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A Reputation You Can Build On
Neighborhood focus  Whittier in Minneapolis is a melting pot of architectural styles and ethnicity, by David Anger

Java jive  In the new civic gathering place, watching the world go by from a coffeehouse window is time well spent, by Robert Gerloff

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Civic architecture  Four new buildings, from a student center to a fire-fighters training facility, demonstrate the diversity of design for the public sector, by Eric Kudalis

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Editor
Eric Kudalis

Contributors this issue
David Anger, Bill Beyer, Jack El-Hai, Robert Gerloff, Camille LeFevre

Graphic Design
Rubin Cordaro Design

Photographer
Don F. Wong

Advertising Sales
Judith Van Dyne, Director

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Sarah J. Leslie

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Peter Rand, FAIA


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International Market Square
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Planning to Stay: Learning to See the Physical Features of Your Neighborhood, by William R. Morrish and Catherine R. Brown, is a fresh look at good old-fashioned neighborhoods. In a country always on the move, we are forever abandoning the old for the new. Planning to Stay encourages us to assess our neighborhoods, look for strengths and weaknesses, and determine ways to set down roots. Different chapters explore a framework for describing your neighborhood, looking at homes and gardens, community streets, neighborhood niches, institutions and public gardens. The final chapter outlines six planning steps for creating a neighborhood the entire community can call home. Planning to Stay is published by Milkweed Editions, Minneapolis. William Morrish is director and Catherine Brown is coordinator of special projects at the Design Center for the American Urban Landscape in the College of Architecture and Landscape Architecture at the University of Minnesota.

The Modern Language of Architecture by Bruno Zevi sets forth seven principles or “antirules” to codify the new language of architecture created by Le Corbusier, Gropius, Mies van der Rohe and Frank Lloyd Wright. Replacing the classical language of the Beaux Arts system, Zevi presents a communication system marked by free interpretation of contents and function, an emphasis on difference and dissonance, an independent interplay of elements, and among other precepts, an integration of buildings into their surroundings. Wright once called Zevi “the most penetrating architectural critic of our time.” This book, originally published in 1978, is reprinted by Da Capo Press, New York. Zevi is also author of Architecture as Space.

The 26-story Rand Tower, one of the gems of art-deco architecture in downtown Minneapolis, has been listed on the National Register of Historic Places. The building, designed by Holabird and Root of Chicago, has held a prominent place in the city's architectural legacy since its completion in 1929 by Minneapolis businessman Rufus Rand. The designation ensures the building's future as bigger and more prestigious high rises have sprouted up around it. Its small floor plate makes the Rand Tower a bit of a David to its Goliath neighbors. One can easily pass it by in the urban shadows—but it surely deserves more than a glance with its ornate cast-iron features, stone façade and sleek physique. A scheduled $2.5 million renovation by the Minneapolis architecture firm Shea Architects will renew the tower's best features, including the main lobby, skyway levels and upper-floor lobbies.
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As with the adjacent Aurora Community Center (page 32), the Aurora Fire Hall, designed by Architectural Resources, Inc., of Hibbing, Minn., is a simple, straightforward structure that reflects the architectural heritage of its community. That simplicity converts into a quiet elegance, a vernacular piece of architecture that looks as though it has always been there, or always meant to be there. The main garage with square windows, for instance, recalls typical farm sheds with pitched roofs. Lap siding, too, is common to much rural or small-town architecture.

Architectural Resources divided the hall into three separate components to house the fire-fighting machinery, the staff and administrative functions, and a "tower" entrance that recalls hose towers of yesteryear. As with any small-town civic project, budget was tight. The architects needed to design a low-maintenance facility with modest materials. But with that slim budget, Architectural Resources applied the proper punch to offer a striking presence on the landscape.

E.K.

The bright-red Aurora (Minn.) Fire Hall reflects the region's traditional architecture.

fire watch
A fire station retains the flavor of its rural surroundings

Peter Keene
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A new transit center in downtown St. Cloud recalls an earlier era of travel

A quick glance at the new MTC transit station in downtown St. Cloud, Minn., might suggest a train depot. Yet it’s buses not trains that stop here. Designed by Grooters Leapaldt Tideman, the 1,300-square-foot building provides transfer service for the city’s Metropolitan Transit Commission and Greyhound buses. Services include ticket and token sales, waiting, staff break room and restrooms.

An appealing downtown gathering place for both passengers and passersby, the building is a return to history as it faces the city’s Historic District. Victorian inspired, the transit facility features tall arched windows, protective overhangs, cupola with clerestories and a rock-faced, concrete masonry façade. Though rather small, the interior seems much bigger because of the high ceiling created by the cupola, and the light streaming through the tall windows and clerestories.

For downtown St. Cloud, the new facility is a welcome addition to history.

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Duchamp's Leg
Walker Art Center
Minneapolis
Through March 26

Marcel Duchamp is regarded as one of the most influential forces in contemporary art, challenging some of the avant garde's most strongly held tenets. This exhibit looks at Duchamp's legacy in art produced from the 1950s to the present. Featured artists include Joseph Cornell, Robert Gober, Jasper Johns, Sherrie Levine, Glenn Ligon, Nam June Paik, Robert Rauschenberg, Rosemarie Trockel, Andy Warhol and Millie Wilson. Duchamp's own pieces are drawn primarily from the Walker's private collection.

For more information, call WAC at (612) 375-7622.

Lake Superior Design Retreat
Fitger's Inn
Duluth
Feb. 10-11

Every winter designers and design enthusiasts gather along the frozen shores of Lake Superior in Duluth for a weekend meeting of minds and souls in this broad-based design conference. This year's program, featuring guest speakers, group activities, and the usual fun and games, promises to be as broad-based as in previous years.

Among the highlighted speakers are Chicago architect Stanley Tigerman and Eva Maddox, who will discuss plans for the Chicago-based Archeworks, a new nonprofit, multipurpose educational design laboratory; California-based Stewart Brand of the Whole Earth catalogs and Whole Earth Review quarterly and author of the recently published book How Buildings Learn and founder of The Well Electronic Network; and Craig Blacklock, a northern Minnesota nature photographer who will present a chronicle of his travels around Lake Superior in a kayak.

For more information, call AIA Minnesota at (612) 338-6763.

The Things We Need Works on Paper by Joyce Melander-Dayton
Carolyn Ruff Gallery
Jan. 13-Feb. 18

In her minimal works on paper, Melander-Dayton isolates images that are common and easily overlooked to highlight the ordinary objects of our surroundings. Such objects as toys, bells, pipes, bullets, skulls, plates and teacups are juxtaposed. The pieces reflect "shared disquiet, common desire, those impulses that can't find words." Melander-Dayton, who has exhibited in Chicago, Minneapolis and Santa Fe, lives in Santa Fe.

For more information, call (612) 338-8052.

