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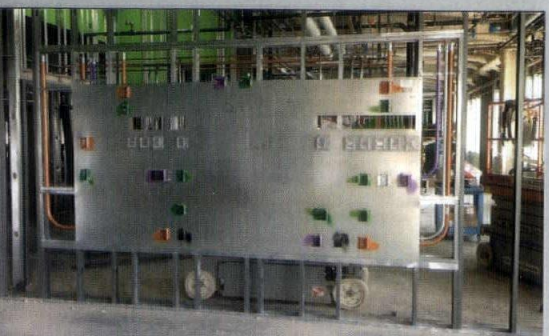
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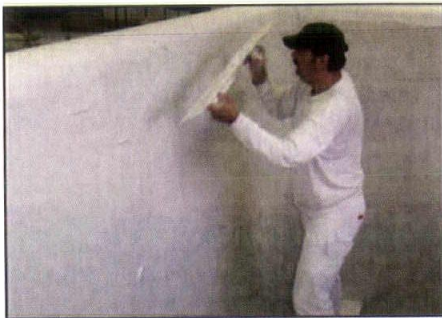
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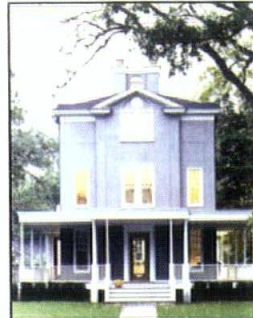
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PRESIDENT'S LETTER

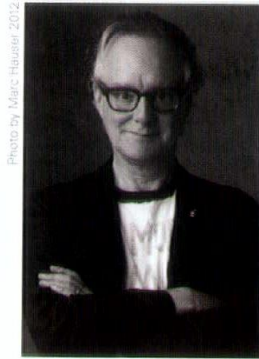


Photo by Mike Hurwitz 2013

[A][A] Want You To Want Me

To energize his audience one evening, Conan O'Brien riled up the crowd with consecutive exclamations, each met with increasing degrees of rapturous applause—if you're a fan (and who isn't?), the crescendo of "Sex," "America," and "Cheap Trick" is a lovely, naughty acknowledgment of a few of our favorite things. If Geoffrey Baer were a late night TV show host, presumably he'd warm up the punters with the trifecta of "Architecture,"

"Chicago," and "Cheap Trick." (Why mess with a good thing?)

Cheap Trick should be every architect's favorite musical act. Two nerds and two long-haired all-Americans. Their breakthrough album, *In Color*, pictures two hunks on Harleys. Geeky Rick Nielsen and Bun E. Carlos, riding push bikes, are relegated to the back cover, their photograph upside down and as the caption reads, "In Black And White." By this second record, the band and their songs are an SOM studio on steroids—complete, broad, spectacularly engineered, masterfully crafted by a diverse team of multi-faceted worker bees and iconic characters. In 1980, *In Color* was part of my record collection. By 1985, I was picking up redlines in Skidmore's Monroe Street offices, gazing at the Inland Steel building while listening to "I Want You To Want Me" on my Walkman. One catchy sing-a-long after another, *Live At Budokan* became Cheap Trick's Wasmuth portfolio, a veritable GA monograph or SMLXL of artistry and lyricism, idolized by admiring fans (mostly screaming Japanese schoolgirls, but you get the picture).

Cheap Trick even got into the design thing. Their typed logo in double triplicate is instantly recognizable. Graphically, most bands' monikers end up long and skinny, printed in a magazine advertisement as an illegible narrow strip. Piling six Cheap Tricks on top of each other forms a square whose proportions make for largesse and legibility. Consider the verbosity of Bachman Turner Overdrive's gawky name and what it presents as a design challenge. Nobody connected to them to the degree they embraced Cheap Trick because the brand wasn't as visible. An entire generation knows Cheap Trick's logo and the words to "Surrender."

Wouldn't it be great if there were more songs about architecture? We write great melodies (as we build) but limit our singing to the shower or in the garage with our friends. As we pen our lyrics and write accompanying harmonies, it's time for us to start singing about architecture to the broadest audience, getting them to join in the chorus. If we do it together, we could make our *Dream Police/Sergeant Pepper/Innervations/Thriller/Spiceworld* (insert album of your choice).

AIA is our radio station, our MTV, our record store, MP3 player, Spotify, podcast and our concert hall. Let's crank it up, annoy the neighbors and start selling tickets to the show. Perhaps we should start at DesignNight?

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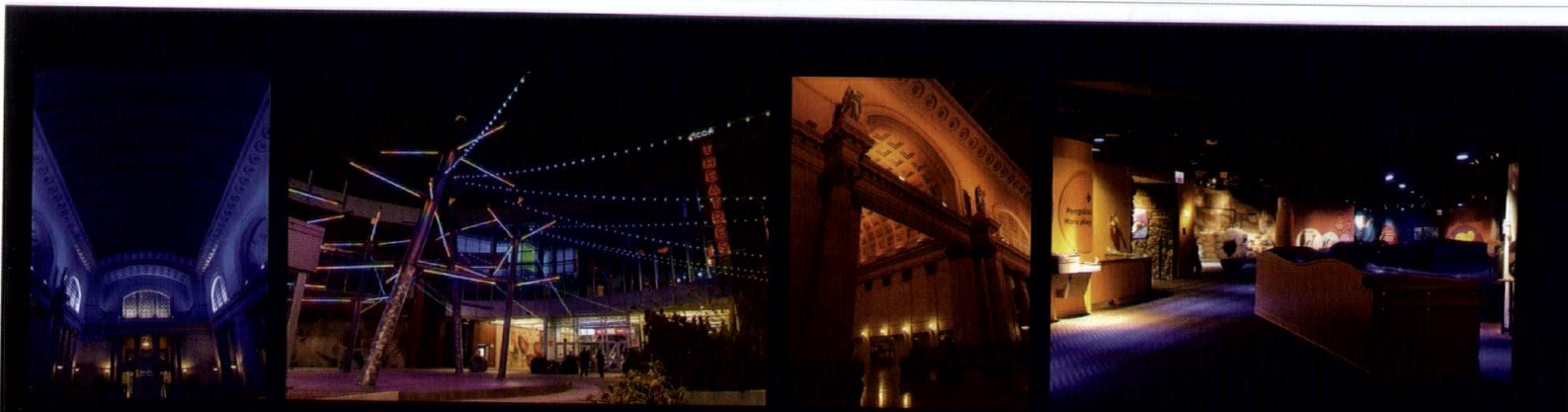
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In the **May/June issue**, the People+Projects item on the selection of Shabbir Y. Chandabhai, Assoc. AIA, to the design team for the University Campus of Al Jamea tus Saifuyah in Nairobi, Kenya, incorrectly stated that the Dawoodi Bohra subject of Shia Islam origi-

nated from Yemen.

In the same column, the item on the Park Douglas Apartments redevelopment project—a 2013 Richard H. Driehaus Award winner—incorrectly stated that “Nineteen new buildings will be added to the complex for a total of 137 new

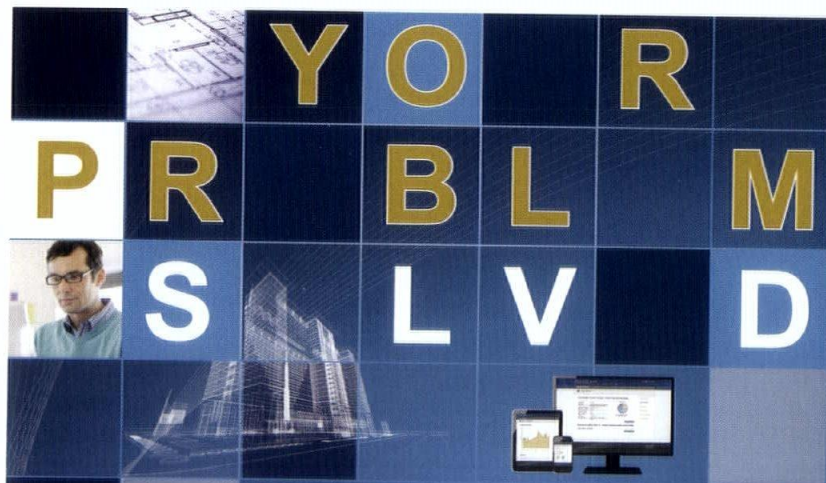
apartments” when it should have read, “The nineteen buildings with a total of 137 apartment units comprise Phase 1 of the project.” In addition, only the management building has been awarded LEED Gold certification, not the entire project as stated. **We regret these errors.**



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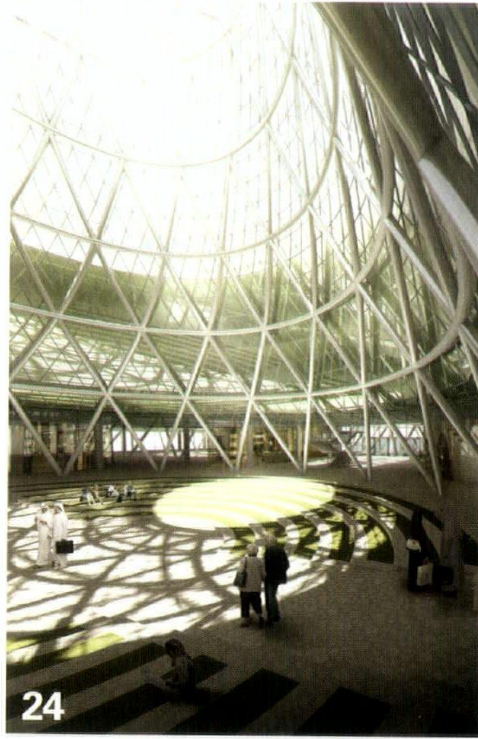


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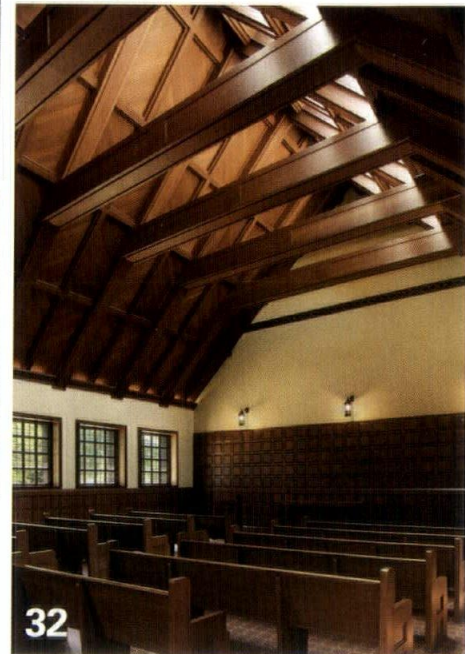


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Image courtesy of The Langham, Chicago

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FAÇADE

Courtesy of The Langham, Chicago



Although the palette is relatively simple in the Langham's public spaces, the layering on of details seems somewhat complex for a hotel in a quintessential Mies van der Rohe structure.

lobby designed by Mies van der Rohe's grandson, architect Dirk Lohan of Lohan Anderson—gives vital new use to the space left behind by IBM and other tenants as they vacated the celebrated structure, completed in 1972 and Chicago's youngest building to receive landmark status. Its splendor and scope set it up for fiscal success. Still, the first thing that comes to mind when traversing its molding-encrusted and paneled halls is whether it could have been more sensitively done and more rigorous about referencing its creator. After all, this is ground zero for the Miesian aesthetic.

Only the lobby, with its Lohan-designed custom furnishings—including sofas he modeled after one Mies designed for Lohan's aunt in the 1950s—is true to that style. But not sycophantically so; it also features very of-the-moment bronze bead window treatments to shade the glassy space suspended on a clever track system, and edgy contemporary art.

Elsewhere, explicit—rather than quiet—opulence and layers of detail prevail.

The oversized guest rooms—averaging more than 500 square feet of space and spanning three windows five feet wide and 10 feet tall—and an expansive, two-story ballroom with breathtaking views of the Chicago River and Marina City, are dazzling in their own right. "We used the same materials he did, but in a much more luxurious way to reference the design and keep it from feeling disjointed," says Richmond principal Fiona Thompson from London.

Yet the former is iced with millwork, topped with ceiling coves and filled with sleek bespoke furnishings that call Barbara Barry and

More is Less

HOTEL IN LANDMARK IBM BUILDING
MIESES THE POINT

Moldings and baseboards and coves ... oh my. Lots of them—along with lavishly detailed paneling, frothy lighting, cushy furniture and opulent bathrooms—dominate Chicago's newest luxury hotel, the Langham. Such details are routine for a property shaped by the Langham Hospitality Group, whose anchor is the legendary London property of the same name. But this 316-room confection happens to be sited on the first 13 floors of

Ludwig Mies van der Rohe's landmarked 52-story office tower at 330 N. Wabash, formerly known as the IBM Building.

Chicago is rife with intriguing adaptive reuse projects, but none may prove to be as debated as this one, particularly given the purist mindset of most Modernists and the enduring legacy of Mies in his adopted hometown.

The project—managed by architect of record Goettsch Partners with interior design by London's Richmond Group and a

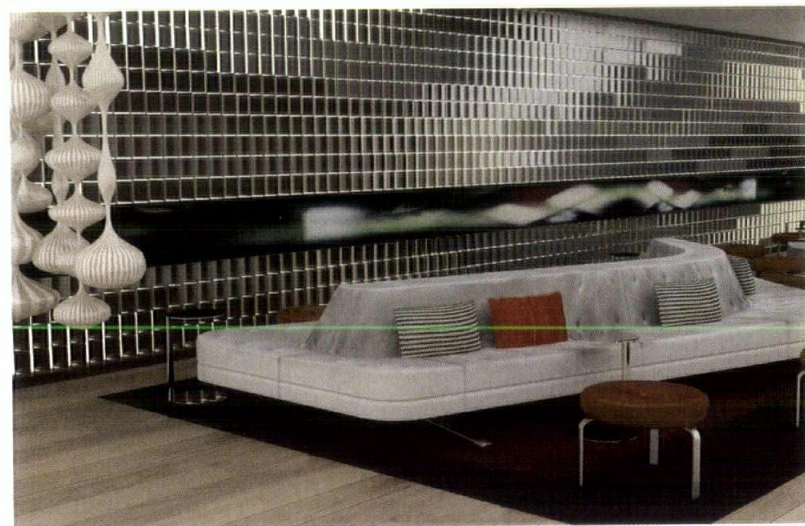
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LANDSCAPE ARCHITECTS

Town Center – Normal, Illinois

The heart of Normal's new town center is both a welcome public gathering space and a showpiece for sustainable infrastructure. Learn about this unusual traffic circle at www.hoerschaudt.com

Courtesy of The Langham, Chicago



Dining and lounge areas have a crisp sophistication that suits contemporary tastes.

Christian Liaigre's work to mind, although it does feature the same travertine limestone Mies used elsewhere in the structure. And the latter is outfitted with striking but unequivocally over-the-top ceiling coves and crystal chandeliers and ringed by an ornate, though in fact cunningly conceived and exquisitely executed, decorative fascia that masks the plenum exposed by removing the floor plate.

Thompson notes that "very few [hotels] would be brave enough to follow that Modernist model" and "Mies buildings are very clean and spare while the Langham brand is classical and all about luxury. We haven't recreated a Mies interior but have tried to respect the quality of the detailing and level of luxury for a five-star hotel." (The property is aiming to attain that rating from AAA this year). Finally, and most importantly, "this was an office building so it needed a much higher level of everything to support all these new functions," she notes. "Thanks to the fact that the building was very clean and the services and structure were very well done, this was a crisp and logical job. Lots of buildings can be quite messy."

Indeed, cutting out some of the floor slabs for double-height spaces to accommodate event facilities, a restaurant designed by David Rockwell, lounges and a fitness center with a swimming pool was "much easier than when we had to add more two-story courtrooms to the [Mies-designed] Dirksen Federal Building," says Goettsch partner Michael Kaufman. Here, a neat solution for the fourth-level pool is a lightweight stainless steel shell rather than much heavier and substantially thicker cast concrete or gunite. The structure is installed in pieces and welded together; drops into the level below; and at 3 feet 6 inches to 5 feet deep at the drains and 17 feet wide by 65 feet long, is also much larger than most hotel pools.

Luckily, the building's original structural engineer, Sherwin Asrow, was still alive to advise on the project. The fact that Mies is not begs the obvious question: What would he think? There's no way to know, but Kaufman's assessment looks at the bright side: "I'm sure he'd be delighted that a building this size is flexible enough to be adapted to a new use. He liked the idea of transformable and transmutable space." > **Lisa Skolnik**

Ripple Effect

PHIL ENQUIST'S GREAT LAKES STUDY IS A WATERSHED WORK

A Pebble is Dropped Into the Water...

As plans began taking shape throughout Chicago for ways to commemorate the centennial of Burnham's 1909 Plan of Chicago, Philip Enquist, FAIA, and his City Design Practice at Skidmore, Owings & Merrill (SOM) asked themselves the question, "What would Daniel do?" One of the most

forward-thinking aspects of the plan was its geographic scope, extending past the city and suburbs to neighboring states. In today's global world, what would be an equivalent ambition? Enquist and his colleagues Clint Bautz and Paul O'Connor decided to develop a vision for the ecology and economy of the entire Great Lakes watershed.

The Ripples Spread Through Canada to the St. Lawrence River Region

Who could they partner with on such a huge undertaking? Early in the process, O'Connor introduced the team to David Ullrich, the executive director of the Great Lakes and St. Lawrence (GLSL) Cities Initiative. That organization, founded in 2003 by then-Mayor Richard M. Daley, became the "client" for SOM's pro bono undertaking and enlarged the plan's geographic scope even further to include the St. Lawrence River basin.

The first challenge was obtaining all the necessary data that was kept in varied ways

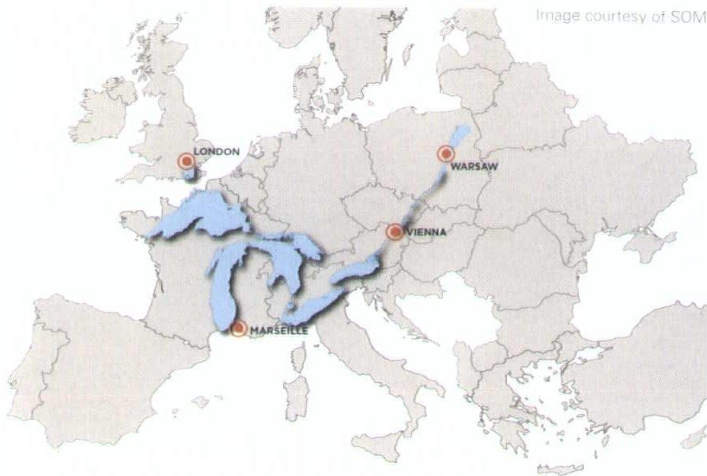


Image courtesy of SOM

(left) A rendering shows how much of Europe the Great Lakes basin would cover.



Image courtesy of SOM

(right) A rendering demonstrates the interconnectedness both within the Great Lakes region and between it and neighboring population centers.

by different national, regional and local entities. Then the team needed to use planning and graphics expertise to present the information in a concise and compelling way.

“A portrait of the Great Lakes had never been painted,” O’Connor says. The team needed to create a picture of a single geographic basin that contains about one-fifth of the earth’s surface fresh water and has more than 15,000 government entities. “Regional planning is very much design-related,” Enquist says, adding that, “the architecture community has to expand their definition of design.”

The Vision Takes Shape and Makes a Bigger Splash

In 2009 they released the 48-page “Recognizing a Global Resource: The Need for a 100-Year Vision for the Great Lakes & St. Lawrence River Region.” The document lists challenges (multiple jurisdictions, climate change, invasive species, etc.) and then presents 10 big ideas (including green cities, renewable energy and achieving mobility) to guide long-term decisions.

The following year, Enquist began presenting the vision at environmental conferences. At the annual meeting of the GLSL Cities

Initiative, the mayors approved a resolution citing the need to develop a vision for the region, thus solidifying the organization’s relationship with the planning team.

The Waves Cross the Pacific to China

The influence for Enquist’s Great Lakes plan flowed all the way in from China and is now flowing back. Enquist’s team was inspired by China’s ambitious infrastructure, especially high-speed rail, and the regional scale of their planning. The team had always stressed sustainability to their Chinese clients, but now they go even further in urging them to think in terms of the larger ecosystem. For instance, in planning development on China’s third largest lake, they advocated a cooperative approach to the entire watershed.

The 100-Year Vision document is in Chinese as well as English, and Enquist has found that it elicits great interest when he presents it to officials in that country.

What’s on the Horizon?

The first four years of a century-long plan is a short time span to measure its impact, but there are many positive indicators. One is the awards it has received: It has been honored by both AIA Chicago and AIA National as well as the Society of

Architectural Historians, and the team was named one of six 2013 Game Changers in *Metropolis* magazine.

Groups promoting the plan are on the upswing. The GLSL Cities Initiative membership has grown to represent more than 100 municipalities. In April 2013 the Council of the Great Lakes Region had an inaugural meeting with more than 150 leaders from the worlds of business, academia, science and government. This regional council will be a collective voice for economic and environmental policy on both sides of the U.S.-Canadian border.

The project has already succeeded in bringing together experts and stakeholders in a variety of disciplines—scientists, environmentalists, economists and politicians. Enquist says, “How can we compete globally? We have to connect ourselves as a region and act as one.”

The ongoing research and advocacy process is chronicled in the blog thegreatlakescenturyblog.som.com.

> Laurie Petersen

Laurie Petersen is the editor of the third edition of the AIA Guide to Chicago, which will be published by the University of Illinois Press in 2014.

The Commitments

CHICAGO FIRMS REPORT PROGRESS TOWARD AIA 2030 COMMITMENT

The AIA 2030 Commitment, now in its fourth year, is intended to reduce the carbon footprint of buildings. Chicago architecture firms that voluntarily reported their performance data showed continuing improvement in savings on their projects.

Chicago firms that submitted their performance results reported an average 37.4 percent reduction in predicted energy use intensity (PEUI) for buildings under way in 2012, compared to 2004 baseline buildings. For interior-only projects, reported reductions in lighting power density (LPD) remained relatively level, averaging about 17 percent better than code-required amounts.

With these substantive reductions and local reporting, Chicago architects continue to lead the carbon reduction initiative beyond the national effort. The results were compiled by the Chicago 2030 Working Group—managers of the 2030 Commitment efforts of AIA Chicago—which collects, analyzes and reports the data of firms with offices in Chicago that voluntarily submit their performance results. Of a total of 33 Chicago

signatories, 17 firms varying in size and specialty reported their data to the Working Group, up from six in 2009.

All firms track whole-building PEUI of their designed buildings by using a national reporting tool, a device developed by AIA Chicago members. Although some projects do not incorporate energy modeling during design, they can receive credit toward the targets by simply reporting the improved energy code applied, as the Commitment goals are measured from the baseline code of its origin in 2004. For example, projects designed to ASHRAE 90.1-2007 obtain a 25 percent reduction, while projects meeting the current ASHRAE 90.1-2010 standard achieve a 40 percent reduction. Factors that determine a reduction percentage are building typology, gross square footage, as well as PEUI, LPD or measurement against the applicable energy code.

Currently, firms signed onto the goals of the AIA 2030 Commitment strive to achieve a 60 percent reduction in PEUI compared to a 2004 benchmark for all of their projects.

These performance goals continually increase in efficiency by 10 percent every five years, with the ultimate goal of creating buildings with zero greenhouse emissions by 2030. Interior-only projects have a separate goal: currently, to achieve a 25 percent reduction in LPD, ramping up to a 50 percent reduction by 2030. These objectives are not independent ideas, as they are embodied within the federal building guidelines, as well as in future building energy code development processes. Many municipal governments have also developed greenhouse gas objectives that correspond directly to the initiative's targets.

This growing national initiative focuses on the energy performance embodied in the design of buildings. Many firms, beyond those reporting, have begun to incorporate the goals of this initiative into their design processes, as it provides a framework of simple metrics and a standardized reporting format. It also assists firms in evaluating the impact of their design decisions at many levels:

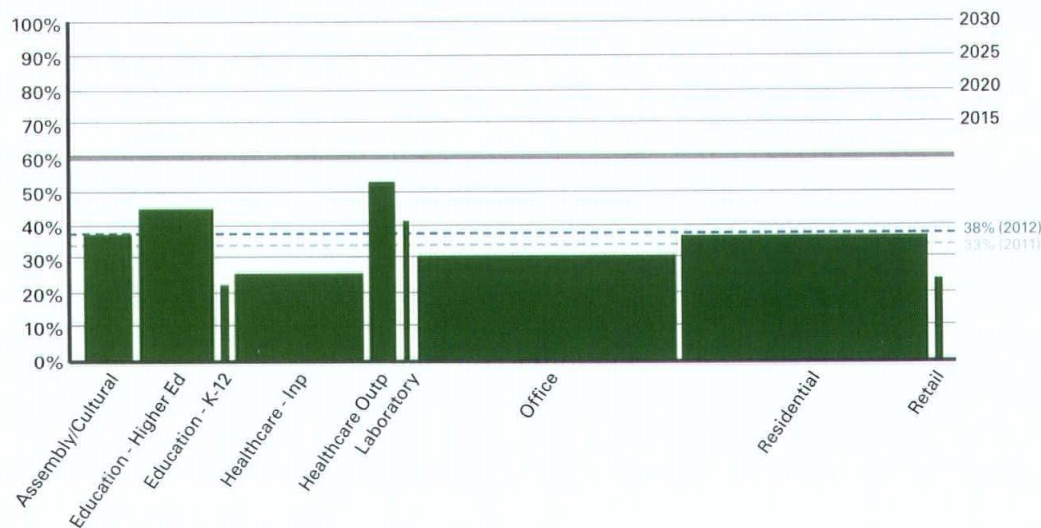
- At an individual project, by measuring energy and lighting performance;
- By a firm scale, analyzing the performance throughout their full body of work over a year-long period; and
- Across the profession, as we collectively strive to meet the AIA 2030 Commitment goals.

