they are safety glazed approved and offer energy efficiency of up to 35% greater than that of glass block while allowing for almost total light penetration. In addition to an incorporated fusion welded vinyl manufacturing process, Outwater's Awning & Casement Acrylic "Glass" Block Windows comprise premium quality corrosion resistant operating hardware and locking systems.

800-835-4400  
www.Outwater.com

| Circle Reader Service #164

**Insulated Impact Resistant Glazing**

**Mapes Industries, Inc.**



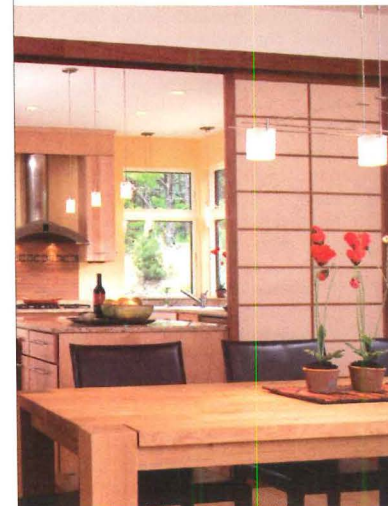
Mapes Industries has developed an insulated composite panel with improved impact resistance for use in curtain wall, entrances, and window applications. The panels can be used to reduce glass area and replace it with high impact glazing materials to improve energy efficiency and reduces costs. Testing and certification for hurricane, small missile, large missile and Level I blast resistance is available. MapeShield panels can be used in any framing system detailed for this type of application. The panels are designed with R-values up to 27.79. The finish of the panels can match any architectural finish.

800-228-2391  
www.mapes.com

| Circle Reader Service #162

**Custom Shoji & Doors**

**Cherry Tree Design**



Consider Cherry Tree Design's stock or custom sized shoji and doors to lend beauty and functionality to a broad range of interior decors. Starting at just \$364, Cherry Tree Design shoji is ideal for closet doors, room dividers, pocket doors or patio door coverings. New 96-in. stock shoji is a perfect solution for a high ceiling room or large commercial space. Choose from a variety of styles and durable facing options. Over 90 different shoji packages are offered and include everything you need for installation.

800-634-3268  
www.cherrytreedesign.com/ar.html

| Circle Reader Service #165

**Versatile Windows**

Fenevations, LLC



Fenevations manufactures MegaWood, Infinity Bronze, and SteelView windows. Megawood offers fine hardwoods with furniture-grade finishes, combined with heavy gauge bronze or hand welded, aluminum extruded exteriors. Infinity Bronze is a unique thermally broken solid bronze system offering beauty, style and traditional sightlines. SteelView offers stainless steel beauty for contemporary designs.

908-688-5710  
www.fenevations.com

| Circle Reader Service #166

**Movable Glass Partitions**

Luconi-usa



Osso is a real biomechanical sculpture, characterized by the peculiar aluminum bar, which has the double function of supporting panels and pieces of furniture. It stands simply and securely, either by putting pressure between floor and ceiling or can be self-supporting in some configurations, offering a wide range of panels and materials for partitions, doors, furnished walls, closets, desks, bookshelves, drawers and containers. This pure, functional element, like a dress, finds space in applications such as homes, offices, retail, kitchens and bathrooms.

310-734-8782  
www.luconi-usa.com

| Circle Reader Service #169

**Next-Generation Daylighting**

Kalwall Corporation



Kalwall 100 is the latest innovation in Kalwall's high-performance, super-insulating Wall and Skylight Systems, which meet energy performance standards formerly achieved only by Kalwall+ Nanogel, which at 2-3/4-in. thick holds a .05 U-value (R-20). The Kalwall 100 exterior panel, which has a U-value of .08 (R-13), is 4-in. thick and increases the structural capabilities of earlier versions to meet the worldwide demands of new building regulations for stiffer, stronger cladding. Kalwall meets the most demanding codes.

800-258-9777  
www.kalwall.com

| Circle Reader Service #167

**Versatile, Energy-Saving Daylighting**

Major Industries, Inc.



Transform dark, poorly lit spaces with cost-effective translucent fiberglass, polycarbonate multiwall, glass and acrylic daylighting solutions - available in custom and pre-engineered configurations that fit every design and budget. Their Guardian 275® Translucent Daylighting Panels allow controlled natural light to illuminate spaces while eliminating glare and hot spots. LEED® credit opportunities, integral water management systems and industry-leading warranties make Major Industries the right choice for your next project.

888-759-2678  
www.majorskylights.com

| Circle Reader Service #170

**Thermal Sliding Door**

Kawneer Company, Inc.



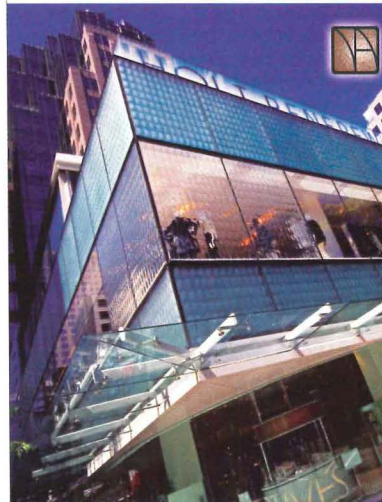
AA™3900 Thermal Sliding Door features the contemporary styling of mitered frames/panels, a variety of configuration options and is equipped with corrosion resistant hardware that provide ease of operation, plus safety and security for building occupants. AA™3900 utilizes ISOWEB® polyamide thermal break technology to provide low thermal transmittance and high condensation resistance while eliminating dry shrinkage. All of this makes AA™3900 a top choice for building owners needing high-performance non-impact rated thermal sliding doors; for use in condominiums, lofts, hotels and apartments.

www.Kawneer.com  
2007 Greenbuild Booth #1424

| Circle Reader Service #168

**Convex Glass Pillows**

Nathan Allan Glass Studios Inc.



Convex Glass was produced and developed with the renowned architectural firms of Janson/Goldstein and Front Inc, in NYC. Convex Glass is the first real 3D Glass produced in geometric type patterns. Both surfaces are shaped so that dimensional viewing can take place from either side of the glass. Convex Glass can be produced in 1/4-in., 3/8-in., 1/2-in., 5/8-in. and 3/4-in. single layered panels up to 8-ft.0-in. x 12-ft.6-in., and can be safety tempered as well. Rectangular, square, and circle shapes can be produced. A unique method of casting allows panels to "fit like a glove," enabling successful resin laminating.

604-277-8533 ext 225  
www.nathanallan.com

| Circle Reader Service #171



**Distinctive Track Hardware**

**Specialty Doors**



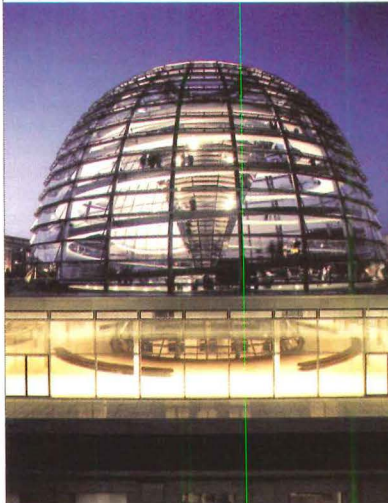
Make a statement with sliding doors. Wide selection of styles, sizes and finishes. Enhance any office, loft, condo or home with hardware that can transform a room. Wide selection of choices for exterior applications as well. From rustic to contemporary and from sliding to folding, their friendly, knowledgeable staff has your solution. For old-fashioned service give them a call at 866-815-8151.

866-815-8151  
www.barndoorhardware.com

| Circle Reader Service #172

**Steel Curtainwall Systems**

**Technical Glass Products**



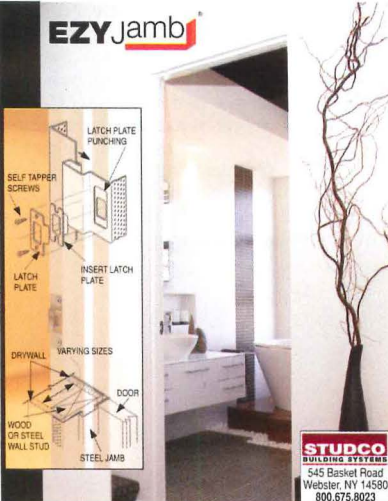
Architects and designers now have a better way to incorporate large expanses of glass in building designs. European-designed SteelBuilt Curtainwall™ Systems from Technical Glass Products are strong and slim, allowing larger spans of glazing than aluminum framing and increased ability to bring natural light indoors.

800-426-0279  
www.tgpamerica.com

| Circle Reader Service #175

**Trimless Doorframe**

**Studco Building Systems**



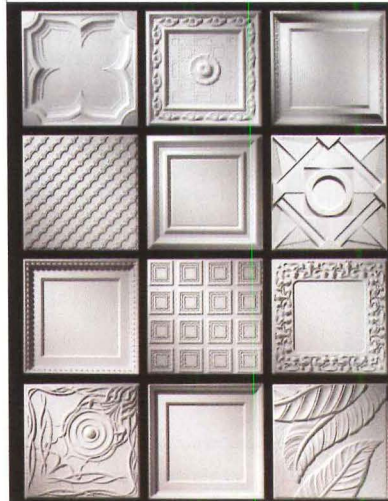
Studco's EZY-Jamb trimless door frame system is a split-type jamb that combines visual appeal with strength and versatility. Components of the EZY-Jamb system are designed to promote the clean lines and inconspicuous detail desired for trimless door frames. Studco also offers a full range of other flush finish products that can be used to make your project a contemporary dream. Not only has the installer's dream been realized, but the architect's dream has started. Fax number 585-265-6678 Email mail@studcosystems.com

800-675-8023 or 585-265-9450  
www.studcosystems.com

| Circle Reader Service #173

**Ornamental Plaster Ceiling Tiles**

**Above View Mfg., By Tiles, Inc.**



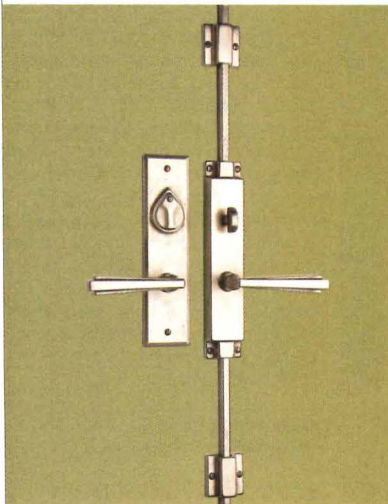
Above View ornamental plaster ceiling tiles are fabricated from a non-toxic, non-combustible, proprietary composition. They drop into any standard 15/16-in. T-Bar grid system. There are more than 50 standard designs, custom design work, and 1,300 custom colors and faux finishes available upon request.