Bystander: A History of Street Photography
The Art Institute of Chicago
Through March 12

Taken from the Institute's permanent collection, this exhibit surveys images of everyday street life since the beginning of street photography. Street photography often provides the best testing ground for experimentation, such as multiplicity of views. Four key photographers are highlighted: Eugene Atget, Henri Cartier-Bresson, Walker Evans and Robert Frank. A newly published book accompanies the exhibit.

For more information, call the Institute at (312) 443-3600.

Joel Meyerowitz on the Street: The First Decade
The Art Institute of Chicago
Through March 19

Known today for his view-camera landscape photography, Meyerowitz began his career as a street photographer in his native New York. While many of his contemporaries shot strictly in black and white, Meyerowitz shot in color. From 1962 until 1972, many of his color photos were shot during his travels through Europe and America. This exhibit draws primarily from his earlier and lesser-known works.

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OF MINNESOTA, INC.
By Eric Kudalis

When John Lackens, Herb Ketcham and Bob Bell joined forces in 1970, they envisioned a collaborative firm in which teams of experts melded their talents. Today, Architectural Alliance still bases its design on team effort, aligning its architecture and interior-design divisions with other outside experts in the building industries. The result has been a steady flow of repeat clients and a basket full of design awards, including the Firm Award in 1994 from AIA Minnesota and 1994 Honor Awards for the circulation towers and skyways at the Minneapolis/St. Paul International Airport, and the St. Paul City Hall/Ramsey County Courthouse renovation.

When Bell left in the late '70s, the firm continued to grow. Today it includes 10 principals: Tom DeAngelo (president), Don Hammer, Carl Remick, Dennis LaFrance, Cindy Ellsworth, Peter Vesterholt, Sharry Cooper, Ron Reigle, plus Ketcham and Lackens.

As the remaining founders of one of the Twin Cities' largest architectural firms, with clients ranging from the International Airport to Blue Cross/Blue Shield, Medtronic, Cray Research and the University of Minnesota, among others, Ketcham and Lackens have watched 25 years of growth and changes, both on the home turf and in the profession.

From the start, they were clear what they wanted.

“We wanted the firm to be participatory and we wanted clients to be involved,” Ketcham says. “We knew change was happening in architecture, and we wanted to be able to find methods by which we could see the future and become involved in more collaborative efforts, to stretch the limits of architecture.”

Lackens adds, “We built our whole firm on the basis that our future was dependent on repeat work and continuing clients, and we developed a strong rapport with the clients and users of the facilities we designed. We were concerned about how the buildings related and how they served the people they were intended to serve.”

Although they say that the social unrest of the late '60s didn't influence architecture, they both saw a social order to designing buildings.

“Architecture was for me an opportunity to begin to make people’s lives easier,” Ketcham says. “It was an opportunity through better planning, thinking and designing.”

Ketcham and Lackens complement each other well, perhaps because they share much in common, including birthdays just one day apart that put Ketcham a day younger than Lackens. As sons of teachers growing up in small towns, the two knew early on that architecture was for them.

“I wanted to be an architect since I was in seventh grade,” Ketcham says. “I always liked to paint and draw. A photographer lived across the alley from us. He always brought home big pieces of paper, which I used to draw pictures of comic characters. I got interested in art through that; then I started getting interested in buildings and the art of building.”

While Frank Lloyd Wright may have been the only star architect familiar to them as kids, college at the University of Minnesota in the late '50s and graduate school at Harvard opened a new world for them.

Ralph Rapson, head of Minnesota’s architecture program, brought mod-

Continued on page 42
Whether it’s brick, block, or stone, building with masonry always makes financial sense. And its high quality and durability are second only to its beauty. For more information on making a sure investment in masonry, call the Minnesota Masonry Institute at (612) 332-2214.
How do we define the public realm? In this issue, we look at the public realm under different guises to discover where people congregate and wish to congregate.

In our essay on Twin Cities coffeehouses, we explore the exploding phenomenon of brew-houses. Coffeehouses are becoming our new civic gathering places, places to hang out by yourself, meet with friends, or check out the comings and goings in your neighborhood. When we think of great civic architecture, we often think of city halls, judicial buildings—the great, columnar buildings of a Beaux Arts yesterday. But coffeehouses, often couched in storefronts or left-over spaces, are civic architecture at its finest, because at your neighborhood coffeehouse, anyone is welcome—and lingering is often encouraged.

If civic architecture is inclusive architecture meant to be used by all people in a community, then surely Whittier (featured this issue, and with its share of coffeehouses) is one of the most civic of Minneapolis neighborhoods, and certainly one of the most egalitarian. Established by the social elite in the early century, Whittier, as we learn from our feature, is now home to a cross-section of social, economic and racial classes living side by side. Three percent of the city’s residents live in this densely populated area bounded by 35W, Lake Street, and Franklin and Lyndale avenues.

In a city distinguished by suburban-style neighborhoods with owner-occupied, single-family houses on quarter-acre lots, Whittier is a bit of an anomaly in Minneapolis. Whittier has a mix of housing, from mansions to bungalows, apartment buildings, one-room efficiencies, row houses, boarding houses, halfway houses and homeless shelters. Typically, you can find it all on any single block in Whittier. As with any urban neighborhood—and many suburban neighborhoods—Whittier has its problems: crime, drugs, poverty. But these problems, nagging as they are, are often focuses of hype that seldom reflect the whole truth.

People live in Whittier by choice, and like all great civic places, anyone is welcome. Great civic architecture, like great urban neighborhoods, provides common ground for vast diversity. That’s civic architecture at its most civil.
Neighborhood focus

Whittier

From imposing mansions to low-cost housing, this South Minneapolis neighborhood is a melting pot of architectural styles and ethnicity.

By David Anger

When the first families of Minneapolis—Crosby, Morrison and Pillsbury—marched past Grant Street to huddle in great mansions, like hornets in a nest, around William Washburn's palatial Fair Oaks estates, they endowed the Whittier neighborhood with a brilliant and wildly diverse architectural legacy. Spreading out from the Fair Oaks epicenter, professionals built respectable homes on Blaisdell, Pillsbury and Stevens avenues. More modest still, workers made simple wood-framed structures, clustering along the 29th Street railroad tracks.

Sandwiched between Highway 35W, Lake Street, and Franklin and Lyndale avenues, Whittier today is a microcosm of the city. It boasts commerce and industry, arts and educational institutions, social-service agencies and just about every conceivable type of housing available, from historic cottages, mansions and row houses to modern apartments, lofts and townhomes. The neighborhood is so compact that you can tour it by car or bike in less than half an hour. But the best way to discover the architectural heritage of this area is by foot, especially on a fine day when the sunshine reveals all its charms and flaws.

Whittier is one of the liveliest and most heterogeneous neighborhoods in Minneapolis. Although it represents one percent of Minneapolis's geography, almost three percent of the city's citizens live in the neighborhood. While 31 percent of Whittier's residents languish in poverty, an equal number of people earn high incomes and possess either a college or graduate degree. More than 60 percent of the residents are white, followed by African Americans, who are trailed by Asians and Native Americans.

