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Chicago Architect, the primary outreach tool of AIA Chicago, is published six times a year as an authoritative resource for architects, the larger design community and the public about architecture and related issues of interest to Chicago architects. The magazine communicates industry trends, the value of high-quality design and the role of AIA Chicago and its members in the world of architecture.

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Chicago Architect is published six times a year by the Custom Media Group at Scranton Gillette

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Story Ideas and Submissions: Chicago Architect welcomes your story ideas and your written article submissions, whether about your projects or about business trends and issues. E-mail us at CA@aiachicago.org



### Hello, Chicago architects.

In this letter, I want to highlight how the AIA is actively working to advocate for our profession on the local, state and national levels.

In early February, AIA Illinois had another successful Prairie Grassroots. Architects from across Illinois met with state legislators on behalf of our profession. We'd like to thank everyone who participated that day, working to bring architects' concerns to the forefront with Illinois legislators.

The AIA National Grassroots in Washington, D.C., in early March is our forum for advocacy on the national stage. AIA Chicago will team up with AIA Central Valley, Calif., to conduct a workshop on component advocacy for the AIA 2030 Commitment, convened by Kelly Pickard, director of building science and technology for AIA. The workshop will connect component leadership across the nation to share collective successes, challenges and best practices. In this environment, Chicago's architectural community is leading the way through our intra-firm collaboration, and information sharing occurs.

Fundamentally, it is our work that is our best advocate. Pride in how we make architecture, improve our communities and create places with a lasting purpose is our ultimate means of professional advocacy. Now in full swing, the AIA Chicago Honor Award Program recognizes those who excel in the field. Our online submittal process is being enhanced to serve all of our annual awards.

I would also like to take this opportunity to recognize three AIA Chicago members who were selected to serve leadership roles on national AIA committees and advisory groups: Bill Sturm, AIA, Serena Sturm, will serve on the Committee on the Environment; Mark Frisch, FAIA, Solomon Cordwell Buenz, will be a part of the Practice Management Knowledge Community; and Randy Deutsch, AIA, LEED AP, Deutschwrx, will be on the Center for Integrated Practice. We thank them for their dedication to AIA on all levels.

Regards,

Rand Ekman, AIA | President | AIA Chicago

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hoto courtesy of Jonnu Singleton

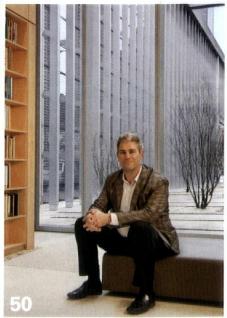


Photo by Darris Lee Harris

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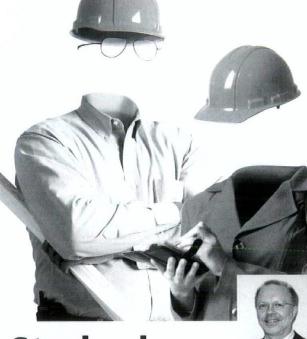
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# FEEDBACK

### Spreading the Word

Thank you for featuring Concordia Place in *Chicago Architect* and making our Annex photo the cover for Jan/Feb 2012. The article is wonderfully written and you have so well expressed our goals to revive this 100-year-old facility that has served as a



community anchor with a new mission of service in Avondale. As we now pursue funding for a third facility in neighboring Irving Park, your article will serve in sharing the positive impact we can bring to those families and neighbors.

With gratitude, The Rev. Nicholas J. Zook Concordia Lutheran Church

### Fountaindale Public Library clarification

We were pleased to see the Vortex at the Fountaindale Public Library featured in the [January/February issue of] Chicago Architect (page 29), however, our firm was not mentioned. Nagle Hartray is the architect of this new 110,000 square foot library building which houses the Vortex teen space. Architectureisfun served as consulting architect for the Vortex as well as the children's services space. We are proud of the collaboration between our firms that resulted in these imaginative spaces for the client.

Kristin Baker, Marketing Nagle Hartray Architecture

Read more about the Fountaindale Library on page 22.

### A note from the Publication Director

*Chicago Architect* magazine makes every possible effort to identify and credit photographers and expects firms submitting photographs to always include that credit information. It is your firm's responsibility to adhere to the terms of your agreements with your photographers. Please don't do them the disservice of neglecting to credit their skilled photography services for their fine work that portrays your own firm's work so beautifully.

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# **Build Boldly**

NONPROFIT AIMS TO TRANSFORM CHICAGO'S NEIGHBORHOODS THROUGH FUTURISTIC ARCHITECTURE

A nonprofit community organization is using edgy architecture to shake up some of Chicago's working-class neighborhoods.

The United Neighborhood Organization drew a lot of well-deserved attention with the opening of its latest enterprise last fall, the UNO Charter School Network Soccer Academy, a K-8 school in Gage Park. This is UNO's eleventh charter school and the first that was built from the ground up, rather than a renovation or rehabilitation of an existing building. The cutting-edge stainless-steeland-glass structure soars above the landscape, giving the sixth- through eighthgraders on the third floor a stunning view of downtown Chicago.

Juan Rangel, UNO's CEO, said that a 2007 renovation by UrbanWorks Ltd. of an existing

warehouse on Chicago's southwest side into two elementary schools and a high school now known as the Veterans Memorial Campus—got the organization thinking about using architecture as a way to change and transform neighborhoods.

"Rehabbing this industrial building into a beautiful school did a lot to change the character of the area," Rangel said. "The architecture serves as an anchor to the community as much as the school itself does."

By taking a vacant or abandoned plot of land or building that has no real use in the community anymore and turning it into a rehabbed or brand-new school, UNO creates a hub of activity and a place to gather that will inspire and uplift the community, Rangel said.

"When building a facility like a school or

Viewed from across its soccer field, UNO's Soccer Academy gleams and beckons upward, as the organization's architecture program hopes to do for all its neighborhoods.

hospital, we need to be aware of how the building itself adds value" to its surroundings, he said. "The community will have to live with the building for generations, so we need to be mindful of not just the function of the building, but how it has the power to transform the community."

UNO primarily works in communities of Latino immigrants. The organization's mission, Rangel said, is to empower the communities without over-gentrifying and crowding out the current residents.

"Architecture plays an important role by physically altering the landscape," Rangel said. "The people who live in these communities may move up [in class standing] and may move out if we don't give them reasons to stay in their own neighborhoods."

As design architect, JGMA was the firm responsible for the design of UNO Soccer Academy, and Ghafari Associates served as the general contractor and architect of record. JGMA president Juan Moreno, AIA, was responsible for the winning competition design entry while he was global design >

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### FAÇADE

director at Ghafari; the ideas competition was for an undesignated site.

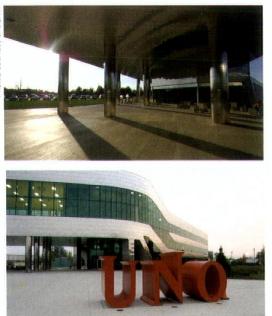
In approving the final building design, UNO was very specific in letting the architects know what they had in mind—and what they didn't want. "We did not want [the architects] to feel that they had to somehow pander to this community by caricaturing it with symbolism of the Mexican community with Aztec symbols or have it look like a pyramid," Rangel said. "Quite the opposite. This should be a building that captures the imagination of the community, and the essence and aspirations of an immigrant community."

UNO's next projects—a high school on the same campus as the soccer academy and a school in the Galewood neighborhood—will be built using the remainder of the \$98 million grant from the state of Illinois that funded the soccer academy.

In building schools that are ultramodern and bold in design, Rangel said, the architecture captures the spirit of an immigrant community that is thinking of the future, not looking back.

"[UNO is] challenging the community to step up to another level," he said. "Cuttingedge architecture should not be the exception. It should be the rule." > Mary Beth Nevulis

Photos courtesy of JGMA



Viewed from a distance, the raised section of the building gives it the appearance of taking flight, but it also functions as a weather-protected outdoor space (top). UNO is putting its imprint on neighborhoods (bottom).

# **Open Face**

### SECRECY A THING OF THE PAST WITH THE OPEN COMPUTE PROJECT

It's not surprising that when Facebook took on the challenge of building its own data center, the company wanted to break the mold in every way.

Building from the servers on up, the social networking company created a computing structure that is 38 percent more efficient and 24 percent less expensive to build and operate than other facilities. Then, in an industry of closely guarded company secrets, Facebook created the Open Compute Project, an online reservoir of technical specs for the data center. The initiative is modeled after open source software projects where code is released to the industry for use and potential improvement.

Facebook worked with engineers at Alfa Tech in San Jose, Calif., and Chicago architecture firm Sheehan Partners Ltd., to build its first data center in Prineville, Ore. The firms were contacted around mid-2009. They broke ground in January 2010, and the center opened in April 2011.

"Form follows function. I've never worked on projects where that is more true than with data centers," said Neil Sheehan, AIA, principal at Sheehan Partners. During the design and construction, Facebook, Alfa Tech and Sheehan Partners were working in concert to make the center as efficient as possible. Sheehan said that "changes [were] being made day in and day out. We [needed] to make strategies to accommodate because schedules are short."