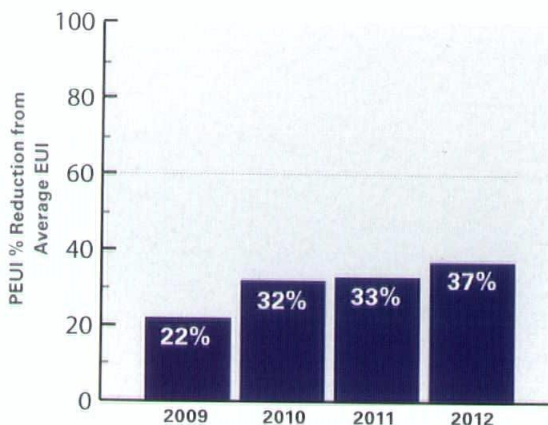
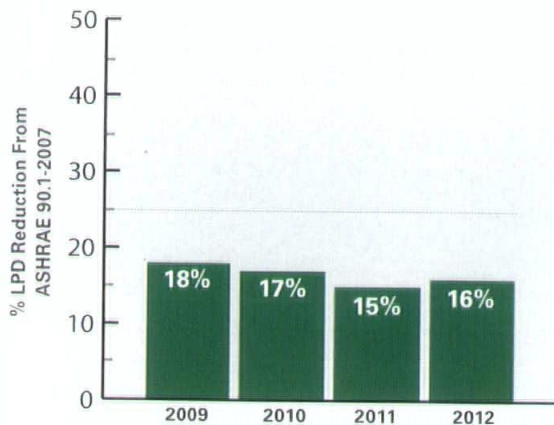
Nate Kipnis, AIA, principal of Kipnis Architecture + Planning, explained that his firm is interested in pursuing the goals of the 2030 Commitment “because it provides us with an understandable benchmark for our work to follow. It also gives us a clear target to discuss with clients.”

Firms are sharing how they incorporate these goals. Larger, multioffice organizations often use in-house sustainability experts to complete their reporting and share the results internally. This increases firm-wide awareness and inspires friendly competition among project teams. Gail Borthwick, AIA, a design director at Gensler's Chicago office, notes, “We assign a sustainability champion to

**AIA Chicago Participating Offices
2012 Predicted EUI Reduction by Building Sector**

width of bar represents relative project work in GSF





follow project energy goals throughout the design process to keep them on track. We are beginning to really analyze that data; for example, what project types are meeting or exceeding their goals.”

Several mid- to small-sized firms request their engineering consultants to provide a summary sheet or to directly input data into the AIA 2030 reporting tool. This workflow process streamlines the input procedures for the yearly firm reporting. It also increases awareness across multi-disciplinary project teams. Ideally, all projects include energy

modeling and utilize the 2030 goals as part of the design process from the beginning of the project. By embedding these aspects into each design, firms of all sizes can contribute toward the goals of the Commitment.

While Chicago firms are not collectively meeting the current 2030 Commitment targets, they have made great strides in a relatively short amount of time. Within AIA Chicago there is a coalition of members who support firms undertaking the Commitment, known as the Chicago 2030 Working Group. This group holds monthly meetings and

presents seminars to educate those interested in joining the initiative, as well as those striving to improve their results. For additional information, visit www.aiachicago.org/2030. > **Susan Heinking, AIA, Matthew Herman, AIA, and Steve Kismohr, AIA**

Susan Heinking, AIA, is sustainability leader at VOA Associates Inc. Matthew Herman, Assoc. AIA, is office director at Buro Happold. Steve Kismohr, AIA, is senior technical manager at the Midwest Energy Efficiency Alliance.

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CHAPTER REPORTS

AIA Chicago's Third Annual Small Project Awards

AIA Chicago and its Small Practitioners Group hosted the third annual Small Project Awards ceremony and reception May 3 at Architectural Artifacts in Chicago's Ravenswood neighborhood. The awards program honors the best work from firms with nine or fewer licensed architects and/or architectural interns and seeks to raise public awareness of the value that architects bring to small projects.

"Big ideas and transformational spaces come from creative people, and those people are at firms small and large," says Zurich Esposito, executive vice president of AIA Chicago. "The Small Project Awards reward that innovative thinking that works on a smaller scale."

More than 300 participants packed the party, where award submissions were exhibited, beer courtesy of Revolution Brewing was imbibed and one of this year's jurors, Greg Metz, AIA, emceed the awarding of five Honor Awards and 10 Citations of Merit. The award-winning projects—as well as all the submissions—can be viewed online at www.aiachicago.org/spa.

Submissions for next year's awards will begin in February 2014.

The Latest on AIA Repositioning

Announced during the AIA Grassroots conference in March, AIA Repositioning is an initiative meant to refocus the mission of the organization and reaffirm its value to members and the greater public.

The initiative is the result of a year's worth of findings—more than 30,000 survey responses from AIA members—from consultants LaPlaca Cohen and Pentagram. With feedback in hand, the consultants have charged the organization with becoming "a true visionary member organization" and "shifting our perspective from 'what was' to 'what could be.'"

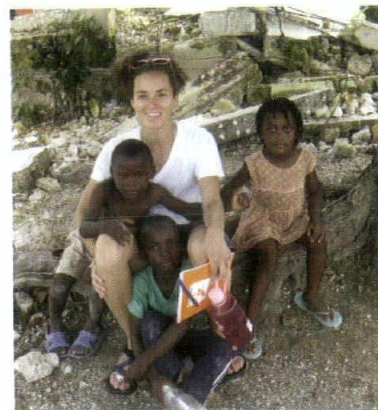
Over the course of the next few months, AIA National will be introducing a series of measures to implement and strengthen the renewed focus of AIA. From an Innovation Fund for sharing best practices across components to an audit of all national and local communications, Repositioning is about prioritizing the goals of the organization and placing the emphasis on the member and her or his capacity to enact lasting and meaningful change to society through design.

For more, see www.aia.org/repositioning.

AIA Chicago Heads to Denver for Convention

With AIA's National Convention headed to Chicago in 2014, a contingent of AIA Chicago staff and members were in Denver for this year's event, specifically to promote the works of the chapter and the city. Sharing a promotional booth with the tourist-oriented organization Choose Chicago, AIA Chicago highlighted potential tours of the city's neighborhoods, the upcoming publication of the latest edition of the *AIA Guide to Chicago* (to be released in time for next year's event), and built excitement for the coming convention.

Owing to its architectural prowess and cultural heft, Chicago is one of the more highly anticipated host cities for the annual convention. The 2014 AIA National Convention will take place June 26-28, 2014. Stay tuned for more details from AIA Chicago and AIA National soon.



Holloway, seen here in 2010, working with All Hands in Leogane, Haiti.

2013 Roche Scholar to Study in South Africa and Zambia

Taylor Holloway, a graduate student at the University of Illinois at Chicago College of Architecture and the Arts, has been awarded the 2013 Martin Roche Travel Scholarship by the AIA Chicago Foundation.

Established in 1926, the Roche Travel Scholarship provides a Chicago architecture student with a \$5,000 grant to complete an overseas independent study of a relevant architectural subject.

With the scholarship, Holloway will be traveling to South Africa and Zambia, with a focus on bringing public interest design—a movement based on incorporating environmental, economic and socially conscious principles to architecture—to "provide architectural services to people that have not previously had access to them, and often cannot afford them," she states.

Holloway intends to use her travels as a means to define a metric capable of measuring the success of public interest design initiatives for empowering developing communities. Her goal, she writes, is "to find a method for assessing how public interest design can, when successful, provide long-term civic and infrastructural development."

The Martin Roche Travel Scholarship is administered and chosen by the board of the AIA Chicago Foundation, AIA Chicago's not-for-profit charitable arm dedicated to supporting activities that promote the profession and the larger architecture and design community. Selection is based on individual merit as evidenced by strength and relevance of independent study plan, faculty recommendation, academic background, personal and professional achievement, and general indication of future promise in the profession.

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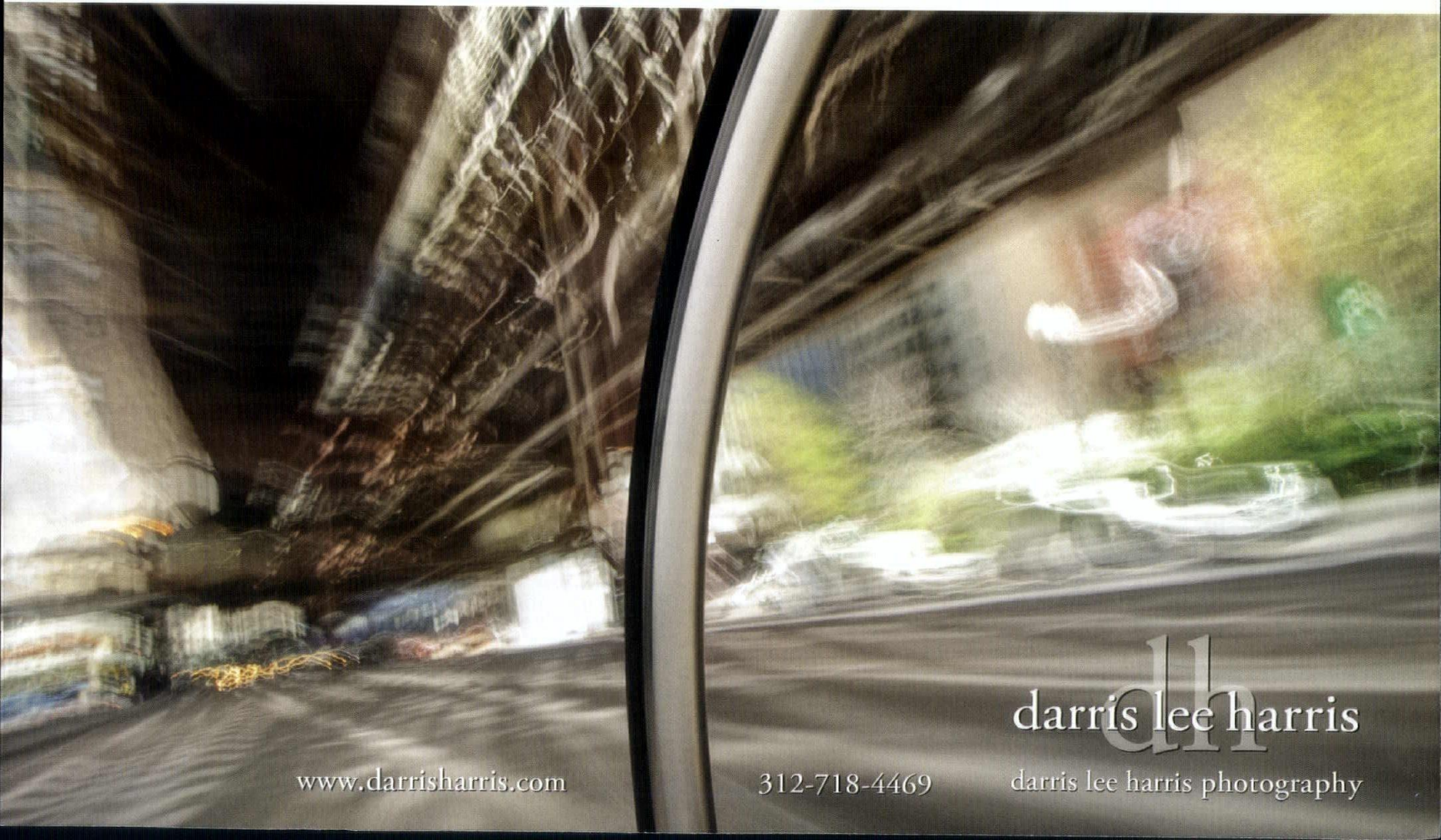
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Harley Ellis Devereaux's Life Enhancement Studio,

which specializes in the design of senior living environments, completed a pair of projects in the Chicago area:

> The Chicagoland Methodist Senior Services building on the North Side was renovated to both bring the building up to existing code and reposition its brand. Enhancements included a new steel canopy system to guide visitors to the entrance and new masonry for the exterior cladding. The masonry serves to hide a new generator and define the limits of a new terrace.

> The Lakefront Residences of Grayslake offers 70 affordable senior living units with views of nearby Grays Lake. HED and developer Mercy Housing Lakefront included numerous amenities to encourage active, community-centered lifestyles such as an outdoor walking trail and terrace, great room with a fireplace and kitchen, fitness center and library with computers. Green features include geothermal heating and cooling, extensive rain gardens and reclaimed wood from a 100-year-old oak tree on the grounds.

> HED also commenced work on a new 200-occupant veterans' home on the Northwest Side that will offer licensed care and community living for Illinois veterans.

A model of a house project by Stuart Cohen,

FAIA, principal at Cohen & Hacker Architects, has joined the permanent collection of the Architecture and Design Gallery at the Art Institute of Chicago. The original project, titled "Kindergarten Chats," was created in 1977; the title was derived from a series of articles addressed to apprentice architects.



Mindy Viamontes, Assoc. AIA,

has joined the staff of exp as project architect. Viamontes previously served eight years at Muller+Muller Ltd., most recently as a project architect.



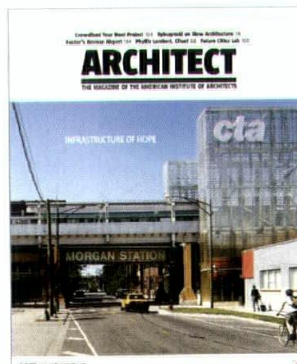
Stephen Rankin Associates

oversaw master planning, design, construction documentation and contract administration for the recently completed interior renovation of the Ruth M. Rothstein Core Center in the medical district on the Near West Side. The project focused on increasing the capacity of the center's dental program, improving the functionality of reception and clinic spaces, and adding a new shipping/receiving room.

The Core Center originally opened in 1998 as a joint venture between Cook County Hospital and Rush University Medical Center.

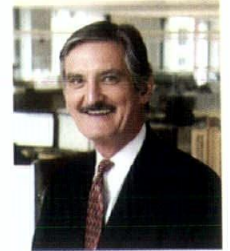
Studio IDE Architects has rebranded

itself as SIDE architecture. The firm was recognized for three 2013 AIA Chicago Small Project Awards under the new identity.



Ross Barney Architects' Morgan Street CTA station

project was featured on the cover of the April issue of *Architect*, the magazine of the American Institute of Architects. The Morgan Street station was one of four projects from around the world highlighted in the issue.



Raymond Clark, AIA, LEED AP, joined HOK

as senior vice president and management principal. Clark has 35 years of experience in the Chicago architectural community — he previously served as managing director at Perkins+Will's Chicago office, and he began his career at Skidmore, Owings & Merrill.

"Ray is a proven leader in the design profession with a focus on integrating architecture and engineering solutions to create high-performance buildings," said Patrick MacLeamy, FAIA, LEED AP, HOK's chairman and chief executive officer. "He has deep roots in Chicago and will make a significant impact on our robust practice here."



Adrian Smith, FAIA



Jeanne Gang, FAIA

Two prominent Chicago architects received

honorary doctorate degrees in May:

> Adrian Smith, FAIA, principal at Adrian Smith + Gordon Gill Architecture, was awarded an honorary doctorate of letters by the Texas A&M University System Board of Regents at the school's commencement ceremony in May. Smith studied architecture for four years at Texas A&M before finishing his degree at UIC. He also received a Texas A&M University School of Architecture Outstanding Alumni Award in 2011.

> Jeanne Gang, FAIA, founder and principal at Studio Gang Architects, received an honorary doctorate degree from the School of the Art Institute of Chicago at the school's May commencement ceremony at Jay Pritzker Pavilion in Millennium Park. Separately, Studio Gang Architects was selected as the 2013 National Design Award winner in the Architecture Design category by the Smithsonian's Cooper-Hewitt National Design Museum in May. All award winners will be recognized at a dinner in New York on Oct. 17.

Krueck + Sexton was one of five firms selected

by the U.S. State Department to lead the renovation and rehabilitation of U.S. embassies around the world. The firm was one of nine finalists nominated by the Bureau of Overseas Building Operations under the bureau's new Design Excellence Initiative. According to the State Department, each of the chosen firms "demonstrates a history of respecting the original character and significance of buildings and structures, and responds accordingly with innovative and efficient solutions that enhance the existing architecture."

archi-treasures was the 2013 recipient of the AIA Illinois President's Award. The award recognizes organizations that have significantly advanced the principles of livable communities and has promoted the understanding, appreciation and progress of the profession of architecture. Since 1996, archi-treasures has completed more than 120 projects through participatory design in 22 of Chicago's most underserved communities.

4240 Architecture celebrated 10 years

of being part of the Chicago architecture community in 2013, culminating with an open house at its West Loop offices in May. The firm has also had several projects recognized for excellence in 2013, including the Mies van der Rohe Honor Award from AIA Illinois for its design of a West Loop law firm and a RED Award (see separate item on firms that won awards from Illinois IIDA).

Jeremy Mickler, AIA, was promoted to associate at Sheehan Partners Ltd., which also brought on three new hires—Nina Cherian; Andy Lietz, LEED AP; and Burke Welever—to bring the total staff to 23.



Jeremy Mickler, AIA



Nina Cherian



Andy Lietz, LEED AP



Burke Welever



Saint John's on the Lake



Chicago Federal Center

Two Chicago architecture firms were honored

in the first annual Recognizing Exemplary Design (RED) Awards program from the Illinois chapter of the International Interior Design Association:

- > Perkins Eastman took top honors in the Select Healthcare Assisted Living/Residential category for the new 21-story senior residence at Saint John's on the Lake in Milwaukee.
- > 4240 Architecture's renovation of the Chicago Federal Center was awarded Best of Show and Premier honors in the Government/Municipal/Cultural category.



SmithGroupJJR's latest project,

the new Jump Trading Simulation and Education Center at the University of Illinois College of Medicine at Peoria, officially opened its doors in late April. SmithGroupJJR was responsible for the design of the \$51-million, 177,450-square-foot facility, which seeks to improve patient care through enhanced virtual simulation training for medical professionals.

Training facilities will be located on the bottom two floors of the six-story structure. The first floor will be home to the education center, which includes a 250-seat auditorium, 75-seat lecture hall and small meeting spaces. Also on this floor are an anatomical training lab, innovation lab and a virtual reality center and skills lab. Second floor space includes a virtual patient care unit, virtual intensive care unit and virtual surgery suite. The top four floors will house medical office space.



Steve Blye, AIA, LEED AP BD+C,

has joined Legat Architects as associate director of healthcare and senior design director.

HDR was ranked the No. 1

healthcare design and construction firm in *Modern Healthcare's* 2013 Design & Construction survey, released in March. It marks the 10th straight year that HDR has held the top spot, this year out of 169 companies.

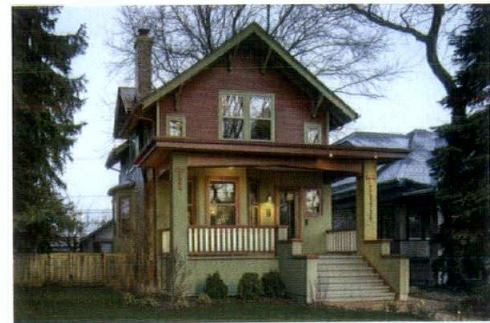
All images are courtesy of the firm, unless otherwise noted. LEED AP status is indicated only if reported by the firm.

Mark A. Schwamel, AIA, LEED AP,

project manager at Gensler, and Thomas Hussey, AIA, associate director at SOM, were recently named to *Building Design+Construction's* "40 Under 40" Class of 2013. The list recognizes the next generation of leaders in the architectural, engineering and construction industries, chosen based on career achievement, service to their professions and communities, and active participation in charitable work.

Liska Architects was honored

with a 2013 Chicago Landmark Award for Preservation Excellence from the Chicago Landmarks Commission for its restoration of a single-family home in the Villa historic district on the Northwest Side.



Brininstool + Lynch Architecture Design relocated

its offices to 1144 W. Washington Blvd. The new space covers three floors for a total of 7,500 square feet. Brininstool + Lynch previously did an interior renovation of the building in 2001 for another client; the firm won a Distinguished Building Honor Award and an Interior Architecture Honor Award from AIA Chicago for that project.



Dewberry's design of the new Hanover Park police headquarters

was recognized by *Engineering News-Record* as the Best Government/Public Building in the Midwest region. The \$15.9-million, 63,000-square-foot station is triple the size of the previous police headquarters and includes a crime lab, crime scene vehicle processing area, enclosed parking garage, evidence processing space, prisoner processing area, indoor firing range, offices and an emergency operations center.



Melissa Dicaire



Eric J. Mersmann, AIA



John Moorhead, AIA

Perkins+Will announced the promotion

of three senior associates to associate principal:

- > Melissa Dicaire, LEED AP ID+C
- > Eric J. Mersmann, AIA, LEED AP ID+C
- > John Moorhead, AIA, LEED AP BD+C

Perkins+Will was also honored in May with a 2013 Excellence Honor Award from the Society of College and University Planning for the Universidade Agostinho Neto's new university campus in Luanda, Angola.



The Swenson Civil Engineering Building

by Ross Barney Architects was named one of the Top 10 Green Projects of 2013 by AIA's Committee on the Environment (COTE). COTE highlighted extensive use of pervious materials and landscaping across 73 percent of the site; a green roof with native plants covering 22 percent of the roof; and advanced stormwater drainage, among other green features.



Al Fiesel, AIA, IIDA, was promoted to principal/senior project director at NELSON. The firm has also merged with H2L2, a firm with strong expertise in the academic market, and relocated its Chicago office to the second floor of the Inland Steel Building.

Perkins Eastman will oversee

master planning, programming and design on the new 94,000-square-foot health center at the Monarch's Landing senior retirement community in Naperville, which broke ground in April. The residential-household-style center will house 28 assisted living memory support residences, 48 short-term rehabilitation residences and 48 skilled-care residences. Completion is scheduled for 2014.

Jay Longo and Jennifer Park, AIA

have launched a firm, Longo Park Design Warehouse, with an office in the West Loop. Both were previously with Gensler.



Jay Longo



Jennifer Park, AIA

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Where an Obama Library Would do the Most Good

SUGGESTIONS ON HOW TO MAKE IT A TRANSFORMATIVE PLACE

By Lee Bey

It will be Chicago's most visible, talked-about and—among architecture and design firms—coveted project since Millennium Park: the future Barack H. Obama presidential library.

This assumes Chicago, and not Obama's birthplace of Hawaii, will get the library. The island state is making a play for the library—and who can blame them? Obama has retained his ties there, and his family goes to its shores (and not say, Chicago's 63rd Street or North Avenue beaches) for family vacations.

But President Ronald Reagan was born in Illinois, yet his library is in California where he made his political bones and served as governor before later taking the White House. Obama grew to political prominence in Chicago so there is good reason for the Obama library to be here.

How significant might this building be? Using the libraries of two-term Presidents Bill Clinton (\$165 million) and George W. Bush (\$250 million) as rough guides, the Obama building could cost upwards of \$200 million and might well be placed in a campus-like setting—possibly a university—with a major sustainable building or land feature.

It would be designed most likely by an architecture firm with a world-class reputation. In architectural circles, U.K. and New York architect David Adjaye's name has been whispered as a prospect for Obama's library.

And those are just the physical aspects. Program-wise, the complex would likely contain major spaces for exhibition, research and archives. Expect a prominent center of some kind devoted to an interest of the president, complete with lecture halls and an auditorium. It'll be a big deal.

However, the real question involving the Obama library—at this stage, at least—isn't



The Pullman administration building towers over empty space once filled with railcar-building facilities and personnel. A presidential library could bring new vitality to the area.

over what this presumably world-class building will be, but where. And it is particularly acute in a town where development is determined by location, location, location—plus politics and clout.

