Changing the World

GLOBAL POSITIONING
Minnesota architecture firms unveil world-class projects in South Korea, China, Dubai, and the Netherlands. PAGE 27

THE RIPPLE EFFECT
Twin Cities architects who hail from distant lands bring their influences to bear on Minnesota—and beyond. PAGE 40

CONUNDRA
Designing for the other 90 percent will require a new model of architectural education and practice. PAGE 19

Minnesota architects from abroad inspire a global idea exchange PAGE 40
2009 AIA MINNESOTA CONVENTION

EVENT #45

“NOTEWORTHY MASONRY DETAILS”

HOW DID THEY DO THAT?

MMPC’s Craig Hinrichs will join noted educators, architects and artists Derham Groves, Garth Rockcastle, and Andrew Leicester in a presentation entitled “Noteworthy Masonry Details - how did they do that?” at the 75th annual AIA Minnesota convention in the Minneapolis Convention Center on Friday November 13, 2009 from 8:30AM-10:00AM. This program event #45 will explore excellence in design concepts related to sustainability with the creative use of unit masonry and has been submitted for approval as an AIA 1.25 HSW Sustainable Design continuing education credit. Also be sure to visit Midwest Masonry Promotion Council booths #343 and #345 in the conventions exhibition hall on Nov 10-12, 2009 to fill out our masonry survey to qualify for $500 in prizes. See our “Noteworthy Details” digital library and share your own files of new and old masonry concepts at the MMPC.info website.

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Architecture Minnesota, 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.

Features

24 Best Practice
By Thomas Fisher, Assoc. AIA

VJAA caps its run of top national and regional design awards with an even higher honor: The American Institute of Architects Minnesota Firm of the Year Award.

27 Global Positioning
Minnesota architects continue to establish themselves on the global stage with projects that lift the soul, blossom, nurture the sick, and electrify a city square.

Wings of Desire: Woljeon Museum of Art
page 28
By Amy Goetzman

Rotten Tails & Lotus Flowers: Radisson Plaza Hotel Tianjin
page 32
By Camille LeFevre

Five-Star Health: Welcare World Health Systems City Hospital
page 34
By Linda Mack

40 The Ripple Effect
By Amy Goetzman

The Minnesota architecture community includes many designers who grew up in other parts of the world. We spent some time with four of them to find out how their far-reaching backgrounds have shaped their design interests and the way they give back to their communities.

44 Minnesota Modernisms
By Thomas Fisher, Assoc. AIA

"Lost amid [the] reductive arguments about modernism, pro or con," writes Thomas Fisher, "has been modernism itself, which, from the perspective of the 21st century, appears to have been much more diverse and much less divergent from what preceded it than either its boosters or its detractors would have us believe.”
Departments & Directories

7 EDITOR'S NOTE

11 POST IT
A recent Threshold post augmented our July/August cabins showcase by highlighting a getaway whose rusty parts have traveled far and wide.

13 CULTURE CRAWL
BY CAMILLE LEFEVRE
In between apple picking and raking leaves, take time out for art and design exhibitions in Rochester and Minneapolis.

15 PLATFORM
BY GLENN GORDON
A black-and-white postcard of a 1940s street scene springs to life in a mural by Scott Murphy.

19 CONUNDRUM
BY THOMAS FISHER, ASSOC. AIA
How might traditional architectural education and practice be altered to bring design to the people around the world who need it most?

21 STUDIO
BY HEATHER BEAL
The office of a top energy-modeling firm is made over in a subtle green.

23 WAYFAERER
BY GEORGE HEINRICH
One of Architecture Minnesota's favorite photographers stands at the Curly Gates in Pátzcuaro, Mexico.

72 PLACE
BY PETE SIEGER, AIA
The sky is truly the limit at one of Minnesota's best-loved modern buildings.

65 DIRECTORY OF GENERAL CONTRACTORS

70 CREDITS

71 ADVERTISING INDEX
Stormwater Management with Environmental Responsibility

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This is our second consecutive November/December issue that showcases overseas projects by Minnesota architects, and each time we cast our eyes to the horizon I think of my favorite far-flung Minnesota design: Clean Hub, a portable, solar-powered infrastructure building conceived by Shelter Architecture to supply clean water and sanitation to populations in need around the world. We highlighted the project in our January/February 2006 issue, back when it existed only on paper and in the minds of its designers. Since then, the concept has taken a few interesting turns.

In early 2007, Shelter Architecture principal John Dwyer, AIA, and colleague Tom Westbrook co-led an undergraduate studio at the University of Minnesota’s College of Design in which students designed and built a Clean Hub for the Renaissance Project in New Orleans, a nonprofit serving the city’s most flood-ravaged neighborhoods. Designed to generate electricity and water for a small urban farm in the Lower Ninth Ward, the unit consisted of a 10-by-20-foot shipping container that expanded when deployed: A bathroom component with composting toilet slid out from one end, a fabric-lined structure angled up from the top to collect rainwater in a large tank, and a rooftop photovoltaic array powered the toilet and outdoor lighting. The project, made possible by in-kind donations from Portable Storage of Minnesota, Prairie Technologies, Discount Steel, and Envirolek, was a semifinalist in an American Express competition that awards ideas “with the potential to change the world.”

The first Clean Hub was an overall success, but it did reveal a limitation: The unit could only sustainably produce enough clean water and electricity for five households. So the designers began to investigate whether a health-care application might have a larger impact. “How do medical services get to places in the world where they’re needed most?” Dwyer asks. “How does a clinic get assembled and used in a post-disaster situation in a refugee camp within a dense slum settlement? The answer, we learned, is that it often happens in a very ad hoc way—or not at all. And as a result many health-care services—from nutrition and immunization on up—can’t be delivered.” Having identified this global need, Shelter designers set about adapting the Clean Hub concept to “portable, sustainable, small-scale health-care delivery,” says Dwyer.

They did so with the help of two key project partners: Kathleen Harder at the U’s Center for Design in Health, and Tom Vandervoort, a public-affairs specialist who connected Dwyer with a handful of universities in Indonesia. Dwyer traveled to the natural-disaster-prone country this past spring to present Clean Hub to the schools and to gauge their interest in developing a prototype or two in tandem with the University of Minnesota. A joint effort is very much in the works. And the feedback the young architect received while there has spurred a new line of inquiry: What if Clean Hub were scaled down to a medical-services backpack?

Shelter is smart to invite universities to run with the Clean Hub idea, because even backpack design requires thorough research, and who better than people such as Kathleen Harder to perform that critical, time-consuming step? If a joint research effort is formalized between the U and one or more of the Indonesian schools, Harder and her overseas counterparts will work to ensure that every inch of the backpack or building is designed to efficiently serve its humanitarian purpose. Shelter has been the guiding force up until now, but it isn’t equipped to fully develop Clean Hub on its own. That it’s taken the idea as far as it has is a major achievement.

Which prompts the question: How can a small firm sustain itself financially while devoting considerable time and energy to what is, at least for now, an unprofitable venture? Thomas Fisher posits an answer in his thought-provoking piece on public-interest design on page 19. Dwyer, for his part, takes a broad view of the question. “There are global health issues that need to be addressed, and so we’re doing stuff like the Clean Hub that has a research component to it,” he says. “But on the other side, in our world—the United States—we’re consuming at an unsustainable rate, and so we look at single-family home design [a Shelter focus] as a means of doing research to figure out how we can help decrease consumption. The two sides are really in dialogue. We’re a conventional practice; we’ve just decided to do a different kind of research.”

Christopher Hudson
hudson@iaa-mn.org
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Author, journalist, and activist HEATHER BEAL has been writing about art, architecture, and sustainability for 20 years. Since 1996, she has collaborated on dozens of sustainable-development projects.

Twin Cities freelance photographer GEORGE HEINRICH (www.heinrichphotography.com) is a longtime contributor to Architecture Minnesota.

A senior designer with Leo A Daly, PHILLIP GLENN KOSKI, AIA, writes and sketches frequently for Architecture Minnesota and pens the weekly architecture review for the Twin Cities regional magazine Metro.

CAMILLE LEFEVRE is a Twin Cities architecture writer, communications strategist, and college professor. She is the author of Charles R. Stinson Architects: Compositions in Nature.

Minneapolis-based LINDA MACK writes on architecture and design for local and national publications.

PETE SIEGER, AIA, is a Minneapolis architect and architectural photographer.

AMY GOETZMAN is a Minneapolis freelance writer. She writes about the arts and culture and other inspiring things that happen in inspiring places.

St. Paul-based writer, sculptor, and photographer GLENN GORDON has written widely on architecture, sculpture, design, and photography for national and local magazines, including the sister magazines Black & White and Color. His furniture has been exhibited in museums and galleries around the country.
Check out Threshold for weekly built-environment news and opinions, informal project features, and tie-ins with Architecture Minnesota content, including Threshold regular John Dwyer’s thoughts on Thomas Fisher’s Conundra article (page 19). Fisher proposes a new architectural discipline that addresses the needs of the billions of people around the world who live in poorly designed physical environments; Dwyer has some experience with this new model of practice.

Mod Minn(ies) | CARGO CABIN Posted by Colin Oglesby, Assoc. AIA

Unlike typical homes, cabins aren’t expected to function to the standards of our everyday demands. In fact, a few little twists and anomalies in a cabin can be welcome distractions that remind us that we need to slow down and enjoy life. To the modernist architect, the cabin can provide the inspiration and freedom to break away from normal conventions. Just this spirit inspired Hive Modular’s Paul Stankey to design an affordable modern cabin for his family when their 1940s camper, on land in Holyoke, Minnesota, no longer kept out the rodents or the rain.

Paul, his wife (who is also an architect), and his brother set out to find a solution that would give both families a comfortable retreat but that was as simple and cost-effective as possible. Their criteria were to sleep two couples, provide basic heat, and be durable for years to come—i.e., no more mice!

Paul happened upon the solution near his home in North Minneapolis: two 20-foot-long used shipping containers, which he purchased for only $800. The shipping containers were eventually positioned nine feet apart on Sonotube footings [on the family’s land in Holyoke]. A shed roof was framed above them, creating a living-room space between. The tops of the shipping containers became sleeping lofts, and the whole space was heated (when necessary) with a metal woodstove placed in the red shipping container. >>CONTINUED ONLINE

In Plain Sight | ISLAND CHAPEL Posted by Brandon StengeI, Assoc. AIA

On a little island in the middle of one of our 10,000 lakes, a little Minnesotan Taj Mahal overlooks the landscape. Originally envisioned as both a shrine to the Holy Mother and as a burial place for its benefactress, Wilhelmine Coolbaugh, the modest Island Chapel boasts one of the grandest vistas at the campus of Northwestern College in Roseville.

The chapel was completed in 1926, and while it may be diminutive in size, Coolbaugh’s vision (and wealth) ensured that it would not be short on quality. Designed by architects Maginnis and Walsh, the chapel is constructed of a granite base, marble floor, double limestone walls, and hardlead roof cresting.

Today, even though the ornate stained glass windows have been removed (along with Coolbaugh’s remains), Island Chapel is a tiny, beautiful relic in a large, beautiful landscape.
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Good Design: Stories from Herman Miller

GOLDSTEIN MUSEUM OF DESIGN UNIVERSITY OF MINNESOTA

November 21–March 8
This touring exhibition, assembled by the Muskegon Museum of Art, looks at that buzzword of the architectural business—collaboration—as it existed during the heyday of the western Michigan–based furniture company Herman Miller, Inc. Drawing from the Herman Miller Consortium, Henry Ford Museum’s comprehensive archive of the company’s innovative processes and products (much of which is rarely on public view), the show examines the collaborative problem-solving processes the company applied to its signature designs.