414-744-7118  
www.aboveview.com

| Circle Reader Service #176

**Cremona Bolt/Entry Set**

**Sun Valley Bronze**



Elegant. Functional. Unique. The Sun Valley Bronze locking cremona bolt/entry set is now available for keyed exterior doors. Offered with any of their lever designs and in any of their eight beautiful finishes. Custom lengths, patio function and dummy function available.

866-788-3631  
www.svbronze.com

| Circle Reader Service #174

**Interior & Exterior Plate Cladding Systems**

**Armetco Systems**



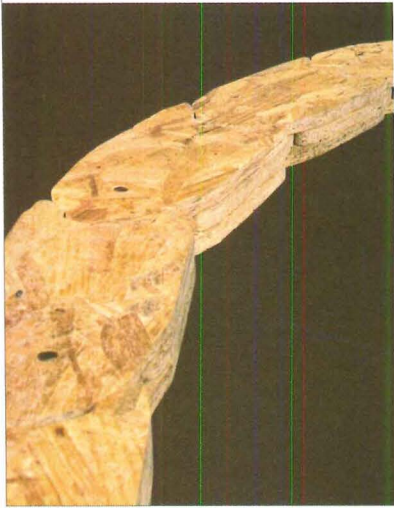
Armetco Systems PDX Series wall panels combine aluminum "edge grip" attachment extrusions and aluminum sheet to provide a dry seal aluminum plate cladding system. PDX is available in .125 and .080 aluminum, and can be a high performance, yet affordable alternative to aluminum composite material when your project design requires anodized finishes, small quantity custom colors, or panel sizes that do not allow for efficient use of ACM.

800-647-3778  
www.armetco.com

| Circle Reader Service #177

**Curveable Wood Framing**

Flex-Ability Concepts



Quick Curve Plate is an extremely easy-to-use OSB wood framing product for curved framing applications such as curved walls, ceilings, soffits, light coves – nearly anything you can dream up. It provides a solid framework giving every project smooth and easy-to-finish curves. You can fasten wall coverings and moldings directly to it. No new tools or installation techniques are needed. Quick Curve Plate is compatible with standard 2x4 wood framing. Contact them for more information on their complete line of curveable framing products.

405-996-5343  
www.flexabilityconcepts.com

| Circle Reader Service #178

**Railing System**

Handrail Design



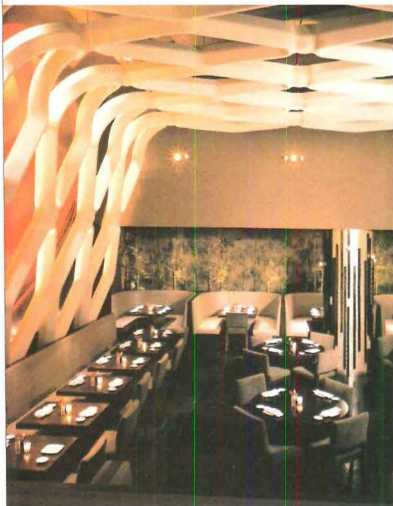
The high-end d line™ railing system from Denmark is now available in the U.S. exclusively through HDI. d line is made of the highest-quality stainless (AISI 316) for use in any environment. Features include custom bending, modular engineering for fast on-site installation, and quick order turnaround to meet construction deadlines.

717-285-4088  
www.hdirailings.com

| Circle Reader Service #181

**Custom Molded Architectural Shapes**

Formglas



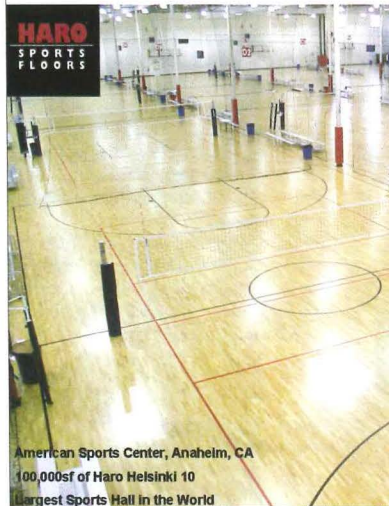
Custom molded architectural shapes by Formglas expand design opportunities for interiors and exteriors. Lightweight and durable GRG and GRC components are cast in an endless array of shapes, textures and color finishes. Their team of trained professionals work with you to find practical and easy to install solutions that enhance aesthetic appeal. Email Info-ar5@formglas.com

416-635-8030  
www.formglas.com

| Circle Reader Service #179

**Sports Floors**

Haro Sports Floors



Athletes shouldn't suffer through injuries due to a poor performing sports floor. Athletic Floor Systems provides high performing, safe and low cost gymnasium floors. AFS supplies sports floors for competition gyms, sports arenas and multi-purpose facilities. There are more than 7500+ installations in over 65 countries. Demand performance, safety and low cost in your next sports floor.

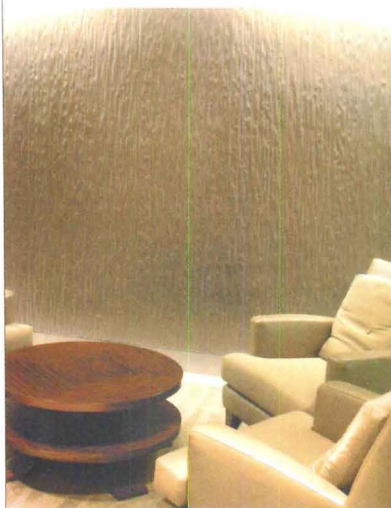
American Sports Center, Anaheim, CA  
100,000sf of Haro Helsinki 10  
Largest Sports Hall in the World

800-323-6792  
www.haro-usa.com

| Circle Reader Service #182

**Vertical Surfacing**

Gage Corporation, Intl.



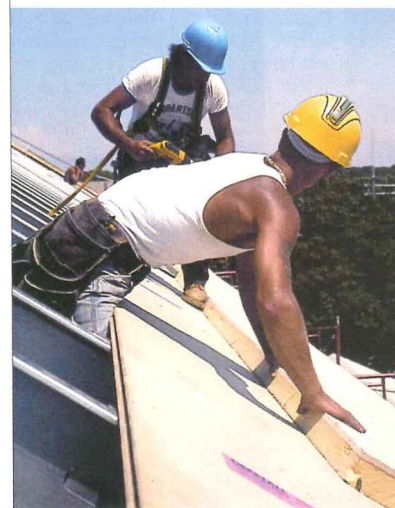
Gagecast® is a cast metal wall surfacing material suitable for a variety of interior architectural applications where patterns that feature high luster, relief, durability, and cost effective installation are a requirement. Twenty designs are standard; however, custom collaboration is encouraged. Gagecast® is one component of Gage Vertical Surfacing. Contact the factory for product literature and select samples.

800-786-4243  
www.gageverticalsurfacing.com

| Circle Reader Service #180

**Green Roof Systems**

Homasote Company



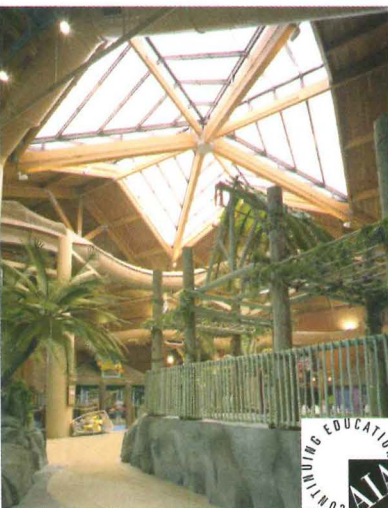
Homasote Company, one of America's leading green building products manufacturers and nailbase roof insulation's originator, has received Factory Mutual approval for N.C.F.R.® Thermasote® on steel roof decks. Use it to specify attractive, residential-looking roofs for multi-family, mixed-use, commercial, medical and other construction. For an alternative green roof system, excellent for conventional and LEED® construction, specify Firestall® Roof Deck with N.C.F.R.® Thermasote. Wind uplift tests show these Homasote® systems make code in wind-prone areas.

800-257-9491 ext. 1211  
www.homasote.com/thermasote

| Circle Reader Service #183

**Expand Your Architectural Options**

Linetec



Linetec, a Kynar 500/Hylar 5000 paint, anodize and powder coat finisher offers "Introduction to Coatings: Field Performance and the Application Process" as a registered online learning program to help you attain your AIA Continuing Education credits. This presentation is available on-demand from Linetec's Architect Resource Center located on their web site at [www.linetec.com](http://www.linetec.com).

