

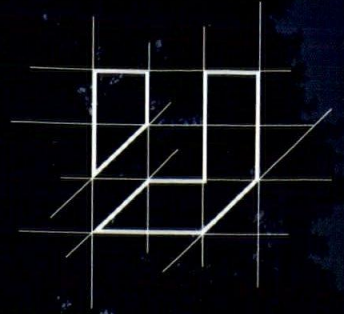
# CHICAGO ARCHITECT

## THAWING OUT

Google's New HQ Warms Up the West Loop

THE AMERICAN DISABILITIES ACT AT 25 // 16  
CHICAGO'S MIDCENTURY MOTELS // 32

\*\*\*\*\*AUTO\*\*3-DIGIT 200 N207  
 SCK 2  
 PRSRT STD  
 US Postage  
 Paid  
 Permit No. 5  
 AMERICAN INSTITUTE OF ARCHITECTS  
 NANCY HADLEY, ASSOC. AIA  
 1736 NEW YORK AVE NW  
 WASHINGTON DC 20006-5292



YOUR **ONE** VISION.  
OUR **INFINITE** CHOICES.

**CREATE.**

Begin with your inspired vision.

**COLLABORATE.**

Trusted, experienced and on the cutting edge of paving stone technology, the Unilock team has the expertise and customer service to fully develop your creative paving designs.

**CUSTOMIZE.**

Unilock will create a unique custom look for your next project. Optimizing color, finish, texture and size, our team will work closely with you from start to finish to make your designs a reality.

**PROJECT:** Broad Art Museum, Michigan State University. East Lansing, Michigan

**DESIGN:** Hamilton Anderson Associates

**PRODUCT:** Promenade™ Plank Paver with Umbriano® finish

**UNILOCK**

DESIGNED TO CONNECT

UNILOCK.COM 1-800-UNILOCK

Contact your Unilock Representative for samples, product information and to arrange a Lunch & Learn for your team.



**THE HILL GROUP**

# *Reinventing an Industry*

The Hill Group is helping to reinvent the building process by leading the way in Collaboration, Integrated Project Delivery, Building Information Modeling, Pre-Fabrication, Modular Construction, Commissioning, and Building Energy Efficiency.

*Construction*

*Energy Efficiency/Sustainability*

*Service & Building Maintenance*

*Commissioning/Test & Balance/LEED Consulting*

*Building Operations/Stationary Engineers*

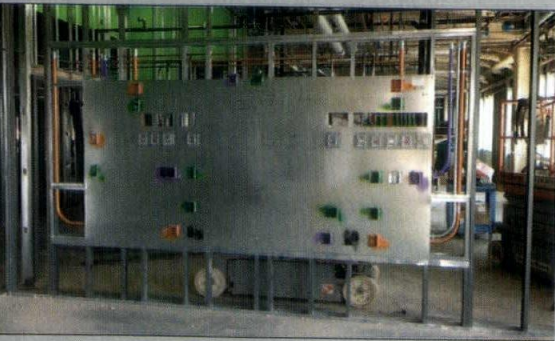
*Engineering Services*

*Facilities Solutions*

*Architectural Systems*



**THE HILL CAMPUS**



Our 26-acre, state-of-the-art campus includes:

- (A) 32,000 SF Corporate office space
- (B) 104,000 SF Prefabrication shop
- (C) 80,000 SF Modular construction space
- (D) 21,000 SF Hill Collaboration Center
- (E) Tools, logistics, high bay and crane area

*"I personally invite you to tour our campus and witness the future of an industry today."*

Brian Teyema, Vice President  
847.451.5000  
hillgrp.com



Scan to watch Autodesk® video featuring The Hill Group.

**BUILDING EXCELLENCE ... through Experience and Innovation**

Re-Create. Recreate.



*balloggphoto.com*

When Oak Park wanted to revitalize and enhance its iconic but aging Ridgeland Common Recreation Complex, Bulley & Andrews collaborated with Nagle Hartray Architecture on a comprehensive redesign and rebuild. When the project was completed, Ridgeland Common didn't just reopen—it was reborn.

**BULLEY &  
ANDREWS**  
General Contractors Since 1891

1755 West Armitage Avenue • Chicago, Illinois 60622 • 773.235.2433 • bulley.com

# CHICAGO ARCHITECT

## PUBLICATION DIRECTOR

Zurich Esposito  
zesposito@aiachicago.org

## PUBLISHER

John Rogier  
jrogier@sgcmail.com

## EDITOR

Ben Schulman  
bschulman@aiachicago.org

## MANAGING EDITOR

Raissa Rocha

## CONSULTING EDITOR

Rob Cassidy  
*Building Design+Construction* magazine

## DESIGNER

Kelsey Craig

## ADVERTISING SALES

Maggie Zmija  
mzmija@sgcmail.com  
847.954.7935

## ADVERTISING COORDINATOR

Lucia Currans  
lcurrans@sgcmail.com  
847.391.1005

## CONTRIBUTORS

Chris Bentley  
Pamela Dittmer McKuen  
Sara Elliott  
Lynne Fort  
Amy McIntosh  
Adilla Menayang  
Laurie Petersen  
Dennis Rodkin  
Mary Ellen Shoup  
Timothy Schuler  
Patrick Sisson  
Jeff Zagoudis

## GROUP DIRECTOR - PRINCIPAL

### SGC HORIZON BUILDING GROUP

Tony Mancini  
tmancini@sgcmail.com

## VICE PRESIDENT, CUSTOM MEDIA

### SGC/SGC HORIZON

Diane Vojcanin  
dvojcanin@sgcmail.com



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

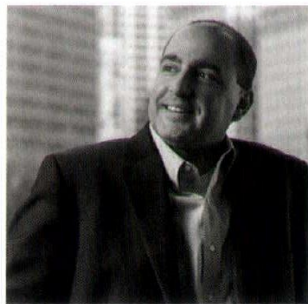
PHOTO BY JOHN STURDY

## PRESIDENT'S LETTER

In the old cowboy westerns, it was customary for good guys to wear white hats and bad guys to wear black hats. Despite architects' penchant for wearing black hats, I argue that we are really a white hat sort of profession.

We seek to do good—by our environment, by our cities and by our clients.

This is part of the DNA of our profession, and it is also something



acknowledged by the general public. This was evidenced in the findings of AIA National's 2012 repositioning study. When asked to rank the profession of architecture

compared to others, the public ranked us higher than we rank ourselves.

Today, AIA's "I Look Up" campaign seeks to build upon that goodwill. In short, it's time we don our white hats and take a leadership role in creating a more vibrant, resilient environment for all.

We know how to find the solutions that make our world better. We use the power of teamwork and collaboration to make our buildings better all the time, and that sense of shared responsibility is needed more than ever in the world today.

In the premiere "I Look Up" video, the voiceover states, "Looking up is looking within. Looking through the eyes of others. Looking up is listening to our clients and to our hearts."

I can speak from personal experience that there have been many moments where I felt torn between what I wished to see happen and what the client hoped for in a project. It is important to make both work. If the public sees us listening more as part of the building process,

we can engage with them further and deepen that trust.

**WE USE THE POWER OF TEAMWORK AND COLLABORATION TO MAKE OUR BUILDINGS BETTER ALL THE TIME.**

This was driven home to me in a recent New York Times op-ed titled, "How to Rebuild Architecture," by Steven Binger and Martin C Pedersen. The piece touched upon the fact that architects are trained to look at things a certain way while the public looks at architecture through a different lens.

We need to connect with our clients and work with them to create buildings of beauty and utility. And luckily, we live in an era without a defining aesthetic style, except a commitment to principles of resiliency and responsiveness.

We can have a bigger impact on the environment and the world if we find a way to resonate with a larger base. I believe that through listening we can create something powerful on many levels.

*Anthony LoBello, AIA*

Nurturing the **Emerging** Professional

**Engaging** the Public

Maximize **Exposure** for our Profession

- facebook.com/chicagoaia
- aiachicago.tumblr.com
- twitter.com/aiachicago
- vimeo.com/aiachicago

Moving Walls

800-746-8273

# DOORS

- SHOPPING CENTERS
- OFFICE BUILDINGS
- RESTAURANTS
- AVIATION



## HYDRAULIC "One-Piece" DOOR

OR

## BIFOLD STRAP-LIFT and auto-latch

- FASTER
- SAFER
- QUIETER
- PROVEN

Say YES... to Strap-Lift Doors

Say NO to Cable Lift

**SCHWEISSDOORS.com**

One-Piece

### 2015 AIA CHICAGO DIRECTORY

#### CHICAGO ARCHITECT ADVISORY COMMITTEE

Thomas Braham, AIA  
 Peter Exley, FAIA  
 Peter Schlossman, AIA  
 Linda Searl, FAIA  
 Brett Taylor, AIA  
 P.K. VanderBeke, AIA  
 Cynthia Weese, FAIA  
 Thomas Zurowski, AIA

#### AIA CHICAGO 2015 BOARD OF DIRECTORS

##### PRESIDENT

Anthony LoBello, AIA

##### FIRST VICE PRESIDENT/ PRESIDENT ELECT

Dawn Schuette, FAIA

##### VICE PRESIDENT ADVOCACY

Catherine Baker, AIA

##### VICE PRESIDENT SPONSORSHIP

Robert Forest, FAIA

##### VICE PRESIDENT HONORS & AWARDS

Philip Castillo, FAIA

##### SECRETARY

Craig Brandt, AIA

##### TREASURER

Matthew Dumich, AIA

##### PAST PRESIDENT

Scott Rappe, AIA

##### DIRECTORS

Jessica Figenholtz, AIA  
 Dina Griffin, AIA  
 Tristan d'Estrée Sterk, AIA  
 Nootan Bharani, AIA  
 April Hughes, AIA  
 Michael Pfeffer, AIA  
 Craig Cernek, AIA

##### ASSOCIATE DIRECTORS

Vuk Vujovic, Assoc. AIA  
 Laura Crane, Assoc. AIA

##### PROFESSIONAL AFFILIATE DIRECTORS

Fred Berglund, Affiliate AIA  
 Avraham Mor, Affiliate AIA

##### STUDENT DIRECTOR

Chelsea Steiner, AIAS

##### AIA ILLINOIS DELEGATES

Eric Davis, AIA  
 Janeen Harrell, AIA  
 Ellen Dickson, AIA

#### 2015 KNOWLEDGE COMMUNITIES

##### COMMUNITY INTERFACE COMMITTEE

Chey Hsiao Taylor, AIA,  
 co-chair  
 Alexis Stumpf, Assoc. AIA,  
 co-chair

##### DESIGN

Gregory Klosowski, AIA,  
 co-chair  
 Katherine LaCourt, Assoc.  
 AIA, co-chair

##### DESIGN FOR AGING

Steven Montgomery, AIA,  
 chair  
 Heidi Dahle, AIA, co-chair

##### EDUCATION

Burcin Moehring, AIA,  
 chair  
 William Bradford, AIA,  
 co-chair

##### ENVIRONMENT

Susan Heinking, AIA,  
 co-chair  
 Darren Hoppa, AIA,  
 co-chair  
 José Rodriguez, Intl. Assoc.  
 AIA, 2030 Working Group

##### HEALTHCARE ARCHITECTURE

Candace Small, AIA,  
 EDAC, co-chair  
 Chuks Okwuje, Assoc.  
 AIA

##### HISTORIC RESOURCES

Tim Scovic, AIA, co-chair  
 Carolyn Andrews, Assoc.  
 AIA, co-chair

##### INTERFAITH FORUM ON RELIGION, ART AND ARCHITECTURE

Douglas Lasch, AIA,  
 co-chair

##### PRACTICE MANAGEMENT

Ben Johnson, AIA, chair

##### REGIONAL & URBAN PLANNING

Susan Hickey, AIA, chair  
 Steve Wilson, AIA, co-chair

##### RESIDENTIAL DESIGN

Nate Lielas, AIA, chair

##### SMALL PRACTITIONERS GROUP

Craig Cernek, AIA, chair  
 Laura Garcia, AIA,  
 co-chair

#### TECHNICAL ISSUES

Peter Stutz, AIA, co-chair  
 Nick Niedospial, AIA,  
 co-chair

#### INTERIOR ARCHITECTURE

YOUNG ARCHITECTS FORUM  
 Scott Schumaker, Assoc.  
 AIA, chair

Laura Crane, Assoc. AIA,  
 co-chair

Andres Lopez Franco,  
 Assoc. AIA, co-chair

#### CHAPTER STAFF

EXECUTIVE VICE PRESIDENT  
 Zurich Esposito

#### PROGRAM DIRECTOR

Joan Pomaranc

#### PROGRAM MANAGER

Allison Garwood Freedland

#### COMMUNICATIONS DIRECTOR

Ben Schulman

#### FINANCIAL MANAGER

Kathy Jessen

#### MEMBERSHIP MANAGER

Steve Riforgiato

#### EVENTS MANAGER

Kelsey Kirkley

#### OFFICE MANAGER

Nina Dew

Subscription to Chicago Architect is included with AIA Chicago membership. Non-members may subscribe by signing up at: [www.aiachicago.org](http://www.aiachicago.org)

Additional copies of Chicago Architect are available for \$7.50 per issue and can be obtained by contacting the AIA Chicago office at 312-670-7770. If you are interested in purchasing a large number of issues, contact AIA Chicago and ask about group sales.

The American Institute of Architects is the voice of the architectural profession and the resource for its members in service to society.

AIA Chicago is proud to print Chicago Architect entirely on FSC®-certified paper. The strict standards of the Forest Stewardship Council® (FSC®) ensure that the paper stock includes wood fiber from well-managed forests as well as recycled fiber and/or fiber from company-controlled sources.



## CORRECTIONS



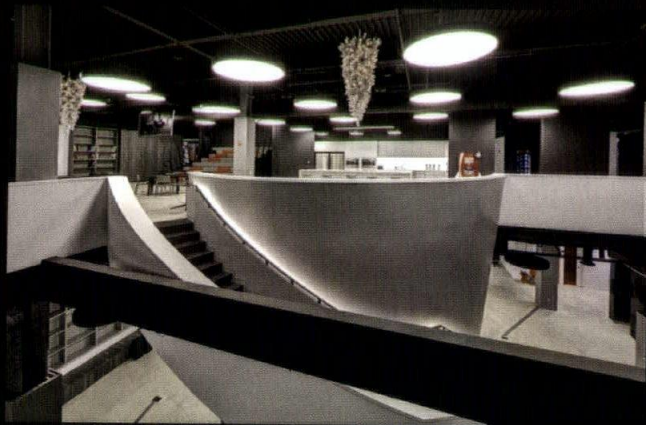
The cover story of the Jan/Feb 2015 issue, "Setting His Sights," mistakenly places the Nicholas Design Collaborative-designed Periscope House within the micro-neighborhood of Edgewater Glen. The house is

situated in Magnolia Glen. Both micro-neighborhoods are in the larger community area designated as Edgewater.

A caption in the Jan/Feb article, "Heartland Housing's Approach to Design," (p. 24) misidentified the designer of the Town Hall Apartments project as 'Michael Hanley, AIA, of Gensler.' Hanley was a member of the design team, and the caption should have stated 'The project was designed by Gensler.'



## PROUD INTERIOR CONTRACTOR FOR 135 YEARS....



Havas Worldwide Chicago Office - Completed December 2014

### J.C. ANDERSON, INC.

INTERIOR CONTRACTORS  
ESTABLISHED 1879

CORPORATE HEADQUARTERS  
834 N. Church Road  
Elmhurst, Illinois 60126  
(630) 834-1669

CHICAGO OFFICE  
120 South LaSalle Street  
Chicago, Illinois 60603  
(312) 929-1795

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



## CHICAGO ARCHITECT

### The City's Resource for Architectural News

*Chicago Architect*, the official publication of AIA Chicago, is the authoritative resource for Chicago architects, the larger design community and the public about architecture and related topics.

Your ad message in *Chicago Architect* reaches more than 3,400 members, including architects, contractors, design consultants, engineers, interior designers and other design/build professionals.

Reach out to this architectural community. **Reserve your ad space today and ask about available premium positioning!**

*AIA Chicago's Board of Directors appreciates your advertising commitment in Chicago Architect.*

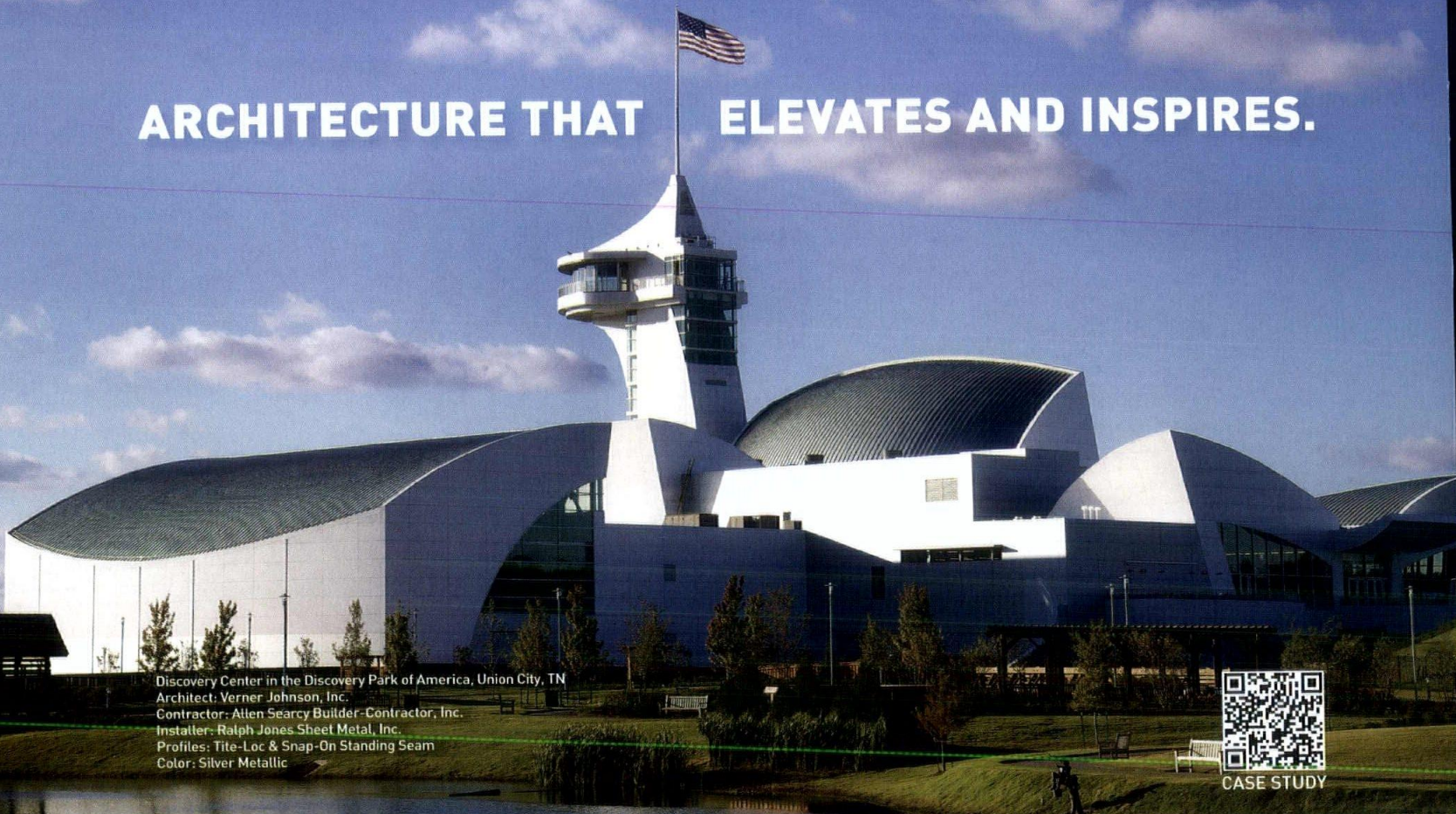
### AIA CHICAGO

SCRANTON  
GILLETTE  
COMMUNICATIONS  
SGC HORIZON

**FOR MORE INFORMATION  
OR TO RESERVE YOUR AD  
SPACE CONTACT:**

Maggie Zmija  
Integrated Media Consultant  
847.954.7935  
[mzmija@sgcmail.com](mailto:mzmija@sgcmail.com)

# ARCHITECTURE THAT ELEVATES AND INSPIRES.



Discovery Center in the Discovery Park of America, Union City, TN  
Architect: Verner Johnson, Inc.  
Contractor: Allen Searcy Builder-Contractor, Inc.  
Installer: Ralph Jones Sheet Metal, Inc.  
Profiles: Tite-Loc & Snap-On Standing Seam  
Color: Silver Metallic



CASE STUDY

"This was one of the more complex jobs we've done in our 35 year history. I wouldn't have tackled a job like this without Petersen Aluminum. We knew we could count on them to get the job done and get it done right."

