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Cover

Our Saviour’s Lutheran Church
Architect: Kodet Architectural Group, Ltd.
Minneapolis, Minnesota
Photographer: Don F. Wong
Round zero. The site. The hole. Since September 11, the place where the World Trade Center’s twin towers collapsed, taking thousands of lives with them, has become an absence symbolizing the many holes that since that day have been torn in the fabric of American life—in our families, in our sense of security, in our confidence in our government, economy, architecture.

Because the wounds are deep, varied and interconnected, we struggle to try to make the world whole again. Days after the terrorist attacks, architects and artists put forth ideas for rebuilding, or not rebuilding, ground zero. Websites, radio and television were jammed with up-to-the-minute coverage from every perspective and part of the world.

People came together to give blood, donate funds and supplies, console each other. And magazine editors rushed to cover the tragedy in ways meaningful to their readers, with results that ranged from the profound to the ridiculous. My hope is that, at the very least, this issue of Architecture Minnesota conveys both information and insight.

As a writer and editor with a venue and a mission statement—to educate the public about the work of architects and the value of architecture—I deliberated over a response to September 11 that might, in some small way, help mend the holes. How could AIA Minnesota architects, as professionals licensed to ensure the health, safety and welfare of the public, contribute to our understanding of the sudden changes in our lives and help move us safely in new directions?

What materialized is a special section that begins with a visit to ground zero. In the article that follows, representatives from architectural firms specializing in government, aviation and data-protection work describe how their clients have turned to them for design expertise in planning or initiating new security measures.

Last, architects and related professionals offer their insights on the role of the architectural profession in a post-September 11 world. The magazine then returns to its original theme, religious architecture—a wholly coincidental and appropriate topic, as places of worship are where people largely turn in search of solace.

Much has been made of the terrorists’ choice of targets: the twin towers, which represented American commerce, and the Pentagon, an icon of military might. In their destruction, these buildings raised public consciousness of architecture as symbol. But since September 11, people have also acquired a new sense of how architecture defines their world while enclosing and protecting them.

This doesn’t mean architecture can or should be used as a tool to fight terrorism. As architects continue to remind us, they can’t design against hijacked jetliners with full loads of fuel. What needs to occur is a greater awareness, on the part of government, developers, the public and architects, of architecture’s role and influence in our world.

The effects of buildings on human communities and our natural environment have always been critical to evaluate (if often ignored). And since September 11, new risk factors have entered the equation.

As arbiters of openness and security, public and private space, natural and built environments, the wildly imaginative and the purely functional, architects now have a heightened responsibility to create humane architecture at a time when the question of what’s humane is globally complex.

What remains simple and the same? Our humanity, of course. And our vulnerability. We’re all at ground zero.

Camille LeFevre
lefevre@aia-mn.org
2001 Honor Awards
Twelve awards—nine Honor Awards and three Divine Details—were announced during AIA Minnesota's 67th annual state convention in early November. The winners, chosen from 103 submissions by firms from throughout the state, were selected by Lee Becker, FAIA, partner, Hartman-Cox Architects, Washington, D.C., Margaret McCurry, FAIA, principal, Tigerman McCurry, Chicago, Illinois, and Ray Huff, principal and partner, Huff + Gooden Architects, llc, Charleston, South Carolina. Listed below are the award-winning projects, firm names and locations, the edition of Architecture Minnesota in which coverage has or will appear, and a portion of the jurors' comments.

1 Minneapolis Rowing Club Boathouse
Minneapolis, Minnesota
Vincent James Associates, Inc., Minneapolis
To be published March – April 2002
“A true example of form follows function, the architects fulfilled a simple program with musicality and understated elegance.”

2 Tofte Cabin
Tofte, Minnesota
Sarah Nettleton Architects, Minneapolis
Published March – April 2001
“This project, through its careful attention to the site, use of materials and continuity of forms, is to be praised for its environmental sensitivity.”

3 Riley Hayes Advertising
Minneapolis, Minnesota
The Leonard Parker Associates Architects, Minneapolis
Published September – October 2001
“A deft renovation of a 1902 train-engine house that creates a dialogue between new forms and the strengths of the existing building.”

4 Moore Residence: Addition and Remodeling
Minneapolis, Minnesota
David Heide Design, Minneapolis
To be published March – April 2002
“The seamless addition engages and embraces the backyard with an attention to detail that's carried into the interior.”

5 21320 Renovation
Lake Minnetonka, Minnesota
CONstruct Architects, Inc., Minneapolis
Published May – June 2001
“The architects inventively remade this ranch-style house into a modern home that's simple, crisp, open and light.”

6 Milwaukee Road Depot Development
Minneapolis, Minnesota
Elness Swenson Graham Architects, Minneapolis, and Shea Architects, Minneapolis
To be published March – April 2002
“A multiuse facility that not only restores the urban fabric, but completes the block with amenities that ensure the viability of the whole.”

7 Service Garage Transformation
Minneapolis, Minnesota
Y + A Architecture, Minneapolis
To be published March – April 2002
“A successful adaptive reuse that we appreciate for its simplicity, elegance and restraint.”

8 Pusan Exhibition and Convention Center
Pusan, Korea
The Leonard Parker Associates Architects, Minneapolis
Published November – December 2001
“A monumental, muscle-flexing building with structural panache and a sophisticated spatial quality.”

9 F.A.I.R. Arts Middle School
Crystal, Minnesota
Hammel, Green and Abrahamson, Inc., Minneapolis
To be published March – April 2002
“An exploration of late-1990s curvilinear and skewed forms, the architecture creates a lively learning environment.”

Divine Details

1 Milwaukee Depot Shed
Curtain Wall
Minneapolis, Minnesota
Shea Architects, Minneapolis
“A workhorse detail, simple and clever.”

2 Lawson Commons Parking Ramp
St. Paul, Minnesota
BWBR Architects, St. Paul
“A clever, elegant mediation of scale.”

3 ASID Storefront System
Minneapolis, Minnesota
LHB Engineers & Architects, Minneapolis
“Tectonic detail expressed well.”
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Traveling Fellow

A SURVEY OF 20TH-CENTURY ARCHITECTURE across central Europe, with an eye toward projects bearing a strong relationship to the landscape, is the study goal of Nick Woodard, winner of the 2001 Ralph Rapson Traveling Fellowship. Since 1989, the fellowship competition, conducted by the Minnesota Architectural Foundation, has provided young architects with the opportunity to advance their education in architecture by pursuing foreign or domestic travel and study.

The competition is open to individuals under the age of 40 who have either graduated from the University of Minnesota’s College of Architecture and Landscape Architecture and worked anywhere for at least one year, or graduated from any accredited architectural school and worked in Minnesota for at least one year. Woodard received his bachelor’s degree from Iowa State and his master’s of architecture from Syracuse. He is currently an associate with Architectural Alliance, Minneapolis.

This year’s competition required contestants to design a city hall for Amery, Wisconsin. Woodard has entered the competition before. “This was my third attempt at the competition and while it’s very gratifying to win—obviously—the process has been just as rewarding in the years I haven’t won,” he says. “Conditions for participation are ideal and the winner is awarded a great opportunity.”

INSIDER LINGO By Gina Greene

Free span

It’s a well-known advertising fact that anything labeled “free” will garner attention. While free span does imply the something-for-nothing philosophy, it doesn’t involve money. With free span, the item gained is an arch or a dome, called free because it’s unencumbered by columns or other vertical support elements such as walls. How can this be?

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Arches and domes are found throughout architectural history—in igloos, athletic arenas, churches and school auditoriums. The most noteworthy is the Sistine Chapel. So the next time you’re in a domed structure, check out the structural attributes—it’s free.
Saint John’s Celebrates Marcel Breuer, Architect
Saint John’s Abbey & University, Collegeville, Minnesota

In honor of the 100th anniversary of Marcel Breuer’s birth, Saint John’s is hosting a celebration of his life and work.

April 24, 2002
Lecture: “Architecture, Art and Sacred Space”

May 22–July 28, 2002
Exhibit of Breuer’s drawings, models and artifacts

June 20–23, 2002
Breuer Architectural Symposium, planned with the Minnesota Chapter of the American Institute of Architects

For more information, call (320) 363-2562 or visit the website www.marcelbreuer.org
Breuer at St. John’s

IN 1950, ABBOT BALDWIN DWORSCHAK, OSB, St. John’s Benedictine Abbey and University in Collegeville, Minnesota, made a bold decision resulting in what one art historian called “a milestone in the evolution of the architecture of the Catholic Church in this century”: he chose Marcel Breuer’s comprehensive building design for the campus. Through the years, the fruitful relationship between Breuer and the Benedictines produced a number of architectural landmarks, including the Breuer Monastic Wing (1955), Abbey and University Church (1961) and Alcuin Library (1964). (See page 26.)

In recognition of Breuer’s contributions to architecture, St. John’s has launched a yearlong celebration commemorating the 100th anniversary of Breuer’s birth, with his widow, Constance Breuer, as chair of the Breuer Centenary Honorary Committee. Events include: a lecture by John Wesley Cook, president, Henry Luce Foundation, on “Art, Architecture and Sacred Space” (April 24); the opening of an exhibition of Breuer’s photos, models, drawings and furniture at the St. John’s Art Gallery (May 21); and an architectural symposium, organized with AIA Minnesota, that includes lectures, roundtable discussions and building tours. For more information visit www.marcelbreuer.org or call (320) 363-2562.

Preservation Awards

THE PRESERVATION ALLIANCE OF MINNESOTA announced its 2001 preservation awards in November. The awards recognize outstanding individuals, organizations and projects that exemplify the Alliance’s mission of preserving, protecting and promoting Minnesota’s historic resources.

The first Preservation Alliance Annual Achievement Award was given to Congressman James Oberstar, Minnesota Eighth Congressional District, for his extraordinary leadership in promoting a federal transportation policy that protects our environmental and cultural heritage. In addition, the Alliance recognized the following projects:

Sacred Heart Music Center, Duluth
Sacred Heart Music Center (owner)

1861 Stone Warehouse Restoration, Lower Sioux Agency Historic Site, Morton
Minnesota Historical Society (owner)
City of Minnetonka (owner)
Claybaugh Preservation Architecture, Inc. (restoration architects)

Charles H. Burwell House, Minnetonka
City of Minnetonka (owner)
Miller Dunwiddie Architects, Inc. (restoration architects)

City of Little Falls, Little Falls
City of Little Falls

Hubbard Marketplace, Robbinsdale
City of Robbinsdale (owner)

Original Coney Island Buildings, St. Paul
The Arvanitis Family (owner)
MacDonald and Mack Architects, Ltd. (restoration architects)

Redeemer Missionary Baptist Church, Minneapolis
Redeemer Missionary Baptist Congregation (owner)
MacDonald and Mack Architects, Ltd. (restoration architects) (See page 34.)

Mary Wiemiller, Winsted
Mary Wiemiller, founder of the Winsted Preservation Society

Open Book, Minneapolis
Minnesota Book & Literary Arts Building, Inc. (owner)
Meyer, Scherer & Rockcastle, Ltd. (restoration architects) (see Architecture Minnesota, September – October 2000)

Little Earth Neighborhood Early Learning Center, Minneapolis
Little Earth Neighborhood Early Learning Center (owner)
Meyer, Scherer & Rockcastle, Ltd. (restoration architects)

Project and Report: “Historic Roadside Development Structures on Minnesota Trunk Highways”
Minnesota Department of Transportation (sponsor)

Our Lady of Victory Chapel, St. Paul
College of St. Catherine (owner)
Miller Dunwiddie Architects, Inc. (restoration architects)

Glen Lake Children’s Camp, Eden Prairie
City of Eden Prairie (owner)

Special Recognition: Prairie Church Preservation Efforts

Hoflanda Swedish Lutheran Church, Mower County
Hoflanda Cemetery Association (owner)

Zion Lutheran Church, Chippewa County
Zion Restoration Society (owner)

Valley Grove Land Preservation, Valley Grove
Valley Grove Preservation Society (owner)
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Newsmakers  By Bette Hammel

Pelli and Nouvel aren't the only "stars" landing commissions in Minnesota. Tadao Ando, the acclaimed Japanese minimalist, was awarded the new 30-room guest house at St. John's Abbey and University in Collegeville, which will overlook Lake Sagatagan east of Marcel Breuer's famous church. Since much of Ando's work revolves around his elegantly simple designs of monastic spaces, the monks felt he was their natural choice. Ando's plan consists of two intersecting rectangular wings designed to continue the abbey's legacy of architecture for the spirit.

Renovation of Coffman Union, the once-popular hangout for University of Minnesota students on the Minneapolis campus, is progressing. Mic Johnson, design director, Ellerbe Becket, Minneapolis, says, "We are reversing the '70s and going back to the original C. S. Johnston design of 1939." Windows are being replaced in the north façade of the existing structure. Southward, overlooking River Bend Commons, more glass will go in and a new terrace will be added above a transformed Delaware Street. Johnson says the 1939, rounded-corner "steamship look" inside the building will be retained, but new escalators will improve access to all floors, underground connections will be made to the new parking ramp and the building will include a new headquarters for the U of M's main bookstore. The entire project will reorient Coffman to the river as dictated in Cass Gilbert's original plan.

That Minnesota Public Radio (MPR) is staying in St. Paul was great news for the city. The existing headquarters will remain and be expanded across 9th Street into the 480 Cedar building. Tim Carl, AIA, Hammel, Green and Abrahamson, Inc., Minneapolis, says the design goal is to connect the two buildings and make them function as one. MPR has also been negotiating with the city to acquire the nearby triangular open space along 7th Street for public use as a possible amphitheater or "soapbox media wall."

Perkins and Will became the first architectural firm in many years to establish offices on the Nicollet Mall in Minneapolis. The group now leases two and a half spacious floors in the historic Essex Building (formerly Bjorkman's) above The Local at 9th & Nicollet. Jim Young, director of interiors, and Bill Lyons, chief designer, led the redesign; a singularly elegant space using classic modernism. A gathering area, dubbed "The Forum" (named for the landmark Forum Cafeteria), features a 28-foot-long, granite-topped table overlooking the mall.

Architectural Alliance designer Scott Sorenson is the lucky staffer who spent three months in Paris in 2001 working with Jean Nouvel's team on the new Guthrie Theater design. Sorenson calls the experience "a lifetime opportunity." Although he does not speak French, most of the young team members know English. Since they are in charge of design, his job is to reinterpet the program for the owner and client. He says that "with Nouvel, there's always something very dramatic that makes you go, 'Wow!'" Sorenson liked every aspect of living in such a famous urban environment, where "you can get good food every five meters."

The landscape design of Jackson Meadow near Marine on St. Croix earned Coen + Stumpf + Associates, Inc., Minneapolis, a national merit award from the American Society of Landscape Architects this year. Preserving the site's rural character and open space, Coen + Stumpf designed a unique development with 64 clustered residential units that take up only 30 percent of the site. Prairie grasses and wildflowers flourish in the meadow, while existing native pine and birch trees circle the perimeter.

Representing his firm, The Weidt Group, Minnetonka, David Eijadi, AIA, traveled to France this summer to accept an international award from the European Council for an Energy Efficient Economy. The award was given for the Energy Assets program, a collaboration between The Weidt Group, Xcel Energy and Minnesota's design community to design energy-saving features into large buildings. The Minnesota program was cited as the one "most likely to meet the intent of the Kyoto Protocols in the shortest time."

New Releases

Since 1970, Camilo José Vergara has photographed the World Trade Center towers from every possible angle. In Twin Towers Remembered, a photographic memoir, their outline rises above neighboring spires and bridges anchoring the skyline over a wildlife preserve in Queens, a junkyard in Hoboken and an elevated train in the South Bronx, reminding us of how strong a presence they were no matter where one stood. After the September 11 attacks, Vergara returned to many of the original photographic sites to record the effects of the towers' absence on New York's skyline. What emerges is not only a tribute to a building but a moving and personal document of a city and an entire region. All profits from Twin Towers Remembered will be donated to the American Red Cross.
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A year ago, the few remaining members of the B’nai Abraham Synagogue in the Iron Range town of Virginia, Minnesota, took the fateful step of removing the Torah and some religious artifacts from their vacant place of worship to send them to a synagogue in Duluth, in accordance with a Jewish practice of keeping the holy book from becoming idle. The synagogue’s last service, with the seven remaining members of the congregation, was held on the last day of the last millennium. The future of the only remaining synagogue on the Iron Range is now uncertain.

Founded in 1892, Virginia was rebuilt after a devastating fire in 1893 and a second fire in 1900 to become the second-largest city in northeastern Minnesota. Because of its prosperity and influence, Virginia became known as the Range’s “Queen City.” Large numbers of Eastern European immigrants arrived to labor in the area’s lumber and mining industries. As the city’s business district grew, immigrant Jewish entrepreneurs and their families arrived to become retail proprietors and to provide professional services.