The final design consisted of a 164,000-square-foot computer equipment room topped with a 100,000-square-foot cooling penthouse and a 23,000-squarefoot office area. It has been recognized as LEED Gold and Energy Star-certified. Because of security concerns, the building was designed with a surrounding wall, but within the wall, Sheehan Partners designed courtyards, providing the outdoor space that the client requested. "The building is wrapped, but you have lots of access to light," Sheehan said.

The courtyards have partitions of either frosted or clear glass, and the 14-foot windows in the office space provide terrific views of the surrounding desert and mountains beyond. The wall around the data center's exterior is made of warmcolored precast concrete, which matches the tone of the rocky landscape. "We like using it because the aesthetic can be kind of raw," said Sheehan. "[It brings] architectural interest out of economical products that we've used in interesting ways."

A data center's power usage is measured in PUEs (power utilization effectiveness). The average functioning center runs at a PUE of 1.6 to 1.7; more energy-efficient data centers now being designed run at a PUE of 1.3 to 1.4. By today's standards "that would be a pretty good design," said Tim Chadwick, president of design at Alfa Tech.

Since the Prineville center was specially designed, it operates at a PUE of between 1.06 and 1.09, which is leaps and bounds ahead of the industry. "It really redefined the standard for energy efficiency," said Sheehan.

A large portion of a data center's energy usage comes from using air handlers, which cool the servers as well as ventilate the building and heat/cool the offices. Instead of taking a generic space and putting in air handlers, like many data centers do, the Prineville center has the penthouse, which houses its cooling system. "We're essentially building an air handler out of the building," said Sheehan.

According to Chadwick, the two major points that make the Prineville center so efficient are the mechanical and electrical system designs. "We don't have chillers or refrigeration" in the mechanical system, he said. Evaporative cooling—employing misters and outdoor air to regulate the temperature and humidity—is used, and it's





Top: Server room in Prineville Data Center. The open pathway on the right is the "cold aisle." Bottom: Pre-cast concrete walls not only provide security, but also house courtyards, bringing light into the building, and provide outdoor areas for employees.

extremely efficient. "Evaporative cooling is not a new technology, it's just new on how it's being used in data centers," Chadwick said, noting that the Prineville system is the largest evaporative cooling system in the world.

Alfa Tech and Sheehan Partners have also designed Facebook's two data centers in Rutherford, N.C. The first data center is finished and now in commission, and the second is under construction. Another design-build data center in Luela, Sweden, is also under construction. "They are doing the drawing and basing it on our design," said Chadwick.

Sheehan was initially a single practitioner. He began doing data centers when asked to do a small build-out for Equinix, and ended up building the company's data center in Elk Grove Village, which received a Design Excellence Award from AIA Chicago in 2008. Then other clients started calling. In the last five years the firm has grown to 15 people. "We've managed a really nice niche doing data centers," Sheehan said. "Lots and lots of people are building data centers."

# The Gem of Schaumburg

FANS, ARCHITECTS WORK TO PRESERVE SCHWEIKHER HOUSE

Someday, the region's newest house museum will be in Schaumburg. Stop that snickering.

The northwest suburban postwar boomtown is best known as the home of Woodfield Mall, Motorola and scores of split-level and ranch houses. But Schaumburg has an architectural treasure that few know about.

It's the Paul Schweikher House and Studio, a low-slung single-story brick, glass and wood beauty sitting on two acres off Meacham Road, about a halfmile north of Biesterfield Road. The home was built in 1938 but looks decades newer thanks to the skilled hand of Schweikher, a modernist who'd worked with architects George Fred Keck and Philip Maher and whose designs were showcased at MOMA in 1933.

"It's significant to the village—and to historians worldwide," Todd Wenger, executive director of the Schweikher House Preservation Trust, said of the home. The three-year-old trust seeks to increase the home's profile, raise cash and ultimately operate it as a house museum.

Schweikher began designing the home after returning from a 1937 trip to Japan with his wife, Dorothy. He was impressed by the country's architecture. "[Japanese architecture] has a casual, easy refinement of indoor living with very little loss of the advantages of sunlight, winds, breezes, growing things," he told interviewer Betty J. Blum in 1984 in an Art Institute of Chicago oral history.

"He was influenced by Japan and there is some of that in this work," said Wenger. "Then there is Midwest modernism; an >





organic sort of architecture. He comes back to this rural community and it looks as if he wants to blend the two."

The result is a 2,400-square-foot home and studio where one space flows into the next. Brick and wood mingle, and windows let in enough sunlight to bathe it all. Schweikher built a separate model shop next to the home. The house was a sensation, finding its way into magazines and journals. Even Mies van der Rohe, who knew Schweikher, visited the house. Schweikher left Schaumburg in 1953 to become head of Yale's architecture school. He sold the home to nuclear physicist Alexander Langsdorf Jr., who worked on the Manhattan Project, and his wife, the artist and watercolorist known professionally by only her first name, Martyl. The Langsdorfs nearly lost the home in the late 1980s when the Metropolitan Water Reclamation District sought to condemn the place for future expansion. They fought, working out a deal that allowed them to remain in the home with

The home's indoor and outdoor spaces converse with one another via their similar materials and composition.

the district as owner.

In 1999, Schaumburg Mayor Al Larson convinced the district to sell the house to the village. "Our mayor said 'Guys, you really don't need this. There is plenty other property to expand to—give it to us,'" said Wenger, who works for the village of Schaumburg in addition to being executive director of the trust.

Alexander Langsdorf died in 1996, and Schweikher died in 1997. But Martyl, who turns 95 in March, remains in the residence and still paints in the studio and speaks on behalf of the house. Architect Jeff Whyte, who befriended the Langsdorfs more than 20 years ago, has an office in Schweikher's model shop and also acts as caretaker and advocate.

"She's a force," Wenger said of Martyl. "Real charismatic and I feel extremely blessed to have her involved still with the house because she brings this wealth of information and a wealth of knowledge."

Meanwhile, the trust assembled a highpowered board of advisors, including architects John Vinci, FAIA—who pushed for National Register status for the house back in the 1980s—and his design partner Philip Hamp, FAIA; Jeanne Gang, FAIA; and T. Gunny Harboe, FAIA. Former Sara Lee CEO John Bryan, who led fundraising efforts to purchase the Mies-designed Farnsworth House at an auction in 2003, is also on board, Wenger said. The group is learning more about structuring tours and how to program the space in the future for small meetings in addition to the tours.

"Schweikher was a very skillful architect," Harboe said. "He used a simple palette of materials—brick, redwood, and glass—in a well-crafted assembly to create a wonderful sensory experience. Well worth a visit."

> Lee Bey

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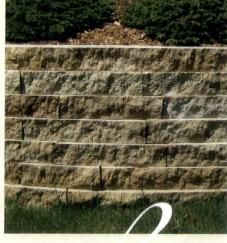
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### Apply for the Martin Roche Travel Scholarship

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The recipient will receive \$5,000 toward their independent study of architecture abroad. Submissions are due April 12. Interested applicants can read more about the scholarship and download an application form at www.aiachicago.org.



Jennifer McKenzie, recipient of the 2011 Martin Roche Scholarship, on a visit to the Kiasma Contemporary Art Museum in Helsinki, Finland. With her scholarship she studied education architecture in Finland and Nordic countries.

### Accepting projects big and small, Design Excellence, Small Project Awards call for entries



Lincoln Park Residence, designed by Florian Architects, which won a Citation of Merit at the 2011 Small Project Awards

AIA Chicago's 2012 Design Excellence Awards and Small Project Awards are now accepting online submissions at www.aiachicago.org.

The second annual Small Project Awards, presented by the AIA Chicago Small Practitioners Group, will recognize exceptional structures and objects from architects and firms with nine or less licensed architects and architectural interns. Submissions are due March 22. All winners and entrants will be featured at the Small Project Awards reception on May 11 at Architectural Artifacts. For more information, contact Allison Freedland, AIA Chicago program manager, at freedlanda@ aiachicago.org or (312) 376-2725. To see last year's entries, visit www.aiachicago.org/spa.

The 57th annual Design Excellence Awards will be announced Oct. 26 at Designight – the industry's must-attend event at Navy Pier.

For the complete call for entries, information on award categories and how to submit projects completed within the last five years, visit www.aiachicago.org. For more information about the awards, contact Joan Pomaranc, AIA Chicago program director, at pomarancj@aiachicago.org or (312) 376-2720. To see the 2011 Design Excellence Award winners and submissions, visit www. aiachicago.org/special\_features/2011DEA.

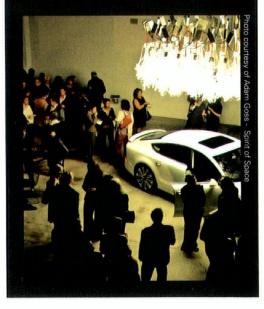
### Architecture & Design Film Festival

The Architecture & Design Film Festival will be held April 12-16 at the Music Box Theatre. The festival started in New York; last year was its first year in Chicago. "It's a national festival, and it wouldn't be a national architecture [film] festival if it wasn't in Chicago. The appetite for architecture in Chicago is enormous," said Kyle Bergman, festival director and founder.

