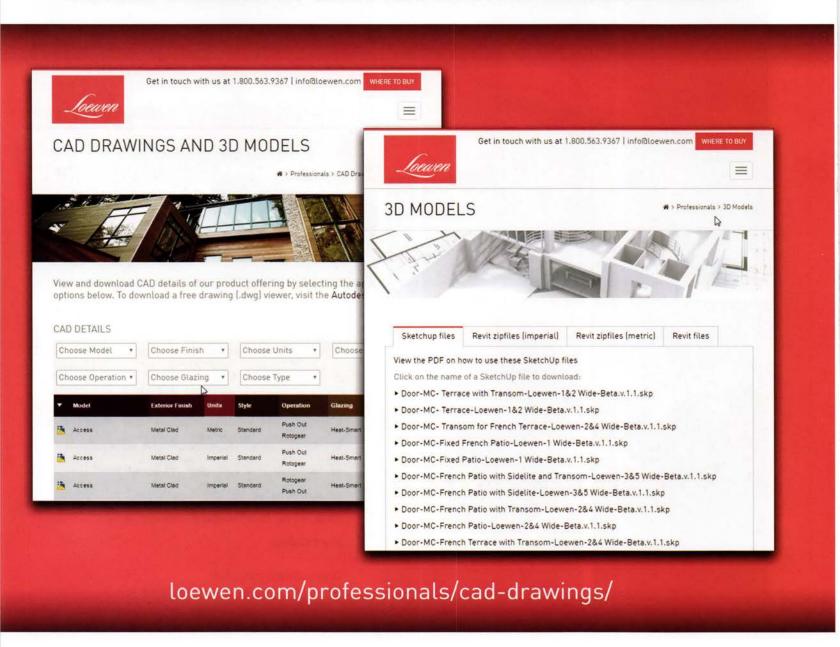




ELEMENT₄

YOU ASKED AND WE DELIVERED.

CAD Drawings and 3D Models of Loewen product offerings are now available for download from the Loewen website!



Contact us for more information or to schedule a lunch and learn for your team:



6011 Culligan Way, Minnetonka, MN 55345

Ph: 952-224-2202 • Fax: 952-224-2203 • www.synergy-trt.com

E-mail: kimberlyb@synergy-trt.com

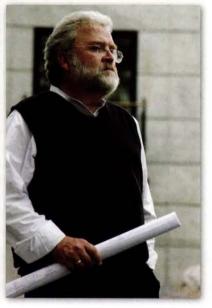
My vision...

Twas to create a home simultaneously separate from and intertwined with nature.









This glass residence is perched on a limestone cliff that overlooks the sweep of the Potomac River. The clean lines of Kolbe's Vistaluxe® Collection created framed views of the everchanging play of nature, blurring the line between inside and outside.

Gregory Wiedemann, AIA Wiedemann Architects, LLC | Bethesda, MD

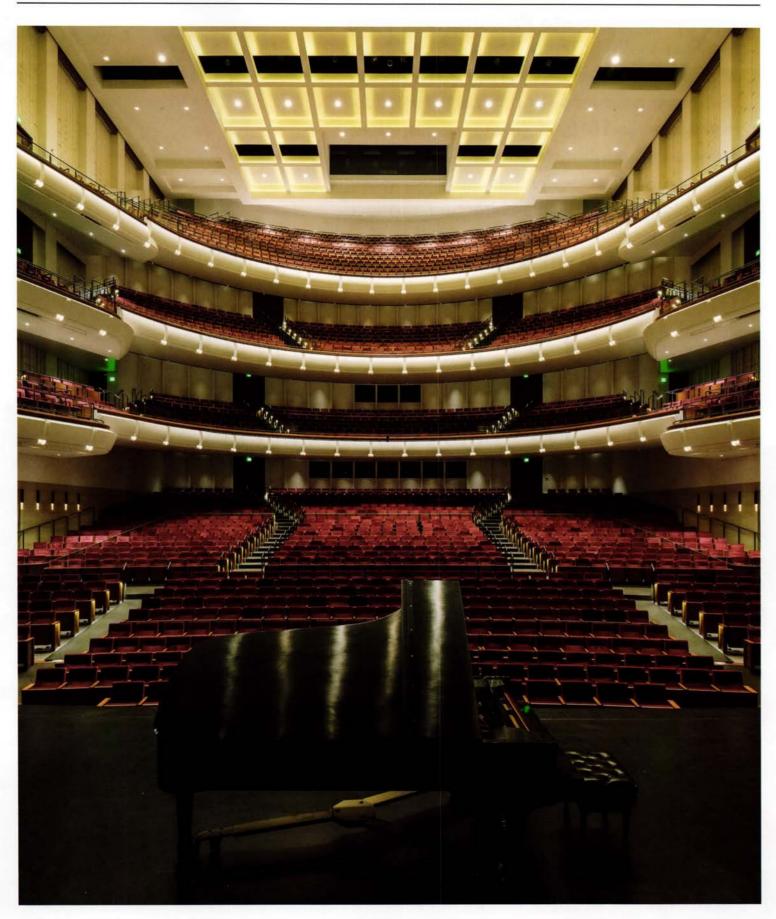
ROLBE Gallery

7545 Washington Ave. S in Edina 866.460.4403 | kolbegallerytwincities.com Bringing your vision to life takes a higher level of creativity and expertise. Who you choose matters. Contact the experts at Kolbe Gallery Twin Cities for your personal design consultation at our extensive showroom.

Our knowledgeable staff can demonstrate the award-winning products used in this award-winning home, and help you and choose the right Kolbe products for your project.



MORGAN SHEFF PHOTOGRAPHY





has been in the concrete industry for 120 years offering unparalleled expertise in the areas of precast product design, production and installation. In 2015, Molin stepped up their game and brought online a state-of-the-art wall panel production facility that uses cutting edge technology to produce architectural products which achieve an unmatched level of quality and consistency in wall panels.







Quality Concrete Solutions since 1897

Designers » Manufacturers » Installers
of Precast / Prestressed Concrete

MOUN

Hollow Core Plank | Architectural & Structural Wall Panels

Beams | Columns | Stadia | Stairs

651.786.7722 800.336.6546 415 Lilac Street, Lino Lakes, MN 55014

MOLIN.com

HEAWY MEAAL.

IF OUR MAGAZINE WERE MUSIC, THIS WOULD BE OUR GENRE.

We are pleased to announce that Architecture MN was honored with four golds at the Minnesota Magazine & Publishing Association 2016 Excellence Awards:

- Overall Excellence
- Overall Design
- Cover Design—Nov/Dec 2015
- Profile Article-"High Modern," Nov/Dec 2015

CONSIDER ADVERTISING in this award-winning publication. **SHARE A SUBSCRIPTION** with clients and friends!

For information on advertising & subscriptions, go to architecturemn.com







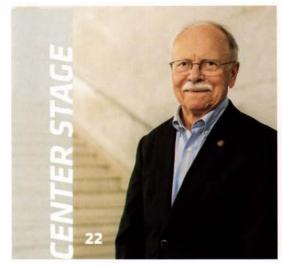


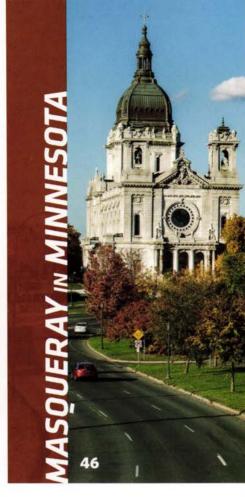


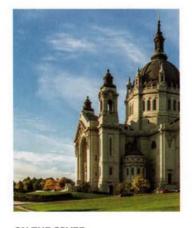
ARCHITECTURE

Architecture MN is a publication of The American Institute of Architects Minnesota architecturemn.com

Architecture MN, the primary public outreach tool of the American Institute of Architects Minnesota, is published to inform the public about architecture designed by AIA Minnesota members and to communicate the spirit and value of quality architecture to both the public and the membership.







ON THE COVER Cathedral of St. Paul

St. Paul, Minnesota

"It was a pleasure getting reacquainted with one of Minnesota's architectural icons," says photographer Morgan Sheff. "Emmanuel Masqueray's Cathedral of St. Paul is such a familiar sight, and yet each time I visit I notice new and interesting details. Early morning light on the Rockville granite is spectacular."

Features

22 Center Stage: Preservation Pioneer

By Linda Mack

For the first time, the American Institute of Architects Minnesota awards its biennial Gold Medal to an architect who specializes in heritage conservation: Robert Mack, FAIA, of MacDonald & Mack Architects.

27 Designs for Designing

Minnesota's preeminent product maker and the Minneapolis branch of a global architecture and engineering firm create dynamic new design studios.

HDR

page 28 By John Reinan 3M Design Center

page 32 By Joel Hoekstra

40 Rochester: A Design Tour

By Joel Hoekstra

Photography by Brandon Stengel

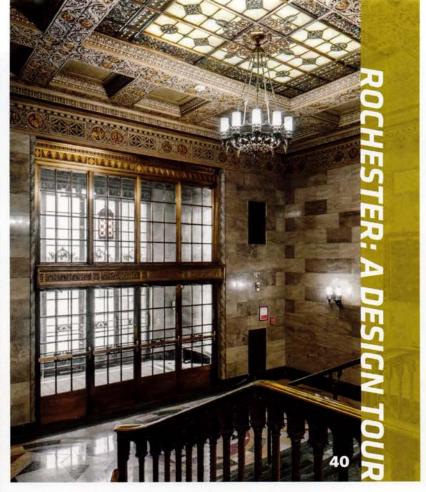
Minnesota's third-largest city is home to landmark buildings in a wide range of styles and settings. Eero Saarinen's breathtakingly blue IBM Manufacturing and Training Facility, a trio of iconic Mayo Clinic towers, and well-preserved Usonian houses by Frank Lloyd Wright only scratch the surface of Rochester's rich architectural heritage.

46 Masqueray in Minnesota

By Joel Hoekstra

Photography by Morgan Sheff

On the centennial of the death of Emmanuel L. Masqueray, we celebrate the two cornerstones of the French architect's enduring legacy in the Twin Cities: the Cathedral of St. Paul and the Basilica of St. Mary.







Departments & Directories

9 EDITOR'S NOTE

13 CULTURE CRAWL

BY AMY GOETZMAN
The St. Paul Winter Carnival warms
up downtown's Rice Park with frosty fun
for winter revelers of all ages.

15 STUDIO

Monthly obscure-holiday celebrations and a canine wellness director are just a few of the employee perks at Studio Hive.

17 SPEED READING

BY FRANK EDGERTON MARTIN AND BRUCE N. WRIGHT Two new books explore how aerial views and skyway systems, respectively, have shaped our experience of the world.

18 WAYFARER

BY J.C. BUCK A shimmering concert hall and conference center bejewels the waterfront in Reykjavík, Iceland.

21 PERSPECTIVE

BY THOMAS FISHER, ASSOC. AIA The sharing economy continues to change how we access goods and services. Soon, it will reshape our cities.

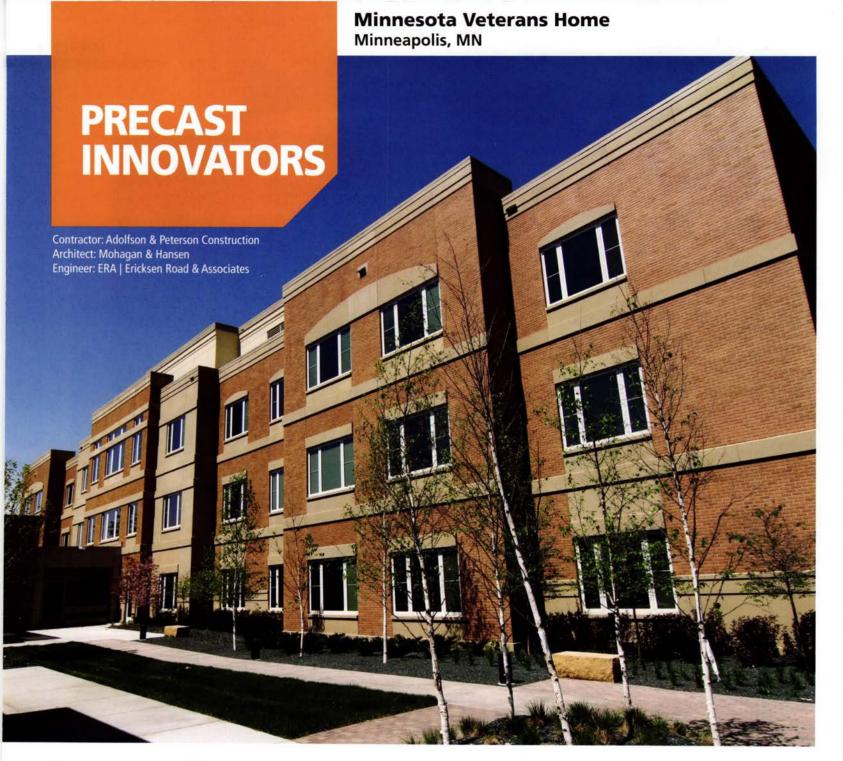
72 PLACE

BY MORGAN SHEFF Light and shadow accentuate the soul-stirring beauty of a midcentury religious landmark in Maplewood.

62 DIRECTORY OF CONSULTING ENGINEERING FIRMS

70 CREDITS

71 ADVERTISING INDEX

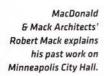


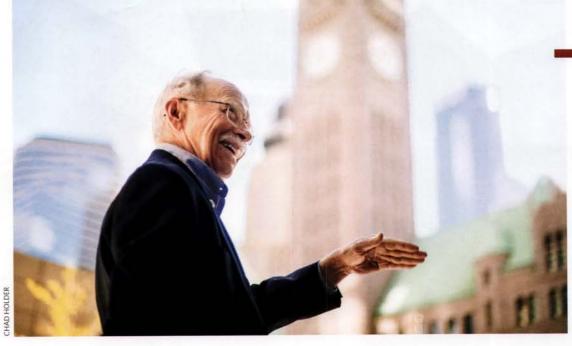
Bringing Your Ideas to Life

Precast concrete brings ideas to life, efficiently, sustainably and affordably. With unlimited array of colors, textures and patterns available, precast concrete offers endless design possibilities. Architectural precast wall panels with a combination of acid-etch and thin brick-finishes created an exterior look that met the historical design requirements and made a stunning addition to the Veterans Home campus.

For a seamless transition from vision to reality, partner with Wells Concrete. See what's possible at WellsConcrete.com







Design and History

Acceptance speeches are often heartfelt or humorous, or a winning combination of the two. But they are rarely thought provoking. So it was quite a moment when pioneering preservation architect Robert Mack, FAIA (page 22), concluded his acceptance speech for the 2016 AIA Minnesota Gold Medal in December with a fervent call to action:

On a more personal note, I'm excited by how the broader field of architecture is fully recognizing the benefits of restoring and reusing historic structures, and acknowledging the work involved in keeping these structures and stories alive. Their value is not just as a static history lesson but as a way of fostering a collective conversation, a dialogue about our past and our future, our identity, and our values.

Right now, that dialogue is more important than ever. So, in closing, I want to issue a challenge—to myself, to preservationists, to architects, to all of us. We need to expand our conversations about both design and history. When preservationists talk about honoring the past, we need to grapple with what stories we're telling and what we're overlooking. And we need to work harder to highlight underrepresented voices.

When architects take on projects and develop designs, we need to pay more attention to the true impact of our work. We need to focus not on how to create flashy design that gets shared on social media but on the day-to-day, grassroots efforts that combat inequality and take the lead in creating a more just and vibrant world. We need to remember that a bright future—for our society in general and the fields of architecture and historic preservation in particular—requires us to embrace diversity and support and listen to the broad chorus of experiences and voices.

Mack's words are especially meaningful to us in the wake of a turbulent and divisive year in American politics. With a new year upon us, *Architecture MN* accepts Mack's challenge to "expand our conversations" and engage a greater diversity of voices. Buildings and public spaces have a unique way of embodying our past values and our aspirations for the future, so we've got plenty to talk about.

INTERACT & CONNECT



The award-winning Schmidt Artist Lofts architecturemn.com/videos



The evolution of the Walker Art Center architecturemn.com/videos



A conversation with top young architects architecturemn.com/videos



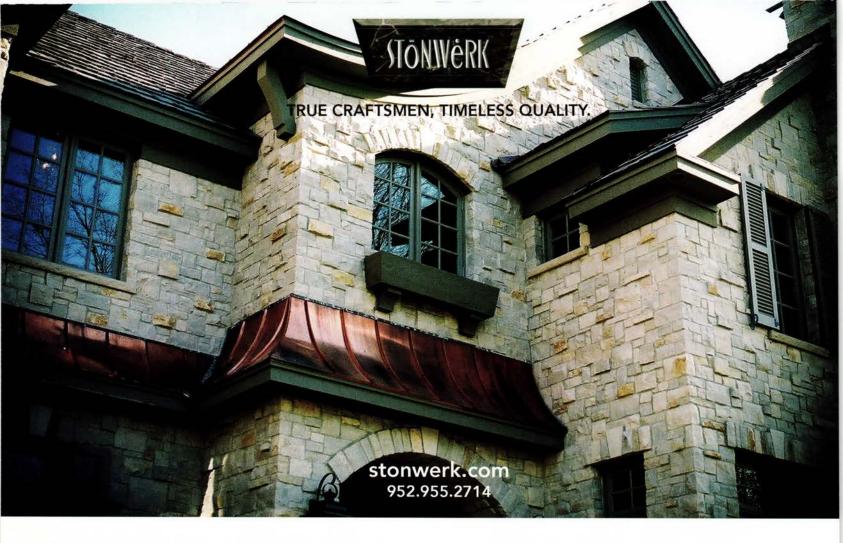




@archmnmag

Clu Halen

Christopher Hudson hudson@aia-mn.org



Stonfab IDFI™

ARCHITECTURAL STONE FABRICATION

Stonfab is your local cut stone fabricator in the twin cities. Our integrated development process provides Architects and Builders with a single point of contact. From basic sills to highly intricate shapes, our team can build it.



stonfab.com Watertown, MN 952.955.3322





Advancing a vital profession, vibrant communities. and architecture that endures.

Architecture MN Staff

Editor: Christopher Hudson hudson@aia-mn.org

Advertising Sales: Pam Nelson nelson@aia-mn.org

Circulation Amber Allardyce subscriptions@aia-mn.org

Art Direction and Design: Tilka Design info@tilka.com

Publisher: Mary-Margaret Zindren zindren@aia-mn.org

Architecture MN Committee

Edward Eichten, Assoc. AIA Co-chair

Matthew Finn, AIA Co-chair

Jonathan Bartling, AIA

Amy Douma, AIA

Steven Dwyer, AIA

Monica Hartberg, AIA

Scott Muellner, AIA

Tony Rauch, AIA

Nasir Sakandar

Brandon Stengel, Assoc. AIA

Tom Wasmoen, AIA

Peggy Weller

Heather West

Daniel Yudchitz, AIA

AIA Minnesota Board of Directors

Meredith Hayes Gordon, AIA President

Nathan Johnson, AIA President-Elect

Michelle Mongeon Allen, AIA Past President

Claire Lonsbury, Assoc. AIA Secretary

Brian Tempas, AIA Treasurer

Gretchen Camp, AIA AIA Minneapolis President

Rachel Spires, AIA AIA St. Paul President

Aaron Kelly, AIA AIA Northern President

Derek McCallum, AIA AIA Minneapolis Director

Michael Schellin, AIA AIA Minneapolis Director

Michael A. Fischer, AIA AIA Minneapolis Director

Brian Larson, AIA AIA St. Paul Director

III Winkler AIA AIA St. Paul Director

Hugh Reitan, AIA AIA Northern Director

Marc Swackhamer, Assoc. AIA College of Design

Kyle Palzer, Assoc. AIA Associate Director

Amy Poburka, AIAS AIAS Representative

Sandra Dickenson, AIA Regional Director

Matt Johnson, AIA Regional Director

Mary-Margaret Zindren Executive VP

CONTRIBUTORS

Get to know our writers and photographers. They're an interesting bunch.

I.C. BUCK is a professional architecture and interior photographer. Born and raised in the Twin Cities, he now lives in Denver, Colorado.



THOMAS FISHER, ASSOC. AIA.

is director of the Minnesota Design Center at the University of Minnesota and a professor in the School of Architecture. He also chairs AIA's Design and Health Leadership Group.

AMY GOETZMAN is a

Minneapolis freelance writer. She writes about the arts and culture and other inspiring things that happen in inspiring spaces.



Minneapolis writer JOEL **HOEKSTRA** contributes frequently to Architecture MN.



Minneapolis-based LINDA MACK, author of Madeline Island Summer Houses: An Intimate Journey (2013), writes on architecture and design for local and national publications.

FRANK EDGERTON MARTIN

is a veteran contributor to Architecture MN, LAM, and other design journals. He specializes in historic landscape preservation and teaches in the Publications Design program at the University of Baltimore.