Whittier's growth was spontaneous. In 1860 Minneapolis's population registered a meek 6,000. By 1880, it grew to 47,000 and by 1890, it more than tripled to 165,000. Only Chicago grew as rapidly. Disturbed by the crowded city, "Our family moved up to live at the corner of 24th and Stevens in 1890, which meant more or less moving into the country," recalled John S. Pillsbury in
1960. "My father owned a house with 2 1/2 acres of land or the equivalent of a city block, with lots of tall oak and elm trees, and it did not look much like a city residence."

The John Pillsbury mansion peered across at the Fair Oaks, a massive yellow-stone house that cost more than $250,000 to build in 1884. To the west, the Pillsburys faced the Johnson Row House—at 2319 First Ave. South and 106 to 108 East 24th St.—designed by Harry Wild Jones and completed in 1894. Rendered with gabled dormers, a corner turret, and decorative windows, the red-brick row house presents the illusion of a single, very large residence.

Like many mammoth estates, Fair Oaks lived a brief life. By 1911 the house stood empty and the property was integrated into the Minneapolis park system. Thirteen years later, the mansion came tumbling down. While the John Pillsbury mansion also succumbed to the wrecking ball in 1937, two other Pillsbury homes remain standing.

At 106 East 22nd St., architect Edwin Hewitt blessed the Charles Pillsbury house with beautiful Bedford limestone. A reserved Elizabethan Gothic, the interior is luxurious. Famed antique dealer
Charles Duvene raided three English manors, importing oak paneling, elaborate carvings, and wood and stone fireplaces to Minneapolis.

Next door at 116 22nd St., Ernest Kennedy created a Gothic mansion for Charles’s brother, Alfred. Brimming with fanciful gables and massive chimneys, it sparks Romanesque dreams. Similar to Charles’s home, Alfred’s basement library was assembled—board by board—from a demolished Tudor manor. Nowadays, Charles’s mansion is home to a social-service agency and Alfred’s is once again a private residence.

In 1912, Alfred and Charles’s sister Sarah Pillsbury Gale and her husband, Samuel, moved into a sophisticated Italian palazzo at 2115 Stevens Ave. Also designed by Kennedy, it is very Edith Wharton—suave and classically symmetrical. Situated to fully exploit the site, the house reflects the Gale’s sensitivity to artistic endeavors. From the mansion’s swank terrace, the couple surveyed the rolling park and the imposing Minneapolis Institute of Arts in the foreground. In 1947, 2115 became the Association of American University Women’s clubhouse.

Decades earlier, in 1885, architect William Channing Whitney designed the stone Merrill Castle at 2116 Second Ave. South, mixing Gothic, Tudor and Victorian ideas. The heavy spire references both castle and church. Since the Merrills were devout Baptists, an organ loft stood next to the theatrical foyer. John Bradstreet—Minneapolis’s earliest and most acclaimed decorator—appointed the interiors. After several incarnations, including a stint as a rest home and later an art gallery, the Merrill Castle is a well-maintained office building.

On the eastern edge of Fair Oaks Park, the Christian House at 2301 Third Ave., merges the Renaissance and the Gothic. This Hewitt-designed residence is enlivened by superb ornamental ironwork, particularly the door grille and balustrade executed by Philadelphia craftsman Samuel Yellin. It foreshadowed the suburban raised ranch: garden-level windows provide a platform for the two upper levels, creating the appearance of a larger residence. Occupied by the Christian family from 1919 to 1957, it is now home to the Hennepin History Museum.

By the 1920s, the streetcar arrived in Whittier, bringing white-collar professionals and their families, who built to the west and south of Fair Oaks Park. Even though one-way traffic and apartment blocks have desecrated Blaisdell, Pillsbury retains a glimmer of yesteryear. The Meyer House at 2532 Pillsbury is one of Purcell and Feick’s few contributions to Whittier. Completed in 1909, the bungalow features an unusual plan—striking in its modernity—including a built-in garage at the rear.

The J.B. Hudson House at 2400 Pillsbury is an
elegant highlight. Truly a relic from a bygone era, the six-bedroom, six-bath residence presents 9,000 square feet, providing room for servants quarters, a library and a full-finished basement with a kitchen and gymnasium. Across the street, the Cupola House at 24th and Pillsbury is a testament to preservationists’ perseverance, who moved it from an undesirable spot near the freeway to its current site. Formerly known as the Morse House, it is one of the area’s oldest structures, dating from 1873.

With Minneapolis’s population climbing upward, Whittier became a hotbed of apartment construction. In 1927, the Windsor at 2011 Third Avenue South—with its flapperish porte-cochere—instantly became “the most exclusive” apartment hotel in the city. The Windsor’s architecture is a peculiar hybrid: Batman’s “Stately Wayne Manor” meets a Wellesley College dormitory. For art-deco enthusiasts, the Marie Antoinette at 26 and 30 East 22nd St., absorbs the zig-zag modern crape of the era. Here, limestone brick successfully contrasts with the polished black granite entrances, which suggest the tiered Rand Tower downtown.

The Depression brought an even greater diversification of Whittier’s housing stock. Abandoned by families who no longer could afford the requisite staff and maintenance, mansions were either subdivided into multiple dwellings or converted into group homes. Soon Whittier was one of the most densely populated areas of the city, a situation exacerbated after World War II by the conversion of more homes into multifamily units and the construction of large apartment blocks.

The Fair Oaks Apartments possess the 2400 block of Third and Clinton avenues. Designed by Perry Crosier, the 224-unit complex opened in 1939 to critical accolades. The 3-story garden apartments, arranged around blooming courtyards, are sensitive to the older buildings nearby. Rendered in a brick Colonial fashion, Fair Oaks offers such homelike features as front and back entrances and cross ventilation. Crosier properly concealed parking underground. Sadly, the Fair Oaks represents one of the last great examples of new residential architecture in Whittier.

For instance, the contrast between the Fair Oaks Apartments and the Charleston at 2715 Clinton Ave., might prompt tears. Constructed by the Bel Mar Builders in the late 1960s, the 2 1/2-story walk-up is better suited for the Highway 494-strip than a historic neighborhood. At the time, city planners were disturbed by Minneapolis’s eroding population—which peaked at 500,000 in 1950—and welcomed such developments. Declining land values, deteriorating housing stock and tax depre-
Java Jive

In the new civic gathering place, watching the world go by from a coffeehouse window is time well spent.

By Robert Gerloff

I love my local coffeehouse.

I’m sitting at my’ favorite window table at the Dunn Bros. coffee house at 34th and Hennepin in Minneapolis. It’s nasty outside. Wind is whipping rain and leaves in swirls on the street, imploding umbrellas and soaking pedestrians. Heavy clouds obscure the moon, and the street-light over the bus stop only intensifies the darkness. It is raw, cold and blustery, the kind of November evening that triggers an atavistic hibernating instinct in Minnesotans. The bus was uncharacteristically quiet tonight; riders were withdrawn and introspective, either buried in books or lost in private thought.