John R. Berry’s book Herman Miller: The Purpose of Design inspired the exhibition, and Berry is its guest curator. “Design is a noun, a verb, and a problem-solving process.” Berry has said. “It is art with a purpose. Good design requires a clear understanding of the particular need, conditions, constraints, and opportunities. Good design does not happen in a vacuum.” The exhibition gathers drawings, models, prototypes, photographs, oral histories, and original products of 20th- and 21st-century design—by such designers as Gilbert Rohde, Ray and Charles Eames, George Nelson, Alexander Girard, Robert Propst, Steve Frykholm, Bill Stumpf, and Don Chadwick—to demonstrate the collaborative efforts behind the masterpieces of modern design. www.goldstein.che.umn.edu

Museum ROUNDUP

When the snow flies, head indoors for these must-see art and design exhibitions

—Camille LeFevre

Dan Graham: Beyond

WALKER ART CENTER

Through January 31

After describing this Dan Graham retrospective as “pleasantly perturbing,” Peter Schjeldahl, writing in the New Yorker, singled out the artist’s ‘lovely, recondite ‘pavilions’—roomlike sculptures in reflective glass, often designed for outdoor sites” as worthy of particular attention. Graham, who began making art in the 1960s, has engaged disciplines from video and performance art to architecture, visual-arts movements from Minimalism to Conceptualism, and musical movers and shakers from punk rockers to, well, the Shakers. This show, organized by the Museum of Contemporary Art in Los Angeles and the Whitney Museum of American Art in New York, offers a bit of it all, including architectural models and those pavilions (both indoor and out). As Schjeldahl mused about the latter, “Entering one imposes an obscure sense of responsibility on the viewer, stirring the thoughts. OK. now what?” Let’s find out. www.walkerart.org

David Lefkowitz: Other Positioning Systems

ROCHESTER ART CENTER

Through January 10

Years ago, I moderated a panel at the Walker Art Center on art and the environment. David Lefkowitz was one of my panelists because his wit, painterly sophistication, and subject matter won me over. He considered space, and the objects and worlds within it, from unconventional perspectives through his use of traditional media juxtaposed with the detritus of everyday life. For this show, he’s dividing one of the galleries—a proverbial “white cube”—into a maze of smaller galleries to explore the nature of exhibition space, the artifacts that constitute a show, and how seemingly unrelated ideas are actually interconnected. Shifts in scale and perspective—architecturally and within each singular exhibition—will keep viewers roaming the galleries with delight. www.rochesterartcenter.org
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Muralist Scott Murphy brings a black-and-white photograph of a 1940s street scene to life

The first hundred years of photography exists in our collective memory in sepia or black and white, so much so that the sight of photographic images in color from a time before color photography became commonplace throws our notion of what history looked like out of whack: “You mean life back then was lived in color, just like now?” When, for example, you first come across the astonishing glass-plate color photos of pre-revolutionary Russia made for Czar Nicholas II in 1909-1915 (www.loc.gov/exhibits/empire/gorski.html), the people in those photos spring to life across a gulf of time; the color suddenly releases them from imprisonment in amber into a time that feels much closer to our own.

A color photograph from 1909 is one kind of anachronism. Another is the work of the veteran Duluth painter and muralist Scott Murphy, who throws the conventions of pictorial representation of recent periods of history into reverse. Murphy vivifies a black-and-white photographic past by injecting color back into it, as in this mural he recently completed in Superior, Wisconsin. The mural, done in oils, depicts ordinary vernacular buildings, cars, trucks, signage, and people dressed in the fashions of the mid-1940s. It was done from a scene on an old black-and-white postcard, but the color and the quality of the light in the mural are of Murphy’s own invention.

This is one of four murals Murphy’s done to date in the 100-foot-long hallway of Superior’s Blaine Business Center—a former school building repurposed to anchor a new business district. The Superior Glass Company commissioned this mural, and Murphy, in a subtle nod to the company’s history, added a glazier’s truck to the traffic in the picture. The name of the company’s original owner is painted on the side of the truck.

Scott Murphy is one of the last of the artists who, like Pop’s James Rosenquist, have painted billboards for a living. For an example of his work in the Twin Cities, visit his transportation mural on the brick wall of the Major Tire Company, at the northwest corner of Fairview and University in St. Paul. Done under the auspices of Forecast Public Art (forecastpublicart.org), the mural depicts the trolley that used to run along University and anticipates the light rail that soon will. To see more of Murphy’s paintings and murals, go to mnartists.org/Scott_Murphy.

—Glenn Gordon
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Going Public

BY THOMAS FISHER, ASSOC. AIA

The need for a new model of architectural practice that serves impoverished populations around the world—call it public-interest design—has never been more apparent. But how would design education need to change to support this new model? And how would architecture firms go about pursuing it?

Economic downturns, for all the pain they bring, also open up opportunities that we otherwise might not have seen or pursued. Public-interest design offers one such possibility. At a time when construction lending has diminished and clients have postponed or canceled projects, public-interest design stands out as an area in which funding remains strong and the need remains greater than ever.

In many ways, architects have always designed with the public’s interest in mind. The American Institute of Architects’ Code of Ethics, for example, lists Obligations to the Public as one of its six central tenets, while public health, safety, and welfare remain at the heart of professional licensure. What distinguishes public-interest design from architecture lies not in what architects profess but rather in how they practice, where, and for whom.

Conventional architectural practice has traditionally followed a medical model, in which architects develop custom responses to individual client needs much as physicians determine specific treatments for what ails particular patients. That one-on-one relationship of architect-client or physician-patient has served the needs of the wealthiest portion of the human population well and has resulted in an extraordinarily high quality of life for maybe one-sixth of humanity.

But what about the other five-sixths? Some five billion people do not have ready access to professional services and the quality-of-life improvements that come with them, and yet that large percentage of people need such help as much as or perhaps more than the wealthiest few. There is no lack of demand for architectural services; the question is how to provide it.

Medicine answered that question in the 19th century when a group of physicians, along with the landscape architect Frederick Law Olmsted, initiated the public-health profession in the U.S. Public health has since become its own discipline, with an education and practice related to but separate from medicine. And it has prospered, with substantial government and nonprofit funding enabling public-health professionals to provide life-saving services to people in some of the most impoverished parts of the planet.

The time has come for a public-health version of architecture. The public-health community is ready to work with architects, because some of the major health threats humans now face are linked to poorly designed physical environments. Chronic diseases such as obesity and high mortality rates from car accidents arise from Americans’ sedentary, auto-oriented lifestyle, while the problem of possible pandemic viruses such as SARS and avian flu is exacerbated by the overcrowded and unsanitary conditions of slums around the world.

The economic and moral imperative for architects to address this challenge has also become apparent. We cannot include some and exclude others as part of the public whose health, safety, and welfare architects have a license to protect. Nor should architects walk away from the enormous demand for their services across the globe, and the opportunity that that presents to a profession sorely in need of an expanded market. What, then, might the education and practice of public-interest designers look like?

>> continued on page 53
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A cutting-edge energy modeling firm updates and expands its Minnetonka office with the help of a green design studio

Ask anyone familiar with The Weidt Group (www. weidt. com), a pioneering energy-modeling firm with a 33-year commitment to sustainability, what the main color in the firm’s recently remodeled Minnetonka headquarters might be, and he or she might reasonably guess Green with a capital G. Yet the green aspects of the reinvigorated interiors are subtle, with actions speaking louder than hues.

In a way, predesign for the Weidt Group’s new look began in 1991, when the firm was considering building its own facility. John Weidt, AIA, learned that landscape designer and contractor Jerry Bailey was planning to close his Minnetonka business, and the Weidt Group leadership decided that “the sensible, environmental thing to do was to take over existing space rather than disturb another site,” says vice president David Eijadi, FAIA. Bailey retained ownership of the building with his wife, Mary Jo, and continued the wetland restoration project he’d begun on the property. Now, nearly 20 years later, the renovated office’s green features include commanding views of the lush nature preserve Bailey created.

Light and Color As the world outside the Weidt Group office grew greener, demand for the firm’s energy analysis and related software-development services soared. By 2007, the principals wondered whether their office had enough space to accommodate projected growth. They hired Studio 2030 (www. studio2030. com) to complete a space-needs assessment and, subsequently, a design for updating and expanding the interiors.

The office had been white and gray for many years. Although this accentuated the effectiveness of daylighting, a fundamental design strategy upon which the firm built its business, the time had come to add color. “The Weidt Group’s corporate colors are black with some orange,” says Studio 2030’s Rachelle Schoessler Lynn. “Figuring out how to integrate such strong, saturated colors sparked lively discussions about light reflectivity and absorption.”

The final design uses black and orange sparingly—black where it doesn’t absorb too much daylight and orange to provide glimpses of bold color against the muted grays and gold far more prevalent in the palette. “We used natural colors throughout to relate the interiors to the exterior landscape, and we lowered the partition walls to make sure everyone had great views,” Schoessler Lynn explains.

People Power Remodeling also enabled the firm to more fully address sustainability concerns such as carbon emissions, embodied energy, and latent energy drain. Several key decisions improved operational efficiency without compromising comfort.

For example, expanding and updating videoconferencing capabilities has reduced the time, energy, and emissions associated with travel. Using a modular system in the main studio made it possible to replace 9 built-in workstations with 12 that are flexible enough to facilitate collaboration yet provide some privacy for individuals. “We decided to provide task lights only for employees who requested them,” says Schoessler Lynn. “An employee who spends most of the workday looking at a computer screen is less likely to need task lighting than one who works with printed documents.”

Ironically, the Weidt Group isn’t sure that it will experience the substantial energy savings it strives to achieve for its clients. “We’ve realized we are better at turning off lights than are sensors,” says Eijadi. “Our employees are committed to sustainability, so they constantly adapt to varying conditions as if they had infinitely adjustable control dials. Automated systems don’t do this. They require human input to change, so adaptation is incremental and periodic—not continuous and immediate.”

—Heather Beal
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Time Stops in Pátzcuaro, Mexico

Mexico's vibrant markets and festivals and historic architecture have captured my heart for more than 30 years. As a photographer, I have a special interest in the town of Pátzcuaro. It's a gem nestled in the Sierra Madre with two magnificent plazas, each with an impressive colonial church dating from the 16th century. Red-tiled adobe buildings line the narrow cobblestone streets.

The town sits on Lago Pátzcuaro, one of the world's highest lakes. Colorful artisan villages, each with its own craft specialty, dot the lake. Strolling through the market with coffee in one hand and a camera in the other, I stumbled upon yet another turn-of-the-century church, pictured here. While not as ornate as the grand churches on the plazas, it still shone brilliantly in the early morning light.

—Architectural photographer George Heinrich
Best Practice

In the wake of its several national design awards for projects as near as St. John's University in Collegeville, Minnesota, and as far away as Beirut, Lebanon, VJAA is awarded the American Institute of Architects Minnesota Firm of the Year Award

By Thomas Fisher, Assoc. AIA
What does it take to win a firm award? For VJAA—the Minneapolis architecture firm that has won the 2009 AIA Minnesota Firm of the Year Award—it comes down to one word: valence. Valence refers to an ability to connect; the valence of an atom, for example, refers to the number of bonds it can form with other atoms in a chemical formula.

VJAA forms the same strong bonds with its clients; I experienced this myself as a client in the Rapson Hall renovation and addition at the University of Minnesota. The firm served as associate architect on our project, and Steve Philippi, a longtime VJAA employee who led the construction administration, attended to every issue we raised and came up with creative solutions to every problem that cropped up, however small. VJAA was design focused, detail oriented, and always available when we had a question or concern.

That ability to connect—that valence—is expressed in VJAA’s architecture as well. While well known for its elegantly modern buildings, the firm has an amazing ability to connect to and reinterpret ideas from the past. At the Charles Hostler Student Center at the American University of Beirut (see the November/December 2008 and March/April 2009 issues) and at the Lavin-Bernick Center for University Life at Tulane (March/April 2008), the firm has revived some of the traditional ways that cultures have created comfort in and around buildings through the inventive use of shading, ventilation, daylight, and convection cooling.

VJAA also makes connections that go far beyond aesthetics. “We’re interested in amplifying the embodied intelligence in things,” says Yoos, trying to see, adds James, “what things are trying to reveal about life.” Such sentiments emerge in projects like those VJAA has designed for St. John’s Abbey in Collegeville, Minnesota.

St. John’s aligns with the self-effacing frugality and contemplative existence that characterize monastic life.

Finally, VJAA reminds us of the profound importance of doing research, understanding context, and building well. Such values have gotten lost in all of the attention the media has given to one-liner buildings that look like spaceships or set designs meant to last only a few seasons. VJAA instead emphasizes the “evaluation of the context, derived through research,” writes James and Yoos, which “open the design process to multiple trajectories from the broadest urban scale to the intimate scale of materials.”

CHARLES HOSTLER STUDENT CENTER
Beirut, Lebanon

In their book VJAA (Princeton Architectural Press, 2007), firm principals Vincent James, FAIA, and Jennifer Yoos, AIA, write about their “polyvalent approach” to architecture: “We want our work to be diverse, adaptable, and capable of addressing a broad range of issues.” That approach extends beyond their buildings to the chemistry they create with clients, colleagues, and coworkers, forming bonds that last a very long time.

They achieve that, in part, through the participatory process in their office. “We’re very egalitarian,” says James. “We elicit comments about a project from everyone in the office to get their fresh ideas.” That involvement is one reason “people like working here,” adds fellow principal Nathan Knutson, AIA. “They all contribute, and no one is limited to their role in the firm.” Another advantage of this iterative process, says Yoos, is that “it drives out any preconceptions we might have and helps us see what a project is really about.”

That openness and inclusiveness has resulted in a lot of award-winning work by a very loyal staff. While the offices of equally renowned architects often have a revolving door of employees, VJAA has just the opposite: a number of long-term staff members. When the firm won two National AIA design awards last year, it flew many employees to the recognition event, in keeping with the familial feel of the office.