JOHN REINAN, a reporter for seven newspapers from Alaska to Florida, also spent nearly a decade marketing high-end architectural products.

MORGAN SHEFF is a St. Paulbased architectural photographer.

BRUCE N. WRIGHT, former managing editor of Architecture MN and former editor-in-chief of the international journal Fabric Architecture, writes frequently about design and architecture.





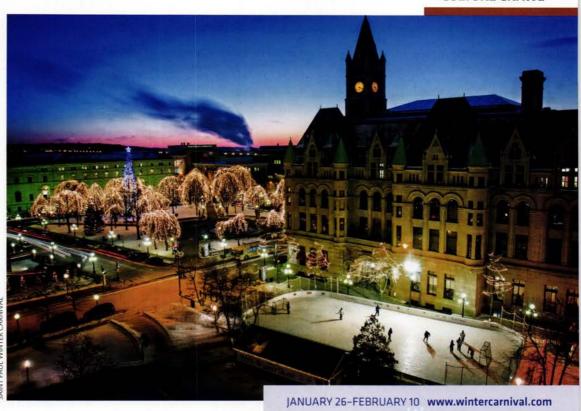
Your reputation is everything. It generates repeat business and separates you from your competition. That's why you need products you're proud to attach your name to. For more than 90 years, we've delivered the features you need - Unmatched durability. Premium quality. Limitless designs and colors. That's why those in the industry choose Borgert.

Crafting your vision



ICE-CARVING DISPLAYS

The mini ice palace (bottom right) won't be the only frozen form in Rice Park. Each year, artists wielding chainsaws and hand tools populate a chilly sculpture garden with a variety of fanciful creations. Noteworthy characters, fantastical beasts, and shimmering temporary visions beckon visitors. A royal throne made of ice welcomes mere plebeians to sit upon it—for just a moment. But don't act on that thought. And don't lick any metal poles, either.



SN樂W CENTRAL

The **St. Paul Winter Carnival**—a weird and wonderful celebration of Minnesota hardiness and creativity—offers a range of frosty revelry, much of it centered on Rice Park, with its rich architectural surroundings



The Grande Day Parade marches down West Fifth Street, in front of Landmark Center.

CARNIVAL PARADES

How festive is the Winter Carnival? It takes not one but three parades to express it all. The first, the Moon Glow Pedestrian Parade (January 26), is an opportunity for the general public to promenade the streets of downtown St. Paul with luminaries on hand. If the walking alone doesn't keep you toasty, hot air balloons will lend some additional warmth. The King Boreas Grande Day Parade (January 28) is the big daylighthours pageant, during which the newly crowned king, his court, and a chilly flotilla of bands and floats blow through the city, spreading winter across the land.

But every winter comes to an end: The **Vulcan Victory Torchlight Parade** (February 4), featuring more bands and floats, celebrates the defeat of the cold as Vulcanus Rex triumphs over Boreas and heralds the return of the light. Fire overpowers ice, and a fireworks show follows the parade. All three processions end at Rice Park.



MINI ICE PALACE

Not all architecture is built to last. In 1886, the Winter Carnival drew large crowds with a spectacular, 106-foot-high ice palace built from 25,000 blocks of ice and illuminated with electric globe lights. It was one of the first buildings in the city to use electricity. This year, Rice Park will feature a mini ice palace built from 400 blocks of ice. It's not the massive castle some of us remember from long-ago winters, but this sparkling, translucent structure will still inspire wonder—while it lasts.

-Amy Goetzman



STUDIO HIVE

An award-winning Minneapolis interiors firm keeps it simple in its light-filled Warehouse District home



YOUR STUDIO SPACE IN 140 CHARACTERS OR LESS: Collaborative but not noisy, fun but not silly, inspiring but not chaotic. Incubator for imagination. FAVORITE OFFICE FURNISHING: Our Herman Miller Spun lounge chair, designed by Thomas Heatherwick. IF YOU COULD CHANGE ONE THING ABOUT YOUR SPACE, WHAT WOULD IT BE? We'd make Aielan (shaggy employee in photo) our full-time wellness director; he's only part-time now. FAVORITE HANGOUTS IN WALKING DISTANCE: Spyhouse Coffee, Inbound BrewCo, Bunker's. FAVORITE DESIGN TOOL: A creative and energized mind. RECENT MINNESOTA SPORTS-VENUE INTERIORS YOU'VE HAD A HAND IN: Premium spaces at Target Center, U.S. Bank Stadium, and TCF Bank Stadium. STAFF EXTRACURRICULARS: Making and drinking beer, improv, CrossFit, gardening, house flipping, estate sale-ing, membership in a secret society. RECENT VOLUNTEER ACTIVITY: In recognition of Domestic Violence Awareness Month (October), our team volunteered at Sojourner, a secure and confidential emergency residence for women and children who are unsafe in their own homes because of violence and abuse. RECENT TRAVEL THAT INSPIRED YOU: An office excursion around Minneapolis on Nice Ride bikes. LAST TIME YOU DREW ON A NAPKIN: Last night. BIGGEST MISCONCEPTION ABOUT INTERIOR DESIGNERS: That we're just color pickers. DREAM PROJECT: Elon Musk's colony on Mars. FAVORITE OFFICE ACTIVITY: Our monthly obscure-holiday celebrations.

FOUNDED: 2003

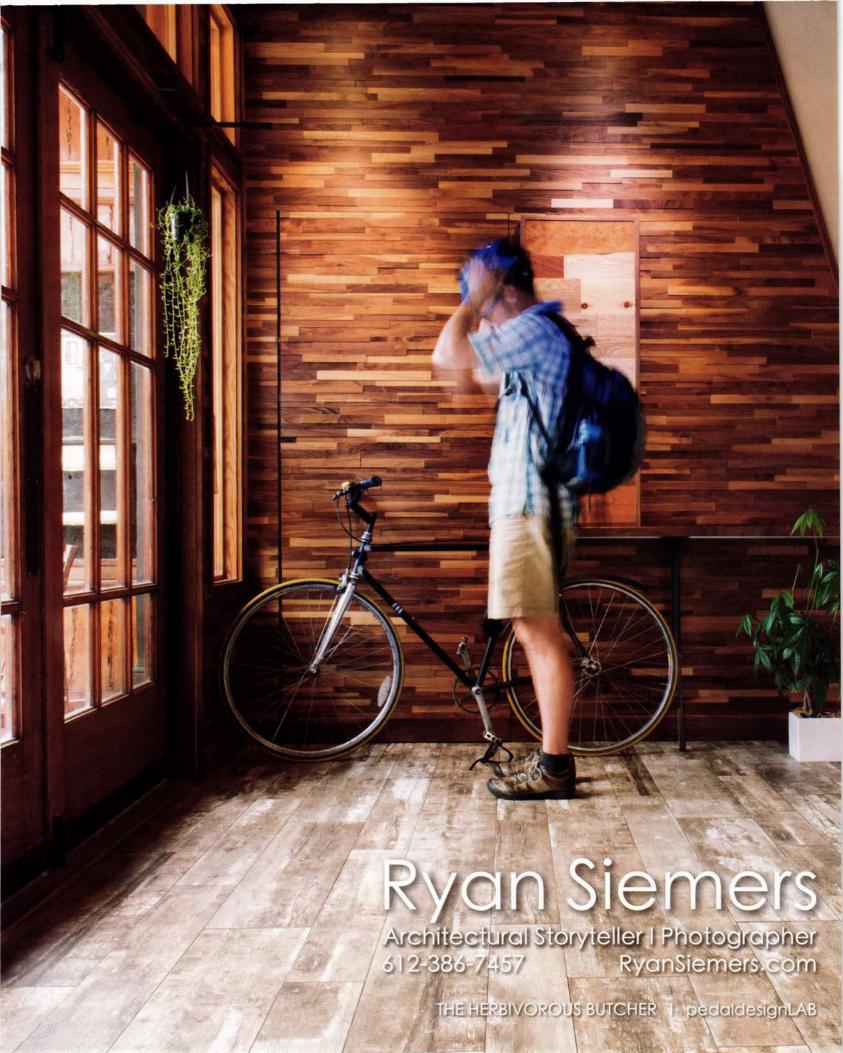
CITY AND NEIGHBORHOOD:

Minneapolis' North Loop

NUMBER OF EMPLOYEES: 15

AREAS OF SPECIALTY:

We shape interior environments in a variety of venues, connecting the design of space with human experience and business outcomes

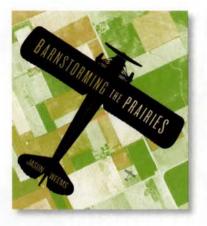




TWO NEW VOLUMES EXPLORE THE IMPACT OF AERIAL PHOTOGRAPHY

AND **SKYWAY SYSTEMS** ON HOW
WE VIEW AND EXPERIENCE OUR WORLD

Bottom, left to right: Proposed redesign of a one-kilometer section of Hua Qiang Bei Road in Shenzhen, China, by WORKac and ZhuBO; Hong Kong, podium level, 2013.



BARNSTORMING THE PRAIRIES: HOW AERIAL VISION SHAPED THE MIDWEST

By Jason Weems University of Minnesota Press, 2015

A century before drones boosted architectural and landscape photography into the sky, "aerial vision" transformed the way Americans saw much of their country. For generations, the Midwest was viewed as slow to change, provincial, and isolated. But, starting with hot-air balloons in the 19th century, aerial mapping and photography opened up new horizons, reframing the Midwestern landscape as a dynamically interconnected system of railroads, street grids, canals, and power lines—all at a massive scale.

Aerial mapping and photography opened up new horizons, reframing the Midwestern landscape as a dynamically interconnected system of railroads, street grids, canals, and power lines.

Illustrated with 19th-century bird's-eye views, airplane route maps, and Grant Wood paintings, *Barnstorming the Prairies* shows how the invention of flight couldn't have been better timed to shape modern painting, silent-era filmmaking, and even the planning of New Deal suburbs. In a time of satellite mapping, we take this revolution for granted. Yet the rise of aerial perspective remains one the most important paradigm shifts in American landscape history; it created an entirely new picture of who we are and where we live.

-Frank Edgerton Martin



PARALLEL CITIES: THE MULTILEVEL METROPOLIS

By Jennifer Yoos and Vincent James; edited by Andrew Blauvelt Walker Art Center, 2016

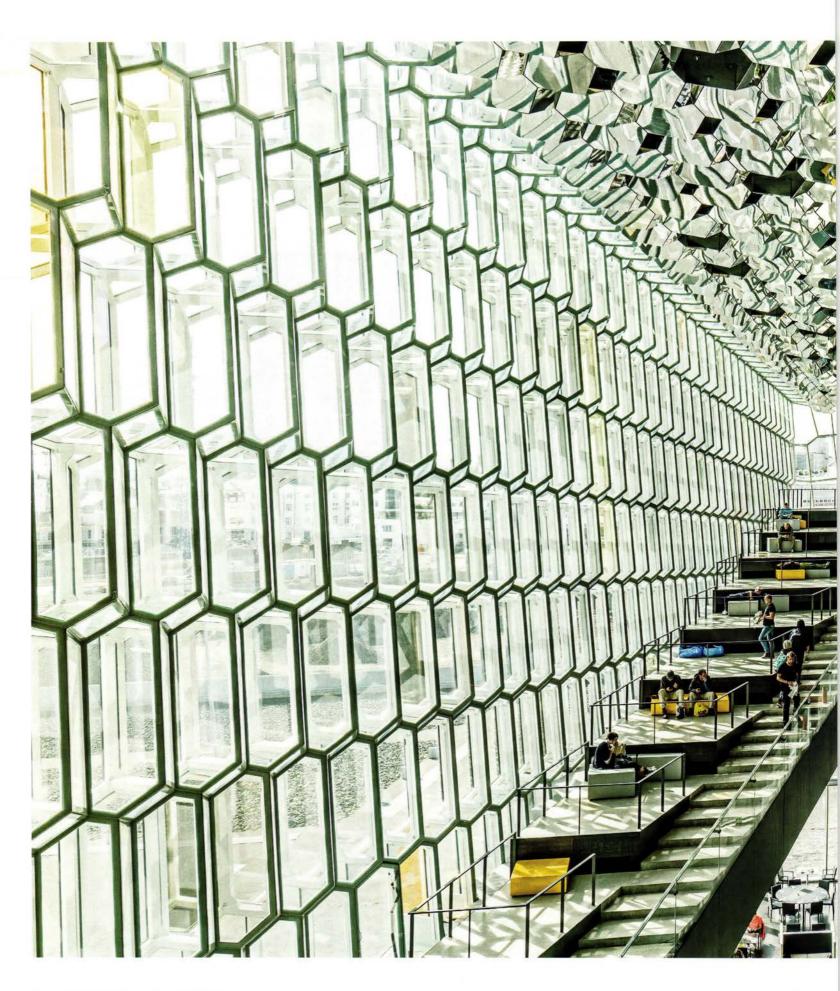
A dense volume on everything one could possibly want to know about cities that exploit multilevel pedestrian spaces, *Parallel Cities* is an urban designer's ideal reference. The book brings architecture's role in shaping these complex living spaces into focus, and it enlightens on multiple levels as well: Text is heavily footnoted; every spread is packed with gorgeous photos or illustrations; and captions are set tight along with footnotes. In fact, some of the smaller notes in this rich compendium might be best read with the aid of a magnifying lens.

Enthralling are the book's many icons of the multilevel pantheon—
Futurist Sant'Elia's visionary "La Città Nuova" (1914), Le Corbusier's mega Paris plan (1929), the Japanese Metabolist movement (1960s), John Portman's hyperspace hotels (1970s), and, more recently, New York City's High Line linear park. Much is made of speculative, utopian dreams (see above and Fritz Lang's Metropolis [1927], Archigram's "Plug-in City" [1964], and R. Buckminster Fuller's megastructure cities [1968–70]). For designers of all stripes, this volume is the ultimate Baedeker guide for exploring cities past, present, and future.

-Bruce N. Wright, AIA







Harbor Light

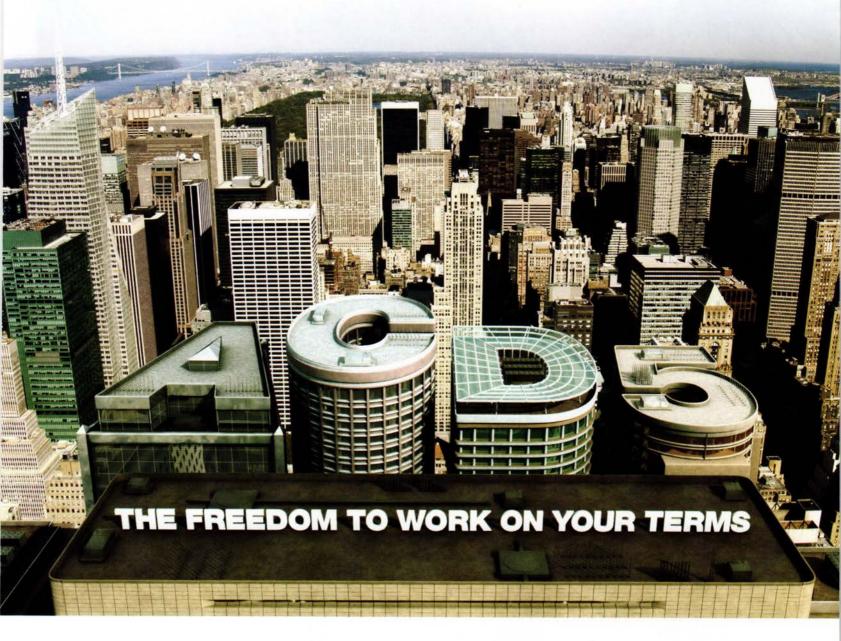
Harpa, an award-winning waterfront concert hall and conference center in Reykjavík, Iceland, is the embodiment of the motto "If you build it, they will come." The intricately geometric glassand-steel structure, designed by Danish firm Henning Larsen Architects in collaboration with Danish-Icelandic artist Olafur Eliasson, almost didn't happen. In the 2008 global financial crisis, the entire development plan collapsed. The complex sat half-finished, and, according to locals, there were proposals to turn the shell of the building into a national monument representing the economic crash.

Fortunately, the government decided to fund the completion of the hall. For a few years, Harpa was the only active construction site in all of Iceland. Today, Iceland's economy is booming, and Reykjavík's architectural jewel draws throngs of tourists and locals alike. The plaza outside the building often plays host to a large group of skateboarders.

Like most who visit Iceland, I was there to explore the awe-inspiring landscape of fire, ice, and water. But I found myself returning to Harpa every chance I could. I was mesmerized by how the light played on the collage of clear and color-coated glass during the day, and how the building came to life at night, with its spectacular light shows.

-Photographer J.C. Buck

We built a better way to access AIA Contract Documents.



Transform the way you access, edit, and manage design and construction documents and forms with ACD5.

- · Create, share, and edit over 180 contracts and forms online with a Mac or PC
- Get editable contracts as you need them one at a time, bundles of documents, or unlimited use of the entire AIA portfolio of documents
- · Easily save and manage your personal custom clauses and templates for future use

Find out the benefits of working on your terms at aia.org/contractdocs.



Cities and the Sharing Economy

By Thomas Fisher, Assoc. AIA

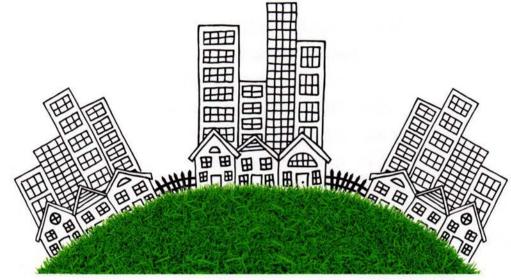
Cities reflect their economies.
The 19th-century industrial
economy gave rise to large
metropolises, as people flocked
to urban centers to live close to
mills and factories. The 20th-century
consumer economy, in turn, spawned
suburbs, which absorbed the output
of our mass-production assembly lines,
with a settlement pattern that required
everyone to own almost everything.

The 21st century has given birth to a very different economy. Whatever you call it—the sharing, collaborative, peer-to-peer, or on-demand economy—this new form of digitally based commerce has allowed people to access goods rather than own them, to live closer together rather than farther apart, to enjoy meaningful experiences rather than forgettable environments, and to engage in flexible work rather than nine-to-five jobs.

To some, this new economy may seem placeless in the sense that we can now access information and work remotely almost anywhere in the world. But the sharing economy has shown that place and proximity matter—a lot. Consider the world's largest taxi company, Uber, or the world's largest hotelier, Airbnb, companies that didn't exist a decade ago. They leverage the excess capacity of our built environment by filling the many empty seats in our cars and empty bedrooms in our houses, and their success depends upon these assets' location, close to customers or in places people want to stay.

At the same time, this economy overturns many of the assumptions that underlie the ways in which we regulate buildings and cities. Our building and zoning codes, for example, categorize structures according to their use and prohibit certain functions in certain places. The new economy blurs these distinctions. Airbnb, for example, uses residential property

In the second of a series of three interconnected essays on the 21st-century city, the director of the Minnesota Design Center explores the growing impact of the sharing economy on urban form



The sharing economy may spur more people to live and work in denser and more functionally diverse neighborhoods.

for a commercial purpose, building on a long-term trend in which people now run almost 60 percent of small businesses from their homes.

Municipal finance also faces a challenge in the new economy. Many cities receive a sizable amount of revenue from parking fees, gas taxes, and traffic tickets. But in a future in which the

especially millennials in metropolitan areas, use ride-sharing services in lieu of owning cars, the demand for parking will begin to drop. Add to that the growing demand for urban living and the increasing cost of urban land, and we will continue to see the development of surface parking lots for higher and better uses.

Analysts at PricewaterhouseCoopers forecast that five new sectors of the sharing economy (including car sharing and music and video streaming) could equal the overall sales of five traditional rental sectors (including car and equipment rental) by 2025.

car companies become autonomous-vehicle manufacturers in partnership with ride-sharing companies like Uber and Lyft, those municipal revenues will dramatically shrink as shared, driverless cars no longer need to park, no longer use gasoline, and no longer violate traffic laws.

That leads to the question: How will cities change, physically, as a result of this economic transformation? Let's start with parking, the bane of every design team and building owner or developer. As growing numbers of people,

A more complicated picture arises with parking ramps. As the demand for parking wanes, many sloped ramps will have no other use and face demolition well before the end of their useful life. To avoid that, cities need to require that all ramps built from now on have flat floors, ample floor-to-floor heights, and adequate loading capacity, with centrally located vertical-circulation cores and easily removable sloped sections, to accommodate alternative uses a decade or two from now.

>> continued on page 55



MacDonald & Mack Architects' Robert Mack, FAIA. is honored with the 2016 AIA Minnesota Gold Medal for his long and influential career in historic preservation

BY LINDA MACK

GROWING UP IN PENNSYLVANIA. ROBERT MACK LOVED TO PLAY IN HIS FAMILY'S OLD BARN—and try to figure out how it was put together. For his birthdays, he wanted to go to historic sites, not amusement parks.