888-717-1472  
[www.linetec.com](http://www.linetec.com)

| Circle Reader Service #184

**Reduce Impact Noise**

Noble Company



NobleSeal® SIS is a sheet membrane that reduces the impact noise produced by hard surface flooring (like tile and hardwood floors). SIS is only 3/64-in.-thick so it minimizes problems with transitions and the need to alter door and cabinet heights. It is effective at reducing noise (IIC=62; STC=59). SIS can be installed over all common substrates, even gypsum concrete and radiant heating systems. SIS can also protect thin-set tile from cracking and provide waterproofing. Visit their web site. Email [richard@noblecompany.com](mailto:richard@noblecompany.com)

800-878-5788  
[www.noblecompany.com](http://www.noblecompany.com)

| Circle Reader Service #187

**Fluoropolymer Resin**

LUMIFLON™



LUMIFLON™ resin's next generation fluoropolymer technology and absolute clarity produce the most brilliant colors in a gloss range. LUMIFLON™ coatings are ultra-weatherable just like the other fluoropolymer and its superior corrosion resistance and unique field application capabilities make LUMIFLON™ unbeatable! Specify FEVE coatings made with LUMIFLON™ resin.

704-329-7614  
[www.lumiflon.com](http://www.lumiflon.com)

| Circle Reader Service #185

**End-Block Bamboo Flooring**

Smith & Fong Plyboo



Made from quality select bamboo strips, end-block flooring gives a refreshing new look to sustainable architecture and design. Turning traditional strip patterns on its head, the unique mosaic surface of end-block flooring rings in the next generation of innovative bamboo flooring design. Available in an amber tone in a 5/8-in. by 3-3/4-in. by 36-in. dimension, Plyboo® end-block flooring can contribute points to a LEED® 2.1 or 2.2 project.

866-835-9859  
[www.plyboo.com](http://www.plyboo.com)  
Greenbuild Booth #566

| Circle Reader Service #188

**Tin Ceilings and More**

M-Boss, Inc.



Enhance the overall design of space with embossed metal panels from M-Boss Inc. Perfect for ceilings or walls. Choose from hundreds of patterns and finishes; in patterns ranging from sleek, contemporary styles to traditional designs replicated from turn-of-the-century originals. Available in three substrates: aluminum, solid copper and tin. Products are economically and promptly shipped direct to job sites.

Pattern Number: 2475  
Pattern Name: Urban Flair  
Finish: Clear

877-29 M-Boss (877-296-2677)  
[www.mbossinc.com](http://www.mbossinc.com)

| Circle Reader Service #186

**Architectural Surfaces**

SOLI



SOLI offers one-of-a-kind architectural surfaces for traditional and contemporary applications. From metal to marble, granite to glass, SOLI products bring distinctive design to floors and walls, indoors and out. They also offer a variety of unique porphyry, cobblestones and pavers. Visit their web site to view their extensive collection of innovative tile and natural stone.

800-410-7654  
[www.soliusa.com](http://www.soliusa.com)

| Circle Reader Service #189

**Architectural Signage**  
**APCO Sign Systems**

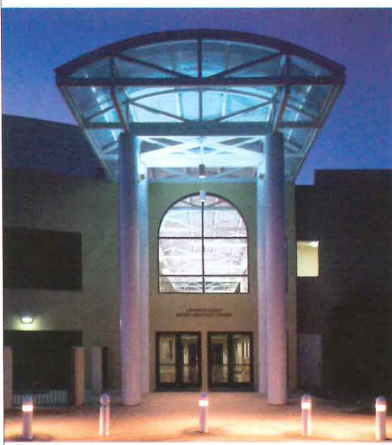


For 40 years, APCO has been a leader in the design and manufacturing of modular sign systems. Their product line includes interior and exterior sign systems, directories, displays, sign-making software, and ADA-compliant solutions. Each line is backed with commitment, quality, and innovation. With headquarters and manufacturing in Atlanta, APCO has offices across the nation and worldwide.

887-988-APCO  
www.apcosigns.com

| Circle Reader Service #190

**Custom Canopies & Walkway Covers**  
**CPI Daylighting Inc.**




CPI is a world class provider of custom translucent canopy systems. CPI canopy systems provide an excellent shelter and give an open air feeling by allowing natural daylight to light up the area below. At night, CPI translucent systems provide a dramatic visual effect when backlighting is introduced.

800-759-6985  
www.cpidaylighting.com

| Circle Reader Service #193

**Address Numbers**  
**Architectural Numbers**




We have a large selection of architectural address numbers and letters. 41 different styles/fonts, from modern to traditional. 12 standard finishes, including: Aluminum – satin, clear, bronze anodized. Bronze – satin, oxidized, polished & patina. Custom materials, such as Stainless Steel, Copper, Brass, Hot Rolled Steel and others are also available. Sizes from 2-in. to 24-in. Lifetime Warranty. Letters A – Z for signage needs.

818-503-9443  
www.ArchitecturalNumbers.com

| Circle Reader Service #191

**Extruded Aluminum Shelves**  
**Rangine Corporation / Rakks**




Rakks extruded aluminum shelves feature an attractive low-profile design that exceeds the strength and stiffness of 3/4-in. plywood. Shelf depths up to 18-in. can be achieved by combining 4- and 6-in. deep sections. This lightweight, easy-to-ship shelving can be ordered in specified lengths up to 12-ft. Please visit the company's web site for information on aluminum shelves and their full line of wall mounted and pole supported shelving. (Shown at left: Rakks extruded aluminum shelves on "C" standards and brackets at Clicquot, Inc. New York. Design: Traboscia Roiatti Architects).

800-826-6006  
www.rakks.com

| Circle Reader Service #194

**Architectural Sheetmetal Products**  
**CopperCraft**



Structural integrity and performance are as important as aesthetics. Applying this understanding to the manufacture of its products is what sets CopperCraft apart from the competition. Their design, engineering, testing, and fabrication methods meet stringent structural and performance standards. You get unsurpassed quality, delivery, and custom service including a nationwide network of representatives. Their complete line of high quality architectural sheetmetal products include ornamental dormers, roof vents, roof drainage products, conductor heads, steeples, cupolas, and spires.

800-486-2723  
www.coppercraft.com

| Circle Reader Service #192

**How Houses Are Drawn**  
**SoftPlan Architectural Design Software**



SoftPlan is a leading residential CAD software package. Now on its 13th release, SoftPlan allows architects to create house plans in a fraction of the time taken to draw by hand or using a conventional CAD package. Using the latest technology, SoftPlan gives the flexibility to create complex, custom drawings with speed, accuracy, and ease. Quickly and easily create floor plans, elevations, cross sections, photo-realistic 3D renderings, material lists, and more.

**How Houses are Drawn**  
SoftPlan Version 13  
floorplans  
elevations & sections  
3D renderings  
material lists

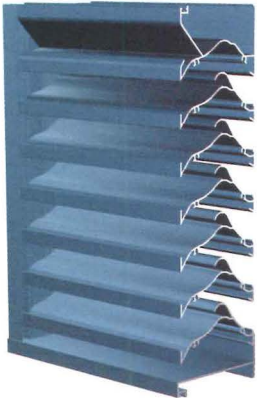
800-248-0164  
www.softplan.com

Version 13  
**SOFTPLAN**  
ARCHITECTURAL DESIGN SOFTWARE

| Circle Reader Service #195

**Severe Duty Louvers**

The Airolite Company



Airolite's Storm Class louvers are designed and rated to provide high volume intake and exhaust ventilation and prevent water penetration under the most severe wind-driven rain conditions. Designed to meet the stringent Florida Building Code criteria, Airolite's Miami-Dade and Florida Product Approved louvers provide high volume flow rates, impact resistance and protection against water penetration and high-wind loads. All Airolite Storm Class louvers are licensed to bear the AMCA seal for water penetration, air performance, and wind-driven rain. Fax number 740-373-6666.

740-373-7676  
www.airolite.com

| Circle Reader Service #196

**Standout Furniture**

Gyford



Gyford Production's Quadralite Table, part of our StructureLite Furniture Line, has that "dare to be different" appeal that makes any interior design project a standout. Gyford Productions is the originator of StandOff Systems™ with over 450 interchangeable machined aircraft aluminum hardware items to "Bring Your Designs to Life" with style. To see more of their products, you can visit www.todl.com or www.arcat.com. Call or e-mail for your free catalog and additional information.

775-829-7272  
www.standoffsystems.com

| Circle Reader Service #199

**Custom Prefabricated Mechanical Systems**

Commercial Aquatic Engineering



CAE designs and manufactures UL listed mechanical operating systems. Systems are pre-plumbed, pre-wired, and pre-tested to reduce jobsite problems and installation delays. Each system can be configured to custom fit your unique installation requirements such as mechanical equipment rooms, confined stair landings, underground vaults or submersible applications. Finally, every system is fully tested, before shipment, to meet or exceed specifications.

952-445-5135  
www.fountaindesigns.com

| Circle Reader Service #197

**Outdoor Furniture**

Modern Outdoor



Premier provider, designer, and manufacturer of high-style, clean-lined, environmentally conscious outdoor furniture that is still made here in America. They offer four complete lines of furniture engineered for use in heavy commercial applications with the aesthetics for residential environments. Their lines include chairs, tables, benches, settees, stools, club chairs, sofas, ottomans, loungers, planters, bar carts, accent tables, and bar height products. They also offer custom work Contact: t. 818-785-0171, f. 818-785-0168, info@modernoutdoor.com or visit www.modernoutdoor.com.