— Gordon Jones, president, Ralph Jones Sheet Metal



## THE EXPRESSIVE CURVING CAPABILITIES OF PAC-CLAD® METAL ROOFING INSPIRED THIS UPLIFTING DESIGN.

Though the forms envisioned for the new centerpiece of the Discovery Park of America were not standard, the use of PAC-CLAD metal roofing materials made for a straight-forward application. PAC-CLAD Tite-Loc and Snap-On Standing Seam panels combine architectural aesthetics with ease-of-use and structural performance, backed by a 20-year non-prorated finish warranty.



WWW.PAC-CLAD.COM | IL: 1 800 PAC CLAD | MD: 1 800 344 1400 | TX: 1 800 441 8661 | GA: 1 800 272 4482 | MN: 1 877 571 2025



DEPARTMENTS

10 FAÇADE

**Breakfast at Sophie's**

Chicago's Saks Fifth Avenue is home to the brand's flagship restaurant, which draws its inspiration from a fashion icon

**Brand New Ride**

Hotel development brings Art Deco jewel back to life

**Paradigm Shift**

Changing the way designers think about disability

18 CHAPTER REPORTS

20 PEOPLE + PROJECTS

24 OPINION

How to build bridges between emerging professionals and established architects

41 CONTINUING EDUCATION

New developments in data center design

46 THE SPEC SHEET

Metal roof beefs up energy performance of Glencoe home

48 THE PRACTICE

Enhancing communication between architects and clients

49 AD INDEX

50 A TO Z

Professional duo work collaboratively at every scale



VINTAGE POSTCARD IMAGES OBTAINED VIA CARPCOM.COM

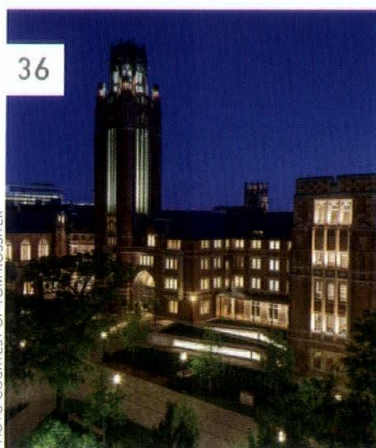
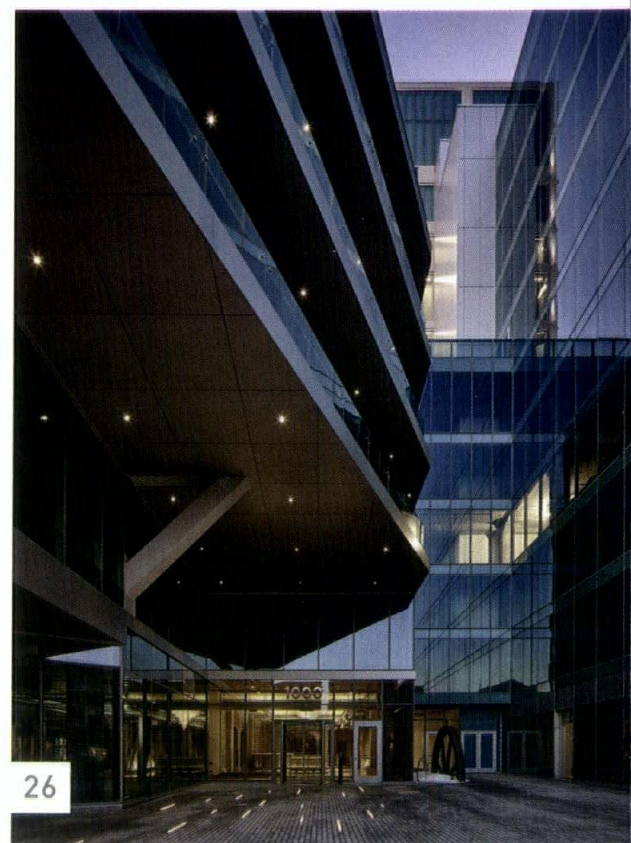


PHOTO COURTESY OF TOM ROSSITER



26

FEATURES

26 // 21<sup>ST</sup>- CENTURY MARKET

Historic Fulton Market building in the West Loop is repurposed for the digital age

32 // CHICAGO'S MIDCENTURY MOTELS: MOD OR OUTMODED?

Assessing a moment in Chicago's architectural history

36 // NEW GENERATIONS OF GLASS AND STONE

Three University of Chicago projects evolve Collegiate Neo-Gothic in subtle ways

ON THE COVER

*Sterling Bay's 1K Fulton, the future home of Google, is as strategically located as it was in 1920 but for far different reasons.*

PHOTO BY: PATSY MCENROE PHOTOGRAPHY



OUR PREVIOUS ISSUE is available to view digitally at [www.aiachicago.org](http://www.aiachicago.org)



50

PHOTO BY DARRIS LEE HARRIS

## BREAKFAST AT SOPHIE'S

Chicago's Saks Fifth Avenue welcomes the brand's new flagship restaurant, drawing inspiration from a fashion icon



*A glass wall to the left, which separates the private dining room from the main dining room, features an asymmetric ripple pattern mimicking that of Sophie Gimbel's favorite dress.*

**SAKS FIFTH AVENUE HAS A REPUTATION** of being one of the country's most iconic luxury department stores. Thanks to a partnership between Saks Fifth Avenue and its food and beverage provider, Fifth Dining, that luxury is translating into a unique dining experience in stores around the world.

Now, Chicago's Magnificent Mile Saks location is the first to house what is considered the store's

new signature restaurant: Sophie's at Saks Fifth Avenue.

New York-based architect Andre Kikoski, AIA, and his team worked to design a restaurant representative of the Saks Fifth Avenue brand and voice, using the physical characteristics of Saks Fifth Avenue's flagship New York City store along with the retailer's Pentagram-branded style guide. The design approach's second influence comes

directly from its namesake—Sophie Gimbel.

As the wife of former Saks Fifth Avenue president Adam Gimbel, Sophie was a renowned haute couture fashion designer, known for her simple, elegant designs. In 1929 she was named director of Saks Fifth Avenue's Salon Moderne, and in 1947 she became the first American fashion designer to grace the cover of Time magazine.

Yet in 2015, few know her name. "She was the



**HANDCRAFTED  
IN AMERICA.** 

*Ultimate Sliding French Door (IZ rated), Pine Interior,  
Ashley Norton Salin Nickel handle sets,  
Ultimate Casement Awning (IZ rated), Pine Interior,  
Custom windows created by Marvin Signature Services*

*Builder: Michael K. Walker & Associates Inc.  
Architect: Sweet Sparkman Architects*

## SUPERIOR CRAFTSMANSHIP TURNS BLUEPRINTS INTO BEAUTIFUL SPACES.

*At Marvin, we can make your creative vision a reality through attention to detail, four generations of experience, and a commitment to quality and service. From concept to installation, we work as your partner to create a window as unique as your imagination. Experience the Marvin difference at [MARVINWINDOWS.COM](http://MARVINWINDOWS.COM)*

**MARVIN**   
Windows and Doors  
**Built around you.®**

*To explore creative solutions for your next project, contact your local, independent Marvin dealer today.*

**MARVIN DESIGN GALLERY  
by Estates Windows, LTD.**  
930 North Shore Dr.  
Lake Bluff, IL 60044  
847-615-1003  
[MarvinByEstates.com](http://MarvinByEstates.com)

**Ashland Millwork, Inc.**  
5 Messner Dr.  
Wheeling, IL 60090  
847-465-8101  
[AshlandMillwork.com](http://AshlandMillwork.com)

**Auburn Corp.**  
10490 W 164th Place  
Orland Park, IL 60467  
708-349-7676 x16  
877-978-2606  
[AuburnCorp.com](http://AuburnCorp.com)

**Blue Ribbon Millwork**  
Woodstock - 815-338-8900  
Algonquin - 847-658-9998  
[BlueRibbonMillwork.com](http://BlueRibbonMillwork.com)

**Creative Millwork**  
3700 Illinois Ave.  
St. Charles, IL 60174  
630-762-0002  
[CreativeMillworkLLC.com](http://CreativeMillworkLLC.com)

**Door & Window Super Store**  
Downers Grove - 630-969-7454  
Orland Park - 708-349-0405  
Sycamore - 815-899-3667  
[DoorWindowSuperStore.com](http://DoorWindowSuperStore.com)

**Evanston Lumber Company**  
1001 Sherman Ave.  
Evanston, IL 60202  
847-864-7700  
[EvanstonLumber.com](http://EvanstonLumber.com)

**Lee Lumber & Building Materials**  
Chicago North - 773-509-6700  
Chicago South - 773-927-8282  
Merrillville, IN - 219-736-2055  
[LeeLumber.com](http://LeeLumber.com)

**Lee Lumber's Spaces and Views**  
Highland Park - 847-681-0300  
[SpacesAndViews.com](http://SpacesAndViews.com)

**Maher Lumber**  
301 W Irving Park Rd.  
Wood Dale, IL 60191  
630-766-8440  
[MaherLumber.com](http://MaherLumber.com)

**Midwest Window and Door**  
1001 Aucutt Rd.  
Montgomery, IL 60538  
630-966-1071  
[MidwestWindowAndDoor.net](http://MidwestWindowAndDoor.net)

**Midwest Window & Supply**  
800 Hicks Dr.  
Elburn, IL 60119  
630-365-5772  
[MidwestWindow.com](http://MidwestWindow.com)

**Searls Windows and Doors, Inc.**  
16261 S Frontage Rd.  
Plainfield, IL 60544  
815-436-3196  
[SearlsWindows.com](http://SearlsWindows.com)

**Woodland Windows & Doors**  
25 W 355 Lake St.  
Roselle, IL 60172  
866-838-3667  
[WoodlandWindows.com](http://WoodlandWindows.com)

forgotten prototype of a powerhouse successful woman entrepreneur," Kikoski says.

In 2013, Kikoski and his team visited an exhibit of Sophie's designs in New York City to gain a better understanding of her aesthetic.

"As we walked the show and looked at her clothing and the photographs of her life, it became pretty clear to us that this woman was not only an incredible entrepreneur and a strong personality, but she had a really aggressive, avant-garde, forward-looking point of view," Kikoski says.

It became important for Kikoski to create a space that combined the voice of Saks with Sophie Gimbel's spirit, passion and fashion sense. Her chic, timeless designs fit perfectly with the style that defines the Saks brand.

Michel Gabbud, general manager of Sophie's, describes this style as "elegance and luxury," adding that to represent the brand, "we try to pamper our guests with a comfortable and accommodating dining experience."

Sophie's is unlike the city's other department store restaurants. The 2,300-square-foot, 100-seat space is located on the selling floor, with little separating shoppers and diners.

"Knowing that Sophie's personality had a full spectrum of who she was as a businessperson, social being and fashion visionary, it didn't seem right to lock [the restaurant] away and compartmentalize it, tuck it in a corner where nobody could find it," Kikoski says. On the contrary, the team situated Sophie's in the men's department on the seventh floor of the store, overlooking Michigan Avenue.

To make the top-floor location easily accessible, the team installed a new elevator after outlining a series of strategies to determine the best location.

"The solution we went with was an ideal location for visibility and access," says Mark Johnson, architect of record and principal of Johnson Design Group, a Chicago-based retail design firm. "It also allowed the new elevator to be placed where it did not disrupt any of the existing operations or key departments in the retail spaces." When the elevator doors open, customers are immediately given a clear view of both the men's store and the restaurant.

Directly across from racks of clothing is the massive, recycled glass-topped bar. Behind that is an open kitchen, separated from the store, bar and dining room by linen laminated between



PHOTOS BY PETER AARON ESTO

**ABOVE** The 100-seat space features corner tables that offer views of Michigan Avenue, the John Hancock Center and the Water Tower. **BELOW** The restaurant is integrated into the selling floor, with the bar located directly across from the men's department.

sheets of glass, an application of Carvart and Designtext's collaborative line of sheer fabrics. The effect offers shoppers and diners a glimpse into the activity of the kitchen.

"It is stylish with an elegance that will stand the test of time. It's luxurious with witty details and interesting elements," Kikoski says. "We always believe when we're designing things that the closer one looks, the more it should intrigue and delight you."

That delight, Kikoski says, is in the details. The Dean Phillips lighting fixtures in the dining room and above the bar are lined with gold leaf; the lights in the main foyer, designed by Kikoski, are lined with Swarovski crystals. A digitally engineered glass wall, Lasvit Liquidkristal, designed by Ross Lovegrove for Lasvit Glass, separates the private dining room from the main dining room and features an asymmetric ripple pattern that mimics the pattern on Sophie's favorite dress.

"In all of our work we always try to look for some organizing metaphors, or a set of ideas that we can structure our work around. We're not at all about creating something for the sake of willful self-expression," Kikoski says. "In Sophie, we did really find the perfect metaphor, an ideal vehicle to develop the design."

Chicago's Sophie's opened in January 2014; a Sarasota, Fla., location opened several months

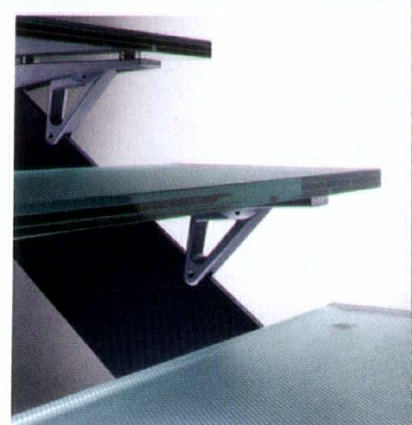
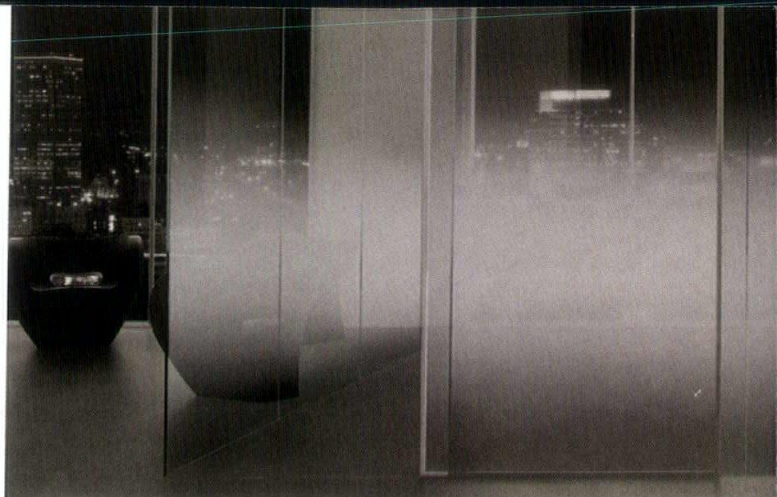


later, and there are plans for more Sophie's at Saks Fifth Avenue locations around the world.

The palette, signature elements and sequence of spaces will be the same in each location. But, Kikoski says, Chicago has one element the other locations cannot match: the views.

"We tried to create the whole experience of the restaurant to culminate in that one special table in the corner of the room overlooking the Hancock Tower, the Water Tower and Michigan Avenue. That's something you can begin to see even from out on the sales floor," Kikoski says. "Because we're trying to connect it to the views, we feel that it also really truly belongs in Chicago."

by Amy McIntosh



# GLASS

THE POSSIBILITIES ARE  
ENDLESS

madras<sup>®</sup>  
vitrealSpecchi

**McGRORY GLASS** is proud to represent **VitrealSpecchi** and their exquisite **Madras<sup>®</sup>** Etched Glass products in North America. **Madras<sup>®</sup>** is the perfect choice for anything from decorative doors, conference rooms, and spas, to non-slip flooring, stairways, and railings. Because the glass is stocked, fabricated, and shipped from our East Coast warehouse, we control all aspects of production and shipping to ensure that the glass arrives on time and in stellar condition.

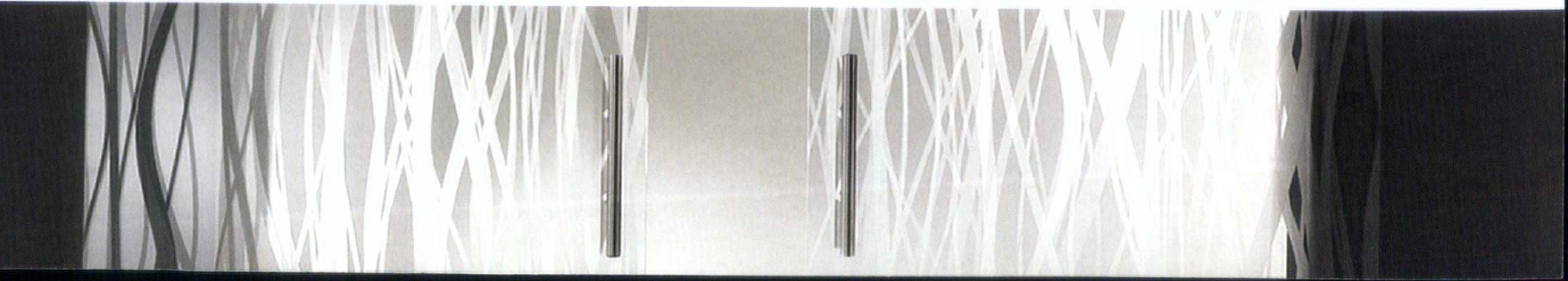


100% SOLAR POWERED FACILITY  
NET ZERO ENERGY CONSUMPTION



**McGRORY GLASS**

McGRORY.COM • INFO@McGRORY.COM • 800.220.3749



## BRAND NEW RIDE

Hotel development brings Art Deco jewel back to life

**TUCKED AWAY IN A SMALL POCKET NEAR THE MAGNIFICENT MILE** and the Chicago River is the Art Deco Chicago Motor Club building. The hidden gem is obscured from the riverfront by the Wyndham Hotel and Mather Tower, and concealed from pedestrians walking south down Michigan Avenue by the London Guarantee and Accident Building.

Standing only 257 feet high with a bright limestone façade, the Chicago Motor Club building sits awash in a sea of hotel development, with the GREC-designed Hilton Garden Inn under construction immediately to its west, and the Hard Rock Hotel in the Burnham Brothers' Carbon & Carbide building directly across the street. Soon, the Chicago Motor Club Building will be occupied by its own hotel. Projected to open in the second quarter of 2015, a Hampton Inn will give the property new life.

Designed by Holabird & Root and completed in 1928, the building was originally built for the Chicago Motor Club, a forerunner of the local AAA chapter. Yet, a revolving door of owners and lack of primary tenants led to its eventual decline; the building had remained vacant since 2004. As investors circled, conversion to a hotel was not a given.

"For the team that stepped up for the project,



**ABOVE** The lobby features a mural by John W. Norton, depicting the major highways of the late 1920s. **BELOW LEFT** Public spaces are intended to be utilized by visitors and locals alike, opening up the previously closed-off interiors.