LAVIN-BERNICK CENTER FOR UNIVERSITY LIFE
New Orleans, Louisiana

One can see the power of that process in the two boathouses the firm designed for different contexts, producing very different solutions to similar programs. The boathouse for the Minneapolis Rowing Club evokes the motion of oars in water, with a doubly curved roof that looks as light as the sculls inside, while the facility for the University of Wisconsin’s rowing team has curved metal-clad clerestories that daylight the upper floor and recall the arched back of rowers pulling in unison.

“It is our conviction,” write James and Yoos, “that the best architecture being produced today does not spring from imagery, but arises from a process of continuous inquiry fully engaged in the essential conditions of a project.” VJAA has backed up those words with action. Fully engaged in an inquiry into each project, it has proven, with 15 national design awards in just the past 12 years, that its process of making connections and forming bonds among disparate people, places, and ideas produces the best architecture, bar none.

VJAA principals Vincent James, FAIA, Jennifer Yoos, AIA, and Nathan Knutson, AIA (left to right in inset), lead a staff that includes many longtime employees. Left to right in larger photo: Eric West, AIA, Nate Steuerwald, Assoc. AIA, Megan Madland, Nat Madison, James Moore, AIA, Emma Hukett, Dzenita Hadziomerovic, Jay Lane, AIA, Karen Lu, AIA, Carl Gauley, Steven Philippi, Brent Holdman, AIA, Doug Gerlach, AIA, and Paul Veggie, AIA.
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GLOBAL POSITIONING

This past spring, Minneapolis mayor R.T. Rybak traveled to the city of Harbin in northeast China to meet with his counterpart there. Harbin is Minneapolis’ sister city, and the family resemblance is easy to see: The 10th-largest city in China boasts a riverfront, an array of historic buildings and structures, and a climate similar to ours. It’s also experiencing significant auto-industry-fueled growth and is in need of a comprehensive urban vision to manage that growth. Thus the two mayors are organizing a design charrette for which Minnesota architecture firms with the experience or capacity to work overseas—several are already engaged in China—will travel to Harbin to generate ideas for a new city plan. Opportunities such as this, as well as the four compelling projects profiled in this section, further illustrate the robust global demand for the design talent and vision flourishing right here in Minnesota.

—CHRISTOPHER HUDSON
Wings of Desire

A New South Korean Art Museum by PDI World Group Lifts The Imagination

Nature figures prominently in Woljeon's work, so visitors are encouraged to explore the gardens and green spaces surrounding the museum. The indoor/outdoor boundary blurs as the scenery that inspired the paintings comes to life beyond the walls.
By Amy Goetzman

Let’s call the airspace between Korea and Minneapolis Stephan Huh’s third home. The architect was born in Korea and lives in Minnesota, and, as chairman and CEO of PDI World Group, he’s reshaped the horizon of both lands. He spends a fair amount of time crossing the skies between the two. Thus, Huh often has flight on his mind—usually that of planes, but sometimes that of cranes.

You can see it in his design for the Woljeon Museum of Art in Icheon, South Korea. The building looks ready to take flight, or perhaps it has just landed. The roofline of the museum’s glass atrium curves expressively, almost yearningly skyward. The sweeping outdoor plaza suggests a crane’s wing. Visitors descend into a low, circular promenade from which they can gaze up at the building’s cool, azure-colored glass walls, or turn around to see the breathtaking natural setting of mountain streams flowing through lush green woods. The verdant backdrop is a striking contrast to the pure white Korean-granite plaza and building.

“The crane is a very important symbol in Korea, and is very strongly associated with the art of Woljeon WooSung Jang,” says Huh. The South Korean government named Woljeon a “living treasure,” and the City of Icheon commissioned the museum to honor the artist in his birthplace. Its galleries display more than
The white crane, an important symbol in Korean culture and in Woljeon’s art, became a guiding form in the museum's design. Sweeping rooflines suggest wings, cascading layers of stairs suggest a spread of feathers, and pure white stone mirrors the crane’s white-on-green presence in nature.

>> continued on page 56
Boardwalks radiate out from the circular promenade.

THE SWEEPING OUTDOOR PLAZA SUGGESTS A CRANE'S WING. VISITORS DESCEND INTO A LOW, CIRCULAR PROMENADE FROM WHICH THEY CAN GAZE UP AT THE BUILDING'S COOL, AZURE-COLORED GLASS WALLS.
Rotten Tails & Lotus Flowers

In Tianjin, China, RSP Architects creates an unforgettable hotel tower out of the shell of an abandoned construction project.

Most of the hotel's amenities were programmed into the base, including a fitness center with spa, pool, steam room, sauna, and massage; business rooms, meeting rooms, and ballrooms; and a selection of restaurants and bars.

To emphasize the top of the tower as an *urban focal point*, RSP capped the hotel with square footage for a rooftop garden and glass-clad executive club that, when completed, will crown the tower with lantern-like light at night.

The exterior of gray granite, brushed-aluminum panels, and tempered laminated glass shoots up 24 stories before opening out into a spray of glass petals—a lotus-flower symbol of reawakening.
In the 1990s, a bursting-bubble economy and a corruption purge left many skyscrapers in China’s major cities unfinished. As these abandoned structures began to age and decay, contributing to a growing sense of urban blight, the Chinese named them “rotten-tail buildings.” The nomenclature was visceral but effective. A decade later, after economies and fortunes shifted, cities began reclaiming and remaking such structures. One of these concrete rotten tails was transformed into nothing less than an iridescent glass lotus flower—a symbol of reawakening.

In 2004, Tianjin Urban Construction Group hired RSP Architects to design a five-star hotel in Tianjin out of the remains of a three-star rotten tail. China’s third-largest city was in need of amenity-rich business hotels for a new influx of international and domestic travelers. An industrial city prone to sandstorms off the Gobi Desert, Tianjin is one of China’s four centrally administered municipalities and boasts historical relics, notable architecture, and the remnants of late-19th- and early-20th-century foreign concessions.

RSP started with the existing 24-story concrete tower—no windows, and the elevators had to be discarded—and the concrete-frame base. And clients who wanted something “heavy and neoclassical for this new hotel,” recalls RSP project manager Marc Partridge, AIA. “We had long debates with them about the meaning of ‘classical design,’ and asked them to seriously consider whether that’s what Tianjin really needed in the 21st century.”

Looking for a “metaphorical approach to the design,” Partridge continues, RSP created three different schemes for the hotel tower. The client selected “the most delicate of all the options, the lotus flower.” The exterior of gray granite, brushed-aluminum panels, and tempered laminated glass shoots up 24 stories before opening out into a spray of glass petals.

Bottom left: RSP architect Derek McCallum stands in the empty shell, looking skyward for inspiration. Bottom right: RSP redesigned the building’s base as a dramatic glass-clad rotunda bracketed by canted canopies on either side.
Imagine that the entire Fairview/Southdale area in Edina, Minnesota, is devoted solely to medical clinics, research facilities, and hospitals, and that the hospitals offer VIP suites, a beauty salon, a spa, and a swimming pool. This scenario may sound like some health-care architect’s illusion, but it is reality in Dubai, the largest of the seven United Arab Emirates. There, where the temperature reaches 125 and the humidity 100 percent, an 82-acre development of medical facilities dubbed Dubai Healthcare City (DHCC) is taking form, and Minnesota’s health-care-architecture giant, Ellerbe Becket, is playing a significant role in its design.

The Ellerbe Becket–designed 210-bed Welcare World Health Systems City Hospital, which opened there a year ago, is DHCC’s first multidisciplinary hospital. Ellerbe Becket is also designing the development’s 400-bed University Hospital, which will be the centerpiece of the Mohammed bin Rashid Al Maktoum Academic Medical Center when it opens in 2012.

Ellerbe Becket’s involvement in the United Arab Emirates began in the late 1990s with the design of district cooling plants. Known worldwide for its work with Mayo Clinic and in the Middle East for Kingdom Centre—Riyadh, Saudi Arabia’s first skyscraper—the firm was asked to critique the Healthcare City master plan.

Dubai, like Qatar and Korea, is taking health-care development seriously. Seven years ago His Highness Sheikh Mohammed bin Rashid Al Maktoum envisioned Dubai Healthcare City as a way to attract Western know-how and credibility to medical services for Dubai residents—80 percent of whom are expatriates—and medical tourists. Mayo Clinic, for instance, acted as the cardiology consultant for the University Hospital, which will be linked to the Harvard Medical School Dubai Center. Partners Harvard Medical International (PHMI) served as the strategic health-care planning and program developer for DHCC and worked closely with Ellerbe Becket as the “surrogate users” for the University Hospital.

The scheme broke the area into many small parcels, says Ellerbe Becket’s Jeff Frush, AIA, who directed the City Hospital project. It also reflected the aim to combine medical care and resort amenities. “The master plan is a combination of Venice and Las Vegas, a combination of tourist attraction and healthcare city,” says Frush.
City Hospital’s award-winning interior could pass for that of a high-end hotel. Twelve suites—six VIP, five presidential, and one royal—occupy a separate concierge floor of the hospital. The enormous royal suite (above) features two separate seating areas, two pantries, and an outdoor terrace.

The main atrium (below) is the knuckle between the hospital wing and the outpatient clinic. Blue—an atypical color for a desert context—was used to cool the visual atmosphere.
In another nod to Western image, Healthcare City's design guidelines call for a Mediterranean look—red- and ochre-colored stucco, arched windows, and balconies. When Welcare World Health Systems CEO Sunny Varkey hired Ellerbe Becket to design a midsize, midrange hospital, "we stretched the guidelines," says planning and design principal John Waugh, AIA. The square clinic wing and the curved hospital block are sheathed in the required rust- and orange-colored stucco, with clay-tile roofing at the vertical circulation towers, but the windows are squarish and the roofs are flat. Fabric canopies over the patient entries and the outdoor dining plaza, and grillwork sunshades on the windows lend an Arabic touch.

Ellerbe's plan makes efficient use of the tight eight-acre site. The two-story curved entry opens to a glassy atrium worthy of a high-end hotel.

"We used blue to create a lovely cool feeling inside," says Frush, who notes that the hospital's interior design, led by Ellerbe Becket's Jim Lewison, won a 2009 Hospital Build Middle East Award. To the left is the four-story outpatient clinic, where exam rooms and doctors' offices were designed for

The heated indoor swimming pool is part of the top-floor spa, which includes an exercise room, steam room, sauna, and beauty services. It was designed to serve the VIP suites, but it's available to other hospital patients and their families.

Even the reception desk (above, left) looks hotel-like.

The larger dining area in the royal suite (above, right) offers plenty of room for the patient's entourage.

WELCARE WORLD HEALTH SYSTEMS CITY HOSPITAL

Architect:
Ellerbe Becket
www.ellerbebecket.com

Principal-in-charge:
Rick Lincicome, AIA

Project director:
Jeff Frush, AIA

Project lead designer:
John Waugh, AIA

Project lead interior designer:
Jim Lewison

Landscape architect:
Jean Claude Melone

General contractor:
Al Ahmadiah Aktor

Construction manager:
Cansult Maunsell–AECOM

Size:
196,000 square feet

Completion date:
November 2008

Photographer:
Mohamed Sowji

Location:
Dubai, United Arab Emirates

Client:
Welcare World Health Systems

>> continued on page 56
Fabric canopies over the patient entries and the outdoor dining plaza, and grillwork sunshades on the windows lend an Arabic touch.
THE LIGHT IN THE MIDDLE OF THE TUNNEL

LEAD, Inc. partners with a German designer to create an otherworldly experience with fabric and light.

BY PHILLIP GLENN KOSKI, AIA

Still need proof that globalization is creating a smaller and more culturally interconnected planet? Consider a single project by Ali Heshmati, AIA. An Iranian who emigrated to Minnesota in the 1980s to study architecture, Heshmati, principal and founder of LEAD, Inc., opens an office in Husness, Norway, where he designs a temporary installation to be located in the Dutch city of Eindhoven, collaborates with a German architect, gives the project a Spanish name, builds it with the help of a half-dozen Russian architecture students, and wins a 2009 National AIA Small Projects Award, which he receives in San Francisco.

The project, titled Dar Luz (“to give light” in Spanish), was the result of an invitation to participate in GLOW 2008, the third annual Forum of Light in Art and Architecture sponsored by civic boosters in Eindhoven, birthplace of the design-savvy electronics giant Philips. Staged in a prominent public square in the center of town; the installation was a strange contraption. From the side, at night, it looked like a colossal twisted caterpillar illuminated by shifting hues of phosphorescent light. But Dar Luz was not simply an object to be viewed; the design team, which included light-structure expert Lars Meess Olsohn, had set out to create an interactive interior experience. "We took opposition to the notion of public art as simply installation of art in a public..."
place," Heshmati explains. "We took the role of 'public' in the creation of public art verbatim, engaging the public actively."