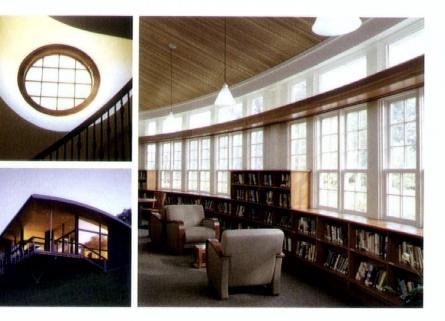
The five-day event features 31 films from 13 countries and covers a range of subjects, including: Ray and Charles Eames; Pruitt-Igoe; Zaha Hadid; Eric Mendelsohn; urban issues in Detroit, Murcia (Spain) and Williamsburg (Brooklyn); an urban farm project by WorkAC; High Line park in New York City and India's legendary Charles Correa.

In conjunction with the film festival there will also be a free speaker series. AIA members receive discounted tickets to the festival and can earn CES learning credits by attending festival programs.

Visit **www.adfilmfest.com** for a detailed schedule and event tickets.



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# PEOPLE + PROJECTS



Gene Summers (left) with Ludwig Mies van der Rohe

# AIA Chicago extends its condolences to the family and friends of Gene Summers, FAIA, former

dean of the College of Architecture at the Illinois Institute of Technology, who passed away in December surrounded by family in California.

Summers received his bachelor's degree in architecture from Texas A&M and his master's from the Illinois Institute of Technology. At IIT he studied under Ludwig Mies van der Rohe, for whom he worked from 1950 to 1966 as project architect. Summers assisted Mies on important commissions such as the Seagram Building in New York City and the National Gallery in Berlin. In 1967 he became partner-in-charge of design at C. F. Murphy Associates. His best-known project from that time, the McCormick Place convention center, was completed in 1970.

From 1973 to 1985, Summers worked as a real estate developer in California, where he restored the Biltmore Hotel in Los Angeles and the Newporter Resort Hotel in Newport Beach alongside philanthropist Phyllis Lambert, among many other projects. After moving to France in 1985, Summers returned to Chicago in 1989 to serve as dean of the College of Architecture at IIT. He remained there until retiring in 1993.

A memorial service for Summers is being organized to take place at 4 p.m. on May 5, 2012, at Crown Hall on the campus of the Illinois Institute of Technology. Members of the architecture and design community are welcome to attend.

### In the West Loop, SPACE Architects + Planners

designed the recently-opened eateries Roots Handmade Pizza and Bleeding Heart Bakery. The 8,300-square-foot pizzeria opened in mid-June 2011, and the 8,100-squarefoot bakery has been open since mid-September.



Bleeding Heart Bakery



Roots Handmade Pizza



# The Uptown Normal Circle project by Hoerr Schaudt

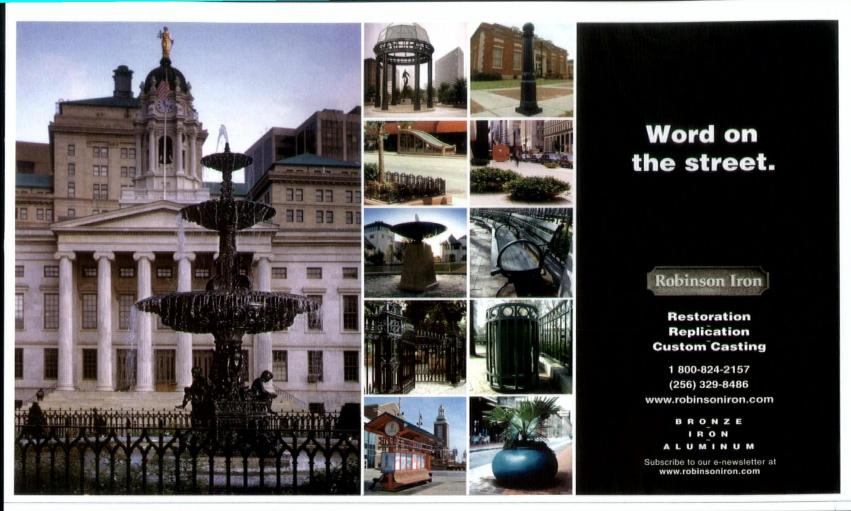
Landscape Architects has been recognized by the U.S. Environmental Protection Agency with a Smart Growth Achievement award in the Civic Places category. The award identifies the project, located in Normal, III., as a national model for urban development that respects the environment, fosters economic vitality and enhances the quality of life.



### In recognition of his distinguished career in structural engineering,

SOM's William F. Baker received an honorary doctorate in engineering from the University of Stuttgart at a ceremony held in November.

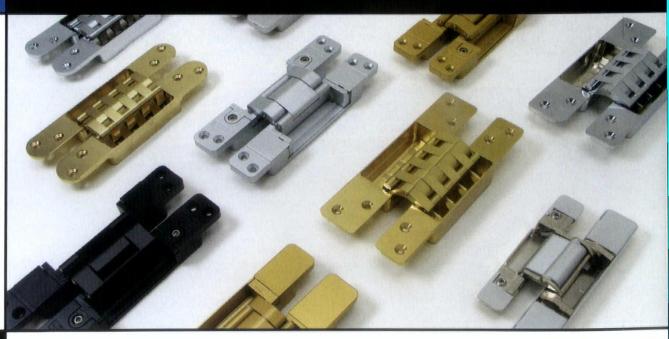
Baker was previously honored in 2009, when he became the first American to receive the Fritz Leonhardt Prize, an award recognizing outstanding achievement in structural engineering. "The University of Stuttgart has an exceptional history of research and innovation in structural engineering," Baker said. "It is truly a world leader. To receive this honor from this prestigious institution is a high point in my career."



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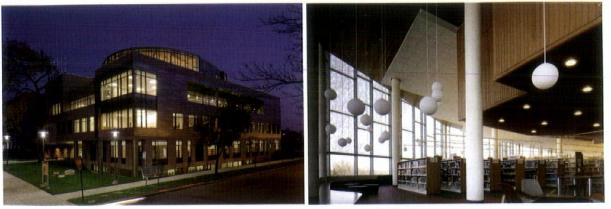
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Chicago Theological Seminary

Fountaindale Public Library

### Nagle Hartray Architecture has named Don McKay, AIA, as the

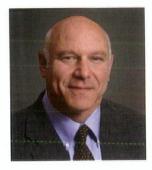
firm's design director and Eric Penney, AIA, as president. Both will remain principals-in-charge, overseeing their projects from conception to completion. In other Nagle Hartray news:

The new Chicago Theological Seminary building, a partnership between the University of Chicago and the seminary, was dedicated in October. The 75,000-square-foot facility includes offices, classrooms and worship space, and is targeting LEED Silver certification.

The recently completed Fountaindale Public Library District in Bolingbrook received first place in the Institutional category for the ASID Design Excellence Awards. The 98,200-square-foot, three-story building features custom-patterned glass windows that reduce heat gain and cast forest-like shadows on the interiors. The library is designed for LEED Gold certification and also includes green roofs, recycled building materials and water-efficient plumbing fixtures.

### Brandon Lipman, AIA, LEED AP, has joined

FGM Architects in Oak Brook as design director for its higher education practice. Lipman has more than 30 years of experience in the programming and design of higher education facilities, including projects at the College of DuPage, the University of Chicago and Eastern Illinois University.





### SOM's Nada Andric, associate director and Chicago

office interior design studio head, was inducted into *Interior Design* magazine's Hall of Fame. "My work is a passion of mine, so to be recognized by my colleagues and collaborators with such a high honor is simply astonishing," Andric said.



### Alli Chapman has joined Skender

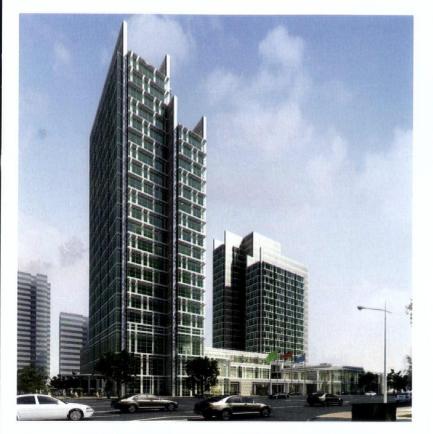
**Construction** as vice president of business development. She is responsible for cultivating business relationships and providing strategic evaluation for the firm's long-term growth.

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### Kenneth Turner, AIA, of Turner + DeCelles is leading the design phase of a

new project underway in Jiaxing, Zhejiang Province, China, where the firm has been selected to design a luxury hotel and serviced apartment complex. The project "is a great example of cooperation across a wide range of interest groups," said managing partner Paul DeCelles. Planned for the facility are 300 rooms and suites, a grand ballroom, conference and meeting spaces, restaurants and 120 luxury serviced apartments for a total of 560,000 square feet.



### Douglas Smith, AIA, has joined AECOM as

the new managing principal for its Chicago architecture practice, where he will provide overall leadership and collaborate closely with other AECOM teams in the Midwest and throughout the world.

Smith was most recently group vice president and principal-incharge of the international studio at HOK Chicago.

### Rob Vagnieres Jr.,

**AIA**, has been named a Green Globes Professional after recently completing the required training and passing the certification exam. To date, Vagnieres is one of only 26 people in Illinois to receive the certification.





### Michelle Halle Stern, AIA, is now

HDR Architecture's director of sustainable design services at the firm's Chicago office. Stern was previously an associate at Perkins+Will and was also the founding chair of the local chapter of the U.S. Green Building Council.