[the building] was not a no-brainer," said Allen Johnson, director of the Midwest office of MacRostie Historic Advisors, which is serving as a historic preservation consultant for the developer and building team. "It has very tiny floor space, and there's no parking."

Reality is, "tiny floor space" translates to "intimate" for the developers, who have had big visions for the neglected landmark for awhile.

"We found it to be the Stradivarius of the Art Deco architectural style," said John T. Murphy, principal of Murphy Development Corp., the building's developer. "We thought it would be a very interesting pursuit to renovate the building."

As restoration work began, many of the building's unusual assets became apparent.

For starters, the building's use of limestone differs from most buildings of its period. "Limestone [was usually] meant to look heavy, solid and weighty," said Paul Alessandro of Hartshorne Plunkard Architecture, architect of record for the project. "Here, the limestone is treated as something light, plainer, more buoyant and vertical."

A two-story lobby on the ground floor is an iconic space that captures the zeitgeist of the Machine Age. "It's a spectacular space that occupies the whole footprint of the building with beautiful, silver-gilded Art Deco trim throughout," said John Cramer, the project manager from MacRostie.

Many hotels indicated they wanted to be a part of the project, but it was the Hampton Inn that Murphy thought would bring the building's Machine Age glory to the masses. "We are more conservative developers," Murphy said. "We embrace large national brands, and their reach and other benefits that come along with them." It was the people at Hilton Worldwide, which owns the Hampton Inn brand, that were on the same page as the developer about preserving the building's original architectural style.

The project's restoration has been relatively easy, according to Alessandro, as the building was still very much intact and had remained heated throughout its dormancy. Difficulty mainly came with adhering to historical accuracy.

"The whole sixth floor of the building was the

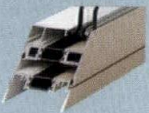




COMMERCIAL  
SOLUTIONS

TWO  
INDUSTRY  
LEADERS.

ONE LOCAL  
SOURCE.



ALUMINUM



FIBERGLASS



VINYL



WOOD

WINDOWS • BALCONY DOORS • STOREFRONTS • ENTRANCES • CURTAIN WALLS  
SUN CONTROL • IMPACT, BLAST AND BALLISTIC OPTIONS • THERMAL PERFORMANCE

Articulate your vision with four materials, virtually endless styles and options, and a wide range of price points with Pella EFCO Commercial Solutions. Pella and EFCO – two of the strongest fenestration brands in the industry – are working together to better support you in realizing your design intentions.



Contact your local team:

Chris Carpenter, CSI, CDT | Architectural Representative  
ccarpenter@pella.com | 630-257-1465 | PellaEFCOSolutions.com



© 2014 Pella Corporation



PHOTO COURTESY OF CHICAGO ART DECO SOCIETY / BRINCE

*The building retains the original limestone façade with an elaborate Art Deco cast iron entrance surround.*

original suite of offices for the [Chicago Motor Club] president, and it was the only interior that was left above the first floor, [so] we were asked to keep it," Alessandro said. But this was hard to do as they were trying to fit in hotel rooms, and the original setup didn't meet the accessibility codes and requirements of the hotel brand. After a discussion with MacRostie and the State Historic Preservation Office, the solution they came up with was to create partition walls and carve rooms out of the offices—creating a floor of suites entirely different from the rest of the hotel's rooms.

This fit in with Murphy's grand vision for the hotel—a compact, intimate setting that's tucked away and showcases the brilliant architectural detail of a bygone era. With the Hampton Inn as its occupant, Murphy hopes to bring in a diverse clientele.

"And whether they stay at the hotel or not," Murphy added, "visitors to Chicago will be able to enjoy [the architecture], as the lobby will be opened up as a public space."

*by Adilla Menayang*

## PARADIGM SHIFT

Changing the way designers think about disability

**SUSTAINABILITY IS AN INTEGRAL PART OF** today's architecture. Even those who do not list it as their number one priority incorporate different sustainable elements into projects as a matter of course.

This is what the leaders of ADA 25 Chicago, the 25-year commemoration of the Americans with Disabilities Act (ADA), would like accessibility to become: a built-in consideration of the design process.

ADA 25 Chicago, helmed by the Chicago Community Trust, will be a six-month long initiative to not only celebrate the 25th anniversary of the ADA, but to push for further progress for the disability community, which includes not just people who have disabilities, but their families and friends. ADA 25 Chicago will begin programming in July 2015, with different events taking place through December. More specifics about programs will emerge as the year progresses.

Organizers hope to involve up to 25 cultural institutions across all disciplines, both in the planning of ADA 25 Chicago itself and in long-term plans for the advancement of disabled people, said Emily Harris, the executive director of ADA Chicago.

While the event is for people in all practices and professions, architects have a special place in the crowd because they have a direct link to providing accessibility, says Harris.

"Given that it's the 25th anniversary, we'd like to find 25 cultural institutions that commit to cultural accessibility plans, to moving forward and who take a step towards improving," Harris said. "As you can imagine, there's a lot of architectural opportunity."

The goal of this initiative, said Jack

Caitlin, FAIA, a partner at LCM Architects and co-chair of the ADA 25 Chicago Leadership Council, is no less than a paradigm shift in the perception of disability as a social rather than a medical issue. If people begin to think of disability issues as social, he says, then their minds will naturally turn to architecture, design and the built environment.

"Without an accessible environment, there's not much opportunity for any social interaction," Caitlin said.

Universal design and its applications will be ADA 25 Chicago's major component for architects, and organizers plan to make this a focal point of the initiative. By highlighting its usefulness to multiple groups in society—mainly seniors, children and people with disabilities—they hope to make it a more widespread practice, said Caitlin.

"Integrating these minimum accessibility standards and enhanced functionality concepts into the designs of buildings and facilities at the earliest stages—it's not only easy to do, it's inexpensive to do, and a much wider range of people benefit from it," said

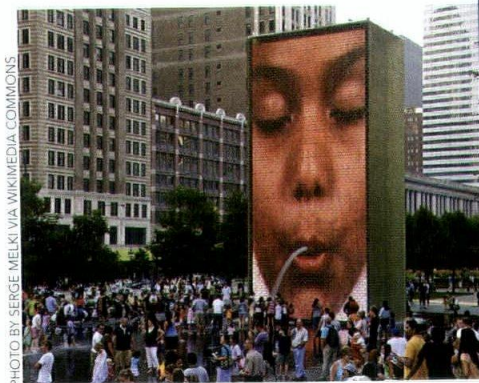


PHOTO BY SERGE MELKIVIA WIKIMEDIA COMMONS

*The Crown Fountain provides a half-inch wide flush transition between the wet and dry surfaces, allowing everyone, including people using wheelchairs, to enjoy the attraction.*





IMAGE COURTESY LCM ARCHITECTS

*The reception desk at Access Living, located in Chicago and designed by LCM Architects, provides both a forward and side approach for a person using a wheelchair.*

Caitlin, referring to the idea that universal design creates buildings that work for as many people as possible.

Architects can become involved in ADA 25 Chicago individually or as firms. Firms can become project partners and commit to taking action toward improving accessibility or applying universal design in future projects. As for individual architects, ADA 25 Chicago can become an educational experience or an inspiration to change the way one designs.

ADA 25 Chicago's organizers say they hope not just to remind the city of Chicago the ADA was a monumental piece of legislation, but

to also inspire people from across all disciplines to push progress forward for those with disabilities. In the long term, said Caitlin, the initiative aims ultimately to make accessible design "invisible."

"If you look at a building that has no steps or no ramps, that's a universal design entrance. But you don't see it. You just see an entrance," Caitlin said. "It's going to be easy for me to look in 10 years to see these things, but the general public won't see it. That's what I would be looking for in 10 years, an integrated environment that is virtually invisible. People don't see it."

*by Lynne Fort*

## DE-LIGHTFUL



Hilton Chicago

LIGHTING DESIGNERS  
**Schuler Shook**



Chicago  
Minneapolis  
Dallas

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

## AIA Chicago to Premiere 10-Year Anniversary Award for 2015 Design Excellence Awards

AIA Chicago's Design Excellence Awards program will introduce a new category this year, the 10-Year Award, which will recognize design of timeless significance. The jury will be directed to consider the importance of the building within its context and whether the building has proven its value and has performed successfully over the course of a decade.

"It was necessary to introduce this category," said Philip Castillo, FAIA, of JAHN and a member of the AIA Chicago Executive Committee. "Doing so means that exemplary work that will stand the test of time will be recognized."

The call for submissions for the 2015 Design Excellence Awards will open later this spring.

### APPLY FOR THE 2015 MARTIN ROCHE TRAVEL SCHOLARSHIP

APPLICATIONS DUE MARCH 27  
MORE INFO AT: [AIACHICAGO.ORG](http://AIACHICAGO.ORG)

ADMINISTERED BY AIA CHICAGO FOUNDATION

#### Attention Students:

### Apply for the Martin Roche Travel Scholarship

Architecture students at the Illinois Institute of Technology, the University of Illinois at Chicago or the School of the Art Institute of Chicago are eligible to apply for the Martin Roche Travel Scholarship, sponsored by the AIA Chicago Foundation.

The recipient will receive \$5,000 toward her or his independent study of architecture abroad. Submissions are due March 27, 2014.



FOR MORE INFORMATION ON THE ROCHE SCHOLARSHIP visit [WWW.AIACHICAGO.ORG](http://WWW.AIACHICAGO.ORG).

- facebook.com/chicagoaia
- aiachicago.tumblr.com
- twitter.com/aiachicago
- vimeo.com/aiachicago

### AIA Chicago and SMPS Chicago Contribute to Worthy Cause

SMPS Chicago and AIA Chicago recently donated \$1,000 to Ronald McDonald House Charities. The donation was made possible by funds raised via the joint SMPS Chicago-AIA Chicago annual meeting and holiday party, held December 2014 at Studio Paris.

The mission of Ronald McDonald House Charities is to care for families of children with complex medical needs by providing comfort, compassion and a sense of community. The Ronald McDonald House near Lurie Children's, a 15-story facility designed by Antunovich Associates and completed in 2012, keeps families of hospitalized children together in a "home away from home."



## UPCOMING AIA CHICAGO EVENTS

### small projects

#### Small Projects Awards Reception

AIA Chicago's Small Practitioners Group is presenting the fifth annual Small Projects Awards ceremony and reception on Friday, May 1, at Architectural Artifacts, 4325 N. Ravenswood Ave., Chicago.

The awards program recognizes high-quality work from small architectural firms and exceptional small local projects. The goal of the program is to raise public awareness of the value that architects bring to small projects and to promote small practitioners as a resource for design excellence. All firms in the competition have fewer than nine licensed architects and architectural interns.



FOR MORE INFORMATION ON THE AWARDS or for sponsorship materials, please contact Kelsey Kirkley, AIA Chicago events manager, at [kkirkley@aiachicago.org](mailto:kkirkley@aiachicago.org) or 312.376.2760, or visit [WWW.AIACHICAGO.ORG/SPA](http://WWW.AIACHICAGO.ORG/SPA).

#### BUILDING THE HEARTLAND

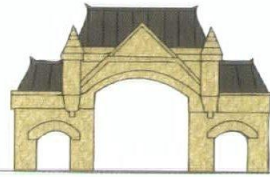
BUILDINGChicago/Greening the Heartland, which launched in 2013, has been renamed BUILDING THE HEARTLAND.

The event is produced by *Building Design+Construction* and Scranton Gillette Communications/SGC Horizon, in conjunction with USGBC Illinois, the Greening the Heartland Committee and AIA Chicago. This year's conference will be held Aug. 31-Sept. 2 at the Holiday Inn Mart Plaza, Chicago's first LEED Gold hotel.



FOR THE LATEST NEWS AND UPDATES visit [WWW.BUILDINGCHICAGOEXPO.COM](http://WWW.BUILDINGCHICAGOEXPO.COM).

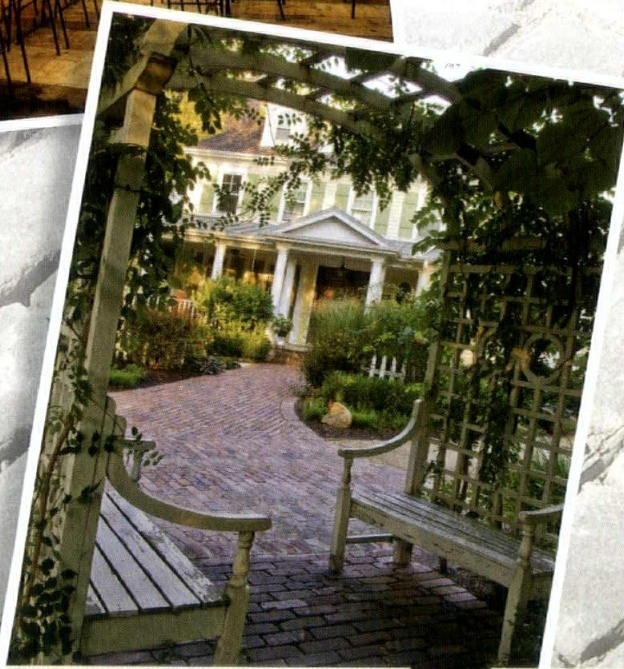
CHICAGO



# STOCKYARDS BRICK



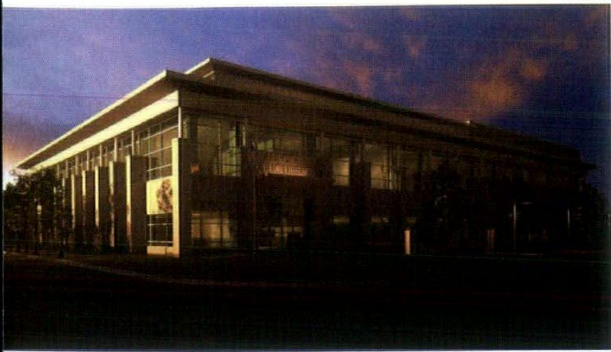
**Stockyards Brick** specializes in reclaimed architectural elements from the heart of the industrial and manufacturing districts of Chicago. We turn old growth timber into beautiful ceiling and wall exposed beams, flooring, mantels, and custom furniture; old brick and pavers into patios, fireplaces, kitchen and bar tiled flooring, back splashes, driveways and decks.



**STOCKYARDS BRICK**

[www.stockyardsbrick.com](http://www.stockyardsbrick.com) | 872-444-5440

PLEASE SEND YOUR NEWS TO:  
people&projects@aiachicago.org

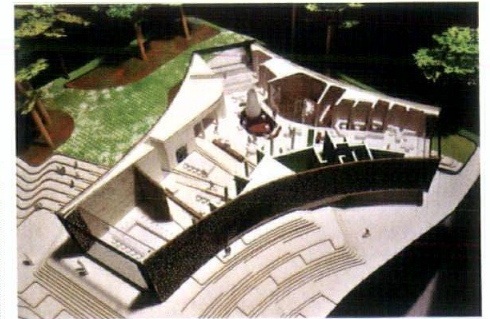


**Cordogan Clark & Associates** is taking the lead on the new state-of-the-art Aurora Public Library, to be known as The Richard and Gina Santori Public Library of Aurora. Expected to open in spring 2015, the 92,000-square-foot, \$28 million facility is designed to reduce waste, conserve energy and water, and lower operating costs. It is LEED-certified.



**Tony Holub, AIA, LEED AP**, joined Farr Associates as a senior associate. Holub was previously the director of sustainable design and a project manager at Demonica Kemper Architects.

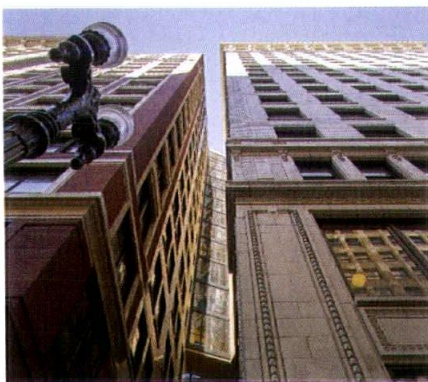
**Kathryn Quinn, AIA**, celebrated her 30th anniversary as principal of her architecture practice, Kathryn Quinn Architects, on Jan. 1. Quinn has completed more than 350 projects, including the remodeling of the Grand Concourse at Soldier Field.



The **Studio Gang Architects**-designed Arcus Center for Social Justice Leadership at Kalamazoo College in Michigan opened last fall. The 10,000-square-foot building is targeting LEED Gold.



The AIA, in conjunction with the AIA Foundation and the Association of Collegiate Schools of Architecture, named the University of Illinois School of Architecture among 10 other architecture schools and schools of public health as charter members of the AIA Design & Health Research Consortium. The consortium will help fund basic research on how design affects public health.



**Pappageorge Haymes Partners** was honored at the Landmarks Illinois Real Estate & Building Industries Council 2014 awards reception for their renovation of the Gibbons and Steger buildings (pictured left) in downtown Chicago. The \$32.5 million, three-year renovation project created 124 student living units for DePaul University.

In other firm news, senior associate **Jeff Renterghem, AIA**, was present in Hawaii for the groundbreaking (pictured right) of the 43-story development project known as The Collection. The building will contain 341 boutique residences and amenities including a private movie theater, clubroom with full kitchen, pool, fitness center, barbecue dining pavilions and outdoor lounges.



**Goettsch Partners**, along with China Resources Land Ltd., announced the opening of the Grand Hyatt Dalian. The 44-story, 370-key hotel is located in the northeastern coastal city of Dalian, China, and faces the Yellow Sea. Its arcing north façade and rounded corners help divert winds to minimize the structural impact on the tower, which boasts a signature restaurant, fitness center, spa, indoor swimming pool, meeting and banquet facilities, 225 parking spaces, 28 suites, 84 serviced apartments and two ballrooms.



**JAHN** and Alonso de Garay unveiled designs for a new stadium for Mexico's leading baseball team, Los Diablos Rojos del Mexico. The Mexico City stadium will have more than 13,000 seats and is expected to open February 2017. The grounds leading into the ballpark will mirror that of the climb to an ancient Mesoamerican temple, and six pyramids covered in indigenous volcanic rock will welcome spectators. Team members for the project include Francisco Gonzalez-Pulido, Sergio Valentini, AIA, Jon Gately, Assoc. AIA, Sanaz Saeedi, AIA, Phil Stott, AIA, Joakim Wadenholt, Yuing Chen, Bryan Howard, AIA, Patrick Brown, AIA, Jun Liu, Joe Madon and Jacqueline Villa of JAHN, and George Guendulain, Alberto Cabrera, Carmen Cantu and Eduardo Lorenzana of ADG.



Kujawa Architecture announced its new identity as Range Design & Architecture. The need for a new name arose after longtime associates **Mason Pritchett, AIA**, and **Patrick Johnson, AIA**, joined the team as partners. Range Design & Architecture is now comprised of Prichett, Johnson and **Casimir Kujawa, AIA**.

Worn Jerabek Architects is now known as Worn Jerabek Wiltse Architects, P.C. **Todd Wiltse, AIA**, will serve as principal and **Heidi Dahle, AIA**, will serve as associate principal for the rebranded firm.



**GREC Architects** announced it opened its new headquarters at 645 Michigan Ave. The open plan configuration features a studio space overlooking North Michigan Avenue and benefits from state-of-the-art meeting facilities, material sample areas and flexible social spaces. The 1960s-era office building was designed by Naess and Murphy.

Myefski Architects spent 2014 celebrating its 20th anniversary. The firm is headquartered in Evanston, with an additional office in Marquette, Mich. The firm, started by president and principal **John Myefski, AIA**, has designed more than 500 projects and received 80 awards for design excellence.



The Society of Architectural Historians will host its annual conference April 15-19, with the theme, "Chicago at the Global Crossroads." The event is scheduled to include 36 paper sessions, roundtable and panel discussions, tours and more. This year marks SAH's 75th anniversary in Chicago.