Designed as a catwalk enveloped by a spandex skin stapled to a rotating sequence of wood frames, this high-minded funhouse invited nighttime passersby to enter one end or the other, with only a hint of what they would experience inside. And then came the real magic: Each step and lateral movement through the tunnel tripped sensors that altered the pitch of piped-in ambient hum as well as the color of the fabric skin, washed in the light of energy-efficient, RGB LED fixtures. The adventure was further heightened by a series of "laser walls" that drew luminescent green contour lines around the visitors as they passed through.

While the project pushed a lot of gee-whiz technological buttons to achieve out-of-this-world results, the design intent was, at its core, simply to pique curiosity and inject new energy into an ordinary walk through a public square. "We envisioned Dar Luz as an extended threshold through which people could have a unique experience of light and sound in an urban room," says Heshmati. And for 10 days in Holland, they surely did. AMN
The Ripple Effect

Four Minnesota designers left the land of their birth to start a new life in the Midwest. Their experiences show in their work—and in the ways they give back to the community.

By Amy Goetzman

Meaningful design comes from an understanding of culture, beauty, emotional impact, and practical use, says Chong, whose work has been influenced by Asian, European, and African architecture. Watercolor continues to be an important medium in Chong’s creative work.

At the end of the Vietnam War, as the U.S. military packed up and flew away, dozens of Vietnamese civilians ran for the helicopters, frantically grabbing for machines that were already shouldering into the air. The desperate, split-second act would change everything for those who got onboard. The ripple effect of their run would change their new homeland and alter their families’ futures.

Nearly every aspect of life in Minnesota has been shaped by people who leapt into the air or onto boats to try again, somewhere else. Our architecture community is part of this great transformation, and visionaries from afar have made our streets and skyline worldly and eclectic. Today the ripples travel outward as foreign-born architects carry Midwestern building concepts back out into the world.

Four Twin Cities designers embody this cross-continental idea exchange. Kar-Keat Chong, Assoc. AIA, carried Malaysia’s inspiring atmospheres to the Midwest. Francis Bulbulian, FAIA, grew up in Tehran, Iran, but a Frank Lloyd Wright house in Minnesota redrew his map. Uruguayan architect Marcelo Valdes, AIA, teaches green design to Minnesotans. The aunt of Tu-Anh Bui, Assoc. AIA, caught a helicopter in Vietnam, changing history for her family, and changing architecture in Minnesota through Bui’s efforts to repay good fortune through good works. This is Minnesota architecture now.

The editor wishes to thank landscape historian and planner and Architecture Minnesota contributor Frank Edgerton Martin for the idea for this article.
Global Influence

Kar-Keat Chong could not stop drawing. So, when he was 10, his mother signed him up for art lessons. It wasn't enough. "In my free time, my friends and I would sit on the sidewalk all day and sketch and paint watercolor street scenes," he says.

In Georgetown, the capital of Penang, Malaysia, the young artist worked amid architectural grandeur. "Malaysia is a British colony, and Georgetown's buildings are a mix of British architecture, classical European design, with Indian, Malaysian, and Chinese influence, and Buddhist temples. I was exposed to all these ideas at once growing up," says Chong. "In one temple, I'd stay for hours, not really painting, just watching people react to the place, observing weather patterns, light, experiencing the space in different conditions."

Chong came to the Midwest to study architecture in 1995 and later joined Perkins+Will, where his contemplation of interior spaces took flight. During this time, he met his wife-to-be, Yen Chee, an interior designer from Duluth—whose parents, it turned out, were from Georgetown. Her father, Cheng-Khee Chee, a renowned watercolor artist, knew Chong's Penang art teacher; their grandfathers had associated; and at their wedding their parents discovered numerous connections.

By marrying a Minnesotan, the young immigrant found himself drawn more tightly to his homeland.

He returned to graduate school at the University of Minnesota and won the Minnesota Architectural Foundation's Thomas F. Ellerbe Scholarship. In 2008, when his advisor invited him to join "really bare bones," says Chong. The student volunteers, versed in modern survey technology, watched Malawian builders point to a site, throw down four sticks, and start building.

Malawi, the fourth-poorest country in the world, had an indelible impact on Chong. He has involved coworkers at his current employer, HGA Architects and Engineers, in ongoing volunteer projects there, and he credits Africa with deepening his understanding of design. "I've seen what you can do here, with limitless funds. I've seen Europe and Asia, ancient buildings. But Africa showed me we really don't need so much. Ultimately, I'm interested in designing places that are unique to their site, with great attention to the quality of the spaces—but humble."
Profound Encounter

There was supposed to have been a summer job for Francis Bulbulian at the Green Giant cannery in Le Sueur, Minnesota. The young Armenian had been studying civil engineering in Missouri, and his Minnesota uncle, who had escaped the 1917 Armenian massacres in Turkey to become an innovative facial reconstruction specialist at the Mayo Clinic, told him to come north for summer work. But the cannery job didn’t materialize. What happened instead is better.

Bulbulian arrived at his uncle’s house in Rochester, Minnesota, and looked around at the flowing, unusual space. Built of cypress wood and cement, and sited to take advantage of natural breezes and morning light, it was unlike any house Bulbulian had ever seen in the U.S., or in Tehran, where he’d grown up. “Who built this house?” he asked. “It’s not who built it—it’s who designed it,” said Dr. Arthur Bulbulian, The designer was Frank Lloyd Wright.

Francis Bulbulian was captivated by the siting of his uncle’s Frank Lloyd Wright-designed home.

“My uncle gave Wright lots of trouble. They went back and forth on numerous design options for the house. But he fell in love with Wright and with the design. It’s a wonderful siting for the house on the edge of a knoll, with sweeping views of Rochester—that’s what architecture is, you know, how to set the building and intelligently design it.”

As a result, Bulbulian immediately transferred to architecture school in Minnesota and later to MIT, where Wright’s influence was joined by that of Le Corbusier, Louis Kahn, Eduardo Catalano, R. Buckminster Fuller, and Minnesota’s own Ralph Rapson and Leonard Parker. He reexamined the designs he’d experienced growing up. “I appreciate the poetry, the love of detail, and the subtle coloring of Persian architecture. Corbu said that light illuminates shapes, and shapes have emotional effect, and Tehran is a light-filled city,” he says. Now, as an architect with PDI World Group, he shines light into designs for projects around the world. “I really understand the emotional effects of light and how it hits surfaces. That’s what I inherited.”

Lasting Impressions

Tu-Anh Bui’s grandfather, a Vietnamese architect, had 10 children, and not one of them was interested in following in his footsteps. But today, in Minnesota, his granddaughter designs homes, and in her mind’s eye is a house her grandfather built. “He designed a home to fit all his children and their families,” she says. Bui lived there as a child, and relatives still live there. “In Vietnam, As a young girl in Vietnam, Bui lived with her extended family in a large, multi-unit home her architect grandfather had designed.
it takes years to buy a home, and then it's permanent—it defines a family.

Much of the family is here now. Her aunt escaped Vietnam with the American troops and petitioned to bring the rest of her family to Minnesota. "My family didn't believe in the war, and they didn't want to stay in a country with a communist regime. My parents believed we'd have a better life here," says Bui, who was 11 when her family immigrated. After settling into this new land, Bui entered the University of Minnesota's architecture program, obtaining a master's degree and a job with LHB, where she focuses on sustainable design. "I work mostly on affordable townhome projects. Though we never get to meet the tenants, we always try to design long-lasting buildings," she says.

"Living in different places expands your vision. If you stay in one place, you understand what happens—not what could happen."

Marcelo Valdes, AIA

She enjoys adventures she would never have had in Vietnam: She plays tennis, snowboards, goes whitewater rafting, and travels. Ever cognizant of her good fortune, she volunteers extensively with the Minnesota chapter of Architecture for Humanity and AIA Minnesota's Housing Advocacy Committee. "Affordable housing is where my heart and soul is. I strongly believe in giving back to the community in terms of fair housing."

She's been back to Vietnam three times. "Once I went back just to document my grandfather's work," she says. "We looked through his drawings at the office, trying to find his projects, running from one temple to the next."

Someday she'll build her own home, and it will echo her grandfather's influence. "I would love to design a home to pass down to my kids."

Sustainable Design

Marcelo Valdes encouraged his wife to accept the one-year job transfer to Minnesota that 3M offered her. It would be an adventure, and his work as an architect in Uruguay could wait. Eleven years later, they've settled here, and Valdes is on a mission to communicate a message about green design.

"People want green buildings, and focus on double-flush toilets, special faucets—but none of those things challenge or stir our design capacity," he says. "Good architecture should be inherently green by using space wisely"—a quality, he notes, that can be difficult to communicate because it isn't measurable.

Valdes honed his vision in South America and in Holland, where he spent a year studying low-
A closer look at the prevailing architectural mode of the mid-20th century in Minnesota reveals a surprisingly wide range of architectural expression.

Modern architecture in the 20th century has often been misunderstood, in part because of what those who advocated for it and those who argued against it have said about it. The proponents of modern architecture have tended to downplay internal differences or conflicts in order to present a coherent position and unified vision of it, in contrast to the eclectic, historically oriented architecture that preceded it in the 19th and early 20th centuries. And the critics of modern architecture have tended to simplify and satirize it in order to promote a more eclectic and historically oriented postmodernism. Lost amid these reductive arguments about modernism, pro or con, has been modernism itself, which, from the perspective of the 21st century, appears to have been much more diverse and much less divergent from what preceded it than either its boosters or its detractors would have us believe.
Few people think of Minnesota as a mainstay of modern architecture, but what it may lack in quantity it makes up in quality.

Another modernist anomaly with important work in Minnesota is VICTOR GRUEN, the Los Angeles-based architect who designed the world’s first enclosed, air-conditioned shopping mall, Edina’s SOUTHDALE (below), in 1954, and who also did a redevelopment plan for downtown St. Paul, among other projects. Gruen’s work belies the idea that modern architecture despised the historic city or traditional urbanism. While often associated with urban renewal, his buildings and planning ideas reveal a sincere, if sometimes misguided, effort to recapture the qualities of older, walkable cities that Gruen knew from growing up in Vienna. Southdale’s enclosed pedestrian “street,” with a height and width patterned after the historic streets Gruen so admired in Europe, was an effort to get people out of their cars and into face-to-face encounters with each other round. Rather than see the shopping mall as the death of downtowns, he saw it as an effort to bring urbanism to suburbs that had never had it before.

The same instinct drove Gruen’s plan for downtown St. Paul. Rather than continue to let the car take over of the city, Gruen called for parking ramps at the edge of the urban core and pedestrian streets in the center. While Gruen adhered to the modernist belief in the ability of physical form to spawn social reform, his vision, unlike that of other modern urbanists, had its roots deeply embedded in the past and in history. It is also a vision with a future: As more and more people return to city living, and as housing and offices continue to sprout around suburban shopping malls, Gruen’s goal of a revival of a pedestrian-oriented public life may still be reached. And it may happen sooner than any of us could have imagined, as we face the fact that we have come to the end of inexpensive oil and of fossil fuels powering almost every aspect of lives. The sustainable city of the future may look a lot like Gruen’s Vienna, with people living and working within walking distance.

Modern architecture in Minnesota illustrates that diversity, defying the categories often fashioned for it. Consider the claim that modern architecture ignored history, portrayed by its polemicists as a good thing—liberation from the past—and by its postmodern rivals as an evil, an elimination of meaning and memory. Then what of the NORTHWESTERN NATIONAL LIFE INSURANCE BUILDING, now the ING BUILDING (opposite page), designed by Detroit architect MINORU YAMASAKI and completed in 1964 at the north end of Nicollet Mall in Minneapolis? Its multi-story columns and open “porch” on the west end of the building, aligned with the mall to its south, make an overt reference to an ancient Greek or Roman temple, while the pointed-arch form of the columns and the book-matched green-marble cladding between them recall a medieval cathedral. It’s hardly an ignoring of history, which may be one reason Yamasaki has been largely ignored himself by modernists and postmodernists alike: He never followed either’s script. Too decorative to be truly modern and too reductive to be a postmodernist, Yamasaki languishes at the edge of history.

But that may change. Completed one year before Yamasaki started designing the World Trade Center towers, the ING building looks like the base of the buildings that surrounded the two towers, echoing a complex whose absence has become a permanent fixture in the American consciousness after 9/11. Yamasaki’s classical sensibility also has a level of restraint that has begun to look refreshing after a few decades of the silliness of postmodern pop architecture and the excessiveness of post-structural heavy metal buildings. In a century that poses challenges far more serious than most of us could have imagined before 9/11, Iraq, and Katrina, the sedate and somewhat delicate building by Yamasaki at the end of Nicollet Mall seems more aligned with our more sober times.
Another oversimplification of modern architecture emphasized its universality and anonymity, as if a building could ever be a "machine for living in," as Le Corbusier once claimed. While it provided a compelling image, that machine metaphor sometimes blinded modernists and postmodernists alike to the often expressive and highly individualistic work of many modern architects, who were anything but machine-like in what they produced. Consider the MOUNT ZION TEMPLE (above) in St. Paul, one of the German-born architect ERICH MENDELSOHN's last works. With its metal-clad clerestories projecting up from a quiet brick base, the building recalls the tent-like enclosures of ancient temples in the desert. Inside, light-filled sanctuaries and large social spaces express the both private and highly communal nature of religious worship, as well as the inexpressible and emotional quality of religious belief. Light enters this building in some unseen and unexpected ways, as a metaphor for how religious seekers come to see the light.