Seven years after the 1900 fire, Jewish community members built the B’nai Abraham Synagogue, using a generalized Romanesque architectural prototype that was common for religious structures at the time. The synagogue was built with red-brick walls on a stone foundation. Large windows with arched tops display marbleized stained glass that depicts Jewish symbols and a curious collection of Masonic elements. The sanctuary floor is raised substantially above ground level, with the basement a half story below grade.

The building’s architectural integrity has been maintained throughout its 94 years, although it was somewhat marred by a 1970s wood-frame addition to the front façade built to enclose the main stairway. The front façade’s main brick gable rises substantially above the roof, lending a sense of monumentality to the place of worship and obeying an Old World custom to make the synagogue higher than surrounding structures.

The synagogue’s interior holds special memories for Dorothy Karon, a lifelong resident of Virginia whose family centered its religious and social life within the building. Today, Karon lives two blocks from the synagogue. As a child, she was fascinated with a pair of golden lions holding tablets that bear the Ten Commandments in Hebrew script high above the bema. When she recently visited the building on a maintenance check, she felt the same sense of awe.

The interior remains essentially original, except for wood paneling covering the walls. The ark that held the Torah scrolls is still there. Karon remembers the High Holidays when the congregation, then numbering more than 50 families, would feast on dinners in the basement, then watch the children march between the pews in the sanctuary upstairs.

B’nai Abraham Synagogue was added to the National Register of Historic Places in 1979 for its contribution to the ethnic diversity of the Iron Range and the state of Minnesota. Through the years, such ethnic-based religious centers as B’nai Abraham have provided social stability and cohesion for the Iron Range’s immigrant populations. Although the primary purpose for synagogues and churches was to serve religious needs, they also helped immigrants adapt to their new society while maintaining their ethnic identity. As a result, ethnic culture often became a hybrid of Old World customs and newly formed traditions.

At one time, the Iron Range had four synagogues; only B’nai Abraham remains—for now. Why have these synagogues, as well as many Russian Orthodox churches on the Iron Range, disappeared? Dr. Marilyn Chiat, adjunct professor, Near East and classi-
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Jeffrey Scherer, FAIA

Public service and promoting the value of AIA Minnesota architects are the goals of the organization’s new president

By Camille LeFevre

Last August, Twin Citians at the semifinal architectural presentations for the new Minneapolis Central Library were abuzz about one architect’s passion for the project. During final presentations in October, as he articulated his multicultural vision for the library, citizens were wowed by his grasp of the city’s changing demographics and their relevance to the design of a new urban library.

Ultimately, the library committee passed over Jeffrey Scherer, FAIA, and the hometown architectural firm of Meyer, Scherer & Rockcastle, Ltd., Minneapolis, (in partnership on the project with Ellerbe Becket), for Cesar Pelli, FAIA, and his Connecticut firm. But anyone who attended those public interviews will never forget the ardor, intelligence and resolve displayed by Scherer, who is this year’s AIA Minnesota president.

A founding principal of Meyer, Scherer & Rockcastle, Scherer has worked with more than 70 communities across the United States, helping them raise funds, locate appropriate sites and plan, design and furnish their library buildings. His projects include: the United States Senate Library, Washington, D.C.; Ridgedale-Hennepin County Library, Minnetonka; and Sahara West Public Library & Fine Arts Museum, Las Vegas.

Scherer earned his bachelor’s of architecture from the University of Arkansas, Fayetteville, Arkansas, studied at the University of Rome and completed graduate studies at the Architectural Association in London, England. His numerous professional honors and awards include an AIA National American Library Association Honor Award for the Stillwater Public Library renovation; a National AIA Honor Award for the Weisman Art Museum with Frank O. Gehry & Associates; a Progressive Architecture Award for the Herman Miller Design Yard; and an AIA Minnesota Honor Award for Facility Systems, Inc., Headquarters. In 1998, Scherer was elected to the AIA College of Fellows.

Scherer is past chair of the Minnesota Library Planning Task Force, a group established to advise the governor and legislature on library planning and statewide electronic access. In addition to serving as the 2002 AIA Minnesota president, he is also president of the Hennepin County Library Foundation Board. Architecture Minnesota talked with Scherer about his commitment to public service, AIA Minnesota’s recent member survey and resulting strategic plan, and educating the public about the value of Minnesota architects.

What led you to accept the nomination for AIA Minnesota president in 2002?

Public service is an ethic of mine. We’re bound as human beings to contribute more than we take. It’s crucial to not act entirely self-centered in our profession, because the sum is greater than the parts. The only way the sum can be large enough to sustain us all is to give back directly or through collaboration and mentoring.

So encouraging more architects to be members of AIA is part of your mission this year?

Yes, and the way to encourage people to join is for them to see people they respect and believe are good architects contributing to AIA. Working on

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The Suburban Alternative
Megachurches are the new centers for religious and civic life in the suburbs

BY FRANK EDGERTON MARTIN

The first thing worshipers see when entering the cavernous lobby of Eden Prairie's Wooddale Church are the video monitors with scrolling text announcing the day's schedule of services, meeting groups and concerts, as well as upcoming events. Serving up to 10,000 members and first-time visitors on a single Sunday, Wooddale is one of Minnesota's first megachurches.

The term "megachurch" was coined in the 1980s to describe Willow Creek Community Church outside of Chicago, which boasts a weekend congregation of roughly 25,000 people. Wooddale Church, designed in the late 1980s by Bentz/Thompson/Rietow, Inc., Minneapolis, is one of the best and earliest examples of the megachurch in Minnesota, a new breed of religious design and programming.

It's impossible to understand the quiet hunger for community and spiritual transcendence in America's newest suburbs without understanding the services, programming and architecture of their sprawling new churches. Complete with coffee shops, bookstores, rock-climbing walls, gymnasiums, myriad meeting spaces and computer centers, megachurches are becoming new community centers for service-economy suburbs striving to define what "community" means.

Megachurches, which may have from 1,200 to 25,000 members, are increasing in Minnesota and throughout the country because they offer choices: a traditional service with pipe organ and chamber orchestra, or a contemporary service without hymnals or Bibles in the pews. Even though their scale allows for anonymity, many congregants meet before services in demographically tailored groups for young singles, thirtysomethings or the recently widowed.

In addition, these churches generally seek a broad ecumenical identity that obscures their specific origins as, for example, Baptist or Lutheran. Without the baggage of mainline religious associations, megachurches can market themselves to the "de-churched," people who have fallen out of Catholic or Protestant faith traditions.

What does a megachurch look like? New megachurches, such as the 60-acre Grace Church in Eden Prairie designed by Hammel, Green and Abrahamson, Inc., Minneapolis, often have amenities and facilities akin to those of new high-school and college campuses. When completed in 2002, Grace will seat 4,500 parishioners—the same capacity as Northrop Auditorium at the University of Minnesota.

Megachurches typically emerge in new suburbs on sites close to major highways. For example, Wooddale Church is "planting" a family of churches on sites near the freeways of the southwest "Fertile Crescent" of Minneapolis and St. Paul. Known as "The Woods," these offshoots include: Bridgewood in Savage, Northwood in Maple Grove, Oakwood in Waconia, Westwood in Chaska, Woodcrest in Eagan and Woodridge in Long Lake.

Megachurches aren't designed in a single or denominational style. They do, however, often blend high-tech amenities with such traditional details as stained glass. Wooddale's main sanctuary includes a theater control room at the back of the balcony and flat-screen monitors with rolling bullet points to interpret the sermons. But there are also such familiar symbols as an immense pipe organ and Gothic-arched windows.

As such, these projects offer new design and site-planning possibilities for architects, including the challenge of bestowing intimacy within an immense and high-tech setting. "Often we are really faced with the design of a space that looks and feels like a worship environment, but which has many of the functional characteristics of an auditorium," explains Steve Patrick, AIA, partner, BWBR Architects, Inc., St. Paul.

Wired for rock-concert levels of sound, many new sanctuaries are designed to accommodate such theatrical needs as stage-set delivery, sight lines and lighting-equipment changes. One strategy for establishing a sense of intimacy in such a space is to bring congregants into a circle similar to the earliest forms of Christian

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Ground Zero

BY THOMAS FISHER, ASSOC. AIA

Two weeks to the day after the terrorist attack on the World Trade Center, I stood one block from ground zero, barely able to breathe the air fouled with the odor of burning plastic and wondering at the impact this would have on architecture. New York City itself offered some clues: Stores had closed, hotels stood empty, construction in some places had halted. In the short term, at least, the attack may dampen the desire of some clients to build.

But even when the economy recovers, the way we design and construct buildings and cities seems destined to change. Skyscrapers, for example, will no longer represent just an efficient use of land or a symbol of civic pride. They have also become potential targets for terrorists and possible traps for tenants. This will probably not make skyscrapers obsolete, but it may give pause to those who would make such towers ever taller or more visible.

Construction, too, may change. The older, heavier buildings around the World Trade Center site appear to have withstood the towers’ collapse better than newer, lighter structures, one of which also imploded. Likewise, thicker cladding seemed to offer better resistance than glass-and-panel-clad façades, whose shards must have rained down upon the street.

Yet glass may have new roles to play, especially in lobbies. I couldn’t walk into a lobby in New York without having to show identification and state my purpose. Lobbies may remain glassy and transparent, not for reasons of openness and accessibility, but because of a newfound desire to watch the street for abandoned vehicles, unattended packages or unusual pedestrian behavior. “Surveillance” and “security” may become the new watchwords of public space.

At the same time, public space may become more personal. Throughout Manhattan, the sidewalks have sprouted impromptu shrines to the missing, with photos, descriptions, votive candles and flowers. The creators of these memorials and the crowds that form around them indicate a need for public space that will enable us to share information, to pause for reflection, to participate in common grief. Streets may need to be more accommodating of such expression, providing places for postings about the victims of this war.

The effect of terrorism on our cities remains the most elusive question. Lower Manhattan shows what it means to turn a city into a battlefield, with some streets converted into parking lots of driverless police cars and refrigerated morgue trucks, and other streets lined with jersey barriers and police cordons. You feel a strong urge to flee.

Yet refusing to flee, refusing to be terrorized, may be the one thing all of us can contribute to this conflict, as the architectural discipline’s defense of urban life has taken on new meaning. In the end, terrorism may help unify our profession and strengthen our cities, as it has begun to solidify the civilized world—all things to be thankful for.
Security By Design

Architects are providing advice, design guidance and ideas for enhanced security to their clients in the post-September 11 world  
By Burl Gilyard

The heretofore unthinkable terrorist attacks on New York’s World Trade Center and the Pentagon in Washington, D.C., on September 11, 2001, changed the way many of us think about the world. Since the acts of terrorism struck iconic architectural symbols of Wall Street commerce and national security, buildings once viewed as impervious were suddenly revealed to be vulnerable.

The grievous loss of life and apocalyptic destruction prompted federal authorities and American businesses to reconsider safety measures with a newfound sense of gravity. At the same time, many clients turned to their architects with a host of questions about how design could bolster security, both literally and psychologically.

A survey of several Minnesota-based architectural firms whose work includes airport, federal and data-security facilities revealed mixed results: Some projects have stalled, while others are continuing with revisions. Many architects confirmed they are doing a lot of new security-related work, but their clients have barred them from discussing the details. In some cases, airing design specifics in the pages of Architecture Minnesota, they insist, is now considered a security risk.

As clients turned to architects for guidance, many design professionals turned to their peers to grapple with increased security-related questions. AIA National unveiled the Security by Design Resource Center on its Web site (www.aia.org/security/), which lists up-to-the-minute building and site security-related resources for architects.

The Web site offers a “virtual seminar” on security design and an online-classroom program about integrating more security into office-building design. The site also notes that the Federal Bureau of Investigation is asking architects and engineers to report any unusual or suspicious requests for building plans or documents to their local FBI field office.

For AIA Minnesota firms, projects receiving the most attention since September 11 have been airports around the United States. Ar-
chitectural Alliance, Minneapolis, has maintained an office at the Minneapolis-St. Paul International Airport (MSP) for 23 years where the firm does work for the Metropolitan Airports Commission, Northwest Airlines and other airlines. Slightly more than one-third of the firm's business is generated by airport projects.

Since September 11, says Eric Peterson, AIA, principal, Architectural Alliance has seen some or all of its work stall at five of the 10 airports where it currently has projects: Phoenix; Rochester, New York; Washington, D.C.; San Diego; and MSP. Locally, work on the expansion of the north terminal at MSP is on hold. A terminal expansion and renovation for Northwest Airlines at Ronald Reagan Washington National Airport also came to a halt.

In the wake of those project slowdowns, Architectural Alliance laid off 12 staffers. Peterson acknowledges the slackening of airport projects was a factor, but adds the cuts were “related to overall workload,” noting that some of the laid-off employees weren’t assigned to airport projects. Peterson believes that in the long run airport projects now on hold will resume.

Research conducted by AIA National confirms that point of view. Following September 11, an AIA National survey found that more than half of firms participating reported direct impacts from the terrorist attacks, including projects that had been delayed or canceled. A mid-October 2001 Work-on-the-Boards Survey, however, by Kermit Baker, Ph.D., AIA’s chief economist, says that “almost half of firms have not seen significant changes in business conditions at their firms. Of those that have seen an impact, two-thirds feel that things will return to normal by the middle of next year.”

For The Leonard Parker Associates Architects, Minneapolis, it’s business as usual, with a little tweaking, on the remodeling of a federal courthouse in Davenport, Iowa. Stringent federal design guidelines have been in place for years and were tightened further after the bombing in Oklahoma City in 1995. Since September 11, says Ray Greco, AIA, principal, “we’ve been asked to do certain analysis work,” which, owing to federal security guidelines, Greco is barred from discussing. But the security analysis hasn’t delayed the project, slated to begin construction in fall 2002.

The Work-on-the-Boards Survey also reports that “almost a third of firms have launched new marketing initiatives. More than one in five has reviewed client needs on existing projects. One firm in seven has expanded its practice to include new building sectors or service offerings.”

Peter Styx, AIA, principal, Ellerbe Becket, Minneapolis, for example, believes a new specialty—security planning and prevention—may take hold in the architectural profession. Styx also says many clients are looking more seriously at incorporating projectile-resistant glass, reconfigured building entryways and deeper building setbacks into projects. Many of the tough design guidelines the federal government has used for years, he adds, are now migrating to the private sector.

At the same time, Ellerbe Becket is reevaluating designs in progress. “We have several projects going on where we’re debating whether a high-rise becomes multiple mid-rises,” Styx explains. On another project, he continues, “we’re discussing whether the front entry needs to be reconfigured so there isn’t a possibility for a high-speed vehicle to crash into the building.” Styx can’t disclose project names or clients. Since September 11, “corporations don’t want people to know what their security strategies are. They don’t require us to sign confidentiality agreements, but we’re almost to that point.”

Meanwhile, a week after the attacks, Rick Lincicome, AIA, CEO, Ellerbe Becket, traveled to the firm’s office in Dubai, United Arab

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The View From Here

Architects and related professionals consider ethics, aesthetics, security and sustainability in tomorrow’s built environment Produced by Camille LeFevre

Since September 11, we enjoy continuous access to the opinions of political pundits, the counseling of psychologists, the wisdom of religious leaders and the insights of historians to help us understand the whys and hows of terrorism in America and ways of coping in its aftermath. Little heard, however, are the voices of architects, the artists and master builders charged with overseeing the health, safety and welfare of people who inhabit the built environment.

The fact that American architectural icons of commerce and military prowess were chosen as the terrorists’ targets raises a host of questions about how we now view buildings. Five months after the loss of nearly 4,000 lives in unprecedented acts of violence, the defense of buildings in which people live and work seems evermore pressing.

Today, what is the role of the architect as the professional licensed to ensure the health, safety and welfare of people in buildings? How might the events of September 11 change the planning of cities and suburbs? How can architects balance Americans’ love of freedom, openness and assembly in public places with a new need for security?

Following are the reflections of AIA leaders, architects and related professionals on how the events of September 11 are changing perceptions of architecture and our built environment. Also included are their insights as to how architects are responding to clients, constituents and the community—at-large as we reorient ourselves to a world in which terrorist acts can occur at any time.

The terrorists who planned the events of September 11 were intent on demoralizing the American people by attacking the architectural icons that represent our principles, ideology and successes. When the British destroyed the White House and the U.S. Capitol in 1814, their actions were similarly motivated. Our nation’s leaders wisely decided to rebuild these symbols of democracy where they originally stood, proclaiming to the world that this nation cannot be brought down through acts of destruction or terrorism. Understanding architecture’s role to express the culture and heritage of a nation should fill each architect with great pride and the inspiration to be their very best.