However bleak and blustery it may be outside, here inside Dunn Bros. it is warm and cozy. My nose tingles from the lingering aroma of roasting coffee. The windows are steamied over from the espresso machine frothing milk in countless cappuccinos. Neighbors are gathered around tables, laughing and visiting and reading, and it’s all choreographed to the throbbing tom-tom beat of 1920s jumpin’ jungle jazz.

To my right sits a regular, a thirty-something woman pouring frustrations into her journal. To my left a pair of raccoon-eyed students cling to their lattes for dear life while highlightting page after page in their marketing texts. In the corner an insufferably J. Crew-cute high-school couple are giggling and poking each other while a grandmotherly-type seated against the wall clicks her dentures disapprovingly. A trio of briefcase-bearing downtown business types is ordering espressos-to-go at the counter—liquid fortitude to face their families—while an electrical subcontractor settles into a pile of paperwork, mysteriously sipping an iced tea on this dark and stormy night.

 Critics love to carp that America has no public space. Brits nip down to the pub, the French linger in sidewalk cafes, and Italians promenade in piazzas, but Americans who want to watch the world go by have to either resist the eat-and-run pressures of a fast-food franchise or evade security in a sanitized shopping mall. Critic James Howard Kunstler writes in The Geography of Nowhere that American public space “is composed mainly of roads. And the only way to be in that public realm is to be in a car, often alone.” Kunstler concludes that, “In indulging in a fetish of commercialized individualism, we did away with the public realm, and with nothing left but private life in our private homes and private cars, we wonder what happened to the spirit of community. We created a landscape of scary places and became a scary people.”

Ironically, even as Wal-Mart sucks the last remaining life from small-town Main Streets, and even as relentless suburbanization is sapping the urban vitality from districts like Uptown in Minneapolis, coffeehouses have exploded upon the scene. Suddenly every neighborhood, every street, every demographic subgroup seems to have its own place to hang out, its own informal public gathering space.

The variety of coffeehouses here in South Minneapolis is mind-boggling. My Dunn Bros. (one gets possessive) caters primarily to the neighborhood. Muddy Waters, with its pop-tarts and Rice Krispy bars, attracts a twenty-something crowd steeped in ’70s nostalgia. Biker Bob’s, true to its name, caters to the leather-clad recovery crowd (just look for the Harleys lined up outside). The ever-evolving stage set of the Loring Cafe attracts Bohemian wannabes. Cafe Wyrd has a mostly gay clientele, while the Caribou and Starbucks franchises, multiplying faster than fruit flies in a petri dish, attract yuppies-on-the-go with their fast-food efficiency and hyper-shiny cleanliness.

Each coffeehouse has its own regular clientele, and they tend to be filled with the playful laughter of friends greeting friends. While they’re all privately owned, for the price of a cup of coffee one can linger for hours. Coffeehouse etiquette allows one to read, to write, to strike up a conversation with a neighboring stranger, or to simply sit, idly staring into space. Maybe in the past this hanging-out function was served by the corner tavern, the local cafe, or the barber shop and beauty salon. But today, here in the Land of 10,000 Treatment Centers, it is the coffeehouse that is truly a home away from home, the rare place where a human being can simply BE with no pressure to shop, to consume, to produce, to work, to do anything but exist.

What kind of architecture supports the existential act of simply being? Liberated from pressure to sell, free from the straight jacket of corporate themeing, architecture reverts to the understated aesthetic of the vernacular.

My favorite Dunn Bros. employs a
few architectural flourishes that give it character—a carefully rescued and restored tin ceiling, brightly painted ochre trim, spiffy green canvas awnings—but otherwise it is plain and simple, understated and restrained: its floor is simple vinyl tile, its woodwork straightforward, its lighting basic, its furniture abused, its walls painted a simple pale cream, its design seeks not to WOW! or impress, but rather to create an ambiance, a mood, a place of safety and comfort where the neighborhood can hang out. Of course Dunn Bros. is carefully designed—its effect is highly intentional—but its architecture is understated, floating in the background, creating a comfortable, warm, authentically homey place for the foreground of private experience, for the reality of existential being.

Words like “authenticity” and “existential being” are pretty heavy baggage to dump on a place that just wants to sell you a cup of joe, but the self-confident simplicity of Dunn Bros. stands in stark contrast to so much of our built environment, where multiple patterns, complex textures, sweeping gestural curves and fussy, self-important details substitute for clear design intentions. Dunn Bros. knows exactly what it wants to be—a place for neighbors to bind into a community—and every aspect of the design reinforces that intent, creating a place that, while new, has the friendly patina of faded jeans, a place where one can sit with a cup of coffee at a window and watch the world go by.

Ultimately, places like Dunn Bros. beg the question of what is truly profound in architecture: Is architecture a thing, a sculptural object to be admired for its abstract design qualities? Or does architecture gain significance only when rooted in the larger structures of a community?

The wind is still and the rain has lightened to an aimless drizzle. The afterwork crowd has come and gone, except for the thirty-something regular to my right, still frantically scribbling in her journal. While I’ve never met this woman, I worry about her. Maybe it’s true that members of a community can bind together simply by spending time in the same space, and maybe it’s true that binding a community together is one responsibility of architecture. But right now it’s time for me to head home. I’ve mentally processed my workday, and while my latte may be empty, my life is a little richer.

Robert Gerloff is an architect with Mullfinger, Susanka & Mahady Architects in Minneapolis.
TRAVELOGUE

The mountains of Carrara, Italy, have been supplying the world with lustrous marble for centuries.

Text and photos by Bill Beyer

The materials we build with have long traditions of human use. We often forget that they have endured because of their beauty. As architects we sometimes work as if stuck inside a block of stone, with no way to see out. Lost in the daily grind, we lose sight of those things that give delight. Even the finest oak boards and richest stone pavers lose some of their charm when wrapped in a change order.

Adrift in the specification-writing reverie one August morning, I received a call from a gentleman at the Italian Trade Commission in Los Angeles. Because I was 1994 president of AIA Minneapolis, he invited me to learn about Italian dimensional stone. I almost told him that the likelihood of my needing to know about fine Italian stone was comparable to needing detailed knowledge of titanium toilet seats. But I held the line long enough to hear that the learning offered would be accomplished during a week in Italy, at ITC’s expense. Some sliver of common sense deep inside surfaced like a trout to fly with a quick yes. An official-looking fax three hours later convinced me that this was not an elaborate hoax or daydream.

My fellow American travelers included Nora Wolin, an interior designer from Frank Gehry’s Los Angeles office, Maret Webb, past president of AIA Phoenix, Michael Prifti, president elect of AIA Philadelphia, and Michael Crosby, senior editor of P/A magazine. Maret’s architecture partner and husband, Tony Vehr, rounded out our group. We were met and ushered into Rome by our able and helpful ITC tour leader, Marinella Loddo, then dispatched to Verona on a connecting flight.