So here's a suggestion: Given that Obama sought and retained his office under a platform of fairness and equity, the library's location must transcend the "business as usual" ways major projects are located in Chicago. That means rather than giving the city a big, donor-approved signature building filled with Obama-related stuff, documents and ephemera, the library should be planned

and conceived as a transformative building that could uplift and ennoble one of the many beleaguered South Side neighborhoods where Obama toiled as a community organizer and represented in the Illinois legislature.

Obama's camp, the mayor's office and the University of Chicago—which would appear to be the Obama library's chief sponsor, given the president's ties to the university and its Hyde Park neighborhood—are not commenting publicly about the library or where it could be placed. But some sites would appear to be contenders.

Given presidential libraries are often located on college campuses, the University of Chicago and Hyde Park would seem a clear frontrunner. But the neighborhood and campus are too tightly packed to squeeze in a facility of this size—at least not in the fashion that they have been built. Bush’s 225,000-square-foot library sits on 23 acres at the University of Dallas, for example. If a Hyde Park location is chosen, perhaps a model for a new type of urban presidential library—a set of midrise buildings near public transit—could emerge.

The mostly cleared former Michael Reese Hospital site at 29th and Ellis is another frontrunner. Obtained and flattened by the city for that failed bid to win the 2016 Summer Olympics, the acreage could be easily donated for the library. It sits just west of Lake Shore Drive, and the Metra and South Shore lines run next to the site, which would make a library there easily accessible.

Besides, a presidential library is a better choice for the site than a city-owned casino and more of a sure thing than a much-discussed tech park.

Developer Dan McCaffrey has been lobbying for the library to be built on the vast former USX site at 79th on the South Shore, where he is constructing a new community of homes, retail, park spaces, marinas and more. With more than 500 acres at his disposal, McCaffrey has enough land to lure the library. And placing the building in the context of a new 21st century urban lakefront community is potentially exciting. Although easily accessible by car, especially with the extension of South Shore Drive/U.S. Route 41, and located near commuter rail options, the site does not have transit running through it, which could be a drawback.

On the city’s Far South Side, some residents in the neighborhood of Pullman want the library built there. Obama’s career as an organizer has its roots there, and the vacant but historic Pullman rail car factory and administration building at 111th and Cottage Grove—a beautiful example of Victorian industrial architecture that is owned by the state—would make a fine adaptive reuse project.

The neighborhood, a former company town built in the late 19th century by railroad car manufacturer George Pullman, is under consideration to become a U.S. national park; layering in a presidential library on top of that seems like an unlikely—but good—idea.

A location not yet being considered publicly, but worth a look, is Garfield Boulevard between Martin Luther King Drive and the Chicago Transit Authority’s Green Line tracks in the Washington Park community. There are long stretches of developable city-owned vacant parcels on the north side of the boulevard and the CTA rail stop there is a good link to downtown. And the University of Chicago and its medical center are just a few blocks east.

With three years to go in his final term, Obama, his fundraising apparatus and the mayor’s office will soon have some decisions to make. Here’s hoping the right choices are made.

Lee Bey, a regular contributor to Chicago Architect, covers architecture for WBEZ radio and WBEZ.org.



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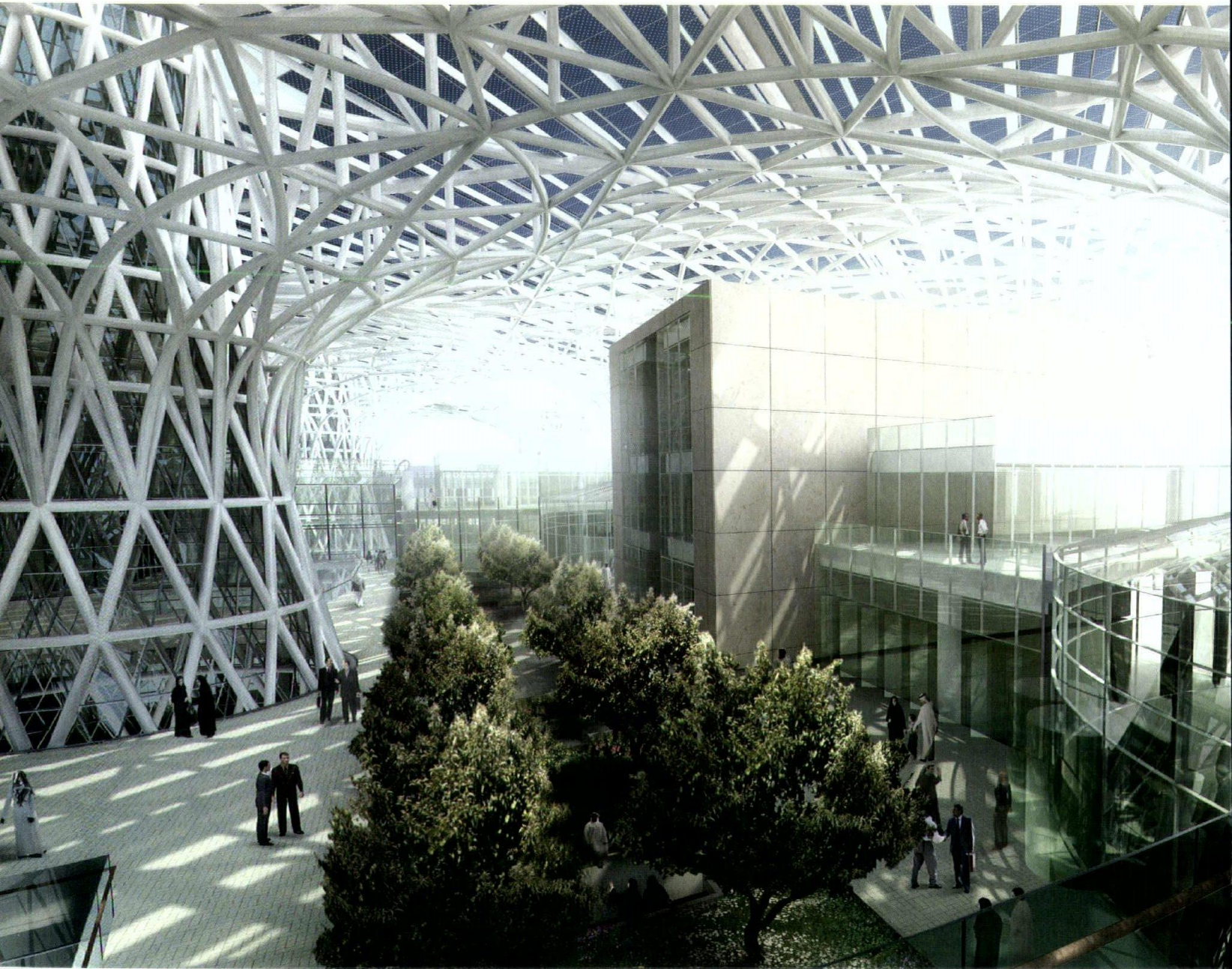


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Historic Park Inn

CHICAGO ARCHITECTS ARE BUILDING SMART PROJECTS
AT EVERY SCALE By Ben Schulman

GET SMART



Right: A six-story Art Deco jewel on Chicago's West Side has lived many lives, most recently as the transient Viceroy Hotel. The city of Chicago shuttered the structure in 2006, and Heartland Housing took possession in 2011, working with Landon Bone Baker Architects to restore and repurpose the building into Harvest Commons Apartments.

Left: As envisioned, AS+GG's Masdar Headquarters will act as an oasis in the desert, producing 103 percent of the building's annual energy needs.



Photo by David Schalliol

AS ENERGY SOURCES BECOME EVER MORE FINITE, creative fixes that smartly remedy the unsustainable—and expensive—scale of conventional building practices are increasingly in demand. Responding to this call for action, architects are drawing up solutions that mesh good design with technological prowess. Smart buildings, which combine physical, digital and performance-based infrastructures to enhance efficiency, are becoming the new standard.

Chicago architects are at the forefront of this emerging trend, designing smart buildings at every scale, such as a rehabbed transient hotel on Chicago's West Side; a single-family home in Northbrook; and designs for a seven-story, 1.4 million-square-foot, positive-energy building in Masdar City, United Arab Emirates.

Smartly Rehabbed Affordable Housing

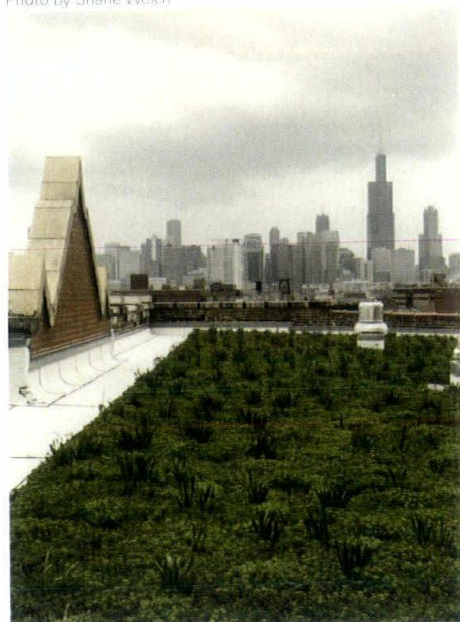
A mix of grandeur, grit and renewal is on display at the southern edge of Union Park on Chicago's West Side. The only parcel on the short block of Warren Boulevard between Ogden Avenue (to the east) and Ashland Avenue (to the west) is a striking Art Deco, six-story building. Originally built in 1929-30 as the Union Park Hotel and designed by architect Benjamin Albert Comm, the handsome building evokes Chicago's Jazz Age heyday with its façade of polychromatic terra cotta panels. Renamed the Viceroy Hotel in 1963 and converted into a transient hotel, the building fell into disrepair, eventually closed and was purchased by the city of Chicago for \$5.1 million in 2006 with the intent to maintain the city's stock of affordable housing.

The nonprofit Heartland Housing purchased the building from the city for \$1 in 2011 and re-visioned the Viceroy as Harvest Commons Apartments, featuring 89 below-market affordable housing units, and an additional 17 units of transitional housing for women recently released from prison. Heartland joined forces with Landon Bone Baker Architects to simultaneously rehab the historic structure—named a Chicago landmark in 2010—while implementing a series of zero-waste and smart features meant to soften the building's footprint.

Jeff Bone, AIA, said the balancing act required a "negotiation between the energy efficiency of green tech with a lot of the historic design ideas we meant to incorporate." Their program seamlessly marries the two. The preserved plasterwork in the ground-floor communal space and the restored luster of the wildly colored terrazzo floors in the lobby are just a few of the historic elements upheld within the rehab. These restorative touches mingle with smart technology, such as a building-wide intranet that will connect to a bank of screens that show residents the real-time energy usage of their 250- to 300-square-foot units. The building's connectivity will also allow Harvest Commons to take transit-oriented development to the next level, with a set of monitors displaying arrival times for every bus and train line that runs adjacent to the site.

The building uses National Fenestration Rating Council-rated windows with a U-factor no higher than 0.35—meaning heat will have a hard time escaping. Accentuating the green roof is an eight-panel solar thermal system for domestic hot water and a series of 12 geothermal wells 450 feet deep and used for heating and cooling. Harvest

Photo by Shane Welch



A green roof accentuates Landon Bone Baker Architects' technique of, as Jeff Bone, AIA, says, "sneaking new technology into an old frame."



Images © SmartHaus/Michael Kollman

The SmartHaus is a "21st Century Craftsman" that wraps cutting-edge technology — such as photovoltaic panels and a conditioned energy recovery ventilation system (CERV) — within a conventional suburban frame.

Commons also contains a "brain room" on the top floor, filled with monitoring equipment that keeps the building humming along. Standing atop the permeable pavement between the on-site urban farm (most of the building's former parking lot is now dedicated to farming) and the refurbished yellow face brick, Bone says the building is about "sneaking new technology into an old frame."

The rehabbed building was officially given new life with a ribbon cutting ceremony in April. "At Harvest Commons, nearly 90 Chicagoans will have a safe and green place to live and restart their lives," says Michael Goldberg, executive director of Heartland Housing. "Smart, environmentally friendly design will help those who are the most vulnerable gain stability and improve their quality of life."

A SmartHaus for Suburbia

Suburbia isn't often thought of as a cradle of sustainability. Yet Prairie View-based architect Michael Kollman, AIA, LEED AP, believes that paradigm is changing, as the culture is "in the middle of a shift. The economy forced everyone to look at how they build buildings and how they consume, too."

Kollman's SmartHaus model, inspired by the old Sears Homes, uses energy efficiency and smart technology as part of a cost-efficient template to design the home of the future. "The aesthetics of each home might be different, but there's a proven formula to what we do," Kollman says. He has designed what he calls "a 21st century Craftsman," a four-bedroom, 2,500-square-foot home due to be completed in late 2013/early 2014 in suburban Northbrook.

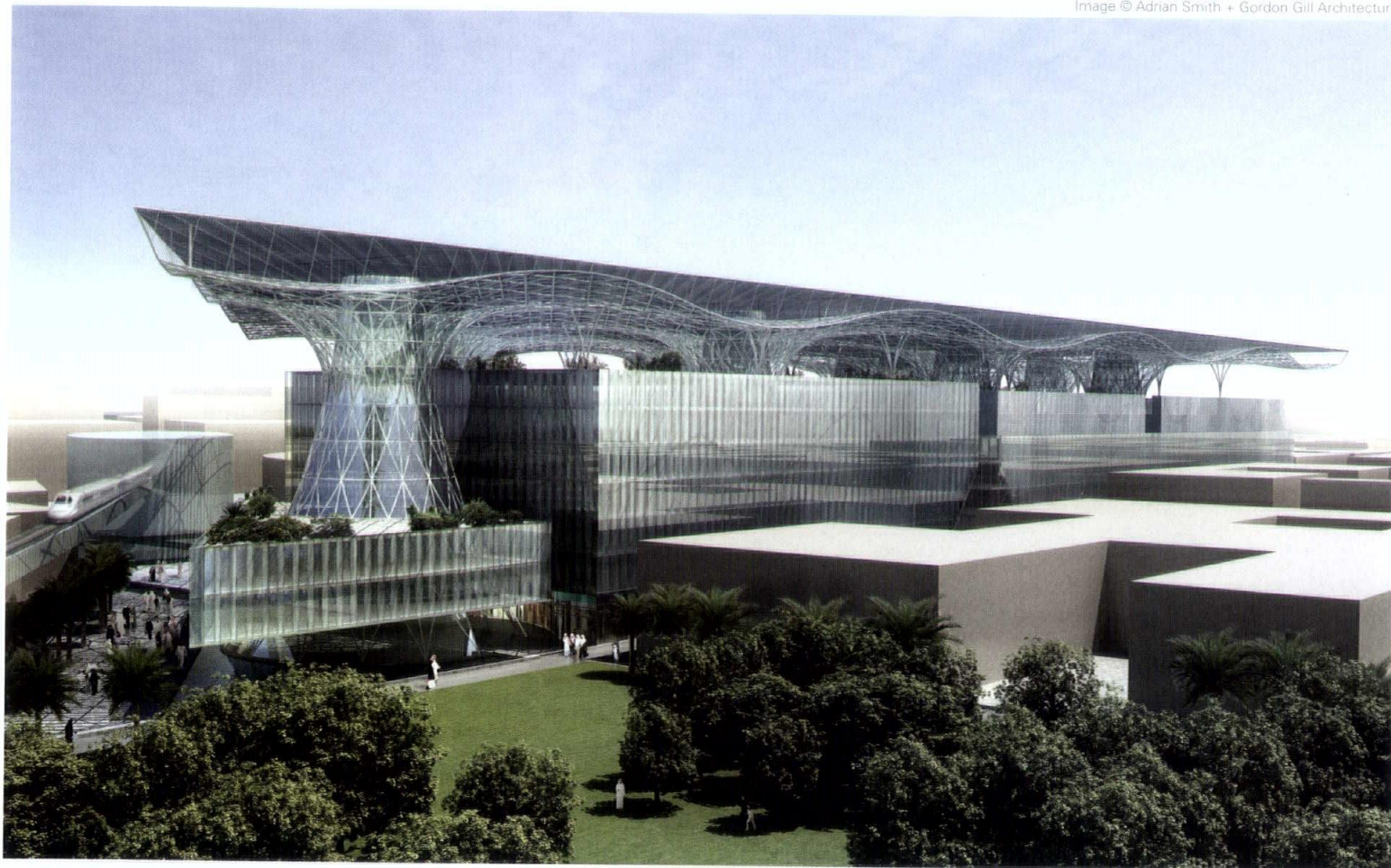
The design begins with a "super-insulated and super-tight envelope," Kollman says, which allows the homeowner to save on

mechanicals in comparison to conventional suburban homes. It takes advantage of the site's east-west orientation by incorporating passive solar design techniques. The home is outfitted with bamboo floorings, LED lighting throughout, recycled drywall, no-VOC paints and a conditioned energy recovery ventilation system—or CERV—to monitor and manage the home's air quality.

CERV is a product from Urbana engineering firm Building Equinox, which homeowner Aaron Stash says "will not only circulate air throughout our home, but will monitor CO₂, H₂O and VOCs in the air and continuously exhaust and mix outside air in order to maintain desirable indoor air quality." The CERV system is sensitive to indoor and outdoor temperature and humidity, and can automatically intuit when to open or close the filtered ventilation system.

The home is also equipped with an energy management system that will allow Stash, his wife and two children to see where they are using the most energy and remotely monitor the home. "If you've got an iPhone or iPad, you can use this technology," Kollman says. "The ubiquity of technology makes being smart second nature."

The Northbrook SmartHaus has been preliminarily awarded a LEED Platinum rating from the U.S. Green Building Council, and Kollman estimates that when complete, the house will use 60 percent less energy than a conventional home. "Green homes already have a focus on comfort, air quality and energy efficiency, but they don't always have advanced monitoring and controls," explains Jason La Fleur, a third-party green verifier and rater. "As technology improves and becomes more affordable, we see more design teams using smart home technology to help control and deliver the benefits that homeowners have come to expect from a new green home."



Plans for the development of the 1.4-million square-foot, mixed-use building may be in a holding pattern, but AS+GG's systems-wide strategy for implementing energy-efficient capacities into large-scale buildings are models that can be applied to a variety of projects.

A Smart Oasis in Masdar City

Gordon Gill, FAIA, of Adrian Smith + Gordon Gill Architecture (AS+GG) wants to talk about relationships. "Just as my ability to work on this desk is directly related to the light above me, we know there are deep relationships between the systems that make a building work," Gill says.

It's an approach used in the plans for Masdar Headquarters, the winning entry in an international competition for one of the premier sites in the zero-waste desert city that was master planned by Foster + Partners. Although development of the 1.4 million-square-foot, seven-story mixed-use building is currently in a holding pattern, the plans reveal a holistic, systems-wide strategy that is both site-specific and applicable for smart buildings everywhere.

AS+GG is creating data-driven models that can analyze and interpret the systems within a building, and incorporate those measurements into the design. "We can look at a vernacular building design in response to particular conditions anywhere in the world, and assess results of scenarios and make [design] decisions," says Peter Kindle, AIA, ASLA, director of urban design at AS+GG.

Looking to the idea of an oasis—a "natural, harmonious system in the desert," says Gill—as inspiration, AS+GG set out to integrate the

ancient vernacular of sun-shading Arabic architecture specific to a desert site like Masdar, with the latest advances in universal sustainable technologies. Masdar Headquarters is equipped with on-site greywater recycling and rainwater collection/treatment networks; geothermal cooling systems; and a sawtooth façade of high-thermal-mass exterior glass cladding to mitigate solar heat gain while maximizing natural light. The defining design feature of the building is the 11 wind cones intended to provide natural ventilation and cooling, leading up to communal rooftop gardens with indigenous fruit trees and other vegetation. The gardens will rest underneath the roof's massive photovoltaic arrays, which are expected to produce 103 percent of the building's annual energy needs.

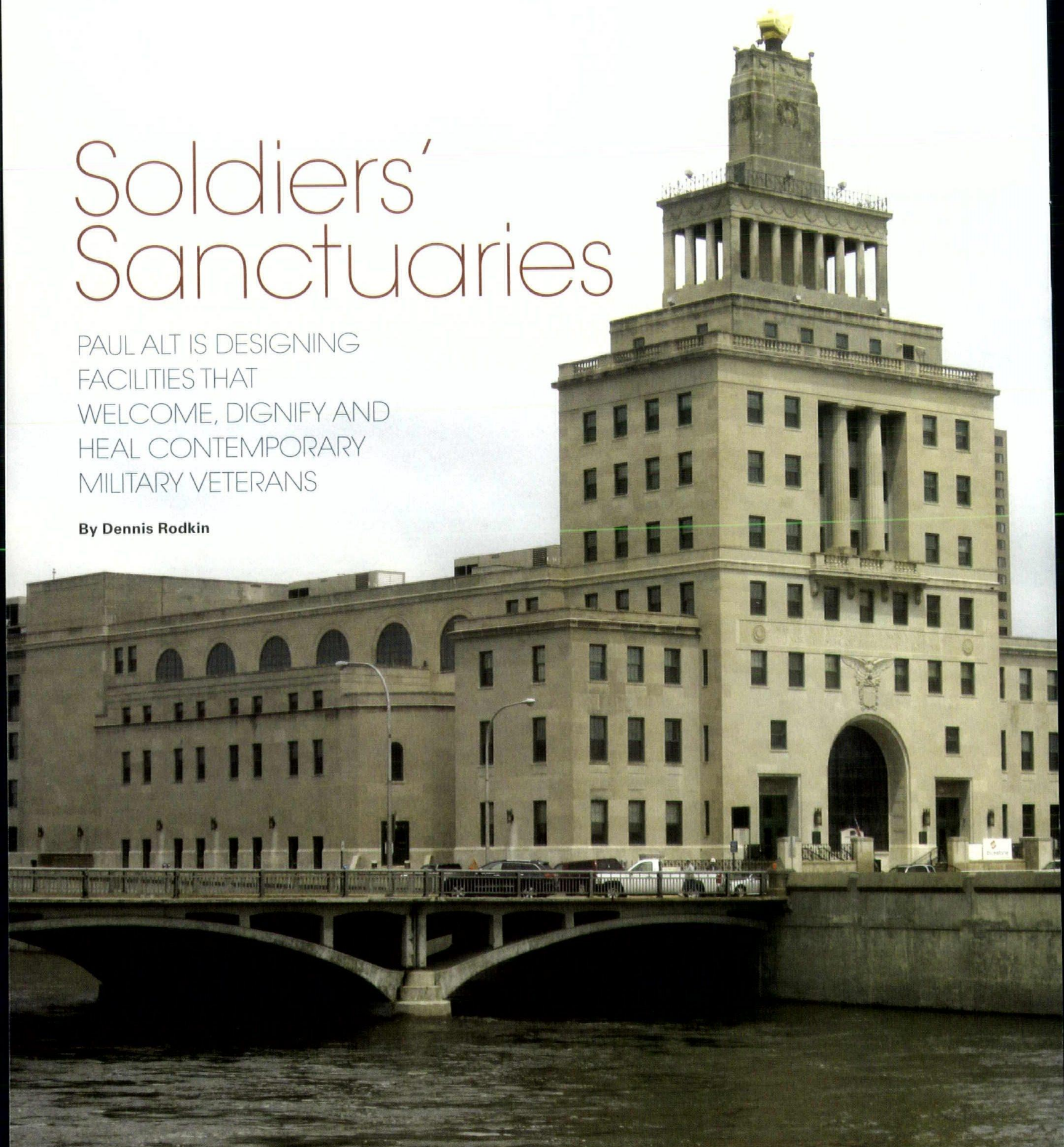
Even if Masdar Headquarters remains as a plan only, its balance of form and technology offers lessons that can be applied on a scale as small as a single building and as large as an entire city. "If stage one was just developing the right model for the building, stage two is to scale it up so it's not just about measuring the system within one building, but many buildings," Kindle says. It's about smart buildings and smart building.