While the building uses modern materials and minimalist forms, its modernism is anything but machine-like. It reminds us instead of the role of religion as a powerful form of resistance to the uniformity and rationality of the machine age, suggesting that belief may, in the end, be a more powerful human motivator than business.

Mendelsohn's temple also shows how religion can be, not the divisive force it has become in recent years with the rise of fundamentalism in most faiths, but rather a place of refuge for reason and tolerance. Modernism, at its best, anticipated a world in which people of every culture and creed could come together in an environment that expressed openness and that accommodated difference. Mount Zion's architecture embodies that ideal, demonstrating how modernism can model a more modest and humble way of being.

If Mendelsohn's modernism, especially later in his life, had a serious side, RALPH RAPSON's architecture has just the opposite: a quirky lightheartedness that resists the mechanical aspects of modern life with a sense of humor. Rapson may have adopted this perspective when he taught at the Institute of Design in Chicago, under the directorship of Laszlo Moholy-Nagy, who emphasized "imagination, fantasy, and inventiveness"—characteristics amply evident in Rapson's buildings. We see it in the many houses he designed for fellow University of Minnesota faculty in UNIVERSITY GROVE (exterior, below); the idiosyncratic structures are easily identified by their colorful, asymmetrical façades, jauntily angled roofs, or floating, white-painted forms. And we see that lightheartedness in some of the churches he designed in the Twin Cities, with their tall, spiky roofs often sitting on low, subdued bases, expressing the mix of reflection and release that religion has to offer.

Rapson's energetic, extroverted buildings may have been too much for the muted Minnesota character, given the rather uncaring way in which owners have demolished some of his most important work in the Twin Cities—the PILLSBURY HOUSE (interior, left) and the Guthrie Theater, most notably. That we have let the buildings of the most important Minnesota architect of the 20th century get torn down speaks not only to our general dislike of confrontation—people have lain in front of bulldozers for much less—but also perhaps to our general misunderstanding of modern architecture. When we see the puerile, postmodern pile that replaced the Pillsbury House, we have to wonder if the simplified and sometimes simpleminded criticism of modernism by postmodern critics has rooted itself into popular culture more deeply than it deserves.
While Mendelsohn's and Rapson's buildings counter the claim that modern architecture is cold and uncaring, so too do other examples belie the myth that modernists only loved the machine. The work of FRANK LLOYD WRIGHT in Minnesota shows how much nature, rather than technology, underlies modern architecture. Houses such as the recently restored WILLEY HOUSE (above) in Minneapolis, from the 1930s, and the Olfelt House in St. Louis Park and the LOVNESS HOUSE (below) in Stillwater, from the 1950s, turn their back to their streets and dispense with garages or carports, so that the living spaces can open out to nature and take maximum advantage of the yard. The use of unpainted wood siding and trim and of exposed brick or stone inside as well as outside the houses gives them a warmth unusual in Minnesota homes. The ground-hugging structures, with eaves that come close to grade or to the top of one's head, also have an earthiness that fits with a Midwestern attachment to the land. Wright believed in the machine as a way of reducing the cost of housing and simplifying its construction, but his buildings are anything but machine-like. They feel more like caves or extensions of the forest or prairie.

The one gas station Wright ever built, in Cloquet, Minnesota, demonstrates how Wright could make even a building built for machines a humane place. With its broad, cantilevered roof protecting the pumps before most gas stations did so, and with its lounge and toilets located safely above the office and service area, the station reveals the extent to which modern architecture sought to tame the machine as much as to emulate it. Wright's ideas about our future have, in some ways, come to pass. His utopian Broadacre City, which envisioned a sprawl of "Usonian" houses linked by sidewalk-free roads, limited-access highways, and a gas station at every other corner, became the model for the modern suburb. But, in other ways, we have yet to understand, let alone achieve, Wright's hopes for us. He wanted to create a physical environment that would encourage us to become the self-reliant, independent thinkers that Emerson and Thoreau saw as the real promise of American culture. Wright saw Broadacre City as a place that would cultivate true nonconformists, not the polarity of adolescent rebellion and adult conformity that has come to characterize our often-soporific suburbs.

In a world increasingly filled with sound, with the noise of modern media and the cacophony of modern music, architecture can provide a refuge, a place to get away from the shout of modern life.
The work of WIN and ELIZABETH CLOSE has come closer to that Wrightian vision than most. Admirers of Wright's Usonian houses, this architectural couple played a pivotal role in bringing a more organic modernism to the masses. While Win spent much of his career as the university architect at the University of Minnesota, Elizabeth—the first licensed female architect in the state—ran an office that produced hundreds of buildings, many of them houses, for a broad, middle-class clientele. Like Wright, they often used unpainted wood, low-hanging eaves, continuous casement windows, and exposed brick to give warmth and scale to their buildings. But they also brought to their work a practicality not always found in Wright's buildings, including larger kitchens more open to the living spaces and a flow of space more like that of European modernists, recalling Elizabeth's European roots (she grew up in an Adolf Loos house in Vienna).

While Wright's houses aspired to be affordable by the ordinary person, they often came in considerably over budget—something that the Closes avoided, building as they often did for clients of modest means. On this count their work debunks another myth of modernism: that only the wealthy can afford it. In fact, modern architecture still represents some of the most compelling examples of how we might live with less space and fewer resources, which we may all need to do in a future fraught with shortages in everything from fossil fuel to fresh water. The Closes also helped create a community in University Grove that in some ways resembles Wright's Broadacre City. On land still owned by the University of Minnesota, which required that each house be designed by an architect for purchase by its faculty or staff, University Grove's streets of strong-minded designs—many of them by the Closes—show what a community of independent thinkers might look like.
The 1960s were a tumultuous decade of change for downtown St. Paul. Yet in the summer of 1968 time seemed to stand still. A gleaming, modern 20-story office tower opened at Fifth and Wabasha as the visionary headquarters for a St. Paul cleaning-products company. E.B. Osborne's rapidly growing Economics Laboratory Company (founded 1923) was timelessly expressed in reflecting pools, polished black granite, glass, and sparkling stainless-steel fins. Architect Clark Wold of BWW Architects (BWBR today) designed the tower as a Midwestern tribute to Mies van der Rohe's 1958 Seagram Building and Eero Saarinen's 1965 CBS Building, both in New York City. The Osborne Building's urban image of "cleanability" received national coverage in *Time* magazine in June 1968 and became a corporate symbol for Economics Laboratory, now known as Ecolab. Forty-one years later, the building is still occupied by the original owner. —Dave Dimond, AIA

Of course, idiosyncrasy did not just happen at the residential scale in Minnesota. Two block-sized buildings in downtown Minneapolis demonstrate the ambition of modernist architects to create environments in which people would relate in new ways. The best loved of these is the IDS Center, designed by PHILIP JOHNSON. With its serrated-edge IDS tower and the smaller glass-clad Marquette Hotel on either side of the CRYSTAL COURT (right), the IDS Center became the center of downtown, marking a major crossing of the skyway system with a sky-lit, enclosed public space. While that space has gone through a couple of incarnations, including one version that removed most of the seating out of fear of loiterers, the Crystal Court seems to have settled well into its role as the main downtown meeting place, aided by the relatively recent addition of benches, trees, and a waterfall.

Postmodern critics frequently charge modernism with being anti-urban, as indeed it sometimes was, but the IDS Center shows how well modern architecture can enclose and enliven urban space. With access points on all sides, and with two levels of pedestrians coming together into a large, light-filled room, the Crystal Court captures many of the qualities of the best cities from the past. The IDS Center's glass-and-steel aesthetic seems to matter not at all. It isn't, as some postmodernists might claim, the style of the surrounding buildings that makes a good urban room but rather the scale of the space, the amount of pedestrian traffic, and the intensity of the uses around it. The Crystal Court also suggests that the idiosyncratic individualism that Wright (and Emerson and Thoreau) thought took root best close to nature can also flourish in the very center of a city, with its tolerance for a wide range of people. On any day during the week, you will see everyone from the homeless to the highest paid crossing paths.
The proponents of modern architecture have tended to downplay internal differences or conflicts in order to present a coherent position and unified vision of it, in contrast to the eclectic, historically oriented architecture that preceded it in the 19th and early 20th centuries.
A final misnomer about modern architecture, cultivated by its friends and foes alike, has to do with its supposed "glass and steel" aesthetic, as if the architecture of Mies van der Rohe had come to represent, at least in the popular mind, the work of a whole generation. Two important modern buildings in Minnesota show how mistaken that perception has been. MARCEL BREUER, the New York architect who taught alongside Mies and Walter Gropius at the Bauhaus in Dessau, Germany, designed one of his best buildings in Minnesota: ST. JOHN'S ABBEY CHURCH (right) in Collegeville. Standing atop a hill, presiding over St. John's University (including several other Breuer-designed buildings), the 1961 Abbey Church is the opposite of Mies' thin, transparent, glass-and-steel aesthetic. Breuer made here a massive mountain of concrete, with folded concrete-plate walls that taper up like some ancient ziggurat, and a bell tower unlike any other: an enormous concrete plane punctuated...
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PUBLIC-INTEREST EDUCATION

A public-interest design education would include some elements of a traditional architectural curriculum, such as courses in basic design, in materials and methods of construction, and in practice and technology. But a public-interest track would also exclude some features and include others rarely taught in architecture schools. For example, public-interest design students would have little or no need to learn about high-rise construction, high-tech civil and mechanical engineering, or high-energy materials, which most of the world cannot afford and probably doesn’t need anyway.

Instead, such students would need to know about appropriate technology, indigenous buildings, and local materials in various cultures and climates. Having experience with basic construction methods and prototype development and fabrication would help, as would some knowledge of material science and industrial design, because many of the needs of impoverished communities involve not just structures but infrastructure and products of various kinds. An understanding of anthropology, microeconomics, and foreign languages would also prove useful.

Ideally, such a curriculum would sit within existing architecture and design schools, since many of the core skills needed for public-interest design reside with the faculties there. But the relationship between public health and medicine should serve as a warning of how difficult this might be. Although it emerged out of medicine, with physicians taking the lead, the public-health profession eventually established its own schools and accredited curricula, so separate had it become from the medical fields.

For public-interest design to remain a vital part of architecture schools, the profession must relinquish its current one-size-fits-all, generalist approach to education, which is aimed at producing future employees for offices organized around the medical model. Instead, we need to see architectural education leading to multiple career paths, with many different tracks, of which client-focused design would be one and public-interest design another. That would have pedagogical benefits, since only about half of all graduates even now end up working in private architecture offices, as well as practical benefits, since it seems likely that the demand for traditional architectural...
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services in the U.S. will grow more slowly in coming years than will the demand for design assistance by the burgeoning populations of people in other parts of the world.

PUBLIC-INTEREST PRACTICE
How might architecture and design firms pursue a public-interest practice? Like any new field, this one will require some entrepreneurial skill, because many of the funders and clients in this area have rarely worked with designers and architects and so may not see the need for their knowledge. But the public-health community, which has begun to discover what designers can contribute not just as technical experts but also as problem solvers at a wide range of scales, seems ready to respond to a partnership with the design fields.

A bigger obstacle might lie within the design community. The architecture profession has formed its identity around the production of custom designs for fee-paying clients for so long that the generation of low-cost prototypes that local communities can make or maintain with little expertise may prove too large a leap for many practitioners. That’s fine, of course.

The rise of public health didn’t spell the end of medicine but rather an alternative practice for health professionals. Likewise, public-interest design will not end the need for architects in private practice; it will expand the opportunities for design professionals and widen the scope of their services to include everyone on the planet.

Funding for public-interest design services will likely follow that of public-health services, involving nonprofit foundations like the Bill and Melinda Gates Foundation and nongovernmental organizations like the World Bank and the World Health Organization, as well as governmental agencies such as the National Institutes of Health. Clients might also include foreign countries and American aid organizations working overseas.