At the doorstep of the Dolomites in northern Italy, Verona has been a crossroads of trade and commerce since pre-Roman times. The Roman amphitheater at the center of the old city stands as testament to the permanence of the local marble. Block on block, seating 18,000 people, it is still used. The sidewalks of Verona are marble. Its buildings are dressed with marble statuary.

At the local convention center on the industrial urban perimeter, the city hosts the annual Internarmomach, the world’s largest trade fair for natural stone, equipment and machines. We were set loose to wander the complex of 10 fair buildings comprising some 300,000 square feet of indoor display and examine the offerings of more than 1,000 exhibitors. The world’s most beautiful stone from every continent in every shape, form, texture and color imaginable stood before us.

About half the building display space comprised machines used to unlock the beauty from raw quarry blocks. Like Machinery Hill at the Minnesota State Fair, the equipment was factory fresh, the latest models, clean enough for today’s surgery. True to the weight of stone, the machinery was Brobdingnagian (Bunyanesque to Minnesotans). Band saws the size of large trucks. Gang saws the size of handball courts. Forklift trucks able to lift tons of stone. Industrial diamond tools and accessories used to drill, rout, grind, hone and polish were arrayed in glass display cases worthy of Tiffany’s. There were demonstrations of water-jet...
cutting transforming marble slabs into lacy rosettes. Even in the standard-gray, trade-show atmosphere, I was beginning to experience beauty shock.

Verona was the setup. For two days we had seen the finished products and the tools used to get them. Now on a bus crossing the robust Apennines into Tuscany, we were on the way to a legendary source, the quarries of Carrara. By this time, my jagged consciousness of mundane architectural practice had been sawn away, and Italy had begun to hone and polish a half-lost ability to see things for their intrinsic beauty.

We became a group of voluptuaries, absorbing the beauty of stone, the countryside, the food, wine and language. Our three days in Carrara were as densely packed and as subtly textured as the marble in the mountains. We were hussied up and down hairpin roads to quarries, museums, fabricators, sculpture studios. We toured the world's largest stone yard and scrambled like children to pick up sparkling flakes shed from 17,000 kilogram blocks of marble and granite. Men cut and fit elaborately patterned marble tapestries. Visited operating quarries at the mountain top and were awed by their scale. Put on Wellingtons and tramped into the cool darkness of a horizontal quarry, big enough to hold a small cathedral, smoothly and squarely cubed into the mountain. Watched quarrymen unlock a 250-ton block, large as a city bus, and gently drop it onto a cushion of quarry spoil. Saw sculptors coaxing poetry out of blank tonnage.

Our host, Internazionale Marmi e Macchine, briefed us on the technical advances in the industry and the importance of architects learning and understanding the technology. We stole away for 20 minutes of shopping in an outdoor market. Streaked around town before the bus left each day, buying more film. Lunched at a tavern on the mountain, on marble tables and benches, under an arbor of ripe table grapes and figs, treated to platters of the local delicacies—lardo, pancetta, hard sharp cheese, inky-red house wine and risotto-crusted custard. Enjoyed late dinners and walks along the Mediterranean with our Italian hosts and fellow delegations from Finland, Hungary, Canada, Hong Kong, Korea, South Africa, Japan, Australia, Lebanon and Turkey. Fell in love with the granite floor of our hotel lobby, Brazilian Verde Eucalipto.

Our American delegation's driver in Carrara was an architecture student from Florence named Ugo Cacciatori. He fetched us early on our day of departure, whisked us to the massive marble cathedral, crazy-cupcake baptistery and cocked tower of Pisa, then to the airport for the short hop to Rome, back at the threshold of the real world.

What did I learn? That marble weighs 173 pounds per cubic foot, granite 165. That the beauty of stone is undiminished by the ages. That Keats had it right in pursuing the principle of beauty in all things. That taking time out from the daily grind is worth its weight in stone. That, if you can imagine it, anything can be made from stone in Carrara.

Bill Beyer is a principal with The Stageberg Partners in Minneapolis.
Recent newspaper headlines chronicling the latest air disasters illustrate just how deadly flying is when something runs amok at 10,000 feet. From the American Eagle Flight 4184 en route to Chicago this Halloween to the USAir jet outside Pittsburgh this September, planes take plunges and hundreds of people die. In many instances, the plunge is so final that rescue teams have little to do but step aside for the crash investigators and pathologists. In other cases, when seconds tick away as flames engulf shredded fuselages, trained rescue teams are the only thin link between life and death.

If you want a good lawyer, look to graduates of the top law schools with winning records. Crash victims can’t be so choosy about their rescuers. Air travel may or may not be getting safer, but the methods of rescuing crash victims are getting better. The recently completed aircraft-rescue and fire-fighting training facility (ARFFT), designed by the Stanius Johnson architects, inc., of Duluth for Duluth Technical College, combines high-tech, state-of-the-art training equipment with high-design architecture on a rustic 80-acre site surrounded by birch and aspen trees in western Duluth. Here, technology, architecture and nature combine on a campus that provides training for career fire fighters, military fire fighters, fire-fighting students and airport personnel. Future plans, if they see fruition, will bring all aspects of fire-fighting training to the one campus to include—in addition to aircraft—training in wild land, structure, maritime and industrial situations.

According to Steve Hartsock, fire-fighting training coordinator at Duluth Technical College, the new $15.8 million facility is unique because it combines an actual computer-controlled, environmentally safe simulator in the form of a mock Boeing 757-airplane fuselage on a campus marked by strong architecture and natural amenities. Other training facilities may have the simulator but not necessarily the architecture, too. As a result, Hartsock says the program is drawing interest from fire-fighting students around the world, although its primary student core is within a 350-mile radius. That’s quite a step up from the days when training consisted of dumping flaming toxic fuel on a runway and having the students scurry to squelch it.

The building and simulator are located on a former gravel-mining quarry, thus few trees were downed for
The simulator (above), which burns clean propane gas, is in view from the main entrance hall and classroom building (opposite top and site plan).
construction. From the main street, a driveway leads through a 300-foot thick wooded buffer zone that shields the campus from the street to discourage curious passersby from spotting the burning propane-fueled simulator. Stanis Johnson designed the campus to maximize educational opportunities and take advantage of the natural site. The simulator is to the right of the drive; up a wooded incline is the 27,000-square-foot classroom building; on the northwest side of the simulator—out of line from prevailing winds—is the control tower. A clearing opens the classroom building to views of the simulator.