Now working half time at the firm he and partner Stuart MacDonald, AIA, founded 40 years ago, Mack still loves figuring out how old buildings were put together. This past fall, AIA Minnesota recognized his sterling career in historic preservation by awarding him the Gold Medal, the organization's highest award given to an individual.

"Bob's humility and quiet personality stand in contrast to the magnitude of his impact as an architect, firm principal, educator, and community leader," wrote the Gold Medal jury. "It is time for Bob to be recognized for all he has done to mentor this profession, to grow our industry's expertise in preservation and sustainability, and to ensure that our nation's historic structures are enjoyed for generations to come."

"Bob was one of the founders of historic preservation in Minnesota," says Chuck Liddy, FAIA, a principal at Miller Dunwiddie Architecture, another Minnesota firm known for preservation. MacDonald agrees: "His impact on preservation is incalculable."

His meticulous research and sensitive eye have enhanced the state's historic landscape, from the Governor's Residence in St. Paul to Minneapolis City Hall, from Split Rock Lighthouse to Redeemer Missionary Baptist Church. The restoration of that church—a Prairie School landmark in South Minneapolis—was a seminal moment in Minnesota preservation: It garnered Minnesota's first Honor Award from the National Trust for Historic Preservation.

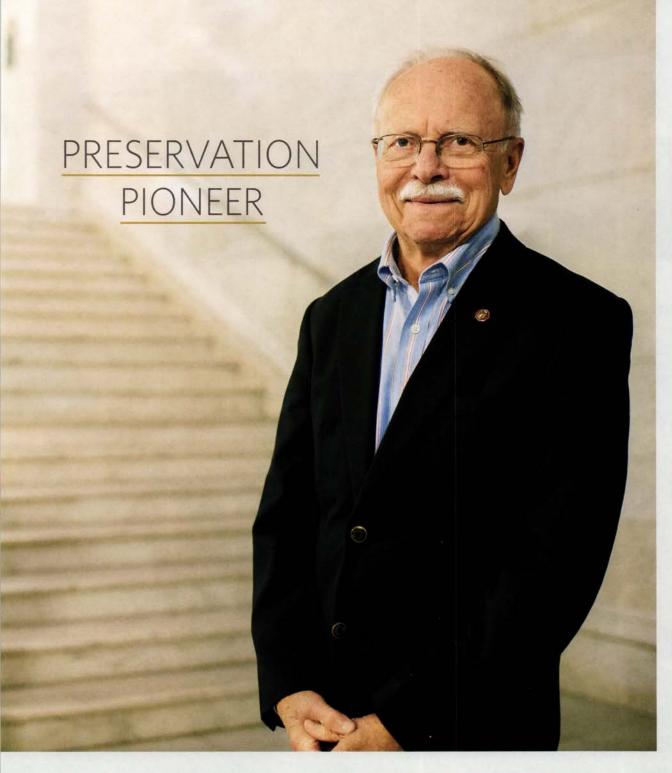
But Mack's impact extends beyond Minnesota. His career began with an assignment at the National Park Service researching and writing The Secretary of the Interior's Guidelines for Rehabilitation, one of the precursors to The Secretary of the Interior's Standards for the Treatment of Historic Properties. Mack explains: "In 1974, Congress passed a law for tax breaks for people restoring buildings as long as they conformed to standards set by the Secretary of the Interior. But there weren't any." The Secretary of the Interior's Standards are still the litmus test for preservation nationwide.

Mack also cowrote Preservation Briefs #1 and #2, providing technical advice to architects; these documents grew his reputation as a masonry expert. Two summers ago, he was asked to advise on masonry issues plaguing the Goingto-the-Sun Road in Glacier National Park in Montana. "The engineer wanted to reline the



1966

Robert Mack meets Stuart MacDonald at the University of Minnesota



IN A CAREER SPANNING MORE THAN 40 YEARS,

Robert Mack has worked on over 500 properties on the National Register of Historic Places and over a dozen National Historic Landmarks. He has an especially long connection to Minneapolis City Hall (shown here).



Founding board member of Preservation Alliance of Minnesota

1982

MacDonald & Mack Architects formed

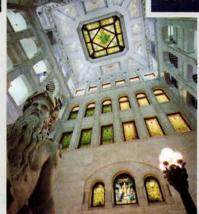
"His impact on preservation is incalculable."



Mack's sensitive renovation of the Prairie School Redeemer Missionary Baptist Church garnered Minnesota's first National Preservation Award.

JERRY MATHIASON

Mack's projects range from rebuilding the windmill at the President James A. Garfield estate (above) to refurbishing Minneapolis City Hall's rotunda (right).





"Teaching gave me a chance to share my passion. It's also a great employee recruiting tool."

-ROBERT MACK, FAIA

Elected to the AIA College of Fellows

Redeemer Missionary Baptist Church wins National Trust for Historic Preservation Honor Award

2001

1989

Begins teaching graduate-level courses on preservation technology and philosophy at the U

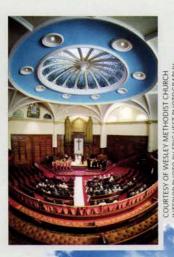
1999

Steve Murray Award (career achievement) from the Minneapolis Heritage Preservation Commission

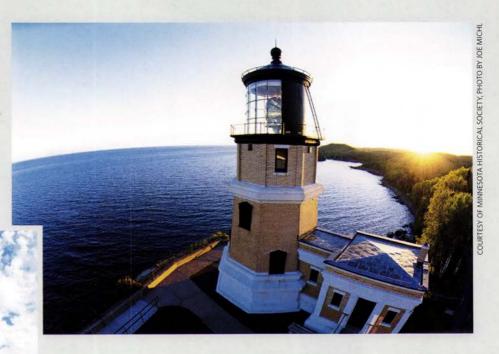
2011

MacDonald & Mack receives AIA Minnesota Firm Award

1990



Split Rock Lighthouse on Minnesota's North Shore is likely MacDonald & Mack's most visited restoration project.



Mack's meticulous research and sensitive eye have enhanced the state's historic landscape, from Split Rock Lighthouse to Redeemer Missionary Baptist Church.



of Wesley United Methodist Church (above) revived a classic Warren Hayes design. Restoration work at the estate of President James A. Garfield (left) gave Mack an opportunity to research 19th-century construction techniques.

Mack's loving restoration

NATIONAL PARK SERVIC

Career Achievement Award from Preservation Alliance of Minnesota

2012

2016

AIA Minnesota Gold Medal, the organization's highest individual honor tunnels," says Mack. "We found instead that the original drains just needed to be cleaned."

Other projects beyond Minnesota include restoration work on U.S. president James Garfield's estate outside Cleveland and historic surveys of 34 army munitions plants around the country. "It was a chance to learn new technology and travel to Oklahoma and West Virginia and other places I'd never been," says Mack.

Along with his preservation advocacy and his work at MacDonald & Mack Architects, Mack shaped new generations of preservationists by teaching a yearlong graduate course at the University of Minnesota School of Architecture for nearly a quarter-century. He also took students to Orkney, Scotland, to study Scotlish architecture and approaches to preservation.

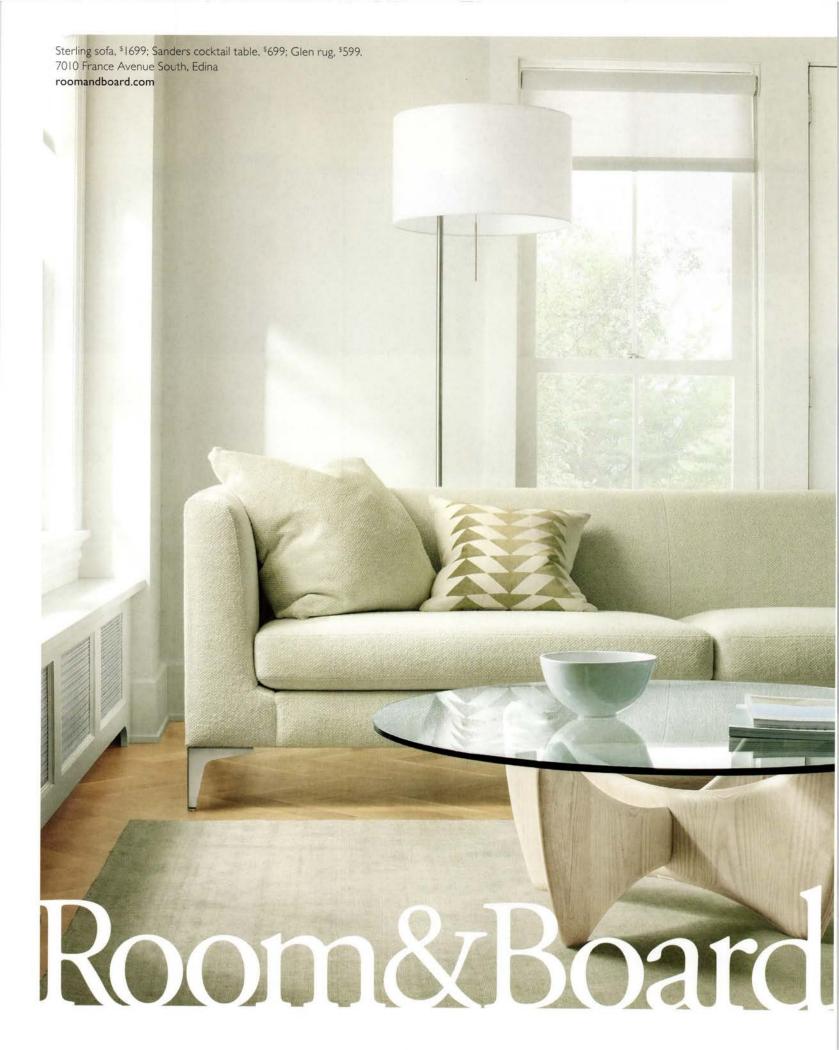
A Mack-led student trip to document the walled city of Baku, Azerbaijan, was even more ambitious. A World Heritage Site, the walled city was also on the UNESCO endangered list. "During our three-week visit, the Minnesota students did 80 percent of the street-by-street inventory, and the students there finished it," says Mack. "For this reason and others, Baku is now off the endangered list."

"Teaching gave me a chance to share my passion," says Mack. "It's also a great employee recruiting tool." Virtually all of MacDonald & Mack staff members are former students.

Does he have a favorite building? Yes: Wesley United Methodist Church, the Richardsonian Romanesque church next to the Minneapolis Convention Center. "I love the diagonal plan, with its excellent acoustics and sightlines," he says. What does he value most about his career in Minnesota? "The sense of camaraderie, both in preservation and in architecture."

The camaraderie was particularly strong in preservation. Consider that in the 1970s and 1980s, MacDonald & Mack's main competitor for preservation projects around the state was Miller Dunwiddie. "Bob and Foster Dunwiddie would drive to interviews together, do their interviews separately, then drive back together," Chuck Liddy warmly recalls.

This past summer Mack was surprised to learn that his firm had established the Robert Mack Fellowship for Heritage Preservation at the School of Architecture. Soon after came the announcement of the Gold Medal. Mack was pleased and characteristically modest: "In many ways, the award legitimizes preservation as architecture." AMN







Amazing things can happen when a group of architects decides to step into the future.

When the Twin Cities architecture studio of the global firm HDR moved into a St. Paul skyscraper a decade ago, "We looked like a really nice law firm," jokes vice president and managing principal Jim Thomson, AIA.

In January 2016, HDR made a jump across the Mississippi River to downtown Minneapolis—and a quantum leap into 21st-century office design. The firm's sparkling new space opens off a skyway in Mayo Clinic Square. With a

coffee bar up front, whiteboard walls covered with sketches and ideas, and nary a cubicle in sight, HDR's new Minneapolis studio exudes creative energy.

"It's been a game-changer for collaboration," says vice president and design principal Mike Rodriguez, AIA. "It has changed the way we work. People are actually talking to each other instead of IM-ing, emailing, and texting."

A key to the new space: Nobody has an assigned seat. Each day, employees have a new neighbor, exposing them to different projects, different ideas, and different ways of thinking. In the old space, amid a sea of cubicles and private offices, "we had to sort of force ourselves to go to the whiteboard," says Rodriguez. "Now it's just natural."

Thomson says the studio carries a whiff of "back to the future," evoking the open rooms of drawing tables that were once a staple of the profession. "Now you can look over someone's shoulder," he says. "You can jump into a discussion based on what you see on someone's screen or on a whiteboard."



Clients are also energized by the environment, says Thomson. "I've never seen them so excited about coming into a space," he says. "They see our people creating things, and we can include them in that process."

A flexible gathering spot near the entrance, dubbed "The Big Think," is a critical locale for larger gatherings and brainstorming sessions. The space is equipped with virtual-reality capability, allowing designers and clients to walk through a concept and make changes on the spot.

Rodriguez likens the overall vibe to a coffee shop, a good reason for placing a generously proportioned coffee bar right up front. Depending on your mood, you can curl up in a cozy corner or plant yourself in the middle of the action. The space offers a range of seating options, from adjustable workstations to comfy came at a staff meeting when Rodriguez held up his backpack and declared: "This is my office."

People got the point. And now they wonder why they ever doubted it.

Julie Robertson, a senior interior designer, admits she had her concerns about giving up a designated workstation. "It was actually liberating to purge everything," she says. "The new space is so fresh and invigorating for everyone. I wouldn't want to go back to where we were."

The firm also appreciates its newfound connectedness. More than 15,000 people a day pass by its glass wall. In the old building, says Thomson, "We were 19 floors up, and our connection to the world was an elevator to the food court."

The new space is about 40 percent smaller than the former office, giving up personal space for collaborative space. It's worked out just as everyone had hoped. "The staff has gotten a lot tighter," says Rodriguez. "It was a leap of faith, but now we wouldn't change a thing about it." AMN



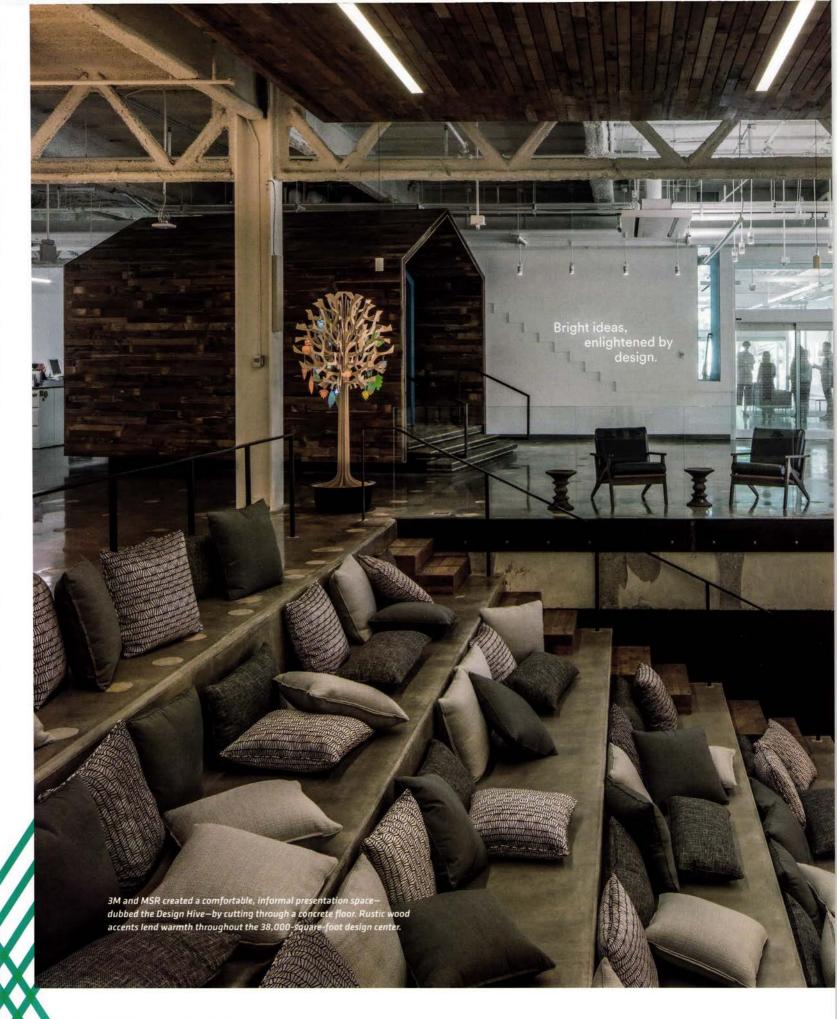


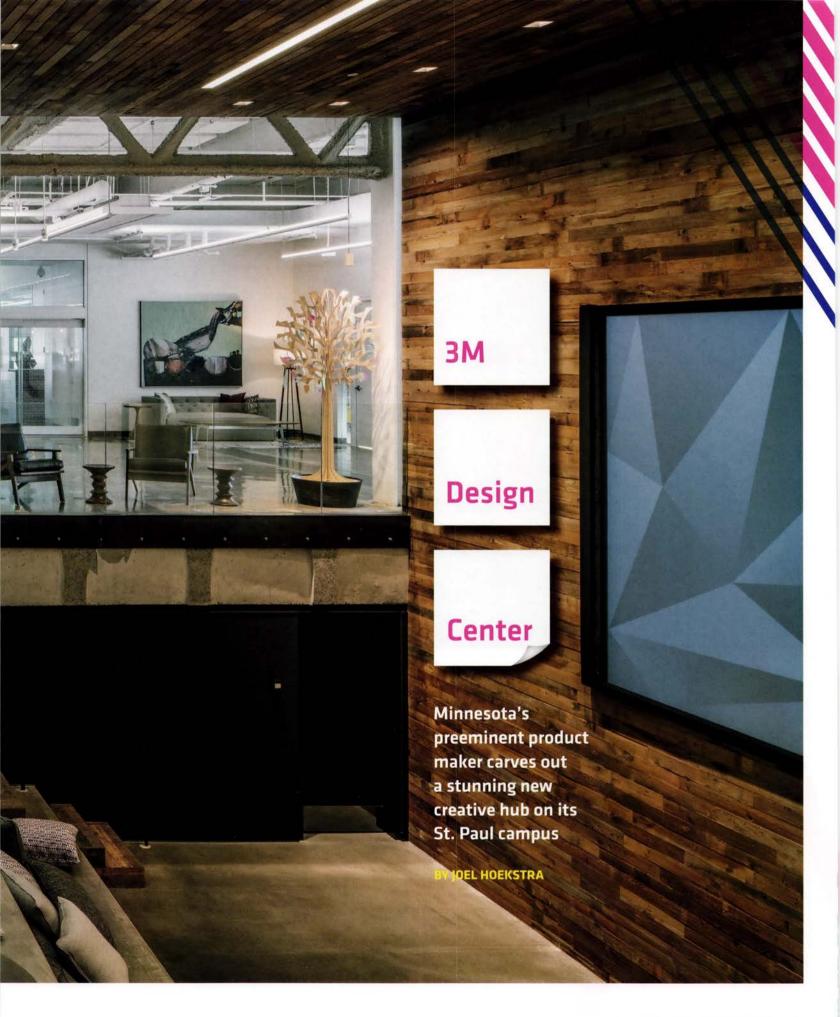
Some tonguein-cheek humor is added with four small conference rooms labeled "Eeeny," "Meeny," "Miney," and "Mo." Meanwhile, Paul Bunyan keeps watch to make sure that designers think big.

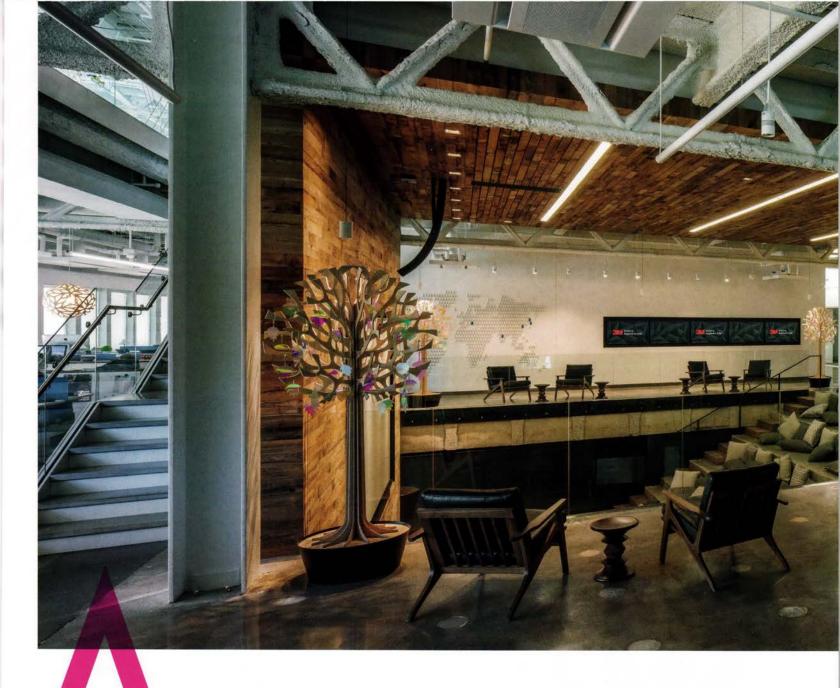


Minneapolis, Minnesota

Paulson Clark Engineering, Inc.