Norman L. Koonce, FAIA, chief executive officer and executive vice president, American Institute of Architects, Washington, D.C.

The world has changed since September 11. How we as a society view buildings and work, how we congregate and how we see each other is now different. We can no longer rely on trust, distance and respect to support the greater good. The expression of our environments will reflect a new sense of culture, place and adventure. Our work will be viewed not only as life enhancing, but also as full of risk. Distinction by design will always be a pursuit in civilized society and architects will be asked to approach design with new vision.

Edward J. Kodet Jr., FAIA, vice president, American Institute of Architects, Washington, D.C., and principal, Kodet Architectural Group, Ltd., Minneapolis

While the events of September 11 are related to a complex set of issues, there is a connection to past conflicts over access to oil resources in the Middle East. An obvious strategy to alleviate this situation is to reduce our dependence on oil and work toward increased acceptance and implementation of sustainable design in architecture. Fortunately, solar and wind technologies are ready to partially replace fossil fuels and significantly contribute to energy generation in buildings. Design professionals and their clients have an important role to play in accelerating change toward a new generation of environmentally sensitive buildings.

John Carmody, director, Center for Sustainable Building Research, College of Architecture and Landscape Architecture, University of Minnesota

The tragedy of September 11 will be a shaper of future thinking—from both emotional and pragmatic design perspectives. Except for a few building types (such as criminal-justice facilities), security has been a reactive process, often involving renovation. Security issues will now be integral to the thought process in building design. As most of us are aware, security design and safety are often in direct conflict (i.e., security design wants fewer control points/exits and safety wants more). We will have to balance both issues appropriately. In doing so, we will be valuable resources to our clients as they introduce yet another influence into their built environment.

C. Jay Sleiter, AIA, president and chief executive officer, BWBR Architects, Inc., St. Paul
Since September 11, the major corporate-security threat has expanded from theft of intellectual property to weapon hazards and misuse of biological agents. Architectural practice will likely be affected by not only heightened security policies for corporate clients, but by a new spurt in building projects for biology, health and defense labs—which until recently were politically challenging to fund.

As with the Minneapolis-St. Paul International Airport where, for security reasons, public and private spaces were clearly differentiated, future public and private projects will be increasingly secured with areas off-limits to visitors. Large national office developers are implementing heightened security policies and turning to architects for assistance in retrofits and the creation of building-specific, emergency-operations centers.

Becky Greco, AIA, principal, Hammel, Green and Abrahamson, Inc., Minneapolis

Although many Americans will always love cities, the 19th-century Emersonian notion that God is in nature and cities are places of corruption still inspires many to seek life outside of cities. The events of September 11 may fuel this trend. Indeed, decentralization of our utilities would mitigate the ability of terrorists to wreak havoc on those systems. The autonomous building, with its own water well and septic system, solar power and wireless communications may be to cities what the desktop computer is to the mainframe. Yet the cultural cost of dispersing our diverse and gifted communities over greater geographic areas will be to limit the spontaneous face-to-face exchange of ideas that fuels much of our progress.

Charles Orton, AIA, associate, DLR Group, Minneapolis

I hope architects see this tragedy as an opportunity to share their unique ability to solve problems with groups desperately in need of help, before using it to broaden their client base through a calculated business decision. What we can do for our fellow man overshadows what we can do to gain an edge in the marketplace. We should always be solving our client’s problems in the context of issues of the time. Today’s crisis is similar to issues addressed in the 1970s directed at long-term solutions to excessive energy consumption. What starts out being a short-term solution often proves to be a better solution for the ages.

Susan Blumentals, FAIA, 2001 AIA Minnesota president and principal, Blumentals/Architecture, Brooklyn Park

The dramatic and emotionally charged images of the collapse of the World Trade Center and the wounding of the Pentagon remind us of all we take for granted about architecture. The Vitruvian presumptions of “firmness” (durability, strength, safety), “commodity” (economic value, material cost) and “delight” (visual character, symbolic significance) come to mind. Yet new architectural questions emerge as well, like the political implications of a wide range of Western buildings as “targets” of protest in a multicultural world.

Since September 11, I’ve developed an acute awareness of the fragile yet powerful relationship between the ephemeral (ideas) and the real (physical) in architecture. The meanings we attribute to these large and expensive artifacts we design and build are ultimately rather liquid and deserve the architect’s greater attention.

By attention I don’t mean only our most rigorous and insular professional interests and intentions, but our need to be inclusive and fully public in our engagements, considerations and discourses. For our ideas to be truly influential and wise, we need to be connected to the diverse perceptions of, and interests in, our work.

Garth Rockcastle, FAIA, principal, Meyer, Scherer & Rockcastle, Ltd., Minneapolis

While an obvious response might be to convert public buildings into fortresses, allowing them to convey vulnerability or fragility may be an equally valid approach. There’s a point of reason between these extremes. This is a good time to reflect about the symbolic value of architecture in our society.

Buildings that communicate that their “purpose in being” is to resist any attack—whether it is graffiti, vandalism or full-blown terrorism—suggest that the owners have low expectations of visitors. The places I have visited that are “protected” the least, such as a Greek monastery with unguarded ancient manuscripts and religious artifacts, are the environments I have felt the need to respect the most.

I think public buildings should be like public parks: They should express an expectation of care. Their materials, forms, scale and all aspects of their design should inspire civic pride. It’s likely that emerging technologies will allow us to comprehensively and inconspicuously monitor and protect our major buildings without compromising aesthetics. We shouldn’t let the terrorists win by subverting what architecture can be during its best moments.

Dave Norback, AIA, president, RSP Architects Ltd., Minneapolis
The Benedictine’s Bauhaus

The ideals of the Bauhaus embodied a secular version of Benedictine beliefs, evident in Marcel Breuer’s buildings at St. John’s Abbey and University

By Thomas Fisher, Assoc. AIA

St. John’s Abbey and University in Collegeville, Minnesota, has one of the largest collections of buildings by architect Marcel Breuer: not only the Abbey and University Church (1961) and Breuer Monastic Wing (1955), but the Alcuin Library (1964), the Peter Engle Science Center (1965), several dormitories and apartments, even an entry sculpture. Breuer’s reputation has never been stronger at St. John’s, which will host a major celebration of the centenary of Breuer’s birth in June (see page 11). What is the affinity between Breuer’s work and the ideas of the Benedictines, and what new light does this affinity shed on the modern architect?

To answer this question, I spent part of a sunny summer day touring the Breuer buildings with two Benedictine monks, Columba Stewart, OSB, an author, and Alan Reed, OSB, curator of art and artifacts. They talked about the Rule of St. Benedict, which calls for them to live communally, with few personal possessions and with a significant amount of daily life devoted to prayer and to manual as well as intellectual work. They also described how St. John’s, one of the largest Benedictine monasteries in the world, has considerable self-sufficiency, once growing all of its own food and still building much of its own furniture.

Breuer and his mentor, Walter Gropius, had something similar in mind for the Bauhaus. Gropius envisioned the Bauhaus as a place in which an architect could “once again gather spiritually like-minded workers round him in close personal intimacy” as the masters who built the Gothic cathedrals had done in the Middle Ages. The Bauhaus also had communal living quarters for its members, common rituals that strengthened social solidarity and rules of behavior that created a sense of independence from the outside world.

Among Marcel Breuer’s masterpieces is the abbey church (below), with its massive concrete bell tower (opposite) with “legs” and “arms” that express the individual “standing before God and humankind.”
Listening to Stewart and Reed, I could see why Breuer’s architecture had appealed to this Benedictine community. The ideals of the Bauhaus, which Breuer sustained long after most architects had given up on them, embodied a secular version of Benedictine beliefs: the importance of community, the value of craft, the simplification of life. This may seem distant from most of our lives, but monasteries such as St. John’s and secular equivalents like the Bauhaus can help us rethink our definition of the good life, especially at a time when most of us are over-consuming natural resources and contributing to an environmental crisis of monumental proportions.

Rather than equate the good life with the quantity and expense of our material wealth, the monastic tradition envisions that life in more sustainable terms. The Benedictine’s asceticism accepts the material world, but sees it serving other more important nonmaterial goals.

The Bauhaus took a similar position. Much of the product design that occurred there, including the furniture from Breuer’s workshop, had as its goal the elimination of the excessive or unnecessary, and the design of simple standardized objects. At the same time, the students and faculty at the Bauhaus continually tried to transcend the material world, seeing what they did as an almost spiritual pursuit. The work itself reflected those transcendent values.

Similarly, throughout history many monasteries existed as self-contained communities, growing or making most of what they needed, so they serve as models for how we might better live on our self-contained planet. While St. John’s is no longer as self-sufficient as it once was, it still embodies the values that make a sustainable existence possible.

It’s a model in which three realms—the social, the intellectual and the spiritual—interact so that wealth accrues not through the amassing of material goods, but through the pursuit of nonmaterial riches: connecting to other people through conversation, increasing knowledge through study and deepening consciousness through prayer.

How do we realize those nonmaterial values in something as material as a building? Doesn’t architecture, which is costly and materially intensive, obstruct our strivings for a more equitable, nonmaterialistic existence? Three of Breuer’s best buildings at St. John’s speak to those very questions. While massive in scale and made of such heavy materials as stone and concrete, the monastic wing, the library and the abbey church each express the nonmaterial values of the Benedictines and the Bauhaus.

Consider the monastic wing, Breuer’s first building at St. John’s. The wing is a four-story rectangle, parallel to the shore of Lake Sagatagan, containing service and recreational rooms on the lowest level; reception rooms, guest rooms, social spaces and the sacristy on the main level; and dormitories for the monks on the top two floors.

Compared with most apartment buildings, the monastic wing has a far greater proportion of shared space than it does private space. As Columba Stewart writes in his book *Prayer and Community, The Benedictine Tradition* (Orbis, 1998), “The genius of Benedict was to situate the individual search for God in a communal context.”

The dormitories have since been divided into small individual rooms. But the social spaces for conversation, recreation and relaxation have remained un-
changed in nearly 50 years, suggesting the value and importance this community places on those activities. Breuer’s monastic wing also makes a point about the relation of the social realm to that of nature. The architect opened up the rooms, especially the public rooms, to the outside with large areas of glass and, in many places, screened balconies or porches. As a result, the sun, the sky and the surrounding trees and lawns all make their presence constantly felt inside the building.

Still, an organic community, one in which social interaction ebbs and flows as people grow and change, does not mean that its material enclosure also must appear organic, ebbing and flowing. As Breuer once wrote, “A building is a man-made work, a crystalline, constructed thing. It should not imitate nature—it should be in contrast to nature.” Breuer achieved this in the monastic wing; thus his work at St. John’s also suggests that a more sustainable role for architecture is as a minimal backdrop to the wealth of social interactions that occur there, facilitating the flow of human community without imitating it.

The intellectual wealth at St. John’s emerges most clearly in the library. Located across the entrance court from the abbey church and monastic wing, the rectangular building has a deceptive simplicity from the outside. A nearly blank lower wall is marked with vertical-slit windows, above which runs a glass wall that is shaded on the south side by a flue-tile screen. The one break in the pattern marks the entrance, with asymmetrical glass openings deeply inset to provide protection from the sun and rain.

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For more than 80 years, the old stone citadel of Our Saviour's Lutheran Church stood at the corner of Chicago Avenue and 24th Street in south Minneapolis. Tragedy struck in December 1995, when fire gutted the venerable house of worship. The congregation vowed to remain in the Phillips neighborhood and ultimately decided to rebuild on the same corner.

Pastor Hans Lee says church members felt strongly that by erecting a new building the church was given the opportunity to reflect its community-oriented, city-based mission in the design. The congregation expressed “a real desire to have the building be open to the neighborhood,” Lee says.

“Virtually all central-city churches in the past were fortresses,” Lee continues, recalling Our Saviour’s original “looming” 1912 Gothic structure. Instead, the congregation of Our Saviour’s wanted a building that projected its inviting personality. “We wanted people who live in this neighborhood to be drawn to the building and be welcomed by the design,” Lee explains.

Lee and his 400-member congregation praise Kodet Architectural Group, Ltd., Minneapolis, for helping Our Saviour’s fulfill that vision. “The predominant themes are simplicity, openness and community,” says Edward Kodet Jr., FAIA, principal, of the 20,000-square-foot church. “Today’s places of worship have changed from historic statements where every religious artifact is an integral part of the building, to spaces that reflect a focus on how a richer liturgical experience can be gained through involvement in the church community.”

As a result, he continues, “the congregation didn’t want anything ostentatious. The church is in the center of an urban neighborhood and serves a diverse congregation. It provides worship, education and refuge to this community. So the congregation was dedicated to a new image of openness and welcome.”

Thus light and visual connection were critical elements of the design. The west side of the building, which faces Chicago Avenue, for instance, is largely plate-glass windows, to announce the church’s activities and allow passersby to peer into the worship space. The transparency, Lee adds, reinforces the connection between the neighborhood and the church, which offers such social services as a homeless shelter and an English Learning Center for new immigrants and refugees.

In addition, small square windows on the south wall and a light scoop above the altar cast daylight throughout the sanctuary. “In contrast to many older churches where light comes through beautiful stained glass,” Lee says, “this space, because of the natural light, allows us to see more clearly the faces of those who gather around the Word and sacrament.”
The west side of Our Saviour’s is largely windows to announce the church’s activities and allow passersby to see into the building (opposite). At the sanctuary entrance is a baptismal font with a channel carved into its surface to represent the original river where the first baptism occurred (above).
Floor plan
1. Worship
2. Narthex
3. Hospitality
4. Wellness
5. Office
6. Daycare
7. Kitchen
8. Reception/workroom
9. Pastor
10. Assoc. Pastor
At the entrance to the sanctuary, Kodet took a symbolic approach to religious experience. At the base of a six-foot-square granite baptismal font is a cornerstone from the old church, "to remind the congregation that from ashes much can be built and to ashes all things will return." Carved into the font's surface is a jagged channel through which water flows, "symbolizing the original river where the first baptism took place, and since baptism marks the entry into religious life, the widening of the water channel in the top of the font expresses the widening of one's religious experience."

Inside the sanctuary, a curved ceiling—featuring exposed Douglas-fir beams and trusses—rises to 48 feet and hovers over the 300-seat worship space arranged to reinforce a sense of community. The white walls, natural wood and glass convey a simplicity that enhances contemplation and reflection, and serves as a backdrop to religious activity and art.

A "contemplation space" on the west edge of the sanctuary provides overflow seating during services or can be made private by closing large oak-lattice doors. Also on the church’s main level are the hospitality center with a commercial kitchen, church offices and a licensed childcare center. The church’s lower level includes 10 classrooms, two offices, a choir room, a computer room and a youth room.

While the exterior of the church is "quite contemporary," Kodet says, "the design uses crisp lines and a distinctive look so people relate to the church as a place of worship." As the tall light scoop intersects the sanctuary roof, for instance, the two forms create a cross that echoes the cross embedded at the top of the tower-like scoop. The white stucco church, needless to say, has become a neighborhood icon conveying the message that an inner-city neighborhood is as safe and friendly as others elsewhere.

The congregation of Our Saviour’s held its first service in its new church in September 2000 and Lee recalls "the joy of finally feeling as though we had a home again." After losing the original church, the congregation was “determined to come back stronger than ever,” Kodet says.

"The people of Our Saviour’s didn’t throw up a lot of block and brick and be defensive,” he explains. “Instead, they were enthusiastic about creating a space that reinforces the open, accessible personality of the congregation.”

Our Saviour’s Lutheran Church
Minneapolis, Minnesota
Kodet Architectural Group, Ltd.
Minneapolis, Minnesota
Clifton Johns admits he knew nothing about Prairie School architecture when the congregation whose board he chaired bought Stewart Memorial Presbyterian Church in 1988. The architects' names, Purcell and Feick, and the building's status as an architectural masterwork were unknown to the board. Johns simply felt relief that his predominantly African-American congregation, now rechristened Redeemer Missionary Baptist, had finally secured a building to call home. He immediately focused on maintenance issues facing the 1910 structure, located in south Minneapolis.

Johns turned to MacDonald and Mack Architects, Ltd., Minneapolis, for advice. The firm specializes in historic restoration and renovation, with expertise in places of worship. MacDonald and Mack had been involved with the building since the former congregation commissioned a maintenance survey in 1979. In the process of conducting the survey, Robert Mack, FAIA, principal, assembled considerable knowledge about the church and its now-famous Minneapolis architects, William Gray Purcell and George Feick Jr., who would later evolve into the firm Purcell and Elmslie.

REDEEMING VALUE

Restoration of a historic church designed by Purcell and Feick includes ingenious design solutions to meet a Baptist congregation's needs

By Robert Frame
Mack shared his files with Johns and the church building committee.