Testa Produce Distribution Facility



Concourse A Infill Addition at Midway

# Epstein's recent projects include the Testa Produce

**facility** in the old Union Stockyards, the first grocery distribution facility in the world to receive LEED-NC Platinum certification. The 13-acre project includes 20,000 square feet of Class A office space and a distribution center containing 24,700 square feet of cooler space, 39,000 square feet of dry warehouse and more. The facility also features the first freestanding wind turbine in Chicago, a 240-foot-tall turbine capable of producing 750 kilowatts.

Epstein also provided architectural, civil engineering, MEP/FP engineering and structural engineering services for the new Concourse A addition project at Midway Airport. The addition is composed of 2 two-story buildings containing approximately 56,000 square feet of enclosed space. The triangular building connects to the existing Terminal A and elevated walkway, while the satellite building is circular and connects to the existing elevated walkway.



### The office of Prairie Management Group in Northbrook, designed

by Goettsch Partners, has received a 2012 Institute Honor Award for Interior Architecture from AIA. A single-story office suite, the 7,500-square-foot facility is organized around a colonnade, fullheight glass screen walls and a custommaple pavilion. The project previously received an interior architecture award from AIA Chicago in 2009.



### Carolina Lopez, AIA, LEED AP, has

been promoted to principal at SmithGroupJJR. Lopez relocated to Chicago from SmithGroupJJR's Detroit office in 2008 after initially starting at the firm's Ann Arbor office in 2000.



### Burcin Moehring, AIA,

**LEED AP,** has joined Legat Architects Inc. as director of science and technology. Based in the firm's Chicago studio, Moehring will lead Legat Architects' academic science and technology design projects. She was previously higher education market leader at Teng + Associates.

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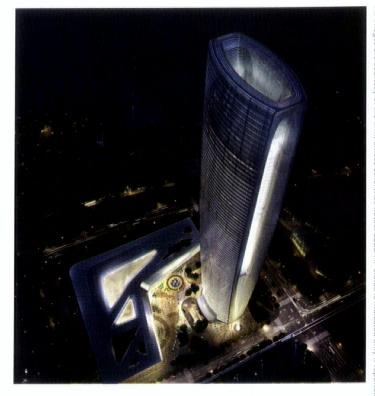
### Thomas Jacobs, AIA, was named a 2012 National AIA Young

**Architect.** He is currently principal and project architect with Kreuck + Sexton, and also serves as chair of the Riverside Sustainability Council. Read an interview with Jacobs in the next issue of *Chicago Architect*.



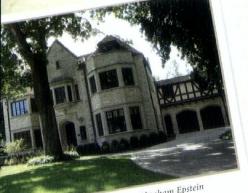


**Ghafari Associates was awarded** a contract to provide design-build services for the new Jesse White Community Center in the Near North Side neighborhood. The 30,000-square-foot facility will function as the headquarters for the Chicago Park District gymnastics program and the Jesse White Tumblers, and is designed to achieve LEED Silver certification. It includes a gymnasium with basketball court and bleachers, fitness room, meeting rooms, public computer lab and training center, administrative offices and more.



### SOM was selected to design a

**new skyscraper,** the Greenland Group Suzhou Center, in Wujiang, China. A key design feature of the building is the atrium, which maximizes daylight penetration, facilitates mixed mode ventilation in the lobbies and public spaces, and acts as a fresh air supply source for the tower. Major energysaving strategies include a high performance façade, daylight responsive controls to harvest natural light, lighting energy optimization and more. This is SOM's sixth project with the Greenland Group.



egendary industrial engineering giant Abraham Epstein esigned this gorgeous home in 1930.



## **Historical Housewalk**

Please join us for our 25th annual housewalk, "Cooler by the Lake" Sunday, May 20, 2012 1:00 - 5:00 p.m.

This year's housewalk offers a rare chance to tour the interiors of three extraordinary architectural treasures: lakefront mansions designed in the 1920s & 30s by Philip Maher, Richard Powers and Abraham Epstein. That unique North Shore gem, the Baha'i Temple, is also included on the walk.

Tickets start at \$40 and can be purchased by visiting www.wilmettehistory.org or phoning the Museum at (847) 853-7666.

This classic 1928 residence is by Richard Powers, who also designed what is now the Evanston Art Center.

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# OPEN DARTSURGER

RENOVATION, ADDITION EVOKE MID-CENTURY MASTER'S SPIRIT

By Dennis Rodkin

LITTLE CHILD WILL LEAD THEM. When David and Ellen Muslin bought a prime piece of blufftop property in Glencoe several years ago, they gave little thought to the eccentric, low-slung house that stood on it. The plan from the start was to tear it down and replace it with something larger and more traditional, something reminiscent of Cape Cod.

But during visits to the site, the Muslins' daughter, Amy—seven or eight years old at the time—"kept asking us, 'What are you doing? This house is great,'" Ellen Muslin recalls. David says that Amy "saw something in it before we did."

Only when preservationists started advocating against tearing the old house down did Amy's parents start paying attention to it. But once they did, they began to realize that they had inadvertently bought a gem, one they might like to polish back to its original luster. Designed for Chicago attorney Luis Ancel, the house was a 1961 project of Edward Dart, architect of many distinctive houses and churches—including the still-spectacular St. Procopius Abbey in Lisle, a 1973 winner of a National Honor Award from the AIA, as well as Water Tower Place on North Michigan Avenue. For Ancel, Dart had created a low, quiet structure that doesn't compete with the spectacular Lake Michigan next door, and whose interior, while warmed by abundant walnut millwork and a big, rounded fireplace, is quite content to deflect all attention to the view.

Once it dawned on them "what a cool house this really is," as David puts it, the couple did a complete about-face on their plans, canceling both the planned new house and the sale of about half the lot for another new home. The Muslins eventually redid the Ancel House so thoroughly and expertly that last fall they received a Richard H. Driehaus Foundation Preservation Award from Landmarks Illinois in honor of their patronage of great design and preservation.

Although in somewhat shabby condition when the Muslins bought it, the Ancel house had "a nice



The home opens a broad, glass face to Lake Michigan (photo at left). Dart's design included three glass modules starting at the right; Becker's addition created the fourth at far left. At its door facing away from the lake is this midway space that marks a transition from outdoors to indoors (right).



presence," says Richard Becker, AIA, the Becker Architects principal who designed the renovation and expansion. Its street face is somewhat blank, with an artful wrought iron screen its primary ornament. Beyond the screen is a small entry court; visitors transition from outdoors to indoors, moving into a vestibule where the main object welcoming them is a large floating walnut built-in.

"When they walk around that [built-in] is when everybody goes, 'Oh my God,'" says Ellen Muslin. "There's this element of surprise. They can't believe what's going on back here."

There's a lot: in the living room, extensive walnut millwork and a ring of clerestory windows beneath a tent-like living room ceiling are supported by four corner gluelam beams. Past it, four rooms line up



- Dart's original design included everything seen here but the 'ear' at upper right, a later addition. The kitchen was internal, at middle right, and a smallish master bath was at middle left.
- 2. As renovated, the home now has a kitchen that shares the lake view, at upper right. A new attached garage is in front of it on the right side, and the space originally occupied by the kitchen now contains service areas such as the laundry and mud room. The old master bath and a bedroom gave way to a larger bath and dressing room. The core of the house remains as Dart had it.

along the all-glass, lake-facing east side of the house, with either no walls or glass walls between them. The result is that from any of the four—kitchen, dining room, sunken semi-formal section of the living room known as the 'porch' although it's fully enclosed, and the master bedroom—the view of Lake Michigan spans the entire length of the home and beyond.

"We've got a 180-degree view from anywhere on the east side of the house," David Muslin says. "You look left or right, and you just see forever."

The four approximately equal-sized east side modules make such a dramatic yet simple statement that the arrangement seems to have sprung from the site fully formed. But this is actually a second

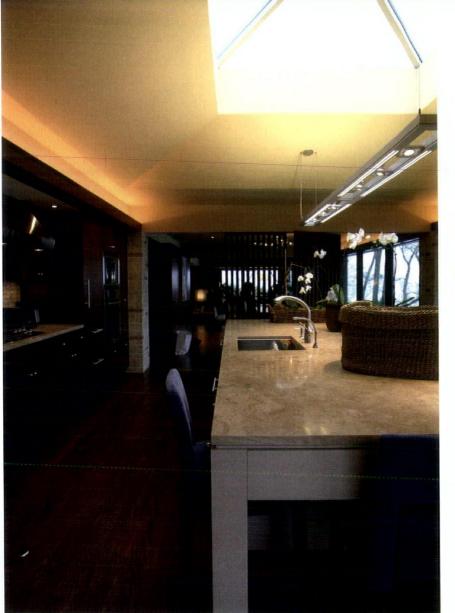
- 3. Slate flooring extends from the indoors out onto a prow-like triangular terrace, enhancing the seamless flow from indoors.
- 4. The center of the home, the living room retains the elements Dart created: the tent roof above, the large, rounded fireplace, and the abundant walnut woodwork.