818-785-0171  
www.modernoutdoor.com.

| Circle Reader Service #241

**Assembled Storage for Books & Binders**

Aurora by Richards-Wilcox



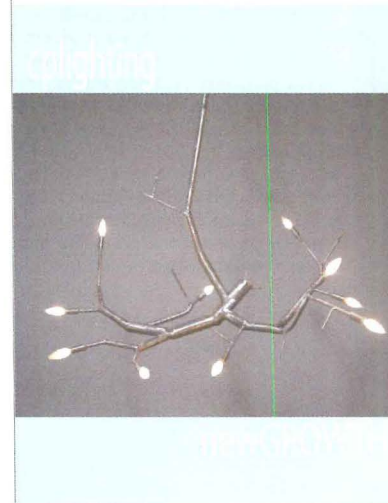
The Aurora Bookcase is all about versatility for storage of books, binders and miscellaneous items. Developed to pair with lateral cabinets, the bookcase comes in two heights (41-5/8-in., 65-5/8-in.) and four widths (30-in., 36-in., 42-in., 48-in.). It features more depths than most standard bookcases (9-in., 10-in., 12-in., 13-in., 15-in. 16-in., 18-in.) with shelves adjustable on 1-1/2-in. centers. For more information contact Aurora Storage on their toll free line, 800-877-8456 or visit them online at www.aurorastorage.com.

800-877-8456  
www.aurorastorage.com

| Circle Reader Service #198

**Custom Light Fixtures**

CPLIGHTING

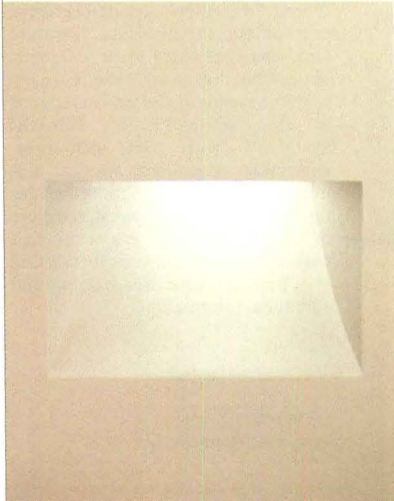


CPLIGHTING introduces the newGROWTH chandelier. Custom fabricated from brushed aluminum, these UL listed fixtures are a modern sculptural interpretation of fallen branches. Like real trees, no two newGROWTH fixtures are ever alike. Each fixture is built to suit your specific project needs utilizing line-voltage type JCD halogen bulbs. Please visit their website to see their complete line of modern light fixtures designed by Christopher Poehlmann including their recycled acrylic Popsicle Pendant series.

866-597-4800  
www.cplighting.com

| Circle Reader Service #242

**Niche Lighting**  
Engineered Lighting Products



The "Hole In The Wall" goes small! The newest member of the "HITW" family has a 4-in. x 5-5/8-in. aperture opening. The durable GRG cast housing once installed becomes one with the wall appearing as a custom formed drywall "light niche." Available in either LED or low wattage incandescent light sources. For more information call 626-579-0943 or visit [www.elighting.com](http://www.elighting.com).

626-579-0943  
[www.elighting.com](http://www.elighting.com)

| Circle Reader Service #243

**Lighting**  
Rocky Mountain Hardware

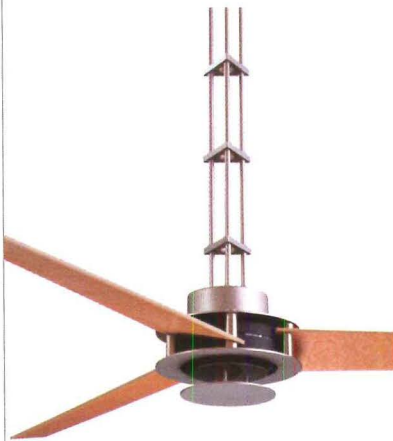


Known for creating fine architectural hardware, Rocky Mountain Hardware is proud to introduce their Lighting Collection. Combining the warm texture of cast art-grade bronze with hand crafted glass, this collection is designed to gracefully span styles from contemporary to traditional. View the entire collection at [www.rockymountainhardware.com](http://www.rockymountainhardware.com)

888-552-9497  
[www.rockymountainhardware.com](http://www.rockymountainhardware.com)

| Circle Reader Service #246

**Architectural Ceiling Fans & Lighting**  
G Squared Art



Balanced design that is light and airy. Moving sculpture. The San Francisco ceiling fan – a GOOD DESIGN Award winner. Whisper quiet, powerful, reliable and beautifully made, this timeless design is also available with a light kit and can be used on 8-ft. ceilings or on cathedral ceilings with optional downrods up to 6-ft. long. Suitable for sloped ceilings up to 29 degrees. Lifetime warranty. Air conditioning can increase your electricity bill by a third or more. A fan uses one tenth of the energy. To buy high-design architectural fans and lighting, visit G Squared Art's web site or call us M-F 7 AM - 5 PM PST.

877-858-5333  
[www.g2art.com](http://www.g2art.com)

| Circle Reader Service #244

**Self-Locking Gate Latch**  
D&D Technologies



Lokk-Latch PRO®—SL provides self-locking and self-latching security in a latch that won't rust, is horizontally and vertically adjustable, and features a 6-pin re-keyable lock. Formed of super-strong engineering polymers with stainless steel components, it fits metal, wood and vinyl gates. A key is required to enter and exit (institutional function). Only one hole is drilled to connect the internal and external units. The latch fits posts up to 6-in., and comes with a limited lifetime warranty.

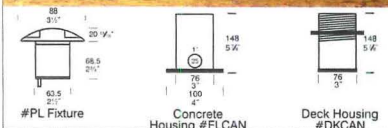
714-677-1300  
[www.ddtechglobal.com](http://www.ddtechglobal.com)

| Circle Reader Service #247

**Low Profile Path Lighting**  
Hunza Lighting USA



The Hunza Path Lite is machined from solid copper or 316 stainless steel, providing a horizontal lighting effect across pathways or decks with a low trim profile of less than 1-in. in height. There is a choice of 4 light beam patterns, from half to full circle, according to the number of facets specified. The Path Lite uses a low-voltage 20W MR16 lamp and is easily installed into concrete or wooden decks using one of 4 optional housings.



310-560-7310  
[www.hunzausa.com](http://www.hunzausa.com)

| Circle Reader Service #245

**Perfect for Gated Communities**  
FAAC International, Inc.



FAAC is the world's largest specialized manufacturer of operators for swing, slide and barrier gate systems. The Model 400 heavy-duty hydraulic swing gate operator is UL 325 compliant and designed for applications needing maximum versatility, such as subdivisions and apartments. Its power and reliability also make it ideal for large, ornate gates. Visit [www.faacusa.com](http://www.faacusa.com).

800-221-8278  
[www.faacusa.com](http://www.faacusa.com)

| Circle Reader Service #248



“Looking  
for Green  
products?”

McGraw-Hill Construction  
Sweets Network®



Click on SweetsGreen at the sweets.com  
homepage for fast access to manufacturers  
with Green products

Announcing the Sweets Green Product Center:

- Search for manufacturers with Green products
- Get news on the latest Green products
- Receive up-to-date information in bimonthly Green eNewsletter

Connect to Green product information –  
Faster, easier at sweets.com

If you are a building product manufacturer interested  
in participating in Sweets, call 800.221.0088

POSITIONS VACANT

ARCHITECTURE

**Philadelphia University**

**Director, Architecture Program**

Philadelphia University invites applications and nominations for the position of Director of the Architecture Program in the School of Architecture. The position will commence Spring or Fall 2008. The School seeks a dynamic colleague who will provide leadership and administration for the Program in its new context with Interior Design and Landscape Architecture. Applicants should have a professional degree in architecture, a masters or doctorate in architecture or related discipline, and architectural registration. In addition, applicants should have demonstrated excellence in teaching, administrative experience, and a distinguished record of practice and/or scholarly accomplishments.

Send letter of application; curriculum vitae; portfolio with examples of scholarly/professional and academic work; and names, addresses, and telephone numbers of three references to: Dr. Vini Nathan, Interim Dean, School of Architecture, Philadelphia University, School House Lane & Henry Avenue, Philadelphia, PA 19144-5497. Tel: 215/951-2828; Fax: 215/951-2110; E-mail: nathanv@PhilaU.edu.

Review of applications will begin immediately and continue until position is filled. Philadelphia University is an Equal Opportunity Employer.

For more information about our University, visit [www.PhilaU.edu](http://www.PhilaU.edu).

**UNIT HEAD - ARCHITECTURE & DESIGN SERVICES**

**Mayo Clinic Jacksonville, FL**

A Registered Architect in the State of Florida, the incumbent will prepare and oversee production of construction documents, prepare and manage unit budgets and develop cost reports and comparisons for management. Expect to supervise staff Interior Designers, Architects, and CADD Technicians, and establish and maintain standards for design, drafting and construction documentation.

This leadership position requires a bachelor's degree in architecture, 10 years' architectural experience with an emphasis on healthcare, and 5+ years' experience supervising construction document preparation. Knowledge of all aspects of project development and the delivery process is necessary, plus AutoCAD proficiency.

Mayo Clinic offers an exceptional work environment, competitive salaries, and outstanding benefits starting on your date of hire. For more position details or for a complete list of available opportunities, visit [www.mayoclinic.org/jobs-jax](http://www.mayoclinic.org/jobs-jax).

As an equal opportunity employer, we value diversity. Mayo Clinic conducts reference checks; drug testing is required of all new hires.