After opening their Minneapolis office in 1907, Purcell and Feick received one of their first commissions: the Stewart Memorial project. The design broke with ecclesiastical tradition by illustrating many features characteristic of the Prairie School style including horizontal building lines, a flat roof with overhanging eaves and spacious flowing interiors. The exterior is primarily brick veneer over wood studs, with stucco in selected areas. The interior is predominantly plaster and natural-finish wood.

The architects felt electricity and telephones rendered church bells obsolete for calling the faithful to worship, so why spend money on a bell tower instead of social programs? Large east and west walls of plain translucent glass brought daylight into the church, which was supplemented by overhead electric lights. Symbolism was limited to simple cruciform shapes emerging effortlessly through the stile-and-rail design of the door panels and in the quartered squares marking the corners of rectangles and intersecting lines. A 1915 Sunday-school addition, designed by American Realty and Building Company, conforms to Purcell and Feick's original design in general concept, though not in details.

"There isn't any stained glass and there aren't any niches for statuary in this church," Mack explains. "The church's value lies in its simplicity, which became the key to restoration for the new congregation." In other words, as the project team discussed building issues with their client, restoration of the 18,500-square-
The project team designed a special feature for the Baptist congregation: a full-immersion baptismal tank in the sanctuary (top) that disappears behind a wood panel when not in use (above). The building, designed by Purcell and Feick in 1910 (opposite), is listed on the National Register of Historic Places.

Meanwhile, Johns learned that Purcell's mother had helped slaves escape through the Underground Railroad during the Civil War and that the young architect's first commission had come from a wealthy black landowner in Alabama, where Purcell had hidden from white vigilantes. "The Purcell story made our bond to the building that much stronger," Johns says.

With restoration and rehabilitation of the church as its goals, the building committee identified the congregation's needs: a full-immersion baptistry within the sanctuary, a commercially certifiable kitchen for the off-site meal program, improved use of the old gymnasium and more lower-level meeting space.

In turn, MacDonald and Mack outlined a historic-restoration agenda appropriate for the building, which is listed on the National Register of Historic Places: improved accessibility to all levels; restoration of the building exterior and sanctuary interior to 1915 condition; adaptation of the addition's interior to current needs; expansion of the fellowship hall into the former gymnasium; and restoration of the addition's parlor and library.

Exterior work included repairs to the roof, masonry, doors and windows. Inside, reproduction light fixtures, based on historic photographs and an existing fixture, were installed. The ceiling of the atrium (adjacent to the sanctuary) was lifted to its original height, revealing clerestory windows. New forced-air heating and cooling were added, although existing radiators were kept for authenticity.

The project team also created a wheelchair-accessible entry off the parking lot, installed an elevator, expanded restrooms and reconfigured the floor of the old gymnasium to align with the fellowship hall and augment its use. Finally, the sanctuary was faithfully restored to its original appearance and improved lighting, a sound system and a full-immersion baptismal tank were incorporated.
An integral part of Baptist services, the baptismal tank needed to accommodate at least two individuals simultaneously during monthly services in which 30 people or more might be immersed. Men's and women's changing rooms with showers had to be located nearby. The immersion tank needed to be easily filled and drained, the water treated and heated.

Studying the heart of the chancel, located directly behind the podium and centered in front of the choir loft, Mack found the answer. An original fixed wood panel was reengineered to drop down into a new slot in the floor, while a section of loft floor would slide to the rear, thus opening space for a 700-gallon tank into which people could step from the loft level. The front wall of the tank was fitted with clear Plexiglas to make it visible to the entire sanctuary.

When not in use, the tank disappears behind the raised wood panel and the chancel reassumes its 1915 appearance. Electrical and mechanical systems were hidden beneath the choir loft and can be accessed from an existing rear hallway. New changing rooms were built in the original basement boiler-room area, directly accessible from the choir loft above.

The restoration was completed in September 2000 and won a 2001 Preservation Award from the National Trust for Historic Preservation, Washington, D.C. “This congregation found clever ways to preserve the building's historic design while adapting it for their needs,” explains Richard Moe, president, National Trust. “Such a project is a model for congregations everywhere.”

For Johns and his congregation, the search for a home produced unforeseen miracles of architectural restoration, membership growth and widespread community involvement. “We are blessed,” he says. “We are happy and we are proud of our accomplishment.”

Redeemer Missionary Baptist Church
Minneapolis, Minnesota
MacDonald and Mack Architects, Ltd.
Minneapolis, Minnesota
When the Basilica of St. Mary opened in 1915, it was more than a house of worship. It symbolized the growing size, power and wealth of Minneapolis's Roman Catholic community. While St. Paul might tout its coveted role as the seat of the bishop, Minneapolis is home to America's first basilica, endowed with special privileges and mission as decreed by the Pope himself.

Parisian architect Emmanuel Masqueray's design for the church was a Beaux Arts beauty that arguably rivaled his other local commission, the St. Paul Cathedral, which opened the same year. The basilica's façade towered over Hennepin Avenue. Its copper dome and lantern quickly became a landmark. But while the building inspired piety and awe in visitors, it lacked contemporary functionality.

There was no space for religious education. Social functions had to be held off-site. Worst of all, there were no bathrooms. By the 1980s, the congregation's growth had exacerbated the basilica's lack of support spaces. Church leaders had long eyed the undercroft—the unfinished
basement space below the sanctuary—as a logical spot for expansion. But the basilica’s aging edifice needed structural maintenance, so administrators hired Miller Dunwiddie Architects, Inc., a Minneapolis firm known for preservation work, to fix the leaky roof and collapsing dome.

The church returned to the matter of undercroft development in the mid-1990s. Not surprisingly, building-committee members contacted the firm that had helped them avert the first crisis, Miller Dunwiddie. Working hand in glove with parishioners, the firm began the design process. The 27,000-square-foot undercroft, largely used for storage, would be parceled into spaces that could accommodate everything from worship services to wedding banquets. Equally important, its contemporary function and design would mesh with Masqueray’s original Renaissance Revival style.

“One of the goals in dealing with historic buildings is that if you add on to them, you want to make the changes compatible with the building’s overall aesthetic,” says Chuck Liddy, AIA, principal, Miller Dunwiddie. Even sensitive changes, however, can cause a stir. “Whenever you touch a building where people have worshiped for years, everything is an emotional issue,” says Johan van Parys, the basilica’s director of worship and the arts, and a liturgical-design consultant. “Touching a candlestick is an emotional issue.”

In fact, transforming the undercroft required moving considerably more than a candlestick. Though the 19-foot-high basement space had large windows, it was inaccessible from the main narthex and sanctuary, as well as from the outside. To accommodate a handicapped-accessible, street-level entrance to the space, as required by code, the grand entry staircase to the basilica had to be partially dismantled, reconfigured and rebuilt, allowing for symmetrical entrances underneath.

Some parishioners were even more bothered when the project team proposed replacing two small entryway chapels with an elevator shaft and a staircase descending to the undercroft. The debate subsided when copies of Masqueray’s 1907 blueprints were produced, which designate at least the east apse as a stairwell.

With that knowledge, it was an easy decision to relocate the chapels at the rear of the sanctuary, the east one dedicated to the Virgin Mary and the west one undedicated. The chapels were designed to harmonize with the historic interior of the basilica.

Roughly two-thirds of the newly finished undercroft is devoted to gathering space: a large room, known as Mother Teresa Hall, with soaring ceilings and room for 800 people. The space can be set up for receptions, lectures, banquets and other nonworship functions. Most days, it serves as the center for the church’s St. Vincent de Paul ministry, from which volunteers provide sandwiches, clothing, transportation vouchers and other assistance to hundreds of disadvantaged and homeless people.

To accommodate the basilica’s need for restrooms, a wedding-preparation suite, meeting rooms and kitchen facilities, Miller Dunwiddie split the remaining one-third of the undercroft vertically in two, wedging a 9,000-square-foot half-level into the 19-foot space between floor and ceiling. The resulting lower level includes a small oval room that serves as a gallery space for art exhibitions and as a foyer to Mother Teresa Hall.
The heart of the new undercroft, a 150-seat chapel on the half-level, features curved walls and two ocular windows that evoke the feminine forms of the basilica's nave and altar. Still, the worship space is unmistakably contemporary. Black-stained wood chairs ringing a central altar provide a sharp contrast to the room's off-white walls and maple floor.

Two small round reconciliation rooms—with kneeling benches for private prayer and chairs and screens for confession—are startling in their contemporary styling, but soothing in their effect. Optical-quality glass tubing projects light into the rooms from sources outside the two-foot-thick walls. Domed, gold-leaf-encrusted ceilings add to the rooms' richness.

Several elements throughout the undercroft evoke the ornamentation and shape of the sanctuary above, Liddy notes. All major
elements and spaces are symmetrical. Contemporary light fixtures are crafted from alabaster. The undercroft’s blue carpeting features a fleur-de-lis pattern—the color and symbol of the basilica’s patron, Mary. The tile color mirrors the Kasota stone used throughout the building. Other top-quality materials—including plaster walls and ceilings and terrazzo flooring—were used throughout the renovation, as Liddy points out, “to give the undercroft the same 70-to-100-year durability of materials as the original building.”

Parishioners have expressed amazement at what the project team integrated—aesthetically and functionally—into the old undercroft, says van Parys. “When people first walked in, I think they were stupefied by how wonderfully the undercroft turned out, how organically it had been fit into the space,” he adds. “Now everybody thinks we’ve had this space forever.”

Basilica of St. Mary Undercroft
Minneapolis, Minnesota
Miller Dunwiddie Architects, Inc.
Minneapolis, Minnesota

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The lower-level foyer (opposite top), which is also used as the basilica’s gallery, leads to Mother Teresa Hall (opposite below), a gathering space for up to 800 people. The project team created two new accessible entrances at the front of the basilica (left), and relocated two chapels, including Mary Chapel off the east entrance (far left).
Eternal Light

Timeless interpretations of Jewish religious experience illuminate a new chapel for a San Francisco synagogue  By Camille LeFevre

In 1998, Albert Hassid, past president of Congregation Ner Tamid synagogue, approached a young architect in his congregation about adapting a small room off the sanctuary into a chapel for prayer services. Eager to undertake the project, Steven Rajninger, AIA, Locus Architecture, San Francisco, quickly sketched an idea: an ark hovering over the ground, just as the original Ark of the Covenant containing the Ten Commandments did as it was carried on the shoulders of Israelites crossing the desert.

Hassid loved the idea. "The image was traditional yet very modern," he says. "It represented the Old Testament ark and its antecedent in a beautiful way." Thus the ark—a simple, timeless interpretation on an ancient object using form, light, wood and space—became the focal point of the new 500-square-foot chapel.

"Our biggest challenge was trying to say something spiritual in a room that's quite mundane," explains Wynne Yelland, AIA, Locus, Minneapolis. "We wanted the ark to accentuate the feelings you have in a spiritual space, but not call atten-
tion to itself. So the structure manifests a solemn, reverential attitude that enhances worship."

Recessed in an alcove on the chapel's east wall, the cherry-wood ark hovers over a shallow depression in the raised limestone floor or bema. The depression is filled with sand brought back from Israel by members of the synagogue. The steel armature and cherry-wood braces holding the ark are metaphors for the shoulders of people who carried the first ark across the desert.

Because "it's required that there always be light on the ark, which holds the Torah scrolls," Rajninger explains, the ark is backlit with natural light filtered through three panels of sand-blasted glass. The glowing light behind the ark also symbolizes the Shechinah or spirit of God. Hassid confirms that the ark looks as if "the spirit of God is speaking through it."

To enhance the relationship between the scrolls, light and knowledge, an ever-present light emanates through a slot between the ark's closed doors. The project team achieved this effect by designing the ark doors, when closed, to be just wide enough to accommodate three pieces of glass on edge and illuminating the interior of the ark with nearly 50 tiny strip lights. (The glass is attached to the edge of the doors with copper straps, so when the doors are opened, the glass moves out of the way and light spills from the ark.)

On the chapel's north wall is a staggered array of stained-glass windows depicting objects used in daily prayer, as well as in the prayer, or shema, itself. "The congregation really wanted stained glass in the space," Rajninger says. "I had a problem with that, as it's clearly an architectural element borrowed from cathedrals. But they insisted." Also, the Jewish religion forbids representation of the human form in a sanctuary.

The project team resolved these issues by creating abstractions of Jewish religious experience for the stained glass. In addition to an abstraction of the shema, the windows depict the kippah (a head covering), the tefillin (leather boxes worn on the arm and head) and the tallis (a prayer shawl). The project team, which functioned as designer and general contractor on the project, also designed and built a cabinet for tallises and prayer books.

Having finished the sanctuary, Locus redesigned the south exterior of the building. A refurbished entry court includes an accessible ramp for people with disabilities, a new stucco wall and a metal gate adorned with Stars of David. A

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new copper sign with “Ner Tamid” cut in relief at the bottom allows the name to glow as it’s backlit in the evening. At the top of the sign a brick of glass clamped on edge represents a candle, reinforcing the meaning of “Ner Tamid”: eternal light.

Started and completed in 1998, the project has had “a much bigger impact than we could have imagined,” Yelland says. “We had minimal means to do something extraordinary. But I think because this project is simple and magical in some way, it’s very compelling to people.” So compelling, in fact, that AIA San Francisco and Chronicle Magazine awarded the project a 2000/2001 Interior Architecture Award.

The Ner Tamid congregation, Hassid says, remains “thrilled” and “proud” of its new chapel because it “reflects the congregation.” Despite the longevity of the synagogue, “we are very progressive,” he explains. “We were one of the first synagogues to have total equality for women. We’re with it and yet traditional, with one foot in each world.”

Ner Tamid Auxiliary Chapel
San Francisco, California
Locus Architecture
Minneapolis, Minnesota
San Francisco, California

endangered
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Architectural studies, University of Minnesota, observes that the Midwest is losing its first-generation identity—a wave of generational change that initially occurred on the East Coast and has migrated westward.

In this region, Chiat notes, the diminution of the rural economy has abetted this loss and the effects on our ethnic-based, historic architectural resources in rural Minnesota are becoming more noticeable. Chiat’s recent book, America’s Religious Architecture (John Wiley & Sons, Inc., 1997), features the B’nai Abraham Synagogue, as well as St. Mary’s Russian Orthodox Church in Two Rivers Township in Morrison County. That simple wood-frame structure sits boarded up, with its still-shiny metal onion-shaped dome proudly resisting what could be an inevitable fade into the muted farm fields that surround it.

In many instances, the ethnic churches once built for relatively small congregations now seem too small and limited in amenities for modern religious requirements. In some cases, their architectural integrity is compromised by extensions or additions of fellowship halls, instructional spaces and other specialized facilities that overwhelm the original structure.

Today, America’s melting pot seems to ladle out more generic soup than ever. We Americans now identify ourselves more by lifestyle than by culture. But a countermovement is taking place, one in which the rediscovery of ethnic heritage offers an emotional tie with times of more grounded values. In Chiat’s words, “We are finding in our heritage something that resonates with who we are.”

For Dorothy Karon, however, and the six other synagogue members in Virginia, all of them elderly, the ties with ethnic heritage have always been strong. Their concern is with finding a way to keep their treasured synagogue, a manifestation of those ties, intact.

Meetings with the Virginia city council are under way and Karon hopes a new use for the synagogue can be found. “This place is so precious,” she says of B’nai Abraham. “It means so much, not just for those of our faith, but also for the heritage of the whole region.” AM

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behalf of AIA does not mean that you can’t also do great architecture and run a great office; it just requires more organization and efficiency. Being a role model for younger architects is part of my goal as a member and president, so they can see the benefits of membership.

In addition to setting an example of volunteerism with AIA, what are your other goals as president?

My primary goal is to focus the activities of AIA Minnesota around the four critical issues identified in the new strategic plan: advocacy, external dialogue, information and knowledge, and delivery, and value.

Can you elaborate on those issues, starting with advocacy?

Advocacy is about ensuring that our members’ needs are clearly articulated to the legislature and other political bodies so that issues directly affecting the lives and work of AIA members are understood and hopefully paid attention to. That also extends to having the courage to initiate discussions about any public policies that are being proposed or developed so those policies can be shaped through our participation. In other words, it’s my goal to make sure AIA architects have a voice at any policy-making table, anywhere policies are being developed that affect the built environment.

External dialogue is another issue outlined in the strategic plan. Who will that dialogue be with?

The public. In Minnesota we’re blessed with not only a deep and gifted talent pool of architects, but also a thoughtful public. I think it’s important for the public to understand the capabilities and strengths of our members. My goal is for AIA Minnesota architects to be always considered in the selection process.

Why do you think decision makers and selection committees often go outside of Minnesota when choosing an architect?