AN ARGUMENT CAN BE MADE that 3M has significantly altered the course of contemporary design with its Post-it Notes.

Visit nearly any advertising agency or startup venture and you'll find the sticky swatches plastered on desks, walls, files, and perhaps even the fridge. Every day, all around the globe, innumerable ideas are jotted, sketched, and preserved on Post-its, waiting to blossom into transformative businesses, buildings, books, and more.

Yet St. Paul-based 3M—which also makes sandpaper, adhesives, abrasives, optical films, electronic circuits, and car-care products—has struggled in recent years to win the attention of an increasingly design-focused public. Companies like Apple have blended technology and design in ways that excite consumers and build a brand, while 3M has largely focused on solid functionality.

"People like being at home in their living room, and feeling comfortable and safe is key to unlocking creative ideas. The Dutch have a word, gezellig, that, loosely translated, means 'cozy.' I wanted the space to have that cozy feel."

Eric Quint, 3M chief design officer



Top: The Design Hive, a communal table, and the Mille Lacs meeting room—one of three freestanding pods inspired by Dutch garden sheds. Above left: 3M chief design officer Eric Quint. Above right: The Minnetonka meeting room.

The design center features a wide array of collaboration-friendly seating options and several creative displays of 3M products. Bottom: The Vermilion meeting room.







3M DESIGN CENTER

Location:

St. Paul, Minnesota

Client: 3M Design

Creative director:

Eric Quint, IDSA

Architect: MSR Design

msrdesign.com

Principal-in-charge:

Josh Stowers, AIA

Project lead designer:

Rachelle Schoessler Lynn

Interior designer: MSR Design

Energy modeling:

Arup; Master Mechanical; The Weidt Group

Landscape architect:

Damon Farber Associates

General contractor:

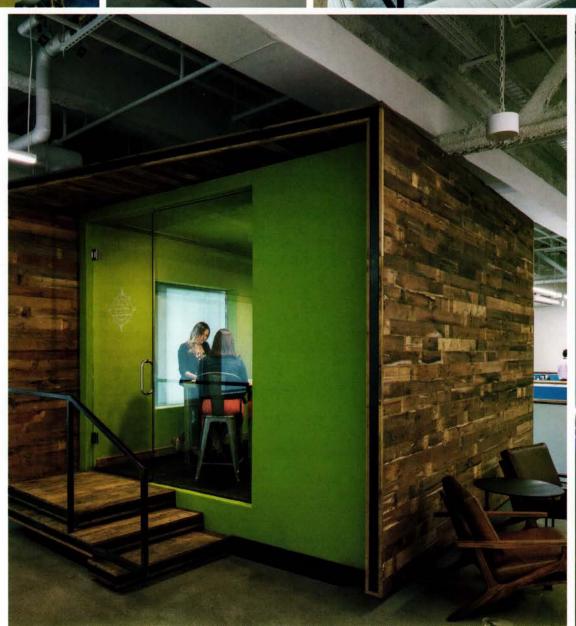
Ryan Companies

Size: 38,000 square feet

Completion: July 2016

Photography:

3M Design



"Designers need to be partners at the table with people from marketing and R&D. We need to think about how design impacts all the touchpoints for our products. We want to maximize the customer experience, and design is critical to that."

Eric Quint, 3M chief design officer

But 3M's approach is rapidly changing, says Eric Quint, a Dutchman trained in industrial design, who was appointed the company's chief design officer in 2013. "Designers need to be partners at the table with people from marketing and R&D," he says. "We need to think about how design impacts all the touchpoints for our products. We want to maximize the customer experience, and design is critical to that."

3M employs thousands of scientists, engineers, and other technical professionals, but their labs are scattered around the world, and even labs on the same campus are often housed in different buildings. Such silos inhibit creative collaboration, which is essential to good design, says Quint.

So, shortly after he arrived in Minnesota, Quint began lobbying 3M's leadership to establish a center where his staff could freely collaborate and their innovations could be dramatically showcased.

"I said, 'Give me the oldest lab," he recalls.
"'I can make it into something that builds on
the history of the company but also shapes
the designs of our new products." He hired
Minneapolis firm MSR, which has a long history
with 3M, for the project's architectural design.
Construction began in 2015 and was completed
last summer.

>> continued on page 56





Author of first two Preservation Briefs . Instrumental in writing Secretary of the Interior's Standards for the Treatment of Historic Properties • More than twenty years teaching at the University of Minnesota . College of Fellows, AIA • College of Fellows, Association for Preservation Technology • Founding board member of Preservation Alliance of Minnesota . Minneapolis Municipal Building • Charles Lindbergh Residence • The Gale Mansion • Saint Augustine Church • Hamline Church United Methodist • Wesley United Methodist Church • Going-to-the-Sun Road at Glacier National Park • Fort James Jackson • Hodges Claim Shanty • Estate of President James Garfield • Minneapolis Grain Exchange • Pioneer-Endicott Building • Washington Pavilion • Smith-Douglas-More House • Third Vandalia State House • West Franklin Historic District • Minnesota Veterans Home • CSPS Sokol Hall • Split Rock Lighthouse • Alexander Ramsey House • Nolte Center • Pillsbury Hall • Canby Theatre • Valley Grove Churches • Au Sable Light Station • Central Presbyterian Church • Saint Anthony Falls Historic District • First Congregational Church • Mill Ruins Park • Uptown Theater • Fergus Falls Regional Treatment Center • Ames-Florida-Stork House • Redeemer Missionary Baptist Church • Franklin Avenue Bridge • Government Townsites • Minnehaha County Courthouse • Minnesota Governor's Residence • Au Sable Lighthouse • Rock Island Arsenal • Duluth Ship Canal • Bayfield County Courthouse • Virginia Street Swedenborgian Church • Traverse des Sioux Historic Site • Pipestone County Courthouse • Pipestone Indian Boarding School • DUSEL site / former Homestake Mine • Carlson Lime Kiln • Laura Ingalls Wilder House • Little House on the Hill • Robitshek Building • The Soap Factory • Nicholas Jarrot House • Phalen Park Bridge • Lake



Building investigation with boroscope, 1980s.

Forty years of architectural excellence and innovation. Hundreds of projects. Unceasing passion for investigating and restoring historic buildings.

And now, the AIA Minnesota Gold Medal.

CONGRATULATIONS, BOB MACK!

We're honored to work with you and learn from you every day.

MACDONALD & MACK

COMMITMENT CONCERN. COVERAGE.

At DENNIS J. LINDER & ASSOCIATES,

we provide professional liability insurance and risk management to the design community.

Calhoun and Lake Harriet Walls . AND MANY, MANY MORE ...

With committed service and industry expertise, we work with you and your firm to create client-specific coverage plans. We help manage your risk of loss with concern for both your short and long-term needs.

Our comprehensive insurance programs, educational resources and policyholder services have you covered. Call us to see what Dennis J. Linder & Associates can design for you.

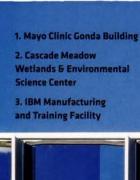
DENNIS J. LINDER

Providing Insurance & Risk Management to the Design Community

651.621.8980 • An affiliate of AMERICAN AGENCY, INC.
731 Bielenberg Drive, Suite 204, Woodbury, MN 55125-1701







When the IBM complex was completed in the late 1950s, the Rochester Post-Bulletin described it as "a green sea, surrounding a royal blue island."





- 4. Mayo Clinic Plummer Building
- 5. Rochester Art Center
- 6. University Square
- 7. Mayo Building
- 8. Chateau Theatre

The oldest and most iconic of the Mayo towers, the ornamental Plummer Building is topped with a bell tower featuring a 56-bell carillon Dr. William Mayo found in Europe.

No Little Plans

The biggest architecture news out of Rochester centers on the city's **Destination Medical** Center master plan, created by New York firm Perkins Eastman. The plan outlines the revitalization of six downtown subdistricts. each with its own character and focused on a major open space, with a transit system linking them all. "The best and the brightest want to live in authentic urban places where they can . . . walk to work, take transit, be on a bike path," says Perkins Eastman principal Peter Cavaluzzi, FAIA.





with help from Miller Dunwiddie Architecture. Rochester, once a stagecoach stop on the ride from Dubuque to St. Paul and now a destination for people seeking medical treatment, boasts more than its fair share of design character.

MAYO AND MORE

To get a sense of the economic engine that has fueled Rochester's growth, start at the Mayo Clinic, a multi-building campus located downtown. Dr. William Worral Mayo and his two sons, William and Charles, teamed with a group of Franciscan nuns to establish the clinic in the late 1880s, but it was the Romanesquestyle **Plummer Building** (1928), with its bell

tower, terrazzo floors, bronze doors, and wingedserpent details, that gave the clinic an impressive visual presence.

Today, most visitors check in across the street at the **Gonda Building** (2001), designed by Cesar Pelli Associates and Ellerbe Becket. The 21-story building, with a marble-sheathed lobby that overlooks a sunken garden, was fused to another Ellerbe creation, the **Mayo Building** (1954). Originally 10 stories tall, the Mayo Building was expanded to 18 stories in 1969. Though nearly a half-century old, the tower's variegated gray-marble exterior, trimmed with brise-soleil and rose-tinted windows, retains





ROCHESTER HAS AMASSED A COLLECTION
OF ARCHITECTURAL GEMS—BUILDINGS
THAT BEAR THE SIGNATURE OF STARCHITECTS
AND NOTABLE LOCALS ALIKE.



Far left: Downtown boasts an eclectic mix of architectural styles and public spaces. Left: The Art Deco Chateau Theatre awaits its next use after stints as a vaudeville house, movie theater, and bookstore.



ROCHESTER'S OUTER DISTRICTS CONTAIN A TROVE OF DESIGN TREASURES AS WELL.

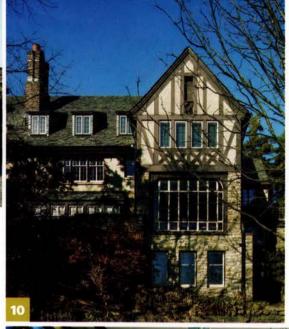


- 10. Plummer House
- 11. Mayo Woodlands
- 12. Foundation House
- 13. B'nai Israel Synagogue
- 14. St. John the Evangelist

Rochester is home to a dynamic array of residential architecture, from the historic mansions on Pill Hill to contemporary gems in Mayo Woodlands.









a simple, contemporary feel that contrasts nicely with the nearby Rochester Public Library—now the Mayo Medical School Mitchell Student Center—designed by Rochester-area architect Harold Crawford.

Medical issues often force us to confront our mortality, so it's no surprise that a number of religious buildings surround the Mayo Clinic. Design-wise, the most notable of these include the keystone-shaped **St. John the Evangelist** (1957)—described by architectural historian Larry Millett as an "ungainly but fascinating

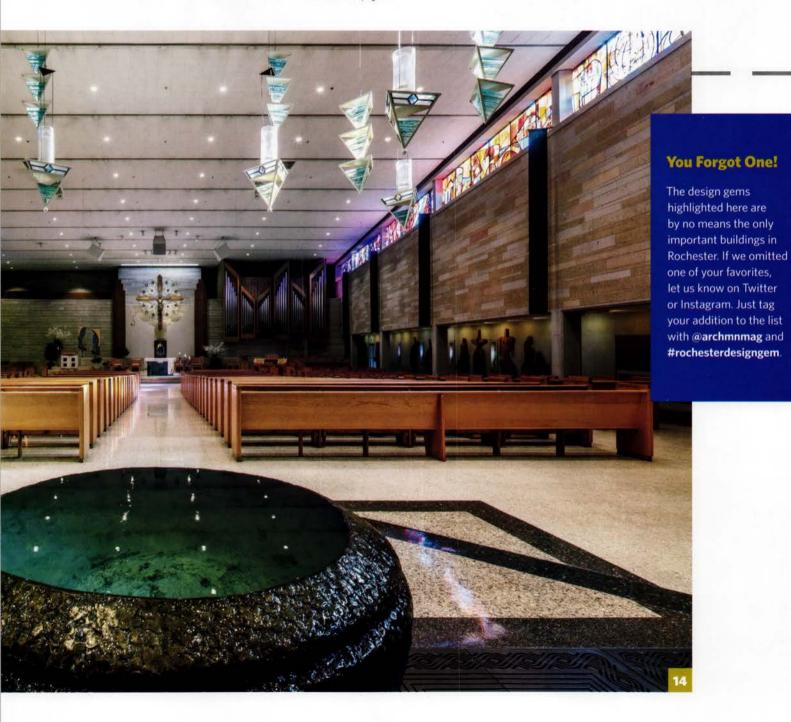
church, which adheres to no architectural style other than its own"—and **B'nai Israel Synagogue** (2008), an elegantly intimate worship space with a tabernacle that floats above the floor, designed by HGA architect Joan Soranno, FAIA.

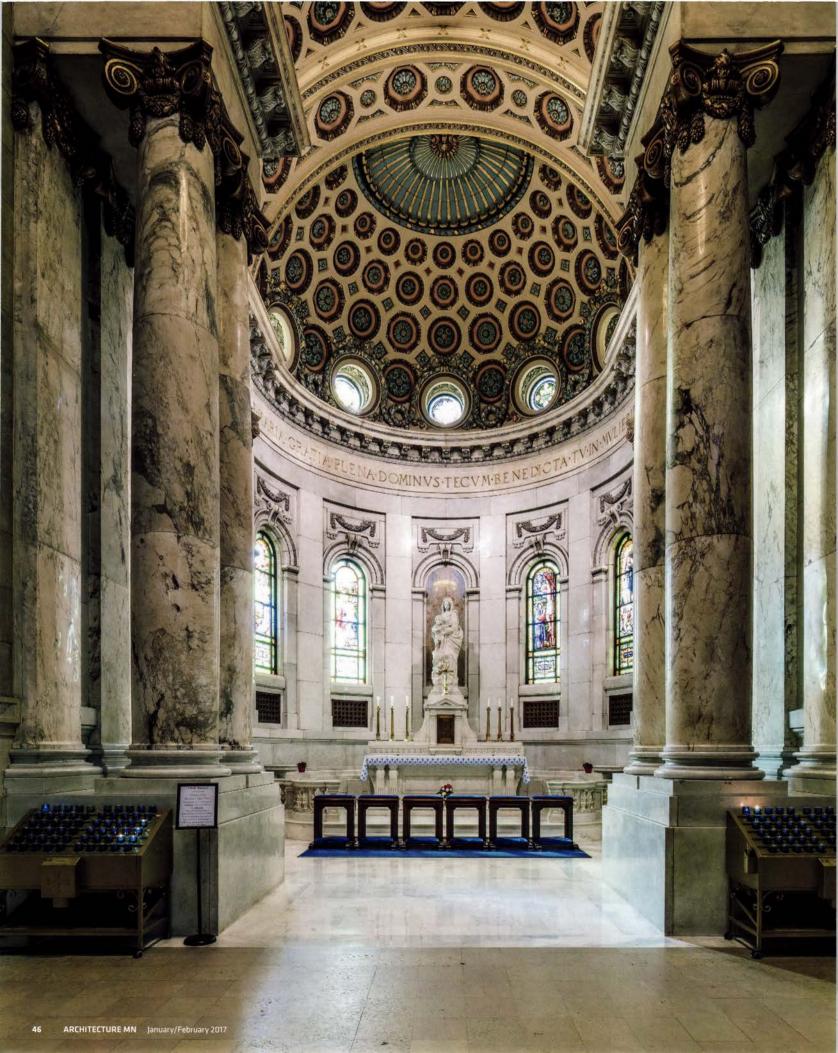
HIDDEN IN THE HILLS

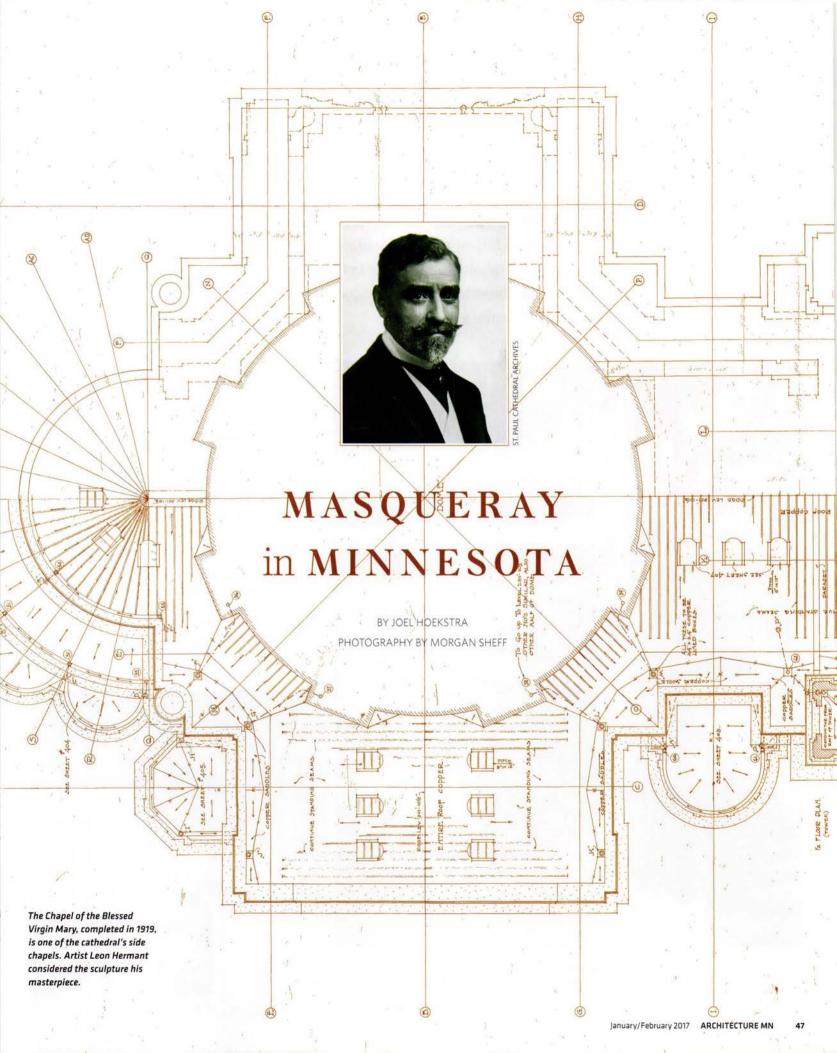
Wealth generated by the Mayo also built the city's residential neighborhoods. Climb "Pill Hill," located southwest of downtown, and you'll find the **Foundation House**, the Romanesque manse that Ellerbe designed for William J. Mayo, as

>> continued on page 59









Architecture MN marks the centennial of the death of story of how the French architect came to design the Cathedral of St. Paul and the Basilica of St. Mary at nearly the same time. New photography of the two landmarks captures Masqueray's towering achievements.

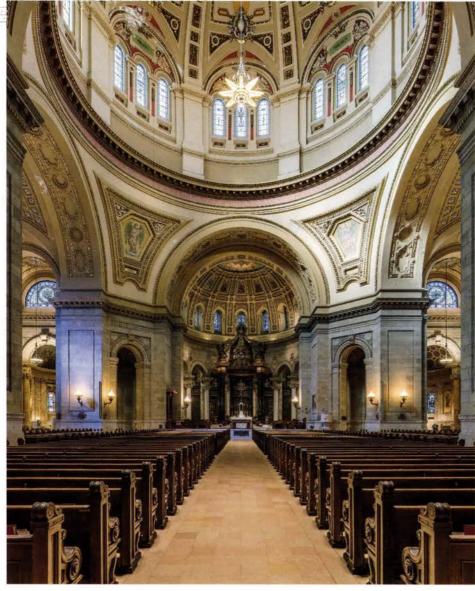
Emmanuel L. Masqueray with the

On May 25, 1917, a French immigrant riding the streetcar to work in St. Paul collapsed and fell into a coma. Rushed to the city hospital, he revived only briefly and died the following morning. He was buried next to his mother in Calvary Cemetery.

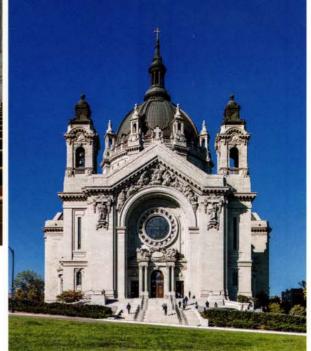
The funeral of 55-year-old Emmanuel Louis Masqueray was attended by dozens of dignitaries and presided over by no less a figure than St. Paul's foremost prelate, Archbishop John Ireland, who said of the architect: "His mind was well stored with the fruits of long reading and correct thinking. A charm it was to meet him-a charm that grew the sweeter as one drew nearer to him and knew him in closer intimacy."