[www.mayoclinic.org](http://www.mayoclinic.org)



**FACULTY POSITION IN CONSTRUCTION MANAGEMENT**

The Department of Civil Engineering and Construction at Bradley University invites applications for a faculty position at the Instructor or Assistant Professor level in the area of construction management starting in the Spring or Fall 2008. An earned a PhD in Architecture, Construction Management, Civil Engineering, or other appropriate field is desired. The minimum requirement is a Master's degree in architecture or construction management and relevant industrial experience. Preference will be given to individuals with a PhD in Construction Management or terminal degrees in Architecture including Masters. Individuals with a Master's degree in Construction Management will be considered for a non-tenure track Assistant Professor or Instructor position depending on applicant qualifications. Selected candidates should have a broad background that may include knowledge of architecture, construction graphics, materials and methods, contract documents, project management, estimating, scheduling, automation, information technology, and construction simulation. Duties include teaching, course development, and research. Salary and rank are commensurate with qualifications. The position provides exceptional opportunities for individuals who wish to be associated with a first-rate multi-disciplinary department with a rapidly developing Center for Emerging Technologies in Infrastructure with strong ties to major industrial partners and eminent internationally renowned universities. The selected candidate will also have unique opportunities to teach overseas through our study abroad programs in England, France, Denmark and Egypt. The department currently has 15 full-time faculty members and approximately 250 students. Interested applicants should submit a cover letter addressing the qualifications of the position, complete resume that includes a list of relevant graduate courses, a statement of teaching and research interests, and contact information for at least three professional references to: Chair, Construction Search, Department of Civil Engineering and Construction, Bradley University, 1501 W. Bradley Avenue, Peoria, IL 61625. Review of applications will begin immediately and continue until the position is filled. Bradley University is an Equal Opportunity Employer. The administration, faculty and staff are committed to attracting qualified candidates from groups currently underrepresented on our campus.

**ARCHITECTURAL DESIGNER**

Davis Davis Architects, San Diego, CA now has a position available for an Architectural Designer. Experience in Office and Mixed-Use. Develop and Coordinate all phases of design drawings. Ability to assist in the preparation of design drawings, both freehand and AutoCAD. Must possess Auto CAD, photoshop skills and Sketch Up or other 3D software. Must have extensive model making experiences. MA in Architecture or related field. Please submit resume to Davis Davis Architects, 3601 5th Avenue, San Diego, CA 92103. No phone calls, please.

**ARCHITECT PROJECT MANAGER, NY, NY**

Utilize knowledge of related software & experience in all phases of high-end residential, retail and commercial construction project from start to close out with tight deadlines. Prepare construction site reviews and cost estimates. BS/MS or for. equ. in related field + related experience Resume: Bauhaus Construction Corp., 347 5th Ave, Suite 1304, NY, NY 10016.

[WWW.SMPSCAREERCENTER.ORG](http://WWW.SMPSCAREERCENTER.ORG)

Find marketing/BD professionals with A/E/C experience. Call 800-292-7677, ext. 231.

**ARCHITECTS**

As a well-known recruiting firm, we can help advance your career. JR Walters Resources specializing in A&E placements. Visit our web site: [www.jrwalters.com](http://www.jrwalters.com) Tel: 269 925 3940

**BUSINESS OPPORTUNITIES**

**CONFIDENTIAL CLEARINGHOUSE FOR MERGERS & ACQUISITIONS**

Strogoff Consulting offers confidential introductions between prospective buyers and sellers, develops valuations and guides firms through the acquisition/merger process. As a strategic advisor to firms throughout the U.S., Michael Strogoff, AIA, has an extensive network of contacts and an insider's knowledge of the architectural industry. Firms are introduced to each other only when there is a shared vision and a strong strategic and cultural fit. Contact Michael Strogoff, AIA, at 866.272.4364 or visit [www.StrogoffConsulting.com](http://www.StrogoffConsulting.com). All discussions held in strict confidence.

**ARCHITECTURAL FIRM FOR SALE**

25 year old firm in metro Denver serving strong client base in CO and throughout US: data centers, telecomm, satellite, banking, corporate, small medical/dental. Retiring principal available for transition.

Confidential inquiries: [kwcpas@aol.com](mailto:kwcpas@aol.com)

**Full Service Architectural Firm with Education Specialty**

Turnkey capabilities, excellent track record and responsive client service supports 2007 revenue projections of \$5.8MM and EBITDA margins of 27%. Capabilities encompass architectural, programming, design, and master planning services. Backlog of \$15.9MM to be completed over 3-4 yrs. Email [MarketingOnlineD@MarchGroup.com](mailto:MarketingOnlineD@MarchGroup.com)

**ARCHITECTURAL RECORD**

To view Architectural Record online visit: [www.architecturalrecord.com](http://www.architecturalrecord.com)

To advertise in the Classified Section please contact:

**Mid-Atlantic, Northeast, Southeast**

Contact Diane Soister at  
Tel: (212) 904-2021/Fax: (212) 904-2074  
[diane\\_soister@mcgraw-hill.com](mailto:diane_soister@mcgraw-hill.com)

**Midwest, West Coast, International, Canada**

Contact Gilda Falso at  
Tel: (212) 904-2422/Fax: (212) 904-2074  
[gilda\\_falso@mcgraw-hill.com](mailto:gilda_falso@mcgraw-hill.com)



# CALL FOR ENTRIES

## ARCHITECTURAL RECORD

# Record Houses 2008

ARCHITECTURAL RECORD is proud to announce a new **2008** RECORD HOUSES Awards Program, showcasing the most innovative design in sustainability throughout the world.

Entry is open to any architect registered in the U.S. or abroad. Projects must be built, single-family dwellings and incorporate innovation in program, sustainability, energy efficiency, and materials.

The fee is U.S. \$65 per submission; please make checks or money orders payable to ARCHITECTURAL RECORD (sorry, we **cannot** accept credit cards or wire transfers). Submissions must also include plan(s), photographs (prints or print-outs **only**; **no** slides or CDs please), a brief project description, and this official entry form—all **firmly bound** in a 9-by-12-inch folder. Ring, spiral, perfect, or book binding, as well as portfolios with attached sleeves are acceptable options, but entries that arrive as a collection of loose pages will be disqualified. Your submission must be postmarked no later than November 15, 2007. Anonymity is not necessary. Selected entries will be featured in RECORD HOUSES 2008. Other submissions will be returned or scheduled for a future issue. Please be sure to include a pre-addressed envelope with an air bill or appropriate postage for the return of your materials. Kindly allow 10 weeks for notification.

**Criteria** (as appropriate):

**1. Location and linkages**

(including sustainability of site, relationship to landscape, siting for biodiversity, transportation needs)

**2. Water efficiency**

**3. Indoor air quality**

**4. Materials and resources**

**5. Energy and atmosphere**

**6. Homeowner awareness**

**7. Innovation and design process**

**8. Economy of program**

Name of firm: \_\_\_\_\_

Address: \_\_\_\_\_

Phone: \_\_\_\_\_

Fax: \_\_\_\_\_

E-mail: \_\_\_\_\_

Contact person: \_\_\_\_\_

Name of house: \_\_\_\_\_

Location of house: \_\_\_\_\_

If previously (or scheduled to be) published, please include a copy of the article and state name of magazine or newspaper and publication date: \_\_\_\_\_

Agreement: We will not offer this project for consideration by another national publication during the 10-week review period at ARCHITECTURAL RECORD.

Signature: \_\_\_\_\_

Print name: \_\_\_\_\_

Date: \_\_\_\_\_

Submissions  
should be mailed to:

Linda Ransey  
RECORD HOUSES  
ARCHITECTURAL RECORD  
Two Penn Plaza  
Ninth Floor  
New York, NY 10121

This form must be  
included with your  
submission. If you  
have any questions,  
please e-mail:  
Linda Ransey  
at linda\_ransey@  
mcgraw-hill.com

connecting people\_projects\_products



## Architectural Record 2007 Innovation Conference

October 10-11, 2007—New York City

*The BusinessWeek/*  
*Architectural Record*  
Awards Dinner  
October 10, 2007

**Earn 7.5 AIA CEU Credits**

**Register today!**

Call Cristina Hoepker at **866-727-3820**

Email [Cristina\\_Hoepker@mcgraw-hill.com](mailto:Cristina_Hoepker@mcgraw-hill.com)

The Fulton Street Transit Center, by Grimshaw Architects is one of the case studies that will be presented at *Architectural Record's* 2007 Innovation Conference.

All renderings © MTA Capital Construction/NYCT.

Key Corporate Sponsors:



## Rethink. Transform. Create. Sustain.

A world-wide mandate for low-energy, low-carbon-producing architecture has burst onto the scene just as advances in digital modeling tools, software-driven fabrication methods, and new materials and systems are being introduced faster than ever. Learn from highly-inventive architects, engineers, researchers, and consultants who are putting these exciting developments to work, and making delightful and sustainable buildings.

Keynote addresses by:

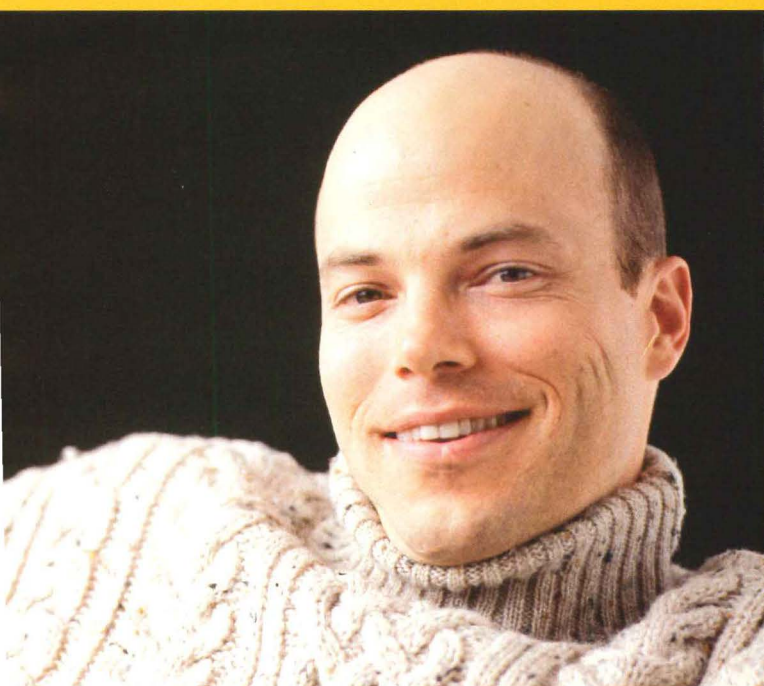
Sir Nicholas Grimshaw, RIBA, Chairman, Grimshaw Architects