Minnesota has a rich tradition of relying on the talents of its people for the education of

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our children, leadership at the government level and protection of the environment. But when we knock on the cultural door, Minnesota architects (and artists, musicians, playwrights, authors) are not always relied on in the same way. Minnesotans seem to feel that cultural contributions are somehow more meaningful when they come from without. Of course, Minnesota cultural contributors have to earn the right to be at the table. It should not, in my opinion, be an entitlement—that would dilute the heart of the argument that Minnesota deserves the best.

How can AIA Minnesota help break down that cultural door?
It's incumbent on the organization to raise awareness of Minnesota architects' skills and demonstrate how the rest of the world understands the value of our people. Second, AIA members need to get involved in advocacy and external dialogue with the public so they don't assume it's an entitlement but understand it's an earned right to create great works of art in Minnesota. To earn this right Minnesota architects have to create terrific architecture.

The point is that AIA Minnesota has to ensure that decision makers weigh equally and fairly the skills of local architects against those of outside architects—not just from a stylistic point of view, but from an economic, cultural and social point of view. Great architecture is not one dimensional; buildings need to reflect culture, place and the aesthetics of the time.

Could you talk about another issue in the strategic plan—information and knowledge delivery?
Because of the age we're living in, the creation of architecture is evermore dependent on the quality of the information used in making decisions. Over the last quarter century, buildings have become much more complex and governed by external legal, ethical and environmental issues. AIA Minnesota needs to increase the quality and availability of continuing-education oppor-

tunities to keep members informed, as well as expand the Web site to include links, timely and critical information, and information that supports the sharing of lessons learned by members. I would love to see more sharing of success stories, but also of mistakes among the members.

Why is sharing information so important? This goes back to my roots. I strongly believe that the quality of relationships with people or work is directly related to what you give rather than what you get. I personally see no reason why we can't do a better job of sharing our gifts, not only with our clients but also with fellow architects. I don't see this as creating a competitive disadvantage, but as creating a collective advantage.

How do you see such knowledge being delivered?
Certainly more members could initiate and teach continuing-education classes. The Web site could include PDF documents submitted by member firms that highlight a detail that may have failed and show how it was corrected in the field. There could be a listserv where members discuss not only construction-related activities, but also experiences with consultants, contractors and other professionals. I believe that the legal and practical roadblocks can be eliminated.

The fourth critical issue outlined in the strategic plan is increasing the value of membership. What needs to occur in this regard?
One of my goals is to have the attitude that what the members need is what the members should get. I want to have an open door policy so people can contact me with concerns. The main thing that came out of the AIA Minnesota member survey is that many members feel that various activities of AIA do not accurately reflect their opinions and business concerns. Also, greater Minnesota firms don't feel represented enough. I want to work to create a better balance there.

This year, I want to articulate exactly what people are getting for their dollar. At the same time, I want to emphasize that
participation is a way of shaping the value of members. So it’s not just “be a member and receive,” but “be a member and give.”

I’d also like to investigate what other possible forms of recognition could be developed that highlight architectural strengths besides just the one role model of good design that’s the focus of Honor Awards. That might include work done under difficult economic, social or political circumstances. It might be working with a low budget (maybe a “best-for-less” award).

I do not advocate lowering the design quality of Honor Awards simply to enable more people to win an award. That would not be right—especially related to my goal of increasing the quality of design in Minnesota. But I am interested in expanding the definition of architecture beyond aesthetics to the issues and ethics considered in shaping buildings.

Has the public’s perception of architecture or its value changed since the terrorist attacks of September 11?

One of the outcomes of September 11 is a stronger sense of collective community among citizens. The second thing is that people have a stronger desire to understand what precipitated this. Third, people now understand that architecture has powerful symbolic value. The twin towers of the World Trade Center were never considered “award-winning” architecture. But now, because of the buildings’ association with the deaths of so many people, those skyscrapers will forever resonate in the consciousness of everyone.

Right now, too, it’s important for everyone to remember that architects have a unique gift: We’re not one-dimensional thinkers. Because of that, architects should become part of the dialogue about how to shape the future in which terrorism is an everyday reality. If American society is deciding whether to create defensible cities, for instance, we can apply design skills that maintain openness while discreetly creating buildings that are secure. Creating openness and protection at the same time requires creative design thinking. Architects are good at that kind of thing. AM
basilicas. At St. Ambrose in Woodbury, which serves nearly 5,000 worshipers in a weekend, BWBR created a wrap-around seating design with the altar placed at the center of the sanctuary and no seat located more than 70 feet away.

Yet no matter how design overcomes the isolating effects of scale, Minnesota’s emerging megachurches are immense in their sites, parking requirements and community outreach. Architects are usually commissioned while the churches are meeting in temporary facilities. Many of Wooddale Church’s new offshoots, for instance, are meeting in public-school auditoriums until the congregation reaches a critical mass of 1,000 to 2,000 parishioners. At that point, the congregation has the means to acquire a parcel of usually at least 40 acres and to fund construction of a comprehensive facility.

At the outset, one of the greatest challenges for architects and church leaders is to find a site large enough to handle the large building program, which may include parking, schools, sports fields and stormwater ponds, as well as suitable water and sewer utilities. Pat McGuire, AIA, partner, MCL Architects, St. Paul, notes that churches are often in direct competition with developers for highly visible sites with adequate utilities. Patrick concurs that “generally, the good sites have often been chosen by developers, or have poor soils or are beyond the existing urban-service-area utility lines.”

Sometimes, after architects and church leaders find a site, neighbors raise concerns about traffic and noise, just as they would with a major new discount store or shopping center. Public meetings are now a necessity for most church architects. “Community input didn’t used to be a problem,” Patrick says, “but with the larger churches, you sometimes have 800 cars leaving after a service. So working with the neighbors is now more of a factor for us.”

Even expanding an older church to accommodate growing congregations can elicit public outcry. When MCL worked with St. Henry’s Catholic Church to enlarge its existing facility in Monticello, there was such neighborhood concern that church leaders chose to move to a new 50-acre site near I-94. While disconnected from older neighborhoods, the new site offered the chance to build at a campus scale and to forge new community partnerships. “One interesting part of St. Henry’s,” McGuire notes, “is that a senior-citizen center, including independent- and assisted-living facilities along with an Alzheimer’s unit, was built on the site with public funds.”

A new hearth of community in the suburbs, megachurches are a fast-growing market for architects and present a whole new set of site, technical, aesthetic and programming challenges. At the same time, the sheer scale of megachurches and their cacophony of services, amenities and events promise a new worship experience for people seeking alternatives—an experience that architects enhance and facilitate through design. AM

security by design
Continued from page 23

Emirates, as scheduled, to check on such current projects as chilled-water-distribution facilities and a hospital. After much deliberation, Lincicome says, “we ultimately decided to make that trip and I’m glad we did. People were absolutely delightful to us.”

Architectural Alliance has stepped up work on designs to double the current number of security checkpoints at MSP. The firm is also looking at adding more restrooms in the airport’s ticketing area to accommodate non-ticket holders who can no longer enter secure areas of the airport. Design, Peterson emphasizes, needs to extend beyond security measures. New retail and lounge areas, for instance, must be designed to help passengers feel at ease and not as if “they’re being processed,” he says.

The real impacts to the practice and philosophy of architecture have yet to be determined, agree the architects interviewed for this story. “Fundamentally, it’s probably too early to tell whether or not these tragedies are going to change the vernacular or vocabulary of architecture,” says Daniel J. Gormley, AIA, director of business development, Setter Leach & Lindstrom, Minneapolis. “It really will depend on what the clients demand in their properties or facilities.”

Nonetheless, clients have already sought advice, design guidance and ideas for enhanced security from their architects. “Clients are asking questions that just a few months ago would have seemed extreme,” Styx says. “In the past, terrorist threats were given very little, if any, consideration. Now they will be taken very seriously.”

Today, given the destruction of the twin towers and the damage to the Pentagon, the public is even more attuned to the power of architecture as symbol and its potential fragility as structure. But there is only so much comfort design alone can offer. “With terrorists,” Styx says, “it’s virtually impossible to know what they’re going to do or how they’re going to do it.” 

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benedictine's bauhaus
Continued from page 29

The surprise occurs once inside the doors. The library is, in fact, a split-level, with a two-story lower level illuminated by high windows along the rear of the building and an upper two-story room featuring two massive, tree-like columns whose concrete "branches" hold up a broad flat roof. Offices, study carrels and other service spaces ring the two levels, with glass clerestories providing views to the sky.

The library's form brings to mind two aspects of the intellectual life. One involves the outward modesty that comes with an enlightened mind, a humility highly valued in Benedictine life. The library has the same demeanor—retiring on the exterior, while inwardly complex and light-filled—which not only minimizes the building's visual impact on the abbey church across the court, but exemplifies the character of the people who have learned there.

The library also symbolizes the tension that often exists in religious communities between knowledge and belief. "Early monastic writers protest the dangers of study for its own sake," Stewart writes in Prayer and Community, and yet "intellectual work suited monastic stability." The same tension existed in the Bauhaus. Some faculty emphasized reason and knowledge of science and culture, while others advocated that their students seek a kind of spiritual transcendence.

The St. John's library embodies that tension in the two enormous tree-like columns supporting the roof. Breuer's allusion to the tree of knowledge, which bore the forbidden fruit that gave rise to human wisdom and human sin, is fitting. To sustain a community, people need to balance information and faith, negotiating between the need to know and the will to believe.

Breuer encountered a secular version of that at the Bauhaus, where knowledge of craft traditions sought reconciliation with strongly held beliefs in the cause of modern art and design. At St. John's library, Breuer gives us a religious version
whose larger-than-life symbolism reminds us of the necessary tension between mind and spirit.

The spiritual life at St. John’s reigns at the abbey church, one of Breuer’s masterpieces. A massive concrete structure, the church has an enormous freestanding concrete bell tower in the shape of a flat banner. The banner has “legs” that extend to either side of the projecting entrance to the church and “arms” that reinforce the campanile’s abstraction of the human body, expressing the individual “standing before God and humankind,” as Stewart puts it, for one’s beliefs. While such a statement has long characterized Benedictine life, it also defines Breuer, who continued to uphold his beliefs after his work had gone out of fashion.

If the campanile represents the individual pursuit of one’s beliefs, the abbey church expresses its communal pursuit. With walls and roof wrapped in folded pleats of concrete, like a monk’s robe, the church encloses a vast area of seating for the congregation, as well as a ring of seating behind the altar for the monks. Light enters through a large stained-glass rear wall, through a skylight over the altar and through horizontal bands of glass at ground level that provide views into adjacent gardens.

As a result, the massive shell of concrete appears to float on air, appearing heavy and light, open and closed at the same time, in an astute expression of the paradox of communal life: belonging to a group in order to transcend it, or being both enclosed in a community and desiring to break free of that enclosure. That same paradox affected the Bauhaus, where the ideal of communal living and working also exerted pressure on students and faculty to stand apart and express their individuality.

St. John’s recently embarked on a new project, commissioning the Japanese architect, Tadao Ando, to design a guest house for the abbey that consists of two rectangular wings oriented in a V-shape with communal space in between. This brilliant little building pays homage to Breuer by using the same material—concrete—and deferring to the nearby abbey church by remaining low to the ground and visually unobtrusive.

At the same time, Ando has managed to embody, with a minimum of moves, the spirit of St. John’s. Outwardly modest and inwardly complex, with ample social space and minimal private space, and with an abundance of places to contemplate nature as well as God, the guest house continues the Breuer tradition of dealing brilliantly with paradox, using strong evocative minimalist forms.

With the guest house, Ando also suggests a new direction for St. John’s, one that expresses even more directly than did Breuer the idea of living in more environmentally sensible ways, an idea that can sustain this community and that may eventually sustain us all.
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<td>RLS</td>
<td>Registered Land Surveyor</td>
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<td>38</td>
<td>(construction inspectors, geologists, drillers, environmentalists, chemists, laboratory experts, hazardous waste specialists, CAD/drafsmen) Technical (Eng. Tech.)</td>
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DIRECTORY OF CONSULTING ENGINEERING FIRMS

DLR GROUP
9521 West 78th Street
Minneapolis, MN 55344-3853
Tel: 952/941-8950
Fax: 952/941-7965
E-mail: minneapolis@dlrgroup.com
Web: www.dlrgroup.com
Established 1966
Other Offices: Chicago, IL; Colorado, CO; Des Moines, IA; Farmington, MN; Honolulu, HI; Kansas City, MO; Milwaukee, WI; Omaha, NE; Orlando and Tampa, FL; Overland Park, KS; Philadelphia, PA; Phoenix, AZ; Portland, OR; Sacramento, CA; Seattle, WA; Sioux Falls, SD

- Griff Davenport AIA
- Matt Johnson AIA
- Shawn Whalen PE
- George Fantauzza AIA, CID
- Marlene Evenson AIA
- Jon Crump AIA
- 
  Firm Personnel by Discipline
  Civil Engineers 1
  Structural Engineers 2
  Mechanical Engineers 5
  Electrical Engineers 25
  Architects 11
  Other Professional (interior design, facility planners, construction services) 13
  Total 66

- DLR Group has been providing exceptional engineering and design services since its inception in 1966. As a full-service architectural and engineering (mechanical, electrical, structural, civil and technology/communications) firm, we are a national leader in the design of corporate, industrial, educational, sports, justice and associated building systems.

- Albert Lea High School, Albert Lea, MN; Bemidji High School, Bemidji, MN; Becker County Law Enforcement Center, Detroit Lakes, MN; B.H. Whipple Federal Building, Minneapolis, MN; Protein Design Labs, Plymouth, MN; VA Medical Center, Minneapolis, MN

DOLEJS ASSOCIATES INC.
1624 N. Riverfront Drive
Mankato, MN 56001
Tel: 507/625-7869
Fax: 507/388-9225
E-mail: dolejs@mnmic.net
Established 1977
Other Offices: Burnsville, MN
Tel: 952/435-6790
Fax: 507/388-9225

- Joseph M. Dolejs PE
- David A. Kroels PE
- Chris Dolejs PE
- Mike Dolejs PE
  
  Firm Personnel by Discipline
  Mechanical Engineers 3
  Technical 3
  Administrative 1.5
  Total 14

- Dolejs Associates provides Mechanical and Electrical Design Services for the building industry. An experienced and staffed team provides expertise in the HVAC, Plumbing, Fire Protection, Temperature Control, Lighting Power, Communication and Life Safety Systems. Recent projects include schools, restaurants, athletic facilities, motels, engineered housing, churches, ADA and energy conservation retrofits.

- Waseca Junior High School, Waseca, MN; Math and Science Building, Bethany College, Mankato, MN; Hilton Inn, Shoreview, MN; Hosanna! Lutheran Church, Lakeville, MN; Mankato Armory, Mankato, MN

DPRA INCORPORATED
332 Minnesota St., Ste. E-1500
St. Paul, MN 55101
Tel: 651/227-6500
Fax: 651/227-5522
Web: www.dpra.com
Established 1961
Other Offices: Dallas, TX; Denver, CO; Manhattan, KS; Knoxville, TN; Princeton, NJ; Roslyn, VA; San Diego, CA

- Christopher J. Lough PE
- Martin D. Borrnell PE
- Steven C. Heikila PE
- Robert J. Wahlstrom PE, PG
- Carol L. Sarnat PE

- Firm Personnel by Discipline
  Civil Engineers 6
  Mechanical Engineers 1
  Other Engineers (chemical, geometical) 7
  Other Professionals (economics, hydrogeology, environmental scientist, history) 9
  Administrative 3
  Total Staff 26

- DPRA Incorporated has been a leading provider of environmental consulting and engineering services for over 30 years. DPRA's services include geo-technical, civil and environmental engineering, Brownfield development, property transaction services, due diligence, forensic engineering, mold/indoor air quality assessments and compliance audits.

- United Postal Service, Various Locations; Twin Lakes Redevelopment Area, Roseville, MN; Williams Hill Redevelopment Area, St. Paul, MN; Wal-Mart Superstores, Various Locations; B.P. Amoco, Various Locations; Vertical Real Estate, Various Locations

DUNHAM ASSOCIATES, INC.
8200 Normandale Blvd., Ste. 500
Minneapolis, MN 55437
Tel: 952/820-1400
Fax: 952/820-2760
E-mail: info@dunhamassociates.com
Web: www.dunhamassociates.com
Established 1960
Other Offices: Rapid City, SD; Las Vegas, NV

- Kathleen Kolbeck PE
- Dale Holland PE
- Jay Rohlkoil PE
- Mark Sigel PE
- Paul Thompson PE, SE

- Firm Personnel by Discipline
  Structural Engineers 13
  Mechanical Engineers 59
  Electrical Engineers 40
  Other Professional (lighting design, certified plan examiner) 3
  Technical 15
  Administrative 20
  Total Staff 150

- Dunham Associates provides mechanical, electrical and structural consulting engineering along with lighting design, fire protection, building code consulting and Indoor Air Quality. Our IAQ expertise includes Thermal Displacement Ventilation and Computational Fluid Dynamics modeling. We provide our clients with specialized expertise in all business markets – Aviation, Commercial/Industrial, Education, Healthcare, Hospital and Retail.