Private design firms might need to partner with universities to pursue much of this funding, because the development of locally appropriate prototype solutions involves research and testing as well as design and production. This will, in turn, require a change in orientation within architecture and design schools, as they, too, become more research oriented than in the past. This prospect will seem daunting to some, but have no doubt that the demand for public-interest design far outstrips the supply—good news in these down times. AMN
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“The quality of the product when it’s reclaimed — especially when from your shop — is always impeccably done. That has a big impact on people and on the ability to build something true.” — David Salmela

Wings of Desire

<< continued from page 30

It was just one of the challenges PDI encountered as it brought its designs to reality under a tight budget, in a country halfway around the world, while respecting both the artist and the South Korean government. PDI has 10 Korean employees, so the firm understands local sensibilities even while it brings in global experience and ideas. Nonetheless, despite its natural advantages (Huh is actually a distant relation of the artist), PDI still had to run the maze of bureaucracy.

“Originally [Woljeon] wanted me to design the whole thing; he knew I understood him and would design a museum that would express his work,” says Huh. “But because the project was dependent on government money, we had to go through a competition. We are lucky everyone recognized that our design captured his paintings, and we won.”

On the wall of Huh’s Minneapolis office hangs a Woljeon painting. “I went to his funeral, and he left this to me,” he says. It is of a crane, standing in the moonlight. “It says, ‘Life in this world is very tough. There is wind, rain. The crane will fly away.’ It says to me, ‘Take care of yourself.’” And it says thank you. AMN

Five-Star Health

<< continued from page 36

maximum flexibility. To the right is the nine-story hospital wing, whose labs are easily accessible from the clinic. Beyond the atrium escalator is indoor and outdoor dining for the public. (Think hotel again.)

At the hospital’s far end are the emergency room and the separate VIP entry, with elevators that lead directly to the 12 VIP suites on the eighth floor. Whether VIP, presidential, or royal, they feature flat-screen TVs, a majilis—a receiving room with tea tables and seating for visitors—and easy access to the spa, gym, and heated pool on the floor above. Though Dubai is less traditional than Saudi Arabia, designing for an Arab country has particular challenges. The atrium has screened areas where women and children can gather. On the hospital floors, a double corridor with nurses’ stations in the middle separates male and female patients.

The City Hospital’s design reflects Ellerbe Becket’s century-old devotion to functional clarity and patient comfort, trademarks that will serve the firm well as it aims to expand in the Gulf area. As Frush says, “India’s not too far away.” AMN
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A Japanese curtain-wall company engineered the framing to fit over the rotten tail and “allow the glass petals to float off the skin of the tower,” says Partridge. To enhance the building’s glow at night and emphasize the top of the tower as an urban focal point, RSP capped the hotel with square footage for a rooftop garden and glass-clad executive club that, when completed, will crown the tower with lantern-like light at night.

Most of the hotel’s amenities were programmed into the base, which RSP clad in glass and bracketed with grounded glass forms. “Our client gave us a lengthy document that specifies which amenities are incorporated into a five-star hotel,” Partridge explains, including a fitness center with spa, pool, steam room, sauna, and massage; business rooms, meeting rooms, and ballrooms; and a selection of restaurants and bars.

The hotel commission was RSP’s first major foray into China (the firm’s prior work in the country had been a subway-station competition). “We essentially had a concrete frame to work with and couldn’t really depend on the information we had, because the structure had been vacant for 10 years,” says Partridge. “We needed to rely on our Chinese partners for the structural detailing, and they really excelled.”

Carlson Hotels Asia Pacific purchased the hotel, which opened as the Radisson Plaza Hotel Tianjin in April 2009. Designers with Radisson completed the interiors. “One of the great lessons we learned from this project is the ability, and the obligation, to keep the design process flowing 24 hours a day,” says Partridge. “After-hours, we’d send them our designs, and in the morning we’d have questions back from them. At its peak, the process was very efficient and intense.”

“Our ability to do that scale of a building as design architects has since opened the door to a series of additional projects in China, and we’re working to leverage that new expertise here in the U.S., as well,” he adds. In short, RSP is ready to transform other rotten tails into happy endings. AMN
The Ripple Effect

income housing alternatives. In Minnesota, his instincts found a home at SALA Architects, where he perfected smaller, smarter residential design. Now he has his own practice and teaches design studio at the University of Minnesota, sending aspiring young designers out with knowledge he gathered over decades and miles. In return, we've given him . . . the screened porch.

"Screened porches are fascinating to me! It's a very simple concept, but it has such rich local cultural connotations," he says. He'd like to take the screened porch to Uruguay, where transitional space is highly valued. "Living in different places expands your vision. If you stay in one place, you understand what happens—not what could happen."

Minnesota's foreign-born architects instinctively scan distant horizons for inspiration. But leaving one's homeland is unimaginably difficult. When Bui's family visited Vietnam for the first time after leaving, her father began to weep as the plane touched down. "I had my camera with me, and I started taking pictures right away, beginning with the thresholds and vestibules," she says, forever attuned to open doors and the worlds beyond. AMN

Minnesota Modernisms

by openings containing the bells and a cross, held up in the air by huge concrete legs. Even when glass appears, as it does across the entire front wall of the church, the glazing stands behind a concrete honeycomb screen, whose face-like openings evoke the choir of angels inside. This is modern architecture at its most expressive and sculptural.

Postmodernists and anti-modernists have a point when they criticize modern architecture for its destructive effect on our cities, clearing out historic districts and replacing them with anonymous glass buildings. But Marcel Breuer's Abbey Church demonstrates that, whatever the urban sins committed by modernists, the great architects of that era produced some of the world's best iconic buildings, of which this is one. Even the most carping critic of modernity cannot visit the Abbey Church without being moved by the sheer size and strength of the design, feeling in its leg-like columns and arm-like beams the echo of human form writ large, as if to make the transcendent body real. Every era makes its
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unique contribution, and without a doubt the Abbey Church stands as one of the great gifts modern architecture gave to Minnesota.

If Breuer’s church represents the expressionistic side of modern architecture, EDWARD LARRABEE BARNES’ WALKER ART CENTER (page 51) represents its opposite: modern minimalism. Completed in 1971, the nearly windowless, brick-clad Walker becomes active as you move around its stepped forms, as happens with, say, a Donald Judd sculpture. Organized like Frank Lloyd Wright’s Guggenheim Museum, with a central circulation core and galleries that step down around it, the Walker also stands as the antidote to Wright’s challenge to curators. Barnes designed a series of spare, simple rooms, ideal for the display of modern art, that connect to each other through broad stairs, enabling one space to flow into another. Modern architects designed a number of museums, but many of them put architecture before the art. That wasn’t the case with Barnes’ Walker Art Center: it remains one of the best places in the country to view art, with the building providing a minimalist backdrop.

The critics of modern architecture like to chide the building for its “muteness,” a claim that could be made against its bare, unadorned walls. But that criticism assumes that all buildings speak to us in the same way. Barnes’ design for the Walker may be quiet, but it does speak to us, if we care to listen. In a world increasingly filled with sound, with the noise of modern media and the cacophony of modern music, architecture can provide a refuge, a place to get away from the shout of modern life. Museums have long provided such auditory relief, allowing us to focus on the visual arts in places of great silence. Barnes’ Walker Art Center shows that modern architecture could provide that as well as any art museum from the past.

Few people think of Minnesota as a mainstay of modern architecture, but what it may lack in quantity it makes up in quality. And because of that quality and its clustering in and around the Twin Cities, modernism in Minnesota reveals the real diversity of this architecture, offering us more variety and points of view than either its proponents or its antagonists often acknowledged. There are many modernisms in Minnesota, and both architecture and the state are better for it. AMN
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Boldt invites clients to "realize what's possible" on their projects. We strive to provide owners with construction services that exceed their expectations. We complete projects in the healthcare, higher education, power and commercial marketplace. We offer a full range of services: program management, construction management, design/build, general construction, consulting, planning, conceptual estimating, certified value engine services, LEED certification, maintenance services, heavy rigging and crane support and machinery installation.

College of St. Scholastica (wellness center addition phase II), Duluth, MN; University of Minnesota Duluth (Labowitz School of Business), Duluth, MN; St. Olaf College (new science complex), Northfield, MN; Lake Country Power Service Center, Mt. Iron, MN; Mayo Health System Owatonna Clinic, Owatonna, MN

ADOLFSON & PETERSON CONSTRUCTION
6701 West 23rd Street
Minneapolis, MN 55426
Tel: (952) 544-1561
Fax: (952) 525-2333
Email: dmulvey@a-p.com
www.a-p.com
Established 1946
Total in MN Office: 146
Total in Other Offices: 645
Other Offices: Phoenix, Denver, Seattle, Charlotte, Dallas
Contact: Dennis Mulvey, (952) 544-1561

Company Principals
Dennis Mulvey, SVP
Steve Fritz, VP Operations
David Moida, VP
Mark Liska, VP
Clyde Terwey, VP

As one of the nation’s leading general contractors and construction managers, A+P combines more than 63 years of construction expertise with the newest techniques to provide owners, architects, and developers with the highest standards of workmanship, integrity and client care.

8200 Tower, Bloomington, MN; Hubert H. Humphrey Parking Ramp, Bloomington, MN; Boutwell’s Landing Care Center, Oak Park Heights, MN; University of Minnesota Nova Far Detector, Ash River, MN; Northwestern College and Radio, St. Paul, MN; St. Croix Preparatory Academy, Baytown Township, MN
CONSTRUCTION RESULTS CORPORATION
14170 23rd Avenue North
Plymouth, MN 55447
Tel: (763) 559-1100
Fax: (763) 553-0494
Email: mark.snyder@constructionresults.com
www.constructionresults.com
Established: 1999
Total in MN Office: 20
Contact: Mark Snyder, (763) 559-1100

Company Principals
Mark Snyder, Pres.
John Snyder, VP
Ned Meyer, VP

Provides professional general contracting services for renovation work and new construction. Projects include: retail/restaurant, office/11., churches/ non-profits and industrial/manufacturing. Brings strong commitment to service, quality, safety and value. Success in achieving these objectives is amplified by self-performing much of its demolition, concrete and carpentry work. Uses design-build for many projects.

Salvation Army (structural repairs to rehab facility); General Mills, Fridley Oat Processing Plant (4th floor addition), Fridley, MN; City of Minneapolis (areaaway abandonment projects), MN; Carleton College (pedestrian bridge repairs), Northfield, MN; Dunn Bros. Coffee (tenant finish), St. Paul, MN; West Lutheran High School (demo and parking expansion)

CRAWFORD MERZ ANDERSON CONSTRUCTION CO.
2316 4th Avenue South
Minneapolis, MN 55404
Tel: (612) 874-9011
Fax: (612) 874-9015
Email: chucka@cmacco.com
www.cmacco.com
Established 1886
Total in MN Office: 35
Other MN Office: Brainerd, (218) 568-5310

Company Principals
Chuck Anderson, Pres.
Wayne Anderson, VP
Ken Sellek, Sr. Proj. Mgr.
Travis Farnick, Proj. Mgr.

Extent of services/specialties: specializing in interior and exterior remodeling and restoration along with new construction and pre-engineered metal buildings. CMACCO provides proven, quality workmanship with highly experienced, long-term field personnel. Dedicated employees enable CMACCO to work closely with subcontractors and suppliers, developing new and continued relationships with architects, owners and building officials, while also providing clients with professional, efficient, cost-effective construction projects. We strive to EXCEED our clients' expectations.

Eagle Street Grille, St. Paul, MN; Metropoint, The Center for Business, St. Louis Park, MN; Basilica of Saint Mary, Minneapolis, MN; Minneapolis Builder’s Exchange (remodel), Minneapolis, MN; Marquette Hotel, Minneapolis, MN; St. Martins by the Lake Episcopal Church, Minnetonka Beach, MN

DONLAR CONSTRUCTION COMPANY
2277 West Hwy. 36, Suite 210W
Roseville, MN 55113
Tel: (651) 227-0631
Fax: (651) 227-0632
Email: donlar@donlarcorp.com
www.donlarcorp.com
Established 1972
Total in MN Offices: 125
Other MN Offices: St. Cloud (320)-253-3354, Bemidji
Contact: Jon Kainz, (651) 227-0631

Company Principals
Don Kainz, CEO
Jon Kainz, AIA, LEED AP®, COO
Kari Anderson, CPA, CFO

Donlar Construction provides superior general contracting, construction management and design-build services to both private and public clients, specializing in educational, medical, religious, municipal, retail and industrial construction. Donlar employs dedicated employees, including skilled field personnel providing project supervision, carpentry, demolition and concrete. Incorporated in 1972, Donlar has earned its sterling reputation for quality construction and dependable service through honesty, integrity and excellence.