William J. Mitchell, Director, MIT Design Laboratory

**McGraw Hill**  
**CONSTRUCTION** Architectural Record

# Architectural Record Innovation 2007: Architecture in an Age of Transformation

The notion that design is a simple, linear process has imploded, yielding a fundamentally new view of what it means to be an architect. **Join us.**



## Agenda at a glance:

### Transformative Architecture

Yanko Kolarevik, Haworth Chair in Environmental Design, University of Calgary, with Ali Malkawi, Director, Chan Center for Building Simulation and Energy Studies, University of Pennsylvania

### Building Facades and Skins

Advanced Facade Design, Marc Simmons, and Bruce Nichol, Front Inc., and Liam Zahner, president of A. Zahner Metals,

### Transformative structures

Chuck Hoberman, Hoberman Design

### The Power of Design to Affect Transformation

Andy Van Deursen, of Van Deursen Innovation and Design

### Work in place: Case Studies of Innovative and High Performance Materials and Systems

#### Investigating the Art and Science of Glass and Light

-James Carpenter, principal of Carpenter Design Associates, and Davidson Norris, principals of Carpenter/Norris Consulting, Advanced Daylighting Systems

-Marilyne Andersen, PhD, Department of Architecture, at the Massachusetts Institute of Technology

#### Case Study: The Fulton Street Transit Center

-Andrew Whalley and Vincent Chang of Grimshaw Architects, with James Carpenter

**Be the future. Be a part of Innovation 2007.**

For the full agenda and register: [www.construction.com/event/Innovation07/](http://www.construction.com/event/Innovation07/)

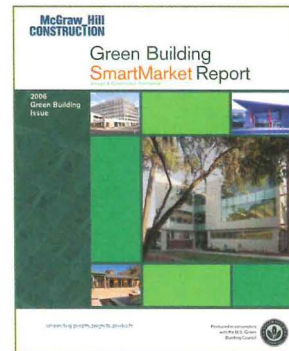
MAR79INN

The McGraw-Hill Companies

connecting people\_projects\_products



“We’re looking for an easier way to ‘do the right thing’ and profit from the growing green building market.”



Come see all that's Green at McGraw-Hill Construction  
Visit us at Greenbuild, Booth 1436

Now you can.  
McGraw-Hill Construction makes  
it easier to be green.  
One name. One source for green  
information and intelligence.



Currently valued at \$10 billion, the green building market is projected to grow 3-8% to \$29-\$59 billion. How can you participate and profit? Getting your share couldn't be easier with 'one source' for green market solutions: McGraw-Hill Construction. Connect to green information and intelligence essential for firms that want to make a difference to responsible built environment:

**Market smart:** Profit from vital green market sizing, projections, trends, expert insights and key areas of opportunity with McGraw-Hill Construction's *Green Building SmartMarket Reports*, developed in partnership with USGBC.

**Media:** Explore design, building technology, legislation, best practices and products essential to creating sustainable buildings in *GreenSource* magazine and web site.

**Products:** Click on SweetsGreen at the sweets.com home page for fast access to manufacturers with green products, get news on the latest green products, and receive up-to-date information in the bimonthly Green e-newsletter.



**Projects:** Find, bid and win the right projects with the McGraw-Hill Construction Network—powered by the Dodge database. Search for LEED-registered projects. Or find out if your product has been specified.

**Profit from the power of our green connections.  
All it takes is one call: 1-866-239-4261**

**Just tell us what you need, we'll deliver.**

Go to [www.greensourcemag.com](http://www.greensourcemag.com)