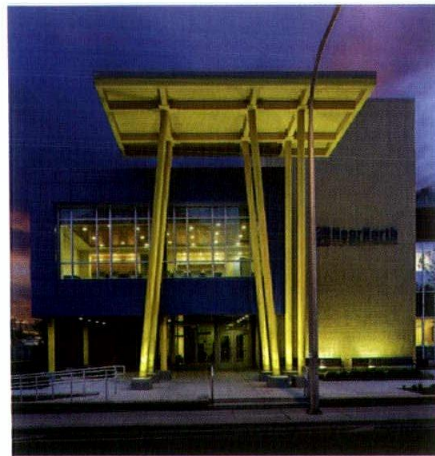
**VOA Associates** was recently awarded the FIABCI-America Grand Prix of Real Estate for the Roosevelt University Wabash Building (pictured left) at the 2015 FIABCI-American Grand Prix Gala in Washington, D.C. Chris Groesbeck, AIA, NCARB, LEED AP, accepted the award on behalf of VOA and Roosevelt University. The award recognizes a project that demonstrates financial success, excellence in its plan of development, quality environmental impact and benefits to the community.

In other firm news, the VOA-designed Walgreens Health Systems Pharmacy at Northwestern Memorial Hospital (pictured right) opened in Chicago. The building, located at 251 E. Huron St., is a first-of-its-kind drugstore that features biophilic design, an approach to architecture that seeks to reconnect the built environment with nature.

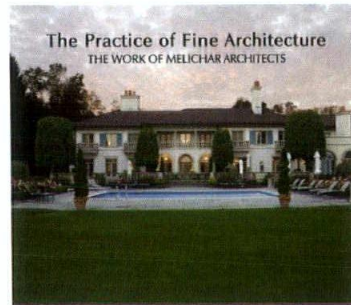


Anderson Mikos Architects announced three new promotions in December (pictured top to bottom):

- ▶ **Cary Chorney, AIA**, was promoted to senior project architect after spending 16 years with the firm.
- ▶ **Lindsey Burghgraef, IIDA, LEED AP**, is now a senior project designer. She has been with Anderson Mikos for 14 years.
- ▶ **Ashley Guzlas, IIDA**, is now a senior project designer after seven years with the firm.



The team at **Johnson & Lee** designed the Near North Health Services Clinic in the Humboldt Park neighborhood. Comprised of approximately 29,400 square feet, the building houses a lobby, offices, support spaces, an X-ray lab and exam rooms. The two-story structure has an interior landscape courtyard area while the building's entrance features an oversized canopy. The building is targeting LEED Gold.



**Melichar Architects** has released a book, titled *The Practice of Fine Architecture*, that showcases the firm's portfolio of works in Lake Forest and other North Shore communities. It is available at Lake Forest Bookstore.



**Skidmore, Owings & Merrill's** 10-story office building along London's Liverpool Street Station, named the Broadgate Exchange House, was awarded the AIA 25-Year Award. The Exchange House was completed in 1990 and is suspended over the Liverpool Street Station rail lines with four, seven-story tied arches. It is part of the larger Broadgate Development (master planned by SOM).



Traditional European  
craftsmanship.  
Using 21st century  
technology.

The very best of the old world  
and the new world.  
Brought together...To create  
exceptional environments for retail,  
commercial and residential.

### **Bernhard Woodwork**

ARCHITECTURAL WOODWORK

3670 Woodhead Dr., Northbrook, IL 60062

Tel 847.291.1040

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

*Benida, Chicago, IL*

# NEW

## BUMPER BEAD SYSTEM

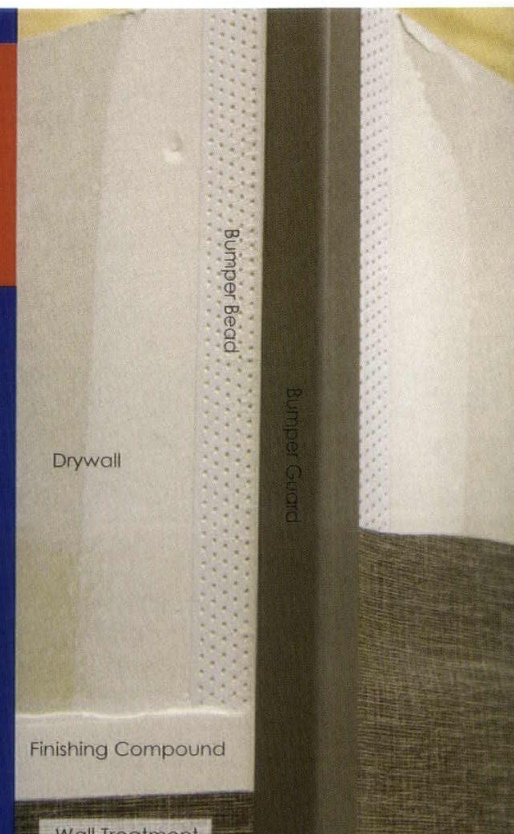
Floor-to-ceiling superior impact protection



No gaps



No bulges



Bumper Bead

Bumper Guard

Drywall

Finishing Compound

Wall Treatment

Bumper Bead System absorbs extreme impact utilizing the properties of rigid vinyl material. Vinyl out-paces the competition on price and performance. Typical corner guards are applied as an afterthought. Bumper Bead System is an



1.800.874.2333

## THE EVOLVING DIALOGUE OF YOUNG ARCHITECTS

How to build bridges between emerging professionals and established architects

BY JESSICA BUTLER, ASSOC. AIA

"You've wanted to be an architect since you were a kid? What did your parents do to you?"

This comment came from a peer of mine the other day, and unfortunately, the cynicism was fairly typical coming from a 20-something aspiring architect. It's no secret that architects have a firm claim to the territory of bemoaning the downsides of their profession. Yet, it seems that young architects are ever-more-avid about expressing their opinions on this matter.

The perceptions of architecture as a field are widely varied and hotly debated, but the most interesting aspect of both public and private conversations regarding the profession is the discrepancy between architects' and non-architects' opinion of the practice.

Since the advent of architecture as a career, respect for the artistic and scientific combination of skills that are required for it has been virtually intrinsic. Even today, when I meet new people and I tell them I'm an architect, I usually get a response along the lines of: "That's so cool! Architects are so neat, what kind of buildings do you design?"

Despite the general prestige the public associates with architects, it clashes drastically with the internal dialogue that happens amongst us young architects. I believe that most of us who choose this profession struggle with the idea of our own value, as we constantly work and give creatively to projects but are not necessarily compensated for this effort in similar proportion to other career paths.

Aside from those who have made it to

"starchitect" status, I'm sure that architects of all generations can agree on the point that our virtual respect and actual compensation do not align. Especially after the Great Recession, paying for architectural services has fallen even further down the priority list, and fighting for fee percentage points has become a common occurrence. After years of school, internship hours and exams, architects can look forward to spending their careers fighting with clients, arguing over fees and trying to maintain some shred of integrity for their designs.

While this obstacle, among others, is somewhat daunting to those of us entering the field, there is something that I believe motivates us all: passion. As much as we intern architects revel in complaining about our long work hours, seemingly small salaries, expensive exams and never-ending disagreements with clients and consultants, most of us are pursuing this path because we couldn't imagine spending our time, money and effort on anything else. Our dedication to becoming architects brings us together, and creates a unique community.

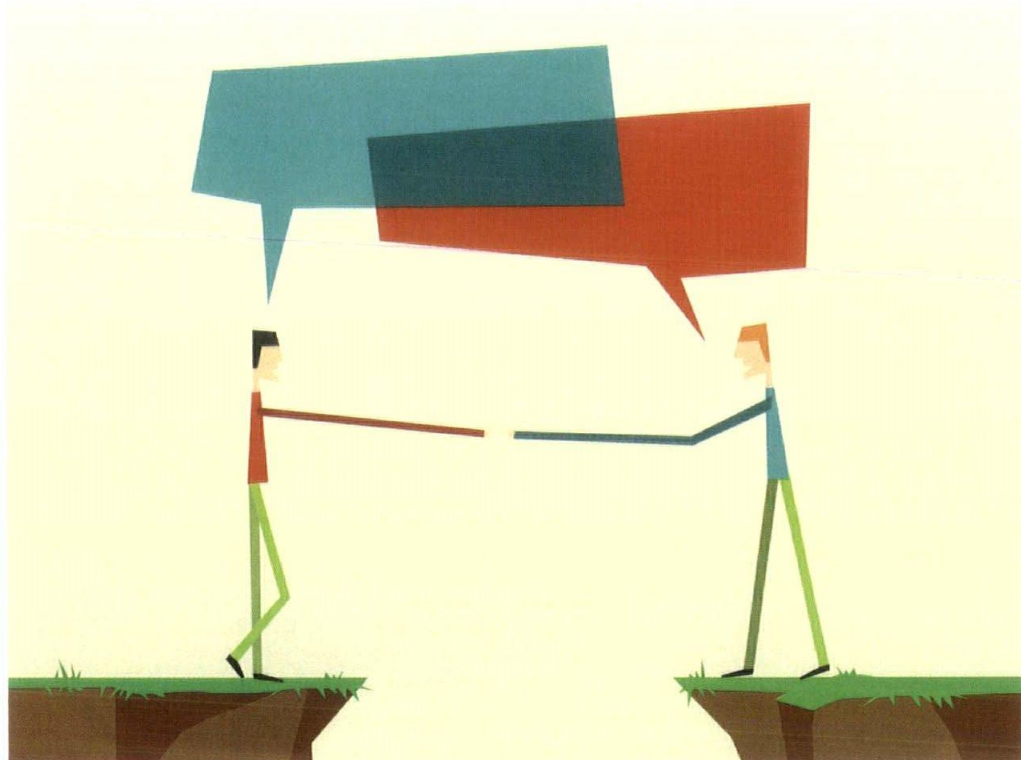
What comes across as cynicism about our field is, in my opinion, largely due to the lack of input and power that we young architects feel we have on the profession and our own futures. Architecture draws many passionate, opinionated and creative people, but it can at times seem like a

bureaucratic institution that is difficult to change. And while I've noticed an emerging effort in recent years to create structured communities for young architects—with groups like the AIA's Young Architects Forum and the Young Professionals Committee of the Council on Tall Buildings and Urban Habitat (CTBUH)—I believe what is actually needed to stem the scourge of pessimism is more transference of institutional knowledge between generations of architects.

If established architects who understand and have impacted the field were to engage with young architects who want to support its evolution, the spread of insight and wisdom could be beneficial to all.

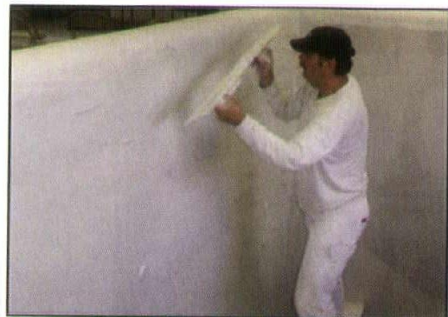
I know I am not necessarily content with the status quo, but I also know the only way that things will change is for my generation to become educated about the issues that we care about and to take responsibility for changing them. To me, this means engaging with architects who have more experience dealing with everything from global economies to local governments to our more frustrating clients. Though we may have different ways of designing, the continuity of knowledge in the progress of our vocation will be invaluable. **CA**

*Jessica Butler is an intern architect at Adrian Smith + Gordon Gill Architecture.*





# Professional Training Yields EXPERT PLASTERERS



Conventional and Veneer Plaster



Stucco and Exterior Insulated Finish  
Systems

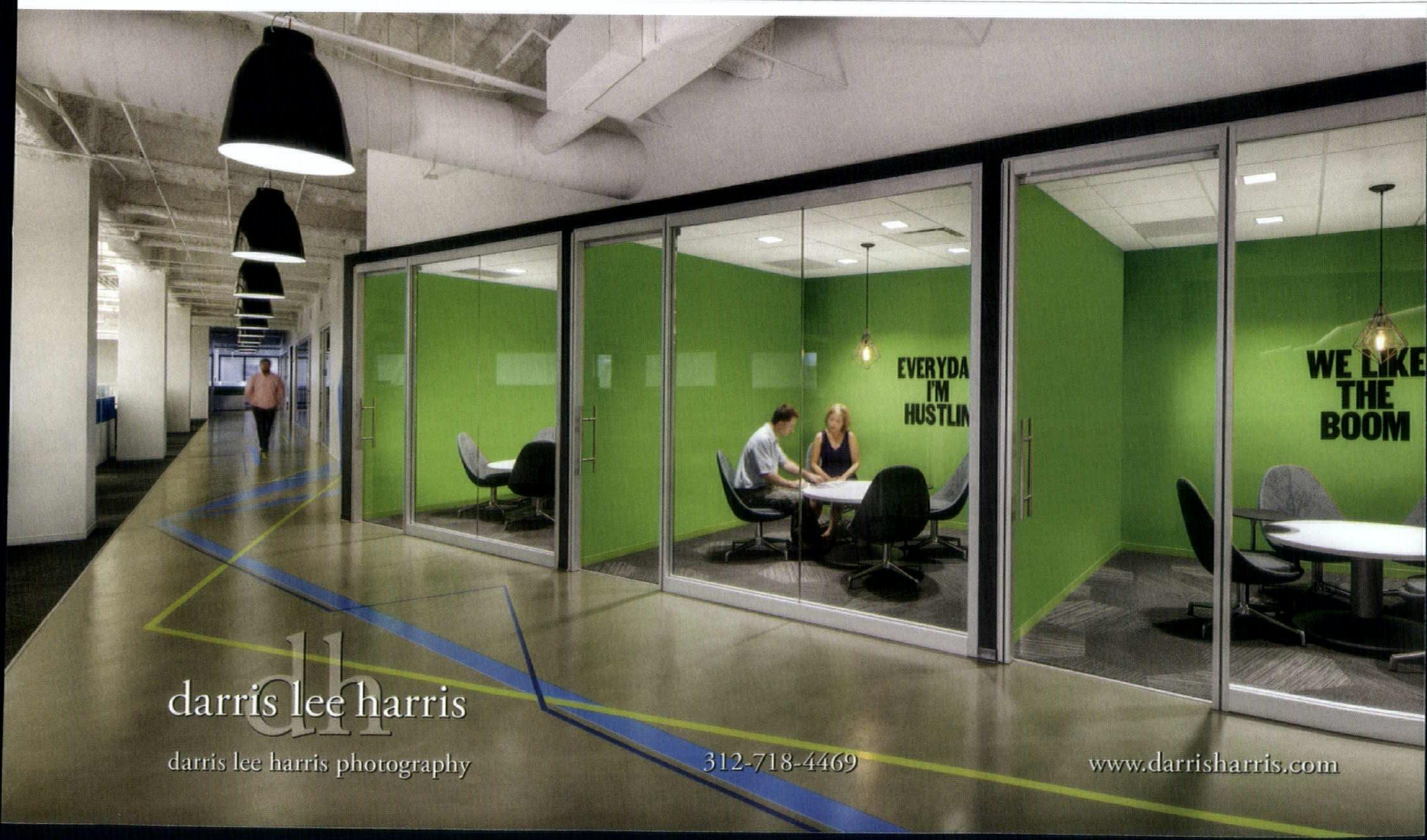


Ornamental Plaster

Call us for information about today's  
plastering systems and the best  
people to apply them.



Chicago Plastering Institute  
Plasterers Area 5  
739 S. 25th Ave.  
Bellwood, IL 60104  
(708) 544-9100, ext 17



darris lee harris  
darris lee harris photography

312-718-4469

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

# 21<sup>ST</sup>-CENTURY



Sterling Bay's 1K Fulton, the future home of Google, is as strategically located as it was in 1920 but for far different reasons

BY TIMOTHY A. SCHULER

# MARKET

The West Loop's newest office building is constructed from the bones of a former cold storage facility, maintaining a connection with the area's industrial past.



**W**hen the Fulton Market Cold Storage building opened in October 1920, a prime selling point of the facility was its location in the heart of Chicago's meatpacking district at the

convergence of three major railroads. "Fulton Market is as strategically located in Chicago as Chicago is in the United States," boasted an ad in the weekly bulletin *California Fruit News*. Today, in spite of the numerous economic and technological revolutions that have unfolded during the cold storage building's 95-year existence, the ad copy's assertion holds true.

As Fulton Market transitions from an industrial corridor to a bustling tech hub full of software engineers and chief experience officers, the brick-and-masonry building at 1000 W. Fulton St. is once again being touted as state-of-the-art and sold on its attractive location within the city.

The building's value, however, after decades of slow and steady deterioration, wasn't always apparent. When Patrick O'Connor, a principal at

Sterling Bay Cos. and the firm's director of construction, first set foot inside the building, he says it was actually somewhat frightening. "It felt like you were in a time capsule," he says. "It was iced over everywhere you walked. It seemed like a forgotten building."

It's been his job, for the past three years, to transform 1000 W. Fulton from a frozen, forgotten building to one of the hottest commercial office properties in Chicago. Within a year of acquiring the building, Google Inc. signed a lease for 357,000 square feet, followed by SRAM International, a bike parts manufacturer who plans to build an indoor racetrack as part of a new headquarters that will open later this year (the project's core-and-shell work was completed in January).

Decades of being exposed to freezing temperatures on the inside and highly fluctuating temperatures on the outside took its toll on the structure. By the time O'Connor's team determined the feasibility of adapting the facility—measuring rebar strengths, commissioning petrographic analyses, etc.—it was evident that



**BELOW** Unused portions of 1000 W. Fulton were iced over and had to be thawed. **RIGHT** The building stored meat, butter and eggs for nearly 90 years.

IMAGES COURTESY OF THE LIBRARY OF CONGRESS PRINTS & PHOTOGRAPHS DIVISION

PHOTO BY GARY ROBERT PHOTOGRAPHY



As Fulton Market transitions from an industrial corridor to a bustling tech hub full of software engineers and chief experience officers, the brick-and-masonry building at 1000 W. Fulton St. is once again being touted as state-of-the-art and sold on its attractive location within the city.



PHOTO BY CAROL MOY, HARTSHORNE PLUNKARD ARCHITECTURE

Sterling Bay and architect Hartshorne Plunkard Architecture (HPA) would need to gut the building.

Sterling Bay is not inexperienced in leading large-scale adaptive reuse projects. Its emphasis on preserving existing buildings has earned the firm the respect of architects, investors and city officials. "As a preservationist, I laud them for bringing such a high profile to adaptive reuse," says Eleanor Gorski, AIA, the city of Chicago's director of historic preservation.

But Sterling Bay principal Andy Gloor says the Google building is the firm's most ambitious project to date. Although no building can be separated from its context, 1000 W. Fulton is especially linked with the transformation of its surroundings, serving as the catalyst for the city of Chicago's Fulton Market Innovation District plan, which recently protected 217 acres in the former manufacturing district while making provisions for new development.

Approach 1000 W. Fulton from Ross Barney Architects' Morgan Street CTA station, and you'll pass the Aviary, where a cocktail can cost as much as \$28, while just around the corner are businesses like El Cubano Wholesale Meats and Nealy Foods, where the ghosts of the old neighborhood are still alive and active. This convergence has characterized Fulton Market for at least a decade; it remains a working meatpacking district of mostly low-slung brick buildings even as savvy developers have turned the area into a nightlife destination.

From the corner of Morgan and Fulton streets, the 10-story former cold storage building rears up in stately fashion. Twice as tall or more than anything adjacent, its brick columns and masonry flourishes respectfully situate the new office building within the fabric of the historic neighborhood. This building, however, is only half the complex; the other half is a new six-story glass- and-steel box attached on the west side, creating a total of 531,000 leasable square feet.

Thanks to highly efficient mechanical systems and a precast insulated façade, Sterling Bay

**ABOVE** Due to decades of fluctuating temperatures, the building's brick façade could not be salvaged. **BELOW** The structure was stripped to its concrete skeleton and a corner stairwell removed.



PHOTO COURTESY OF STERLING BAY

anticipates certification under LEED and the relatively new WELL Building Standard.