Essentially, Gill says, it all boils down to "measuring performance while maintaining the beauty of architecture." **CA**

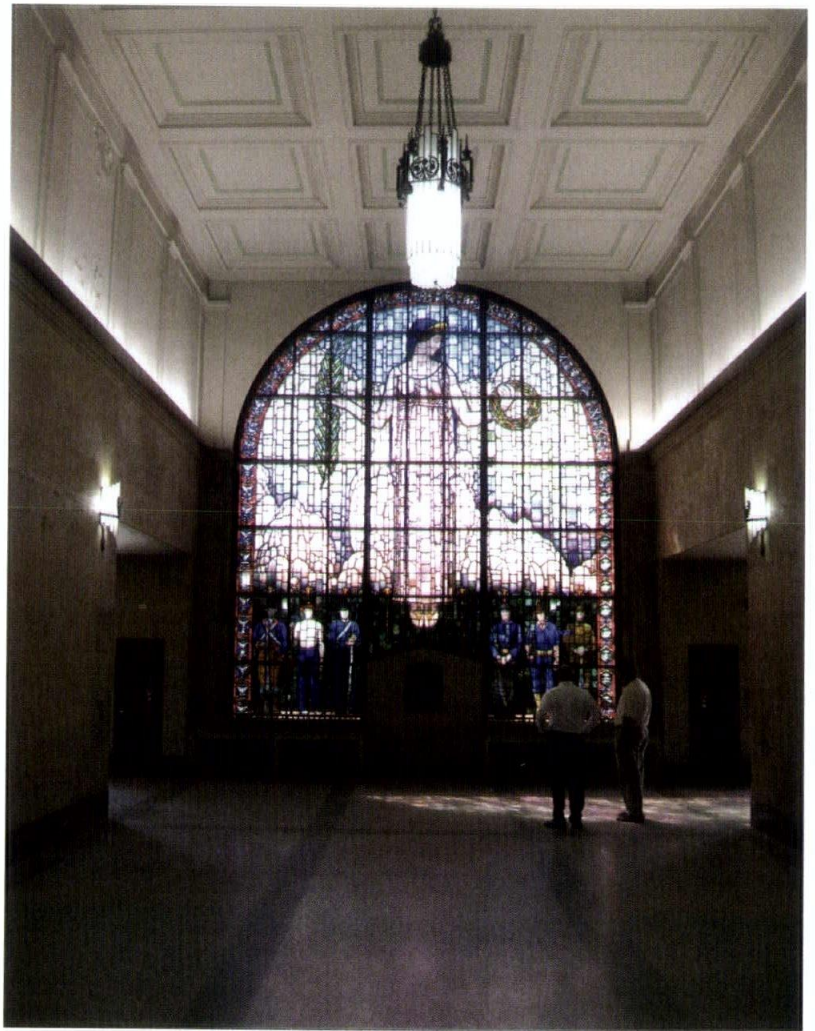
Soldiers' Sanctuaries

PAUL ALT IS DESIGNING FACILITIES THAT WELCOME, DIGNIFY AND HEAL CONTEMPORARY MILITARY VETERANS

By Dennis Rodkin



A monumental work of stained glass (right) by the artist Grant Wood, who lived and worked in Cedar Rapids, sets a tone of nobility for the city's veteran's memorial building (left), which was built on an island in the downtown center and later filled up with municipal offices.



JUST AS WARFARE IS VERY DIFFERENT IN THE 21ST CENTURY THAN IT WAS DURING THE WARS OF THE 20TH CENTURY, the veterans who return from modern wars have vastly different scars and needs than their predecessors who fought in those earlier conflicts.

Chicago architect Paul Alt, AIA, has been on the front lines of the effort to create spaces that meet these needs, with a series of projects around the country whose aim is to welcome and support people who often feel unwelcome and unsupported in civilian society.

He calls the projects Healing Sanctuaries. "We're creating military-embracing environments for the healing of post-traumatic stress disorder, brain injury and major depression," says Alt, principal of Alt Architecture + Research Associates. In a facility that might combine educational and vocational support, counseling, historical exhibits about warriors' service and other activities that promote veterans' better integration into their communities, "architecture is a tool for creating a narrative that interlinks the parts," he says.

The firm has projects in various stages of completion, planning and negotiation. Two in particular, in Iowa and Texas, demonstrate

how a past era's sometimes alienating narrative about veterans is being displaced by a more restorative contemporary approach.

The Veterans Memorial Building in Cedar Rapids, Iowa, is a monumental facility on an island in the Cedar River. Completed in the late 1920s, it was part of a tradition of grand veterans halls: part museum, part social space and crowned with a cenotaph honoring unidentified war dead that can be seen from many corners of the small city. But the facility had become little more than a big, dusty relic by the early years of this century. Some municipal departments had taken space there, and "the only reason most people in town knew about it was they went there to pay their parking tickets," Alt says. The local veterans commission "was operating about 2,000 square feet of meeting space in this 110,000-square-foot building," recalls Mike Jager, executive director of the Veterans Memorial Commission of Cedar Rapids.

In 2008, floodwaters filled the building's lower three floors, setting in motion a process that ultimately returned the entire building to veterans' uses, and a re-thinking of what those should be. "We were at a crossroads," Jager says. "Rather than just moving back in and doing the same old tired thing, we took the opportunity to rediscover the original intent from the 1920s," which



An armory on the mezzanine level, a conference center and a restaurant are components of the repurposed Veterans Memorial Building in Cedar Rapids, Iowa.



was to be a gathering place where the community of veterans and their families and friends “could sort of make sense of their past experiences by their present associations. Give them the opportunity to heal informally and get on with their lives.”

Repurposed, restored at a cost of \$17.5 million and opening this year, the veterans memorial will have a combination of large memorial rooms and smaller spaces where counseling, substance abuse meetings and Great Books discussions can go on. “It becomes a space where you can bring your grandchildren and help them learn what you [fought for],” Alt says. “And you can come to be among people who have had your experiences, who understand what you’ve been through and want to help you go forward.”

Everything from behavioral health counseling to performance pieces designed expressly for an audience with military experience will have space. “Culture and music and counseling and the architecture all become part of the healing,” Alt says.

Jager believes firmly in the ennobling power of such features as intricate terrazzo floors, plaster walls and the stunning stained-glass depiction of an angel accompanying soldiers from various wars—24 feet high and designed by the great Iowa-born artist Grant Wood. “If you walk into the stereotypical American Legion or VFW hall and it’s a dimly lit place with a couple of beer signs and a couple of old pictures on the wall, it’s not really any different from any other corner bar,” he says. “But when you walk into an environment that is uplifting and inspiring and you’ve been [given] a sense of ownership, you will begin to live up to those expectations.”

The facility is supported by a taxing commission—numerous veterans memorial buildings and stadiums are funded that way in Iowa, Jager says—but the aim in repurposing it is to create a revenue stream as well. There’s a kitchen that can serve 500, and an auditorium of that capacity and a 180-person ballroom will both be rentable for events. But there, too, Alt sees a subtle healing effect: Because the rooms are restored to their original grandeur



At Texas A&M University's San Antonio campus, Patriots Casa will contain a mix of spaces for memorial exhibitry, social gatherings, counseling and ceremonies.

and may contain memorabilia or signage commemorating veterans' service, a veteran who attends, say, a wedding in the building "will feel comfortable surrounded by an empathetic environment, not alienated." In that way, pride of place becomes a subtly therapeutic element: Though the veteran may not be hosting the event, the presence and honor of veterans pervades the space, essentially elevating any of them who are present.

In San Antonio, Alt's firm is collaborating with Kell Muñoz Architects on the nation's first stand-alone academic support building at a university. Rapidly expanding Texas A&M University-San Antonio, where at least one out of 10 students has military veteran status, is building Patriot's Casa, a 20,000-square-foot building where veterans and their families can get help moving from military service into academics, and then out to the civilian workforce.

Envisioned by a retired major general as "a center of support to keep veterans in school," Alt says, the \$5-million Patriot's Casa

pairs ceremonial and pragmatic spaces along the same lines as the Cedar Rapids project. On the ground level, visitors will enter a large lounge or lobby area and proceed into a smaller space that Alt calls a "memory area. It will contain objects that soldiers carried with them, letters and objects of memory." Beyond will be a larger ceremonial space anchored by a fireplace, with doorways out to a large lawn that will be the site of events such as graduation receptions for veterans. The second floor contains spaces for behavioral health, academic support and informal hanging out with fellow veterans.

The conceptual mix at the all-new Patriot's Casa is similar to what the Cedar Rapids veterans building got in its re-formulation. "It creates a place of hope and possibility and self-realization," Alt says. Veterans will have their space to "network for a job, have fun and entertainment, seek healing, and enjoy life. It's in a safe environment for them, a place where they know other people will understand them and what they've seen." **CA**

The image shows the interior of a church with a high, vaulted wooden ceiling. The ceiling is composed of dark wood beams and trusses, with light filtering through small openings. Below the ceiling, the walls are white with dark wood paneling. There are three windows on the left wall, each with a dark frame and multiple panes. The floor is covered with rows of wooden pews. The lighting is warm and focused on the ceiling and walls.

STATE of GRACELAND

NORTHWORKS DIGS INTO CEMETERY WORK

By Dennis Rodkin

The interior of the chapel dates only to 2007, but it's meant to evoke the building's original 1888 tone. A wood paneling detail, lost in renovations over the decades in between, was picked up and extended around the room, and on one wall becomes a columbarium. The windows are less ornate than the originals but bring in abundant daylight. On the exterior doors (right) elaborate platework suggests the stateliness of the space within.

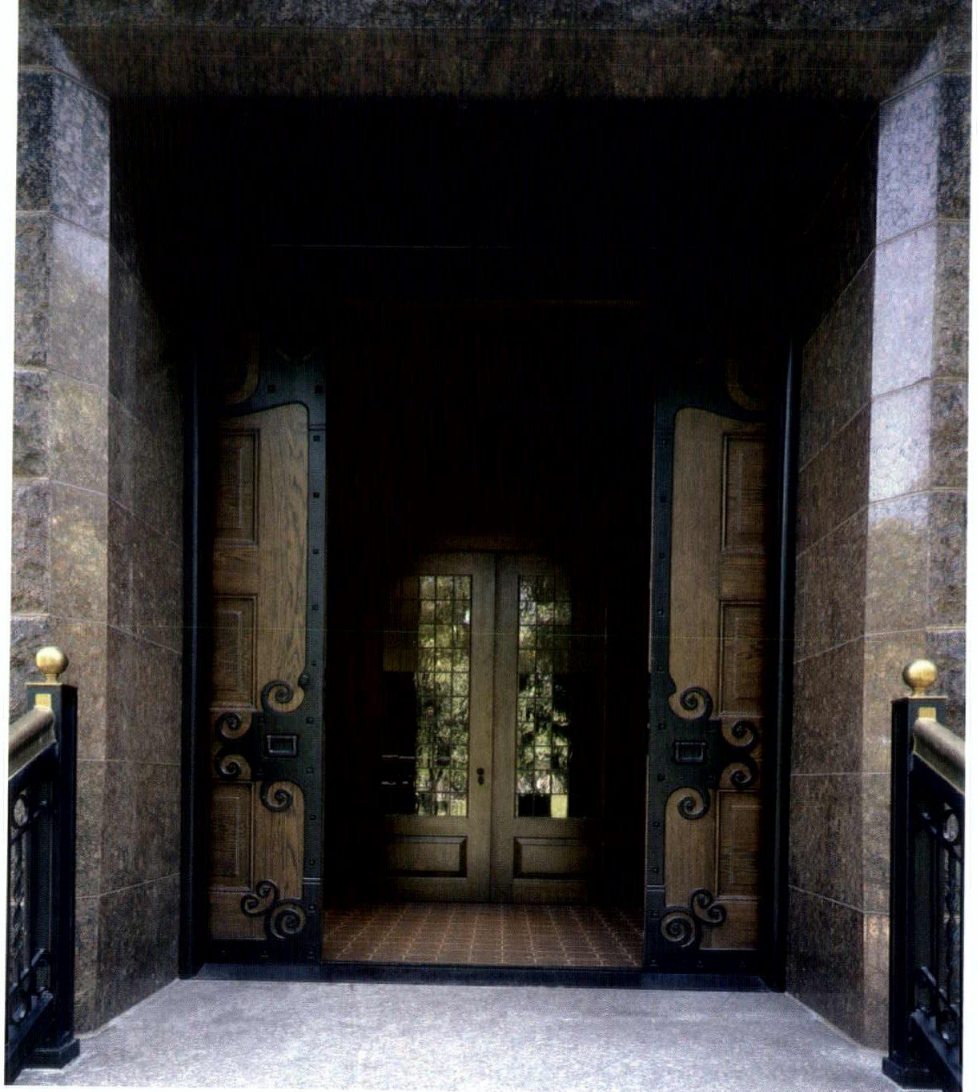


Photo by Greg Murphey, Murphey Studios

WHEN AN ARCHITECT WORKS AT GRACELAND CEMETERY, one of the city's loveliest and most historic burial grounds, many other architects look over the work. Or rather, under it.

Graceland is the final resting place of Louis Sullivan, Daniel Burnham, Ludwig Mies van der Rohe, Bruce Graham, Walter Netsch and Bruce Goff, among others. And because it's a garden cemetery dotted by stunning small pieces of architecture, Graceland is like a microcosm of Chicago itself, where the natural and built worlds come together beautifully.

For Northworks Architects and Planners, the firm that has been Graceland's architecture consultant since 2005, the storied cemetery has also been a place of innovation and problem-solving. Along with consulting on new tombstones, the firm has handled a series of projects that encompass everything from topping a stone wall with a security fence to creating a memorial to William LeBaron Jenney, father of the skyscraper.

"What [the cemetery's board] wants with each one is to continue the tradition of Graceland, a cemetery in a parklike landscape," says Northworks principal Bill Bickford, AIA. "Maintain the scale and the grandeur, respect what has been done, but introduce contemporary standards," such as ADA accessibility and resource conservation. The prime example is the work that

Northworks completed in 2007 on a chapel designed by Holabird & Roche in 1888. It had been added onto a few times and redone inside in ways that muffled the chapel's Arts & Crafts charms. The restoration—"We call it a re-creation," Bickford notes—entailed returning to the original footprint and summoning the ghosts of lost finishes, but also installing radiant heat, soy-based spray foam insulation and other green technology. At the same time, the designers incorporated new indoor columbarium space, something Graceland had not had, in the interior design of the chapel.

"There's been an energy for restoration of Graceland's historic structures for the better part of a generation," says Fred Wacker, the current president of the cemetery's board. "We know that it's a historic treasure and a repository of Chicago history—it's more than just a burial place; it has a panoply of architects and scions and builders and impacters of our city—and we're making sure that we take care of our heritage." Wacker's great-grandfather Charles Wacker, who championed Burnham and Bennett's Plan of Chicago, and his great-great-grandfather Frederick Wacker are both buried in Graceland. (Later generations were buried in Lake Forest Cemetery, another beauty.) Wacker was passed the baton by past chairman Robert Isham, who spearheaded much of the restoration program.

Northworks, too, follows in distinguished footsteps. From the early design work of landscape architects H.W.S. Cleveland and

BEFORE

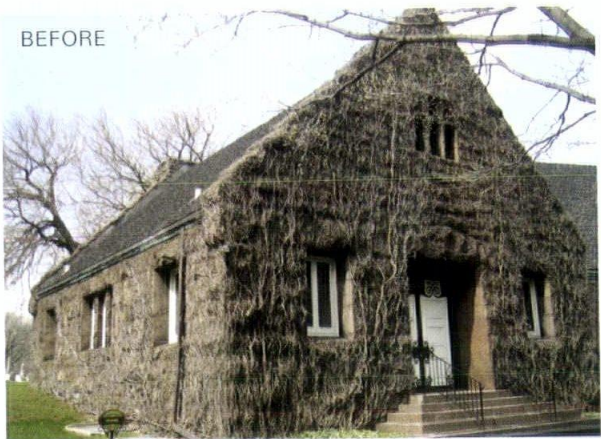
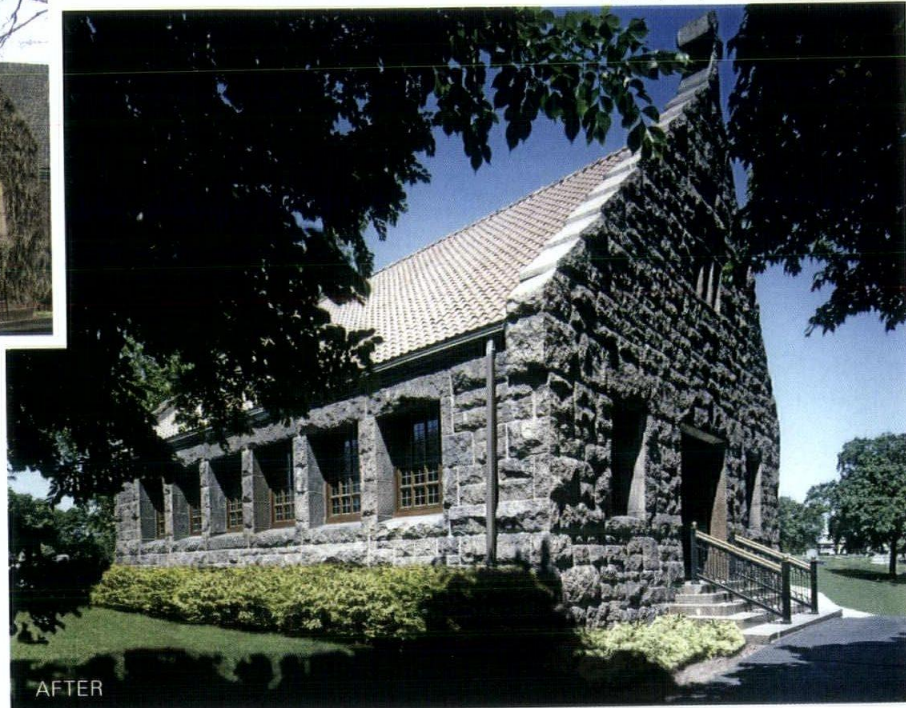


Photo by Greg Murphey, Murphey Studios

The chapel at Graceland was originally designed by Holabird & Roche in 1888; Northworks completed a restoration in 2007.



AFTER

O.C. Simonds and architect William LeBaron Jenney, through recent stints as architecture consultants by Frederick Phillips & Associates and Eifler & Associates, as well as attentive landscape design by Wolff Landscape Architecture, Graceland has been in skilled hands. And then there is the presence of so many great but departed Chicago architects. "I'm not really spiritual about this," Bickford says, "but we're working with those [architects'] legacies in a very personal way. It's not their buildings or their plans for Chicago; it's their resting place and the very specific symbolism of who they were and what they did."

Going to the Chapel

The rusticated stone exterior, clay tile roof and handsome doors of the chapel give it a look that Wacker describes as "the chapel on the hill." Additions done in the 1930s and 1950s had taken it downhill, converting the intimate chapel into a bathrooms-and-coatrooms secondary space. The expansions had been needed in their time to create space for cremations and a second chapel, but in later years Graceland stopped performing cremations on-site and managed with one smaller chapel. On top of that, the ground that the additions covered was sorely needed for new burial plots; Graceland's space for burials is more than 95 percent taken, Wacker says.

"Nothing was left of the original interior. Nothing," Bickford says. It's hard to believe, given the Arts & Crafts charm the chapel exudes now. From massive curlicue platework on the wooden doors to the poured-glass vintage look of the windows, it's all re-created elements.

That's not to say they're exact replicas. The windows, for example, are mere suggestions of the originals, which were more intricately patterned, awning-style windows. The new ones are Bendheim restoration glass that has the old-time wavy look in new frames fabricated by Grabill. Low-maintenance and with today's high standard of insulation, the windows are part of a more sustainable approach to the chapel that also extends to the skylights. Bickford notes that the original skylights were on the south slope of the roof; moving them to the north slope reduced the heat gain inside the chapel.

The rich wood paneling surrounding the chapel also meets both aesthetic and sustainability goals. It picks up a paneling detail that was on at least one wall in the original chapel, but then extends it all the way around. On one wall it becomes a columbarium, allowing for some cremated remains to be interred in the sacred space. The paneling also conceals spray foam insulation nestled against the stone walls.

Some details from the original couldn't be revived. Holabird & Roche drawings show intricate floral carvings on the pew ends, but the budget didn't accommodate that sort of flourish, Bickford says.

Demolition took down about 4,000 square feet and retained just the 1,500-square-foot original building. The chapel shrank from about 180 seats in two chapels to 85 in one. "There was too much building for the current program," especially after the removal of cremation from Graceland, Bickford says. The demolitions freed up ground for 36 to 90 burials (depending on how many are in caskets and how many in cremation urns) in what's now sought-after space in a set of garden 'rooms' that Wolff created.

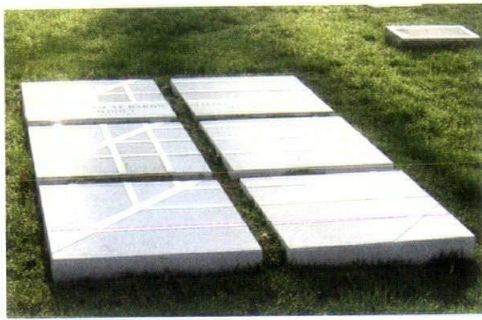
Take it to the Bridge

The great Daniel Burnham merits a prestigious spot at Graceland. The grave itself is marked by a simple stone, but perhaps fittingly for a man who called for the construction of island pleasure grounds along Chicago's shore, it rests on a pleasant little island. From its origins in 1912, the Burnham plot was reached via a rustic wooden footbridge, but that was eventually replaced by a more practical concrete slab wide enough to accommodate caskets being transported across on carts.

As no more Burnham family members are expected to be buried in the family plot, the board determined that a return to something more picturesque was in order, Bickford says. It also needed to have handrails and pitch that fit ADA requirements—and to fit into a relatively modest budget, as the bridge was being replaced at the expense of the cemetery, not a private family.

"We worked with a golf course bridge company that had built these many times and had a kit of parts we customized for the Burnham island bridge," Bickford says.



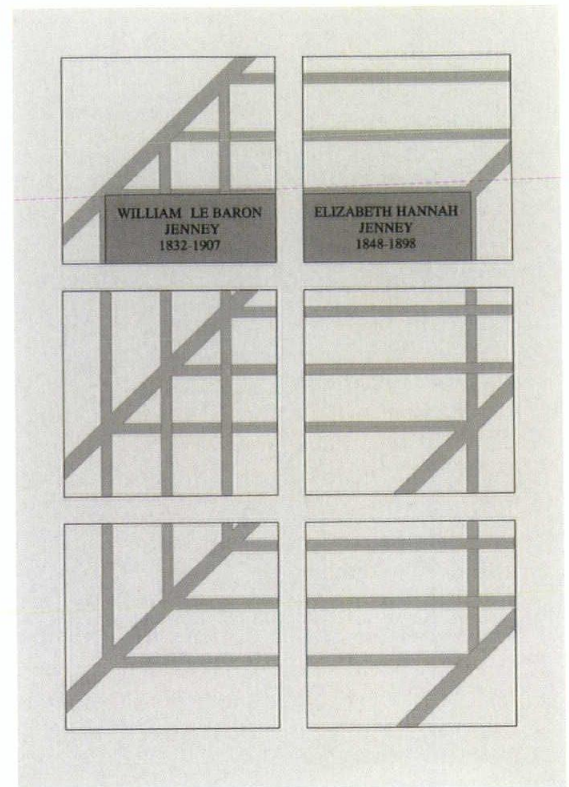


High and Mighty

It's believed that the ashes of William LeBaron Jenney, whose 1885 Home Insurance Building was the first completely steel-framed building and the original skyscraper, were scattered over the Graceland grave of his wife, Elizabeth, but there was never a stone commemorating him.

A decade or so after a competition to design a monument on the site of his wife's grave failed to present any suitable options, the Graceland board asked Northworks to come up with something. However, although the goal was to memorialize the man who made high-rise buildings possible, the monument couldn't rise any taller than eight inches, to fit in with neighboring monuments.

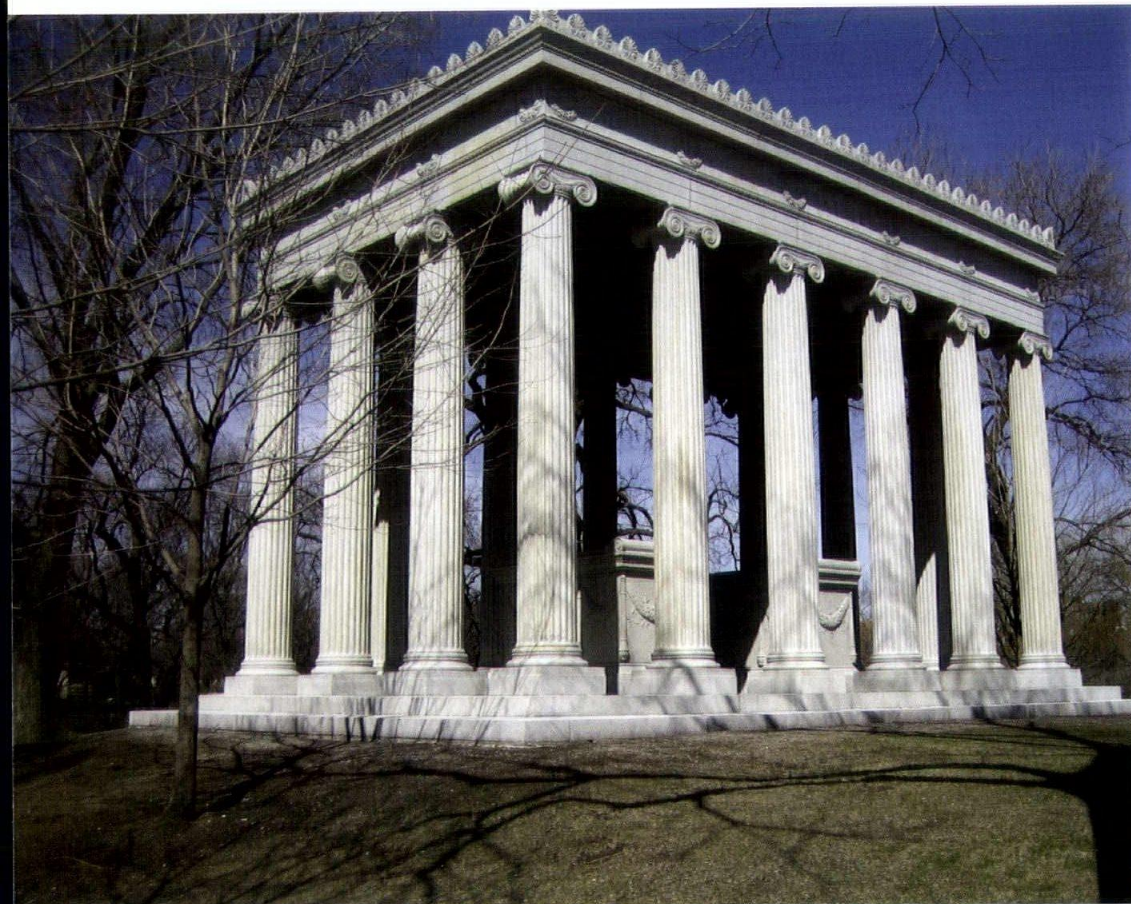
The result, devised by Bickford and Graceland trustee John Notz, was a flat granite stone whose multiple panels encompass the original Elizabeth Jenney stone and that has the outline of a steel frame emblazoned onto it. "It's the shadow of Jenney's steel frame," Bickford points out.