MAR97GS

The McGraw-Hill Companies

102	61	AAADM <a href="http://aaadm.com">aaadm.com</a>	187	87	<b>S</b> Follansbee Steel <a href="http://follansbeeroofing.com">follansbeeroofing.com</a>	221	130	Natural Carpet Company, The <a href="http://naturalcarpetcompany.com">naturalcarpetcompany.com</a>
185	85	AAMA <a href="http://aamanet.org">aamanet.org</a>	32-33	18	Gardco Lighting <a href="http://sitelighting.com">sitelighting.com</a>	208D	135	NJ SmartStart Buildings <a href="http://njsmartstartbuildings.com">njsmartstartbuildings.com</a>
186	86	Adams Rite Manufacturing Co <a href="http://adamsrite.com">adamsrite.com</a>	197	89	<b>S</b> GE Appliances <a href="http://geappliances.com">geappliances.com</a>	231	120	Oasys <a href="http://oasys-software.com/mailmanager">oasys-software.com/mailmanager</a>
255	128	<b>S</b> Advance Lifts <a href="http://advancelifts.com">advancelifts.com</a>	208,220	94,101	Glas Trosch AG <a href="http://luxar.ch">luxar.ch</a>	10-11,65	7,39	<b>S</b> Oldcastle Glass <a href="http://oldcastleglass.com">oldcastleglass.com</a>
178,212,236		AIA <a href="http://aia.org">aia.org</a>	229	116	Glas Trosch AG <a href="http://luxar.ch">luxar.ch</a>	205	91	<b>S</b> Pella Windows & Doors <a href="http://pella.com">pella.com</a>
28	16	<b>S</b> Alcan Composites USA Inc <a href="http://alucobond.com">alucobond.com</a> *	206	92	Grohe <a href="http://groheamerica.com">groheamerica.com</a>	208A	133	<b>S</b> PGT Industries <a href="http://pgtindustries.com">pgtindustries.com</a>
21	12	<b>S</b> Alcoa Architectural Products <a href="http://alcoaarchitecturalproducts.com">alcoaarchitecturalproducts.com</a>	136A-D		Gypsum Association <a href="http://gypsum.org">gypsum.org</a>	56	31	<b>S</b> Pilkington <a href="http://pilkington.com">pilkington.com</a>
80	46	ALPOLIC/Mitsubishi Chemical FP America Inc <a href="http://alpolic-usa.com">alpolic-usa.com</a>	155	72	<b>S</b> Hafele <a href="http://hafeleonline.com">hafeleonline.com</a>	218	99	<b>S</b> Pine Hall Brick Co Inc <a href="http://pinehallbrick.com">pinehallbrick.com</a>
100	59	<b>S</b> Altus Group	133	64	Hanover Architectural Products <a href="http://hanoverpavers.com">hanoverpavers.com</a>	231	121	<b>S</b> pinta acoustic <a href="http://pinta-acoustic.com/metal">pinta-acoustic.com/metal</a>
224	108	American Galvanizers Association <a href="http://galvanizeit.org/galvpaint">galvanizeit.org/galvpaint</a>	224A-B		<b>S</b> Hanson Brick <a href="http://hansonbrick.com">hansonbrick.com</a>	179-183	83	<b>S</b> Pittsburgh Corning Corporation <a href="http://pittsburghcorning.com">pittsburghcorning.com</a>
87	51	<b>S</b> American Specialties Inc <a href="http://americanspecialties.com">americanspecialties.com</a>	cov-4	132	<b>S</b> Haworth <a href="http://haworth.com">haworth.com</a>	16,22-23	10,13	<b>S</b> PPG <a href="http://ppgideascape.com">ppgideascape.com</a>
18,20		Architectural Record <a href="http://archrecord.construction.com">archrecord.construction.com</a>	228	115	<b>S</b> HDI Railing Systems <a href="http://hdirailings.com">hdirailings.com</a>	30-31	17	<b>S</b> PPG <a href="http://ppgideascape.com">ppgideascape.com</a>
98	57	ArcusStone <a href="http://arcusstone.com">arcusstone.com</a>	223	106	Headwaters Resources <a href="http://flyash.com">flyash.com</a>	225	110	Prosoco <a href="http://prosoco.com">prosoco.com</a>
61	36	AS Hanging Systems <a href="http://arts-supplies.net">arts-supplies.net</a>	4	2	HEWI <a href="http://hafele.com">hafele.com</a>	70	42	Quikrete <a href="http://quikrete.com">quikrete.com</a>
77		Autodesk <a href="http://autodesk.com">autodesk.com</a>	157	74	<b>S</b> High Concrete Structures Inc <a href="http://highconcrete.com">highconcrete.com</a>	211	96	Robinson Brick Company <a href="http://robinsonbrick.com">robinsonbrick.com</a>
29	37	B-K Lighting <a href="http://bklighting.com">bklighting.com</a>	89	53	<b>S</b> Holcim Foundation <a href="http://holcimfoundation.org">holcimfoundation.org</a>	233	126	<b>S</b> Salsbury Industries <a href="http://mailboxes.com">mailboxes.com</a>
209	95	BC Market Outreach Network <a href="http://bcforestinformation.com">bcforestinformation.com</a>	cov2-1	145	<b>S</b> Hunter Douglas Contract <a href="http://hunterdouglas.com">hunterdouglas.com</a>	73,167	43,78	<b>S</b> Sherwin-Williams <a href="http://sherwin-williams.com">sherwin-williams.com</a>
255	129	Bear Creek Lumber <a href="http://bearcreeklumber.com">bearcreeklumber.com</a>	60	35	ICI Paints Dulux <a href="http://duluxpaints.com">duluxpaints.com</a>	198	90	<b>S</b> Simpson Strong-Tie Company Inc <a href="http://simpsonstrongtie.com">simpsonstrongtie.com</a>
184	84	<b>S</b> Belden Brick Company, The <a href="http://beldenbrick.com">beldenbrick.com</a>	74	44	Indiana Limestone Company <a href="http://indianalimestonecompany.com">indianalimestonecompany.com</a>	229		Skyscraper Museum, The <a href="http://skyscraper.org">skyscraper.org</a>
58	33	Belgard <a href="http://belgard.biz">belgard.biz</a>	224	109	International Code Council <a href="http://iccsafe.org">iccsafe.org</a>	41	23	<b>S</b> Sloan Valve Company <a href="http://sloanvalve.com">sloanvalve.com</a>
38	22	Bentley Systems Inc <a href="http://bentley.com">bentley.com</a>	230	119	<b>S</b> Invisible Structures Inc <a href="http://invisiblestructures.com">invisiblestructures.com</a>	219	100	SMACNA <a href="http://asm-expertise.com">asm-expertise.com</a>
227	113	Berman Glass Editions <a href="http://bermanglasseditions.com">bermanglasseditions.com</a>	86	50	J&J Commercial <a href="http://jjcommercial.com">jjcommercial.com</a>	223	105	Spark Modern Fires <a href="http://sparkfires.com">sparkfires.com</a>
232	122	<b>S</b> Best Sign Systems Inc <a href="http://bestsigns.com">bestsigns.com</a>	226	111	Jack Arnold Architect <a href="http://jackarnold.com">jackarnold.com</a>	222	103	<b>S</b> Special-Lite <a href="http://special-lite.com">special-lite.com</a>
255	136	Boston Architectural College <a href="http://the-bac.edu">the-bac.edu</a>	172-177	81,82	<b>S</b> JELD-WEN® Windows & Doors <a href="http://jeld-wen.com">jeld-wen.com</a>	134	65	Steel Door Institute <a href="http://steeldoor.org">steeldoor.org</a>
88A-P		Brick Industry Association <a href="http://brickinfo.org">brickinfo.org</a>	69	41	<b>S</b> Kawneer Company Inc <a href="http://kawneer.com">kawneer.com</a>	222	104	Sugatsune America Inc <a href="http://sugatsune.com">sugatsune.com</a>
171	80	Brizo <a href="http://brizo.com">brizo.com</a>	156	73	Kemper System <a href="http://kemperssystem.net">kemperssystem.net</a>	78	45	<b>S</b> Sunbrella brand fabrics <a href="http://sunbrella.com">sunbrella.com</a>
210		Build Boston <a href="http://buildboston.com">buildboston.com</a>	93	54	Kim Lighting <a href="http://kimlighting.com">kimlighting.com</a>	5	3	Technical Glass Products <a href="http://fireglass.com">fireglass.com</a>
19	11	<b>S</b> C/S Group <a href="http://c-sgroup.com/3000">c-sgroup.com/3000</a>	200A-B		Kohler <a href="http://kohler.com">kohler.com</a>	43	24	The Travelers Companies Inc <a href="http://stpaultravelers.com">stpaultravelers.com</a>
50	28	Cable Connection, The <a href="http://ultra-tec.com">ultra-tec.com</a>	37	21	Kolbe & Kolbe Millwork Co Inc <a href="http://kolbe-kolbe.com">kolbe-kolbe.com</a>	188	88	TOTO <a href="http://totousa.com">totousa.com</a>
99	58	<b>S</b> Cambridge Architectural <a href="http://architecturalmesh.com">architecturalmesh.com</a>	227	114	landscapeforms <a href="http://landscapeforms.com">landscapeforms.com</a>	213	97	Trespa <a href="http://trespanorthamerica.com">trespanorthamerica.com</a>
54-55,57	30,32	Canon <a href="http://usa.canon.com">usa.canon.com</a>	95, 97	55,56	LG HI-MACS <a href="http://lgcountertops.com">lgcountertops.com</a>	62	38	Trex <a href="http://trex.com">trex.com</a>
232	123	Cascade Coil Drapery <a href="http://cascadecoil.com">cascadecoil.com</a>	26	15	<b>S</b> Lutron <a href="http://lutron.com">lutron.com</a>	233	125	Unico System, The <a href="http://unicosystem.com">unicosystem.com</a>
84	48	CEMEX <a href="http://cemexusa.com">cemexusa.com</a>	207	93	Manning Lighting <a href="http://manninglgtg.com">manninglgtg.com</a>	85	49	<b>S</b> United States Aluminum <a href="http://usalum.com">usalum.com</a>
45	25	<b>S</b> CENTRIA Architectural Systems <a href="http://centria.com">centria.com</a>	230	117	Maple Flooring Manufacturers Assn <a href="http://maplefloor.org">maplefloor.org</a>	52,53		<b>S</b> USG Corporation <a href="http://usg.com">usg.com</a>
8-9	6	<b>S</b> CertainTeed <a href="http://certainteed.com">certainteed.com</a>	12-13	8	Marvin Windows & Doors <a href="http://marvin.com">marvin.com</a>	132	63	Valucine <a href="http://valucinena.com">valucinena.com</a>
48,49	27	<b>S</b> CertainTeed Gypsum <a href="http://certainteed.com">certainteed.com</a>	138	69	<b>S</b> MBCI <a href="http://mbci.com">mbci.com</a>	154	71	Vista Window Film <a href="http://vista-films.com">vista-films.com</a>
232	124	Charles Loomis <a href="http://charlesloomis.com">charlesloomis.com</a>	137,201,208B		McGraw-Hill Construction <a href="http://construction.com">construction.com</a>	217	98	Vistawall Architectural Products <a href="http://vistawall.com">vistawall.com</a>
88	52	Cooper Lighting <a href="http://cooperlighting.com">cooperlighting.com</a>	234-235,247		McGraw-Hill Construction <a href="http://construction.com">construction.com</a>	66	40	<b>S</b> VT Industries <a href="http://vtindustries.com">vtindustries.com</a>
230,233	118,127	<b>S</b> Doug Mockett & Company Inc <a href="http://mockett.com">mockett.com</a>	250-253,255		McGraw-Hill Construction <a href="http://construction.com">construction.com</a>	34-35	19	Vulcraft, A Division of Nucor Corp <a href="http://nucor.com">nucor.com</a>
83	47	<b>S</b> DuPont Tyvek <a href="http://tyvek.com">tyvek.com</a>	163	76	<b>S</b> MechShade Systems Inc <a href="http://mechoshade.com">mechoshade.com</a>	168	79	<b>S</b> W&W Glass Systems Inc <a href="http://wvglass.com">wvglass.com</a>
208C	134	<b>S</b> E Dillon & Company <a href="http://edillon.com">edillon.com</a>	14-15	9	Mitsubishi Electric <a href="http://transforminghvac.com">transforminghvac.com</a>	51	29	<b>S</b> Wagner <a href="http://wagnercompanies.com">wagnercompanies.com</a>
2-3	1	<b>S</b> EFCO Corporation <a href="http://efcorp.com">efcorp.com</a>	223	107	Modern Fan Co, The <a href="http://modernfan.com">modernfan.com</a>	165	77	Walter P. Moore <a href="http://walterpmoore.com">walterpmoore.com</a>
7,6	4,5	<b>S</b> Ellison Bronze <a href="http://ellison-bronze.com">ellison-bronze.com</a>	226	112	modularArts <a href="http://modulararts.com">modulararts.com</a>	136	67	<b>S</b> Wausau Tile <a href="http://wausautile.com">wausautile.com</a>
103	62	Engineered Materials Solutions <a href="http://copperplus.com">copperplus.com</a>	36	20	<b>S</b> Mortar Net <a href="http://mortarnet.com">mortarnet.com</a>	101	60	Western Red Cedar Lumber Associa <a href="http://realcedar.org">realcedar.org</a>
214	144	Eventscape <a href="http://eventscape.net">eventscape.net</a>	59	34	<b>S</b> Nana Wall Systems Inc <a href="http://nanawall.com">nanawall.com</a>	47	26	Wolf Appliance Co. <a href="http://wolfappliance.com">wolfappliance.com</a>
135	66	<b>S</b> Firestone <a href="http://firestonebpco.com">firestonebpco.com</a>	228		National Building Museum <a href="http://nbm.org">nbm.org</a>	153	70	XL Insurance <a href="http://xidp.com">xidp.com</a>
cov-3	131	<b>S</b> Flexco <a href="http://flexcofloors.com">flexcofloors.com</a>	158	75	<b>S</b> National Gypsum Company <a href="http://nationalgypsum.com">nationalgypsum.com</a>	24-25	14	<b>S</b> YKK AP America Inc <a href="http://ykkap.com">ykkap.com</a>

For information from advertisers circle the corresponding number on the Reader Service Card or go to **ArchitecturalRecord.com**, Products Tab, Reader Service. Access PDF all full-page or larger ads appearing in *Architectural Record* each month under "Products" tab at Product Ads. Use this to e-mail ads to clients or colleagues, print out and save



**ADVANCE LIFTS**

### NEW INSTANT DOCK



**LAG IT DOWN & PLUG IT IN  
YOU HAVE AN INSTANT DOCK!**

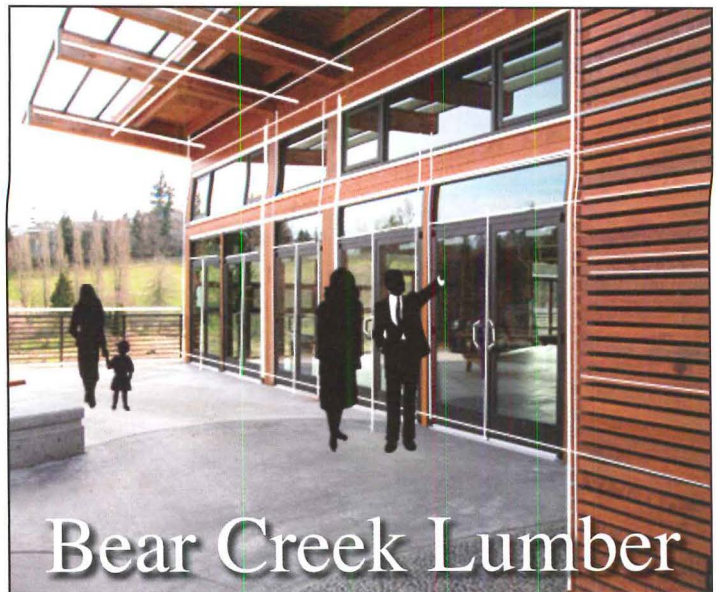
*Services Any & All Height Trucks*

**1-800-THE-DOCK**

[www.advancelifts.com](http://www.advancelifts.com)