- Continued on next column

Minneapolis/St. Paul International Airport Expansion, St. Paul, MN; Fairview Southdale Hospital in Edina, MN and Fairview Ridges Hospital in Burnsville, MN; Best Buy Corporate Headquarters, Richfield, MN; Public Schools of Elk River and Mounds View, MN;块 E, Minneapolis, MN; MasterCuts and Regis Haircutting Salons, Nationwide

ELLERBE BECKET
800 LaSalle Ave.
Minneapolis, MN 55402
Tel: 612/376-2000
Fax: 612/376-2271
E-mail: info@ellerbebecket.com
Web: www.ellerbebecket.com
Established 1909
Other Offices: Greenville, SC; Kansas City, MO; Phoenix, AZ; Seattle, WA; San Francisco, CA; Washington, DC; Cairo, Egypt; Dubai, United Arab Emirates; Seoul, South Korea; Moscow, Russia; Rio de Janeiro, Brazil

- Robert Brown PE
- Rick Lincicome AIA
- Randy Wood PE
- Jay Rudberg PE
- Al Wenzel PE
- Charles Franklin PE
- Blake Ellis PE

- Firm Personnel by Discipline
  Civil Engineers 54
  Structural Engineers 38
  Mechanical Engineers 78
  Electrical Engineers 65
  Architects 372
  Construction Professionals 30
  Technical (IT, specifications) 17
  Administrative 125
  Total 730

- Ellerbe Becket's engineering services range from heating and cooling systems to reliable energy networks. The team has a wealth of experience designing systems for a broad range of project types and goals, such as office renovations or waste water treatment that uses the principles of sustainable design.

- Mayo Clinic Gonda Building, Rochester, MN; Target Technology Center, Minneapolis, MN; Conseco Fieldhouse, Indianapolis, IN; 900 Nicollet Mall, Minneapolis, MN; T&E Trade Regional Operations Center, Atlanta, GA; Science Museum of Minnesota, St. Paul, MN

Continued on next column
ERICKSEN ELLISON AND ASSOCIATES, INC. (EEA)
2635 University Ave. W., Ste. 200
St. Paul, MN 55114-1231
Tel: 651/632-2300
Fax: 651/632-2397
E-mail: info@eeaengineers.com
Web: www.eeaengineers.com
Established 1954
Other Office: Grand Rapids, MN
—
William F. Thiesen PE
James H. Art PE
Todd A. Peterson PE
Terri A. Fleischhacker PE
David L. Larson RCD
Firm Personnel by Discipline
Mechanical Engineers 7
Electrical Engineers 4
Other Engineers (RCD) 3
Technical 31
Administrative 11
Total 53

The consulting engineering firm of EEA specializes in electrical and mechanical design of HVAC, plumbing, fire protection, specialty lighting, power, security/surveillance and electronic communication system design for educational, correctional, manufacturing, and recreational facilities, libraries, offices, clean rooms and data centers. EEA provides systems commissioning, operator training, and facilities infrastructure planning.

Macalester College Central Chiller Plant and Campus Distribution, St. Paul, MN; University of Minnesota Duluth, Library, Duluth, MN; Elmer L. Andersen Library and Minnesota Library Access Center, University of Minnesota, Minneapolis, MN; Walter Technology Center, University of Minnesota, Minneapolis, MN; Grinnell College Energy Center, Grinnell, IA; Sherburne County Jail and Sheriff's Office Expansion, Elk River, MN

Foster, Jacobs & Johnson, Inc.
345 Canal Park Drive, Ste. 200
Duluth, MN 55802
Tel: 218/722-3060
Fax: 218/722-1931
E-mail: mail@fjj.com
Established 1922
—
James R. Johnson PE
Charles F. Jacobs PE
Firm Personnel by Discipline
Mechanical Engineers 6
Electrical Engineers 5
Technical 2
Administrative 2
Total 15
—
Full service mechanical and electrical consulting services, including design and preparation of contract documents for fire protection, plumbing, HVAC, controls, lighting, power distribution, communications and life safety systems and construction administration. We offer computer-aided selection of M/E equipment and generate drawings using AutoCad with "softdesk" building services.

 BIOSolids Management Facility, WLSD, Duluth, MN; Cass Lake - Bena Middle School, Cass Lake, MN; Douglas County Maintenance Facility, Hawthorne, WI; Minnesota Air National Guard Composite Aircraft Maintenance Complex, Duluth, MN; Student Housing, Fond-du-Lac Tribal and Community College, Cloquet, MN; Virginia Regional Medical Center, Virginia, MN

GAUSMAN & MOORE ASSOCIATES, INC.
1700 W. Highway 36
700 Rosedale Towers
St. Paul, MN 55113
Tel: 651/639-9606
Fax: 651/639-9618
E-mail: gmmmail@gausman.com
Web: www.gausman.com
Established 1935
Other Offices: Duluth, MN; Portland, OR
—
James W. Giefer PE
James A. Keller PE
D. Lane Hersey PE
Robert B. Full PE
Mark V. Leunghe PE
Firm Personnel by Discipline
Mechanical Engineers 11
Electrical Engineers 6
Commissioning 1
Technical 30
Administrative 11
Total 59
— FIELD OF PRACTICE: Mechanical, electrical, fire protection, lighting, energy conservation, renewable energy, audio/visual and voice/data through its Data Core facility.
ACTIVITIES: Mechanical and electrical engineering, including design of heating, ventilating, air conditioning, fire protection, plumbing, lighting, security and communication and computer systems for all building types. We also provide prototype rollouts, engineering studies, life safety studies, renewable energy system design, energy audits, and energy retrofit design.
Fred Meyer Stores, Nationwide; St. Paul Public Schools, St. Paul, MN; University of Minnesota Mechanical Engineering Laboratory, Minneapolis, MN; Target Stores, Nationwide; Potlatch Corporation, Cloquet, MN; Christopher & Banks, Nationwide; University of Minnesota, Numerous Projects, Statewide

HALLBERG ENGINEERING
1730 Commerce Ct.
White Bear Lake, MN 55110
Tel: 651/748-1100
Fax: 651/748-9370
E-mail: he@hallbergengineering.com
Web: www.hallbergengineering.com
Established 1984
—
Joseph W. Hallberg PE
James R. Penkivech PE
Larry R. Jensen PE
Firm Personnel by Discipline
Mechanical Engineers 8
Electrical Engineers 5
Technical 20
Administrative 5
Total 38
— Mechanical, electrical and facility management engineering services for educational, commercial, institutional, health care and correctional facilities. Mechanical services include HVAC and plumbing design, and ventilation audits, commissioning and remedial system modification to improve indoor air quality. Electrical services include design for power distribution, lighting, fire alarms, security systems and technology infrastructure.
— Delano Schools Additions and Remodeling, Delano, MN; Clearwater Middle School and Safari Island Community Center, Waconia, MN; Stillwater Schools Ventilation Upgrades, Stillwater, MN; Holy Family Hospital Additions, Upgrades and Clinic, New Richmond, WI; Cub Foods, Multiple Locations; Macalester College Kagen Commons, St. Paul, MN; South Washington County Schools Commissioning, Cottage Grove, MN
Hammel Green and Abrahamson, Inc.
701 Washington Avenue N.
 Minneapolis, MN 55401
Tel: 612/758-4000
Fax: 612/758-4199
E-mail: info@hga.com
Web: www.hga.com
Established 1953
Other Offices: Rochester, MN; Milwaukee, WI; Sacramento, CA

Bayard, PE
Chad Coggins, PE
Chad O'Byrne, PE
Dan Laughlin, PE
Jim Karges, Jr.
Karavel, PE
Killingbeck, PE
Leifson, PE
Shagalov, PE
Sheedy, PE
Towers, PE
Yan, PE

Other Professionals
19
Technical
12
Administrative
146
Total Staff
578

HGA has engineering expertise in the design of a broad range of facility types. In addition to traditional HVAC, structural, and electrical systems, HGA has specialists in clean environments, industrial processes, central plants, utility infrastructure, condition surveys, property evaluations, telecommunication networks, specialty lighting, and parking structures. HGA engineers serve as both prime consultants and sub-consultants.

ADC Telecommunications, Eden Prairie, MN; 3M, St. Paul, MN; Medtronic Corporate Offices, Fridley, MN; PolarFab, Bloomington, MN; Cabrillo College, Santa Cruz, CA; Metropolitan Airports Commission, Bloomington, MN; Woodlands Medical Center, Houston, TX

Karges-Faulconbridge, Inc.
1983 Sloan Place, Ste. 3
St. Paul, MN 55117
Tel: 651/771-0880
Fax: 651/771-0878
E-mail: kfi@kfi-eng.com
Established 1996

William J. Karges, Jr.
James A. Faulconbridge

Other Professionals
3
Administrative
3
Total Staff
23

Karges-Faulconbridge, Inc. (KFI) is a unique engineering firm which specializes in owner direct contracts and engineered design build projects. We are a firm of engineers, designers, professional estimators, and commissioning specialists registered in 30 states and the District of Columbia. KFI provides consulting engineering and construction management services for industrial, institutional, healthcare and commercial organizations. KFI clients rely on this unique combination of skills and experience to address issues of constructability, phasing, maintenance and operations early in the design stage, conserving time and resources.

— Karges-Faulconbridge, Inc.

Kreich, O'Brien, Mueller & Wass, Inc.
6115 Cahill Avenue
Inver Grove Heights, MN 55076
Tel: 651/451-4605
Fax: 651/451-0917
E-mail: komw@komw.com
Web: www.komw.com
Established 1985

Jim Krech
Dan O'Brien
Brady Mueller
Brian Wass

Firm Personnel by Discipline
Structural Engineers
3
Construction Managers
2
Architects
6
Interior Designers
2
Technical
5
Architect Interns
2
Administrative
3
Total Staff
23

Kreich, O'Brien, Mueller & Wass, Inc. provides practical solutions utilizing innovative technologies. Registered in 18 states, KOMW offers expertise in various codes and special geographical requirements, including seismic and high-wind design. KOMW offers full services including architectural and interior design. Specialties include industrial, commercial, institutional, forensic, agricultural, and hazardous material containment.

— Kreich, O'Brien, Mueller & Wass, Inc.

Larson Engineering of Minnesota
3524 Labore Road
White Bear Lake, MN 55110
Tel: 651/481-9120
Fax: 651/481-9201
E-mail: info@larsonenrg.com
Web: www.larsonenrg.com
Established 1979

Other Offices: Naperville, IL; Appleton, WI; Norcross, GA; St. Louis, MO; Phoenix, AZ

Lee Granquist
Kesh Ramdular
Henry Voth

Firm Personnel by Discipline
Civil Engineers
6
Structural Engineers
21
Technical
7
Administrative
7
Total Staff
41

Larson Engineering of Minnesota offers engineering services in both STRUCTURAL (including architectural, curtain wall and industrial, and CIVIL (including drainage, grading, utilities, pavement management and athletic facilities).

— Larson Engineering of Minnesota

LHB Engineers & Architects
21 West Superior Street, Ste. 500
Duluth, MN 55802
Tel: 218/727-8446
Fax: 218/727-8456
E-mail: joellyn.gum@LHBcorp.com
Web: www.LHBcorp.com
Established 1966

Other Offices: Minneapolis, MN

William D. Bennett
David M. Sheedy
Jay B. Bergman
Joseph D. Litman
William J. Erjavec
Timothy E. Korby

Firm Personnel by Discipline
Civil Engineers
8
Structural Engineers
10
Mechanical Engineers
7
Electrical Engineers
2
Land Surveyors
2
Architects
25
Other Professional (certified interior designers, landscape architects)
11
Technical
35
Administrative
30
Total Staff
130

LHB offers civil, mechanical, electrical engineering and surveying services for municipal and other governmental agencies as well as housing, industrial, pipeline/utility, workplace, educational and healthcare facilities. Typical project types include streets, roadways, highways, bridges, utilities, trails, parks, site development, M/E systems, parking structures, fuel transmission systems, telecommunication structures, structural investigations and feasibility studies.

— LHB Engineers & Architects

LHB offers civil, mechanical, electrical engineering and surveying services for municipal and other governmental agencies as well as housing, industrial, pipeline/utility, workplace, educational and healthcare facilities. Typical project types include streets, roadways, highways, bridges, utilities, trails, parks, site development, M/E systems, parking structures, fuel transmission systems, telecommunication structures, structural investigations and feasibility studies.

— LHB Engineers & Architects

MINNESOTA DIRECTORY OF CONSULTING ENGINEERING FIRMS

During the 1992-2002 Duluth Streets Improvements, Duluth, MN; Cross River Bridge, Schroeder, MN; City of Bethel Wastewater Treatment Plant Upgrade, Bethel, MN; Qwest Electrical and HVAC Improvements, Northern MN; LRT Temporary Retaining Wall MSP Airport, Minneapolis, MN

LHB currently offers services in civil, structural, mechanical, electrical and telecommunications services for both private and public agencies as well as for municipal and other governmental agencies as well as housing, industrial, pipeline/utility, workplace, educational and healthcare facilities. Typical project types include streets, roadways, highways, bridges, utilities, trails, parks, site development, M/E systems, parking structures, fuel transmission systems, telecommunication structures, structural investigations and feasibility studies.

— LHB Engineers & Architects

Paid Advertising

66 ARCHITECTURE MINNESOTA
LIESCH ASSOCIATES, INC.
13400 15th Avenue North
Minneapolis, MN 55441
Tel: 763/489-3100
Fax: 763/489-3101
E-mail: Liesch@liesch.com
Web: www.liesch.com
Established 1968
Other Offices: Madison, WI; Scottsdale, AZ
—
Brian Liesch
Kenneth P. Olson
Hal Summitt
John C. Lichter
Jim de Lambert
Hydrogeologist
Firm Personnel by Discipline
Civil Engineers 16
Other Professionals
(hydro-geologist, environmental scientists) 31
Technical 16
Administrative 12
Total Staff 75
—
Liesch is a full-service environmental consulting and engineering firm. Our multidisciplinary staff offers expertise in solving environmental challenges from design and oversight of wastewater treatment plant construction to investigation and remediation of soil and groundwater impacts. Liesch environmental professionals have the experience to finish the project on time and within budget.
—
Environmental and Engineering for Metropolitan Airport Expansion, Minneapolis/St. Paul International Airport, MN; Demolition survey for asbestos, lead paint and underground storage tanks for Target Tower site, Minneapolis, MN; Demolition and renovation of Environmental services for Grain Belt Brewery, Minneapolis, MN; Environmental Phase I and II and remediation for the Quarry Project, Minneapolis, MN

LIGHTowler JOHNSon ASSOCIATES
700 Main Avenue
Fargo, ND 58103
Tel: 701/293-1350
Fax: 701/293-1353
E-mail: cking@lightowlerjohnson.com
Web: www.lightowlerjohnson.com
Established 1954
Other Office: Oakes, ND
—
Stevan G. Dewald
Frank L. Kratky
Winton D. Johnson
Daryl Bachmeier
Timothy Cleven
Cameron Merkel
PE
-6
Firm Personnel by Discipline
Civil Engineers 3
Mechanical Engineers 3
Electrical Engineers 3
Architects 6
Marketing Coordinator 14
Technical 14
Administrative 2
Total 32
—
We provide Civil, Structural, Mechanical, and Electrical engineering, and Architectural services. We also provide surveying services. We specialize in streets, site planning, HVAC design, electrical systems, drainage, and architectural design. We work with a variety of clients on all types of facilities.
—
Holiday Inn Express, Las Vegas, NV; Bridgeview Point Subdivision, Moorhead, MN; Hog Processing Plant, Dawson, MN; Community Center, Perham, MN; Lewis & Clark Interpretive Center Addition, Washburn, ND; Harry Howland Neighborhood Swimming Pool, Fargo, ND