A Monumental Effort

One of the grandest of the monuments at Graceland, the burial place of Potter and Bertha Palmer is an open-air temple that houses two sarcophagi, all the design of McKim, Meade and White. It's among the most visited and photographed by tourists as well, but the stone was delaminating, and the risk of overhead pieces falling down was increasing over the years.

The work here was structural restoration that entailed re-sealing the stone. Bickford says the team enjoyed "working with real stone construction techniques." **CA**



Tour Graceland's architectural restoration projects with Bill Bickford at noon on Friday, July 26. Meet at the Graceland gatehouse. There is no fee, but the tour group will be limited to the first 25 people who arrive.

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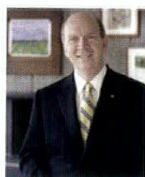
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→ KEYNOTE SPEAKERS



Tuesday, September 10

"Current and Future Trends in the AEC Industry"

Presented by: Robert Ivy, FAIA, CEO of the American Institute of Architects. Ivy served as Vice President/Editorial Director of McGraw-Hill Construction and Editor-in-Chief of *Architectural Record*. He received the 2009 G.D. Crain Award for lifetime contributions to editorial excellence in business media.



Wednesday, September 11

"What Do They Know That We Don't? Lessons From Beyond the U.S."

Presented by: Jerry Yudelson, PE, one of the first group of LEED professionals to be named a LEED Fellow. Author of 13 books on green building, he has keynoted nearly 100 green building conferences in 14 countries. His keynote speech is based on his latest book, *The World's Greenest Buildings: Promise vs. Performance in Sustainable Design* (with Ulf Meyer).

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Low Impact Development: Managing Stormwater Runoff

BEST MANAGEMENT PRACTICES CAN ENHANCE PROJECTS OF ALL TYPES

By Tom Powers, PE, LEED AP, CFM, CPESC, and Lois Vitt Sale, AIA, LEED Faculty

Low impact development (LID) refers to a comprehensive land planning and engineering design approach to managing stormwater runoff that emphasizes conservation and the use of on-site natural features to protect water quality. According to the nonprofit Low Impact Development Center, Beltsville, Md. (<http://www.lowimpactdevelopment.org>), the goal of LID is to “maintain and enhance the pre-development hydrologic regime of urban and developing watersheds while allowing for development or infrastructure rehabilitation.”

LEARNING OBJECTIVES

After reading this article, you should be able to:

- > Understand how low impact development (LID) benefits the health, safety and welfare of building owners, occupants and the community.
- > Know what to consider to incorporate LID into sustainable design and construction strategies.
- > Discuss the “treatment train” and how various “best management practice” options are used to enhance project sustainability.
- > List the life cycle cost advantages of LID and evaluate their sustainability advantages in specific projects.

The concept of LID originated in the early 1990s as an alternative to traditional stormwater management practices installed at construction projects. These practices focused on handling runoff from large storm events through regional systems (primarily detention ponds and retention basins) located at the bottom of drainage areas. This approach was not only costly, but in many cases could not meet water quality goals.

The basic principle of the LID approach is that stormwater systems should follow nature’s lead and manage rain where it falls. To accomplish this, LID mimics a site’s pre-development hydrology by using distributed, small-scale systems that infiltrate, filter, store, evaporate and detain runoff close to its source. In contrast to traditional stormwater practices, LID focuses on treating smaller and more frequent storm events through various cost-effective features in upland areas of the watershed.

The U.S. Environmental Protection Agency (EPA) supports LID and promotes it as a method to meet the goals of the Clean Water Act. Applying LID to building projects may contribute to their attaining LEED certification. For example, LID best management practices (BMP) accomplish the LEED goal of removing 80% of pollutants from stormwater runoff. Some projects can earn additional regional credits for LID practices or improve LEED scores by reusing stormwater or graywater for irrigation, toilet flushing and processing water.

Optimizing benefits. By incorporating strategic planning with micromanagement techniques, LID can provide numerous benefits, including:

- Protecting surface and groundwater quality
- Reducing stormwater contaminants and runoff
- Protecting wildlife, plants and ecosystems
- Recharging the groundwater through infiltration
- Delivering cost savings, including lower maintenance expenses
- Preserving physical integrity of receiving streams and waterways
- Reducing the amount of site space needed by reducing the need for detention ponds
- Providing opportunities for environmental education
- Improving a site’s aesthetics and value to the community

LID PLANNING: A WIDE RANGE OF APPLICATIONS

LID design can be applied to new development, redevelopment or retrofits to existing buildings. It has been adapted to a range of land uses, from high density, ultra-urban settings to low-density development. Even small city buildings, such as a fast-food restaurant, have incorporated LID principles into their designs.

An overarching goal of LID is to reduce the quantity of water flowing into retention areas or downstream conveyance systems, while improving the quality of the water. This can

Right: A six-story Art Deco jewel on Chicago's West Side has lived many lives, most recently as the transient Viceroy Hotel. The city of Chicago shuttered the structure in 2006, and Heartland Housing took possession in 2011, working with Landon Bone Baker Architects to restore and repurpose the building into Harvest Commons Apartments.

Left: As envisioned, AS+GG's Masdar Headquarters will act as an oasis in the desert, producing 103 percent of the building's annual energy needs.

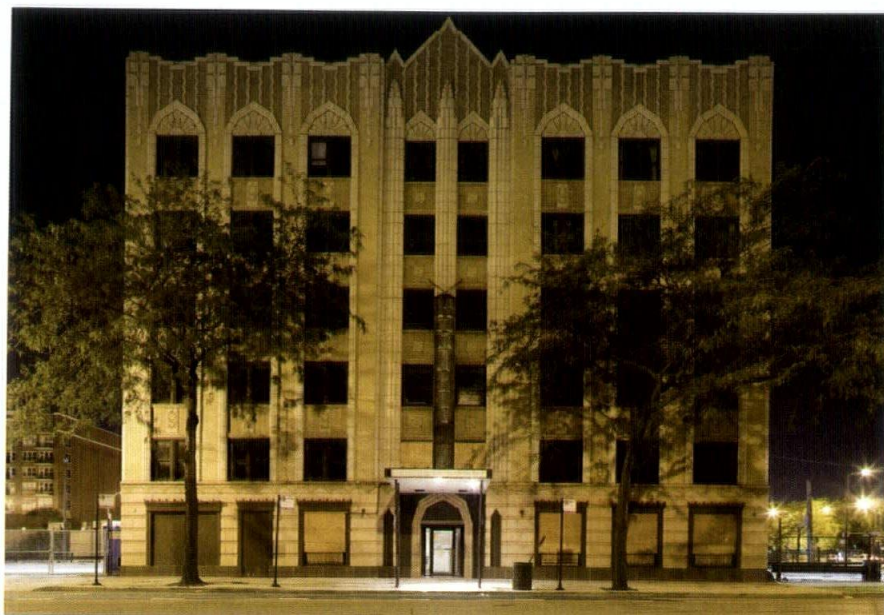


Photo by David Schalliol

AS ENERGY SOURCES BECOME EVER MORE FINITE, creative fixes that smartly remedy the unsustainable—and expensive—scale of conventional building practices are increasingly in demand. Responding to this call for action, architects are drawing up solutions that mesh good design with technological prowess. Smart buildings, which combine physical, digital and performance-based infrastructures to enhance efficiency, are becoming the new standard.

Chicago architects are at the forefront of this emerging trend, designing smart buildings at every scale, such as a rehabbed transient hotel on Chicago's West Side; a single-family home in Northbrook; and designs for a seven-story, 1.4 million-square-foot, positive-energy building in Masdar City, United Arab Emirates.

Smartly Rehabbed Affordable Housing

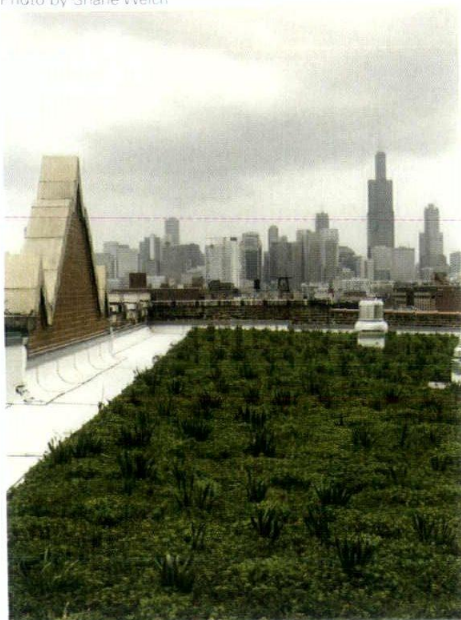
A mix of grandeur, grit and renewal is on display at the southern edge of Union Park on Chicago's West Side. The only parcel on the short block of Warren Boulevard between Ogden Avenue (to the east) and Ashland Avenue (to the west) is a striking Art Deco, six-story building. Originally built in 1929-30 as the Union Park Hotel and designed by architect Benjamin Albert Comm, the handsome building evokes Chicago's Jazz Age heyday with its façade of polychromatic terra cotta panels. Renamed the Viceroy Hotel in 1963 and converted into a transient hotel, the building fell into disrepair, eventually closed and was purchased by the city of Chicago for \$5.1 million in 2006 with the intent to maintain the city's stock of affordable housing.

The nonprofit Heartland Housing purchased the building from the city for \$1 in 2011 and re-visioned the Viceroy as Harvest Commons Apartments, featuring 89 below-market affordable housing units, and an additional 17 units of transitional housing for women recently released from prison. Heartland joined forces with Landon Bone Baker Architects to simultaneously rehab the historic structure—named a Chicago landmark in 2010—while implementing a series of zero-waste and smart features meant to soften the building's footprint.

Jeff Bone, AIA, said the balancing act required a "negotiation between the energy efficiency of green tech with a lot of the historic design ideas we meant to incorporate." Their program seamlessly marries the two. The preserved plasterwork in the ground-floor communal space and the restored luster of the wildly colored terrazzo floors in the lobby are just a few of the historic elements upheld within the rehab. These restorative touches mingle with smart technology, such as a building-wide intranet that will connect to a bank of screens that show residents the real-time energy usage of their 250- to 300-square-foot units. The building's connectivity will also allow Harvest Commons to take transit-oriented development to the next level, with a set of monitors displaying arrival times for every bus and train line that runs adjacent to the site.

The building uses National Fenestration Rating Council-rated windows with a U-factor no higher than 0.35—meaning heat will have a hard time escaping. Accentuating the green roof is an eight-panel solar thermal system for domestic hot water and a series of 12 geothermal wells 450 feet deep and used for heating and cooling. Harvest

Photo by Shane Welch



A green roof accentuates Landon Bone Baker Architects' technique of, as Jeff Bone, AIA, says, "sneaking new technology into an old frame."



Images © SmartHaus/Michael Kollman

The SmartHaus is a "21st Century Craftsman" that wraps cutting-edge technology — such as photovoltaic panels and a conditioned energy recovery ventilation system (CERV) — within a conventional suburban frame.

Commons also contains a "brain room" on the top floor, filled with monitoring equipment that keeps the building humming along. Standing atop the permeable pavement between the on-site urban farm (most of the building's former parking lot is now dedicated to farming) and the refurbished yellow face brick, Bone says the building is about "sneaking new technology into an old frame."

The rehabbed building was officially given new life with a ribbon cutting ceremony in April. "At Harvest Commons, nearly 90 Chicagoans will have a safe and green place to live and restart their lives," says Michael Goldberg, executive director of Heartland Housing. "Smart, environmentally friendly design will help those who are the most vulnerable gain stability and improve their quality of life."

A SmartHaus for Suburbia

Suburbia isn't often thought of as a cradle of sustainability. Yet Prairie View-based architect Michael Kollman, AIA, LEED AP, believes that paradigm is changing, as the culture is "in the middle of a shift. The economy forced everyone to look at how they build buildings and how they consume, too."

Kollman's SmartHaus model, inspired by the old Sears Homes, uses energy efficiency and smart technology as part of a cost-efficient template to design the home of the future. "The aesthetics of each home might be different, but there's a proven formula to what we do," Kollman says. He has designed what he calls "a 21st century Craftsman," a four-bedroom, 2,500-square-foot home due to be completed in late 2013/early 2014 in suburban Northbrook.

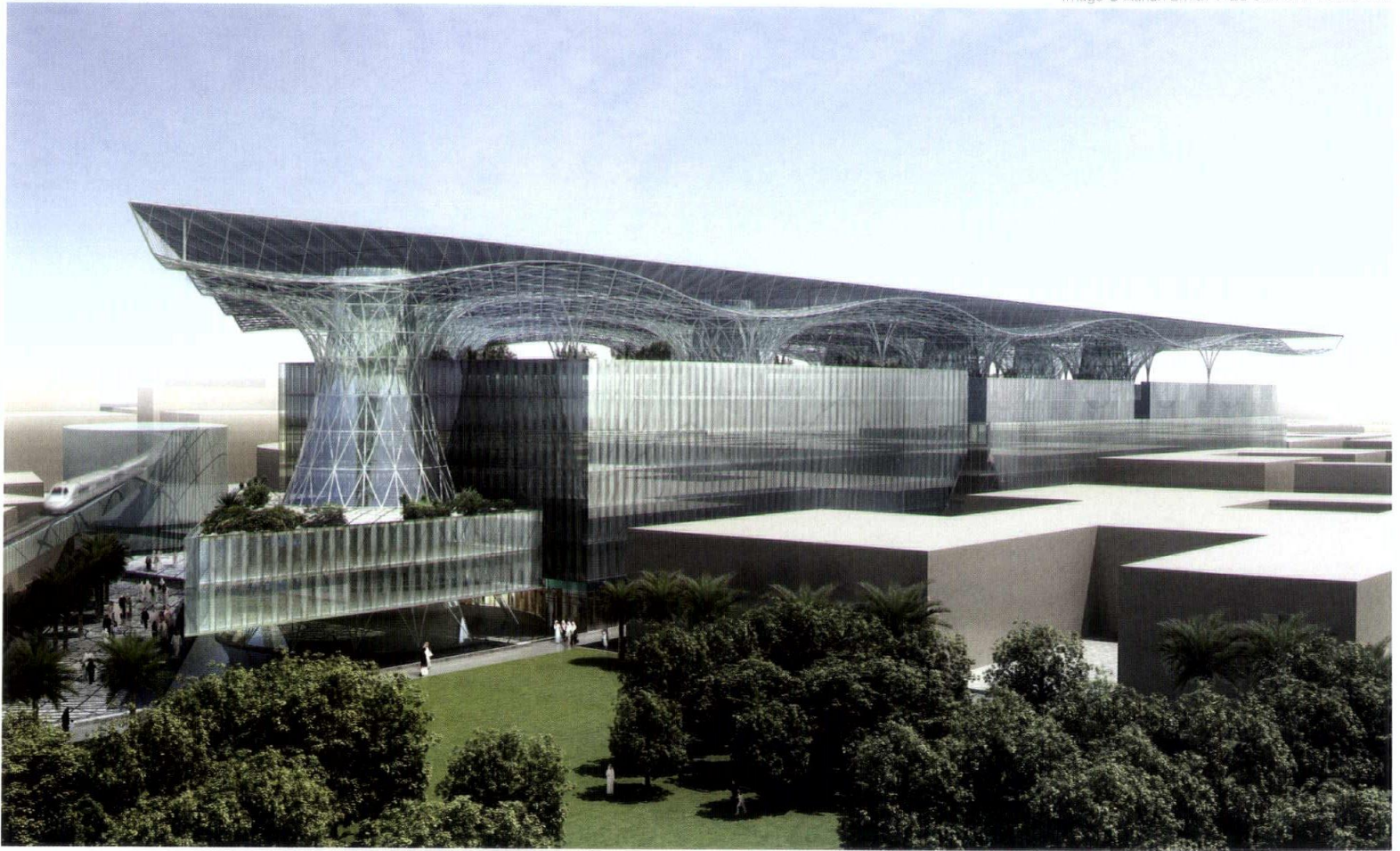
The design begins with a "super-insulated and super-tight envelope," Kollman says, which allows the homeowner to save on

mechanicals in comparison to conventional suburban homes. It takes advantage of the site's east-west orientation by incorporating passive solar design techniques. The home is outfitted with bamboo floorings, LED lighting throughout, recycled drywall, no-VOC paints and a conditioned energy recovery ventilation system—or CERV—to monitor and manage the home's air quality.

CERV is a product from Urbana engineering firm Building Equinox, which homeowner Aaron Stash says "will not only circulate air throughout our home, but will monitor CO₂, H₂O and VOCs in the air and continuously exhaust and mix outside air in order to maintain desirable indoor air quality." The CERV system is sensitive to indoor and outdoor temperature and humidity, and can automatically intuit when to open or close the filtered ventilation system.

The home is also equipped with an energy management system that will allow Stash, his wife and two children to see where they are using the most energy and remotely monitor the home. "If you've got an iPhone or iPad, you can use this technology," Kollman says. "The ubiquity of technology makes being smart second nature."

The Northbrook SmartHaus has been preliminarily awarded a LEED Platinum rating from the U.S. Green Building Council, and Kollman estimates that when complete, the house will use 60 percent less energy than a conventional home. "Green homes already have a focus on comfort, air quality and energy efficiency, but they don't always have advanced monitoring and controls," explains Jason La Fleur, a third-party green verifier and rater. "As technology improves and becomes more affordable, we see more design teams using smart home technology to help control and deliver the benefits that homeowners have come to expect from a new green home."



Plans for the development of the 1.4-million square-foot, mixed-use building may be in a holding pattern, but AS+GG's systems-wide strategy for implementing energy-efficient capacities into large-scale buildings are models that can be applied to a variety of projects.

A Smart Oasis in Masdar City

Gordon Gill, FAIA, of Adrian Smith + Gordon Gill Architecture (AS+GG) wants to talk about relationships. "Just as my ability to work on this desk is directly related to the light above me, we know there are deep relationships between the systems that make a building work," Gill says.

It's an approach used in the plans for Masdar Headquarters, the winning entry in an international competition for one of the premier sites in the zero-waste desert city that was master planned by Foster + Partners. Although development of the 1.4 million-square-foot, seven-story mixed-use building is currently in a holding pattern, the plans reveal a holistic, systems-wide strategy that is both site-specific and applicable for smart buildings everywhere.

AS+GG is creating data-driven models that can analyze and interpret the systems within a building, and incorporate those measurements into the design. "We can look at a vernacular building design in response to particular conditions anywhere in the world, and assess results of scenarios and make [design] decisions," says Peter Kindle, AIA, ASLA, director of urban design at AS+GG.

Looking to the idea of an oasis—a "natural, harmonious system in the desert," says Gill—as inspiration, AS+GG set out to integrate the

ancient vernacular of sun-shading Arabic architecture specific to a desert site like Masdar, with the latest advances in universal sustainable technologies. Masdar Headquarters is equipped with on-site greywater recycling and rainwater collection/treatment networks; geothermal cooling systems; and a sawtooth façade of high-thermal-mass exterior glass cladding to mitigate solar heat gain while maximizing natural light. The defining design feature of the building is the 11 wind cones intended to provide natural ventilation and cooling, leading up to communal rooftop gardens with indigenous fruit trees and other vegetation. The gardens will rest underneath the roof's massive photovoltaic arrays, which are expected to produce 103 percent of the building's annual energy needs.

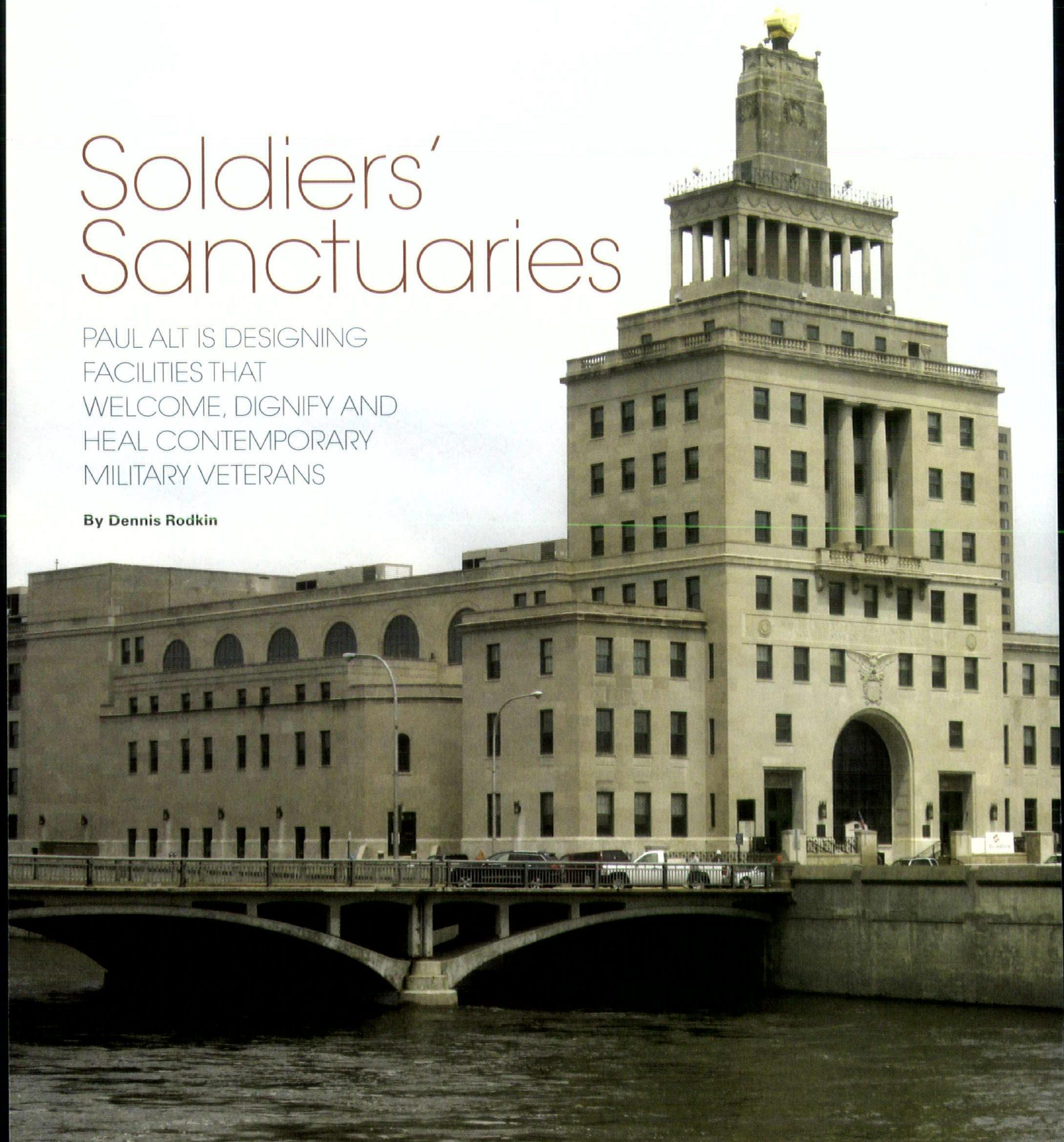
Even if Masdar Headquarters remains as a plan only, its balance of form and technology offers lessons that can be applied on a scale as small as a single building and as large as an entire city. "If stage one was just developing the right model for the building, stage two is to scale it up so it's not just about measuring the system within one building, but many buildings," Kindle says. It's about smart buildings and smart building.