At the heart of the campus is the simulator, a full-size, 75-foot-long Boeing 757 fuselage welded from cor-ten steel that can withstand temperature extremes from 30 degrees below zero to 1,800 crackling degrees above. Encircling the simulator is a 600-foot diameter gravel vehicular-manuevering operations area, which holds the outdoor classroom, control tower, pond and treatment plant. Designed with Contraves, U.S.A., of Tampa, Fla., the simulator is surrounded by 125-foot-diameter burn pit. Trainers program life-threatening crash scenarios from the computer-rigged control tower, igniting 13 different burn areas in the plane and 98 different burn segments in the pit, which is broken into quadrants. You name the fire, this simulator can create it, from fuel-spill fires to cockpit fires, galley fires, luggage-compartment fires, passen-
The architects designed a dramatic barrel-vaulted main entrance (opposite) with pine ceiling. An airline-rescue truck (above) sits waiting for action in one of four equipment bays. Classrooms (below) are designed to withstand the wear-and-tear firemen all suited up can cause.

ger-compartment fires, wheel-well fires, jet-engine fires and tail-engine fires. Internal temperatures sizzle up to 500 degrees, while flames leap to 50 feet. If a passenger had any idea how many different ways he could fry in a plane crash, he probably would take a horse and buggy.

The simulator uses clean-burning propane, which emits about 1/200 of the waste of traditional jet-fueled training fires, according to Hartsock. Water and foam, which collect in the burn pit during fire-fighting practices, drain into an on-site treatment facility before flowing into the region’s sewer system.

Up the wooded hill from the burn pit is the classroom and support building, divided between a “clean, low-bay” area housing two classrooms and administrative offices, and an “unclean, high-bay” area housing a decontamination area with showers and lockers for clean-up after firefighting operations; and four equipment bays for storage, mechanics, instruction and massive airline-rescue trucks.

Given the facility’s gritty, utilitarian program, this could have been a standard-issue training facility. Instead, Stanius Johnson designed a first-class structure that matches the blazing drama of the burn simulator.

“We wanted to capture the essence of the program and the image of aircraft and aircraft facilities,” says Ken Johnson of Stanius Johnson.

Thus from the outside, the sky-blue equipment bay resembles an airline hangar, and red window frames pick up on a fire motif. Glazed concrete blocks accent a burnished concrete-block exterior that is further enhanced by precast dentils, blue metal structural framing and yellow trim (matching the yellow airline-rescue trucks) above the main entrance.

Part of the architects’ challenge was to design for durability and beauty, inside and out. Fire fighters don’t tip-toe around; they’re big and their equipment makes them bigger. The facility had to withstand the wear-and-tear of fire fighters clomping around. Terrazzo floors, butcher-block desks and concrete-block interior walls are up to the task. Even in planning desks and seats for the classrooms, the architects measured the personal space each person required while all suited up. The striking yellow-pine ceiling, a seeming extravagance, functions as a roof deck, thus serving structural needs and adding aesthetic warmth.

The building’s architectural capper is the barrel-vaulted reception corridor, a luminous space with yellow-pine ceiling and exposed structural supports. Dividing the “clean” side from the “unclean” side, the corridor visually connects with the simulator, maintaining the link between classroom training and hands-on training.

The building’s wings are designed for expansion. If this facility is only the beginning of planned growth, the fire-fighting programs at Duluth Technical College have a bright future.

Project: Aircraft-Rescue and Fire-Fighting Training Facility (ARFFT)
Location: Duluth, Minn.
Metropolitan State University boosts its visibility with a new home base

Higher Education

Metropolitan State University always has had a bit of an image problem. Overshadowed by the behemoth University of Minnesota and the prestigious private colleges and universities throughout the metropolitan region, Metro State lacked a permanent campus that created an identifiable image. Serving approximately 9,000 students with flexible programs leading to baccalaureate degrees and master’s degrees in business administration, management and administration, and nursing, this has always been the university without walls. Classes are held at various Twin Cities locations, including in a midrise on Hennepin Avenue in downtown Minneapolis.

Yet Metro State is now revving up its low profile with a new 70,000-square-foot facility anchored along Dayton’s Bluff and overlooking downtown St. Paul, the landmark St. Paul Cathedral and state Capitol. Designed by Frederick Bentz/Milo Thompson/Robert Rietow, Inc., of Minneapolis, “New Main,” built on the old St. John’s Hospital site as part of the university’s “main campus,” is primarily a student center housing classrooms, laboratories, information and computer centers, a 320-seat auditorium, study areas, administrative offices and food services. While one hospital building was razed for new construction, two existing structures will be renovated and remodeled by 1996 to blend with New Main for a total of 170,000 square feet of university buildings. The University owns surrounding property, and over the years and decades Metropolitan State may take on a true campus look in this East St. Paul neighborhood.

With the new student center, Metro State is off to a run-
The new Metro State building (opposite) sits on a bluff in St. Paul, overlooking the downtown skyline and surrounding neighborhood. A series of terraces (left) encourages outdoor gathering. The main hall with floor-to-ceiling windows (below) is a multipurpose space used for a student lounge and other gatherings and functions.

The $11.2 million facility creates a strong presence on the landscape, whether approached from the neighborhood or viewed while zipping along Interstate 94.

The building’s focus is the Great Hall, a soaring space flanked by towers on either end and enclosed by patterned glass walls that open the space to the downtown skyline on one side and the neighborhood on the other. The hall is used as a student lounge as well as for community events. Viewed from atop the grand stairway, the Great Hall offers appropriate architectural drama with its high ceilings and floor-to-ceiling windows. Perhaps to maintain its image as a university without walls, the architects kept the building as open to the outside as possible. The windows create transparency, and a series of exterior terraces, used for lounging or special events, further enhances the building’s connection to the surrounding urban sights.

Because this is a state-funded project in which every penny is precious, the administration asked for a “100-year” building made of durable materials that require little or no maintenance. Thus a pitched gray-slate roof surely will last through the decades. Other exterior materials include textured sand-mold brick, lead-coated copper shingles, concrete pavers and cast-stone detailing. Interior detailing is less extravagant, as in concrete-block corridor and auditorium walls, and porcelain-tiled stairs. The concrete block, however, is effectively tailored to offset its utilitarian origin.

Set in a historic neighborhood, the building needed to blend architecturally with the territory rather than sit majestically on its own. The massing suggests Prairie School influences, but the materials and detailing give it a historically correct texture that sits well with the neighbors. With this new facility, Metro State University should make a good neighbor in St. Paul for decades to come.

Project: Metropolitan State University
Location: St. Paul, Minn.
Architect: Frederick Bentz/Milo Thompson/Robert Rietow, Inc.

E.K.
On the Range

The new Aurora Community Center, designed by the Virginia, Minn., office of Damberg, Scott, Peck & Booker, reflects the ethnic and cultural diversity of this northern Minnesota mining town. Aurora lies along a 150-mile strip known as the Mesabi Iron Range. Immigrants from Yugoslavia, Italy, Germany, Finland and Scandinavia settled in this region, building small communities that thrived on iron extracted from the earth. Europe's diverse tongues are still spoken here, from the streets to the taverns, where the Old World and New World meet alongside the scarred earth.