The existing building's west façade is uninterrupted glazing with views of the original columns, seemingly sliced in half by the curtainwall. This effect is doubled by the masonry cornice above the arcade, which, rather than rounding the corner, is flat on one side. It's a clever way to draw attention to these historical details, highlighting their presence while underscoring the contemporary alterations.

An entry plaza where the two buildings meet is created by a V-shaped cavity, as if the building were a cake with a single slice lifted out. Elegant gray pavers melt into the street-level walkway via an irregular set of steps that doubles as a ramp. At the deepest point of the V, near the main entrance, a giant iron flywheel, part of the original building's unique ammonia cooling system, is set into the pavers. Overlooking this plaza are staggered balconies that create visual interest and provide each tenant private outdoor space.

"One of the things we wanted to do was bring the outdoors in and the indoors out," says HPA partner Tom Pope. "You get some nice interplay being in the building but still having a feel for the vibrancy at street level. We're only six floors up."

Inside the main lobby (Google will have its own

entrance on Morgan Street), HPA chose a spare, modern aesthetic informed by the building's history. The ceiling's exposed concrete was cast in 8-inch wood forms similar to those used in 1920, and the main desk is clad in wood salvaged from shipping pallets. Ice, too, is a prominent motif; in addition to wall-size photographs of the cold storage facility in various states of thaw, a chandelier approximates the giant frozen stalactites that overtook the building in its later years. As references, these details are on point, but they also raise questions about the purpose of reuse.

Fulton Market has a precedent—not in Chicago but in New York City. The Gansevoort Market in Chelsea has a history nearly identical to that of Fulton Market, and New York's Google headquarters is a looking-glass version of Chicago's: a 1932 brick- and-masonry behemoth that towers over nearly everything around it. In fact, Google executives were explicit in their desire to mimic their counterparts in New York.

"I remember one of the guys at Google saying, 'Hey, when you redo this neighborhood, make sure you don't whitewash it too much. We like it being a little not perfect. We like the Chelsea Market feel,'" Gloor recalls. "I've never forgotten that."

Gorski, too, studied New York's Gansevoort Market Historic District, which confirmed her belief

**"I remember one of the guys at Google saying, 'Hey, when you redo this neighborhood, make sure you don't whitewash it too much. We like it being a little not perfect.'"**

— Andy Gloor, Sterling Bay

**BELOW** The lobby features a desk built from shipping pallets and a stark aesthetic reminiscent of the existing building.

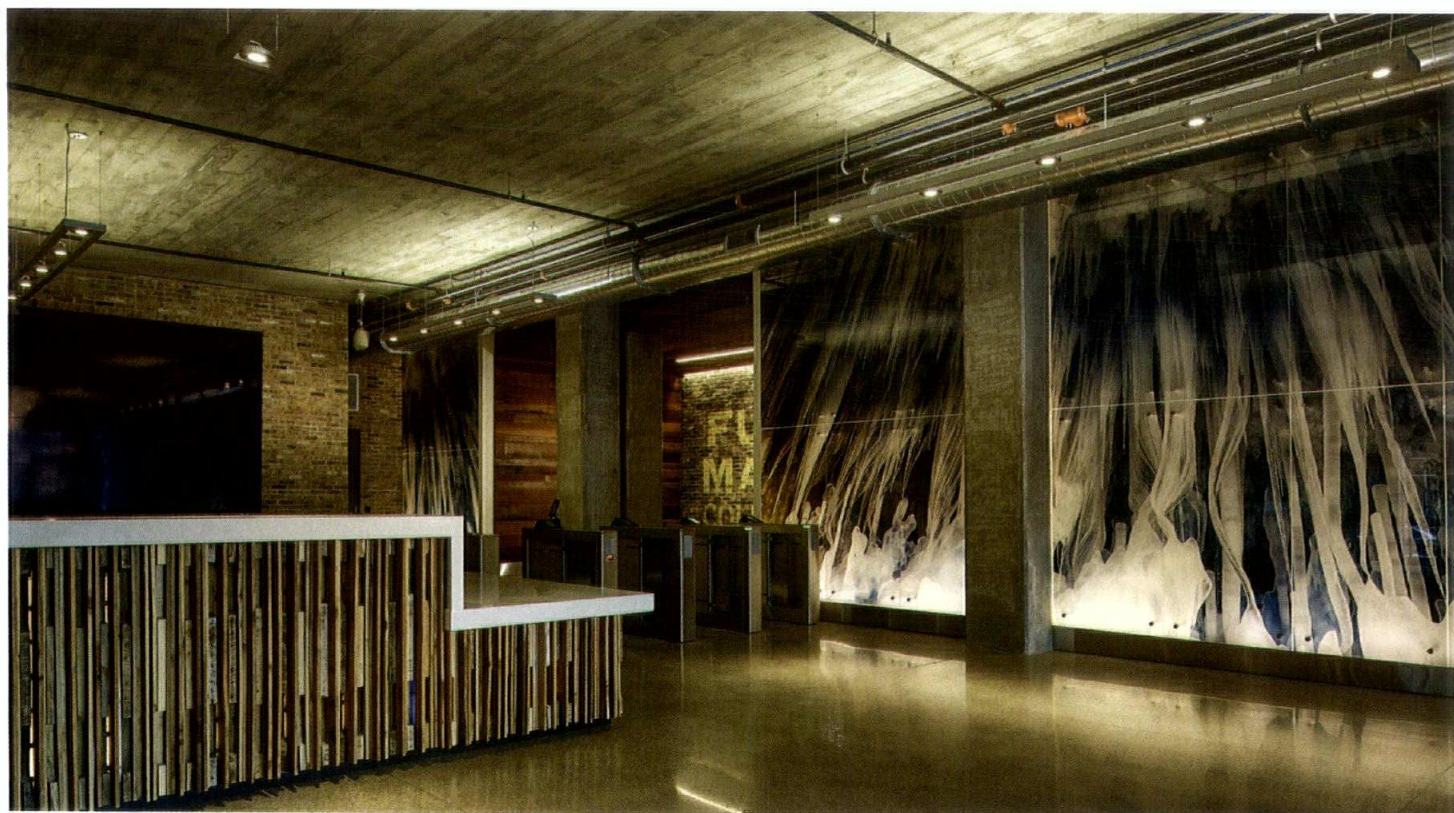


PHOTO BY PATSY MCENROE PHOTOGRAPHY



**ABOVE** Architects recreated the iconic Fulton Market Cold Storage sign in the elevator lobby, which also features wood salvaged from the building's water tower.

that preservation is vital to the vibrancy that attracts people and businesses to Chicago. She says a "sense of authenticity is what not only sustains these markets but draws people to [them]."

But the city is running out of opportunities to preserve contiguous swaths of its past. "We lost the stockyards," Gorksi says. "We lost Maxwell Street. This is it for us."

Adaptive reuse may be the architectural equivalent of recycling—studies show the embodied energy of an existing structure typically outweighs any gains in efficiency enabled by new construction—but this argument isn't what drives Sterling Bay, and it certainly isn't what prompts Google to sign a lease. Companies like Google advocate for preservation because a vibrant neighborhood is an amenity. "[Tech companies] are having a hard time convincing talented kids to drive out to Naperville or Oak Brook when they have the ability to have the same kind of job but be in River North or the West Loop," Gloor says.

After 95 years, 1000 W. Fulton is once again "strategically located" in the city, oriented around transit in a highly desirable setting. Five years ago, this may not have been the case. Uber has made the west side of the city increasingly viable; Gloor says the mobile-powered car service has had a "profound impact" on convincing tenants to relocate to the area. The other missing piece of the transit puzzle was the Morgan Street stop, which wasn't completed until 2012 but was vital in making the cold storage building a profitable endeavor. "That El stop was enormously important," Gloor says. "Without it, I don't think Google comes out here."

These concurrent investments in the West Loop area have cracked open an already booming market. According to Gloor, Sterling Bay bought 35 properties just in the past two years, including a lot adjacent to the Google building, which reportedly will house the new Ace Hotel. "My hope," Gloor says of this transformation, "is that we don't go too far." **CA**

ARCHITECT //  
HARTSHORNE PLUNKARD  
ARCHITECTURE  
OWNER/DEVELOPER //  
STERLING BAY COMPANIES  
GEN. CONTRACTOR //  
LINN-MATHES INC.  
DEMOLITION //  
HENEGHAN WRECKING CO.  
ENGINEER (FEASIBILITY) //  
THORNTON TOMASETTI  
STRUCTURAL //  
FOREFRONT STRUCTURAL ENGINEERS  
MEP // WMA CONSULTING ENGINEERS  
LANDSCAPE // SITE DESIGN GROUP  
CURTAINWALL //  
ELSTON WINDOW & WALL  
CONCRETE // MCHUGH  
HVAC // ADVANCE MECHANICAL  
ELEVATORS // SCHINDLER  
PLUMBING // EWING DOHERTY

# Chicago's Midcentury Motels:

## MOD OR OUTMODED?

Assessing a moment in Chicago's  
architectural history

BY LAURIE PETERSEN

**W**hat is your reaction when you hear the word motel? Cool or tawdry? Worthy of preservation or a source of blight? The term, an elision of “motor” and “hotel,” was meant to conjure modernity and convenience, identifying a new type of lodging for the automobile age. But the vast majority of this once-ubiquitous building type has vanished, and only a fraction of the survivors retain their original appearance.

Motels are an inherently low-density design construct, so those in desirable locations have succumbed to development pressures. Those in more marginal areas struggle with deferred maintenance of what were often designed as short-lived structures. Many, particularly in urban areas, have to counter reputations—sometimes accurate—of being havens for illicit activities.

Can an increasing appreciation of midcentury modernism and a nostalgia for 1950s road-trip culture save them from extinction?

Motels' forerunners were roadside cottages or auto-camps that served

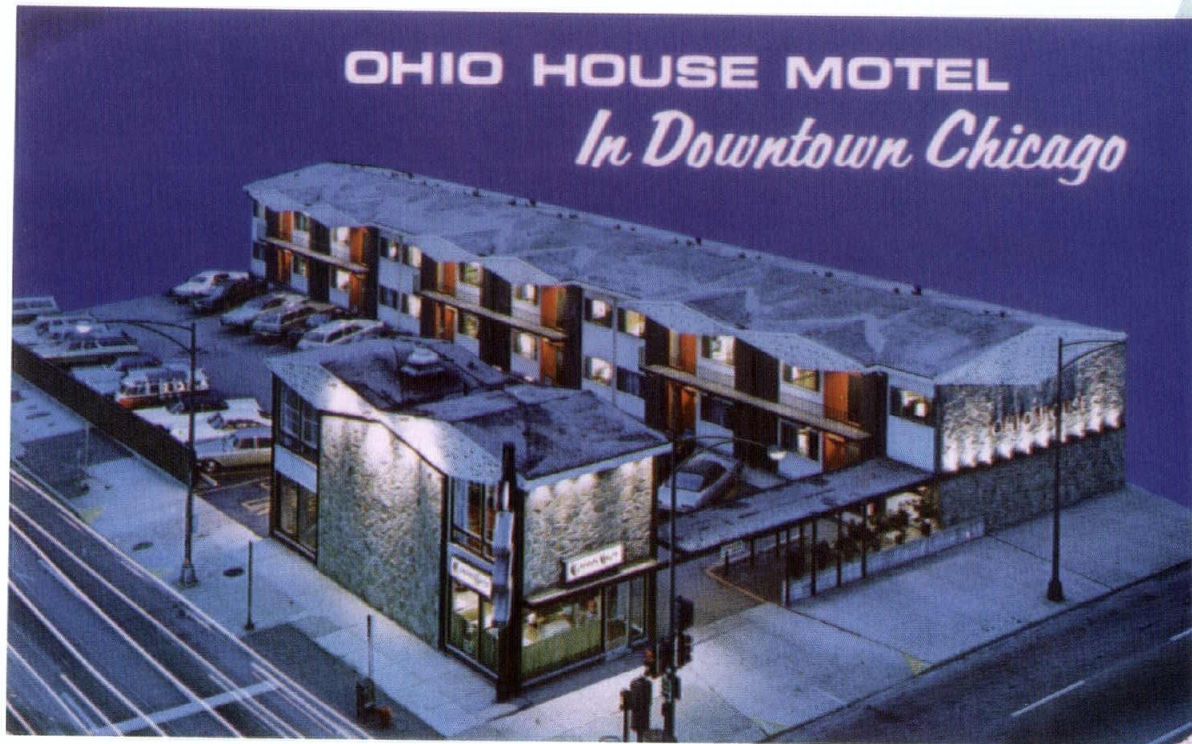


early car travelers. After World War II, both automobile ownership and leisure time expanded exponentially. One- and two-story motels sprang up along the interstate highways. They were convenient, casual and economical alternatives to large, intimidating hotels, particularly for families and those business travelers whose clients were in the expanding suburbs. The ease and independence of driving right up to one's room appealed to an increasingly mobile society.

Chicago, and the entire Midwest, were late adopters of the trend. Born in the sprawling, sun-baked climes of Arizona and Southern California, motels quickly proved popular in Texas and Florida. Southwestern style architecture (as propagated by the Alamo chain) gave way in colder regions to the angular, space-age exuberance of “Googie” architecture (so named for the Los Angeles coffee shop where it debuted), or simple shapes and hot hues meant to evoke a Florida poolside.

Most early motels were located outside city limits, perhaps contributing to





VINTAGE POSTCARD IMAGES OBTAINED VIA CARDCOM.COM



As documented on the website [ForgottenChicago.com](http://ForgottenChicago.com), 14 motels were built on or near Chicago's shoreline in the 1950s. With names like Sands, Tides and Tropicana, and postcard images of pools and beaches, they were aimed at the leisure traveler who wanted Florida-style sun and fun. Motels built along inland highways emphasized air conditioning and color television—both still luxuries at the time—though some of these also had small outdoor pools.

Postcard images (clockwise): The Sands Motel (demolished), designed by Frank LaPasso; Ohio House Motel, Shayman & Salk; Tropicana Motel (demolished), Shayman & Salk; 50th on the Lake Motel (heavily remodeled, now Chicago Lake Shore Hotel), Frank LaPasso.

their lawless reputations, and many large cities banned them. But these prohibitions fell in the 1950s, and Chicago changed its zoning code to allow them in 1953. The opening of the Sands Motel in December 1955 at the northeast corner of Sheridan Road and Foster Avenue marked the beginning of a decade of nonstop construction. (The Sands was demolished in the late 1970s.)

Despite a vocal contingent of opposition—one Chicago alderman declared in 1960 that motels were “obnoxious to the communities,” citing the “almost carnival atmosphere with their neon signs and restaurants” and the constant traffic—motel development in Chicago proved steady. It occurred primarily along Chicago's main highways of the time: Route 66 (a significant number of motels still stand in the suburb of Cicero), Lake Shore Drive and Highway 41, which predated the Edens Expressway as a route to Milwaukee. The city's greatest concentration of still-existing motels is on a stretch of Lincoln Avenue that is part of Highway 41, between Foster and Devon avenues.

One of the earliest and most prolific motel designers in Chicago was the firm of Shayman & Salk, founded in 1954. Arthur Salk, AIA, continues an independent practice at age 89 (his license is the 7th oldest in the state), and the successor firm, SAS Architects & Planners, continues a half-century specialization in nursing homes. Salk recalls the challenges of designing this brand-new building type.

“We had nothing to go by. The client would just say, ‘We want 30 rooms.’” Salk says that clients were indifferent to aesthetics but extremely budget-conscious. Without today's variety of materials, they were limited to brick and wood, with occasional tile accents. “Anything unusual was too expensive,” he says.

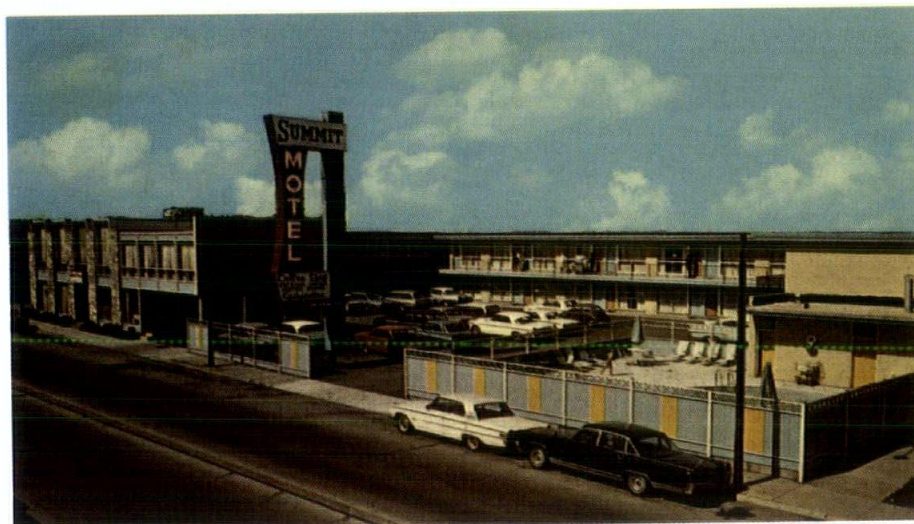
With a repetitive module of windows and doors alongside outdoor corridors, visual interest was generally limited to bold colors and perhaps some mosaic tile along a wall, or a geometric motif on the balcony railings.



MODERN LUXURY IN THE HEART OF CHICAGO

VINTAGE POSTCARD IMAGES OBTAINED VIA CARDROW.COM

ABOVE LEFT The Benjamin H. Stein-designed Avenue Motel (demolished) was located on the corner of Michigan Avenue and 12th Street, now Roosevelt Road. The motel advertised luxuries such as “self-dialing phones, Geisha Room for cocktails and free swimming at Acres Cabana Club.” RIGHT The Summit on Lincoln Avenue, designed by Shayman & Salk, still stands today, although its initial “tomorrow’s future today” allure has faded away.



Rooflines were generally flat, in keeping with the stripped-down modern aesthetic, but occasionally featured angular profiles. The signs—oversized, neon, often freestanding and always right along the roadway—were the stars of the visual galaxy, with the building playing a supporting role.

The Heart O’Chicago Motel (1959, Shayman & Salk) still has its sign and much of its original look. The Lincoln Avenue motels have generally not fared as well. Few still have their original signs, with the notable exception of the Apache Motel, whose building fails to carry out the Native American motif. The eye-catching Stars Motel sign stands sentinel over the still-vacant lot of its demolished namesake. As documented by archivist Catherine Handelsman in her graduate student thesis, five of the original 14 motels on this stretch of Lincoln Avenue have been demolished, and many of the others are struggling against city authorities who would like the properties redeveloped.

Can motels be saved? To Salk, it all comes down to one word: “maintenance”—of both the building and the clientele. He scoffs at the notion put forth by some motel scholars that the buildings were only made to last a couple of decades.

“Nobody designed a building to last 20 years. They went downhill physically because no one maintained them. Houses last for more than 20 years even though they’re just wood frame and drywall.” He points out that “motels that kept their clientele intact are still intact.”

**FURTHER READING  
ABOUT CHICAGO’S  
MIDCENTURY MOTELS //**

“The Miami of Canada: Chicago’s Shoreline Motels,”  
ForgottenChicago.com

“Ask the Librarian—  
What’s the Deal with All  
Those Motels on North  
Lincoln Avenue?” and  
“Detour: The Stars Go  
out on Lincoln,”  
Gapersblock.com

*The Motel in America* by  
John A. Jakle, Keith A.  
Sculle, Jefferson S.  
Rogers (Johns Hopkins  
University Press, 1996)

A prime example of this, and his favorite design among the survivors, is the Ohio House Motel at Ohio Street and LaSalle Boulevard. Its two-story height and surface parking lot seem increasingly incongruous in River North. But according to general manager Larry James, they have a strong mix of repeat and new clients. The free, convenient parking is still a draw, as are the lower-than-Michigan Avenue prices, but some people do come specifically to experience the vanishing breed of midcentury motel. Although the color scheme is now more muted and the tilework is hidden by siding, the lively roofline of inflected diamond shapes gives it an unmistakable atomic-age profile.