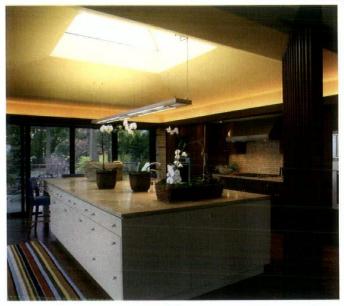


Photo by Darris Lee Harris

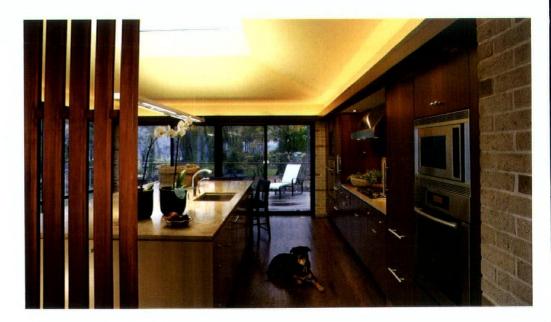
attempt. Just three of the modules were present in Dart's original design: master, porch and dining room. The kitchen was internal, next to the living room but with none of the drama of that room's lifted ceiling. Becker describes it as a "servant-type kitchen"—not to say that the Ancels had servants, but that it was a secondary space where Dart had deployed little attention because nobody expected it then.

"That's typical for a 1960s house," Becker notes. "They had made this jump into combining all these public areas—the living room, dining room—but had not yet transitioned to the idea of the kitchen being open to the dining room. That's a development that was down the road." Key to making the home suit a more modern lifestyle, Becker knew, was giving the kitchen a more prominent placement. A latter-years addition to the home offered an opportunity. The original string of three modules had gotten a lower-quality fourth member, a sunroom that stuck off the south end of the house like a dog's ear. Putting the kitchen there would make the room that is now most families' primary gathering space a player in the home's front row, with a share in the glorious view. Adjacent to the kitchen would be an attached garage replacing a detached garage elsewhere on the lot, and the old kitchen space could become the laundry/mud room—the same sort of service space that the old kitchen had been, only for functions that don't feel deprived of a view.





Brought forward toward the glass envelope of the home, the kitchen is a modern take on Dart's intentions. It has a skylight that evokes the larger tent roof, walnut cabinetry, exposed brick, and a pivoting slatted screen reminiscent of the front door. The island, a more modern kitchen amenity, does not pick up Dart materials, but is sedate, careful not to upstage anything.



Because the structure is landmarked, a visible addition like the garage would typically need to look distinctly different from the original, to articulate a departure. But Becker got assent from preservation officials to instead make the addition a visually seamless extension of Dart's exterior. That was possible, he says, because "the front was seen as so quiet, almost nondescript, so if you make an addition that draws attention to itself, that would be at cross-purposes." Though set back from the front wall of the house, the addition extends the original's flat roof and wood coping that runs around the eaves.

The same notion—extending Dart's selections to the new space—was at work in the kitchen, where exposed brick piers and walnut cabinetry and flooring follow on the originals in neighboring rooms. A skylight that pops up over the kitchen island evokes the upswept ceiling with which Dart crowned the living room.

That crown, however, was a little bit tarnished. Becker notes that where Dart inserted a line of glass between the upper living room walls and the roof, he achieved "a great effect with light streaming in beneath this pagoda ceiling," but "in his enthusiasm, he didn't provide any kind of bulkhead around the perimeter to keep water out. The glass was basically sitting at the roofline with no protection." The solution was to create a new curb on the exterior, flashed into the roofing. It wouldn't be a pretty sight if you could see it, Becker says, but the walnut trim that runs around the perimeter inside conveniently hides it from view.

Still fully on view is the master bedroom, separated from the living room by only a wall of glass. An eccentric choice even in its day, it is clearly in service of the idea of keeping the lake view unobstructed. The Muslins say that once they decided to keep the house, they never considered replacing that glass wall. They installed drapes, but generally leave them open and otherwise, "it's not a problem as long as we keep the bed made," Ellen jokes.

The glass there is among Dart's touches that "everybody who came in would tell us, 'Oh, you should change that,'" David says. But having succumbed to the home's charms, he found himself brushing such comments aside. "We had something here that I didn't want to mess with," he says.

That's not to say nothing changed. The second of three main-floor bedrooms was sacrificed for a large master bath and a dressing room (there are additional bedrooms in the lower level). Like moving the kitchen and attaching a garage, this was a move that both the Muslins and Becker describe as ensuring the house is livable in today's way, which in turn ensures that it won't be threatened by demolition again any time soon.

In the end, Ellen says, she's quite content to have given up her vision of a traditional seaside, "beachy, with beadboard and white wood," and embraced Dart's brand of warm modernism. In doing so, she and her husband extended the home's useful life for many more years, while keeping alive Dart's sensibility.

"It feels good to have done the right thing," she says. CA

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### EXTERIOR LAYERS TAKE PROJECTS TO THE OUTER LIMITS

By Lisa Skolnik

UILDINGS, LIKE PEARLS, ARE MADE OF MULTIPLE LAYERS THAT MAKE THEM GREATER THAN THE SUM OF THEIR PARTS. But the various strata of a building can be forged in myriad materials—especially these days, as architects find innovative, and usually economical, ways to address their clients' programmatic needs where the solutions will show most and make a major impact.

The projects on these pages—all recently completed or underway, except one by Epstein, a forerunner of the trend that dates to the early 2000s—are all dressed in dramatic outer layers sure to grab attention.

The only uncertainty seems to be what to label these features. They've been called scrims, screens, skins, shells, shields, coatings, cladding and more, yet each of these terms has a very specific meaning. Whatever you prefer to call them, each one of these outer layers gives the contents within a truly distinctive skin.



**PROJECT:** Chicago Law Firm, West Loop **FIRM:** 4240 Architecture **TYPE:** New Construction

The client asked for a sleek, one-story, 10,000- square-f building with lots of light to house his bankruptcy law firm and pay homage to his passion: cars—specifically Ferrari Ironically, an auto repair shop was the former occupant of the site.

References to both—sports car and auto shop—are sprinkled throughout the snazzy glass- and aluminum-clace building, ranging from the mechanic shop aesthetic of the main office, with its lanes of work spaces and concrete floo to the ceiling's exposed ducts and pipes.

The most explicit of those references is a perforated aluminum screen, 11 feet tall and 80 feet long, that fronts the south-facing building. The screen seems to fold down from the roof to cover a glass curtain wall behind it. But in fact, the 70-panel screen sits on a steel and aluminum tube frame the juts out 5 feet 3 inches from the edge of the roofline at the top, and angles 10 degrees in to 1 foot 3 inches. The screen stops a few feet above the ground, as if it hasn't been pulled down all the way.

This wrap was devised to allow light to penetrate into a conference room where the firm conducts meetings with its clients, while not letting passersby look in.

"Bankruptcy is a sensitive subject, so this provides client's privacy from the street and shields the harsh southern exposure," says Robert Benson, 4240 design director. It also brings a dazzling and thoughtful decorative component to the project; the perforations are laser-cut in a pattern that mimics a giant strand of carbon fiber, "which is the material they use to make the engines and interiors of so many sports cars today," Benson notes.

Photos by Greg Murphey Studios Inc.

or



**PROJECT:** Instituto Health Sciences Career Academy (IHSCA), Pilsen **FIRM:** JGMA Architects **TYPE:** Adaptive Reuse

JGMA won the Instituto Progreso del Latino's design competition for this high school, sited in a dilapidated, three-story, heavy timber and brick building from the 1920s. Complicating matters, the empty building didn't meet city code for use as a school.

"We knew we had to transform it into a state-of-the-art learning facility, and doing so would necessitate dramatically changing the interior and exterior," explains Juan Moreno, AIA, JGMA president. Enhancing building performance and changing community perception were also issues.

"These old brick and timber buildings aren't energy efficient or water- and fire-proof," Moreno says, "and we didn't want the students and community to feel like they were getting an old, 'used' building."

On the inside, timbers and beams had to be mummified in insulation and sheetrock to bring them up to code, sacrificing their industrial aesthetic. So Moreno thought of conserving—yet transforming—the beautiful old brick exterior by cladding its upper levels with pre-patinated copper panels. When they proved too expensive, Moreno found a new product: aluminum panels 10 feet long and three feet high, and coated with



iridescent paint. The paint "literally changes color, depending on the light and the viewing angle," he says. The visual effect is dynamic, signaling that new vibrancy has come to the onetime eyesore.

The resulting installation, an iridescent skin that covers 50 percent of the existing building, not only gives the building a luminous new aesthetic—it improves health Photos courtesy of JGMA

and energy efficiency by creating a shield that keeps wind, cold and water from penetrating the brick.

This makes the building warmer and reduces mold build-up in the wall cavity. Energy efficiency studies for LEED Silver certification are presently in progress to determine how much thermal performance has improved.