Indeed, Ireland and Masqueray had developed a close bond over the previous decade: They had collaborated on more than a dozen projects that forever changed Minnesota's architectural landscape. Commissioned by the Archdiocese of St. Paul and Minneapolis to design a cathedral and a basilica, numerous chapels, several parish churches, a school, and three buildings that ultimately became part of the University of St. Thomas, Masqueray saw his career flourish largely because of his close association with Ireland.

One hundred years after his death, his legacy remains strong. The Cathedral of St. Paul and the Basilica of St. Mary in Minneapolis are now iconic landmarks, well known to locals and often ogled by tourists. Both structures have undergone significant refurbishment,



With its copper-clad dome soaring over St. Anthony Hill, the CATHEDRAL OF ST. PAUL is the city's true icon. But the real drama lies inside.





The masonry exterior suggests that the entire structure is stone, but in fact the Basilica of St. Mary, as the pro-cathedral was later named, is made largely of steel and concrete.



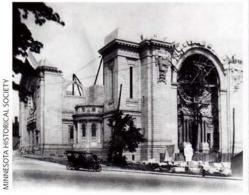
and the Basilica congregation is planning interior renovations that will begin in 2021. In January, an exhibit titled "E.L. Masqueray, Architect" will open at St. Thomas, highlighting the designer's campus contributions as well as providing context for his other buildings (see sidebar on page 50).

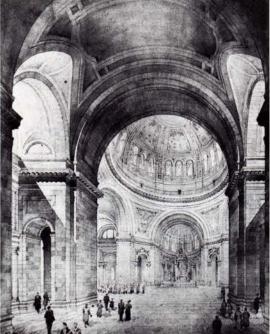
"Ireland put Masqueray in the right place at the right time," says Victoria Young, chair of the art history department at the University of St. Thomas. "Once he got here, he never really had to worry about where the next commission was coming from."

FROM PARIS TO THE PRAIRIE

Masqueray was born in Normandy in 1861 and raised in Rouen and Paris. At 17, he was accepted by the École des Beaux-Arts, the world's leading art school. The boy's talent led to prizes and ultimately a period of study in Italy, where Masqueray developed an appreciation for Renaissance architecture. In 1887, he accepted an invitation from an acquaintance to come to the U.S. and work for the New York firm Carrère and Hastings.

The first basilica in the U.S., the majestic BASILICA OF ST. MARY combines elements of Renaissance, baroque, and neoclassical styles. Below: Construction of the Cathedral of St. Paul. Right: A drawing of the cathedral interior before it was completed and furnished.





Five years into his American adventure, Masqueray switched to the office of Richard Morris Hunt, who designed homes for the Vanderbilts and other American elites. Masqueray also began teaching, setting up a school modeled on the École des Beaux-Arts.

But the connection that most dramatically changed the course of Masqueray's career was made in Missouri. In 1901, Masqueray was chosen to be the chief designer for the Louisiana Purchase Exposition, also known as the St. Louis World's Fair, to be held in 1904. Over the next three years, the architect oversaw the design of the Fish and Game Palace, the Colonnade of States, monuments, landscaping, statuary, bridges, and bandstands. Forced to work exclusively in the Neo-Baroque style, which clashed with both his classical training and his personal interest in Renaissance styles, Masqueray must have

been desperate for a new commission when he was introduced to one of the fair's most distinguished guests, Archbishop Ireland.

His flock having outgrown its home in downtown St. Paul, Ireland had set his sights on a large property on what was then called St. Anthony Hill. A committee tasked with selecting an architect to build on the site had developed a list of 11 firms for consideration, but Ireland quickly whittled that list to one: In 1905, Masqueray set up an office in St. Paul and began drawings for what would become the Cathedral of St. Paul.

A TALE OF TWO ICONS

Masqueray laid out a plan in the form of a modified Greek cross-its arms almost equal, with a shorter nave and wider transepts. The 96-foot-diameter dome that towered over pew

> seating for 2,500 was enormous, giving the structure an oversized appearance not unlike the Sacré-Coeur in Paris. The architect later wrote that he hoped the structure, "while being entirely of the 20th century in feeling and purpose," would also have secondary features like the ones that "gave so much charm to the old churches of the Middle Ages."

> Ireland must have approved, because he awarded the architect a second commission before

>> continued on page 60



NORTHWEST ARCHITECTURAL ARCHIVES



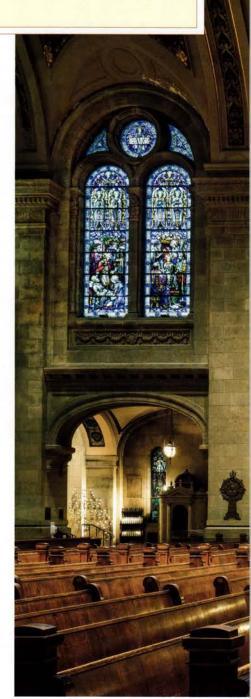
Exhibition panel & reception

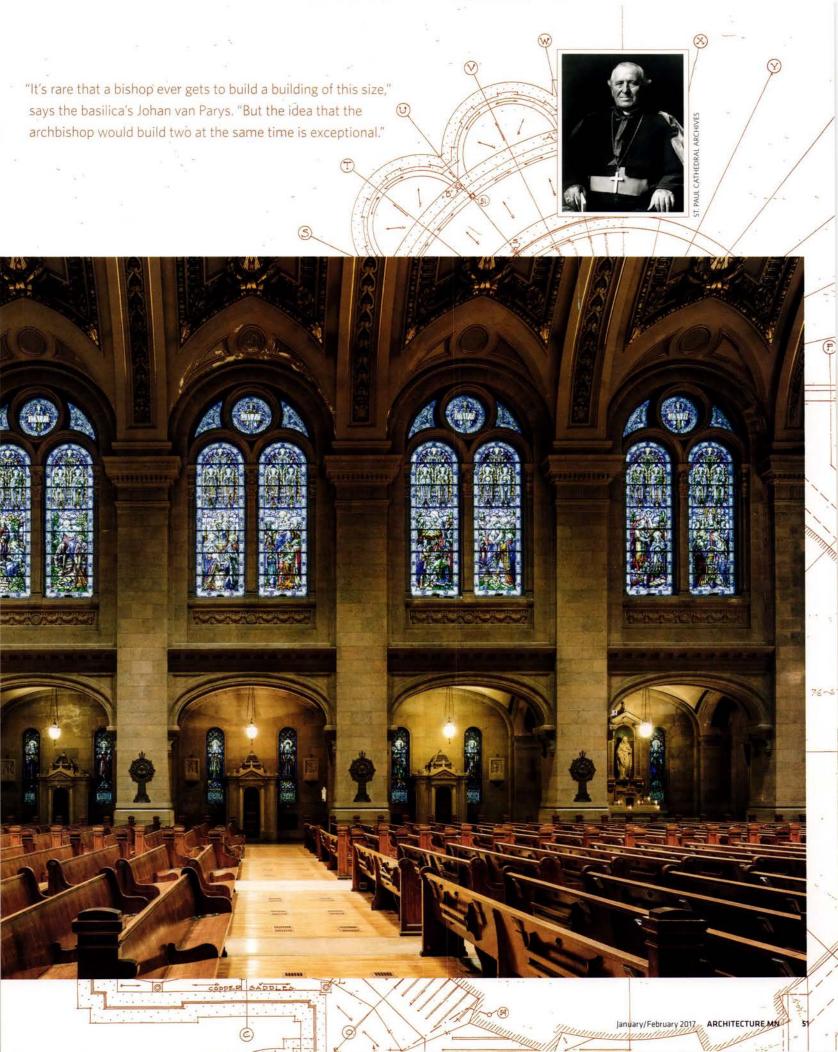
LOCATION: O'Shaughnessy Education Center, University of St. Thomas

DATE: March 13, 2017, 6 P.M.

PANELISTS: Alan Lathrop, Larry Millett, Celeste Raspanti, and Johan van Parys

MODERATOR: Maria Wiering Pedersen







AIA Architects

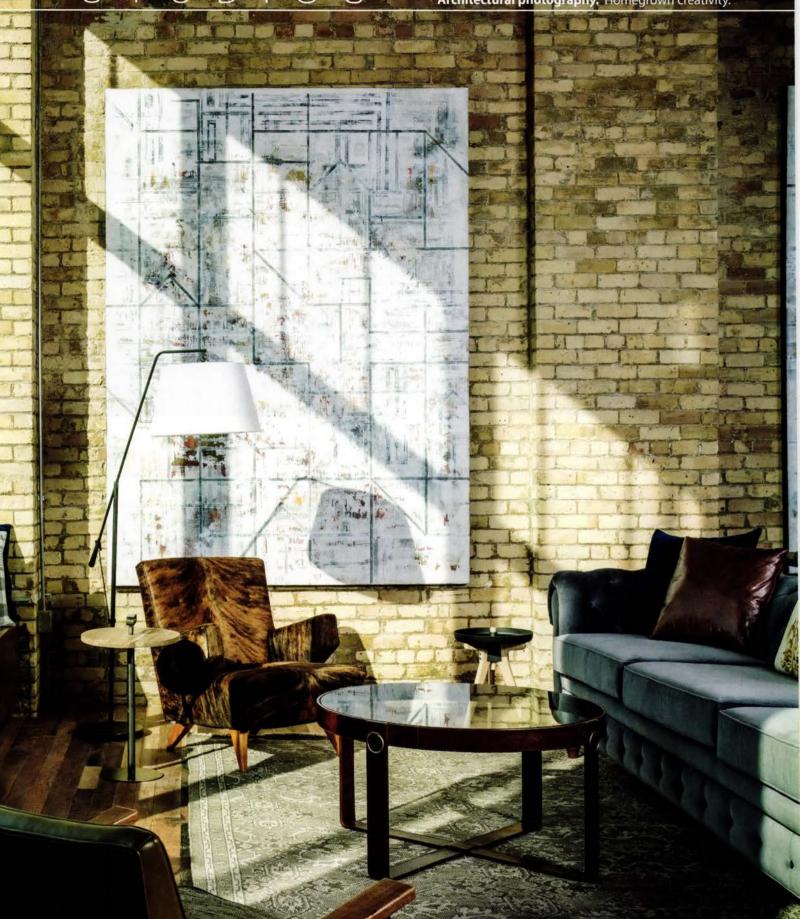
The AIA Minnesota architect works in your best interest within the building industry to bring your idea to light



www.aia-mn.org

FARMKID

Architectural photography. Homegrown creativity.







ALEXANDER PUBLIC SCHOOLS, ALEXANDER, ND

"I am so grateful I chose EAPC as my architects for the expansion to double the size of our school. They were so easy to work with, they spoke to me in terms I understood and explained everything. The step-by-step process set out for me was manageable and non-threatening. When questions arose, they were always available in a helpful manner. I felt as though I were walking through the process with a friend." — Leslie Bieber, Superintendent



Cities and the Sharing Economy

<< continued from page 21

An even bigger change will happen to our streets and public realm. Shared autonomous vehicles, for instance, require only one relatively narrow pass lane in each direction, with occasional pull-over lanes to drop off or pick up passengers. And because of their geo-locational awareness, they also move more efficiently through the street grid than on highways. Despite that, we continue to build roads as if driver-owned-and-operated cars will continue to dominate our transportation systems for decades to come—something that even the car companies no longer assume.

Instead, we need to start designing streets and sidewalks in ways that let them switch from driver to driverless cars over the next 20 years, with strategies that encourage multiple modes of movement and that utilize the land freed up by on-demand transportation for other purposes, like socialization space or green infrastructure. At the same time, we need to allow a much denser mix of uses in neighborhoods, not only to facilitate the new economy's tendency to integrate living and working with producing and consuming, but also to give everyone opportunities to live safer and healthier lives.

New economies build on previous ones, and the old mass-production economy will continue at some level, but we should not see the ondemand economy as far off or far out. Analysts at PricewaterhouseCoopers, for example, forecast that five new sectors of the sharing economy (including car sharing and music and video streaming) could equal the overall sales of five traditional rental sectors (including car and equipment rental) by 2025.

Yet neither should we embrace the new economy unquestioningly. It will certainly upend some people's lives, as shared autonomous vehicles, for example, disrupt the auto industry, which comprises more than 3 percent of our GDP, and end one of the most common jobs in America: truck driving. Likewise, on-demand shopping will affect bricks-and-mortar retailing, decreasing the number of retailing jobs and altering the kinds of businesses that line our streets.

At the same time, we should not see this as a passing fad, because the new economy actually aligns with a way of being that's deeply ingrained

>> continued on page 56

REALSTONE

Real, Reclaimed & Prefabricated Natural Stone Systems

revolutionize the installation of natural stone veneer because they come in 6-inch x 24-inch pre-formed panels. These panels make installation much easier than selecting individual pieces, reducing COST, WEIGHT and TIME.

realstoneSYSTEMS"

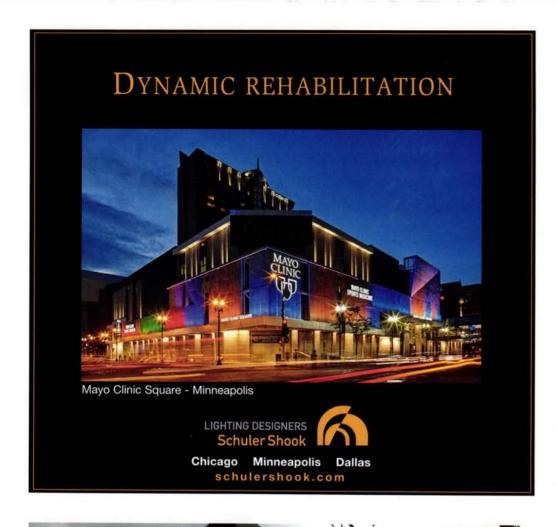




Realstone System panels are made of authentic split stone — slate, quartzite or sandstone — cut and formed into panels for exterior or interior applications. Realstone System panels join together seamlessly. Corner pieces are cut with fingered ends joining each panel together with strength and without visible seams. Realstone System panels are available in multiple colors and textures. They revolutionize the installation of natural stone, reducing cost, weight and installation time.



520 W. 86th Street, Bloomington, Minnesota 55420 tel 952-888-9239 fax 952-888-0077 www.mnbrick.com Click on Related Sites and Products to see all of our products.

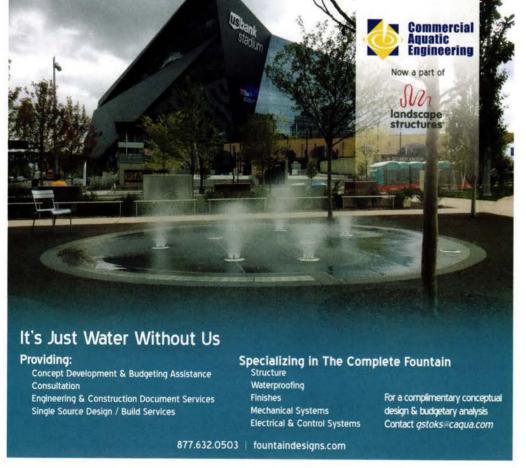


Cities and the Sharing Economy

<< continued from page 55

in us. For more than 90 percent of our history as a species, we have lived in small groups. sharing food and shelter, cooperating on child rearing and chores, and receiving information when everyone else did. While many people still live that way today, the sharing economy offers the rest of us a high-tech version of it, giving us access to an existence we once knew and to which we can return with new understanding and appreciation.

What this means for urban form, we cannot know for sure. But it does suggest a future in which people will probably live and work in closer proximity to each other, in denser and functionally more diverse neighborhoods, while remaining connected to everyone else. Think of it as a world of global villages. AMN



3M Design Center

<< continued from page 37

The heart of 3M's St. Paul campus is a quadrangle plaza flanked by four office buildings erected in the 1960s. In recent years, the company has been renovating the facilities—with help from MSR, among others—and the main administrative tower has gotten a significant facelift and interior remodel. As if to signal the elevated role of design in the company's future, Quint was given 38,000 square feet of highly visible space near the main entry. Hundreds of employees and visitors pass the sign for the new 3M Design Center every day.

The biggest challenge, says MSR principal Josh Stowers, AIA, was to figure out how to shoehorn a creative space into an existing office-style environment. The program ultimately required construction workers to cut through two cement floors to unify the three-story space.

In part, the center is a showplace for 3M products. Visitors entering the central core will find a Jaguar coupe wrapped in colorful 3M films.

>> continued on page 58





THE CURE FOR THE COMMON WALL



Make your landscape designs come alive with VERSA-LOK retaining walls. Solid, pinned VERSA-LOK wall units make it a snap to incorporate curves, corners, stairs, freestanding seatwalls, columns and tiers into your hardscape projects. And VERSA-LOK wall units come in textures and colors that suit any landscape styling, from classic to contemporary. Beautiful, simple and reliable—if you can design it, you can build it with VERSA-LOK.



versa-lok.com 📑 🗟 😰 😥 📊 🔠









3M Design Center

<< continued from page 56

Glass partitions and doors are sheathed in 3M. films that shift from transparent to mirrored as the viewer's angle changes. A suite of rooms dedicated to 3M's primary brands—like Post-it and Scotch—is kitted out with historic brand images, walls bearing approved typefaces, and the shards that compose 3M's new trifecta brand identity, unveiled in 2015.

Sustainability was also a consideration in the design. The space incorporates energy-efficient climate control, LED lighting systems, and lots of recycled wood, including reclaimed scaffolding boards transformed into tables and desks. On a tour, Quint points to the incorporation of adjustable desks that can be raised to standing height as another sustainability strategyone that promotes employee health.

But the center is less a temple to technology than it is a workplace designed to spur creativity. Comfortable chairs ring a central pit called the Design Hive, an open auditorium where employees can curl up with pillows to hear a guest lecturer. There's a large communal table with stools for impromptu chats over snacks. as well as niches and small rooms filled with stylish sofas and plush chairs. MSR co-designed three of the meeting rooms-which 3M named Mille Lacs, Vermilion, and Minnetonka, after Minnesota lakes—as freestanding cabin-like enclosures. "They're glassed-in at the ends, so people can see collaboration happening inside, and they're also raised up a bit," says Quint. "It's as if we're putting creativity on a pedestal.

"I wanted it to have the feel of a living room," Quint says of the center. "People like being at home in their living room, and feeling comfortable and safe is key to unlocking creative ideas. The Dutch have a word, gezellig, that, loosely translated, means 'cozy.' I wanted the space to have that cozy feel."

Staff have told Quint they almost prefer being at work to being at home—the place is that comfortable. "The physical environment has begun to yield creative fruit and attract the notice of others at 3M and external," he says. But when his colleagues ask if he can redesign their offices or labs, Quint demurs: "I have to tell people I'm the chief design officer at 3M, not the chief interior designer." AMN







Rochester: A Design Tour

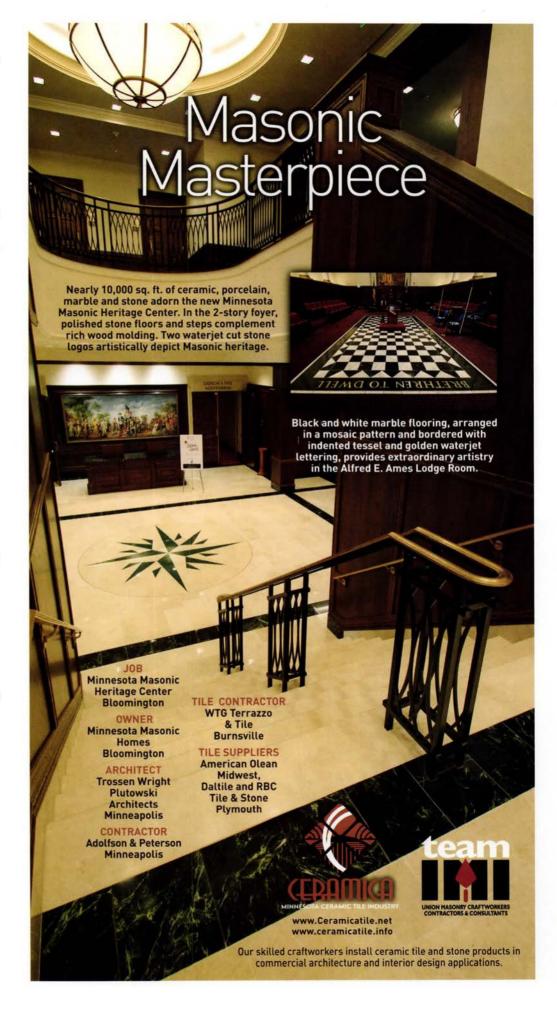
<< continued from page 45

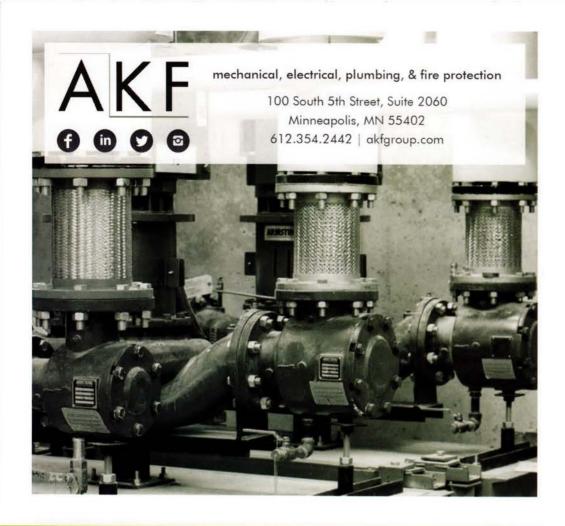
well as several homes conceived by hometown hero Crawford. None of the dwellings are open to the public, but the **Plummer House** (1924), an English Tudor built by a prominent Mayo physician, is occasionally open for tours in summer, and its gardens can be explored year round. "Passing by the Foundation House and the Plummer House on walks with my dog continues to inspire me, even after nine years of living in the neighborhood," says 9.Square architect Adam Ferrari, AIA.