Army Aviation Support Facility, Minnesota National Guard #2, St. Cloud, MN; St. Joseph Clinic, CentraCare, St. Joseph, MN; St. John’s University, McKown Center, Collegeville, MN; Calvary Community Church, St. Cloud, MN; New St. Michael Albertville High School, Albertville, MN; Alexandria Technical College Law Enforcement Training Center, Alexandria, MN

JE DUNN NORTH CENTRAL, INC.
9835 West 78th Street, Suite 270
Eden Prairie, MN 55344
Tel: (952) 830-9000
Fax: (952) 830-1365
www.jedunn.com
Established: 1924
Total in MN Office: 45
Contact: Ken Styrlund, (952) 830-9000

Company Principals
Ken Styrlund, PE, LEED AP, Pres.
Doug Leefke, LEED AP, VP
Roge Helgeson, VP
Jeff Callinan, LEED AP, VP
Scott Sharp, VP

Donlar provides services for design-build, pre-construction, general construction and construction management in the areas of healthcare, cultural, commercial, educational, hospitality, religious, retail and mixed-use buildings.

Minneapolis Institute of Arts, Minneapolis, MN; Meeke Memorial Hospital, Litchfield, MN; Education Science, University of Minnesota, Minneapolis, MN; Bridge Water Lofts, Minneapolis, MN; Target Stores, Nationwide, Twin Pines Casino and Hotel, Middleton, CA

Graham Construction Services, Inc.
2995 Lone Oak Circle, Suite 1
Eagan, MN 55121
Tel: (651) 687-0648
Fax: (651) 687-0947
www.grahamus.com
Established: 1926
Total in MN: 75
Total in Other Offices: 800+
Other Offices: U.S. - Eagan (MN), Omaha, Seattle, Spokane, Canada - Alberta (Calgary, Edmonton, Fort McMurray), Saskatchewan (Regina, Saskatoon); British Columbia (Vancouver, Kelowna); Ontario (Mississauga)
Contact: Dave Lenss, Pres., (651) 687-0648

Company Principal
Dave Lenss, President

Graham Construction Services is an employee-owned contractor founded on commitment, integrity and reliability. With over 80 years of experience and annual revenues exceeding $1.8 billion, we are one of the industry’s leading contractors providing construction management, general contracting, design/build and preconstruction services for academic, institutional, commercial, retail, civil and historical renovation projects.

Minot Air Force Base (new dormitory), Minot, ND; City of Minneapolis (de-watering plant improvements), Minneapolis, MN; Willmar Wastewater Treatment Facility, Willmar, MN; Northstar Corridor Light Rail Transit Connection, Minneapolis, MN; University of Minnesota Commonwealth Terrace Cooperative Housing, St. Paul, MN; Minneapolis/St. Paul International Airport (north terminal expansion), St. Paul, MN
KNUTSON CONSTRUCTION SERVICES, INC.

5500 Wayzata Boulevard, Suite 300
Minneapolis, MN 55416
Tel: (763) 546-1400
Fax: (763) 546-2226
Email: tschilling@knutsonconstruction.com
www.knutsonconstruction.com
Established 1911
Other Mn Office: Rochester
(507) 280-9788
Total in Mn Offices: 500
Other Office: Iowa City, IA
Total in Other Office: 200
Contacts:
Minneapolis - Todd Schilling, (763) 546-1400
Rochester – Dave Bastyr, (507) 250-9788

Company Principals
Doug Jandro, Pres.
Steve Curry, CEO
Todd Schilling, VP/GM, Minneapolis
Dave Bastyr, VP/GM (Rochester)
Michael Wolf, CFO
Geoff Clueckstein, VP, Proj. Ping/Dev.

Knutson Construction Services is one of the longest continuous-operating, most experienced construction firms in the country. They have a national-recognized, award-winning workforce providing a broad range of services including: pre-construction, general contracting, construction management, design-build and tenant improvements. They are also leaders in green construction with many accredited professionals on staff.

Blattner Energy Headquarters (LEED Platinum), Avon, MN; Children’s Hospitals and Clinics (ambulatory care, hospital, ramp), Minneapolis, MN;Frauenhain Cancer Center, Park Nicollet, St. Louis Park, MN; Minneapolis Public Housing Authority, Minneapolis, MN; Mower County Justice Center, Austin, MN; Gibbs Elementary School, Rochester, MN

KRAUS-ANDERSON CONSTRUCTION COMPANY

525 South 8th Street
Minneapolis, MN 55404
Tel: (612) 332-7281
Fax: (612) 332-0217
Email: john.campobasso@krausanderson.com
www.krausanderson.com
Established 1897
Total in MN: 450
Other Offices: Kansas City (KS), Madison, Phoenix
Total Other Offices: 30
Contact: John Campobasso, (612) 332-7281

Company Principals
Bruce W. Engelsma, CEO/Pres.
Alan A. Gerhardt, COO
Philip F. Boettner, EVP
Mark J. Loudon, SVP
Richard J. Jacobson, SVP
Craig Francois, VP

Kraus-Anderson Construction Company is a leading provider of general contracting and construction management services. Our projects are delivered within a team-oriented format, working together with all parties, so informed decisions are made prior to the commencement of construction. We are dedicated to providing quality projects on schedule that meet our clients’ expectations.

Bemidji Regional Event Center, Bemidji, MN; U.S. Land Border Port of Entry, Warroad, MN; East Ridge High School, Woodbury, MN; University of Minnesota, Amplatz Children’s Hospital, Minneapolis, MN

MCGOUGH COMPANIES

2737 Fairview Avenue North
St. Paul, MN 55113
Tel: (651) 633-5050
Fax: (651) 633-5673
www.mcgough.com
Established 1956
Other Mn Office: Rochester
(507) 336-4870
Total in Mn Offices: 180 Office, 45 to 900 Field
Other Office: Phoenix
Total in Phoenix: 45
Contact: Brad Wood, (651) 633-5050

Company Principals
Thomas J. McGough, Sr., Chrm.
Thomas J. McGough, Jr., Pres.
Bart Zibrowski, EVP
Bake Baker, EVP
Mike Hange, EVP
Brad Wood, EVP

MCGOUGH offers strategic facility and organizational planning, development, general contracting, construction management and design-build services and post-occupancy services. McGough has an unmatched reputation for delivering high-quality projects on time and within budget. From complete “turnkey” development to general construction services, McGough has maintained a firm commitment to time-tested guiding principles.

 Guthrie Theater, Minneapolis, MN; Medtronic World Headquarters, Fridley, MN; Cathedral of St. Paul, St. Paul, MN; University of Minnesota Science Teaching and Student Services, Minneapolis, MN; General Mills World Headquarters, Golden Valley, MN; United and Children’s Hospital (expansion), St. Paul, MN

MORTENSON CONSTRUCTION

700 Meadow Lane North
Minneapolis, MN 55422
Tel: (763) 522-2100
Fax: (763) 287-5430
Email: ken.sorensen@mortenson.com
www.mortenson.com
Established 1954
Total in Mn Office: 491
Total Other Offices: 1898
Other Offices: Chicago, Denver, Milwaukee, Phoenix, Seattle, Washington D.C., Shanghai

Company Principals
Ken Sorensen, VP
Kendall Griffith, Dir. of Oper.
Dan Meils, Construct. Exec.
Ron Schreiner, Constr. Exec.
Scott Gary, Constr. Exec.

Mortenson Construction, founded in 1954, is a Minneapolis-based, family-owned company that provides general contracting services, construction management, design-build and turnkey development. With revenues of $2.8 billion, Mortenson is Minnesota’s largest building contractor. More than 80% of the company’s work is for long-standing customers with projects ranging from less than $1 million to more than $500 million.

Target Field, Minneapolis, MN; TCF Bank Stadium, Minneapolis, MN; Deloitte & Touche (relocation), Minneapolis, MN; Bethel University Commons, St. Paul, MN; Fairview Medical Center, Red Wing, MN; University of Minnesota Center for Magnetic Research, Minneapolis, MN

PCL CONSTRUCTION SERVICES, INC.

12200 Nicollet Avenue South
Burnsville, MN 55337
Tel: (952) 882-9600
Fax: (952) 882-9900
Email: kjensvold@pcl.com
www.pcl.com
Established 1906
Total in Mn Office: 150
Total in Other Offices: 6000
Other Offices: Albuquerque, Anchorage, Atlanta, Bakersfield, Calgary (AB), Charlotte, Denver, Edmonton and Fort McMurray (AB), Halifax (NS), Honolulu, Kelowna (BC), Las Vegas, Los Angeles, Nassau (Bahamas), Orlando, Ottawa (ON), Phoenix, Regina (SK), San Diego, Saskatoon (SK), Seattle, Tampa, Toronto (ONT), Vail, Vancouver (BC), Winnipeg (MB), Yellowknife (NT)
Contact: John Jensvold, (952) 882-2572

Company Principals
Don Fromme, Dist. Mgr.
Michael Headrick, Oper. Mgr.
John Jensvold, Dir. Proj. Dev.
Heidi Wherland, Mgr. Finan./Admin.
Bart Bodway, Constr. Mgr.
Trent Bowman, Special Proj. Mgr.

PCL specializes in commercial, industrial and civil construction across the U.S. and Canada. We focus on projects where strong collaboration between owner, designer and builder is vital to project success. Our portfolio of successful projects includes hospitality, retail, high tech, higher education, biomedical, food production, themed, Native American and institutional construction.

American Express Client Service Center, Minneapolis, MN; Minneapolis Central Library, Minneapolis, MN; Mystic Lake Casino Hotel, Prior Lake, MN; Seagate Advanced Technology Group, Edina, MN; Mall of America, Bloomington, MN; Center of Excellence in Life Science and Technology, University of North Dakota, Grand Forks, ND
Tel: (651) 704-9000
Fax: (651) 704-9100
Email: info@retailconstruction.com
www.retailconstruction.com
Established 1984
Total in MN: 42
Other Offices: Rockwall, TX; Rapid City, SD; Point Pleasant, NJ
Total Other Offices: 85+

Company Principals
Steve Bachman, Pres./Owner
Gim Middleton, VP/Owner
Joni L. Fletty, VP
Gerald Kuntz, VP/Owner
Garth Wills, VP/Texas Office

Celebrating its 25th year in business, Retail Construction Services has built over 8,000 projects in all 50 states, Puerto Rico, U.S., Virgin Islands and Canada totaling over 22 million square feet and representing $1.1 billion in company revenue. Retail Construction Services maintains, and is actively licensed, in all 50 states. Canada, U.S. Virgin Islands and Puerto Rico and averages 30-90 projects under construction at any one time.

L. L. Bean (1st LEED certified company retail store in U.S.), Center Valley, PA; Comerica Bank, Plano, TX; Movado, Boca Raton, FL; Piazza Sempione, Las Vegas, NV; HSM, Edina, MN; Noodles & Company, Madison, WI

ROCHON CORPORATION
3650 Annapolis Lane North #101
Plymouth, MN 55447
Tel: (763) 235-3819
Fax: (763) 559-8101
Email: launnr@rochoncorp.com
www.rochoncorp.com
Established 1985
Total in MN: 21

Company Principals
Jerry Braten, CEO
Scott Larkin, Pres.
Jeff Welman, EVP

Rochon Corporation is a construction company focusing on general contracting and design/build construction in the commercial, senior housing, retail, office and industrial building markets. Our annual sales approximate $47 million. The majority of our contracts are with repetitive clients that work with us on a negotiated basis, in which they request we participate in the project from inception through occupancy. Other methods used to obtain work are invited bidders and publicly-bid projects. “Hard Bid” projects, such as those, keep us close to the forces that influence the competitive marketplace.

ATK Office Building (120,000 sf office with parking), Eden Prairie, MN; Hindu Temple of Minnesota, Maple Grove, MN; Park Wood Pointe, Burnsville, MN; The Village at Mendota Heights, Mendota Heights, MN; Shops at Plymouth, Plymouth, MN; Kozlak Radulovitch Funeral Home, Blaine, MN

RJ M CONSTRUCTION
7003 West Lake Street, Suite 400
St. Louis Park, MN 55426
Tel: (952) 837-8600
Fax: (952) 832-9600
Email: bruce.mcculloch@rjmconstruction.com
www.rjmconstruction.com
Established 1981
Other MN Office: Minneapolis, (612) 305-2133;
Bloomington, (952) 893-8807
Total in MN Offices: 100
Contact: Bruce McCulloch, (952) 893-7580

Company Principals
Robert Jossart, Pres.
Joseph Maddy, COO
Bruce McCulloch, VP
Julie Yeaze, Dir. of Bus. Dev.

RJM provides pre-construction, general contracting and construction management services to its commercial, healthcare, tenant interior and community clients. They embrace collaboration with the project team in order to define final project parameters – taking clients’ unique vision, budget and schedule to deliver customized, well-built spaces.