LOUCKS ASSOCIATES
7200 Hemlock Lane, Ste. 300
Minneapolis, MN 55369
Tel: 763/424-5505
Fax: 763/424-3822
E-mail: home@loucksmlcagan.com
Web: www.loucksmlcagan.com
Established 1976
Other Offices: Loucks McLagan, St. Paul, MN
—
Thomas G. Loucks
Jeffrey A. Shopek
Paul J. McGinley
John S. Bergh
Michael J. St. Martin
Richard Licht
PE
PE
LS
LS
LS
Firm Personnel by Discipline
Civil Engineers 5
Other Professionals
(landscape architects, licensed surveyors, planners, hydrogeologists, designers, archaeologists, environmental specialists) 25
Technical 21
Administrative 4
Total Staff 55
—
Services include site layout, grading, storm water conveyance systems, water quality retention ponds, wetland mitigation, landscape architecture, parks and trails, EAW/EIS/AUAR documents. Phase I and II ESAs, groundwater contamination, ALTA title surveys, site feasibility studies, comprehensive plan amendments, rezoning, GIS, permitting and approvals for industrial, commercial, retail, corporate campus, assisted living community, senior co-op, townhome and education facilities.
—
Allianz Corporate Facility, Golden Valley, MN; Gramercy Co-op, Statewide Locations, MN; Sibley Essex Housing, St. Paul, MN; Target, Cambridge, MN; East Village, Minneapolis, MN; West River Parkway, Minneapolis, MN

LUNDQUIST, KILLEEN, POTVIN & BENDER, INC. (LKPB)
1935 W. County Road B2, Ste. 300
Saint Paul, MN 55113-2722
Tel: 651/633-1223
Fax: 651/633-1355
E-mail: nbart@lkpb.com
Web: www.lkpb.com
Established 1969
—
Leonard A. Lundquist
John M. Killeen
Peter A. Potvin
Gayland J. Bender
Stephen J. Gentilini
PE
PE
PE
PE
PE
Firm Personnel by Discipline
Mechanical Engineers 5
Electrical Engineers 3
Other Engineer 1
Other Professional 1
Technical 34
Administrative 5
Total 50
—
Lundquist, Killeen, Potvin & Bender, Inc. (LKPB) is a mechanical and electrical consulting engineering firm that was founded in 1969 by Leonard Lundquist. The firm provides services to clients in diverse settings including medical, post secondary, corporate, commercial, municipal and religious environments.
—
Regions Hospital, Master Planning, St. Paul, MN; Middlebury College, Middlebury, VT; Minnesota State Capitol Building, St. Paul, MN; Mill City Museum Restoration, Minneapolis, MN; United Health Group, Golden Valley, MN; University of Minnesota, Minneapolis, MN

MARTIN PEVZNER ENGINEERING P.A.
8030 Old Cedar Avenue S.
Bloomington, MN 55420
Tel: 952/854-1934
Fax: 952/854-1948
E-mail: rmartin@martinpevzner.com
Web: www.martinpevzner.com
Established 2000
—
Roger Martin
Boris Pevzner
Paul Suby
PE
PE
PE
—
Firm Personnel by Discipline
Mechanical Engineers 3
Electrical Engineers .5
Administrative .5
Total 4
—
Mechanical and Electrical building systems design. Specialize in existing systems trouble-shooting, evaluation analysis, energy management and master planning. Remodeling and retrofit of systems are strong related competencies.
—
Kremer Spring & Alignment Vehicle Maintenance Facility; St. Vincent De Paul Catholic Church Mechanical Systems Evaluation; Aniston, AL Army Combat Vehicle Rebuild Master Planning and Retrofit; Marquette Plaza (former Federal Reserve Bank) Remodeling; Blue Earth School New Boiler Plant; Communication Transmitter Buildings, Pittsburgh, PA and Tucson, AZ
MATTSON/MACDONALD, INC.
1516 West Lake St., Ste. 102
Minneapolis, MN 55408
Tel: 612/827-7925
Fax: 612/827-0805
E-mail: david@mattsonmacdonald.com
Established 1983
— Wesley C. Mattson PE
— David H. Macdonald PE
— Stephanie J. Young PE

Firm Personnel by Discipline
Structural Engineers 7
Technical 3
Administrative 1
Total 11

Structural engineering services for commercial, educational, industrial, institutional and residential buildings. Design of new buildings, renovation and restoration of existing buildings. Experienced in the restoration and adaptive reuse of historic buildings.

— Milwaukee Road Depot Restoration, Minneapolis, MN; Stone Arch Lofts, Minneapolis, MN; Wayzata City Hall and Library, Wayzata, MN; Uptown Transit Station, Minneapolis, MN; Hosanna Lutheran Church, Lakeville, MN; Boutwells Landing Seniors Community, Oak Park Heights, MN

McCONKEY JOHNSON SOLTERMANN, INC.
3144 Hennepin Avenue South
Minneapolis, MN 55408
Tel: 612/822-6950
Fax: 612/822-8385
E-mail: mjoleng@qwest.net
Established 1978
— Richard W. Johnson PE
— Christian Soltermann PE

Firm Personnel by Discipline
Structural Engineers 4
Technical 1
Administrative 1
Total 6

Structural engineering services for commercial, industrial, institutional, industrial, public and residential building projects. Rehabilitation and remodeling of existing structures. Structural investigations and reports. Licensed in 20 states.
— Continued on next column

MEYER, BORGMAN AND JOHNSON, INC.
12 South Sixth Street, Ste. 810
Minneapolis, MN 55402
Tel: 612/338-0713
Fax: 612/337-3325
E-mail: dmurphy@mjbjeng.com
Established 1955
— Other Office: Duluth, MN

John E. Meyer PE
Richard E. Wiehle PE
Daniel E. Murphy PE
Michael J. Ramerth PE

Firm Personnel by Discipline
Structural Engineers 21
Technical 6
Administrative 2
Total 29

Meyer, Borgman and Johnson specializes in the design of structural systems and foundations for commercial, industrial, educational, institutional, performing arts, parking structures and religious facilities together with structural/ historic rehabilitation services. Services are rendered to architects, contractors and owners for all types of projects which require structural engineering.

— Allianz Life Building, Golden Valley, MN; McNamara Center, University of Minnesota, Minneapolis, MN; Wells Fargo Shoreview Operations Center, Shoreview, MN; Charter Terminal, Minneapolis/St. Paul International Airport, MN; Cathedral of St. Paul Restoration, Saint Paul, MN; Grain Belt Brewery Renovations/ Rehabilitation, Minneapolis, MN

MICAUD COOLEY ERICKSON
333 South 7th St., Ste. 1200
Minneapolis, MN 55402
Tel: 612/339-4941
Fax: 612/339-8354
Web: www.micaudcooley.com
Established 1946
— Dean A. Rafferty PE
— Monty L. Talbert PE
— Douglas C. Cooley PE
— Joseph A. Tennyson PE

Firm Personnel by Discipline
Mechanical Engineers 54
Electrical Engineers 44
Fire Protection Engineer 1
Administrative 15
Total 114

MCE designs HVAC, plumbing, fire protection, electrical, illumination, security, life safety, audiovisual, building automation and other specialized building systems. Feasibility and deficiency studies, reports and master planning. Tenant representation, improvement and fit-up services. Commissioning and facilities management services. Indoor air quality analysis.

— Allianz Life, New Corporate Headquarters, Golden Valley, MN; Guthrie Theatre, New Riverfront Facility, Minneapolis, MN; HHH International Terminal, St. Paul, MN; Wells Fargo Home Mortgage, Minneapolis, MN; Woodwinds Hospital, Woodbury, MN; American Express Client Services Center, Minneapolis, MN

MJP ASSOCIATES, LTD.
4362 Oakmede Lane
White Bear Lake, MN 55110
Tel: 651/426-7037
Fax: 651/426-6643
E-mail: mike@mjp-associates.com
Web: www.mjp-associates.com
Established 1993
— Michael J. Preston PE

Firm Personnel by Discipline
Structural Engineers 1
Administrative .5
Total 1.5

Specialized structural engineering services tailored to high-end residential projects, specialized component evaluation, and miscellaneous structures including investigative studies, feasibility studies, structural analysis and design, preparation of contract documents, and construction observation.
— Continued on next column

The MOUNTAINSTAR GROUP, INC.
7800 Metro Parkway, Ste. 212
Bloomington, MN 55425
Tel: 952/851-3085
Fax: 952/851-3086
E-mail: mmckelly@mtstar.com
Web: www.mtstar.com
Established 1986
— Michael A. O’Hara, PE, MSFPE
— Ryan Bierwerth
— Ben Foster
— Maureen Kelly

Firm Personnel by Discipline
Fire Protection Engineers 3
Technical 1
Administrative 3
Total Staff 7

— ADC Telecommunications World Headquarters, Eden Prairie, MN; Minneapolis Convention Center Expansion, Minneapolis, MN; Best Buy World Headquarters, Richfield, MN; K-Mart Distribution Center, Florida, NY; Carleton Northfield, Northfield, MN; IBM, Rochester, MN; Grain Belt Brewery, Minneapolis, MN; Fairview University Medical Center, Minneapolis, MN; 900 Block, Minneapolis, MN; Riverbend Commons, University of Minnesota, Minneapolis, MN

68 ARCHITECTURE MINNESOTA
LORD'S TECHNOLOGIES, INC.
14000 Sunfish Lake Boulevard Ramsey, MN 55303
Tel: 763/433-9175
Fax: 763/323-4739
E-mail: marc@nbinternet.com
Established 1996
Other Offices: St. Cloud, MN; Fargo, ND
—
Marc D. Shannon PE
Brad R. Anderson PE
Chad T. Henrich PE
Firm Personnel by Discipline
Civil Engineers (geotechnical/materials) 3
Technical 15
Administrative 2
Total 20
—
Geotechnical engineering for large multistory buildings, retail centers, sports stadiums, medical facilities, schools, dikes and dams. Engineering services also include slope stability studies, hazardous waste pond design, retaining wall design and pavement design.
—
Engelstad Arena, Grand Forks, ND; Innovis Hospital and Clinic, Fargo, ND; CentraCare Parking Ramp, St. Cloud, MN; Sauk Rapids School, Sauk Rapids, MN; St. Michaels/Albertville Water Treatment Plant, St. Michael, MN; St. Joseph School, Waconia, MN

REIGSTAD & ASSOCIATES
192 West 9th Street, Ste. 200
St. Paul, MN 55102
Tel: 651/292-1123
Fax: 651/292-8015
E-mail: reigstad.com
Web: www.reigstad.com
Established 1980
Other Offices: Des Moines, IA; Biloxi, MS
—
Gordon H. Reigstad PhD, PE
David Sentor PE
Charles Ashton PE
Firm Personnel by Discipline
Structural Engineers 10
Technical 10
Administrative 5
Total 25
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From parking garages to grand casinos, education, retail and entertainment facilities, Reigstad is dedicated to structural design with solutions to the most demanding challenges. Services and specialized investigative studies, structural analysis and design. We are willing to respond to our clients' needs to complete project on time and within budget.
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CAESAR'S INDUSTRIAL 3000-CAR PARKING
Garage; Minnesota State Athletic Facilities Phase I and II, Mankato, MN; Staybridge Suites, Rochester, MN; U of MN Hockey and Tennis Facility, Minneapolis, MN; Stratoshpere Hotel Addition, Las Vegas, NV; Best Buy Stores, Nationwide
Firm Personnel by Discipline
Civil Engineers 4
Structural Engineer 1
Mechanical Engineers 67
Electrical Engineers 25
Environmental/Chemical
Engineers 6
Architects 7
Other Professional 28
Technical 28
Administrative 30
Total 190
—
Reigstad is a specialty engineering and management consulting firm providing services to institutional, healthcare, industrial and public markets nationwide. Services include utility infrastructure modernization and optimization, building systems design and analysis, commissioning, architectural lighting, controls and automation, process engineering, power generation, transmission and distribution, facilities management support and construction services.
—
University of Minnesota, Minneapolis, MN; The Pentagon, Arlington, VA; SM, Saint Paul, MN; University of Maryland at College Park, College Park, MD; Mayo Foundation, Rochester, MN; Minnesota Historical Society, Saint Paul, MN

SETTER LEACH & LINDSTROM
730 Second Ave. S., Ste. 1100
Minneapolis, MN 55402-2454
Tel: 612/338-8740
Fax: 612/338-8480
E-mail: info@setterleach.com
Web: www.setterleach.com
Established 1917
—
Charles M. Ault PE
Robert G. Egge AIA
Thomas A. Olesak AIA
Jerome A. Ritter AIA
C. Josh Rownd AIA
Richard C. Speers AIA
Firm Personnel by Discipline
Civil Engineers 3
Structural Engineers 12
Mechanical Engineers 10
Electrical Engineers 12
Architects 39
Interior Designers 4
Technical 18
Administration 23
Total 121
—
A design award-winning firm, Setter Leach & Lindstrom provides architectural, interior design, civil, structural, mechanical, electrical, communication and technology engineering services to public and private sector clients. We provide these services nationally, and focus on retail, health care, industrial, financial, technology, large assembly, government and educational business sectors.
—
Fairview Red Wing Medical Center, Red Wing, MN; Automated People Mover, Minneapolis/St. Paul International Airport, MN; Martin Luther College, New Ulm, MN; Walgreen Stores, Nationally; Federated Insurance Offices, Phoenix, AZ; Minneapolis Convention Center Expansion, Minneapolis, MN

SHORT ELLIOTT HENDRICKSON INC. (SEH)
3535 Vadnais Center Drive
St. Paul, MN 55110
Tel: 651/490-2000
Fax: 651/490-2150
Web: www.sehin.com
Established 1927
Other Locations: Minneapolis, Glencoe, Gaylord, Worthington, Rochester, St. Cloud, Duluth, Grand Rapids, Virginia, MN; Rice Lake, Chippewa Falls, Appleton, Wausau, Madison, WI; Chicago, IL; Lake County, IN; Houghton, MI
—
Gary Gray PE
David Pillatzke PE
Brad Forbrook AIA
Nancy Schultz AIA
Doug Parrott PE
John Hinzmann PE
Firm Personnel by Discipline
Civil Engineers 214
Structural Engineers 9
Mechanical Engineer 1
Electrical Engineers 6
Architects 24
Other Professional 64
Technical 242
Administrative 121
Total 681
—
SEH is a multi-disciplined consulting firm offering Architecture, Engineering, Environmental and Transportation Services.
—
Aquatop Cult Fisheyry Facility, Red Cliff, WI; Maplewood Fire Station, Maplewood, MN; East Grand Forks Floodwall Treatment, Municipal Pump Stations, Parks and Trails, East Grand Forks, MN; New Government, Forestry and Maintenance Facility for Washburn County, Shell Lake, WI; Aircraft Fire Fighting and Rescue Facility, St. Cloud Regional Airport, St. Cloud, MN; Hopkins Fire, Police and Public Works Facility, Hopkins, MN

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STEEN ENGINEERING, INC.  
5650 North Lilac Drive  
Brooklyn Center, MN 55430  
Tel: 763/585-6742  
Fax: 763/585-6757  
E-mail: steen@ecenet.com  
Established 1993  
—  
Mark R. Brengman PE  
Steven M. Youngs PE  
Eugene A. Striefel  
—  
Firm Personnel by Discipline  
Mechanical Engineers 5  
Electrical Engineers 4  
Technical 5  
Administrative 3  
Total 17  
—  
Steen provides a practical design approach for corporate, municipal, medical, hospitality, institutional and retail clients. Design expertise includes HVAC, plumbing, fire protection, lighting, power distribution, life safety, automatic temperature control, energy analysis and deficiency studies. Steen provides a practical approach to mechanical and electrical engineering, designing sensible cost effective solutions.  
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Valley Ford Dealership, Fargo, ND; Hotels/Motels, Nationwide; (AmericInn, Country Inn & Suites, Marriott); The Reserves at Plymouth Apartments, Plymouth, MN; Wells Fargo Facility Upgrades, Throughout MN; Numerous Senior Living Facilities (Independent, Assisted, Skilled Nursing), Nationwide; United Church of Christ, Mankato, MN  
—  
STRUCTURAL DESIGN ASSOCIATES, INC.  
6680 Shingle Creek Parkway, Ste. 201  
Minneapolis, MN 55430  
Tel: 763/560-5300  
Fax: 763/560-5400  
E-mail: sda@sdaeng.com  
Established 1989  
Other Office: Brainerd, MN  
—  
Gregory J. Duerr PE  
—  
Firm Personnel by Discipline  
Structural Engineers 5  
Technical 2  
Administrative 1  
Total 8  
—  
Continued on next column  