Rochester's outer districts contain a trove of design treasures as well. Fans of environmental design and sustainability technology will enjoy Cascade Meadow Wetlands & Environmental Science Center (2010). Designed by LHB, the science center overlooks 115 acres of restored wetlands and oak savanna. Frank Lloyd Wright also took heed of Rochester's natural setting when he planted a pair of Usonian homes, sleek and built with inexpensive materials, on Skyline Ridge. And farther south, in an area known as Mayo Woodlands, on the edge of the Zumbro, Minnesota architects David Salmela, FAIA, and Tim Alt, AIA, teamed with landscape architect Shane Coen to erect contemporary glass boxes for living (2004). The initial homes have won several awards, yet they failed to spark a boom in modern residential building in the development.

Alas, few of Rochester's most interesting buildings are open for tours, including one of the most famous: Eero Saarinen's IBM Manufacturing and Training Facility (1958, with several expansions). The Finnish-American architect wrapped his creation in a royal-blue glass membrane—the thinnest in the world at the time. Built on a campus of rolling green prairie, the complex blended beauty and technology in a simple manner that heralded the space age and brought fame to Rochester. "Big Blue' was a big piece of an earlier boom in Rochester's growth," says architect Teresa McCormack, AIA, of the Urban Studio in Rochester. "The departure from a regional style emphasized IBM's intent to be a leader in the international marketplace."

What does the future hold for Rochester architecture? Ambitious plans for the Destination Medical Center (see sidebar and "Urban Health" in our January/February 2016 issue) signal a new wave of construction downtown. As the DMC effort gains momentum over the next decade, let's hope Rochester continues to demand the best from architects, building on the heritage it already has. AMN





Architecture MN is a publication of The American Institute of Architects Minnesota www.aia-mn.org

Advertise here:

Reach your audience in our upcoming issues.

MAR/APR ISSUE

AIA Minnesota Honor Awards & Landscape Architecture

Including the Directory of Landscape Architecture Firms

MAY/JUN ISSUE

Modern Houses. New Taprooms & More

Including the AIA Minnesota Firm Directory & Consultants Directory

For more information, please contact: Pam Nelson (612) 338-6763 nelson@aia-mn.org



Masqueray in Minnesota

<< continued from page 50

the first was barely begun. Perhaps hoping to lay claim to more souls in mostly Protestant Minneapolis, the archbishop announced plans to build a pro-cathedral on swampland just west of downtown. For this church, Masqueray produced a plan based on the Roman cross but without transepts.

The masonry exterior suggests that the entire structure is stone, but in fact the Basilica of St. Mary, as the pro-cathedral was later named. is made largely of steel and concrete. Five sets of pillars support five girders, from which hangs an interior that is mostly painted plaster. Like the cathedral in St. Paul, the basilica is capped with a copper dome—albeit a smaller one. "It's by far the most highly decorated building that I've ever worked on," says Chuck Liddy, FAIA, a principal with Miller Dunwiddie Architecture, which has overseen renovations and restorations of the building since the early 1990s.

Johan van Parys, the basilica's director of liturgy and sacred arts, who has worked in the parish for 22 years, says the church's beauty isn't the only thing that makes it remarkable. "It's rare that a bishop ever gets to build a building of this size," says van Parys. "But the idea that the archbishop would build two at the same time is exceptional."

A RICH LEGACY

Under Ireland's patronage, Masqueray went on to produce numerous churches and chapels throughout the Twin Cities, including the exquisite Church of St. Louis, King of France, in St. Paul; the Church of the Incarnation in Minneapolis; and the Chapel of St. Thomas Aquinas on the St. Thomas campus.

His talents helped him win work from Protestants as well; standout projects included Bethlehem Lutheran Church and St. Paul's Episcopal Church on the Hill, both in St. Paul. "These," architectural historian Alan Lathrop has noted, "were almost always Gothic in style in contrast to his Catholic churches, which were usually executed in Romanesque, Renaissance, or Baroque styles." As his reputation spread, Masqueray landed

>> continued on page 61

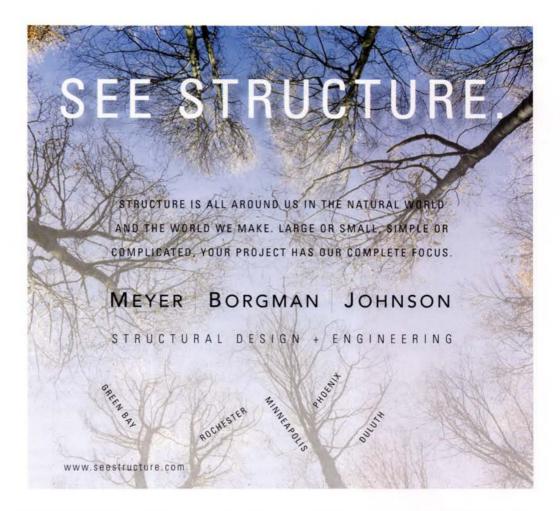
Masqueray in Minnesota

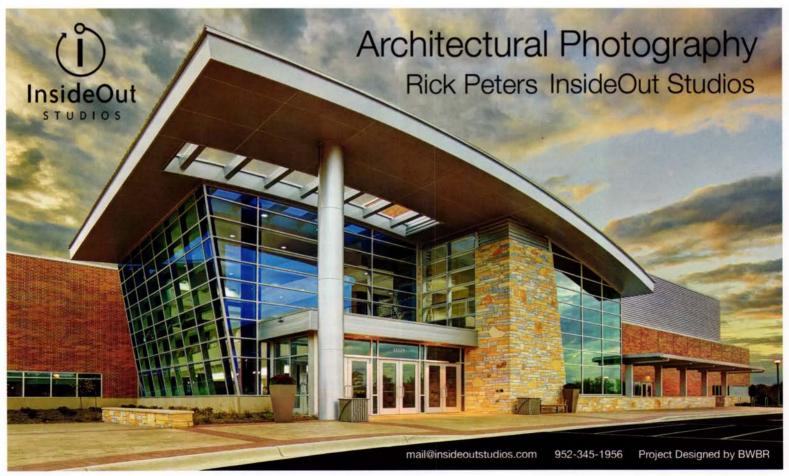
<< continued from page 60

commissions for three more cathedrals: in Wichita, Sioux Falls, and Winnipeg. (Only the first two were built.)

But much of the architect's work remained unfinished at the time of his death in 1917; a number of projects had to be completed by his acolytes, including famed Minnesota architect Edwin Lundie. Ireland, who died a year later, also never saw the Cathedral of St. Paul or the Basilica of St. Mary interiors in finished form.

Cass Gilbert, one of the 10 architects who lost out to Masqueray in the bid to design the Cathedral of St. Paul, was gracious enough to acknowledge the talents of his former rival when he observed: "If the dome of the Cathedral of St. Paul and that of the new State Capitol were part of the skyline of a city in Europe, they would be world famous." AMN





CONSULTING **ENGINEERING FIRMS**

Architecture Minnesota presents the 25th directory of Minnesota firms providing consultative engineering services.

Engineers provide those critical design skills that enable our entire built environment to be structurally safe. comfortably warm, well lit, and environmentally friendly. They also design our highways and bridges, water treatment facilities and power generation plants.

In Minnesota, you will find there is a wealth of engineering talent available for your next project. Use this directory as a resource for your engineering needs.

Legend

AIA American Institute of Architects (Licensed)

AICP American Institute of Certified Planners

CCM Certified Construction Manager

Certified Interior Designer

CIH Certified Industrial Hygienist

CCA **Certified Commissioning** Authority

LA Landscape Architect

PE **Professional Engineer**

PG Professional Geologist

PLS Professional Land Surveyor (registered)

RA Registered Architect

RCDD Registered Communications Distribution Designer

LS Land Surveyor (licensed)

5E Structural Engineer (Certified)

ABACUS ENGINEERING



3407 Kilmer Lane North Minneapolis, MN 55441 Tel: (612) 758-0620 Email: kleitch@withabacus.com www.withabacus.com Year Established 2010 Other Offices: Mankato, MN; Rochester, MN Contact: Kaeko Leitch, (507) 995-4078

Firm Principal

Kaeko Leitch, PE, LEED AP

Abacus Engineering works in collaboration with architects and engineers to find cost effective and sustainable mechanical and electrical engineering solutions. Our team's engineering expertise covers a wide range of market areas: civic, educational, medical, hospitality, commercial, mixed use, and aquatic facilities- including multiple LEED certified projects. Abacus also provides building commissioning (both new building and retrocommissioning), life safety, and fire sprinkler design services. Abacus is DBE certified, both as a minority and woman owned business.

Treasure Island Resort and Casino Expansion. Red Wing, MN; Minneapolis Public Schools, Franklin Middle School Renovation, Minneapolis, MN; Jackson County Garage and Maintenance Facility, Jackson, MN: Open Door Health Center, Mankato, MN: Profinium Place Office Tower, Mankato, MN; Children's Museum of Southern Minnesota. Mankato, MN; MnDOT Truck Station, Courtland, MN (Work in progress): Hutchinson Aquatic Center, Hutchinson, MN

AKF GROUP LLC



100 South 5th Street, Ste. 2060 Minneapolis, MN 55402 Tel: (612) 354-2442 Email: akfmn@akfgroup.com www.akfgroup.com Year Established 1989 Total in MN Office: 16 Total In Other Offices: 447 Other Offices: Baltimore, Boston, Hamilton, Mexico City, New Haven, New York, Philadelphia, Puebla, Seattle Contact: Hollis Linehan, (612) 567-5002

continued next column

Firm Principals

Chad Eslinger, PE John Gunderson, CPD Hollis Linehan, LEED AP Doug Lucht, PE Gabe Pescosolido, LEED AP BD+C Deborah Reider, PE, LEED AP BD+C Sean Sonnabend, PE Charles Weerts, PE

AKF Group LLC is a mechanical and electrical engineering firm serving public and private sector clients across the United States and around the world. AKF provides a full range of professional engineering services including HVAC, electrical, plumbing, and fire/life safety engineering. Specialty services provided include analysis & testing, building management systems, central utilities, code consulting, commissioning, critical systems, energy modeling & sustainability, IT/AV/security, lighting design and special inspections.

Westminster Presbyterian Church, Minneapolis, MN; American University of Central Asia, Bishkek, Kyrgyzstan; 401 Nicollet Mall Office Building, Minneapolis, MN: Minneapolis Institute of Arts, Minneapolis, MN; Minneapolis Public Schools, Minneapolis, MN; World Trade Center Retail, New York, NY; Wayne State Student Center Food Court Renovation. Detroit, MI; Central Park West, St. Louis Park, MN

ALIGN STRUCTURAL, INC.

241 Cleveland Avenue South, Ste. B7 Saint Paul, MN 55105 Tel: (651) 698-0164 Email: rickj@alignstructural.com www.alignstructural.com Year Established: 2013 Total in MN Office: 2 Contact: Rick Johnson, PE

Firm Principals

Christian Soltermann, PE Rick Johnson, PE

Structural consulting services for commercial, residential, industrial, and institutional projects. Structural assessments of existing structures; forensic investigations of structural conditions to assist clients in the legal and insurance industries. Firm enjoys helping clients get to the core of their structural needs in an efficient manner.

continued next column

Lake Monster Brewery, Saint Paul, MN; Apple Auto, Shakopee, MN; Taco Bell Restaurants, various locations; Sunrise Banks, Saint Paul, MN; North American Banking Company, Shoreview, MN; Paws & Claws, Hackensack, MN: First State Bank. Rosemount, MN: The Stone Saloon, Saint Paul, MN

ATS&R PLANNERS/ ARCHITECTS/ENGINEERS



8501 Golden Valley Road, Ste. 300 Minneapolis, MN 55427 Tel: (763) 545-3731 Fax: (763) 525-3289 Email: information@atsr.com www.atsr.com Established 1944 Total in MN Office: 55

Firm Principals

Blayne Parkos, PE, LEED BD+C Nicholas Achina, PE Paul W. Erickson, AIA, NCARB, REFP Dean S. Beeninga, AIA, NCARB, REFP, LEED AP David M. Maroney, AIA, NCARB Mark G. Hayes, AIA Daniel C. Moll, AIA, NCARB

ATS&R is a multi-disciplined architectural/engineering firm providing mechanical and electrical engineering for educational facilities, religious facilities and public buildings. Our specialized designs for energy conservation measures include passive solar, heat recovery systems, thermal storage, variable air volume, displacement ventilation, and energy management systems. Our engineers provide commissioning and recommissioning services as well as ARC flash analysis. We also offer site design, stormwater management, and technical design for video, voice, data and security systems.

Southwest High School Additions & Alterations, Minneapolis, MN; Minnetonka Vantage Program Upgrades, Minnetonka, MN; Kasson-Mantorville Elementary School. Kasson, MN; Southwest Regional Amateur Sports Complex, Marshall, MN: Kasson-Mantorville High School Additions & Alterations, Kasson, MN; Maple Grove & Park Center High School Additions & Alterations, Osseo, MN

BRAUN INTERTEC

BRAUN

11001 Hampshire Avenue South
Minneapolis, MN 55438
Tel: (952) 995-2000
Fax: (952) 995-2020
Email: sflaten@braunintertec.com
www.braunintertec.com
Year Established 1957
Total in MN Office: 569
In Other Offices: 408
Other Offices: North Dakota, Iowa,
Wisconsin, Kansas/Missouri, Texas,
Louisiana
Contact: Steve Flaten, (952) 995-2348

Firm Principals

Jon Carlson, PG Robert Janssen, PE Charles Brenner, PE Steven Flaten, AIA Gregg Jandro, PE Michael Heuer, PE Ray Huber, PE George Kluempke, PE

We're proud to be an employeeowned firm, with over 1,000 employees in nearly 30 offices throughout the central U.S. We offer award-winning services which include engineering, environmental and laboratory testing, geothermal consulting, and materials laboratories for the commercial, industrial, energy, institutional, construction and government sectors. Our interdisciplinary approach means we're there for you during all stages of the project-from planning, to design and construction, to ongoing management and operations.

Vikings Stadium, Minneapolis, MN; Northern Stacks LLC, Fridley, MN; CHS Field, Saint Paul, MN; AC Marriott, Minneapolis, MN; Radisson Red, Minneapolis, MN; Millennium Hotel, Minneapolis, MN; Northrop Auditorium, Minneapolis, MN; Sun Ray Library, Saint Paul, MN

CAIN THOMAS ASSOCIATES, INC.



4215 White Bear Parkway, Ste. 100 Saint Paul, MN 55110 Tel: (651) 426-9549 Fax: (651) 426-5048 Email: jcain@cainthomas.com www.cainthomas.com Established 1983 Total in MN Office: 16 Contact: Jay J. Cain, (651) 287-1120

Firm Principals

Jay J. Cain, PE Scott D. Thomas, PE, LEED AP Ryan D. Stephans, PE

Cost effective, energy conscious, sustainable mechanical and electrical engineering design on a wide variety of project types, including but not limited to healthcare, specialty housing, hospitality, retail, transportation, public works, office education, worship, recreational, data/communications and industrial. Specialties include interior and exterior lighting, geothermal heating/cooling, vehicle specialties, renewable energy, radiant floor, green design, streetscape electrical, commissioning, energy modeling, LEED, sustainable design and heat recovery for a coast to coast market.

Four Winds Casino, South Bend, Indiana; Public Works Facility, Crystal, MN; I-90 Bridge Electrical, Dresbach, MN; MN Veterans Home SNF, Minneapolis, MN; Castle Peak AL and SNF, Eagle Colorado; Mount Saint Benedict Monastery Addition, Crookston, MN; Ho-Chunk Casinos Four Site Expansion, Wisconsin; Trinity Springs AL and IL, The Villages, Florida

CIVIL SITE GROUP

CivilSite

4931 West 35th Street, Ste. 200.
St. Louis Park, MN 55416
Tel: (952) 250-2003
Email: mpavek@civilsitegroup.com
www.CivilSiteGroup.com
Established 2009
Total in MN Office: 7
Contact: Matt Pavek, (763) 213-3944

Firm Principals

Matt Pavek, PE David Knaeble, PE Robert Binder, LA Patrick Sarver, LA

Civil Site Group is an award winning professional consulting firm serving the land development marketplace with services in civil engineering, landscape architecture and municipal land entitlements. Our firm is built on a foundation of providing market leading professional site engineering services with a creative, integrated, solution-oriented approach. Our project successes are most often the direct result of our client centered project management style and our un-paralleled team oriented mindset.

The Linden, 43rd & Upton, Multi-family Residential, Minneapolis, MN; Gabella Apartments, Multi-family Residential, Apple Valley, MN; Spectrum Apartments, Multi-family Residential, Minneapolis, MN; Sanctuary Senior Living, Senior Multi-family, West St Paul, MN; Lucid Brewery/Tap Room, Commercial Redevelopment, Minneapolis, MN; Masonic Homes, Senior Campus Expansion, Bloomington, MN; Episcopal Homes Senior Campus Expansion, St. Paul, MN; Laguna Apartments, Multi-family residential, Minneapolis, MN

CLARK ENGINEERING

CLARK

12755 Highway 55, Ste. 100
Minneapolis, MN 55441
Tel: (763) 545-9196
Fax: (763) 541-0056
Email: info@clark-eng.com
www.clark-eng.com
Established 1938
Total in MN Office: 42
Total In Other Offices: 25
Other Offices: Aberdeen, Sioux Falls, and, Watertown, SD
Contact: Sylvia Murray, (763) 545-9196

Firm Principals

Abi Assadi, PhD, PE
Tim LaBissoniere, PE, LEED AP
Cory Casperson, PE
Vladimir Scheglowski, PE
Douglas Fell, PE
Kevin Goff, PE
Don Weigel, PE
Seth Spychala, PE

Clark Engineering is an experienced multi-disciplinary engineering and technology firm with nearly 80 years of dedication to meeting the needs of government institutions, property developers, consultants, contractors, industrial manufacturers and others worldwide. Clark Engineering provides expertise in project development, project management, architectural, civil and structural engineering, survey, and renewable energy and resource recovery technologies.

Shoshone Rose Casino and Hotel, Landers, WY: Southwest High School Addition, Minneapolis, MN; Seward Montessori School, Minneapolis, MN; Think Bank, Rochester, MN; Central Park Commons Retail Campus, Eagan, MN; West St. Paul Retail, St. Paul, MN; Three Affiliated Tribes Nation Tribal Courts/Law Enforcement Center, ND; New Life Church, Princeton, MN

COMMERCIAL AQUATIC **ENGINEERING**



6500 Carlson Drive Eden Prairie, MN 55346 Tel: (952) 345-6447 Fax: (952) 345-6444 Email: gstoks@caqua.com www.fountaindesigns.com Established 1997 Total in MN Office: 20 Total in Other Office: 1 Other Office: Kansas Contact: Greg Stoks, (952) 345-6447

Firm Principal

Greg Stoks

Commercial Aquatic Engineering (CAE) differs from many water feature companies in that we specialize in providing services to support all aspects of the project. This includes concept development and validation services, feature consultation on functionality and performance, budgeting analysis, construction documentation, installation, and maintenance support services. Our expertise includes structural design. waterproofing, finishes, mechanical operating systems and electrical control systems.