Anthony Rubano of the Illinois Historic Preservation Agency also makes a case for the “national and even international appeal of this quintessentially American typology.” A select few (especially along Route 66) could become museums. He says the most likely candidates for continuing motel use are those with a critical mass of rooms and those with a restaurant component to maintain vitality. (The coffee shop at Ohio House recently became an outpost of Leghorn Chicken.) He notes these buildings can now be placed on the National Register and thereby qualify for federal tax credits. Those that are not viable as motels could be converted to apartment or dormitory use. Says Rubano, “Reuse needs a creative approach and fluid reaction to existing conditions—which is true of all good preservation.” CA

## A New Era of Hospitality: DOWNTOWN HOTEL CONVERSIONS OPENING 2015 OR LATER

In dramatic contrast to the motel phenomenon, there is a current trend to create hotels from repurposed historic downtown buildings. Emphasizing walkability and urban density, many of them have no parking facilities at all, and nearly all are concentrated downtown. And most go well beyond offering a simple coffee shop to providing a variety of public amenities such as restaurants, spas and rooftop bars.

The goal is the same as it always has been: to create a distinctive identity that lures the traveler and inspires repeat business. But when people choose their hotels by surfing the Web rather than cruising the highways, a unique historic property is more effective than a flashing neon sign.

Here is a portfolio of new hotels opening in historic Loop buildings in 2015 and beyond:

### 1 NEW NAME TBD London Guarantee Building

360 N. Michigan Ave.  
1923, Alfred S. Alschuler  
Goettsch Partners

Someone  
Deary Design  
Group (hotel  
interiors)  
2016

This conversion includes new construction on a small lot to the southwest that formerly included a small parking structure. Historic lobby elements were restored in 2001 and will be retained.



© GOETTSCHE PARTNERS

### 3 VIRGIN HOTELS CHICAGO Old Dearborn Bank Building

203 N. Wabash Ave.  
1928, C.W. and George L. Rapp  
Booth Hansen

Rockwell Group (hotel interiors)  
The world's first Virgin Hotel opened here on Jan. 15, 2015. The Rapp brothers were known for designing lavish movie palaces such as the Chicago Theatre.

### 4 CHICAGO ATHLETIC ASSOCIATION HOTEL

12 S. Michigan Ave.  
1893, Henry Ives Cobb  
1907, Annex at 71 E. Madison St.,  
Richard E. Schmidt, Garden &  
Martin; 1926, seven-story addition,  
Richard E. Schmidt, Garden &  
Martin

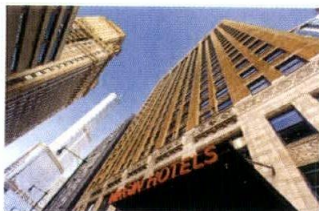


PHOTO BY NICHOLAS JAMES PHOTO

### 2 HAMPTON INN Chicago Motor Club

68 E. Wacker Place  
1928, Holabird & Root  
Hartshorne Plunkard  
Gettys One (hotel interiors)  
MacRostie Historic Advisors  
(historic consultant)

One of the beloved elements of the building's lobby is the mural by John Warner Norton that depicts America's highway system—the very thoroughfares along which so many motels were constructed. (See page 13 in the Façade section for a story on the Hampton Inn.)



Hartshorne  
Plunkard  
Roman and  
Williams  
(hotel  
interiors)  
MacRostie  
Historic  
Advisors  
(historic  
consultant)

In addition to restoring the former club's public spaces, the architects are adding a rooftop venue set back from the Michigan Avenue façade.

### 5 MARRIOTT RESIDENCE INN BY MARRIOTT Roanoke Building LaSalle Hotel Partners

11 S. LaSalle St.  
1915, Holabird & Roche; 1922,  
five-story addition, Holabird &  
Roche; 1926, tower, Holabird &  
Roche; Rebori, Wentworth, Dewey  
& McCormick (assoc. archs.)  
VOA (architecture and interiors)  
The Andrew Rebori-designed tower  
will have one- and two-bedroom  
custom suites with 360-degree views  
of the city.



PHOTO BY HARTSHORNE PLUNKARD ARCHITECTURE

### 6 NEW NAME (Kimpton) New York Life Building

39 S. LaSalle St.  
1894, 1898 (eastern half), Jenney &  
Mundie  
1903, one-story addition, architect  
unknown  
Gensler  
Beleco (hotel interiors)  
2016

The Kimpton chain was a leader in repurposing downtown buildings for hotels, and this will be their newest Chicago property.

### 7 HYATT THE LOOP CHICAGO

100 W. Monroe St.  
1927, Frank D. Chase  
VOA  
Gary Lee Partners (hotel interiors)  
There will be a bakery, brasserie and  
French Market  
to appeal to  
Loop workers  
as well as hotel  
guests. As with  
many of these  
properties, a  
rooftop bar is  
being added.



PHOTO BY BEYOND MY KEN VIA WIKIMEDIA COMMONS

# NEW GENERATIONS OF GLASS AND STONE

Three University of Chicago projects evolve Collegiate Neo-Gothic in subtle ways

BY ZACH MORTICE

All adaptive reuse projects have to confront how you represent and revise architecture of two distinct time periods. But in an adaptive reuse project where the original building was done in a historicist style, the problem is more complex: How do you draw attention and tasteful contrast between the new, the old and allusions to the ancient?

That's the conundrum presented by three renovation and adaptive reuse projects on the University of Chicago's Neo-Gothic campus. Its Saieh Hall for Economics, Neubauer Collegium, and renovation and expansion of the University of Chicago Laboratory School are all exercises in subtle evolution that continue the aesthetic principals of Neo-Gothic architecture, if not its exact material traditions. The projects' architects maintained the sense of continuity on one of the nation's oldest Neo-Gothic campuses, highlighting the "Neo" in Neo-Gothic in a few cases, but mostly using material cues to distinguish between old and new. These buildings were originally designed to look ancient, but their current configurations are just now ending their useful life, making them early case studies on how architects can handle the three temporal masters they need to serve in the adaptive reuse of historicist buildings.

When the University of Chicago opened in

1892, founder William Rainey Harper famously declared there would be no opening celebrations. The school was to appear as if it had always been there, as ancient as the nearby lake, or at least as ancient as Oxford and Cambridge. Current campus architect Steve Wiesenthal, FAIA, describes what Harper was looking for as "instant credibility," and Harper largely got it, as the university became the defining institution in its part of the city, and an icon of scholarship for the entire Midwest.



IMAGES COURTESY OF KLIMENT HAHSPAND ARCHITECTS



Several seminaries were attracted to the campus, lured by proximity to the University of Chicago Divinity School. Built in 1930, the Meadville Seminary is being renovated by New York-based Kliment Halsband Architects. It will become the Neubauer Collegium, where humanities and social science professors from all over the world will work in multidisciplinary teams, applying research models more often seen in the physical sciences. The \$13 million project, to be completed this spring, leaves the exterior virtually untouched, but inside there is a radical shift in program that is accomplished in subtle ways. What was once a place for solitary contemplation of divinity will become a place for scholarship based on intense collaboration.

The architects blew out walls to create nearly every type of social space imaginable: lecture halls, event spaces, galleries, and small and large

meeting rooms. Kliment Halsband's Frances Halsband, FAIA, likens these to social incubator hangout spaces more often seen in tech firms like Google. "We're putting a very modern view of how people work into a super-traditional building," she says. Some wood-paneled walls are being restored, but the most intense interventions, as in the lobby, are defined by panels of laser-cut steel. Glass plays a key role here, as it's used to divide individual offices for researchers, keeping them visually connected to the hive of activity around them. "It's all about seeing what's happening right outside of your door," says Halsband.

Saieh Hall for Economics covers one wing's former exterior in a glass-walled corridor, preserving its rich red brick in a building-scale vitrine; one example of the way Ann Beha Architects (ABA) used transparency to let the

**ABOVE** The exterior of the Neubauer Collegium remains mostly untouched. **OPPOSITE PAGE** Laser-cut steel panels will define the renovated lobby, one of the project's most dramatically transformed spaces.



PHOTO COURTESY OF TOM ROSSITER



PHOTO COURTESY OF TOM ROSSITER

**TOP** Saieh Hall is composed primarily of red brick (a rarity for the University of Chicago campus), with limestone detailing. **LOWER** One wing of Saieh Hall is encased in glass, preserving the red brick and creating a new glass-walled colonnade around it.

patina of the original brick and limestone detailing shine through. Completed in three phases in the 1920s and designed by H.H. Riddell, it was originally the Chicago Theological Seminary. The \$105 million renovation, completed last fall, converts soaring ecclesiastical space into secular, though hardly prosaic, classrooms and lecture halls. Much of the explicit spiritual iconography, such as the stained glass windows, was removed, but some religious masonry remains. In the largest chapel, five massive circular light fixtures hang down from a vaulted oak ceiling, over the former site of the altar; this chapel is now a graduate study lounge. Their contemporary sculptural presence dominates the room, and rebrands its field of study from one fundamental measure of humanity to another. The visual symbolism of the circular lights creates a sense of continuity as well. "Why not halos over the altar?" Wiesenthal says.

The building has its share of quirks and eccentricities—Tudor detailing, mannerist stonework in the cloisters, a completely functionless bell tower—that made it a richer composition than a paint-by-numbers effort at Gothic recycling. "The mixtures of styles and the level of craft give this building its unique identity," says ABA's Philip Chen, AIA.

None of the renovation projects take many opportunities to reference being built closer to the first stock market crash than the first appearance of the Black Plague, but Saieh's graduate student offices in the building's attic are a smart exception. Formerly obscured by fireproofing, ABA's plan exposed the steel trusses that run through the attic, offering a sure sign you're not in medieval France.

Because of its jewel-like contrast to mortar and masonry, glass is a signature material for Gothic architecture. It's also a signature material for Valerio Dewalt Train's (VDT) \$44 million Gordon Parks Arts Hall for the University of Chicago Laboratory School for quite a different reason. The building largely consists of a glass curtain-walled atrium that collects the school's arts programs: visual arts studios, a black box theater, music rehearsal space and an assembly hall. This fall, it will take the place of a previous arts wing and renovate two adjacent Neo-Gothic classroom towers. Here, glass is the rule, not the exception. Four solar chimneys rise out of the north façade like Gothic buttresses, and limestone A-frames replicate the massing of the adjacent Neo-Gothic buildings. Since the project required new construction, VDT chose a hybridized, contemporary style that draws on formal principles of Gothic architecture (the use

"We're trying to recognize what is powerful about the architecture that's on campus, and use the principles that we find to build something appropriate for the current moment,"

— RANDY MATTHEIS, AIA, OF VDT

PHOTO COURTESY OF TOM ROSSITER



of glass, light and verticality), if not its material ratios. "We're trying to recognize what is powerful about the architecture that's on campus, and use the principles that we find to build something appropriate for the current moment," says Randy Mattheis, AIA, of VDT.

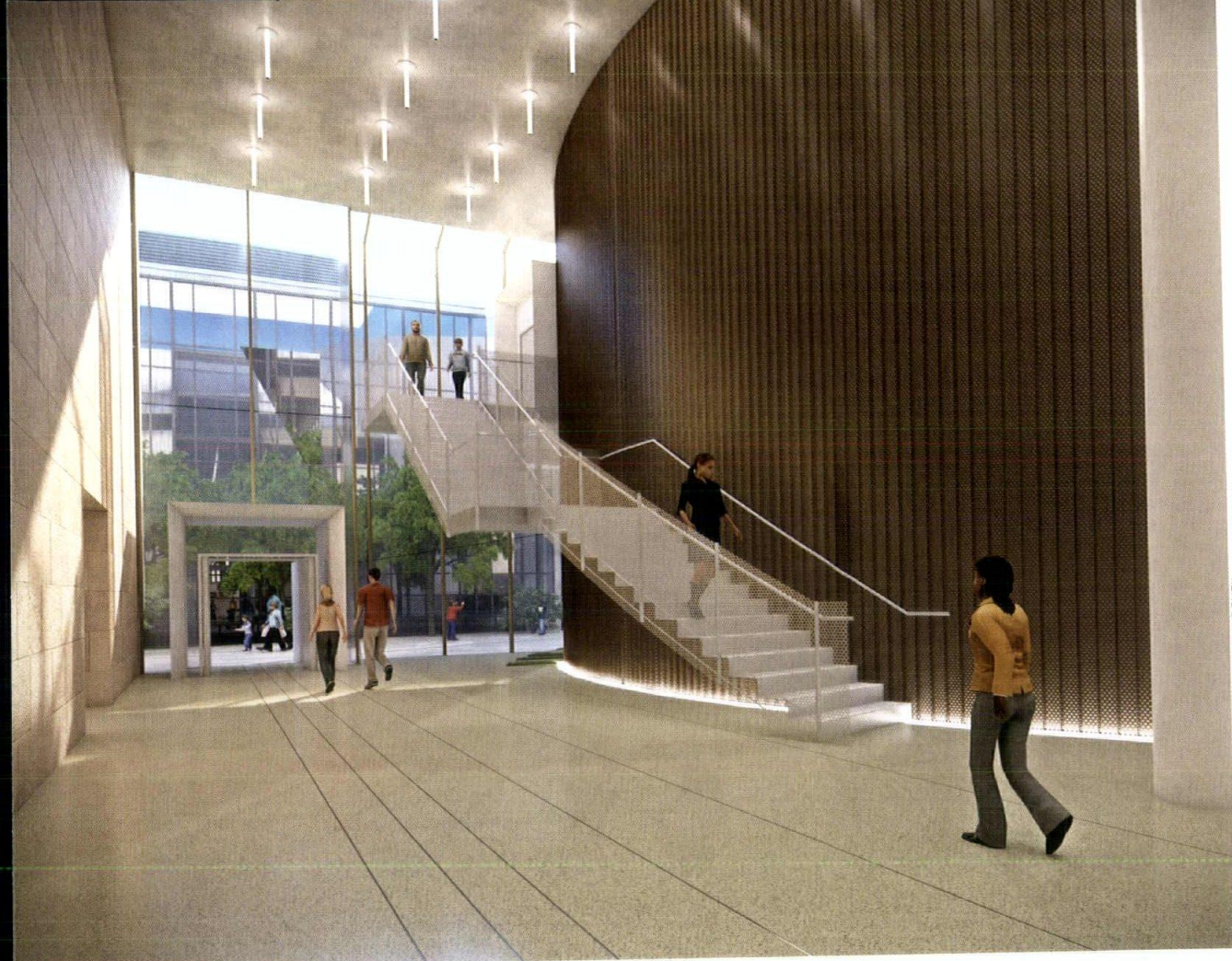
The inversion of primary materials here celebrates advances in building science, and more of this progression can be seen as the building dematerializes from its north to south

elevations. Concrete A-frames with limestone cladding mark the north façade, but moving south, these same structural frames are repeated and composed of just steel and glass, with a few exceptions. "You could imagine 'Miesian Gothic' if there ever was such a thing," Wiesenthal says. The A-frame gables at the south end have the same proportions as the pure Neo-Gothic gables next door, maintaining formal continuity with material ingenuity.

**TOP** Steel trusses are exposed in the graduate office attic, making it clear that though it's meant to look hundreds of years old, Saieh Hall is predicated by the Bauhaus school. **BELOW** Gordon Parks Arts Hall maintains the same massing and proportions as the adjacent Neo-Gothic buildings, but uses glass in place of masonry as a primary material.

RENDERINGS BY VISUALIZED CONCEPTS. COURTESY OF VDTAR.





RENDERINGS BY VISUALIZED CONCEPTS, COURTESY OF VOTIAR

The Arts Hall collects the Lab School's arts program in a glass-walled atrium.

Marriage of material and shape didn't come easily. "This was probably scheme No. 45," Wiesenthal says. "We went through so many iterations of trying to find the right balance between not mimicking, in the sense of being literal, but [instead] thinking about the spirit of Gothic [architecture.]"

Adaptive reuse of original Gothic-era architecture is understandably rare, but when it does happen, designers often choose a palette of extreme contrast that's instructively opposed to the approaches taken by the University of Chicago. The Champollion Museum in France (a museum of world script and writing) reuses a four-story medieval building, preserving its rough-hewn façade and placing a laminated glass wall with perforated copper spelling out hieroglyphics and other international writing behind it, visible through window openings. The glowing wall turns the original façade into an inverse jewelry box, isolating and preserving it as a precious artifact. The perforated copper displays scripts replicated with machine-milled detail that would have been impossible at the time of

construction, all contrasting with the building's irregular masonry and decaying frescos.

This intense opposition arises out of the massive gulf of time between its construction and renovation—a response to the need to reflect each age of architecture. But in the University of Chicago projects, it's an evolutionary exchange that's been going on for less than 100 years, and the results are appropriately restrained. "We're building in the context of continuing conversation, and so we're joining that conversation not in dramatic juxtaposition, but rather in a continuation of the dialogue," says Wiesenthal.

Just as important are the neighbors the building is in conversation with. Any surviving Gothic building today is likely to be surrounded by structures built hundreds of years later that have little stylistic continuity with the late Middle Ages, but the University of Chicago is all about continuity, first with a pre-Renaissance golden age, and then later with its own Neo-Gothic litany. As such, there's a communal responsibility to make sure renovations complement the closely-related brothers and sisters surrounding them. **CA**

- CLIENT //  
UNIVERSITY OF  
CHICAGO
- NEUBAUER COLLEGIUM  
ARCHITECT //
- KLIMENT HALSBAND  
PRESERVATION //
- MCGUIRE IGLESKI &  
ASSOCIATES  
GEN. CONTRACTOR //
- BERGLUND  
CONSTRUCTION  
STRUCTURAL //
- MATRIX ENGINEERING  
CIVIL //
- TERRA ENGINEERING  
MEP // DBHMS
- SAIEH HALL  
ARCHITECT //
- ANN BEHA ARCHITECTS  
ARCHITECT OF RECORD  
// GENSLE  
CM // TURNER  
CONSTRUCTION  
STRUCTURAL //
- THORNTON TOMASETTI  
MEP/FP // DBHMS  
LANDSCAPE // OLIN

- LAB SCHOOL ARTS HALL  
ARCHITECT //
- VALERIO DEWALT TRAIN  
ARCHITECT OF RECORD  
// FGM  
ACCESSIBILITY //
- LCM ARCHITECTS  
LANDSCAPE //
- MIKYOUNG KIM DESIGN  
CIVIL //
- ENVIRONMENTAL  
DESIGNS  
INTERNATIONAL INC.  
MEP // ARUP  
STRUCTURAL //
- RUBINOS & MESIA  
ENGINEERS  
RENDERINGS //
- VISUALIZED CONCEPTS



# NEW DEVELOPMENTS IN DATA CENTER DESIGN

BY C.C. SULLIVAN AND BARBARA HORWITZ-BENNETT,  
CONTRIBUTING EDITORS



## LEARNING OBJECTIVES

After reading this article, you should be able to:

- ▶ **DISCUSS** two primary strategies for free cooling for energy savings and environmental improvement in data centers.
- ▶ **DESCRIBE** potential uses of renewable energy for data centers.
- ▶ **EXPLAIN** the pros and cons of overhead versus underfloor cabling and air supply in data centers, especially the implications for occupant safety.
- ▶ **UNDERSTAND** trends in data use, computing and facility infrastructure that are changing data center design, particularly packaged systems and cloud computing.

## FROM THE DOZEN OR SO FACILITIES

**HOUSING** Google's 900,000 servers to the sprawling server farms of Facebook to Amazon's seven sites scattered around the world, today's data centers must accommodate massive power demand, high heat loads, strict maintenance protocols and super-tight security. Among owners' top concerns are constant increases in storage and processing requirements, affecting rack densities, backup power needs and MEP infrastructure.

The sheer numbers behind these data facilities are staggering. According to WholsHostingThis.com and the blog Storage Servers, Google's data centers alone use 260 million watts of power a year—enough to power 200,000 households. Facebook serves a user base that adds about seven petabytes—seven thousand trillion bytes—of photos to the platform every month.