Structural Engineers providing design, construction documents, reports, and construction administration services for projects in the educational, industrial (manufacturing, warehousing, equipment supports, and repairs), commercial, municipal, medical, and renovation fields. Services provided to Architects, Owners, Contractors, Developers and others.  
—  
Woacin Middle School, Waconia, MN; Buffalo High School, Buffalo, MN; Green Bay Packaging Addition, Wausau, WI; Conference Center for Andersen Windows, Bayport, MN; Redwood Falls Hospital Addition, Redwood Falls, MN; University of Minnesota Housing, Minneapolis, MN  
—  
TOLTZ, KING, DUVALL, ANDERSON AND ASSOCIATES, INC. (TKDA)  
444 Cedar Street, Ste. 1500  
Saint Paul, MN 55101-2140  
Tel: 651/292-4400  
Fax: 651/292-0083  
E-mail: jann.cs@tkda.com  
Web: www.tkda.com  
Established 1910  
—  
Richard N. Sobiech PE  
William E. Deitner PE  
Robert A. Boyer PE  
Gary M. Christensen PE  
Vincent T. Montgomery PE  
Dean A. Johnson AIA  
—  
Firm Personnel by Discipline  
Civil Engineers 72  
Structural Engineers 9  
Mechanical Engineers 8  
Electrical Engineers 3  
Transportation Engineers 2  
Architects 9  
Other Professional (interior designer, landscape architect, planner) 4  
Technical 66  
Administrative 30  
Total Staff 203  
—  
Planning, design, and construction engineering for mechanical, electrical, structural, municipal, environmental, highway/bridge/railroad, airport, architectural and landscape architectural projects.  
—  
Continued on next column  

Design Development of 13 LRT stations on the Hiawatha Line, Minneapolis, MN; Metro Transit Control Center, Minneapolis, MN; Marathon Ashland Administrative Building, St. Paul Park, MN; Airfield Lighting Control Center, MAC, Bloomington, MN; Honeywell Chiller Plant, Minneapolis, MN; Hennepin County Energy Center, Minneapolis, MN  
—  
TSP ONE, INC.  
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Excelsior, MN 55331  
Tel: 952/474-3291  
Fax: 952/474-3928  
—  
1500 Highway 52 North  
Rochester, MN 55901  
Tel: 507/288-8100  
Fax: 507/288-7220  
E-mail: randpa@teamtsp.com  
Web: www.teamtsp.com  
Established 1969  
Other Offices: Sioux Falls and Rapid City, SD; Sheridan, WY  
—  
Roger Toulouse PE  
Greg Shor PE  
Brian Kelly PE  
J. Nicholas Ruehl PE  
Bert Haglund AIA  
Steven Sorensen AIA  
—  
Firm Personnel by Discipline  
Structural Engineers 2  
Mechanical Engineers 9  
Electrical Engineers 3  
Architects 24  
Interior Designers 3  
Administrative 11  
Total 53  
—  
TSP One provides a full complement of in-house engineering resources for clients throughout the Midwest. Our structural, mechanical and electrical engineers specialize in solving unique engineering problems and inventing solutions in response to today's concerns for efficient energy use, sustainability, security and technological fit.  
—  
Kandiyohi County Law Enforcement Center, Willmar, MN; Wayzata Public Schools District-wide Renovations, Plymouth, MN; Hazelden Foundation Projects, Nationwide; Mayo Civic Center Exhibit Hall and Complex Improvements, Rochester, MN; Doral Chicago Conference Center Resort, Chicago, IL; Mayo Foundation/Clinic, Various Projects, Rochester, MN  
—  
WALKER PARKING CONSULTANTS  
1660 South Hwy. 100, Ste. 350  
Minneapolis, MN 55416  
Tel: 952/595-9116  
Fax: 952/595-9158  
E-mail: terry.hakkola@walkerparking.com  
Established 1965  
Other Offices: Ann Arbor, MI; Atlanta, GA; Austin, TX; Boston, MA; Burbank, CA; Chicago, IL; Denver, CO; Indianapolis, IN; Kalamazoo, MI; Newport Beach, RI; Philadelphia, PA; San Francisco, CA; Tampa, FL; Wroclaw, Poland; London, England  
—  
Terrence A. Hakkola PE  
Richard J. Kenney PE  
Steven D. Disch PE  
Scott R. Froemming PE  
William J. Fossing PE  
Gabriel Jimenez-Lopez PE  
—  
Firm Personnel by Discipline  
Structural Engineers 8  
Technical 7  
Administrative 2  
Total (Local) Staff 17  
—  
Walker provides full-service engineering/architectural consulting for the parking industry. Professional services include planning, design, construction administration and restoration and repair of existing facilities. We also provide building façade analysis and repair.  
—  
Minneapolis Convention Center Parking Facility, Minneapolis, MN; Newton Road Parking Facility, University of Iowa, Iowa City, IA; Gortner Avenue Parking Facility, University of Minnesota, Minneapolis, MN; SeaTac International Airport, Seattle, WA; Caesars Parking Facility, Elisabeth, IN; Wells Fargo Parking Facility, Des Moines, IA
WENZEL ENGINEERING, INC.
10100 Morgan Avenue S.
Blomingon, MN 55431
Tel: 952/888-6516
Fax: 952/888-2587
E-mail: wenzel@mcleodusa.net
Established 1990
—
Lowell E. Wenzel PE
Patricia A. Cole PE
Firm Personnel by Discipline
Structural Engineers 4
Technical 1
Administrative 1
Total 6
—
Wenzel Engineering, Inc. is a Structural Engineering Firm dedicated to understanding and meeting our clients’ goals. Our experience includes new facilities, renovations, additions, and investigations for commercial, industrial, public, retail, educational, religious and healthcare clients.
—
State of Minnesota Bureau of Criminal Apprehension Building, St. Paul, MN; Riverbend Commons, University of Minnesota, Minneapolis, MN; Spectrum Healthcare, Grand Rapids, MN; Grand Forks Flood Control, Grand Forks, ND; Westminster Presbyterian Church, Minneapolis, MN; Morton’s Steakhouse, Southfield, MI

WESTWOOD PROFESSIONAL SERVICES, INC.
7599 Anagram Drive
Eden Prairie, MN 55344
Tel: 952/937-5150
Fax: 952/937-5822
E-mail: wps@westwoodps.com
Established 1972
Other Office: St. Cloud and Brainerd, MN
—
Dennis Marhula PE
Dwight Jelle PE
Allan Klugman PE
Martin Weber PE
Timothy Erickla ASLA
Greg Kopischke ASLA
—
Firm Personnel by Discipline
Civil Engineers 14
Surveys 8
Landscape Architects 11
Biologists 3
Technical 68
Administrative 8
Total 112
—
Continued on next column

Westwood is a multi-disciplinary engineering consulting firm headquartered in Eden Prairie, MN. The company provides civil engineering, traffic engineering, landscape architecture, planning, surveying and environmental services to the development community. Westwood has a solid reputation with private developers, architects, cities, and government agencies throughout the Midwest for providing consistent, quality services in a timely and cost-efficient manner. Westwood is celebrating 30 years of engineering services.
—
West Ridge Market (regional commercial), Minnetonka, MN; Riverdale Village (regional commercial), Coon Rapids, MN; Woodbury Village (regional commercial), Woodbury, MN; Loring Park City Apartments, Minneapolis, MN; Evemoor (residential PUD), Rosemount, MN; Liberty of the Lake (residential PUD), Stillwater, MN

WIDSETH SMITH NOLTING
2000 Industrial Park Road S.
Baxter, MN 56425
Tel: 218/829-5117
Fax: 218/829-2517
E-mail: wsnnbrd@wsn-mn.com
Web: www.msn-mn.com
Established 1975
Other Offices: Bemidji, Crookston and Alexandria, MN; Grand Forks, ND
—
Don Anderson PE
Bruce Buxton PE, LS
Dave Kildahl PE
Tim Moe PE
—
Firm Personnel by Discipline
Civil Engineers 27
Structural Engineers 3
Mechanical Engineers 2
Electrical Engineers 1
—
Registered Professional Geologists 6
Architects 14
Technical 54
Administrative 16
Total Staff 129
—
WSN offers professional services in engineering, architecture, land surveying and environmental areas. Our registered architects, engineers (CMI, structural and water resources), environmental scientists and land surveyors effectively solve a wide variety of design and construction issues, overseeing a project from the planning stages to completion.

WOLD ARCHITECTS AND ENGINEERS
305 S. Peter Street
Saint Paul, MN 55102
Tel: 651/227-7773
Fax: 651/223-5646
E-mail: mail@woldae.com
Web: www.woldae.com
Established 1968
Other Offices: Elgin, IL; Troy, MI
—
Kevin Marshall PE
Jane Riess PE
Blane Krause PE
—
Firm Personnel by Discipline
Mechanical Engineers 12
Electrical Engineers 7
Architects 64
Technical 5
Administrative 14
Total 102
—
Professional mechanical and electrical consulting engineering services, including: indoor air quality, HVAC system design, plumbing system design, fire protection systems, energy management, voice/data communications, media technologies, design and specifications of electrical power systems, and security systems.
—
Ramsey County Law Enforcement Center, St. Paul, MN; Dakota County Northern Services Center, West St. Paul, MN; Hastings High School, Hastings, MN; Minnesota Department of Transportation, Central Office Renovation, St. Paul, MN

YAGGY COLBY ASSOCIATES
717 Third Avenue SE
Rochester, MN 55904
Tel: 507/288-6464
Fax: 507/288-5058
E-mail: info@yaggy.com
Web: www.yaggy.com
Established 1970
Other Offices: Mason City, IA; Delafield, WI
—
Donald Borchering PE, LS
Chris Colby AIA, CID
Ronald Ficus ASLA
Jose Rivas AIA
Scott Samuelson PE
Robert Ellis
—
Firm Personnel by Discipline
Civil Engineers 5
Other Engineers (municipal, transportation, land development, geotechnical, environmental) 30
Architects 5
Other professional (construction inspectors, landscape architects, planner, surveyors) 44
Technical 26
Administrative 25
Total 135
—
Municipal, transportation, land development, geo-technical, environmental and structural engineering including streets, water supply and storage, storm sewer systems, highways, airports, subdivision design, water and wastewater treatment, and environmental studies, bridges, box culverts, buildings and other structures. Surveying activities for engineering, land and geodetic control surveys.
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IBM Courtyard, Rochester, MN; Mayo Gonda Building Street Reconstruction, Rochester, MN; Golden Tee, Byron, MN; Professional Skater’s Association Building, Rochester, MN; CSAH 44, Fillmore County, MN

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Our Saviour's Lutheran Church
Minneapolis, MN
Client: Our Saviour's Lutheran Church
Architect: Kodet Architectural Group, Ltd.
Principal-in-charge: Edward J. Kodet Jr., FAIA
Project manager: Teri Nagel
Project lead designer: Edward J. Kodet Jr., FAIA
Project team: Ken Stone, AIA, Joan Bren, AIA, Marie Dorn, AIA, Jeff Walz, AIA, Kevin Hadlich, Mike Schellin, Lani Fischer, Laura Bradt, John Brandel
Structural-engineering team: Wenzel Engineering, Inc.
Mechanical-engineering team: Cain Ouse Associates, Inc.
Electrical-engineering team: Cain Ouse Associates, Inc.
Civil-engineering team: Clark Engineering Corporation
Cabinetwork: Shaw Lumber Company
Flooring systems/materials: C.T.; Pro Tile, Inc.: Wood; Anderson Ladd: Carpet; Dupont Flooring Systems
Window systems: Woodclad; Pella: Aluminum; Harmon, Inc.
Architectural metal panels: Roof: Specialty Systems
Concrete work: Gemstone
Millwork: Shaw Lumber Company
Steel: Listul Corporation
Ornamental metal: Gruppo Architectural Metals
Structural glue-lams: Sentinel Structures
Stucco/plaster: Minuti-Ogle Company, Inc.
Acoustical consultant: William, H. O. Kroll
Photographers: Peter Bastinelli Kerze, Edward J. Kodet Jr., FAIA, Don F. Wong

Redeemer Missionary Baptist Church/Stewart Memorial Presbyterian Church
Minneapolis, MN
Client: Redeemer Restoration Project
Architect: MacDonald and Mack Architects
Principal-in-charge: Robert Mack, FAIA
Project manager: Robert Mack, FAIA
Project architects: Rita Goodrich, Assoc. AIA
Project lead designer: Jon Hanson

Structural-engineering team: David Macdonald: Mattson Macdonald Inc.
Mechanical-engineering team: Dennis Hall and Vlad Dain: WJ Sutherland
Electrical-engineering team: WJ Sutherland
Interior design: MacDonald and Mack Architects
Landscape architect: Close Landscape Architecture
Landscape project team: Bob Close
General contractor: Watson-Forsberg
Window restoration: Monarch Studios
Photographer: Jerry Mathiason

The Basilica of St. Mary
Undercroft
Minneapolis, MN
Client: The Basilica of St. Mary
Architect: Miller Dunwiddie Architects, Inc.
Principal-in-charge: Charles Liddy, AIA
Project manager: Laura Faucher
Project lead designer: Jeffery Sweitzer, AIA
Project team: Besides those listed above, they are: Jeff Tonkin, AIA; Sandy Gay, AIA, Jeff Houle, AIA; Susan Zmich, Larry Kemp; Megan Hollinbeck
Structural-engineering team: Meyer, Borgman, and Johnson
Mechanical-engineering team: Michaud, Cooley, Erickson; Harris Mechanical & Futrell Fire Protection
Electrical-engineering team: Elliot Electric
Acoustical engineer: William H. O. Kroll & Associates
Lighting designer: Schuler and Shook
Interior design: Susan Zmich & Laura Faucher of Miller Dunwiddie Architects and the Basilica Environment Committee
Contractor: McGough Construction
Wall Stone: Cold Spring Granite & Kasota Stone (Twin City Tile & Marble)
Synthetic Stone: Milestone
Cabinetwork: Aaron Carlson

Window systems: Wausau (W. L. Hall)
Concrete work: McGough Construction Company
Millwork: St. Joseph chapel altar, ambo and lectern design and fabrication: Richard Helgeson of Xylos
St. Joseph chapel chairs: Danko
St. Joseph chapel reconciliation room screens and kneelers design and fabrication: Henry Linder
Photographers: Don F. Wong, Saari-Forrai

Ner Tamid Auxiliary Chapel
San Francisco, CA
Client: Board of Directors of Congregation Ner Tamid
Architect: Locus Architecture
Principal-in-charge: Steven Rajninger, AIA
Project manager: Steven Rajninger, AIA
Project architects: Steven Rajninger, AIA, Wynne Yelland, AIA, Paul Neseth, AIA
Project lead designer: Steven Rajninger, AIA
Structural-engineering team: Endres Ware, Berkeley, CA
Lighting designer: Locus Architecture
Interior design: Locus Architecture
Construction manager: Steven Rajninger, AIA, Albert Hassid
Stone: Joseph Lara, San Francisco, CA
Cabinetwork: Richwood Designs, San Francisco, CA & Bohman Woodworks, Bolinas CA
Flooring systems/materials: Refinish by Innovative Hardwoods, San Rafael, CA
Window systems: Lucas Art Glass, San Francisco, CA
Architectural metal panels: Lewis Metal Works, San Francisco, CA
Millwork: Marc Rhodes, San Francisco, CA
Photographer: Mark Luthringer
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612/338-6763
The weekly services at St. Peter Evangelical Lutheran Church had ended only a few hours earlier when a tornado descended upon the city of St. Peter at 5:30 p.m., on March 29, 1998. The twister—one of 14 that would strike southern Minnesota that day—was more than a mile wide and brought winds of up to 200 miles per hour.

By the time the tornado had risen back into the clouds, two people in St. Peter were dead and two-thirds of the city’s buildings had been damaged. Among 177 structures eventually declared a total loss was the church, a brick and stone building erected in 1923 with a soaring façade and arched doorways and windows. The 850 congregants were celebrating the church’s 75th anniversary year.

Nothing could have protected the church from the cyclone’s fury. The tornado peeled away its roof, sent its tall bell tower crashing into the sanctuary, blew out and carried away its stained-glass windows, and dumped wreckage through the floor and into the basement. Meanwhile, residents of St. Peter emerged from their shelters to find their town barely recognizable. About 15,000 trees were uprooted. Such local landmarks as the 1871 Central School, designed in the French Second Empire style, and the 1911 Catholic Church of St. Peter were destroyed. Another historic building, the 1873 Nicollet Hotel, also seemed beyond repair.

The congregants of St. Peter Evangelical Lutheran Church soon razed what remained of their building and, continuing to hold services in an undamaged annex, began raising $1.5 million for a new church. Eighteen months after the calamity of March 29, they dedicated a newly built house of worship, a building that pays homage to the old church.

Like its predecessor, the new church has a bell tower, an old-fashioned sanctuary and weathered brick on the exterior. “People have said it looks like it’s been here for a long time,” pastor Charles Degner told the Mankato Free Press. “The members are real happy with how it feels.”

Since that nightmarish day in 1998, St. Peter has substantially recovered. New owners managed to save the Nicollet Hotel. The city’s population is increasing. And services continue at the new St. Peter Evangelical Lutheran Church. *Jack El-Hai*
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A-SERIES DOCUMENTS: Owner-Contractor Series

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