Crosstown Medical, Edina, MN; Prior Lake YMCA, Prior Lake, MN; Carmichael Lynch, Minneapolis, MN; AIA Minnesota, Minneapolis, MN; Kaleidoscope Charter School, Osseo, MN; Eagle Point Office Center, Lake Elmo

RYYAN COMPANIES US, INC.
50 South 10th Street, Suite 300
Minneapolis, MN 55419
Tel: (612) 492-4000
Fax: (612) 492-3000
www.ryancompanies.com
Established 1938
Total in MN Office: 315
Total in Other Offices: 298
Other Offices: Cedar Rapids, Chicago, Davenport, Des Moines, Phoenix, San Diego, Tampa
Contact: Paul Kieffer, Dir. Proj. Dev., MN Region, (612) 492-4000

Company Principals
Pat Ryan, Pres.
Tim Gray, CFO
Collin Barr, Pres., MN Region
Mike Cairl, EVP
Mike McElroy, EVP. Real Estate Mgmt.

Ryan Companies US Inc., a nationally-recognized developer, design-builder and real estate manager, has specialized in fully-integrated solutions for more than 70 years. Ryan builds lasting relationships with a project delivery model based on full-service customized solutions and total collaboration - pairing the customer's needs and expectations with the talents of a team of developers, financiers, architects, engineers, constructors and property managers.

Warren E. Burger Federal Building – U.S. Courthouse, St. Paul, MN; Target Food Distribution Center, Cedar Falls, IA; LD2/ Safo Distribution Center, Windsor, VA; University of Nebraska-Lincoln, Abel/ Sandoz Residence Halls, Lincoln, NE
SHAW CONSTRUCTION INC.

7685 Corporate Way
Eden Prairie, MN 55344
Tel: (952) 937-8214
Fax: (952) 934-9433
Email: jshaw@shawconstruct.com
www.shawconstruct.com
Established 1977
Total in MN: 6
Contact: John N. Shaw (Jack), (952) 937-8214

Company Principals
John N. Shaw (Jack), Pres.
Earl Gebauer, VP Constr.
James Swedeborg, CFO

Shaw Construction, Inc. is a design/build general contractor successfully providing new construction, additions, tenant improvements and unique construction within the commercial, light industrial, manufacturing and retail construction markets. Through its construction services and products, Shaw Construction, Inc. has developed long-lasting relationships with owners, developers, architects and engineers throughout the Upper Midwest.

Cato Parts and Service. Sioux Falls, SD: Valleyfair Bathouse and Food Building, Shakopee, MN; O.T.S. Manufacturing Facility, Sioux Falls, SD: Cato Parts and Service (new facility), Fargo, ND: Wings Financial Credit Union (remodel), Edina, MN

SHAW-LUNDQUIST ASSOCIATES, INC.

2757 West Service Road
St. Paul, MN 55121-1230
Tel: (651) 454-0670
Fax: (651) 454-7982
Email: info@shawlundquist.com
www.shawlundquist.com
Established 1974
Total in MN: 64
Other Offices: Las Vegas (NV), Hudson (WI)
Contact: Paul Nelson, (651) 234-8885

Company Principals
Fred Shaw, Chrmn.
Hoyt Hsiao, CEO/Pres.
Thomas J. Meyers, VP

Shaw-Lundquist is one of the top general contractors in the region, and is the largest, Asian-owned general contractor in the nation. Shaw-Lundquist provides general construction, construction management at risk, agency construction management and design-build construction services – specializing in challenging and complex projects. Shaw-Lundquist listens and works as a team with our clients to provide innovative solutions with the most appropriate delivery method. Shaw-Lundquist has a LEED-accredited professional on staff, and our Trafton Science Center project was named one of the state’s “greenest” buildings. Founded in 1974 by Fred Shaw, the company has grown to over $80 million in revenues in fiscal 2008.

Wal-Mart SuperCenter (expansion), Bloomington, MN and Franklin, WI; McCarran International Airport (renovations), Las Vegas, NV; Law Enforcement and Criminal Justice Center, Brooklyn Park, MN; Mississippi Market, Saint Paul, MN; City Hall and Public Safety Facility, Inver Grove Heights, MN; Jarvis Hall Science Center (expansion/renovation), Menomonie, WI; Trafton Science Center (expansion/renovation), Manakato, MN

SHEEHY CONSTRUCTION COMPANY

360 West Larpenteur Avenue
Roseville, MN 55113
Tel: (651) 488-6691
Fax: (651) 488-4992
Email: tim.elness@sheehyconstruction.com
www.sheehyconstruction.com
Established 1955
Total in MN: 58
Contact: Tim Elness, (651) 328-8360

Company Principals
Dan Krause, Pres.
Ned Blankenship, VP
Blair Jular, VP
Tim Elness, Dir. Bus. Dev.
Jim Schoenberger, VP

Sheehy Construction has been in business since 1955.Owned and managed by the Sheehy family for two generations, the company excels at providing excellent service and quality construction at a reasonable cost. Sheehy has built a local and national reputation for taking the most challenging projects and working through each step with the owner to deliver a successful result.

Frederick R. Weisman Art Museum, Minneapolis, MN; MAC Transit Center, Minneapolis/St. Paul International Airport, St. Paul, MN; Ramsey County Juvenile Detention Center, St. Paul, MN; Eagle Brook Church, Lino Lakes, MN; Mill City Museum, Minneapolis, MN; Metro Transit Light Rail Stations – Hiawatha Line, Minneapolis, MN

WATSON-FORSBERG CO.

6465 Wayzata Boulevard, Suite 110
Minneapolis, MN 55426
Tel: (952) 544-7761
Fax: (952) 544-1826
Email: cindiyh@watson-forsberg.com
www.watson-forsberg.com
Established 1965
Total in MN Office: 35
Contact: Dale Forsberg, (952) 544-7761

Company Principals
Dale Forsberg, Pres.
Mike Ashmore, VP
Paul Kollas, VP
David Forsberg, Sec./Treas.
Donna Lucero, Controller
Dave Carlson, Sr. Proj. Mgr.

Watson-Forsberg Co., builds commercial, multi-family, retail, religious, educational, medical and industrial projects. New construction projects and renovation, ranging from $10,000 to $25,000,000. Watson-Forsberg constructed the environmentally-responsible Seward Co-op (LEED Gold). The Redeemer Missionary Baptist Church restoration won the National Trust Preservation Award. Projects are also recognized by the AIA Committee on Urban Environment. Best in Real Estate, and Minneapolis HPC.

Franklin Portland Gateway (The Wellstone and Jordain), Minneapolis, MN; Hazelden Meditation Center, Center City, MN; Ripley Gardens Apartment and Historic Renovation, Minneapolis, MN; YMCA (addition/remodel), Woodbury, Shoreview and Minneapolis, MN; Seward Co-op, Minneapolis, MN; The New San Marco, Duluth, MN
It takes a village to design, engineer, and construct a great building. So let’s give credit where credit is due.

CORRECTION

In our September/October Conundra department on the flaws and virtues of the LEED rating system for green buildings, we incorrectly reported that the new Seward Co-op Grocery & Deli in Minneapolis lost a LEED Platinum certification by choosing to replace an exterior wall rather than restore it. Architect Gar Hargens, AIA, and LEED consultant Tonya Johnson Nichol let clarify:

"While we are proud that we saved some of the shell of the original building (which was the original site of Lindahl Olds) and wonderful architectural features like the terrazzo floors and cast-iron trusses, we got our LEED credits for doing so. LEED has three points for building reuse: one for 75 percent of the structure (floors, roof, and walls), another if you get to 95 percent, and a third point if you reuse 50 percent of the existing nonstructural elements. We weren’t close to getting any of them.

"Besides the plus of keeping a familiar piece of neighborhood fabric, we saved approximately $250,000 in construction cost by reuse. We probably used $100,000 plus of contingency to redesign and fix hidden structural problems, so the report that we net-saved at least $100,000 is true. However, we never tried to achieve Platinum. That would have required at least 10 additional points. We are expecting to achieve our original goal of Gold. We won’t know for sure until next year, another of LEED’s little frustrations.”
<table>
<thead>
<tr>
<th>AIA Contract Documents</th>
<th>64</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIA Minnesota</td>
<td>18</td>
</tr>
<tr>
<td>Alliant Energy, Interstate Power &amp; Light</td>
<td>1</td>
</tr>
<tr>
<td>H. Robert Anderson/XL Insurance</td>
<td>61</td>
</tr>
<tr>
<td>Architectural Consultants/Carlisle Syntec</td>
<td>2</td>
</tr>
<tr>
<td>AVI Systems</td>
<td>57</td>
</tr>
<tr>
<td>Borgert Products</td>
<td>6</td>
</tr>
<tr>
<td>County Materials</td>
<td>17</td>
</tr>
<tr>
<td>DeLeers Millwork</td>
<td>26</td>
</tr>
<tr>
<td>Directory of General Contractors</td>
<td>65-69</td>
</tr>
<tr>
<td>Duluth Timber Company</td>
<td>56</td>
</tr>
<tr>
<td>Dunham - Mechanical + Electrical Consulting Engineering</td>
<td>61</td>
</tr>
<tr>
<td>Emanuelson-Podas, Consulting Engineers</td>
<td>12</td>
</tr>
<tr>
<td>EPA Audio Visual</td>
<td>8</td>
</tr>
<tr>
<td>Exhibit, AIA Minnesota Convention</td>
<td>54</td>
</tr>
<tr>
<td>Damon Farber Associates, Landscape Architects</td>
<td>17</td>
</tr>
<tr>
<td>Gausman &amp; Moore, Mechanical &amp; Electrical Engineers</td>
<td>59</td>
</tr>
<tr>
<td>Hanson Heidelberg Cement Group</td>
<td>Cover 4</td>
</tr>
<tr>
<td>Hedberg Landscape &amp; Masonry Supplies</td>
<td>63</td>
</tr>
<tr>
<td>Interlock Concrete Products</td>
<td>59</td>
</tr>
<tr>
<td>Dennis J. Linder &amp; Associates, Liability Insurance &amp; Risk Management</td>
<td>62</td>
</tr>
<tr>
<td>Major Industries, Skylights &amp; Translucent Curtainwall</td>
<td>62</td>
</tr>
<tr>
<td>Mankato Kasota Stone</td>
<td>52</td>
</tr>
<tr>
<td>MBJ, Consulting Structural Engineers</td>
<td>54</td>
</tr>
<tr>
<td>Minnesota Architectural Foundation</td>
<td>54</td>
</tr>
<tr>
<td>Minnesota Brick &amp; Tile</td>
<td>22</td>
</tr>
<tr>
<td>Minnesota Ceramic Tile Industry</td>
<td>55</td>
</tr>
<tr>
<td>MMPC - Midwest Masonry Promotion Council</td>
<td>Cover 2</td>
</tr>
<tr>
<td>Molin Concrete Products</td>
<td>Cover 3</td>
</tr>
<tr>
<td>Mortenson Construction</td>
<td>3</td>
</tr>
<tr>
<td>Partners 4, Design</td>
<td>20</td>
</tr>
</tbody>
</table>

**ADVERTISING INDEX**

- RJM Construction | 60
- Rubin Cordaro Design | 56
- St. Croix Press | 16
- Schuler Shook, Theatre Planners & Lighting Designers | 53
- SEH Landscape Architects | 52
- Specifications & Green Building Consultants Network | 52
- TCH — Twin City Hardware | 58
- VAA, LLC, Structural Engineering | 53
- Wells Concrete Products | 10
- The Weidt Group | 52
- WoodWorks, for Non-residential Construction | 14
- Xcel Energy | 57

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<table>
<thead>
<tr>
<th>Issue</th>
<th>Date</th>
<th>City</th>
<th>Zip Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Jan.</td>
<td>Minneapolis</td>
<td>55405</td>
</tr>
<tr>
<td>2</td>
<td>Feb.</td>
<td>Minneapolis</td>
<td>55405</td>
</tr>
<tr>
<td>3</td>
<td>Mar.</td>
<td>Minneapolis</td>
<td>55405</td>
</tr>
<tr>
<td>4</td>
<td>Apr.</td>
<td>Minneapolis</td>
<td>55405</td>
</tr>
<tr>
<td>5</td>
<td>May</td>
<td>Minneapolis</td>
<td>55405</td>
</tr>
<tr>
<td>6</td>
<td>June</td>
<td>Minneapolis</td>
<td>55405</td>
</tr>
<tr>
<td>7</td>
<td>July</td>
<td>Minneapolis</td>
<td>55405</td>
</tr>
<tr>
<td>8</td>
<td>Aug.</td>
<td>Minneapolis</td>
<td>55405</td>
</tr>
<tr>
<td>9</td>
<td>Sept.</td>
<td>Minneapolis</td>
<td>55405</td>
</tr>
<tr>
<td>10</td>
<td>Oct.</td>
<td>Minneapolis</td>
<td>55405</td>
</tr>
<tr>
<td>11</td>
<td>Nov.</td>
<td>Minneapolis</td>
<td>55405</td>
</tr>
<tr>
<td>12</td>
<td>Dec.</td>
<td>Minneapolis</td>
<td>55405</td>
</tr>
</tbody>
</table>

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