Rainforest Cafes, worldwide; Lakewood Cemetery Renovation, Minneapolis, MN; 20 Washington Renovation, Minneapolis, MN; Hennepin County Government Center. Minneapolis, MN; MN Zoo Sea Otter, Penguin, Grizzly exhibits & Central Plaza, Apple Valley, MN; Bloomington Central Station, Bloomington, MN; New East Commons Park, Minneapolis, MN; Firemans Park, Chaska, MN

COMMISSIONING SOLUTIONS



1400 Van Buren Street Minneapolis, MN 55413 Tel: (877) 380-0581 Email: pnelson@obernel.com www.commissioningsolutions.com Year Established 2007 Total in MN Office: 50 In Other Offices: 85 Other Offices: Duluth, MN; Alexandria, MN; Fargo, ND; Bismarck, ND; Grand Forks, ND; Sioux Falls, SD; Philadelphia, PA Contact: Paul Nelson, (612) 930-6093

Firm Principals

Jeremiah Christenson, PE LEED AP Brent Wavra, PE LEED AP BD+C Chip lacobs, PE Dave Vig. PE CEM Ned Rector, PE LEED AP CEM Andy Bartsch, PE LC

Commissioning Solutions, Inc. delivers success to our client's projects by providing professional, detailed mechanical and electrical commissioning and energy auditing. Since 2007, our clients have received the full attention of professional, knowledgeable commissioning agents through every phase of their projects. With licensed mechanical engineers, electrical engineers, fire protection engineers NEBB certified agents, BCxA certified agents and LEED accredited professionals on staff, Commissioning Solutions, Inc. strives to provide our clients with the highest quality of commissioning and energy auditing services. Our staff comes from a stable and experienced design firm with 24 years of experience in the industry. This type of longevity allows our firm superior strength and ability to provide a quality product to our client's time-and-time again.

MN State Moorhead Campus, Library and Classroom, Moorhead, MN; Williston Recreation Center, Williston, ND; UND Collaborative Energy Complex, Grand Forks, ND: Kennedy Middle School, Fergus Falls, MN; MSUM Lommen Hall, Moorhead, MN; VCSU Rhoades Science Center, Valley City, ND; Sanford Health Thief River Falls, MN; Douglas County Hospital, Alexandria, MN

DUNHAM ASSOCIATES, INC.

DUNHAN

50 South Sixth Street, Suite 1100 Minneapolis, MN 55402 Tel: (612) 465-7550 Fax: (612) 465-7551 Email: info@dunhameng.com www.dunhameng.com Established 1960 Total in MN Offices: 120 Other MN Offices: Duluth & Rochester, MN Contact: Jay Rohkohl, (612) 465-7601

Firm Principals

lay Rohkohl, PE Steven I. Gentilini, PE Dale Holland, PE Todd Grube, PE Matt Jensen, PE Randy Olson, PE Greg Steinmetz, PE Tom Lind, PE

Dunham offers mechanical, electrical, and low voltage consulting engineering services to our clients across the United States. Our major practice areas are commissioning + energy services, commercial, education, healthcare, hospitality, mission critical, and retail. We have teams of specialists in indoor air quality, sustainable design, LEED certification, and CFD modeling, enabling us to help our clients optimize the performance of their building systems.

Mayo Clinic Square Redevelopment, Minneapolis, MN; Fairview Southdale Carl N. Platou Emergency Center, Edina, MN; OATI South Campus Office and Data Center, Bloomington, MN; UMD Chemistry and Advanced Materials Science Building, Duluth, MN; Best Buy Prototype and Store Design, Nationwide; Mayo Clinic, Jacobson OR Fit-out, Rochester, MN; Hennepin County Medical Center Recommissioning, Minneapolis, MN; St. John's University Alcuin Library Renovation, Collegeville, MN

EAPC ARCHITECTS ENGINEERS



539 Bielenberg Drive, Ste. 115 St. Paul, MN 55125 Tel: (763) 225-5050 Fax: (651) 702-2646 Email: Andrew.jordan@eapc.net www.eapc.net Year Established 1967 Total in MN Office: 5 In Other Offices: 137 Other Offices: Bemidji, MN; Fargo, Grand Forks, Bismarck, Minot, Williston, ND; Sioux Falls, SD; Fort Collins, CO Contact: Andrew Jordan, (763) 225-5050

Firm Principals

Alan Dostert, AIA Wayne Dietrich, AIA Jim Tyler, PE Andrew Jordan, AIA Stanley Schimke, CID

EAPC is an award-winning, full service design consulting firm specializing in architecture, engineering, and business excellence services. EAPC was named a "2016 Best Place to Work For" in both categories of architecture and multidiscipline by Zweig Group.

Leafline Labs Patient Care Center, St. Paul, MN; United Hospital, Foley Hybrid Operating Room, St. Paul, MN; Primp Boutique, Mankato, MN; Lakeland City Hall, Lakeland. MN; Mayo Clinic Health System Family Medicine Residency Clinic, Eau Claire, WI; Fire Station #5, Grand Forks, ND; Minnkota Power Cooperative Corporate Office. Grand Forks, ND; University of North Dakota Collaborative Energy Complex, Grand Forks, ND



Paid Advertising

emanuelson-podas

7705 Bush Lake Road Edina, MN 55439 Tel: (952) 930-0050 Fax: (952) 930-0777 Email: cblissett@epinc.com www.epinc.com Established 1968 Total in MN Office: 48 Contact: Christopher Blissett, (952) 930-0050

Firm Principals

Michael A. Webert, PE Matthew W. Fults, PE Scott A. Vander Heiden, PE John K. Nordstrom, PE

Emanuelson-Podas (EP) a mechanical and electrical engineering firm specializing in the design of HVAC, building automation, plumbing, lighting, power, communications, life/safety, power generation and sustainable building systems, and offering full building commissioning services. A values-driven company, EP embraces a work approach rooted in collaboration and partnership. Key industry areas include the corporate, civic, education, fitness, financial, healthcare, hospitality, housing, industrial/manufacturing, municipal, restaurant, retail and worship sectors.

Washington County Public Works, Stillwater, MN; The Wedge and Wedge Table, Minneapolis, MN; Higher Ground, St. Paul, MN; Life Time Fitness, nationwide; Blue Cross Blue Shield Auditorium, Eagan, MN; Machine Shop Event Center, Minneapolis, MN; St. Paul Public Schools, Highland Park Elementary and Horace Mann Elementary, St. Paul, MN; Shakopee Mdewakanton Sioux Community Cultural Center, Shakopee, MN

ENGINEERING DESIGN INITIATIVE

1112 North Fifth Street
Minneapolis, MN 55411
Tel: (612) 343-5965
Fax: (612) 343-5982
Email: jhruby@edilimited.com
www.edilimited.com
Established 2002
Total in MN Office: 23
Contact: Jay Hruby, PE, (612) 343-5965

Firm Principals

Jay Hruby, PE Larry Svitak, PE

EDI provides mechanical engineering, electrical engineering, commissioning, low-voltage design, security design, energy & sustainability, lighting design, building modeling, central utilities.

Hennepin County Walker Library,
Minneapolis, MN: City of Roseville Fire
Station #1, Roseville, MN; St. Paul Schools
District Wide Security Upgrades, St. Paul,
MN: Anoka County Highway Department
Building, Andover, MN: Hennepin County
E911/Dispatch Commissioning, Plymouth,
MN: Beltrami County Jail Security
Electronics Upgrade, Bemidji, MN: 35W
Bridge Remembrance Garden, Minneapolis,
MN: Sherburne County Government Center
Courts, Elk River, MN

ERICKSEN ELLISON AND ASSOCIATES

305 2nd Street NW, Suite 105
New Brighton, MN 55112
Tel: (651) 632-2300
Fax: (651) 632-2397
Email: tpeterson@eeaengineers.com
www.eeaengineers.com
Established 1954
Total in MN Office: 19
Contact: Todd Peterson, (651) 632-2320

Firm Principals

James H. Art, PE Terri A. Fleischhacker Todd A. Peterson, PE William F. Thiesse, PE

EEA is a mechanical/electrical engineering company with extensive experience in design and commissioning of Public Projects: judicial/correctional, libraries, government, and maintenance. Commercial: medical facilities, data centers, and retail. Education: recreation centers, libraries, laboratories, dormitories, and

campus centers; EEA has LEED certified engineers specializing in system modeling and innovative approaches for reducing energy consumption without sacrificing utility or comfort.

Minneapolis Central Library (design/ commissioning), Minneapolis, MN; Grinnell College New Campus Center (design and LEED certification review), Grinnell, IA; MCF Faribault Campus (energy infrastructure/ renovation/new buildings), Faribault, MN; Unisys NAEC Data Center (design/ commissioning), Eagan, MN; Macalester College (athletic/recreation center), St. Paul, MN; Bethel University Commons, Arden Hills, MN; Eli Lilly Corporate Data Center, Indianapolis, IN

ERA (ERICKSEN ROED & ASSOCIATES)



2550 University Avenue West
St. Paul, MN 55114
Tel: (651) 251-7570
Fax: (651) 251-7578
Email: info@eraeng.com
www.eraeng.com
Established: 1984
Total in MN Office: 62
Total in Other Office: 9
Other Office: Eau Claire, WI
Contact: Kent Larson, (651) 414-6166

Firm Principals

Michael A. DeSutter, PE James D. Roed, PE William T. Buller, PE, SE

ERA (Ericksen Roed & Associates) provides full service structural engineering for a broad range of facility types. We pride ourselves on being a team of knowledgeable professionals, working toward the common goal of providing our clients affordable structures that stand the test of time.

OATI New South Campus, Minneapolis, MN; Target Center Renovation, Minneapolis, MN; Higher Ground, St. Paul, MN; HCMC New Medical Building, Minneapolis, MN; St. Paul College Science & Alliance Center, St. Paul, MN; Prospect Park Apartments, Minneapolis, MN; Mayo Clinic Square, Minneapolis, MN; Life Time Fitness Projects, Nationwide

GAUSMAN & MOORE

Gausman &Moore

1700 West Highway 36, Ste. 700
Roseville, MN 55113
Tel: (651) 639-9606
Fax: (651) 639-9618
Email: mleutgeb@gausman.com
www.gausman.com
Established 1935
Total in MN Office: 38
Total in Other Offices: 16
Other Offices: Duluth, MN; Los Angeles, CA
Contact: Mark Leutgeb, (651) 604-3141

Firm Principals

Edward Studniski, PE, LEED AP BD+C James Manning, PE, LEED AP BD+C Dave Blume, PE, LEED AP BD+C Paul Haslach, PE, LEED AP BD+C

A mechanical and electrical consulting engineering firm providing design services for corporate, government, health care, industrial, educational, and retail clients nationwide. Our specialized services include: sustainable design, commissioning, fire protection, forensic studies, arc flash studies, mission critical power systems, and productivity software development. Our staff includes 12 licensed Professional Engineers and 13 LEED Accredited Professionals. We are committed to innovative, timely, and sustainable solutions for your building needs.

MN National Guard Armory, Brooklyn Park, MN; St. Louis County Virginia Government Service Center, Virginia, MN; Fergus Falls Library, Fergus Falls, MN; Petcos, nationwide; St. Luke's Clinic and MRI, Duluth, MN; Los Positas Microgrid, Livermore, CA; Target Corporation; Design Within Reach, nationwide

HALLBERG ENGINEERING, INC.



1750 Commerce Drive
White Bear Lake, MN 55110
Tel: (651) 748-1100
Fax: (651) 748-9370
Email: rlucio@hallbergengineering.com
www.hallbergengineering.com
Year Established 1979
Total in MN Office: 43
In Other Offices: 2
Other Office: Duluth, MN
Contact: Rick Lucio, (651) 748-1100

Firm Principals

Rick Lucio, PE LEED AP - CEO/Principal Paul Fettinger, PE LEED AP - President/ Principal

Established in 1979, Hallberg Engineering, Inc. (HEI) is an experienced full-service (MEP) consulting engineering firm with over 35 years experience. Located in White Bear Lake, MN, HEI specializes in mechanical, electrical and technology systems design, commissioning/recommissioning. building analysis and energy services. HEI is licensed in 49 states and 3 Canadian Provinces offering superior expertise in the education, retail, healthcare, government, corporate. industrial and entertainment/ hospitality sectors. Hallberg is a Small and Minority Owned Business Enterprise (S/MBE) certified with the State of Minnesota.

Byron Primary School, Byron, MN; Bear Cave Intermediate School, Stewartville, MN; Eddie Bauer Stores, nationwide; Urban Outfitters, nationwide; University of St. Thomas Student Center, St. Paul, MN; Essentia Health, Duluth, MN; Coborn's Corporate Office, St. Cloud, MN

HGA ARCHITECTS AND ENGINEERS

420 North 5th Street, Ste. 100
Minneapolis, MN 55401
Tel: (612) 758-4000
Fax: (612) 758-4199
Email: info@hga.com
www.hga.com
Year Established 1953
Total in MN Offices: 276
Total in Other Offices: 493
Other Offices: Rochester, MN; Milwaukee,
WI; Los Angeles, CA; Sacramento, CA; San
Francisco, CA; San Jose, CA; Washington DC
Contact: Jennifer Haferbecker, Dir.
Marketing (612) 758-4000

Firm Principals

Paul Asp, PE, SE LEED AP, Structural Chuck Cappellin, PE, LEED AP, Science, Technology/Manufacturing
Pete Dahl, PhD, LEED AP, CEM, Energy & Sustainability
Leighton Deer, PE, LEED AP, Sustainability
Jeff Harris, PE, LEED AP, Mechanical
Leigh Harrison, PE, LEED AP, Electrical
Kenny Horns, PE, LEED AP, Civil
Joe Wetternach, PE, LEED AP Electrical

HGA offers Civil, Electrical. Mechanical, Structural and Industrial engineering services. HGA also has specialists in commissioning, clean environments, central plants, district energy, renewable energy production, energy master planning, energy saving, utility infrastructure, facility assessments, telecommunications systems, lighting and sustainable design. Our engineering teams work collaboratively with owners, stakeholders, contractors and architects to create comprehensive solutions that meet the needs of each project. With contemporary knowledge and extensive experience we deliver reliable solutions that achieve operational, aesthetic and sustainability goals with responsive. cost-effective service.

Minnesota State Capitol, St. Paul, MN; Walker Art Center Vineland Entry, Minneapolis, MN; Prairie Lakes Hospital Addition, Watertown, SD; Abbott Northwestern Hospital Chilled Water Plant Optimization, Minneapolis, MN; Carleton College Performance Commons, Northfield, MN; Brookview Community Center, Golden Valley, MN; Glacial Ridge Hospital Patient Addition, Glenwood, MN; Emerson Process Management Global HQ/Engineering & Design/Manufacturing, Shakopee, MN

INSPEC, INC.



5801 Duluth Street

Minneapolis, MN 55422
Tel: (763) 546-3434
Fax: (763) 546-8669
Email: fking@inspec.com
www.inspec.com
Year Established 1973
Total in MN Office: 40
In Other Offices: 10
Other Offices: Milwaukee, WI; Chicago, IL
Contact: Fred King, (763) 546-3434

Firm Principals

Mike Remington, PE Gary Patrick, AIA Dwight Benoy, PE

Award winning building envelope and civil engineers/architects and specialty consultants providing services for roofs, walls, windows, pavements, athletic tracks/ fields and waterproofing for the built, being built, and to be built environment. We provide an array of services including assessments, design, review, construction administration, testing, infrared, expert witness, planning and stormwater management. Building Enclosure Commissioning (BECx).

Minnesota State Capitol, St. Paul: State
Office Building, St. Paul; Minnesota
Department of Health & Human Services;
K-12 Facilities, statewide; Hennepin, Anoka,
Wright, Murray Counties; Medtronic,
Thomson Reuters, St. Jude; MNSCU/
University of Minnesota; Minnesota
Department of Corrections

KIMLEY-HORN

Kimley » Horn

2550 University Avenue West, Ste. 238N St. Paul, MN 55114 Tel: (651) 645-4197 Email: tom.lincoln@kimley-horn.com www.kimley-horn.com Established 1967 Total in MN Office: 165 Other Offices: 80 Offices Nationwide Total in Other Offices: 2,800 Contact: Thomas J. Lincoln, (651) 643-0453

Firm Principals

Thomas Lincoln, PE
Will Matzek, PE
Paul Danielson, PE
Brian Smalkoski, PE, AICP, PTP, PTOE
Jon Horn, PE
Jeanne Witzig, AICP
Chris Leverett, PE
Michael Lamb, AICP

Kimley-Horn is a national consulting firm with a growing presence with nearly 120 professionals in its Twin Cities and Rochester offices, serving public and private sector clients across the Midwest. Kimley-Horn's capabilities encompass all phases of a project from early planning and due diligence through construction phase services. The firm effectively integrates planning, transportation planning, traffic engineering, transit design, civil engineering, structural engineering, and environmental services to efficiently meet the needs of our clients.

NordHaus Mixed-Use Project, Minneapolis, MN: HealthPartners Parking Ramp and 8170 Improvements at Bloomington Central Station, Bloomington, MN; Rosedale Mall Expansion, Roseville, MN; 200 Central Avenue Apartments, Minneapolis, MN; Heart of the City Subdistrict Public Spaces, Rochester, MN; Rice Creek Commons (TCAAP), Arden Hills, MN: Regions Hospital Improvements, St. Paul, MN

LARSON ENGINEERING



3524 Labore Road White Bear Lake, MN 55110 Tel: (651) 481-9120 Fax: (651) 481-9201 Email: info@larsonengr.com www.larsonengr.com Established 1979 Total in MN Office: 57 Other Offices: AZ. CO. GA. IA, IL, MO. ND. WI In Other Offices 147.5 Contact: Ann Skeie, (651) 481-9120

Firm Principals

Lee Granquist, SE, PE Kesh Ramdular, PE Henry Voth, SE, PE

Larson Engineering specializes in structural and civil services. This includes new designs and remodels for industrial, commercial, retail, religious and residential facilities: as well as material handling systems and plant expansions. Larson provides site design, pavement maintenance services and athletic facility engineering services. Larson also excels in exterior cladding, curtain and masonry wall renovations and inspections.

YMCA, St. Cloud, MN; Coborns Delivers, St. Cloud, MN; Lino Lakes Fire Station, Lino Lakes, MN; Breck School, Minneapolis, MN

LKPB ENGINEERS, INC.



1935 West County Road B2, Suite 300 St. Paul, MN 55113 Tel: (651) 633-1223 Fax: (651) 633-1355 Email: karla.sampson@lkpb.com www.lkpb.com Year Established 1969 Total in MN Office: 32 In Other Offices: 8 Other Offices: Rochester, MN Contact: Jeff Allman, (507) 424-6840

Firm Principals

John M. Killeen, PE Michael A. Westemeier, PE Allen V. Theisen, PE John Costello, PF Jeffrey G. Allman, PE

LKPB Engineers provides full mechanical and electrical design consulting services, including specialties such as energy modeling, custom lighting, commissioning, and computational fluid dynamics. We give our clients comfortable, healthy buildings that operate efficiently, are easy to maintain, and have reduced long-term costs. LKPB offers superior expertise in the healthcare, education, corporate, commercial, historical, recreational and government environments.

U of MN Health Science Building, Minneapolis, MN; Marquette Plaza GSA 4th & 5th Floor Infill; Buhl Property 50 KW Solar Array Photovoltaics; 5th Street Towers Lobby & Skyway Lighting; Mayo Clinic Alfred Substation Replacements; Park Nicollet Eden Prairie Clinic Commissioning: Gustavus Adolphus Nobel Addition/ Renovation: Maine Heights Apartments. Phase Two

MATTSON MACDONALD YOUNG, INC.



901 North 3rd Street, Ste. 100 Minneapolis, MN 55401 Tel: (612) 827-7825 Fax: (612) 827-0805 Email: Stephanie@mattsonmacdonald.com www.mattsonmacdonald.com Established 1983 Total in MN Office: 16 Contact: Stephanie Young, (612) 827-7825

Firm Principals

David H. Macdonald, PE Stephanie J. Young, PE Joe A. Cain, PE Kenneth J. Green, PE Arlen P. Grant, PE

Mattson Macdonald Young is a fullservice structural engineering firm providing innovative and economical design for a wide range of building types and sizes. With expertise in wood, light gauge, structural steel, concrete and masonry, our engineers collaborate with clients on everything from residential renovations to public sculptures to multi-million dollar high rises. Our history of client satisfaction is evident in our many long-standing

continued next column

relationships with architects, contractors, homeowners and other clients

Higher Ground Building, Minneapolis MN; Hmong Academy Addition, St. Paul, MN; Emanuel Housing, Minneapolis, MN; MnDOT Maintenance Facility, Maple Grove, MN; Pillsbury "A" Mill Design/Development Package, Minneapolis MN; The Chambers Hotel, Minneapolis, MN; Lyndale Green Housing, Minneapolis, MN; "Homes by Architects" Tour, Multiple Residences.