**PROJECT:** Columbia College, 618 S. Michigan Ave. **FIRM:** Gensler **TYPE:** Renovation

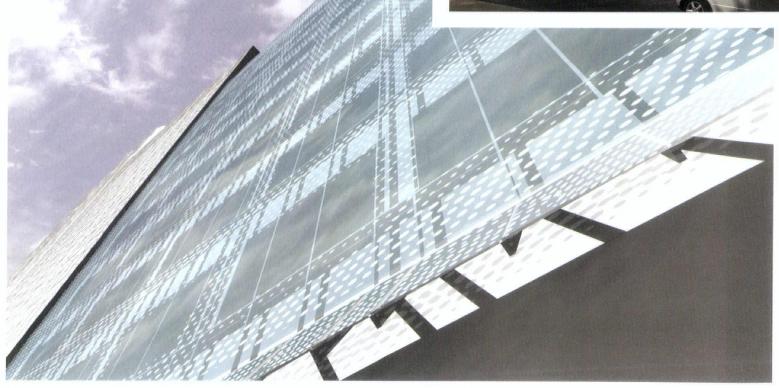
This building started life in 1913 as the Arcade Building, and lost its frothy terra cotta façade when IBM bought it in 1949 and updated it inside and out, right down to a cold, machinelike glass curtain wall befitting a computer company.

When Columbia College bought the building in 2007, Gensler renovated the interior. Now funding is available for the exterior, which will get a new, energy-efficient curtain wall this spring. But it needed one with flair, since the building's nextdoor neighbors are, to the north, Krueck + Sexton's gleaming Spertus Institute of Jewish Studies, and, to the south, a 1908 number with a terra cotta façade (formerly known as the Torco Oil Building).

To bridge both facades and pay homage to the building's historic past, the architects hit on "creating an abstract 'ghost' image of the original terra cotta façade on the new curtain wall by using a digitally printed ceramic frit between the layers of the glass," explains Elva Rubio, Gensler principal and regional design leader. After experimenting with a range of patterns, the team settled on one that revives the building's original detailing, but made from thousands of images of tiny birds—exposing the past in a contemporary way that is also ecological, since the building is on a migratory route and birds often mistakenly fly into glass curtain walls.

mages by Evan Thomas







hotos by Karant Photography



### **PROJECT:** Gladstone Factory Façade Renovation, Schaumburg **FIRM:** Epstein **TYPE:** Adaptive Reuse

Epstein was hired to breathe new life into a tired, 1970s yellow brick factory with large punched openings and attached offices, but do it as economically as possible.

Inside, the floor plan was redesigned for higher efficiency, but outside, the façade needed a total face-lift and elements that would offer solar control, privacy and an updated aesthetic.

"The solution was to design a kit of parts that could be clipped onto the façade with a frame and infill panel system at the same time the building remained occupied," explains Andy Metter, FAIA, Epstein|Metter Studio design studio director.

A steel frame system was devised that would be suspended two feet off the front façade, then strategically "filled in" with panels made of clear and translucent glass and anodized aluminum grating, which is usually used on floors, but was repurposed here and set in a vertical orientation as louvers. The façade was constructed eight feet away from the building, and slowly cranked back towards the building until it was only two feet away. The yellow brick was also painted white to reflect light onto the translucent glass panels, and back through the punched openings in a more diffuse state. The result, completed in the early 2000s, is a functional and aesthetically intriguing geometric pattern.



**PROJECT:** Museum of Broadcast Communications (MBC), Chicago **FIRM:** Eckenhoff Saunders Architects **TYPE:** Adaptive Reuse

The challenge was to convert a four-story parking structure into state-of-the-art exhibition facilities for the MBC and its Radio Hall of Fame, and to achieve LEED Gold Certification.

The trouble with those goals was that "the building's north façade was covered with a gray, rough-hewn, unattractive cement membrane that had been used for waterproofing," explains Matt Wylie, AIA, Eckenhoff Saunders principal.

Instead of demolishing and rebuilding the wall, "we decided to use a scrim to cover it, even though the treatment is usually used for cladding parking structures because it allows in natural ventilation and daylight." The team designed and fabricated a steel frame 40 feet high and 140 feet long that was topically applied to the building's north façade, and filled it in with woven stainless steel panels, eight feet high and 15 feet long.

Once the components arrived on site, it took only two weeks to erect the scrim—a good thing since the building is on a busy corner (State Street and Kinzie Street) and "it was important to get out of the public way as quickly as possible," says Wylie. The rest of the building is clad in recycled aluminum, which is also fully recyclable. **C**A

The scrim is on the north wall, seen at right in this image



© 2011 Mariusz Mizera Photography

DESIGN OF LABS CALLS FOR ADVANCED FLEXIBILITY

#### **By Dennis Rodkin**

CIENCE IS EVOLVING, BOTH IN THE CLASSROOM AND IN RESEARCH SETTINGS, AND NOWHERE IS THAT MORE EVIDENT THAN IN THE WORK OF CHICAGO ARCHITECTURE FIRMS THAT CREATE THE LABS IN WHICH SCIENTIFIC WORK IS DONE. Whether it's the shape of a lab's furniture, the planning calendar for a project or the air-handling equipment, there's hardly an element of science labs that hasn't been affected by rapidly changing attitudes about how science should be approached, and how it's housed in a laboratory.

The general sweep in 21st century science is toward more collaborative and interdisciplinary work, which needs far more flexibility than laboratory design required in the past. "Flexibility is the new challenge that makes design fun," says Warren Hendrickson, AIA, vice president in the Chicago office of Omaha-based HDR Architecture. "It opens everything up."

Here's a look at three projects from lab designers, each one typical of the field by being entirely atypical.

#### OAKTON'S OCTAGONS

The standard rectilinear lab bench is fine for working scientists, but for students in a science class, it doesn't pivot well between research and lecture portions. Students can face each other, but not the teacher—or vice versa. The common-sense solution that Mark Hartmann, AIA, architect and lab planner at Harley Ellis Devereaux, proposed prompted another design step, and at some point may lead to another, larger one.

For several academic labs, including projects at Harold Washington College in the city and Joliet Junior College, Hartmann specified custom-built oval-shaped lab tables. Each table seats four students, all of whom have direct sight lines to the teacher's position as well as to the research on the table, without shifting. Six ovals fit into approximately the same space as three of the traditional long rectangular tables.

A little bit of custom casework, and a problem is solved.

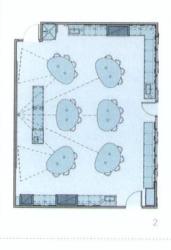
"But when you put these round shapes into the rectangular room, you get pinch points and wasted space," Hartmann notes. That realization led to the next evolutionary step: designing a room that contains those tables more companionably.

The optimum shape turns out to be a slightly irregular octagon and that's the shape about half the labs in a science building renovation at Oakton Community College in Des Plaines will take when the project gets underway later this year. Though not intended as an experiment, the mix of octagons and rectangles will put the concept to the test. If faculty and students profess to strongly prefer one or the other, then Hartmann will know if the idea was a good one. "People seem to adopt this idea instantly," he says, "but maybe it's going to be one of those ideas that doesn't fly."

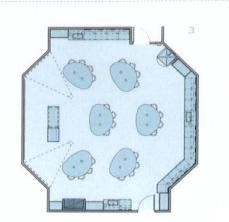
In the meantime, Hartmann says that the room shape creates a much-needed bonus: nooks outside the labs, where the angled sides of two octagons come together. "A lot of education today is about the collaborative work you do when you're not in class," Hartmann says, "but in this building now, there's just a long narrow corridor, nowhere for people to get together to work."

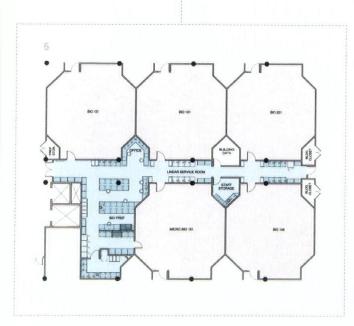
The next logical step, not yet drawn for any client, would be for the octagonal rooms to dictate the exterior shape of the building. The vessel for learning science would take its shape from the tables where basic research is done. It's an exciting prospect, Hartmann Images courtesy of Mark Hartmann, Harley Ellis Devereaux









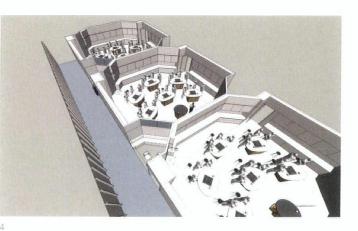


admits, but still out on the horizon. "We've pushed the envelope this far with this iteration. Let's see if it's all that we think it's going to be."

### PIECING TOGETHER PUZZLES

A research park is sprouting within the walls of an existing building adjacent to the Illinois Institute of Technology's South Side campus, where the school's development partner, Wexford Science + Technology, is cultivating a tech-firm incubator that houses startups.

Cannon Design did the 110,000-square-foot building's major



- A traditional laboratory classroom is rectilinear and contains rectilinear tables. Hartmann's diagram illustrates the limited sightlines.
- 2. The move to oval tables improves sightlines considerably but creates useless spaces in the corners of the room.
- 3. Re-shaping the room to an approximation of an octagon maximizes usable floor space as well as display walls.
- 4 & 5: Linking together a series of the octagonal rooms adds programmable space outside the rooms in interior corridors.

renovation, but since then, nearly all of about a dozen tenants have had their lab and office spaces designed by MRSA Architects + Planners. They range from 1,500 square feet "for two guys with an idea who are trying to make a go of the research," says MRSA partner Michael Semenzin, up to a pair of spaces totaling nearly 19,000 square feet for a firm that develops generic versions of formerly patented drugs. The space needs to flex according to each tenant's specific needs.