The 5,400-square-foot multiuse community center is strategically placed in the center of town, alongside abandoned railroad tracks that divide north from south. The community center's location symbolically unites the two sides of town, leapfrogging that other-side-of-the-tracks image. The building is, in fact, part of a new civic-center campus that includes a recently completed fire station by Architectural Resources of Hibbing, Minn.
A new civic center bridges two sides of a community

The Aurora Community Center is a gathering place for the entire community, offering a large hall spanning the building's length that can be subdivided for various functions. A commercial kitchen accommodates catered events, as well as the community's meals-on-wheels service. In addition, Senior Citizens of Aurora finds a permanent home here.

Historic research revealed that the site, an abandoned lot, once held the city's first train depot, a town architectural landmark. With the new facility, the architects hoped to create an updated civic image, on a scale with city hall and the old depot. Damberg, Scott, Peck & Booker used imagery from the train depot, the industrial vernacular architecture of the mines, classical detailing of Iron Range civic buildings, and the city's modest company houses in composing the new civic center.

Taking their cue from the train depot, the architects designed a low-slung roof line for the main hall. From the industrial architecture comes the community center's horizontal south elevation and clean roof-edge detailing. From the Iron Range's civic bell towers and entry cupolas come the new entry towers on the east and west sides. And the ubiquitous Iron Range mansard roof here covers the mechanical equipment. Color, too, comes from both the land and regional architecture. Violet red reflects the iron ore from the mines; straw yellow comes from the surrounding pastures, gray from the taconite ore and white from classic civic architecture. Inside, pastels commonly found in homes add warmth and comfort.

The building's simple, unpretentious stance is its strong suit. Although the architects pulled architectural references from many sources, the building doesn't mimic styles; it blends in with its settings, an organic part of the region's architecture and land.

E.K.

Project: Aurora Community Center
Location: Aurora, Minn.
Architect: Damberg, Scott, Peck & Booker
The colorful, patterned Maplewood Community Center features exercise facilities, a theater and civic gathering spaces.
The Maplewood Community Center provides a reference point on the suburban landscape.
Maplewood, like many suburbs surrounding the Twin Cities, lacks a traditional downtown, a point of reference with historic buildings and a train depot that recalls the town's origins and establishes a common ground that all can call home base. And as with many area suburbs, Maplewood has of late tried to remedy that absent focus by building a civic-center complex.

Completed this fall, the Maplewood Community Center, designed by Ankeny, Kell, Richter, Walsh Architects of St. Paul, is a striking multipurpose athletic and community facility that gives focus to amorphous suburbia. Located on a 10-acre site near the city hall and public-works building, the Maplewood Community Center helps establish a small campus that connects with an existing regional trail system.

Two central circulation corridors divide the 86,000-square-foot, 2-level Community Center into quadrants serving different functions. The barrel-vaulted corridors meet at the apex under a skylight rotunda in which a metal staircase connects the levels. Patrons can enter from either level. The upper level, serving primarily social functions, connects with the 300-seat theater with full orchestra pit in the northwest corner, and the banquet and meeting rooms served by a catering kitchen in the southwest corner.
Filling out the program is a double gymnasium with 1/8-mile-per-lap track, exercise equipment, aerobics and weight-lifting areas, and two hand-ball courts in the northeast corner; and aquatics, containing a six-lane lap pool and a leisure pool with 120-foot water slide in the southeast corner.

By dividing the community center into quadrants and having all circulation radiate from the central rotunda, the architects devised a facility that is remarkably easy to navigate. Patrons find their way around by orienting at the center, and personnel stations surrounding the rotunda keep everything within view. High windows, for instance, open the pools to the central control desk in the rotunda, a particular safety feature.

While the interior is a prime example of solid programming, planning and function, the exterior shows off the architects' aesthetic muscles. Each quadrant is designed as a box with different protrusions and window openings that accommodate specific functions and sunlight requirements. The façade blends contrasting light and dark brick, horizontal banding and square accents, and metal siding along the roof line and arched entrances.

On approach, the building is a tweed coat of patterns and tones, a visual marker and striking presence to center Maplewood.

Project: Maplewood Community Center
Location: Maplewood, Minn.
Architect: Ankeny, Kell, Richter, Walsh Architects

The architects varied the exterior features (opposite top) to create a lively presence in this St. Paul suburb. Interior corridors radiate from a central skylit rotunda (opposite bottom). Amenities include two pools (top), double gym (above) and 300-seat theater (below).
HISTORIC RESONANCE

Michael Melman, who focuses his camera lens on Minnesota's historic sites, has exhibited his black-and-white photographs at galleries since 1979. Subjects include architecture, interiors and urbanscapes, traces of our historic past quickly evaporating.
Minnesota Veterans Home (opposite top), Fort Snelling; Milwaukee Road Depot (opposite bottom), Minneapolis; Concourse, Union Station (above), St. Paul; NSP Hennepin Island Hydro Plant (below), Minneapolis.
Under the icy Minnesota waters of Lake Superior lies an ominous and hushed landscape of shipwrecks

By Camille LeFevre

Driving up 35W north from the Twin Cities, one gradually leaves behind any disposition toward Minnesota as a land-locked prairie state. The transition is clinched when the road suddenly rises and peaks, revealing a remarkable scene below: the City of Duluth, an international shipping port built alongside the world’s largest inland sea, Lake Superior.

Since 1870, when Lake Superior became the last Great Lake to open to large-ship navigation, the assortment of ships on Lake Superior has included various passenger/package freighters, bulk freighters, side-wheelers, wooden-hulled ships and steel cargo-carrying behemoths, not to mention tugboats, military sailing ships and schooner barges.

Not all these ships safely returned to port, however.

Storms, mechanical and human errors, and old age caused more than 10,000 ships to sink in the Great Lakes. Lake Superior

Since the late 1600s, shipbuilders have accounted for Great Lakes weather, navigation and shipping needs when constructing vessels for the inland seas. “Shallow water combined with twisting channels and limited maneuvering room imposed special considerations on vessel designers and builders,” Labadie wrote in an article titled “Major Vessel Types on Lake Superior: Sail to Steam.” “The builders and designers of Lakes vessels have been forced to experiment, adapt, refine and develop particular answers to the problems posed by the unique environment of the Inland Seas.”

Two outstanding examples of innovative Great Lakes naval architecture, the Onoko and the Thomas Wilson, are Lake Superior shipwrecks.

The steamer Onoko was the first iron-hulled bulk freighter to operate on the Great Lakes. Built in 1882 at Globe Iron Works in Cleveland, it was developed to serve the specialized needs of the Great Lakes bulk iron-ore trade. At the time,
building an iron-hulled steam freighter was a radical change from traditional wooden-hull construction. The ship was a success and the largest craft on the Great Lakes for about 10 years until Sept. 15, 1915, when it sprang a bottom plate and sank. The wreck now lies upside down in 200 feet of water, six miles east of the Knife River. But Onoko remains “the prototype for all of the thousand-footers on the lake today,” says Scott F. Anfinson, archaeologist, Historic Preservation Office, Minnesota Historical Society, St. Paul. “In naval-architectural history, it’s a very important vessel.”