MEP ASSOCIATES, LLC



860 Blue Gentian Road, Ste. 175 Eagan, MN 55412 Tel: (651) 379-9120 Email: leahs@mepassociates.com www.mepassociates.com Year Established 2002 Total in MN Office: 32 In Other Offices: 60 Other Offices: Rochester, MN; Iron Mountain, MI; Norman, OK; Eau Claire, WI; Verona WI Contact: Leah Smith, (612) 910-9471

Firm Principals

Jeff Urlaub, PE, President Mike Luster, PE Larry Nemer, PE Randy Jacobs, PE Leah Smith, Business Development

MEP Associates, LLC is a full service, multi-disciplinary engineering firm focused on the design of sustainable, energy efficient solutions for projects nationwide. Our expertise includes mechanical, electrical, plumbing, fire protection, commissioning, 3D laser scanning and energy modeling services. We specialize in the design of geothermal, photovoltaic, solar, thermal storage, energy recovery, and other renewable technologies. Our core markets are Commercial. Higher Education, K-12, Healthcare, Government, Science and Technology and Campus Utilities.

Tashijan Bee & Pollinator Discovery Center, Chaska, MN: University of MN Athlete's Village, Minneapolis, MN; University of MN Microbiology Research Facility, Minneapolis,

continued next column

MN; The Hormel Institute Expansion, International Center for Research & Technology, Austin, MN; Carlton College Campus Utilities Master Plan and Utility Conversion, Northfield, MN; Ball State University Campus Geothermal Conversion, Muncie, IN: Rochester Fire Station, Rochester, MN; Northpoint Health and Wellness Center Expansion, Minneapolis, MN

MEYER BORGMAN JOHNSON

MEYER BORGMAN JOHNSON

STRUCTURAL DESIGN + ENGINEERING

510 Marguette Avenue South Minneapolis, MN 55402 Tel: (612) 338-0713 Fax: (612) 337-5325 Email: mcurran@mbjeng.com www.mbjeng.com Established 1955 Total in MN Office: 75 In Other Offices: 16 Other Offices: Duluth, MN; Rochester, MN; Green Bay, WI; Phoenix, AZ Contact: Murphy Curran, (612) 604-3623

Firm Principals

Daniel Murphy, PE Jerod Hoffman, PE lason Pederson, PE Kathleen John Matt Thomas, PE, SE Brion Szwed PE Michael Ramerth, PE Alan Hiniker, PE

Thorough, responsive, and creative structural design and engineering for all building types. Providing design solutions that fulfill the architectural vision, while maintaining constructability and value to the owner. Services include design, analysis, feasibility studies, construction documents, field observation, special inspections, forensics, ramp condition surveys, preservation engineering, fabricator services, integrated steel design and detailing, and more.

311 Harvard Tower, Minneapolis, MN; City Center I, Rochester, MN; National Stadium Construction Phase Engineering (Vikings, Braves, Falcons); NAU International Pavilion, Flagstaff, AZ: TRIA Orthopaedic Center East Metro-City Place, Woodbury, MN; UMD Chemical and Material Sciences Building, Duluth, MN: University of Minnesota Tate Hall Renovation, Minneapolis, MN; Westin Hotel, Jackson, MS

MICHAUD COOLEY ERICKSON



333 South 7th Street, Suite 1200 Minneapolis, MN 55402 Tel: (612) 339-4941 Fax: (612) 339-8354 Email: info@michaudcooley.com www.michaudcoolev.com Established 1946 Total in MN Office: 120 Contact: Elizabeth Harriman, (612) 673-6964

Firm Principals

Dean Rafferty, PE, LEED Doug Cooley, PE, LEED AP Kerry Cooley Bruggemann, PE, LEED AP lason Petermann, PE, LEED AP Eric Stelmack, PE, LEED AP Sean Tewalt, PE, LEED AP Greg Trende, PE, LEED AP

Minneapolis-based Michaud Cooley Erickson (MCE) designs and commissions mechanical, electrical, lighting, fire protection, security, technology systems and energy management solutions for buildings of any size and function. MCE's dedicated professionals specialize in engineering-intensive projects and efficient internal systems operations. devising innovative engineering solutions in aviation, corporate, healthcare, science & technology, mission critical, and other markets. Our clients include more than 80% of Minnesota's Fortune 500 companies and all of the state's top ten employers.

Metropolitan Airports Commission, Minneapolis, MN; US Bank, nationwide, USA; General Mills, Minneapolis, MN; Prudential, Plymouth, MN, 3M, Maplewood, MN; Land O'Lakes, Arden Hills, MN; Zeigler CAT, Bloomington, MN; University of Minnesota, Bell Museum

NORTHERN TECHNOLOGIES, LLC (NTI)



6160 Carmen Avenue East Inver Grove Heights, MN 55076 Tel: (651) 389-4191 Fax: (651) 389-4190 Email: RyanB@ntifeo.com www.ntigeo.com Year Established 1996 Total in MN Office: 50 In Other Offices: 50 Other Offices: Fargo, Grand Forks, Bismarck & Minot, ND Contact: Ryan Benson, PE, (651) 389-4181

Firm Principals

Rvan Benson, PE Kyler Bender, PE Nick Berglund, PE Dan Gibson, PE Bret Anderson, PE

Built on a solid foundation. Northern Technologies, LLC (NTI) leads the industry in geotechnical engineering, construction materials testing, and forensic engineering services. NTI provides comprehensive engineering and testing services to architects, engineers, owners, counties, municipalities, corporations, developers, and contractors. NTI offers responsive quality engineering and testing services with cost effective solutions for your project's design construction challenges. Let us demonstrate our commitment to service, value, dependability and technical excellence on your next project.

HCMC Ambulatory Clinic Building, Minneapolis, MN; A-Mill Artist Lofts, Minneapolis, MN; Burnsville-Eagan-Savage School District Facilities Additions. Burnsville, MN; University of Minnesota Athletes Village, Minneapolis, MN: Temple Israel Addition, Minneapolis, MN; RISE at Prospect Park, Minneapolis, MN; Maple Grove Parkway Station, Maple Grove, MN; Presbyterian Homes, Apple Valley, MN

OBERMILLER NELSON **ENGINEERING**



1400 Van Buren Street Minneapolis, MN 55413 Tel: (877) 380-0581 Email: pnelson@obernel.com www.ovbernel.com Year Established 1992 Total in MN Office: 50 In Other Offices: 85 Other Offices: Duluth, MN; Alexandria, MN; Fargo, ND; Bismarck, ND; Grand Forks, ND, Sioux Falls, SD; Philadelphia, PA Contact: Paul Nelson, (612) 930-6093

Firm Principals

Jeremiah Christenson, PE LEED AP Brent Wavra, PE LEED AP BD+C Chip Jacobs, PE Dave Vig. PE CEM Ned Rector, PE LEED AP CEM Andy Bartsch, PE LC

Obermiller Nelson Engineering, Inc. (ONE) delivers success to our clients by providing professional, detailed Mechanical, Electrical and Civil design and coordination for building systems. Since 1992, our clients have received the full attention of professional, knowledgeable engineers through every phase of their project. Our Team Members provide the workforce and experience to accommodate several different project types. With licensed Mechanical Engineers, Electrical Engineers, Civil Engineers, Fire Protection Engineers (FPE). LEED Accredited Professionals and our Commissioning Services Professionals on staff, ONE strives to provide our clients with the highest quality of engineering services.

UND School of Medicine, Grand Forks, ND: Williston Recreation Center, Williston, ND: U of M Crookston Lysaker Wellness Center. Crookston, MN; Concordia Integrated Science, Moorhead, MN; Sanford Moorhead Clinic, Moorhead, MN; Grand Forks Ralph Engelstad Arena, Grand Forks, ND; UND Gorecki Alumni Center, Grand Forks, ND, First LEED Platinum in ND: St Cloud National Hockey Center, St Cloud, MN

SHORT ELLIOTT HENDRICKSON INC. (SEH)



3535 Vadnais Center Drive

St. Paul. MN 55110 Tel: (651) 490-2000 Fax: (888) 908-8166 Email: trustedadvisor@sehinc.com www.sehinc.com Established 1927 Total in MN Office: 474 In Other Offices: 349 Other Offices: Brainerd, Duluth, Grand Rapids, Hutchinson, Mankato, Minnetonka, Rochester, St. Cloud, St. Paul, Virginia, MN; Appleton, Chippewa Falls, Delafield, La Crosse, Madison, Milwaukee, New Richmond, Rice Lake, Sheboygan, WI; Des Moines, Mason City, IA; Denver, Lakewood, Pueblo, CO; Indianapolis, Michigan City, Munster, IN: Bismarck, ND: Omaha, NE: Sioux Falls, SD; Cheyenne, WY Contact: Scott Blank, (651) 490-2000

Firm Principals

Scott Blank, AIA, NCARB (Architecture) Sue Mason, PE (Civil) Ben Wolf, PE (Structural) Tom Honer, PE (Mechanical/Electrical) Miles Jensen, PE (Water) Kirby Van Note, PE (Environmental, Water Resources) Karen Cavett, PE (Watewater) Joel Dresel, PLS (Aviation)

SEH is an employee-owned company of engineers, architects, planners, and scientists serving public and private sector clients. Our work provides valuable solutions in the Buildings, Energy, Environmental, Infrastructure, Transportation, and Water markets and is focused on Building a Better World for All of Us®. We assist municipalities across the country with comprehensive municipal infrastructure services. We work as an extension of a community's staff, we help manage infrastructure assets-both day-today and for the long-term.

Cub Foods Fit Out, Oakdale, MN; Cub Foods New Store, Blaine, MN: Landfill Monitoring, Red Wing, MN; Water Treatment Plant Improv., Savage, MN; Cedar Grove Station, Minneapolis, MN; Lake Street Station, Minneapolis, MN: Prairie Holdings, Worthington, MN; Maverick LLC Trucking & Service, Portage, IN

SUMMIT FIRE CONSULTING

575 Minnehaha Avenue West



St. Paul, MN 55103
Tel: (651) 251-1880
Fax: (651) 251-1879
Email: Cleaver@SummitCoUS.com
www.SummitCoUS.com
Year Established 2003
Total in MN Office: 30
In Other Offices: 2
Other Offices: Fargo, ND; Rochester, MN
Contact: Christopher Leaver, (651) 251-1872

Firm Principals

Christopher Leaver, PE Mark Sornsin, PE Natalie Buckman, CET, CFPS Ryan Bierwerth, PE, CFPS Dean Howard, PE Paul Szafranski, PE

Building and fire codes, alternate designs/code equivalencies, smoke control and management systems, smoke management special inspections, means of egress, fire sprinklers, clean agents, fire alarm, hazardous materials and structural fire protection. Project types include assembly occupancies, commercial, corporate, data center, educational, governmental, healthcare, historic, industrial, lab, process, residential, sports and storage.

US Bank (Vikings) Stadium, Minneapolis, MN: Mall of America, Bloomington, MN: AC Marriot, Minneapolis, MN: 3M Multiple Buildings & Labs, Maplewood, MN: Glacial Lakes Energy, Watertown, SD; Target Center, Minneapolis, MN: VA Medical Center St. Cloud, MN: Minneapolis/St. Paul (MSP) International Airport

TKDA



Architecture Engineering Planning

TKDA

444 Cedar Street, Ste, 1500
St. Paul, MN 55101
Tel: (651) 292-4400
Fax: (651) 292-0083
Email: info@tkda.com
www.tkda.com
Established 1910
Total in MN Offices: 205
Total in Other Offices: 35
Other Offices: Duluth, MN; Chicago, IL;
Los Angeles, CA; Tampa, FL; Seattle, WA
Contact: Tom Stoneburner, (651) 292-4485

Firm Principals

William E. Deitner, PE, SE Tom Stoneburner, PE, LEED AP Rusty Steltz, PE Robert Young, PE Ruth Christensen, PE Brad Jones, PE

Single source, multidisciplinary firm serving clients in the following markets: Corporate + Industrial, Education, Government, and Mining. Services include: Mechanical, Electrical, Structural, and Civil/ Site Engineering; and Architecture, Interiors, and Landscape Architecture. Systems: Structural and Architectural Building Systems; Boiler and Chiller, Process Piping, HVAC, Plumbing, and Fire Protection; Power Distribution, Lighting, Fire Alarm, Security, Instrumentation and Controls; Access Roads, Parking Lots, Utilities, Water Supply, Water and Wastewater Treatment.

Austin Utilities, Central Facility, Austin, MN; Metropolitan Council Environmental Services - Wastewater Treatment Plant Upgrades, Minneapolis-St. Paul Metro Area; Metro Transit - Ongoing Architectural, Mechanical, Electrical, Structural, Civil Projects, Minneapolis, MN: Saint Paul Public Schools - Johnson High School Addition & Renovation, Saint Paul, MN; Dakota County Technical College - Transportation & Emerging Technologies, Rosemount, MN-Xcel Energy - Ongoing Architectural, Mechanical, Electrical, Structural, Civil Projects, MN & WI; 3M Company - Ongoing Architectural, Mechanical, Electrical, Structural, Civil Projects; Nationwide; United Taconite - Ventilation Study; Forbes, MN

VAA. LLC



2300 Berkshire Lane North, Ste. 200
Plymouth, MN 55441
Tel: (763) 559-9100
Fax: (763) 559-0378
Email: info@vaaeng.com
www.vaaeng.com
Established 1978
Total in MN Office: 150
Contact: Mark Mielke, (763) 577-9120

Firm Principals

Jeff Schrock, PE Keith Jacobson, PE Mark Mielke, PE Brian Dalton, PE, SE Andy LaPalme, PE Quin Vincent Kelsey Brown, PE, SE Shawn Shahriar, PE

VAA appreciates architectural design priorities, recognizes other engineering disciplines and listens to owner project objectives. We offer civil and structural engineering services for commercial and industrial buildings, including corporate, medical, retail, hospitality and Government project types. We are experts in seismic design and progressive collapse and frequently use 3D modeling for our design efforts. Nationwide experience with architects, contractors and owners has provided opportunities for us to work with regional construction techniques and materials.

Veterans Affairs Medical Center,
Minneapolis, MN; Disney Springs The
BOATHOUSE, Lake Buena Vista, FL; Maple
Grove Junior High School Gym Expansion.
Maple Grove, MN; Target Corporation,
Nationwide; Camp Ripley Education
Complex Addition, Little Falls, MN; MN
Veterans Home Building 22, Minneapolis,
MN; Roseville Fire Station #1, Roseville, MN;
Harrah's Cherokee Valley River Casino,
Murphy, NC

WENCK



1800 Pioneer Creek Center

Maple Plain, MN 55359
Tel: (763) 472-2232
Fax: (763) 472-4242
Email: vvandertop@wenck.com
www.wenck.com
Year Established 1985
Total in MN Office: 225
In Other Offices: 50
Other Offices: Golden Valley, Woodbury,
Windom, MN; Fargo, Mandan, Dickinson,
ND; Denver, Ft. Collins, Centennial, CO;
Cheyenne, Sheridan, WY
Contact: Vince Vander Top. (763) 479-5124

Firm Principals

Vince Vander Top. PE
Peter Miller, PSS
Bill Brown, PE
Rod Ambrosie, PE
Aaron Benker
Luke Taylor, PE
Chris Meehan, PE, CFM
Will Jensen

Wenck is a single organization that offers many specialized services spanning strategic engineering, environmental and consulting services; construction and project management; and emergency spill response and remediation. The company was founded over 30 years ago in Minneapolis and now features 13 branch offices in six states strategically located around the country. Today, we have 275+ staff dedicated to delivering our publicand private-sector clients outcomes that meet their specific needs and exceed their expectations.

Meridian Behavioral Health: Beauterre & Oakridge; Eddy's Resort; Fridley Civic Complex; City of Rockford Downtown Improvements; Rice Creek Commons (former TCAAP site): Cottageville Park; Rochester Public Utilities Westside Energy Station; Great River School

HDR

Page 28

Location: Minneapolis, Minnesota

Client: HDR

Architect: HDR

Principal-in-charge:

James W. Thomson, AIA

Project lead designer: Mike Rodriguez, AIA

Project manager:

Michael R. Nelson, AIA

Energy modeling: Paulson Clark

Engineering, Inc.

Structural engineer: Paulson Clark

Engineering, Inc.

Mechanical engineer: Paulson Clark

Engineering, Inc.

Electrical engineer: Paulson Clark

Engineering, Inc.

Lighting designer: HDR

Interior designer: HDR

General contractor: Gardner Builders, Inc.

Cabinetwork: Cambria, Commercial

Fixtures Inc.

Flooring systems/materials:

Commercial Interiors Inc.

Window systems: United Glass, Inc.

Millwork: Commercial Fixtures Inc.

Photography: Courtesy of HDR

Architecture, Inc.; ©2016 Corey Gaffer

3M Design Center

Page 32

Location: St. Paul, Minnesota

Client: 3M Design

Creative director: Eric Quint, IDSA

Architect: MSR Design

Principal-in-charge: Josh Stowers, AIA

Project lead designer: Rachelle

Schoessler Lynn

Project manager: Dagmara Larsen

Project architect: Josh Stowers, AIA

Project team: Jason Cain; Eric Frahm; Brent Freeby; Mitch Karr; Ken Martin;

Veronica McCracken

Energy modeling: Arup; Master Mechanical; The Weidt Group

Structural engineer: Meyer Borgman

Johnson (MBJ)

Mechanical engineer: Horowitz

and Master Mechanical

Electrical engineer: Hunt Electric

Lighting designer: Gallina Design LLC

Interior designer: MSR Design

General contractor: Ryan Companies

Landscape architect: Damon Farber

Associates

Photography: 3M Design

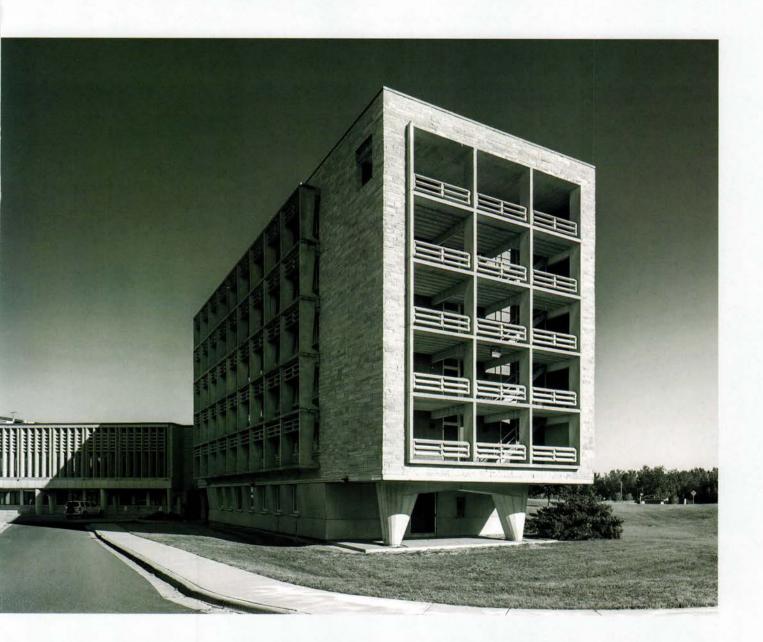


Architecture MN is published bimonthly by AIA Minnesota. The opinions expressed herein are not necessarily those of the Board of Directors or the Editor of Architecture MN. Editorial office: International Market Square, 275 Market Street, Suite 54, Minneapolis, MN 55405. (612) 338-6763. FAX: (612) 338-7981. Web address: architecturemn.com. Note to subscribers: When changing address, please send address label from recent issue and your new address. Allow six weeks for change of address. Subscription rate: \$21 for one year, \$3.95 for single issue. Postmaster: Send address change to Architecture MN at above address. Periodical postage paid at Minneapolis and additional mailing offices. Advertising and Circulation: Architecture MN, above address and phone. Printing: St. Croix Press. Color separations: Southern Graphics Systems. Copyright 2017 by Architecture MN (ISSN 0149-9106).

AIA Contract Docs	18
AIA Minnesota	52
AIA Minnesota Convention	C3
AKF Group	60
All Seasons Fireplace	C2
Architecture MN Awards	2
Borgert Products	8
Ceramica	59
Commercial Aquatic Engineering	56
Dennis J. Linder & Associates	39
Directory of Consulting Engineers	62-69
EAPC Architects Engineers	54
Emanuelson-Podas	C4
Farm Kid Studios	53
Gaffer Photography	54
H Window	57
Chad Holder Photography	38

InsideOut Studios	61
Kolbe Gallery Twin Cities	1
MacDonald & Mack	39
Meyer Borgman Johnson	61
Minnesota Brick & Tile	55
Molin Concrete	4
9.Square	57
Room & Board	26
Schuler Shook	56
Morgan Sheff Photography	3
Ryan Siemers Architectural Filmmaker	5
Stonfab/Stonwerks	14
Synergy Products	10
Versa-Lok	58
Peter VonDeLinde Visuals	16
Wells Concrete	12

St. Paul's Monastery is now home to Tubman Center East. Tubman helps women, children, and families struggling with relationship violence, substance abuse, and mental health.



"Architect Val Michelson's 1965 St. Paul's Monastery in Maplewood, Minnesota, has a number of unique design features," says photographer **Morgan Sheff**. "I'm particularly drawn to the way light and shadow accentuate the bold geometry of the open stairway on the south end of the residence hall. The blend of Kasota stone and exposed structural concrete is perfect."