"You have one doing chromosome work with corn products and another that has developed a measuring instrument," Semenzin says,



hotos courtesy of MRSA Architects + Planners



Photos courtesy of MRSA Architects + Planners

"and each one needs a different set of the puzzle pieces. Some need more hoods for exhaust, some need more power because they use a lot of electronics. You had to be nimble."

Perhaps not surprisingly, accommodating the largest of the tenants entailed fitting the most complicated puzzle together. Therapeutic Proteins Inc. (TPI), a firm that develops generic versions of formerly patented drugs, first took 8,800 square feet in a phase that was completed in early 2009, then took another 10,000 in a second phase completed toward the end of 2011.

For the first phase, "we played a running guessing game," Semenzin says, because TPI was trying something new. While bio-manufacturing enterprises normally have stand-alone facilities for safety and security reasons, TPI was coming to the third floor, above two floors that house other firms. The Food and Drug Administration, which has approval rights over such facilities, hadn't dealt with such a thing. At the same time, TPI was developing its research model, not taking an existing one and moving it to a new home. It was a three-way learning process. "Here's their revised process, so now let's see what that does to the architecture," as Semenzin describes it.

In the end, the first phase wound up having five air handlers for 8,800 square feet in order to satisfy all air-safety needs



1 & 5: Both lab and office spaces at the incubator are designed to be flexible in order to accommodate the inflow and outflow of startups as they birth, grow and move on.

2, 3 & 4: Most of the spec spaces at the IIT facility are heavy on white. "White's not necessarily cleaner, but it shows cleaner," Semenzin notes. "So when potential customers come through, it projects a clean look. It could be all kinds of different colors and it wouldn't be any less clean, but these are scientists: they don't really care that the walls aren't colorful."

6. In HDR's Argonne project, feed lines for the various gasses and other materials a lab might need are kept in the corridor for quick servicing; pipelines then carry whatever is needed over the wall and into the lab.





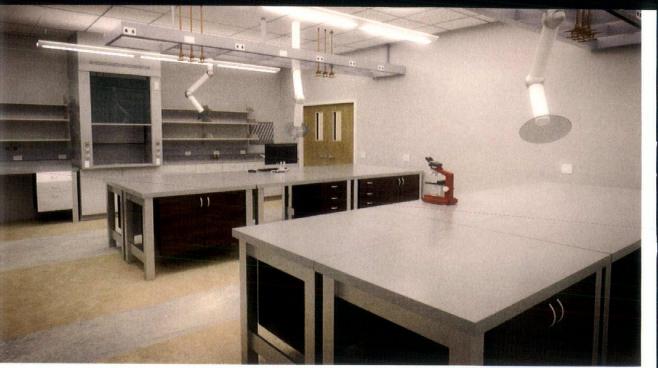
related to the different suites where individual proteins are being synthesized. The second, larger phase has only one air handler for about 10,000 feet, since only one protein is synthesized there, but on a larger scale.

Semenzin says the fun part of the lab work at University Technology Park is "that we're putting together all these puzzles." He candidly acknowledges that aesthetics are not high on most of the scientist-tenants' want lists, but he's unconcerned. "One of the Mies-isms says that architecture begins when two materials are brought together carefully," he says. "There's not a word in that about aesthetics."

#### PLUG AND PLAY

In the time that transpires between initial specs and completion of a science lab building, as many as half the scientists for whom the place was designed may get crossed off the list of eventual occupants. That's due to attrition, changes in grant funding and other factors, but it means, according to Hendrickson, that "you have to characterize the building, not design it."

At Argonne National Laboratory in Lemont, where HDR has designed a 145,000-square-foot structure, the need for fluidity is enhanced by an inter-disciplinary research model that will fill the facility. Different team configurations will require varying



Photos courtesy of HDR Architectur



1 Utility and gas lines in the ceiling allow for the clean plug-and-play look of the labs.

 THDR's building will act as a new gateway into the Argonne National Labs campus. The elongated front "window" on the facade telegraphs welcome.

configurations of lab niches, fume hoods, gas lines and other lab amenities.

Thus, while the exterior of what will become a gateway building at Argonne, and its lobby and other common areas, will be fixed attributes, the meat of the building—its laboratories—will be mutable both during construction and long after.

Hendrickson says HDR is using a concept that has become increasingly popular in lab design: plug and play. Most laboratories will contain few built-in utilities and amenities. Whatever's needed will be carried in from outside the room on overhead racks. Gas storage tanks and other supplies will be positioned outside the labs and easily connected to or disconnected from the carrier racks. "If one lab is using helium and the next is using compressed air, we're not piping both of them 500 feet through the building," Hendrickson says. "All they have to do is 30 feet each."

Casework, too, is built to be easily shifted around the space to meet an individual team's needs. "It's a kit of parts, and each [scientist] can go for what's needed for that lab," Hendrickson says.

The way this accommodates varying team configurations is obvious, but Hendrickson points out hidden advantages for the

client: It dramatically reduces the cost of reconfiguring rooms as teams' needs change, and it even ensures that on opening day, the building's new occupants will have the latest and greatest amenities. Because casework and other items won't be fixed in place, there's no need to have them delivered until just short of the building's move-in date. "You get to bring in something that is a model year or two newer than you used to," Hendrickson says. And because furnishings will be ordered for an actual, not proposed, list of occupants, the client won't end up with redundant casework or fume hoods. HDR orders to a maximum number—in this building's case, 200—to get the appropriate volume pricing, but with the understanding that the actual quantities needed will vary.

"This is really embracing the opportunity that [the demand for flexible planning] gives us," Hendrickson says. During the winter there were discussions about where the future facility's staffing was trending, but nothing will be nailed down until about six months before the intended 2013 completion date.

With so many movable parts in the core of the building, "it can handle change over time," Hendrickson says. "Because change is

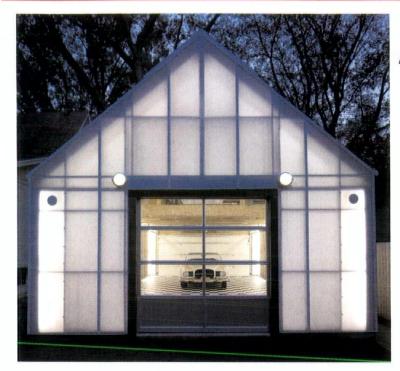


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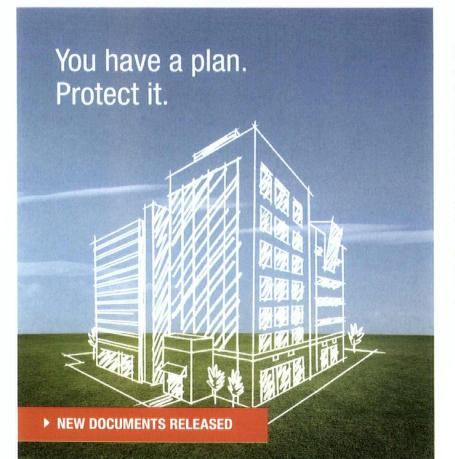
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# THE PRACTICE



# Be Good Enough for Government Work

MINDING THE DETAILS IS CRUCIAL TO LANDING, SUCCEEDING ON PUBLIC PROJECTS

#### By Michael Ross, AIA, LEED AP BD+C

Public sector projects are rewarding because they provide the design professional with an opportunity to positively impact the dayto-day lives of other individuals. However, successfully competing for that first project and then maintaining the new client is demanding for a number of reasons.

Whether the potential client is a local municipality or an agency of the U.S. government, you should keep a number of things in mind when competing for work and when undertaking the project: Your potential client is not represented by a single individual capable of making decisions or giving directions without further consultation within

the organization. Most government projects require that the architect work with a diverse group of individuals who are representing the interests of various departments. Most often, architects are selected by a committee composed of these representatives. Besides the end user of the project, the selection committee Among Ross Barney Architects' public sector projects is the 42,000-square-foot Illinois Accelerator Research Center at Fermilab in Batavia.

often includes individuals responsible for facility construction and renovation, building maintenance and procurement, and contracting. In addition, large organizations may have their own architects and engineers on staff who will review your work. In other words, you in fact have multiple clients with different, sometimes competing interests, all of whose needs and expectations must be managed.

### Another challenge is the project budget, and more specifically the construction

**budget.** For public sector work, budgets are fixed, and the procedures to increase funding are difficult. That is why one of the most consistent architect evaluation items is the ability to design to budget. Demonstrating the ability to perform good design within government budget restrictions is a key to

## THE PRACTICE

getting a project, but even more important if you want to perform more work for the same client later.

Paying close attention to the requirements of the Request for Qualifications (RFQ) or Request for Proposals (RFP) is a crucial aspect of obtaining government work. Especially in today's economic environment, a government agency will receive a large number of proposals for each solicitation, and it is important to dot the i's and cross the t's.

For example, if the RFQ requires expertise such as in the areas of historic preservation and blast design, or if each example project should be no more than three single-sided pages, your package should follow the instructions to the letter. In the first round of evaluation, small distinctions can ultimately determine the final short list of architectengineering (AE) teams for a project.