Essentially, Gill says, it all boils down to "measuring performance while maintaining the beauty of architecture." **CA**

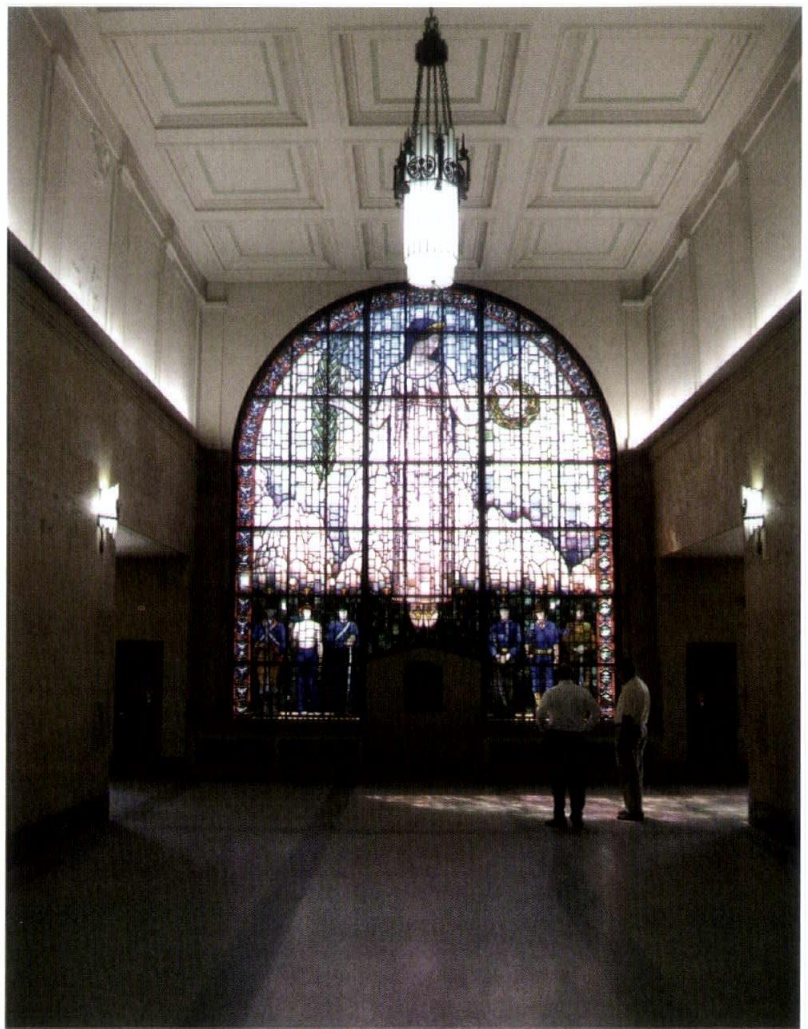
Soldiers' Sanctuaries

PAUL ALT IS DESIGNING FACILITIES THAT WELCOME, DIGNIFY AND HEAL CONTEMPORARY MILITARY VETERANS

By Dennis Rodkin



A monumental work of stained glass (right) by the artist Grant Wood, who lived and worked in Cedar Rapids, sets a tone of nobility for the city's veteran's memorial building (left), which was built on an island in the downtown center and later filled up with municipal offices.



JUST AS WARFARE IS VERY DIFFERENT IN THE 21ST CENTURY THAN IT WAS DURING THE WARS OF THE 20TH CENTURY, the veterans who return from modern wars have vastly different scars and needs than their predecessors who fought in those earlier conflicts.

Chicago architect Paul Alt, AIA, has been on the front lines of the effort to create spaces that meet these needs, with a series of projects around the country whose aim is to welcome and support people who often feel unwelcome and unsupported in civilian society.

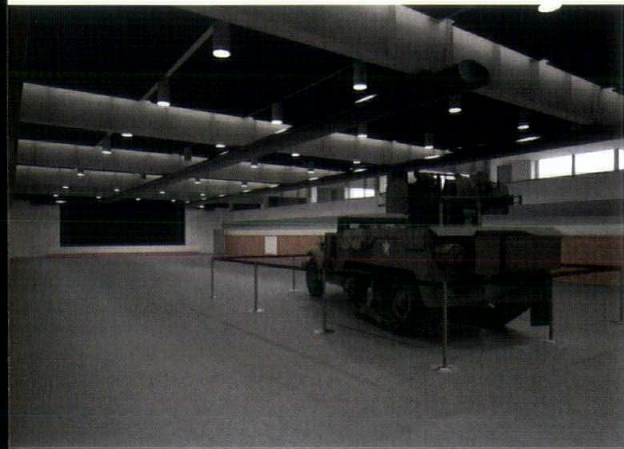
He calls the projects Healing Sanctuaries. "We're creating military-embracing environments for the healing of post-traumatic stress disorder, brain injury and major depression," says Alt, principal of Alt Architecture + Research Associates. In a facility that might combine educational and vocational support, counseling, historical exhibits about warriors' service and other activities that promote veterans' better integration into their communities, "architecture is a tool for creating a narrative that interlinks the parts," he says.

The firm has projects in various stages of completion, planning and negotiation. Two in particular, in Iowa and Texas, demonstrate

how a past era's sometimes alienating narrative about veterans is being displaced by a more restorative contemporary approach.

The Veterans Memorial Building in Cedar Rapids, Iowa, is a monumental facility on an island in the Cedar River. Completed in the late 1920s, it was part of a tradition of grand veterans halls: part museum, part social space and crowned with a cenotaph honoring unidentified war dead that can be seen from many corners of the small city. But the facility had become little more than a big, dusty relic by the early years of this century. Some municipal departments had taken space there, and "the only reason most people in town knew about it was they went there to pay their parking tickets," Alt says. The local veterans commission "was operating about 2,000 square feet of meeting space in this 110,000-square-foot building," recalls Mike Jager, executive director of the Veterans Memorial Commission of Cedar Rapids.

In 2008, floodwaters filled the building's lower three floors, setting in motion a process that ultimately returned the entire building to veterans' uses, and a re-thinking of what those should be. "We were at a crossroads," Jager says. "Rather than just moving back in and doing the same old tired thing, we took the opportunity to rediscover the original intent from the 1920s," which



An armory on the mezzanine level, a conference center and a restaurant are components of the repurposed Veterans Memorial Building in Cedar Rapids, Iowa.



was to be a gathering place where the community of veterans and their families and friends “could sort of make sense of their past experiences by their present associations. Give them the opportunity to heal informally and get on with their lives.”

Repurposed, restored at a cost of \$17.5 million and opening this year, the veterans memorial will have a combination of large memorial rooms and smaller spaces where counseling, substance abuse meetings and Great Books discussions can go on. “It becomes a space where you can bring your grandchildren and help them learn what you [fought for],” Alt says. “And you can come to be among people who have had your experiences, who understand what you’ve been through and want to help you go forward.”

Everything from behavioral health counseling to performance pieces designed expressly for an audience with military experience will have space. “Culture and music and counseling and the architecture all become part of the healing,” Alt says.

Jager believes firmly in the ennobling power of such features as intricate terrazzo floors, plaster walls and the stunning stained-glass depiction of an angel accompanying soldiers from various wars—24 feet high and designed by the great Iowa-born artist Grant Wood. “If you walk into the stereotypical American Legion or VFW hall and it’s a dimly lit place with a couple of beer signs and a couple of old pictures on the wall, it’s not really any different from any other corner bar,” he says. “But when you walk into an environment that is uplifting and inspiring and you’ve been [given] a sense of ownership, you will begin to live up to those expectations.”

The facility is supported by a taxing commission—numerous veterans memorial buildings and stadiums are funded that way in Iowa, Jager says—but the aim in repurposing it is to create a revenue stream as well. There’s a kitchen that can serve 500, and an auditorium of that capacity and a 180-person ballroom will both be rentable for events. But there, too, Alt sees a subtle healing effect: Because the rooms are restored to their original grandeur



At Texas A&M University's San Antonio campus, Patriots Casa will contain a mix of spaces for memorial exhibitry, social gatherings, counseling and ceremonies.

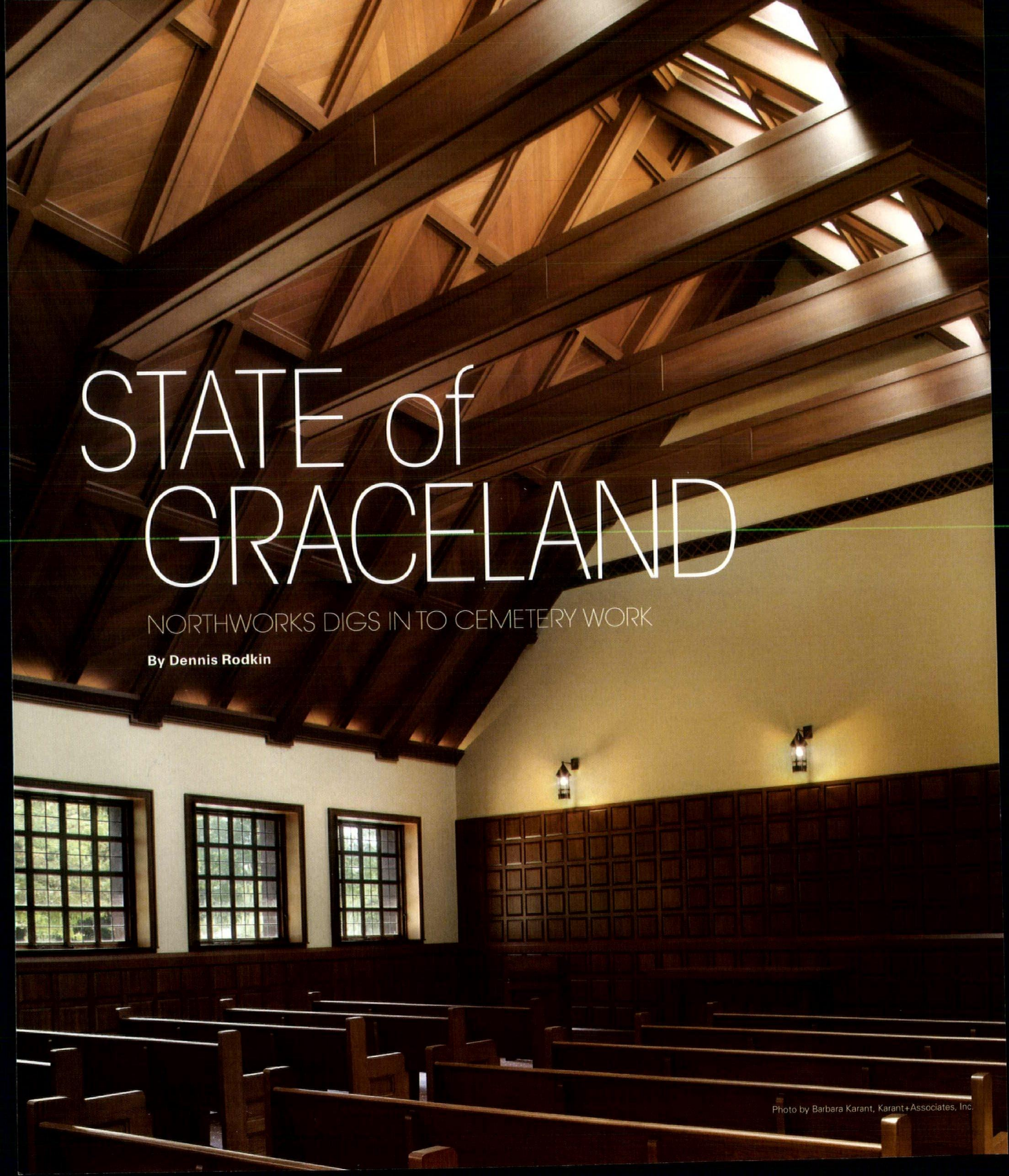
and may contain memorabilia or signage commemorating veterans' service, a veteran who attends, say, a wedding in the building "will feel comfortable surrounded by an empathetic environment, not alienated." In that way, pride of place becomes a subtly therapeutic element: Though the veteran may not be hosting the event, the presence and honor of veterans pervades the space, essentially elevating any of them who are present.

In San Antonio, Alt's firm is collaborating with Kell Muñoz Architects on the nation's first stand-alone academic support building at a university. Rapidly expanding Texas A&M University-San Antonio, where at least one out of 10 students has military veteran status, is building Patriot's Casa, a 20,000-square-foot building where veterans and their families can get help moving from military service into academics, and then out to the civilian workforce.

Envisioned by a retired major general as "a center of support to keep veterans in school," Alt says, the \$5-million Patriot's Casa

pairs ceremonial and pragmatic spaces along the same lines as the Cedar Rapids project. On the ground level, visitors will enter a large lounge or lobby area and proceed into a smaller space that Alt calls a "memory area. It will contain objects that soldiers carried with them, letters and objects of memory." Beyond will be a larger ceremonial space anchored by a fireplace, with doorways out to a large lawn that will be the site of events such as graduation receptions for veterans. The second floor contains spaces for behavioral health, academic support and informal hanging out with fellow veterans.

The conceptual mix at the all-new Patriot's Casa is similar to what the Cedar Rapids veterans building got in its re-formulation. "It creates a place of hope and possibility and self-realization," Alt says. Veterans will have their space to "network for a job, have fun and entertainment, seek healing, and enjoy life. It's in a safe environment for them, a place where they know other people will understand them and what they've seen." **CA**

The image shows the interior of a church with a high, vaulted wooden ceiling. The ceiling is composed of dark wood beams and trusses, with light-colored wood paneling. The walls are also finished with wood paneling, and there are three large windows on the left side. The floor is covered with rows of wooden pews. The lighting is warm and focused on the ceiling and walls.

STATE of GRACELAND

NORTHWORKS DIGS IN TO CEMETERY WORK

By Dennis Rodkin

The interior of the chapel dates only to 2007, but it's meant to evoke the building's original 1888 tone. A wood paneling detail, lost in renovations over the decades in between, was picked up and extended around the room, and on one wall becomes a columbarium. The windows are less ornate than the originals but bring in abundant daylight. On the exterior doors (right) elaborate platework suggests the stateliness of the space within.

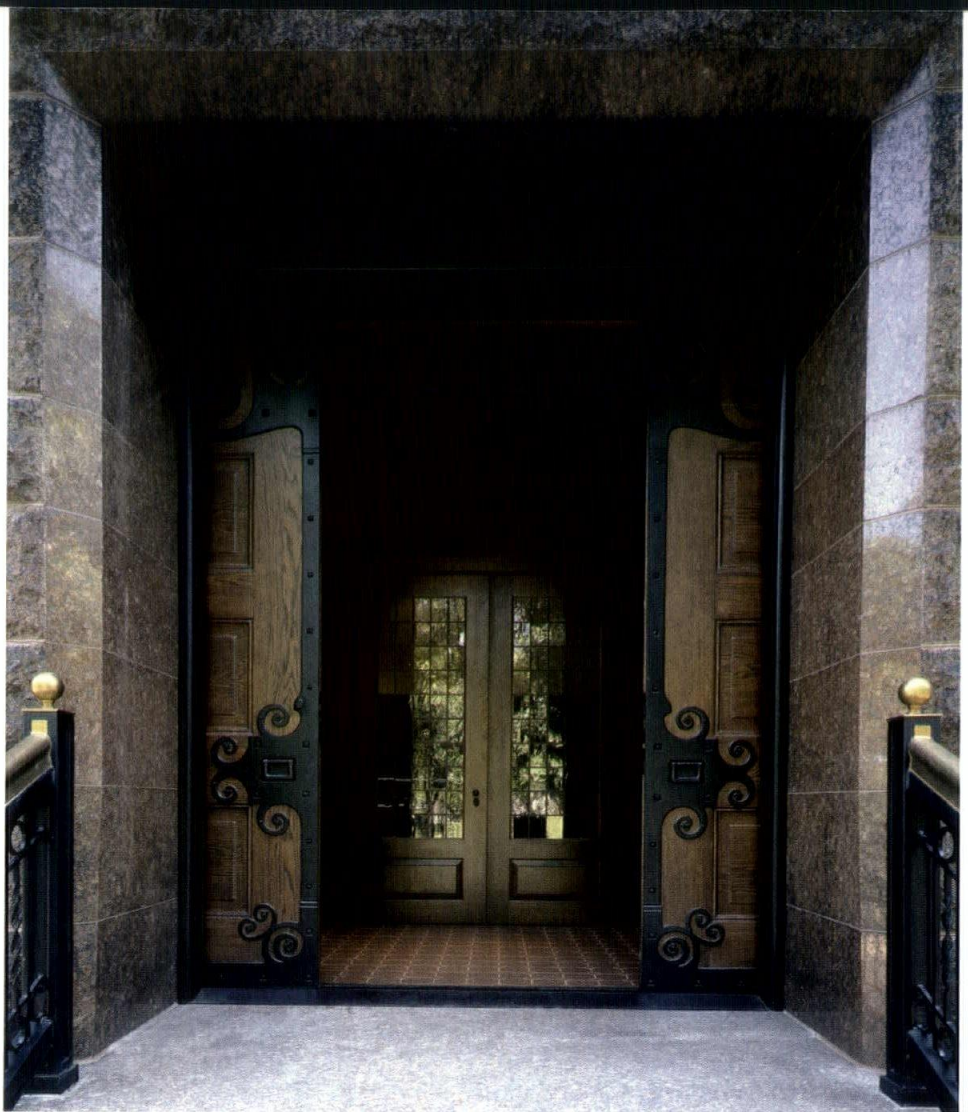


Photo by Greg Murphey, Murphey Studios

WHEN AN ARCHITECT WORKS AT GRACELAND CEMETERY, one of the city's loveliest and most historic burial grounds, many other architects look over the work. Or rather, under it. Graceland is the final resting place of Louis Sullivan, Daniel Burnham, Ludwig Mies van der

Rohe, Bruce Graham, Walter Netsch and Bruce Goff, among others. And because it's a garden cemetery dotted by stunning small pieces of architecture, Graceland is like a microcosm of Chicago itself, where the natural and built worlds come together beautifully.

For Northworks Architects and Planners, the firm that has been Graceland's architecture consultant since 2005, the storied cemetery has also been a place of innovation and problem-solving. Along with consulting on new tombstones, the firm has handled a series of projects that encompass everything from topping a stone wall with a security fence to creating a memorial to William LeBaron Jenney, father of the skyscraper.

"What [the cemetery's board] wants with each one is to continue the tradition of Graceland, a cemetery in a parklike landscape," says Northworks principal Bill Bickford, AIA. "Maintain the scale and the grandeur, respect what has been done, but introduce contemporary standards," such as ADA accessibility and resource conservation. The prime example is the work that

Northworks completed in 2007 on a chapel designed by Holabird & Roche in 1888. It had been added onto a few times and redone inside in ways that muffled the chapel's Arts & Crafts charms. The restoration—"We call it a re-creation," Bickford notes—entailed returning to the original footprint and summoning the ghosts of lost finishes, but also installing radiant heat, soy-based spray foam insulation and other green technology. At the same time, the designers incorporated new indoor columbarium space, something Graceland had not had, in the interior design of the chapel.

"There's been an energy for restoration of Graceland's historic structures for the better part of a generation," says Fred Wacker, the current president of the cemetery's board. "We know that it's a historic treasure and a repository of Chicago history—it's more than just a burial place; it has a panoply of architects and scions and builders and impacters of our city—and we're making sure that we take care of our heritage." Wacker's great-grandfather Charles Wacker, who championed Burnham and Bennett's Plan of Chicago, and his great-great-grandfather Frederick Wacker are both buried in Graceland. (Later generations were buried in Lake Forest Cemetery, another beauty.) Wacker was passed the baton by past chairman Robert Isham, who spearheaded much of the restoration program.

Northworks, too, follows in distinguished footsteps. From the early design work of landscape architects H.W.S. Cleveland and

BEFORE

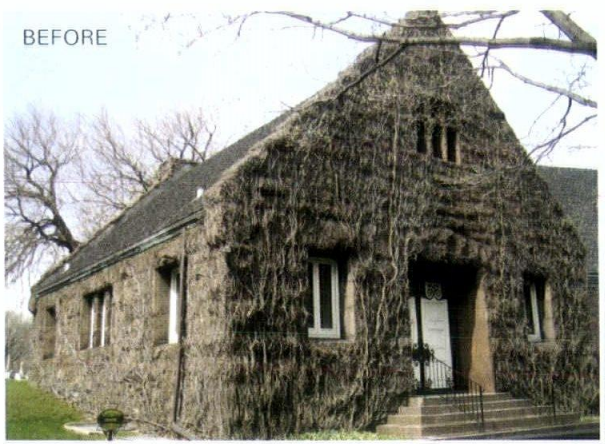
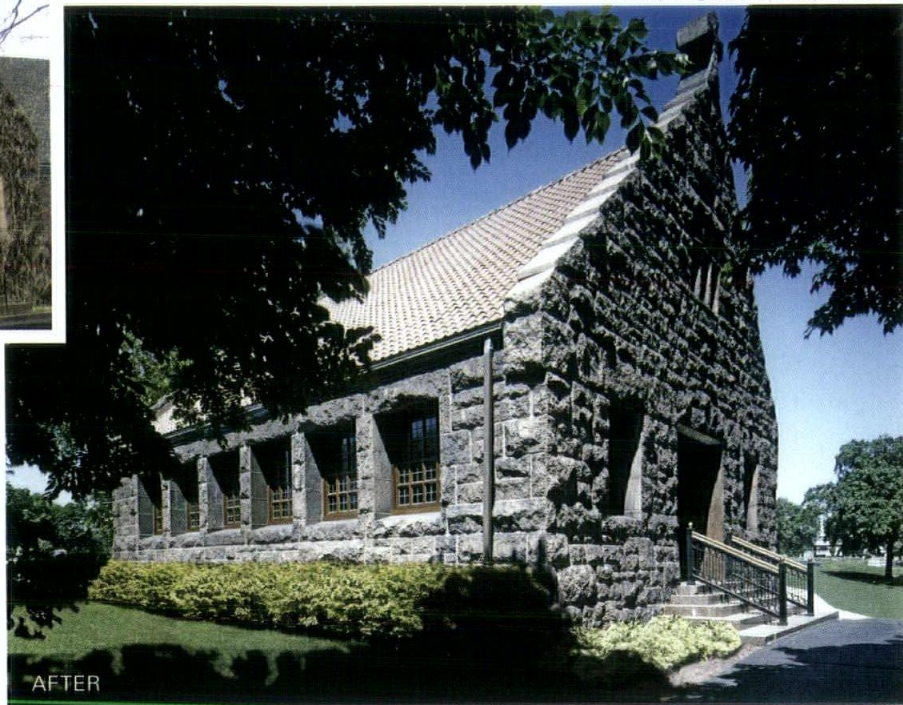


Photo by Greg Murphey, Murphey Studios

The chapel at Graceland was originally designed by Holabird & Roche in 1888; Northworks completed a restoration in 2007.



AFTER

O.C. Simonds and architect William LeBaron Jenney, through recent stints as architecture consultants by Frederick Phillips & Associates and Eifler & Associates, as well as attentive landscape design by Wolff Landscape Architecture, Graceland has been in skilled hands. And then there is the presence of so many great but departed Chicago architects. "I'm not really spiritual about this," Bickford says, "but we're working with those [architects'] legacies in a very personal way. It's not their buildings or their plans for Chicago; it's their resting place and the very specific symbolism of who they were and what they did."

Going to the Chapel

The rusticated stone exterior, clay tile roof and handsome doors of the chapel give it a look that Wacker describes as "the chapel on the hill." Additions done in the 1930s and 1950s had taken it downhill, converting the intimate chapel into a bathrooms-and-coatrooms secondary space. The expansions had been needed in their time to create space for cremations and a second chapel, but in later years Graceland stopped performing cremations on-site and managed with one smaller chapel. On top of that, the ground that the additions covered was sorely needed for new burial plots; Graceland's space for burials is more than 95 percent taken, Wacker says.

"Nothing was left of the original interior. Nothing," Bickford says. It's hard to believe, given the Arts & Crafts charm the chapel exudes now. From massive curlicue platework on the wooden doors to the poured-glass vintage look of the windows, it's all re-created elements.

That's not to say they're exact replicas. The windows, for example, are mere suggestions of the originals, which were more intricately patterned, awning-style windows. The new ones are Bendheim restoration glass that has the old-time wavy look in new frames fabricated by Grabill. Low-maintenance and with today's high standard of insulation, the windows are part of a more sustainable approach to the chapel that also extends to the skylights. Bickford notes that the original skylights were on the south slope of the roof; moving them to the north slope reduced the heat gain inside the chapel.

The rich wood paneling surrounding the chapel also meets both aesthetic and sustainability goals. It picks up a paneling detail that was on at least one wall in the original chapel, but then extends it all the way around. On one wall it becomes a columbarium, allowing for some cremated remains to be interred in the sacred space. The paneling also conceals spray foam insulation nestled against the stone walls.

Some details from the original couldn't be revived. Holabird & Roche drawings show intricate floral carvings on the pew ends, but the budget didn't accommodate that sort of flourish, Bickford says.