Among the biggest players has been Microsoft, which has invested some \$23 billion on data centers and their contents to date. Last year, the company spent \$112 million on a single facility.

Building teams can have a tough time keeping up with rapid change in this sector. What works today may quickly become obsolete, especially if the end-user's power requirements are doubling every nine months. However, oversizing is not necessarily the most viable option.

"In fear of what the future may bring, clients are now asking us to install as much MEP infrastructure capacity as is physically and financially possible," says John Yoon, PE, LEED AP ID+C, senior electrical engineer with McGuire Engineers. "But blindly increasing MEP infrastructure capacity in an attempt to stay ahead of future IT equipment needs is not a financially sustainable solution in the long run."

Instead, the generally recommended strategy is more effective management and utilization. This involves finding a sweet spot that meets current and predicted capacity needs without grossly oversizing the mechanical plant, says Daniel Bodenski, director of mission critical services at AEC and consulting firm CRB.

Data center experts classify scalable designs and builds as an important long-term solution. This concept involves master planning a full build-out, but constructing the first data module at a manageable size for the client's current needs.

"Design the infrastructure to be easily repeatable and rapidly deployable so that future modules can be added in a seamless fashion," says Charles B. Kensky, PE, LEED AP, CEA, executive VP with Bala Consulting Engineers. "This allows the end-user to add power and cooling capacity without disrupting ongoing operations."

The need for uninterrupted service is another critical planning consideration. Some clients try to manage risk with geographical diversity or remoteness; others prefer the opposite approach. "The financial sector has been locating their data centers for years in outlying areas rather than in the major metropolitan areas," says Bill Brody, VP with construction management firm B.R. Fries. "These are generally less high-risk areas, out in the countryside. Yet others have data centers right in the city, like tech centers and other companies that really want to closely monitor or centralize their operations."

Brody, who works with digital media companies and institutional R&D entities, says many tech companies and universities just lease their data centers from companies that own and operate facilities for multiple clients. "But Wall Street banks, for example, really want their data centers operated by their own people, so they can keep track of them and manage the security issues better," he notes.

## MODULARITY, FREE COOLING AND THE QUEST FOR LOW PUE

Once a client has selected the preferred location, the building team must devise effective designs. Modularity is a guiding principle. By plugging chillers, generators and uninterruptible power systems (UPS) into a standardized supporting framework, clients can defer capital expenses to a just-in-time scenario. Rob Sty, PE, SCPM, LEED AP BD+C, a principal in the Phoenix Technologies Studio of SmithGroupJJR, notes this method also reduces stranded capacity: capacity that can't be used by IT loads due to system design or configuration problems.

Fortunately, the industry is seeing a higher level of coordination between data center managers and IT directors, which is enabling power and cooling systems to be more closely coupled with actual and predicted demand.

NOTE: This article is excerpted from the September 2014 issue of *Building Design+Construction*. For the complete AIA/CES course—and to complete the 10-question exam for the opportunity to earn 1.0 learning units—go to:

[WWW.BDCNETWORK.COM/DATACENTER-TRENDS](http://WWW.BDCNETWORK.COM/DATACENTER-TRENDS)

Aaron Duda, PE, LEED BD+C, an uptime accredited tier designer (UATD) and senior associate with Environmental Systems Design, says this partnership is allowing performance-based deployments instead of initial overdesign.

Beyond modular, scalable designs, more efficient power and cooling are a high priority. Teams are striving to leverage climate patterns, existing infrastructure or both to gain free cooling—a strategy required for data centers by the latest energy codes. Free cooling uses outside air or an existing source of cold water to help chill buildings and equipment.

Nearly every data center designed by MEP consultant Syska Hennessy Group in recent years has included some form of free cooling, the most popular of which is the water-side economizer, according to James Coe, PE, RCDD, director of critical facilities for the firm's Atlanta office. "If the end-user has a water-cooled chiller plant, this is the lowest-cost solution for free cooling, and it usually pays back quickly," he says.

Direct air-side economizers can be more expensive and may require a larger footprint; their filtration requirements and costs can run high, and they may not easily isolate ambient contaminants or handle weather anomalies, says ESD's Duda. The HVAC controls may be hard-pressed to achieve stable humidity conditions in a direct air-side system, he adds.

Gaining traction in the mission-critical marketplace: indirect outdoor-air economizers with evaporative cooling, which take advantage of ambient heat rejection while mitigating many of the problems associated with processing outdoor air, says Duda.

Sty reports the University of Utah's data center is reducing central plant operating hours via air-side economizer operations, and is poised to achieve a power usage effectiveness or PUE—the ratio of the total energy used by a data center to the energy delivered to the computing equipment—of 1.25 at full load. The strategy will also save about 10 million gallons of water per year.

Yoon says Google's data centers have managed to push their PUE down to 1.2, an improvement over the industry average of 1.8 for large data centers.

The practicality of free cooling, regardless of method, is tightly linked to a facility's parameters

for indoor temperatures—especially appropriate temperatures for air entering servers via ventilation fans. ASHRAE Technical Committee 9.9, Mission Critical Facilities, Technology Spaces and Electronic Equipment, has issued recommendations and thermal guidelines encouraging teams to consider higher server inlet temperatures, says Sty. Allowing higher temperatures can significantly reduce costs by increasing the number of hours possible for economizer operations.

"The basic premise is that server equipment is generally much more robust than we give it credit for, and it isn't necessary to cool a server room like a meat locker," Yoon says. In 2008, Christian Belady, PE, principal power and cooling architect for Microsoft, performed a now-famous experiment wherein a rack of servers, protected from the elements by only a flimsy metal-framed tent, ran reliably for half a year.

Sometimes it's hard for data center managers to overcome the perceived risk of such a design approach. "While increasing the cold-aisle temperature set points may dramatically increase the feasibility of air-side economizers in many regions, you have to convince the IT manager to embrace a design that goes against the traditional convention that low temperature and separation from the surrounding environment equals reliability," says Yoon.

To help data center designers implement economizer systems and take advantage of free cooling, Bodenski recommends the following plan of action:

- ▶ Determine the potential number of free cooling days for both air-side and water-side economizer systems.
- ▶ Get aligned with the end-user's IT equipment requirements—supply air temperature and chilled water supply temperature—and deployment strategy. Will the IT load be deployed 100 percent on day one, or just 15 percent on day one?
- ▶ Determine the type of distribution system—underfloor, overhead or other.
- ▶ Develop analyses for monthly electrical consumption and water consumption, as well as a payback comparison for air-side and water-side economizer options using net present value.
- ▶ Work with the end-users to obtain criteria to develop the engineering and economic analyses, notably geographic location, system type, IT

load deployment, water-side economizer pumping penalty, air-side economizer fan penalty, utility rates, demand rate, water utility rate, maintenance costs, internal rate of return, utility and maintenance escalation, and construction cost inflation.

- ▶ Consider partial chiller loads, a hybrid air-side and water-side economizer, or both.
- ▶ Take into account the cost and complexity of modifying the base building architectural system and structural system to accommodate an air-side economizer.

#### ACTIVE COOLING STRATEGIES FOR ROWS, RACKS AND CABINETS

Free cooling will take a data center only so far. Engineers still must deal with increasing rack densities and the need to prevent hot spots. This often means bringing the cooling to the load, not just the room, says Bala's Kensky. "Plan it and model it, but do it efficiently," he says. "Higher density does not mean just adding cooling capacity. It requires an intelligent, efficient approach to delivering the cooling at the point of greatest need, and removing the heat effectively."

Raised-floor systems work well for densities below 10 kW/cabinet. High densities require other solutions. For instance, central station air-handling units (AHUs), in lieu of computer-room air handlers, can employ a "ballroom" delivery of air into the cold aisle and integrated rack, says Sty. In-row cooling is also growing in popularity.

"As rack densities increase beyond the limits of what traditional air-cooled cabinets can support, water cooling at the cabinet may become more viable," Sty suggests. He points to the High Performance Computing Data Center in the new Energy Systems Integration Facility at the National Renewable Energy Laboratory, in Golden, Colo., where cooling liquid is delivered directly to the cabinet. This strategy yields extremely high thermal efficiencies and contributes to a PUE of 1.06. Rear-door coolers—both water- and refrigerant-based—can accommodate loads up to 30 kW/rack and are highly adaptable to retrofits, says CRB's Bodenski.

Yoon says top-of-row bus duct and in-rack liquid cooling can be great choices for high-density server lineups, but he also says they shouldn't be viewed as a one-size-fits-all

solution. "Just because you can put 800-ampere bus duct above a 10-cabinet server lineup and also provide the cooling to make it work, should you?" he points out.

Yoon recalls one project for which an extensive blade server deployment was planned. A high-density, pumped refrigerant cooling system was installed to accommodate the load, only to have the client change its preferred server vendor. The blades were never fully deployed, and the load thresholds for effective operation of the cooling system were never reached. The cooling system had to be decommissioned and replaced less than five years later, according to Yoon.

To avoid such situations, McGuire Engineers generally recommends modular designs, specifying generic building blocks with a predefined per-cabinet power and cooling budget. "This entails considerable coordination with end-users so they understand the power and cooling budgets they have to live within," says Yoon. "Often, it's simply a case of redistributing IT equipment within the facility to even out temperatures and minimize the chance of hot spots."

New technologies are allowing more efficient data center layouts, such as 40- and 100-gigabit top-of-rack (ToR) network architecture, says Yoon. "This design methodology is much easier to implement, as ToRs have reduced the cabling requirements for high-bandwidth equipment," he says.

Some enterprise facilities are starting to consider full-submersion cooling solutions, which immerse the server electronics in a dielectric bath, to take densification to the next level. "The dielectric fluid is circulated over the server components, and then heat is rejected to an open-loop condenser water system," says ESD's Duda. "The dielectric can move more heat per volume unit, allowing the deployments to have a much smaller footprint."

#### **HOT AISLES, COLD AISLES**

Engineers are also striving to devise the best aisle containment strategies, preventing hot air exhausting from server cabinets from mixing with cold air supplied by the cooling system. Bala's Kensky recommends starting with simple strategies such as brush grommets (to seal cable openings in the floor) and scalable blanking

panels, which fill unoccupied rack space to control airflow and enable servers to operate at a cooler temperature. End caps, aisle covers and chimneys—vertical exhaust ducts extending from the top of cabinets to the ceiling plenum—can all be effectively deployed to contain hot air.

Cold-aisle-driven plans, which concentrate on maintaining temperatures by keeping cold aisles cold through various barrier strategies, work well for retrofits with in-row cooling or a raised-floor environment, saving on ductwork and construction expenses, says Bodenski. However, hot-aisle plans, which emphasize environmental control by confining and exhausting hot air, remain the preferred method for many new data center build-outs. Among the advantages:

- ▶ IT personnel can work in a 75°F environment, compared with 100°F or more in cold-aisle containment settings.
- ▶ End-users can take advantage of extended air-side or water-side economizer hours, which increases mechanical system efficiency and lowers PUE.
- ▶ Some IT equipment may not be able to survive outside of the contained areas and would need evaluation in a cold-aisle setting.

One approach Syska Hennessy likes to pursue is partial containment, where the air pressure in the hot aisle and cold aisle are kept at the same levels. "With full containment deployed, the pressure in the hot aisle can be higher than the cold aisle," Coe explains. "The server fans may have to be sped up and draw more critical power to overcome this pressure."

Aisle containment is not a simple spec. The concept has evolved from a straightforward return air pathway to a sophisticated architectural solution supporting numerous infrastructure components, making full building team collaboration increasingly important. "Coordination with all design disciplines is necessary to ensure that the pod containment architecture fits into the entire building system," says Sty.

To make it easy to set up containment solutions, some vendors are now offering prefabricated systems such as a turnkey design, manufacturing, installation and commissioning package.

#### **GREENER POWER GENERATES DEBATE**

Until recently, data centers' enormous power and

water use has escaped widespread criticism; generally, the consumption has been viewed as a necessary evil in a booming industry. But such governmental and public tolerance is likely to change. "It is only a matter of time before the environmental impact of these types of facilities is put on display," predicts ESD's Duda. "Many enterprise users fear this bad publicity so much that they are investing in on-site photovoltaic or fuel cell installations to offset their grid use of power. They're also examining on-site use of process water from the cooling systems, to curtail the discharge of the fluid to storm or sanitary systems."

Though fuel cells aren't cheap, they can make sense in areas where utility rates run high and federal and state tax incentives are available. Kensky reports that fuel cells by one manufacturer (Bloom Energy, Sunnyvale, Calif.) can run on a variety of inputs and withstand high temperatures. EBay is using these natural gas-powered cells to power their newest data center in Salt Lake City, even when regular utility services are available. They have opted not to install generators or UPS equipment. For some projects, the waste heat from fuel cells and microturbines can be captured in combined-cooling-and-power systems, driving absorption chillers to contribute to cooling.

Solar remains the low-hanging fruit among renewable power solutions for data centers. Even though facilities may require acres of PV panels to achieve a reasonable result, experts say the investment can make sense. Wind power also requires lots of space. "If I had to choose an alternative, I would want to go hybrid: a hydroelectric base supplemented with solar, wind or both, with generator or utility backing," says Chris McLean, PE, director of data center design at Markley Group.

Designers are also trying to ratchet down power use by delivering DC power to the cabinets and specifying higher distribution voltages. When DC power is supplied to IT equipment, AC power conversion (long a standard aspect of data center engineering) is no longer necessary; this yields a 2-3 percent efficiency gain and can obviate the need for a UPS inverter section and downstream power distribution units, says Yoon.

Higher delivery voltages—for example, 230/400VAC and 240/415V—are another hot

topic in the data center design community.

They're still relatively rare in North America but can be considered in high-density installations, according to Yoon. This strategy enables equivalent power delivery at a relatively low current and minimal transformer losses. However, there is a higher risk of arc flash that could injure inadequately trained personnel, particularly with top-of-row busways. Yoon warns that the relative rarity of these alternate power-delivery methods also carries an inherent cost in the form of proprietary server equipment and specialized operational methods.

Even higher voltage—380V DC—is on the distant horizon.

**CABLING: OVERHEAD VS. UNDERFLOOR**

Experts debate whether it's better to place data and power cabling overhead or under the floor. Bala's Kensky says overhead trays deliver a number of advantages. They make it easier to implement additions and changes, offering greater long-term flexibility. Putting cable high also minimizes future disruption to access-floor cooling plenums.

When combined with overhead ducted supply air to the cold aisle, overhead cabling can allow teams to forgo expensive raised-floor systems. Cabinets can be placed directly on the structural slab. Power and low-voltage systems can coexist in a fully coordinated modular design.

Perhaps the biggest benefit, says Syska Hennesy's Coe, is that if power and data cables are placed overhead, and there is no raised floor (or the raised floor is only used to supply cold-aisle air), an emergency power-off (EPO) push button is no longer required, per the National Electrical Code.

"These EPO buttons are typically located at every IT room exit," Coe explains. "They de-energize IT equipment in the room and stop the supply of underfloor air. However, EPOs make IT managers very nervous since outages are bad for their job security."

An often-overlooked benefit of overhead installation, says Coe, is better O&M practices. When cabling is hidden below the floor, some installers will abandon decommissioned infrastructure, creating blockages over time. "When cabling is visible overhead, it will typically be installed with better workmanship and be

removed when it is no longer needed," he says.

Duda points out that overhead power and data do require close coordination of lighting and environmental conditions. "Unencumbered light should be provided where equipment requires regular access," he says. "If not properly planned, overhead cable trays can reduce the amount of light getting to the service spaces." Designers need to be familiar with the Telecommunications Industry Association Standard TIA-942, Telecommunications Infrastructure Standard for Data Centers. The standard stipulates an 18-inch clearance from the top of cable pathways to sprinklers, which can be difficult to achieve in a legacy facility, or even in a new building with height constraints.

Overhead installation has other disadvantages. Vertical supports and tray locations can limit cable installation space. Ladders are required to access the cable. Unprotected infrastructure can be more vulnerable to damage, compared with underfloor installations. Cable ampacity (current-carrying capacity) may be compromised if installed over hot aisles with elevated temperatures, according to CRB's Bodenski.

Underfloor layouts offer easy access for installation and removal by means of a simple floor tile-pulling device. "Cable deployments are hidden from view and protected by the raised-floor system, providing a clean aesthetic," says Duda. "Properly planned underfloor deployments will have cavities large enough to accommodate cabling and provide clear pathways for air delivery." Also a must: proper cable-management strategies that support airflow.

Underfloor layouts enable designers to reduce "white space" above the computer equipment and can make system coordination simpler. But they can also waste energy due to cables blocking the delivery air path, supply-air leakage from cable cutouts and bypass-air leakage from power distribution unit cutouts, says Bodenski. UFADs also require a greater floor depth to accommodate cable trays, and trays installed in the supply airflow plenum will complicate maintenance.

Because each project is different, SmithGroupJJR's Sty recommends weighing variables such as room height, rack and cabinet densities, and overall cooling strategy before selecting a cabling location for any data center.

**PACKAGED IT SYSTEMS OFFER INTEGRATED FACILITY SOLUTIONS**

Following the trend toward greater systems integration, some data centers are moving to converged infrastructure to capture efficiencies and savings. Defined as multiple IT components—servers, data storage devices and networking equipment—consolidated into a single package, convergence offers a reduced cabinet footprint, lowered power consumption and an extended data center life cycle.

"Bringing together server storage, networking and virtualization into an integrated solution that is managed as a single entity optimizes the IT infrastructure," says Sty. "This has a direct impact on the facility's supporting mechanical and electrical systems. Operational expenses can be reduced significantly through this operating platform."

A recent market research study by International Data Corp. projects overall spending on data center converged systems will grow at an annual rate of nearly 55 percent, reaching \$17.8 billion by 2016. By then it will account for 12.8 percent of the total storage, server, networking and software market.

Duda says that clients with a greater appetite for risk are actively embracing convergence, while more conservative companies are likely to go with proven technologies. Coe adds, "These solutions are becoming more common, but rarely do we see an IT manager who will deploy a converged system alone. They generally deploy a variety of solutions."

Yoon anticipates that the industry will move toward convergence. While data center managers, particularly in smaller facilities, traditionally focus on the IT equipment deployment and management, they will eventually be forced to pay more attention to MEP infrastructure, he says. Convergence can enable managers to take a systemwide approach.

A newer trend is cloud computing, which is transforming the process of computing from a product to a service. End-users are moving various aspects of operations—especially storage—from local servers to a network of remote servers hosted on the Internet. At \$200,000 a pop for a single on-site storage-area network cabinet, transferring data to a remote

site can make a lot of financial sense.

“Storage requirements are growing faster than almost any other sector of IT platforms,” says Kensky. “Even as storage technology becomes more efficient, we live in a smartphone and tablet world, and the demand for the cloud and storage will only grow.”

In health care, for example, new processing-intensive clinical technologies like computer-assisted diagnostics and telemedicine are combined with an ongoing need for secure medical-record storage. The scenario requires increasingly robust storage and processing protocols. Clients see the cloud as a way to help handle the enormous load, says Sty.

AEC firms like Syska Hennessy have started using the cloud themselves for archiving, email and some other IT applications. “The upside for firms of all sizes is that they can reduce their owned and maintained IT equipment and the

need to provide connectivity, power and cooling for less-critical IT functions,” says Syska’s Coe.

Cloud computing also allows data center operators to reduce the needed level of in-house infrastructure reliability. Cloud providers can shift IT activity to a different data center—or a different area within the same data center—in the event of an outage or failure. Designing data centers to a lower tier level (a measure of uptime and redundancy) reduces capital and operating costs, since lower levels mean fewer generators, UPS modules and chillers.

Cloud computing further enables operators to better standardize equipment and critical infrastructure across their portfolios, lowering costs and driving efficiency, says Bodenski. Cloud computing fills an important niche, but it also raises issues of net neutrality, cybersecurity and information ownership. Where confidentiality

is a high priority, such as for critical operations and transactions, firms will most likely continue to want their own processing and storage infrastructure, says Duda.