Government work often has the underlying objectives of fostering competition and providing a "level playing field" for businesses to compete for the resulting construction work at all levels, from the general contractor to the material suppliers. Government agencies frequently have procurement rules to promote competition by requiring performance specifications. AEs are discouraged or prohibited from sole-sourcing any portion of the construction work. As a result, the "three manufacturers rule" is often used as a barometer in determining if adequate competition is available for various elements of a project, from lighting fixtures to carpet. Simply put: there must be at least three products, manufacturers or fabricators in the marketplace that meet the specifications.

Some government entities may have another stipulation in their procurement process, like a "Buy American" rule, that is not to be ignored.

Perhaps the most important aspect of performing government work is to understand the responsibilities and roles of the government's project manager and contracting officer. Their primary job is to look out for the interests of their constituents and the general public. In addition, they are often managing multiple projects, each with unique challenges. For the AEs, besides doing good design, making these government employees' job easier is an invaluable service that can lead to more work with the same client and excellent references for that next government project.

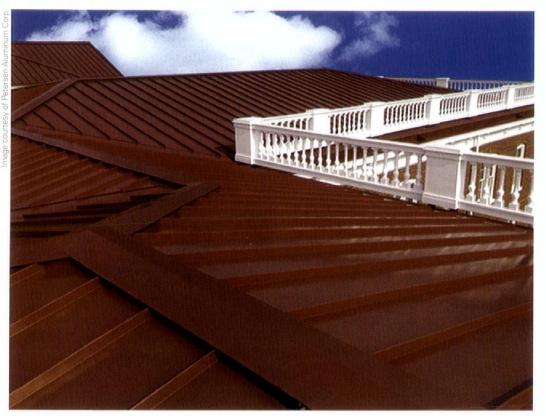
Making their job easier can take on many forms: anticipating project needs by offering recommendations and solutions to issues without being directed; doing the required paperwork and responding to requests in timely fashion; and submitting all the required deliverables when needed. If your project manager continually reminds you of what is required in your scope of work, this can be a warning sign.

These suggestions may seem like common sense, but once the project starts, the less interesting or cumbersome parts of the AE's scope of work is sometimes overlooked. This can ultimately affect the AE team's performance evaluation. **C**A

Michael Ross, AIA, is a principal at Ross Barney Architects.



# THE SPEC SHEET



# Keep it Cool And Colorful

AS COOL METAL ROOFING TECHNOLOGY IMPROVES, COLOR PALETTES EXPAND

### **By Leslie Streicher**

Cool roofs are a near-requirement on new commercial structures thanks to building codes that require reductions in energy consumption—but white doesn't go with everything. Fortunately, technology has advanced to the point where a variety of colors are now available, all meeting strict standards for cool roof reflectivity and emissivity.

"With all of the pigments and technologies that have emerged, we have been able to

meet cool roof ratings with each of our colors," said Blake Batkoff, sales manager for Elk Grove Village-based Petersen Aluminum Corp. He notes, though, that heat loss is not uniform; some colors lose more than others.

With roofing available in every color from dark bronze to bone white, hunter green to colonial red, companies like Petersen Aluminum support architectural creativity while encouraging environmental sustainability. For Ruffner Hall at Longwood University in Farmsville, Va., Kuntz & Associates, Architects chose the colonial red metal roof, which meets federal reflectivity and emissivity standards.

"We were one of the first companies to try the new pigment system and modify the colors to make as many as possible meet the cool roof standards," Batkoff said. "From our standpoint, we will always have these color offerings because they benefit our client base."

Building codes are driving cool roof adoption, according to Haley Gilbert, a principal research associate at the Heat Island Group at Lawrence Berkeley National Laboratory in California. "There are many advancements on the horizon for cool roof products, such as improvement to solar reflectance and self-cleaning technologies, which will keep products looking clean, and durable colors [that don't fade with UV exposure]," Gilbert said. Wide availability of colors should make cool roof implementation easier for a building team, allowing for environmentally conscious designs that do not compromise architectural creativity.

"Metal roofing comes in a variety of textures and configurations, making it desirable for use on walls as well as roofs," said Scott Rappe, AIA, LEED AP, of Kuklinski + Rappe Architects. "On low-slope roofs, we generally use a white membrane product, but we have often used metal roofs in dark colors."

Many of the national model codes, such as the International Green Construction Code and the International Energy Conservation Code, include requirements for cool roofs. "IECC requirements are only for low-sloped roofs, but [in the future] IGCC will include requirements for high-slope roofs as well," Gilbert said. She added that increased federal and statewide involvement in green architecture will spur more building teams to adopt cool roofing.

While a black roof has an average solar reflectance of 0.25 and a white metal roof has 0.70, with new materials from Petersen and other companies, colors in the middle of the

spectrum reflect nearly as well as white. Greens and earth tones tend to be the most popular selections, with emissivity ranging from 0.83 to 0.85 and reflectivity ranging from 0.26 to 0.71.

"Durability and life expectancy do not differ between colors," Batkoff said. "They are all rated the same for performance. Of course, lighter colors have higher reflectivity than darker colors, but the difference can be marginal."

Manufacturing the metal roofs also is a generally uniform process, with color being the only real difference between two products' chemical compositions. "All the coating and formulation is the same for each color," Batkoff said. "The only difference is the way the color is created, such as using more or less black." That means the development of broad color palettes is financially supportable.

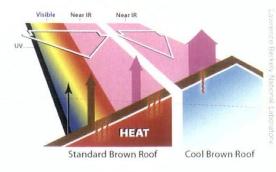
Cool roofs are advantageous in other ways, contributing to a building's LEED certification or earning Energy Star rebates for a building team. "Energy Star has had a cool roof tax credit incentive for a few years for residential cool metal roofs, and I think the incentive is favorable for the industry," Gilbert said. "However, I'm not sure if those incentives will continue."

The most recent Energy Star incentive ended Dec. 31, 2011, and although products are still labeled with the rating for residential and commercial consumers, it is not clear if future incentives are planned.

"LEED and Energy Star always seem to be changing their requirements," Batkoff said. "It's basically a yearly commitment; they always modify or change during the year to meet better reflective properties, emissivity numbers and a new solar reflective index."

Even though the cool metal roof market is in a state of constant flux, change is a good sign. "Cool roof technology continues to evolve," Gilbert said. "As cool roof products become more popular, the industry is introducing new advanced cool roof products that are more reflective and maintain that high reflectance over time."

Increasing government involvement in



The standard brown roof reflects 10 percent of nearinfrared sunlight (narrow pink arrow), while the cool brown roof reflects about 40 percent (wide pink arrow).

green building codes, and the ability of companies to cost-effectively manufacture metal roofs that meet solar reflectivity and thermal emissivity levels, predicts a strong future for cool metal roofing, Gilbert said.

"Many metal roof companies already only offer cool metal colors, and I think that trend will continue to spread as companies find that they can provide the cool color options economically," she said. **C**A

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# Keep it Cool And Colorful

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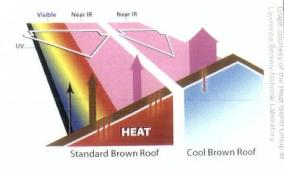
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The most recent Energy Star incentive ended Dec. 31, 2011, and although products are still labeled with the rating for residential and commercial consumers, it is not clear if future incentives are planned.

"LEED and Energy Star always seem to be changing their requirements," Batkoff said. "It's basically a yearly commitment; they always modify or change during the year to meet better reflective properties, emissivity numbers and a new solar reflective index."

Even though the cool metal roof market is in a state of constant flux, change is a good sign. "Cool roof technology continues to evolve," Gilbert said. "As cool roof products become more popular, the industry is introducing new advanced cool roof products that are more reflective and maintain that high reflectance over time."

Increasing government involvement in



The standard brown roof reflects 10 percent of nearinfrared sunlight (narrow pink arrow), while the cool brown roof reflects about 40 percent (wide pink arrow).

green building codes, and the ability of companies to cost-effectively manufacture metal roofs that meet solar reflectivity and thermal emissivity levels, predicts a strong future for cool metal roofing, Gilbert said.

"Many metal roof companies already only offer cool metal colors, and I think that trend will continue to spread as companies find that they can provide the cool color options economically," she said. **C**A

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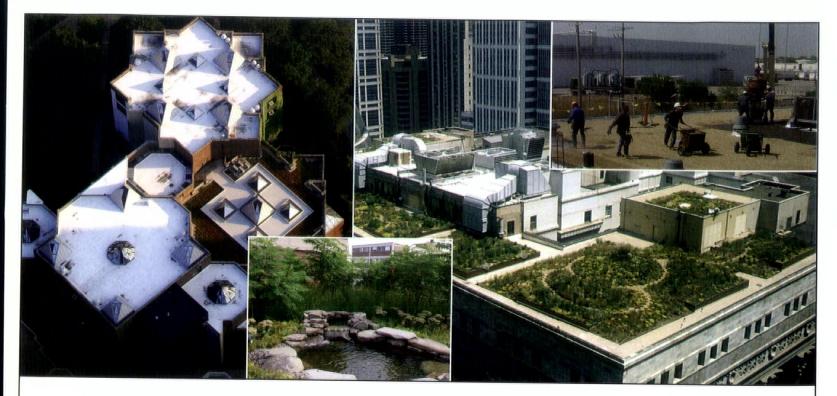
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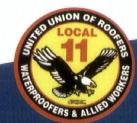
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