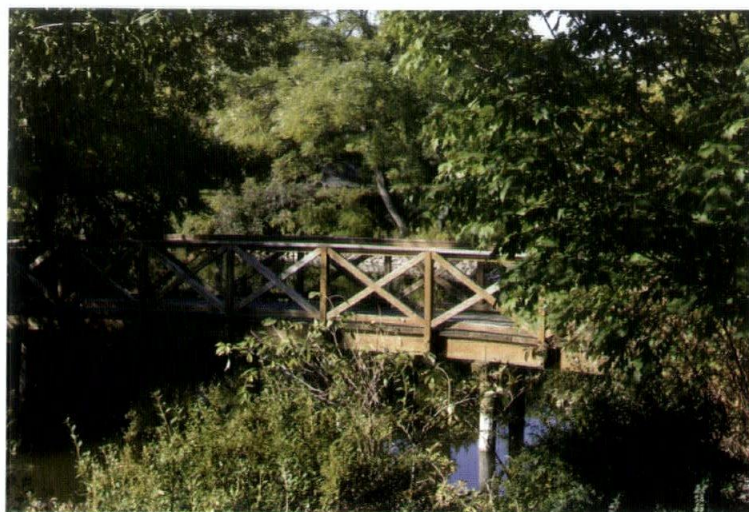
Demolition took down about 4,000 square feet and retained just the 1,500-square-foot original building. The chapel shrank from about 180 seats in two chapels to 85 in one. "There was too much building for the current program," especially after the removal of cremation from Graceland, Bickford says. The demolitions freed up ground for 36 to 90 burials (depending on how many are in caskets and how many in cremation urns) in what's now sought-after space in a set of garden 'rooms' that Wolff created.

Take it to the Bridge

The great Daniel Burnham merits a prestigious spot at Graceland. The grave itself is marked by a simple stone, but perhaps fittingly for a man who called for the construction of island pleasure grounds along Chicago's shore, it rests on a pleasant little island. From its origins in 1912, the Burnham plot was reached via a rustic wooden footbridge, but that was eventually replaced by a more practical concrete slab wide enough to accommodate caskets being transported across on carts.

As no more Burnham family members are expected to be buried in the family plot, the board determined that a return to something more picturesque was in order, Bickford says. It also needed to have handrails and pitch that fit ADA requirements—and to fit into a relatively modest budget, as the bridge was being replaced at the expense of the cemetery, not a private family.

"We worked with a golf course bridge company that had built these many times and had a kit of parts we customized for the Burnham island bridge," Bickford says.



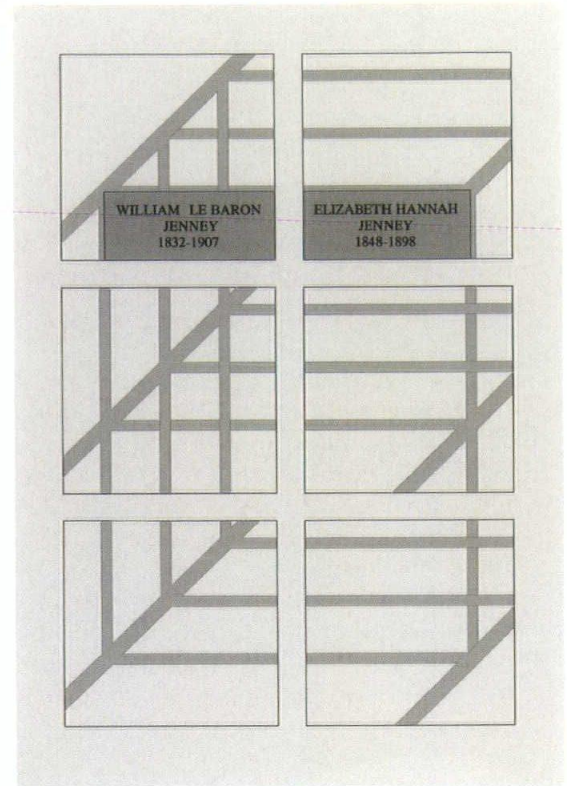


High and Mighty

It's believed that the ashes of William LeBaron Jenney, whose 1885 Home Insurance Building was the first completely steel-framed building and the original skyscraper, were scattered over the Graceland grave of his wife, Elizabeth, but there was never a stone commemorating him.

A decade or so after a competition to design a monument on the site of his wife's grave failed to present any suitable options, the Graceland board asked Northworks to come up with something. However, although the goal was to memorialize the man who made high-rise buildings possible, the monument couldn't rise any taller than eight inches, to fit in with neighboring monuments.

The result, devised by Bickford and Graceland trustee John Notz, was a flat granite stone whose multiple panels encompass the original Elizabeth Jenney stone and that has the outline of a steel frame emblazoned onto it. "It's the shadow of Jenney's steel frame," Bickford points out.

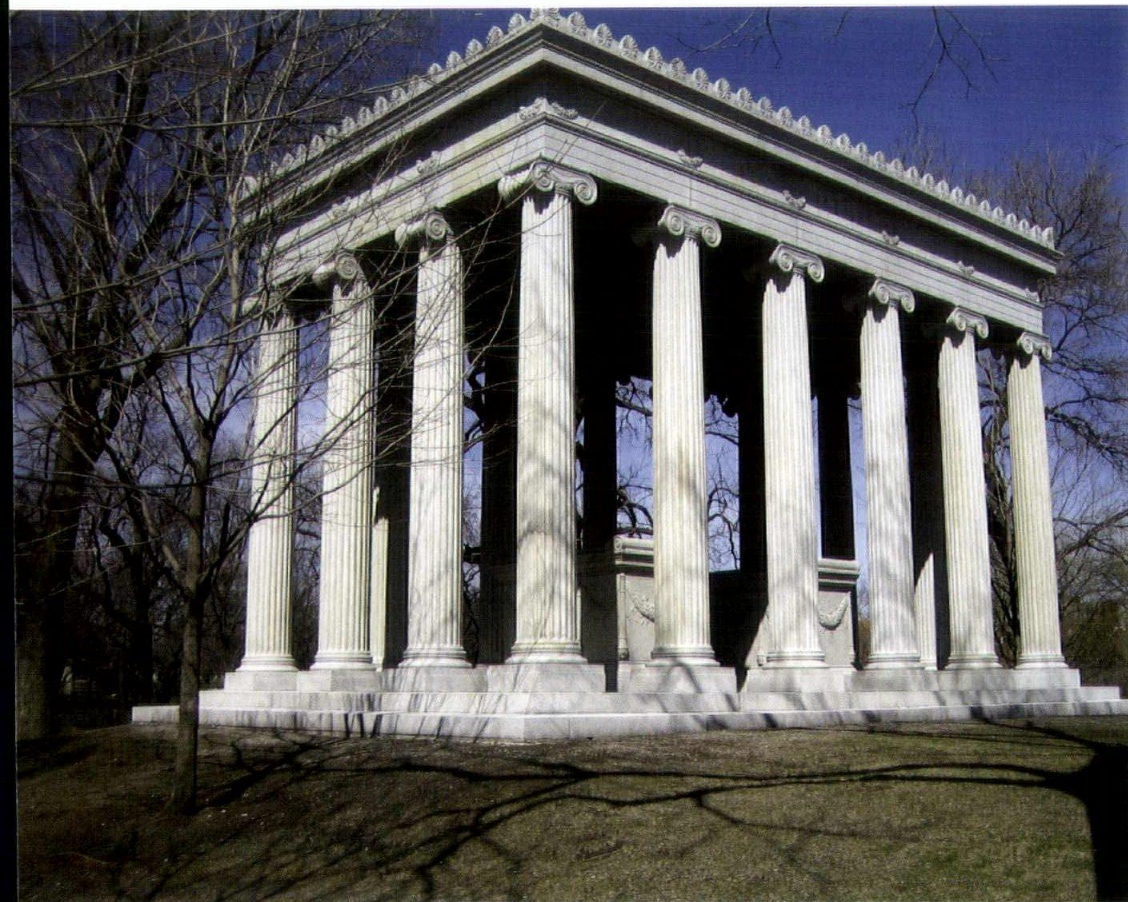


A Monumental Effort

One of the grandest of the monuments at Graceland, the burial place of Potter and Bertha Palmer is an open-air temple that houses two sarcophagi, all the design of McKim, Meade and White. It's among the most visited and photographed by tourists as well, but the stone was delaminating, and the risk of overhead pieces falling down was increasing over the years.

The work here was structural restoration that entailed re-sealing the stone. Bickford says the team enjoyed "working with real stone construction techniques." **CA**

Tour Graceland's architectural restoration projects with Bill Bickford at noon on Friday, July 26. Meet at the Graceland gatehouse. There is no fee, but the tour group will be limited to the first 25 people who arrive.



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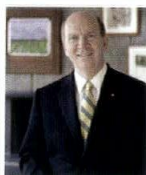
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→ KEYNOTE SPEAKERS



Tuesday, September 10

"Current and Future Trends in the AEC Industry"

Presented by: Robert Ivy, FAIA, CEO of the American Institute of Architects. Ivy served as Vice President/Editorial Director of McGraw-Hill Construction and Editor-in-Chief of *Architectural Record*. He received the 2009 G.D. Crain Award for lifetime contributions to editorial excellence in business media.



Wednesday, September 11

"What Do They Know That We Don't? Lessons From Beyond the U.S."

Presented by: Jerry Yudelson, PE, one of the first group of LEED professionals to be named a LEED Fellow. Author of 13 books on green building, he has keynoted nearly 100 green building conferences in 14 countries. His keynote speech is based on his latest book, *The World's Greenest Buildings: Promise vs. Performance in Sustainable Design* (with Ulf Meyer).

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Low Impact Development: Managing Stormwater Runoff

BEST MANAGEMENT PRACTICES CAN ENHANCE PROJECTS OF ALL TYPES

By Tom Powers, PE, LEED AP, CFM, CPESC, and Lois Vitt Sale, AIA, LEED Faculty

Low impact development (LID) refers to a comprehensive land planning and engineering design approach to managing stormwater runoff that emphasizes conservation and the use of on-site natural features to protect water quality. According to the nonprofit Low Impact Development Center, Beltsville, Md. (<http://www.lowimpactdevelopment.org>), the goal of LID is to “maintain and enhance the pre-development hydrologic regime of urban and developing watersheds while allowing for development or infrastructure rehabilitation.”

LEARNING OBJECTIVES

After reading this article, you should be able to:

- > Understand how low impact development (LID) benefits the health, safety and welfare of building owners, occupants and the community.
- > Know what to consider to incorporate LID into sustainable design and construction strategies.
- > Discuss the “treatment train” and how various “best management practice” options are used to enhance project sustainability.
- > List the life cycle cost advantages of LID and evaluate their sustainability advantages in specific projects.

The concept of LID originated in the early 1990s as an alternative to traditional stormwater management practices installed at construction projects. These practices focused on handling runoff from large storm events through regional systems (primarily detention ponds and retention basins) located at the bottom of drainage areas. This approach was not only costly, but in many cases could not meet water quality goals.

The basic principle of the LID approach is that stormwater systems should follow nature’s lead and manage rain where it falls. To accomplish this, LID mimics a site’s pre-development hydrology by using distributed, small-scale systems that infiltrate, filter, store, evaporate and detain runoff close to its source. In contrast to traditional stormwater practices, LID focuses on treating smaller and more frequent storm events through various cost-effective features in upland areas of the watershed.

The U.S. Environmental Protection Agency (EPA) supports LID and promotes it as a method to meet the goals of the Clean Water Act. Applying LID to building projects may contribute to their attaining LEED certification. For example, LID best management practices (BMP) accomplish the LEED goal of removing 80% of pollutants from stormwater runoff. Some projects can earn additional regional credits for LID practices or improve LEED scores by reusing stormwater or graywater for irrigation, toilet flushing and processing water.

Optimizing benefits. By incorporating strategic planning with micromanagement techniques, LID can provide numerous benefits, including:

- Protecting surface and groundwater quality
- Reducing stormwater contaminants and runoff
- Protecting wildlife, plants and ecosystems
- Recharging the groundwater through infiltration
- Delivering cost savings, including lower maintenance expenses
- Preserving physical integrity of receiving streams and waterways
- Reducing the amount of site space needed by reducing the need for detention ponds
- Providing opportunities for environmental education
- Improving a site’s aesthetics and value to the community

LID PLANNING: A WIDE RANGE OF APPLICATIONS

LID design can be applied to new development, redevelopment or retrofits to existing buildings. It has been adapted to a range of land uses, from high density, ultra-urban settings to low-density development. Even small city buildings, such as a fast-food restaurant, have incorporated LID principles into their designs.

An overarching goal of LID is to reduce the quantity of water flowing into retention areas or downstream conveyance systems, while improving the quality of the water. This can

be done effectively through a multistep "treatment train process," which means treating stormwater runoff at its source, as it flows through the site and again before it leaves the site. We applied this principle on our own property, where stormwater becomes progressively cleaner as it flows from bioswales in the parking lot, through filtration trenches, across a restored prairie with native vegetation and into a landscaped rain garden.

There are a number of key elements to consider when planning and executing an LID project:

1. Site assessment. The size of the site will affect the quantity and size of the LID BMPs, as well as design flexibility in regard to location. A large site generally allows for a more complete treatment train process. On a small site, the pieces must be squeezed together like a puzzle. Building teams must consider these questions:

- Will there be space for rain gardens directly adjacent to the downspouts?
- Will daylighting downspouts affect walkways around a building?
- Can a bioswale be added to the parking lot and not affect the desired parking count or minimum zoning stall size requirement?
- Is there room to use a 38%-void stone soakaway (a deep hole used for drainage) as both detention and best management practice?
- Does the building have sufficient potable water demand to justify a stormwater reuse system?

2. Soil infiltration. Brownfield sites, contaminated sites or sites with existing basement seepage typically are not suitable for infiltration practices. For all others, soil infiltration capacity should be tested early in the site investigation. This can be done using a double-ring infiltrometer, a Guelph Permeameter, or a falling head permeability test at a depth below grade of where the infiltration will occur. (Note: Enough of the schematic design must already be completed before this level can be determined.)

Caution: Do not test if the ground is frozen. Also, if you're using a double-ring infiltrometer, you must dig a test hole, which could be a problem if the property is already



Stormwater is progressively cleaned as it flows through several LID treatments on this suburban site. Among them are native vegetation in a restored prairie, bioswales in the parking lot, filtration trenches, and a landscaped rain garden.

developed or has not yet transferred ownership. Although performing these tests during the initial geotechnical investigation generally is the most cost-efficient approach, at times soil infiltration suitability is discovered after the initial borings.

A review from the Natural Resources Conservation Service soil survey (<http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm>) can help you predict whether to expect a positive result from infiltration testing. But even if clay soils are indicated and no testing is done, don't rule out infiltration practices as an option. If clay is present, these practices can still be successfully implemented when designed with special considerations, such as using underdrains, protecting all foundations, flattening subgrade slopes, modifying the subgrade, taking extra care on steep slopes and avoiding the use of undrained surface rain gardens.

3. Rainfall and runoff. The amount of rainfall expected at the site will be a critical factor in the design of BMPs. A typical goal is to be able to treat either 90% or 95% of historical storms. Be aware, however, that treating higher percentiles requires more extensive and less cost-efficient BMPs. Another common design objective is to treat

a certain depth of stormwater runoff. Our firm's internal goal is to treat one inch of runoff for new sites and a half-inch for redeveloped sites. LEED Version 3 provides guidance for treating the average annual rainfall, as well as rainfall depth values for different regions of the country.

4. Receiving waterways, aquifers and storm systems. Since LID is designed for smaller storm events, it's important to consider factors regarding BMP overflow. For example, the EPA National Pollution Discharge Elimination System program (<http://cfpub.epa.gov/npdcs>) has developed target pollutant lists for impaired waterways. Since BMPs do not treat all pollutants in the same way, you need to make sure your BMP design will treat the appropriate target pollutants.

You also should know the groundwater level of aquifers. *Rule of thumb:* It is best to have at least three feet of separation from your infiltration device membrane to the groundwater level. While pretreatment is always advisable, extensive pretreatment is an absolute requirement if you are tying into a drinking water aquifer to protect it from roadway pollutants.

A word of caution: The manufactured BMP in a combined sewer area is often a case of

good intentions gone awry. In Chicago, if runoff is treated by a water quality device placed on a stormwater line before being discharged to a combined sewer, the treated stormwater will still drain to a wastewater treatment plant, where it will be treated a second time. A better strategy for combined sewer areas is to provide volume control instead of water quality treatment. Less water reaching the downstream combined sewer means less water treated at the plant, providing significant cost and energy savings.

5. Native plants and wildlife. The fundamental principle of LID planning is the same as the physicians' credo: First, do no harm. This requires extensive knowledge about the established natural habitat and a commitment to leave the environment undisturbed. Contact your local fish and wildlife service to determine whether any endangered species are present, and protect any habitats that may be on the property. Surveying should be completed early in a project to allow sufficient time for the results to be easily incorporated into the design.

A number of LID projects take this commitment a step further by including a *restoration of natural areas*. In Illinois, teams are fortunate to have the original historic plat of the state available to the public to provide an accurate picture of historic prairie and woodland areas. These maps can be used to restore the historic character of naturalized areas, which sometimes involves the removal of stands of invasive, woody plants.

6. Disconnecting impervious areas. The Center for Watershed Protection, Ellicott City, Md. (www.cwp.org), states that streams start to become impaired when a watershed becomes only 30% impervious. While limiting development to 30% impervious surface is often unrealistic, disconnecting impervious areas is a simple mitigation technique. Disconnection decouples roof downspouts, roadways and other impervious areas from stormwater conveyance systems, allowing runoff to be collected and managed on site or dispersed into the landscape.

This key concept in LID planning may require a major shift in thinking for many civil engineers, property owners, building users and members of the public. For a long time,

engineers have tried to move runoff into the sewer and off to regional stormwater systems as quickly as possible. Standing water was considered an eyesore that would upset clients. LID, however, requires that downspouts be daylighted at grade, preferably to a rain garden or bioretention area. Pavements should also sheet drain into bioswales or rain gardens. The catch basin and storm sewer should only be used as an overflow structure once the BMP is at capacity. As part of the planning process, designers and engineers should educate property owners on the environmental benefits of intermittent standing water and wet areas.

7. Performance objectives. While most LID projects will set goals related to how much rainfall or stormwater runoff must be retained, another typical performance objective is the removal of a percentage of total suspended solids (TSS) from runoff for a certain amount of rainfall. These treatment goals are often set by regulatory agencies or such entities as the U.S. Green Building Council (USGBC), and should be considered for guidance even on projects not aiming for LEED certification. (LEED calls for 80% TSS removal for 90% of the average annual rainfall.)

8. Regulatory issues. Most regulatory agencies lag behind the design and construction industry in recognizing the value of LID, especially with regard to the benefits of volume control. Most regulations require the design to control flooding for a 1% (100-year) probability storm. Ordinance language is often vague ("provide BMPs to the extent practicable"), with no measurable goals. LID practices such as stormwater storage systems using gap-graded stone are rarely taken into account.

One major roadblock to stormwater reuse is the requirement to treat reused graywater back to potable water standards. Local government reviewers, who do not have the expertise to properly review stormwater reuse systems, hold them to the same standards as potable water systems.

The good news is that the regulatory climate for LID is moving in a positive direction. The Energy Independence and Security Act of 2007 requires federal facility projects of more than 5,000 square feet to "maintain or restore, to the maximum extent

technically feasible, the predevelopment hydrology of the property." And the U.S. Army Corps of Engineers (USACE) now has BMP requirements in its 404 permit (see http://www.usace.army.mil/cecw/pages/reg_permit.aspx).

9. Urban environments. LID projects on dense urban sites have a unique set of concerns. Urban sites are often contaminated, and infiltration must be avoided in those contaminated zones. You must carefully consider the impact of BMPs on adjacent properties and make sure water does not become a nuisance to end users. Urban roadway runoff in cold weather climates often has a high salt content, which necessitates pretreatment and the use of hardy plants. High-rise buildings are not suitable for daylighting of stormwater because the stormwater's velocity within the building plumbing is often too high for at-grade discharge; for high-rises, direct discharge to a below-grade soakaway is advisable.

Since most municipal regulations require storage of the 1% storm, most city projects likely will require a vault instead of an aggregate soakaway. You can do this in an LID manner by using a perforated vault, such as Stormbloc, Rainstore 3, EcoRain or Atlantis D-Raintank.

EMPLOYING LID BEST MANAGEMENT PRACTICES

Bioretention is a process for removing contaminants and sedimentation from stormwater runoff—typically from impervious surfaces—while attenuating its peak flow and reducing flow volume through evapotranspiration and infiltration. Bioretention has been identified by the Federal United Facilities Criteria as the most cost-effective LID method, ideal for median strips, parking lot islands and swales.

A bioretention treatment area might include a *grass buffer strip*, sand or gap-graded aggregate bed, surface ponding area, organic or mulch layer, planting soil and plants. The grass buffer strip and *sand bed* reduce the velocity of incoming runoff and filter its particulates. The sand bed also spreads flow over the length of the bioretention area, while *planting soil* provides the bed with aeration and drainage. The *ponding area* provides a temporary storage

location for runoff prior to its evaporation or infiltration and a place for unfiltered particulates to settle. The topsoil in these areas should be amended with sand and organics to promote surface infiltration and prevent plugging, which can result in a mosquito pond. An *organic or mulch layer* also filters pollutants and provides an environment conducive to the growth of microorganisms, which degrade petroleum-based products and other organic material. Physical and chemical treatment occurs on and within the soil media and includes sedimentation, filtration and adsorption with organic matter and mineral complexes. The clay in the planting soil adsorbs hydrocarbons, heavy metals, nutrients and other pollutants, while planted groundcover reduces the potential for erosion.

To minimize environmental damage, the construction of bioretention areas is best suited at sites where grading or excavation is already planned. Sites with loamy sand soils are especially appropriate and cost-effective because their excavated soil can be backfilled and used as the planting soil.

Native plant restoration. Landscaping is critical to the function and appearance of bioretention areas. A landscape plan should recognize the property's natural topography, existing vegetation and climate and aim to use as much native vegetation as possible. You should select plants able to withstand the hydrologic regime they will experience.

Recommendation: Group plants together according to their water needs; for example, resilient upland species work well in the dryer edges of the bioretention area. It is also best to select a combination of trees, shrubs and herbaceous materials.

Proper maintenance is critical to the success of natively planted areas; the property owner's maintenance staff must be trained to learn new techniques. Although this BMP requires more intensive maintenance for the first three to five years, its life cycle benefits are substantial. A study by the Conservation Design Forum (www.cdfinc.com) found that having native plants instead of turf can reduce irrigation costs by \$4,400 to \$8,850/acre/year. The study also estimated that, over a 10-year period, native plants can save owners more than \$4,000/acre/year on maintenance costs.



The Evelyn Pease Tyner Interpretive Center in Glenview is an early LEED-NC Platinum building. The roof has solar panels at one end and vegetation at the other, which controls stormwater runoff as part of a low impact development strategy.

Permeable pavement systems can transform areas that exacerbate stormwater problems into a treatment system that can effectively reduce runoff volume, rate and pollutants. They can be made of pervious concrete, porous asphalt, paving stones or bricks and are often constructed over an aggregate storage bed to infiltrate stormwater into the soil. With the exception of high-volume/high-speed roadways, they can replace traditional impervious pavement for most pedestrian and vehicular applications.

The purpose of permeable pavement systems is to intercept, contain, filter and infiltrate stormwater on site. Various design options are available to achieve these objectives. For example, pervious concrete can be installed across an entire parking area, or it can be used in parking lot lanes or stalls to treat runoff from adjacent impermeable pavements and roofs. Inlets also can be placed in permeable pavement systems to accommodate overflows from extreme storms.

Design and construction considerations for permeable pavement include:

- The load-bearing and infiltration capacities of the subgrade soil
- The infiltration capacity of the permeable material
- The storage capacity of the stone base and

sub-base

- The need to prevent sediment from entering the base of permeable pavement during construction

It's important to protect permeable pavement from high sediment loads, particularly fine sediment. Filter strips and swales—broad, open channels sown with erosion-resistant, flood-tolerant grasses—are appropriate pretreatment BMPs for runoff onto permeable pavement.

In addition to providing stormwater volume and quality management, permeable unit pavers offer tremendous life cycle cost advantages. The only maintenance pavers require is vacuum brooming and surface chip maintenance; when properly maintained, they can last for more than 50 years without the need for patching or reconstruction. A study by Faithful & Gould (<http://www.fgould.com/north-america>) on a permeable unit paver parking lot at the Morton Arboretum in Lisle projected a maintenance cost savings of more than \$1 million over 23 years for permeable paving, compared to maintenance costs for an asphalt lot.