#### **MORE EFFICIENT PROJECT DELIVERY**

Cloud or no cloud, technological evolution will continue to require smart thinking and nimble action from building teams and their clients. “The demand for data center critical load will grow until we have fully tapped the potential of computers, smartphones, tablets, Internet televisions and whatever comes next,” says Coe. “That could be a while.”

Coe anticipates that the data center sector will eventually demand that building teams offer a more efficient construction-delivery process, pressed by the need to increase capacity, improve sustainability, and hold the line on cap-ex and operating costs. **CA**

SPEC SHEET



With that in mind, he created two different south-facing elevations—a steeper roof optimized for low winter sun and a shallower roof maximized for the middle of the day in the summer. A state-of-the-art coating adds cool roof properties to the entire span, meaning sunlight reflects off of the surface instead of getting trapped inside and heating up the roof.

To take full advantage of the innovative design, solar panels were installed on each of the roof masses. While it may not be apparent at first, the project employs two different types of solar panels. The steeper roof uses solar thermal panels, which take in heat to power a generator and provide hot water for the house, as well as tie into the HVAC. The other roof employs solar photovoltaic (PV) panels, converting sunlight directly into electricity. “Those probably produce about 30-35 percent of the house’s electricity,” Kipnis estimated. The PV panels get an extra boost in the fall and spring from sunlight reflected off the opposite roof.

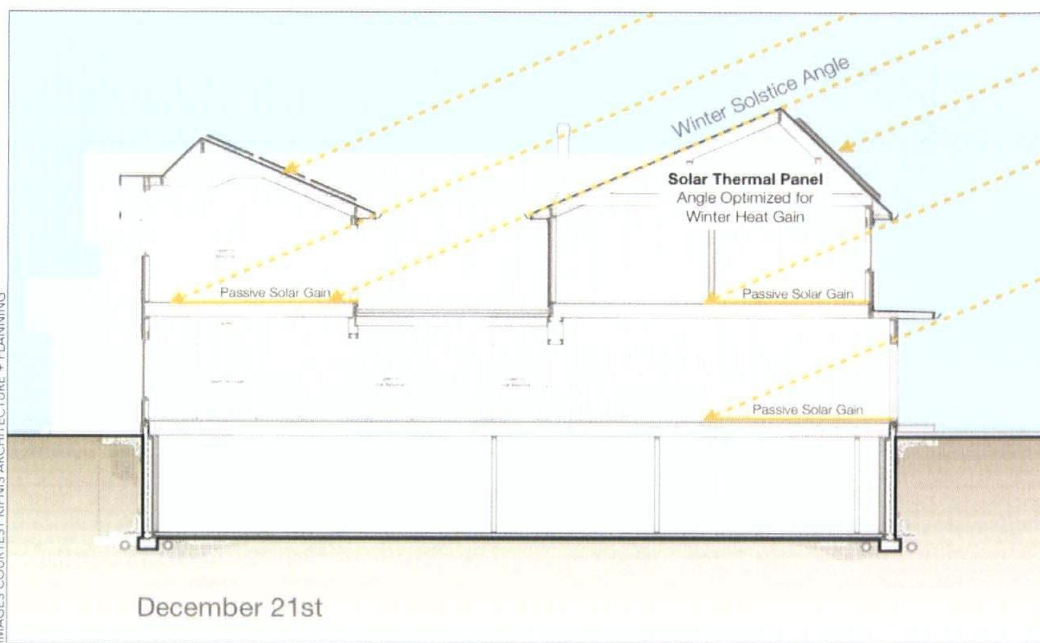
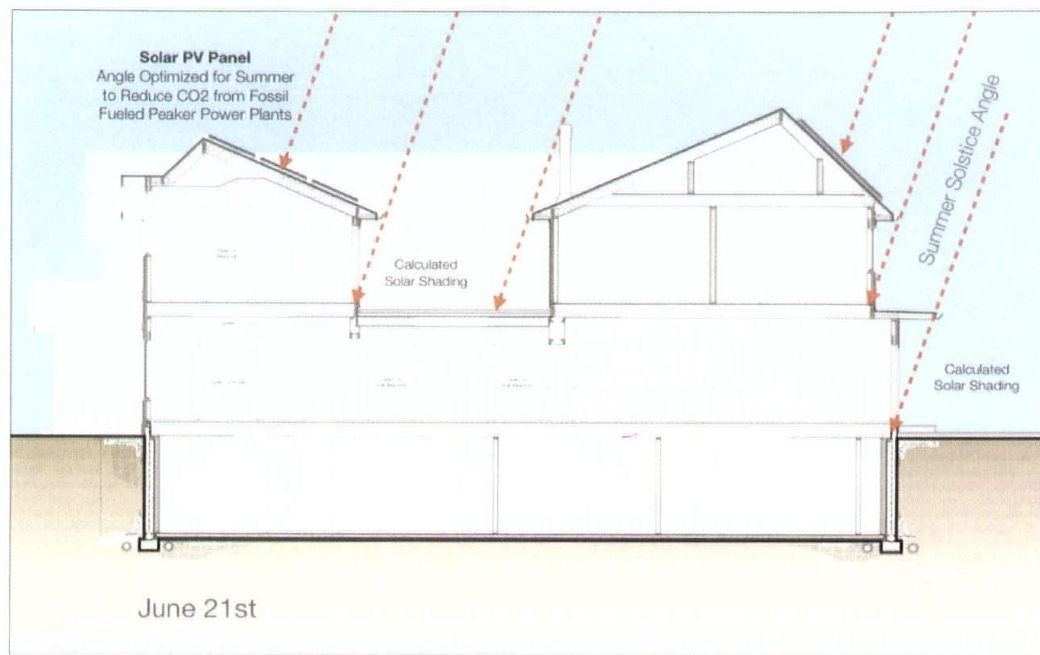
The inclusion of solar panels was yet another reason to choose a metal roof over more traditional asphalt—when the asphalt eventually needed to be replaced, the solar panels would have to be removed and reinstalled, reducing their efficiency.

The slanted, asymmetrical U-shape provides other advantages in terms of home performance. All three sections of the roof angle down and in toward the green roof, which sits on a central balcony and is composed of precast concrete panels. This channels all rainwater directly to the native plants populating the space. Excess water drains down the side of the house into the property’s rain gardens.

For Kipnis, function was just as important as fashion for the green roof. “Unlike most green roofs, [the homeowners] can actually go out and use it,” he said.

A more traditional asphalt roof would have been less than ideal for this purpose, Kipnis explained. “Asphalt is bad for water collection, mostly because it leaches,” he said. “Plus you get particles coming off in the runoff.”

Finally, Kipnis said the roof design coordinates with the home’s layout to bring in natural cool air. The center section sits directly above the staircase, which stretches all the way from the top floor down to the basement. That streamlined design means opening the transom



*The dual south-facing roof masses are optimized for maximum sunlight year-round. In summer (top) the PV panels get the most of the high sun, while the thermal panels allow greater heat gain in winter (bottom).*

IMAGES COURTESY KIPNIS ARCHITECTURE + PLANNING

windows above the entrance to the green roof brings natural ventilation through the entire household. “The idea is to open some windows, particularly on the east side, to bring in cool air that’s low and shaded,” Kipnis added.

Having one aspect of a home do all these

things seems incredible, but for Kipnis, it’s the type of thing architects should be doing. “The architectural design should do something for the project,” Kipnis said. “And the shape of this roof does a lot of things. It’s architecture with a capital A.” CA



## ARCHITECT AS TRANSLATOR

Enhancing communication between architects and clients

BY JEAN DUFRESNE, AIA, NCARB

Growing up in a suburb of Montreal, all I knew was French. It was all I heard or spoke. My parents were very adamant about teaching us English and making sure we understood the value of that knowledge, but outside my front door was pretty much where that ended. From a very young age, my brain functioned in two languages—English at home, French everywhere else. I constantly switched from one language to the other, searching for the right word and meaning behind what I heard or was trying to say.

I was translating.

As I started my journey into architecture, spending many years at McGill University's School of Architecture, I met people, like me, who'd grown up speaking two or more languages. Now, we were embarking on an educational journey to learn another language—architecture. Our time at McGill taught us to articulate our ideas and concepts into physical shapes and designs. We were drilled on our parti and learned how to express our ideas to colleagues, professors and guest critics. We graduated with a brain full of new terms, words, and an understanding of design, aesthetics, proportions and construction. Gather a group of us together, and we could dissect a building's design for hours, speculating about the design intent of the

architect, the user's perception of the precession into the space and the quality of the light hitting the railing detail of the open stairway.

Then the reality of architecture in the real world hit me. As soon as I started my first job, I realized that all those years of architecture school were amazing, but they had not prepared me very well for the non-architects I would interact with as clients. All those formative years in my little suburban town suddenly came back into focus, and I realized the skill set that I had developed and honed as a child: translation.

You see, as architects, our job is to translate our client's dreams, needs and wants into beautiful, functional and sustainable buildings. It all starts with an initial meeting with the client to figure out what they want and what they need. Doing so requires patience and very good listening skills, but most importantly, the ability to translate what our client is saying into architecture.

They are not architects. They are lawyers, teachers, traders and developers. The language they speak and the vocabulary they use is not the same as ours. Like us, they were taught the words and expressions of their respective fields. It is up to us, more so than any other field, I believe, to adapt to this language barrier and understand what they are saying.

I realized, through meetings with clients,

community groups, city officials and the like, that a good part of my success in architecture would depend on my ability to understand and translate. All of the incoming information needed to be processed and analyzed, and the outgoing information needed to be vetted and clearly articulated. I would not be able to sell my ideas and designs to a client if I could not make them understand what I was saying. We, as architects, have to learn our client's language, how they think and how they speak, so we can better communicate with them and for them.

When the project is underway, soil is dug up, concrete is poured and tradespeople are busy constructing our latest building, we must again make sure the client understands what is being done. The why and the how. I like to say that I want my clients to know enough to be dangerous. It is important, I believe, that clients feel empowered and educated at the completion of a project.

Once the last nail is hit and our clients are enjoying their project, I can walk away knowing that I have learned something new, and my clients have a newfound understanding and appreciation for the architectural language. **CA**

*Jean Dufresne is the principal of Space Architects + Planners.*



# Protect Your Projects – One Contract at a Time.

## AIA Documents-on-Demand®

The Contracts You Need – Whenever You Need Them

Draft your contracts with the insight and experience of the industry's brightest legal minds – in a quick, compact format. AIA Documents-on-Demand enables PC and MAC users to select individual documents from the AIA's most popular contracts and fill them out electronically with an easy-to-use, web-based service. Enjoy the peace of mind that comes with using the most widely accepted and time-tested documents in the industry.

**AIA Contract Documents®** | [aia.org/contractdocs](http://aia.org/contractdocs)  
THE INDUSTRY STANDARD.



- **Choose from over 70 of AIA's most popular forms and contracts**  
Easy-to-use, web-based tool is accessible any time, from anywhere.
- **Purchase only the documents you need**  
Ideal for firms with limited budgets and smaller projects.
- **Compatible with both Mac & PC platforms**  
Save time with reliable, easy-to-complete electronic documents\*.
- **Focus more on the project, less on the contract**  
Widely accepted and balanced fairly for all parties involved – get off to a smart start with AIA Documents-on-Demand.

For more information visit [documentsondemand.aia.org](http://documentsondemand.aia.org).

\*While a customer can complete the document electronically, there is limited editing capability, and the document is meant to be shared in hard copy.



*Chicago Architect* is published six times a year by the Custom Media Division at Scranton Gillette Communications/SGC Horizon LLC.

Photocopy permissions where necessary, permission is granted by copyright holder for those registered with Copyright Clearance Center (CCC), 222 Rosewood Drive, Danvers, MA 01923, [www.copyright.com](http://www.copyright.com) to photocopy any article herein for personal or internal reference use only for the flat fee of \$2.00 per copy for each article. Send payment to CCC. Copyright 2015 AIA Chicago.

The information contained within has been obtained by AIA Chicago and Scranton Gillette Communications/SGC Horizon LLC from sources believed to be reliable. However, because of the possibility of human or mechanical error, AIA Chicago and Scranton Gillette Communications/SGC Horizon LLC do not guarantee the accuracy or completeness of any information and is not responsible for any errors or omissions or for the results obtained from use of such information. The editor reserves the right to censor, revise, edit, reject or cancel any material not meeting the standards of *Chicago Architect*. The information and opinions published in *Chicago Architect* represent the views of the authors and not those of the publication or AIA Chicago, unless otherwise stated. The acceptance of advertising does not reflect endorsement of products or services by this publication, AIA Chicago or Scranton Gillette Communications/SGC Horizon LLC.

**LETTERS TO THE EDITOR:** *Chicago Architect* gladly accepts all signed, dated letters to the editor. We reserve the right to edit for style and any potentially libelous content. Letters should be no longer than 250 words. Submit letters to [CA@aiachicago.org](mailto:CA@aiachicago.org).

**STORY IDEAS AND SUBMISSIONS:** *Chicago Architect* welcomes your story ideas and your written article submissions, whether about your projects or about business trends and issues. Email us at [CA@aiachicago.org](mailto:CA@aiachicago.org).

facebook.com/chicagoaia    twitter.com/aiachicago  
aiachicago.tumblr.com    vimeo.com/aiachicago

## INDEX OF ADVERTISERS

AIA Contract Documents.....	<a href="http://www.aia.org/contractdocs">www.aia.org/contractdocs</a> .....	49
Bernhard Woodwork Ltd. ....	<a href="http://www.bernhardwoodwork.com">www.bernhardwoodwork.com</a> .....	23
Bulley & Andrews LLC.....	<a href="http://www.bulley.com">www.bulley.com</a> .....	4
Chicago Plastering Institute.....	n/a .....	25
Chicagoland Roofing Council .....	<a href="http://www.chicagoroofting.org">www.chicagoroofting.org</a> .....	C3
Darris Lee Harris Photography.....	<a href="http://www.darrisharris.com">www.darrisharris.com</a> .....	25
J.C. Anderson Inc.....	<a href="http://www.jcandersoninc.com">www.jcandersoninc.com</a> .....	7
Leopardo Companies Inc.....	<a href="http://www.leopardo.com">www.leopardo.com</a> .....	C4
Marvin Windows & Doors.....	<a href="http://www.marvinwindows.com">www.marvinwindows.com</a> .....	11
McGrory Glass Inc.....	<a href="http://www.mcgrory.com">www.mcgrory.com</a> .....	13
Pella Corp.....	<a href="http://www.pellaefcosolutions.com">www.pellaefcosolutions.com</a> .....	15
Petersen Aluminum Corporation .....	<a href="http://www.pac-clad.com">www.pac-clad.com</a> .....	8
Schuler Shook .....	<a href="http://www.schulershook.com">www.schulershook.com</a> .....	17
Schweiss Doors .....	<a href="http://www.schweissdoors.com">www.schweissdoors.com</a> .....	6
Stockyards Brick .....	<a href="http://www.stockyardsbrick.com">www.stockyardsbrick.com</a> .....	19
The Hill Group.....	<a href="http://www.hillgrp.com">www.hillgrp.com</a> .....	3
Trim Tex.....	<a href="http://www.trim-tex.com">www.trim-tex.com</a> .....	23
Unilock Chicago .....	<a href="http://www.unilock.com">www.unilock.com</a> .....	C2
v2com .....	<a href="http://www.v2com-newswire.com">www.v2com-newswire.com</a> .....	45

## RIGHT-SIZED

Professional duo work collaboratively at every scale

In 2014, Jay Longo, AIA, and Jennifer Park, AIA, closed Longo Park Design Workshop, their small boutique architecture firm, to take leadership roles at Forum, the architecture arm of the Clayco/Forum design-build enterprise.

Longo is the firm's president; Park is a principal. Longo Park's four other employees joined them in the move.

**Zurich Esposito:** *The life of Longo Park, the firm you recently closed, was relatively short but pretty sweet. Your innovative work was drawing considerable attention. Only last May the firm was awarded an AIA Chicago Small Project Award. What compelled you to establish Longo Park to begin with?*

**Jennifer Park:** Although we were with Gensler before starting Longo Park, Jay and I have small firm backgrounds—Jay at Brininstool + Lynch; mine with ARO [Architecture Research Office] in New York—and we love that environment. We enjoy being hands-on and very involved with the whole design process. With those big ideals we decided to give it a shot with Longo Park.

**ZE:** *How have you been able to maintain those ideals in a relatively larger, more corporate structure like Forum Studio's?*

**Jay Longo:** We like making things. We like getting things built. As a value for architects, this teaches us things, enables us to explore things and brings us into a larger discussion about design, one not just based on aesthetics. You really can connect with people when you build.

**JP:** This group leverages both sides of the design-build equation (one is not subordinate to the other) and that really attracted us, knowing that we could be design thinkers, exploring and experimenting. But in this



*Zurich Esposito meets with Jay Longo, AIA, and Jennifer Park, AIA, at Clayco/Forum Studio's recently expanded Chicago offices in the historic Jewelers Building at 35 E. Wacker Drive.*

somewhat larger environment we have the ability, flexibility and resources to do small and quite large projects. And we can work in other parts of the world.

**JL:** This is not a huge corporate firm—it's midsize with 85 people across two offices, in Chicago and in St. Louis—and that enables us to be nimble and to do what Jen and I have always wanted to do: diverse work at a variety of scales. We are better equipped to be successful at that here than we were as a small firm. Our goals about our work haven't changed.

**ZE:** *You were peers at Longo Park. At Forum, Jay is president and Jen is a principal. How would you describe your professional roles and relationship here at Forum?*

**JP:** While there is more structure, here at Forum we play similar roles within the firm that we played at Longo Park. Office politics don't get in our way.

**JL:** Our working relationship on projects hasn't

changed. My strength has always been on the practice and business strategy. Jen has been focused on design and on how we position ourselves in the market. Here we both have larger platforms to practice what we are individually really good at.

**ZE:** *Where will you be leading the firm in the coming year or two?*

**JL:** We're expanding some markets. Eric Anderson, another Forum principal, is leading a lot of work in Turkey and the Middle East, and that will continue. Jen and I formed a strategic alliance with a firm in Mexico, another place where business is growing.

**JP:** Financial reforms in Mexico are opening doors to foreign investment leading to what's being referred to as "the Mexican Moment." Being part of that is exciting. As Jay said, our goals haven't changed; they've expanded. We can accomplish them in more places than before. **CA**

PHOTO BY DARRIS LEE HARRIS



## Great Roofs Save Money

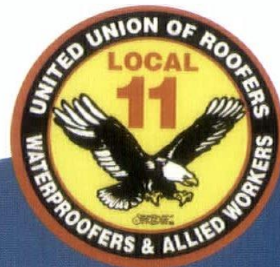
The Building Envelope keeps people dry and protected from Mother Nature's fury. Without roofs, rain, snow, sleet and hail find their way to your place inside. And, water soaked insulation no longer provides energy savings.

Chicagoland Roofing Council Contractors work with building owners and managers every day to help them keep mother nature out and comfort in. They build roofs that keep buildings dry and provide energy savings too. Chicagoland Roofing Council Contractors guide you through the selection

process for the best value, energy efficient and longest lasting roof possible.

Chicagoland Roofing Council Contractors—One Call, SingleSource Responsibility, for everything on top of the roof and a building envelope system that works too.

**Call 708.449.5266 or visit  
[www.chicagoroofing.org](http://www.chicagoroofing.org)  
 to find the best Roofing  
 Professionals.**



[www.chicagoroofing.org](http://www.chicagoroofing.org)



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

*CONSTRUCTION   DESIGN - BUILD   DEVELOPMENT*

Interiors • Healthcare • Retail • Municipal • Recreation • Office • Industrial • Higher Education  
• K-12 Education • Hospitality • Residential • Community • Aviation • Federal