**EASY AND AFFORDABLE**

CIRCLE 128 ON READER SERVICE CARD OR GO TO  
[ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/](http://ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/)



## Bear Creek Lumber

The Natural Choice for high quality Wood Finishes when your specifications demand the Finest Materials

[sales@bearcreeklumber.com](mailto:sales@bearcreeklumber.com) - [bearcreeklumber.com/ar](http://bearcreeklumber.com/ar) - 1.800.597.7191



CIRCLE 129 ON READER SERVICE CARD OR GO TO  
[ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/](http://ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/)

connecting people\_projects\_products



"We want to connect to decision makers online and drive qualified customers to our website"

### Now you can

McGraw-Hill Construction's Online Marketing Solutions connect you to the leaders in the industry. With 20 specialized websites which are the most trafficked in the industry, McGraw-Hill Construction can help you maximize exposure, generate leads, increase brand awareness and boost your ROI.

Let us show you how!

Contact us today for a consultation on how we can help you start your online marketing program.

Just call us at 1-866-239-4261 or email [Advertise@construction.com](mailto:Advertise@construction.com).

Go to [www.construction.com](http://www.construction.com)

**McGraw\_Hill  
CONSTRUCTION**

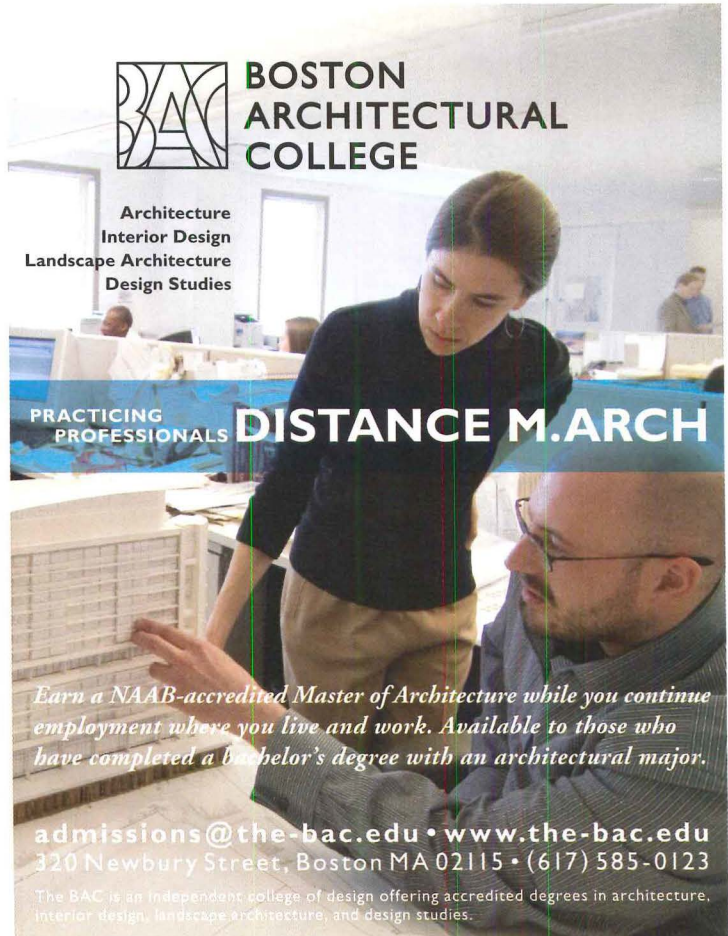
MAIA750NL4

The McGraw-Hill Companies



## BOSTON ARCHITECTURAL COLLEGE

Architecture  
Interior Design  
Landscape Architecture  
Design Studies



### PRACTICING PROFESSIONALS DISTANCE M.ARCH

*Earn a NAAB-accredited Master of Architecture while you continue employment where you live and work. Available to those who have completed a bachelor's degree with an architectural major.*

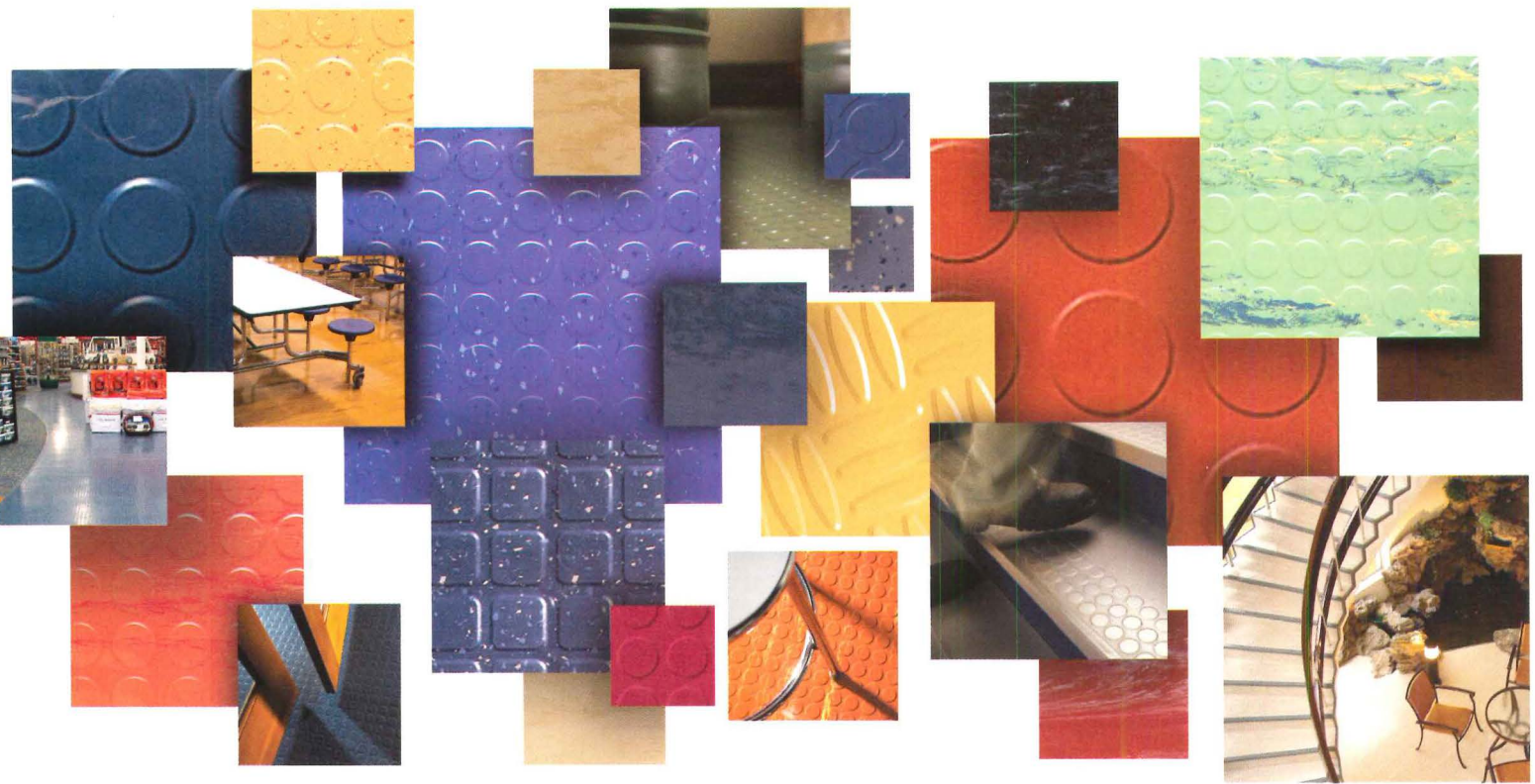
[admissions@the-bac.edu](mailto:admissions@the-bac.edu) • [www.the-bac.edu](http://www.the-bac.edu)  
320 Newbury Street, Boston MA 02115 • (617) 585-0123

The BAC is an independent college of design offering accredited degrees in architecture, interior design, landscape architecture, and design studies.

CIRCLE 136 ON READER SERVICE CARD OR GO TO  
[ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/](http://ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/)







# distinct designs

(MULTIPLE CHOICES HAVE NEVER BEEN EASIER TO MAKE.)

**FLEXCO**<sup>®</sup>  
innovative design. flooring performance.

In an attempt to meet demands of easy color selection on choice floor products, FLEXCO stepped up to offer Distinct Designs Rubber Tile & Tread. Distinct Designs gives you the choice to choose any rubber tile and rubber tread and then select from any of our color groups for your final selection. With the FlexOne pricing system and the addition of our Distinct Designs color-program, the "CHOICE" just became easier.



1.800.633.3151 | [FLEXCOfloors.com](http://FLEXCOfloors.com)

**CIRCLE 131 ON READER SERVICE CARD OR GO  
TO [ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/](http://ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/)**



**HAWORTH®**  
change by design

See the new Compose™  
furniture system – and other  
products and solutions –  
that help make workspaces  
great spaces.

Visit our new Dallas  
showroom or any of the  
other Haworth locations  
around the world.

[www.haworth.com](http://www.haworth.com)  
866.833.4343

**great spaces.**

CIRCLE 132 ON READER SERVICE CARD OR GO  
TO [ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/](http://ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/)