Constructed wetlands (also called stormwater wetlands) are shallow basins that have a permanent pool of water



Hidden Oaks Nature Center in Bolingbrook is a LEED-NC v2.2 Platinum project that used LID strategies. The native plants in the green roof require no irrigation.

throughout the year (or at least throughout the wet season). They are designed specifically to treat stormwater runoff by removing pollutants, primarily through settling and biological uptake. Constructed wetlands are among the most cost-effective and widely used stormwater practices for pollutant removal.

Most constructed wetlands have design features that address five functions: 1) pretreatment, 2) treatment, 3) conveyance, 4) maintenance reduction and 5) landscaping for aesthetic attractiveness. While wet pond designs vary, the most common modification is the *extended detention wet pond*, which provides storage above the permanent pool for the purpose of detaining stormwater runoff to allow more time for it to settle.

Constructed wetlands need sufficient drainage area to maintain a shallow permanent pool. In humid regions (areas receiving more than 35 inches of rain per year), about 25 acres of drainage area are needed; in regions with less rainfall, larger drainage area may be needed.

Rainwater harvesting has been going on for more than 4,000 years. A modern rainwater harvesting system consists of three basic elements: 1) a *collection area* (usually the roof), 2) a *conveyance system* (typically gutters or drainpipes) and 3) *storage facilities* (either simple rain barrels or

more complex pressurized systems with large cisterns). Drainpipes, roof surfaces and cisterns should be constructed of chemically inert materials such as wood, plastic, aluminum or fiberglass to avoid having an adverse impact on water quality.

By storing and diverting runoff, rainwater harvesting helps reduce flooding and erosion. Since the water does not have any salts or sediment, it can be used for garden or lawn irrigation, thus reducing water bills and conserving municipal water supplies.

The latest development for this BMP is an actively managed rainwater harvesting system that features a control system that empties the rainwater harvesting system in advance of an approaching storm. Such systems also offer some cost savings by combining stormwater detention with rainwater harvesting. They must be flushed after the winter season in colder climates, and pretreatment is an absolute necessity.

Green roofs are rooftops partially or completely covered with plants that absorb, store and eventually evapotranspire rainfall. An EPA study indicates that green roofs are capable of removing 50% of the annual rainfall volume through retention and evapotranspiration, thus effectively decreasing overall peak flow discharge to the watershed or storm sewer systems. They also mitigate the urban heat island effect and

protect and insulate the roof, which extends its life and lowers energy costs.

Green roofs can easily be constructed on roofs with up to a 20% slope. They are classified as *extensive*, *semi-intensive* or *intensive*. Extensive green roofs usually have four inches or less of growing medium and are designed for very low maintenance. Intensive green roofs have more than six inches of substrate. Semi-intensive green roofs are hybrids with at least 25% of the roof square footage above the six-inch threshold.

LOOKING AHEAD TO NEW LID GUIDELINES

While certain elements of LID have become routine practice in many building projects, LID's stormwater BMPs are becoming commonplace.

Since August 2011, all sites that disturb 20 or more acres of land at one time must comply with EPA effluent limitations guidelines (ELGs), which require implementation of a number of erosion and sediment controls and pollution prevention measures.

Because they provide substantial environmental and aesthetic benefits at reasonable cost, it is likely that LID BMPs will become integral to sustainable development in the future. A well-planned LID strategy will result in a site that has less pavement and lower maintenance expenses for parking lots. Replacing lawns with natural vegetation eliminates mowing and significantly cuts irrigation costs. Porous pavers with soakaway detention systems are less expensive than traditional asphalt pavement and impervious underground detention vaults. Curbs are usually not needed, while bioretention and constructed wetlands help reduce sewer costs.

With their beautiful natural landscaping features and their ability to protect surface and groundwater quality and local habitat, LID practices should be considered for building projects of all types and sizes. **CA**

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Balancing Act

PRACTICING AND TEACHING IS NOT AN EITHER/OR PROPOSITION

By Susan Conger-Austin, AIA

When I graduated with an architecture degree, all I wanted to do was practice. I worked at Skidmore, Owings & Merrill, rising through the ranks to become an associate partner, and leading multiple projects at one time. It was an intense but wonderful period where I learned to assemble buildings and collaborate with the multitude of professionals needed to complete each project. However, after 12 years, I began to rethink an alternative approach to my professional career.

So it was an opportune moment when I was offered a teaching position at the Illinois Institute of Technology. Shortly thereafter, I resigned from SOM, formed my own office and began the journey that I continue to this day: combining both teaching and practice that allows me to engage in critical debate while challenging my ideas of the architectural process.

My method of teaching starts with my professional experiences. Each semester, I organize my design studio beginning with a

real-world project and client. From the basic program-driven information, I challenge the students to explore and reassess the conventional attitudes of architectural design and practice.

For example, one semester's project was to design a public elementary and middle school for the city of Chicago, with public officials from the Chicago Building Commission acting as our "client." Over the course of the semester, the students examined and analyzed exemplary school projects that physically embodied the ideology of various educational paradigms. They then evaluated the possibilities and limitations of mere function driving the architectural solution. How spatial configurations could accommodate or embody different educational philosophies subsequently led to a discussion of the concept of flexibility. In particular, we explored flexibility versus uniqueness, open versus closed space and the psychological costs of losing the identity and unique aspirations and site specificity of a neighborhood public school. These were indicative of the questions raised and debated—both with the students and the "client"—throughout the semester.

What I believe is that both the practice of architecture and the teaching of young architects should infuse one another, synergistically supporting their differing perspectives and challenges. Today's architecture school graduates rarely move into practice with a thorough understanding of a particular field. Rather, they typically develop various methodologies for solving architectural problems. Firms seek these generalists and over time expect them to develop specific knowledge to meet current and future needs. This traditional relationship

between academia and the practice of architecture limits the potential of both.

The realities of the profession, in both large and small firms, are finding work, balancing the requirements of clients with design integrity and meeting rigorous, financially driven schedules. This leaves little time for anything else. Conversely, the typical demands of academia—publishing articles in peer-reviewed journals, attending conferences, becoming known for narrow fields of research—are not fully supportive of an individual who maintains a professional practice of architecture.

While I try to balance teaching with practice, in reality my calendar is a bit disjointed. During semester breaks, I focus my energies on my professional projects. And if those projects are likely to take longer than the available non-teaching time, I have to either rely on others or play more of an

adviser role. One way to bridge this gap is through design competitions where I can explore the results of the design-based research from my teaching.

The profession should expect academia to think critically, providing new insights and cutting-edge research. If the profession was more linked to educational institutions, and institutions in turn were more open to the practice as a lab for research, both would gain. With its new dean, IIT is positioning itself to be an architectural school where the two can further complement each other. In a recent interview, Dean Wiel Arets stated:

“I believe that everyone should be a student their whole life. You can do many things in the academic climate that you cannot do within the larger non-academic world. I hope that in offices people ask themselves the same questions we ask ourselves in the academic

condition. That doesn't mean that when you ask the same questions, the answers you give are the same.”

Ideally, professional education and training cannot occur in isolation from practice. To accomplish this requires willingness and additional flexibility from the private and educational spheres. Still, the goals and capabilities can reinforce each other, not as two separate strands, but as intertwined efforts, bringing ideas and processes from one to the other and back again. For me, the paths of practice and teaching are not either/or, but both. **CA**

Susan Conger-Austin, AIA, is a studio professor and director of foreign relations in the College of Architecture at the Illinois Institute of Technology. She is also a principal of S. Conger Architects LLC (www.scongerarchitects.com).

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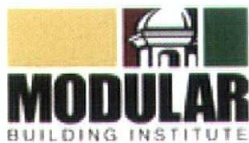
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Energy Efficiency Reaches New Heights in Illinois

STATE TAKES CHARGE WITH STRICTEST ENERGY CONSERVATION CODE YET

By Raissa Rocha

In the latest incarnation of the International Energy Conservation Code (IECC), energy efficiency is improved up to 30 percent over current conventional building practices. But while other states continue to use older, less strict versions of the IECC for their statewide energy codes, the 2012 version is already

making waves in Illinois, where a new state code went into effect Jan. 1, 2013.

Illinois is the second state in the nation—after Maryland—to adopt and implement the 2012 IECC, thanks to a 2010 energy efficiency law mandating that the state update its code when new versions of the

The 2012 Illinois energy code features a new requirement that mandates blower door tests for newly constructed homes. Builders now have to provide third-party proof that the new houses they build meet specific air-tightness levels.

IECC are issued, every three years. The 2012 Illinois update also incorporates the 2010 edition of ASHRAE 90.1 “Energy Standard for Buildings Except Low-Rise Residential Buildings” into its requirements, covering all new commercial and residential construction.

While cities or states can typically adopt the IECC model code and strengthen or weaken its requirements, the new energy code is the only standard across the entire state. Local governments may adopt stricter laws for commercial buildings, but there is no variance for residential ones and individual communities cannot amend the 2012 code as such, says David Wytmar, AIA, LEED AP, of Groundwork Ltd. Architects/Planners/Engineers.

“That consistency of the code throughout the state helps to make it easier to implement,” he notes. Where previously one suburb may have been following a 2003 version of the IECC while the next village over was using the 2006 IECC, a truly statewide standard can help architects and other building team members avoid any hassles in complying with building codes in different towns.

The 2012 update also marks the first time the city of Chicago is enforcing the Illinois code, Wytmar says. While free to add amendments, the state expects the city to implement and enforce the Illinois law rather than solely rely on its own—the Chicago Energy Conservation Code—as had been the case in the past. This has the potential to ensure more Chicago area professionals are adequately trained and educated on the Illinois energy code, suggests Wytmar. That may make it easier for clients who need assurance that their new buildings are compliant.

Impact on Residential Buildings

While energy conservation has been the model for commercial buildings for at least a decade, the 2009 IECC was the first energy code for residential buildings in Illinois when it became effective in 2010, according to the Department of Commerce and Economic Opportunity. With these latest changes, Wytmar says he expects the energy efficiencies of newly built single-family homes to dramatically improve. In addition, existing homes that undergo significant renovations, repairs or additions must comply with the 2012 Illinois energy code. "The biggest change in this code has been for residential construction," he says. "Now every aspect of the building community must comply with the energy code."

Among the latest revisions found in the 2012 IECC are requirements for tighter building enclosures. One of the most significant changes is the requirement of a blower door test for new homes, Wytmar says, adding that builders now have to provide third-party proof that the new homes they build meet specific air-tightness

levels. Proper building tightness can minimize problems associated with moisture condensation, uncomfortable drafts leaking in from the outdoors, and indoor air pollution, says the U.S. Department of Energy's website. In addition, one of the biggest goals in tightening buildings is minimizing air leakage, which can reduce the amount of energy consumed overall by the structure.

The call for tighter building envelopes will also force some changes inside the home that are not necessarily written into the code, Wytmar says. Conventional residential furnaces and water heaters may not function properly in increased levels of air tightness,

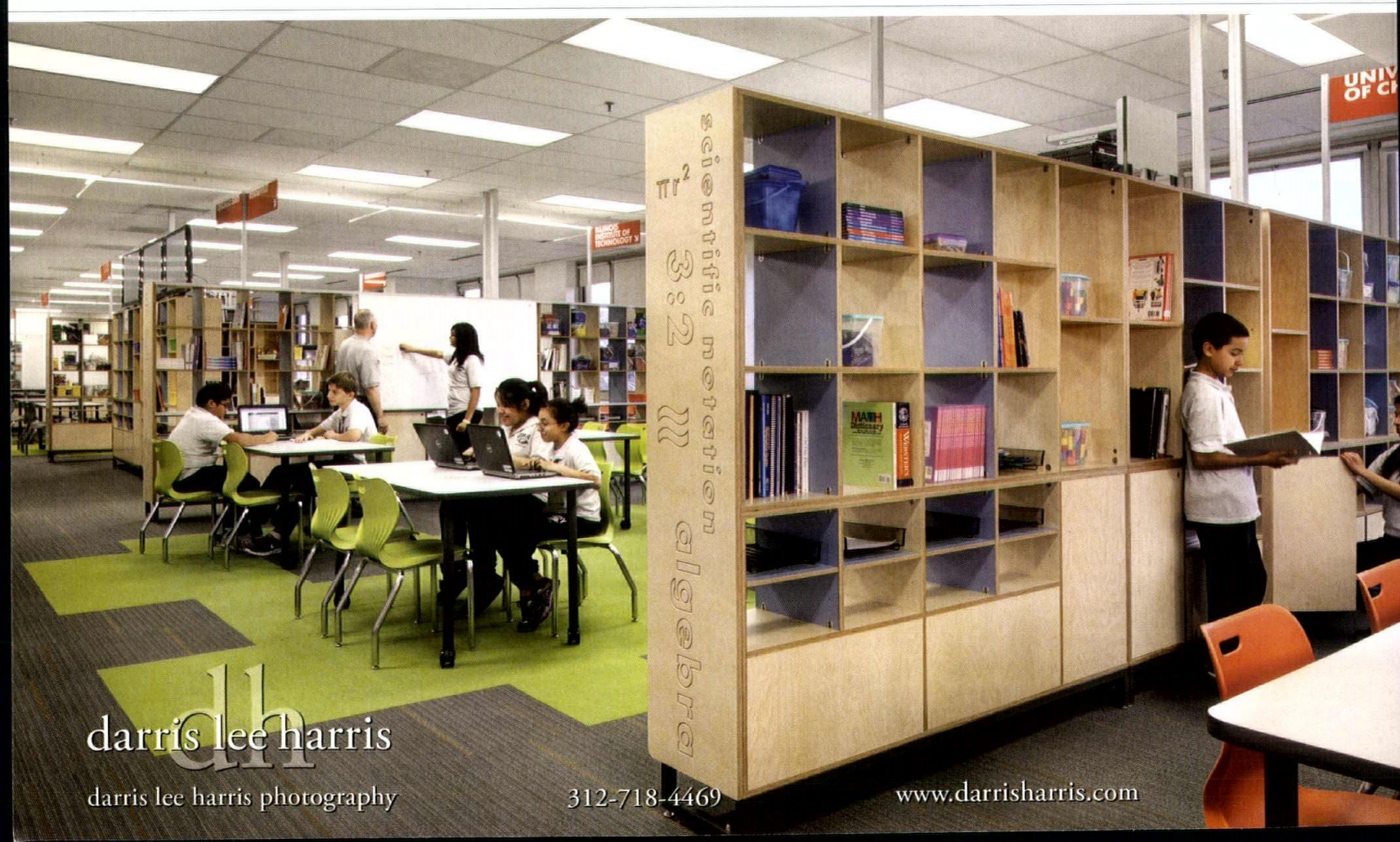
since those units draw their combustion air from inside the house. Builders will need to install higher-efficiency, sealed-combustion appliances that draw air from the outside, which Wytmar says will drive up the costs of homes.

Increasing Awareness

For architects and others in the building industry, awareness of the 2012 Illinois energy code will be important to ensure clients receive energy-efficient, compliant projects. "The homebuilding industry has never had to construct homes to this level of quality before, and implementation and enforcement will be a challenge," says Wytmar. "The design community needs to rise to the challenge of providing designs that address these new requirements."

Wytmar advises architects to be attentive, not only now but also in the near future. No sooner will architects incorporate these latest energy efficiency requirements than another round will come in 2015. "Design solutions that may be acceptable now may need to change in three years," he says. **CA**

The Illinois Energy Office offers training for architects and other professionals about the basis for correct use of the 2012 IECC and ASHRAE 90.1-2010. Information on the 2013-2014 program year is available at www.ildceo.net/energycode.



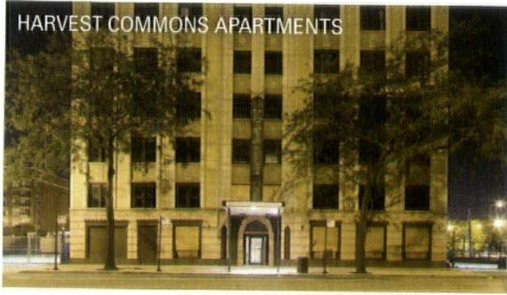


Photo by David Schallio

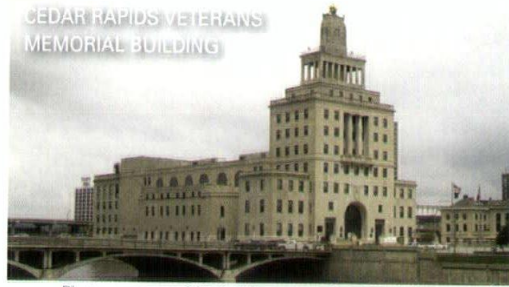


Photo courtesy of Alt Architecture + Research Associates LLC

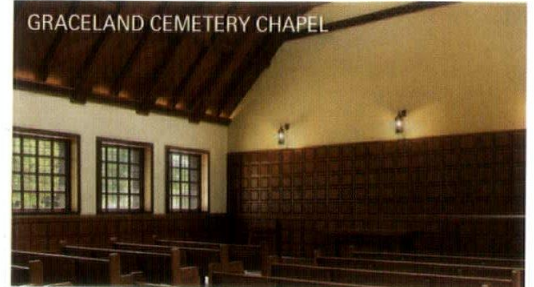


Photo by Barbara Karant, Karant+Associates, Inc.

GET SMART

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HARVEST COMMONS APARTMENTS

OWNER, DEVELOPER & PROPERTY MANAGER:

Heartland Housing Inc.

CO-OWNER & CO-DEVELOPER:

First Baptist Congregational Church

ARCHITECT: Landon Bone Baker Architects

GENERAL CONTRACTOR: Linn-Mathes Inc.

MEP ENGINEER: dbHMS

LANDSCAPE ARCHITECT: Mimi McKay

HISTORIC PRESERVATION CONSULTANT:

McGuire Iglesias Associates

COMMISSIONING AUTHORITY AND GREEN CHARRETTE

MODERATOR: Harley Ellis Devereaux

FARM DESIGN CONSULTANT:

Heartland Human Care Services

CHICKEN CONSULTANT: Jennifer Murtoff

SCULPTOR: Bernard Williams

ARTS-BASED COMMUNITY DEVELOPMENT

ORGANIZATION: architresures

SMARTHAUS:

HOMEOWNERS: Aaron & Jenny Stash

ARCHITECT: Michael S. Kollman, AIA, LEED AP

CONSTRUCTION MANAGER: SmartHaus Inc.

DECONSTRUCTION: RE-USE Consulting

CIVIL ENGINEER: Infraland Engineering Consultants

LANDSCAPING: Guy Scopelliti Landscape

ELECTRICAL: Principle Electric

CARPENTRY: Bradley Design & Construction

HVAC: Balanced Air Heating & Cooling

UTILITIES AND DEMOLITION: Waseda

MECHANICAL ENGINEER: Build Equinox

GREEN RATERS: eZing Inc.

LEED FOR HOMES PROVIDER: Eco Achievers

SOLAR ENERGY CONSULTANT: Habi-Tek

SOLDIERS' SANCTUARIES

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CEDAR RAPIDS VETERANS MEMORIAL BUILDING

CLIENT: Mike Jager, executive director of the Cedar Rapids Veterans Commission

ARCHITECT OF RECORD:

Alt Architecture + Research Associates LLC

CONSTRUCTION MANAGER: Neumann Brothers

STRUCTURAL/CIVIL ENGINEER:

Shoemaker & Haaland

MEP: Bluestone Engineering

THRESHOLD ACOUSTICS: Briggs Elevator Consulting

KITCHEN CONSULTANT: Boelter

PATRIOT'S CASA, TEXAS A+M AT SAN ANTONIO

CHIEF OF STAFF AND VICE PRESIDENT FOR STRATEGIC INITIATIVES AND MILITARY AFFAIRS:

Maj. Gen. Charles Rodriguez, Ph.D.

ARCHITECT OF RECORD: Kell Muñoz Architects

ASSOCIATE ARCHITECTS:

Alt Architecture + Research Associates LLC

MECHANICAL/PLUMBING: Shah Smith and Associates

ELECTRICAL: CNG Engineering

STRUCTURAL ENGINEER: R-S-C-R Inc.

ENGINEERING: Briones Consulting and Engineering Ltd.

STATE OF GRACELAND

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GENERAL CONTRACTOR: Bulley & Andrews

STRUCTURAL ENGINEER: The Structural Shop

MECHANICAL ENGINEER: Hill Mechanical

LANDSCAPE ARCHITECT: Wolff Landscape Architecture

LANDSCAPE INSTALLATION AND MAINTENANCE:

Mariani Landscape

CUSTOM WINDOWS AND DOORS:

Grabill Windows and Doors

MASONRY RESTORATION: Marion Restoration

MONUMENT FABRICATION: Gast Monuments

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Photo by Matt Gilson

Kevin Kurtz Pierce,

AIA, CEM, LEED AP

1957 – 2013

"THE FLAME THAT BURNS TWICE AS BRIGHT BURNS HALF AS LONG." — LAO TZU, TAO TE CHING

Throughout his all-too-short life, sustainable design pioneer Kevin Pierce accomplished an amazing feat. He simultaneously treaded lightly on this earth and left huge footprints for the rest of us to follow and fill.

Many practicing architects today ride along with the "green" movement, especially as it becomes more mainstream. In contrast, Kevin's distinctive voice and work was representative of the handful of early adopters who formed and shaped the sustainable movement in Chicago over the last two decades. He worked for many renowned firms early in his career, including Skidmore, Owings & Merrill and Lohan Associates, but it was during his years in the collaborative offices of Farr Associates that Kevin hit his stride.

Kevin's design impact on the Chicago landscape can be most strongly felt on the Near West Side. Here he led the design of four of Farr Associates' seminal projects: the Chicago Center for Green Technology, the Bethel Center, Sanctuary Place and the headquarters of Christy Webber Landscapes.

In these four projects one can see a progression in Kevin's design methodology and leadership toward what the industry now refers to as integrative design. Beginning with the Chicago Center for Green Technology (CCGT), he led a collaborative effort amongst multiple firms tackling the LEED documentation process for the first time. The resulting flagship green demonstration building for the city also became the first U.S. municipal structure to be certified LEED Platinum. CCGT was followed by the visionary design of the mixed-use Bethel Center, which expanded

beyond sustainable "bricks and mortar" strategies. It embraced the concept of transit-oriented design by connecting literally, via bridge, to the adjacent Lake/Kedzie Green Line elevated stop.

A few short blocks away from CCGT at Sanctuary Place, Kevin tackled the issues of social housing while incorporating sustainability on a tight budget. This residential campus demonstrates Kevin's planning expertise through the strategic separation of the housing program into two distinct housing types—a 63 single-room occupancy apartment building and six townhouses—and their careful placement on a compact urban infill site. While not LEED-certified, the project received many accolades and is still looked at today as a model for practical green design.

Capping off his tenure with Farr, Kevin returned to the neighborhood of CCGT when Christy Webber Landscapes decided to relocate and centralize its business next door. The design of this award-winning office headquarters is packed with examples of the results of an integrated design process. From the detailing of the steel framing connections—which saved tons of materials as well as dollars—to the integration of the solar and geothermal systems, the complex is a masterpiece of integrated design.

Realizing that the world would not be saved one newly constructed "green" building at a time, Kevin left Farr Associates in order to take his work "to scale" by shifting his focus to the already-built environment. "People think it will make a big impact, but we don't build enough new ones. We add to the building stock at a rate of 1 percent yearly, so we're better off

retro-fitting existing buildings that don't meet current energy codes, or changing our development patterns so people don't have to drive as much," he said passionately in 2008 when he received a Suite Sixteen award from *i4design* magazine. Kevin had a brief stint with his own consultancy, Emergency Picnic, but soon landed at the international firm of Shaw Environmental as director of sustainable design.

As evidenced by the depth and breadth of his built portfolio, Kevin understood better than most the urgency of the current environmental crisis that underscores our time. Not only did he understand, he put that understanding into action. He was not paralyzed by the scale of the task at hand. On the contrary, the crisis fueled his energy level and creativity. Underlying all his work was his quick wit and sharp sense of humor. For him, life's emergencies were picnics. Kevin believed that out of crisis came opportunity.

"The light that burns twice as bright, burns half as long. And you have burned so very, very brightly." — Ridley Scott's *Blade Runner*

While this quote seems very applicable to Kevin's life, there is also comfort in knowing that his work and his legacy continue in so many tangible and intangible ways: not just through his built examples, but also through the multitude of people whom he mentored, taught, challenged and inspired.

> **Susan F. King, FAIA**

Susan F. King, FAIA, LEED AP BD+C, considers herself fortunate to have had an annual working occasion with Kevin. Since 2006 they co-developed a workshop curriculum for Chicago Community Loan Fund titled Building for Sustainability.



Join the Green Revolution

When the building needs to meet the New 2012 International Energy Conservation Code, 2012 International green Construction Code requirements, or get LEED Points, the Roof and Building Envelope is a key element to success.

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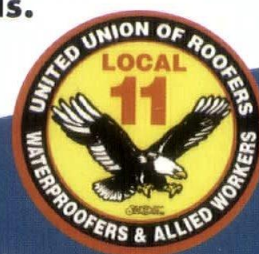
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