The Thomas Wilson is an example of the earliest whaleback, a ship built specifically for the Great Lakes by the American Steel Barge Company in West Superior, Wis. The whaleback was a unique concept in steamer/consort design introduced by Captain Alexander McDougall in 1889. (The consort system—ships towing ships—was common on the Great Lakes, and vessels that were towed also at times used a combination of sails and steam.)

The cigar-shaped vessel was built of heavy steel plates and had conical ends. The superstructure was set above turrets and mounted in the main deck. Designed to carry bulk cargoes of grain and iron ore around the Great Lakes, the Wilson offered little resistance to wave action above the decks. At the time, McDougall’s design influenced most shipbuilding modifications introduced on the Great Lakes, including a whaleback freighter that was the immediate forerunner of the Doxford turret ship, built in England and widely used for ocean-cargo transport. The Wilson sank on June 9, 1902 when it collided with the George Hadley just outside of Duluth Harbor. The only surviving whaleback above water is the S.S. Meteor, a museum ship in West Superior, Wis.

Other Lake Superior shipwrecks notable for representing a period in naval-architectural history include the U.S.S. Essex, a navy gunboat built in 1874 that exemplifies the last of the wooden-hulled, sail-powered fighting ships of the United States Navy. The Essex is also the last known example of a Donald McKay vessel. McKay, a 19th-century shipbuilder famous for his clippers, “brought the sailing ship to the acme of perfection at a period when sail was engaging in a battle for life with steam,” according to an old text. On Oct. 14, 1931, the Essex, having outlived its usefulness, was towed out to the lake side of Minnesota Point near Duluth and burned until it sank.

Another shipwreck, the Madeira, is the last surviving schooner barge of its type. Built in 1900 by the Chicago Shipbuilding Company, the Madeira was designed to carry bulk cargoes of grain, lumber or iron ore economically about the Great Lakes and on the coasts, under tow of a steam-powered freighter. A sailing rig on the Madeira aided the towing vessel. Built of riveted steel, the ship’s full, flat shape maximized cargo capacity with minimum draught. The Madeira sank after being dashed against Gold Rock cliff, north of what is now Split Rock Lighthouse, during the violent Mataafa Storm of Nov. 28, 1905.

More than 20 ships were wrecked in that storm (named Mataafa for the freighter caught sideways at the Duluth ship canal and battered by the storm until it sank). Other ships claimed include the Amboy, another type of schooner barge, and the George Spencer, a bulkfreight steamer that was towing the Amboy. Each shipwreck represents its specific type of naval architecture, and their shared wreck site, south of Taconite Harbor near Grand Marais, is one of a few places with both steamer and con-sort barge present.

For a long time, however, the site was thought to contain only the wreckage of the Amboy. The Spencer, according to local legend, was salvaged. But underwater archaeologists hired to investigate Minnesota’s Lake Superior shipwrecks discovered irregular keel lengths and dif-

Continued on page 63
ernism to the Upper Midwest when he came here in 1954. With him followed a host of renowned architects as guest speakers and visiting faculty.

Lackens recalls that graduate work at Harvard, completed in 1960, was a further eye opener.

“The type of design that was taught at Harvard was quite different,” Lackens says. “I think for a hick from the sticks—as I considered us—to live in Boston and the East Coast and go to school with students from all over the world was quite different. We were exposed to people like Kenzo Tange, Louis Kahn....”

Ketcham, completing his master’s from Harvard in 1968, remembers hearing Louis Kahn once during his graduate-school days.

“He would talk about the intrinsic quality of brick and how as an architect he found the material very Freudian,” Ketcham says. “That was language I really hadn’t heard before. The International Style was really much more severe, talking about space. So here comes somebody talking about material—the intrinsic quality of material—what the material is trying to tell you, what the basic flow of the building is trying to tell you.”

Ketcham says that these ideas about a building’s intrinsic qualities—thinking about material, space, the people in the building—helped formulate a lot of the ideas that he still applies to programming and function.

“In designing for clients—especially public clients—we realized that we were doing buildings that weren’t going to be static; they were going to change and their function was going to change,” Lackens says. “They needed to be flexible and adaptable.”

Like buildings, architectural firms develop with the times.

“The country has changed so much since we began,” Ketcham says. “Architectural firms tend to be responsive to the society, to what’s happening. We react to what’s going on economically; we react to what’s going on technologically; we react to what’s going on socially and politically. Architecture schools turn out students who tend to respond to these things, as well. Because things have gotten so pluralistic there are many different ways of doing things.... The thing that has changed the most is what’s expected of architects. Once upon a time we were expected to deliver a service; now we’re expected to deliver a product—like a car—and it’s not supposed to have any errors.”

Lackens adds, “The way you acquire work is quite different. It was once politically based on who you knew. That doesn’t work anymore, and, in fact, even if it did we wouldn’t play that game anymore. We’re not political in any sense of the word. The competition, some people think, is much more fierce. But it’s really based on what you’ve done and how people relate to that.”

Diversity is the linchpin to staying solvent today, the two believe.

“You can’t survive in any single market,” Ketcham says. “I see more partnerships being formed in which the architect, builder, engineer, interior designer and others work closely together. Design has more players today; there are more voices to be heard.”

This certainly doesn’t spell doom and gloom for the architect and the profession.

“The future of the profession is real bright,” Lackens says. “But there will be new kinds of offices, there will be combinations of professions.”

The architect—unlike in those mythical days of the master-builder Howard Roark—will become one of many vital links in the building process.

“The role of the architect is still secure; he is still the individual in the team who is looked to for designing,” Ketcham says. “But the architect’s role will have to involve more consensus building. There are other players. They have to be true team players. The architect’s role is to synthesize, and that’s why design is more difficult today—you’re synthesizing more information. Buildings are more complicated technologically today. Architects involved in team building and consensus building will survive.”

AM
AM has published directories of architectural and landscape architectural firms for some time. With this issue we present our fourth directory of those Minnesota firms which provide consulting engineering services. Principals of these firms are members of the Consulting Engineers Council of Minnesota or of AIA Minnesota.

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

In Minnesota, you will find there is a wealth of engineering talent available for your next project. Study this directory and call either the Consulting Engineers Council at 612/922-9696 or AIA Minnesota at 612/338-6763 for additional information and assistance.

Peter A. Rand, FAIA
Publisher

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**LEGEND**

- **PE** Professional Engineer
- **AIA** American Institute of Architects
- **FAIA** Fellow, American Institute of Architects
- **ASLA** American Society of Landscape Architects
- **FASLA** Fellow, American Society of Landscape Architects
- **RLS** Registered Land Surveyor

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**ARMSTRONG, TORSETH, SKOLD AND RYDEEN, INC.**

4901 Olson Memorial Highway
Minneapolis, MN 55422
Tel: 612/545-3731
Fax: 612/525-3289
Established 1944

- James E. Rydeen AIA
- Donald L. Yungner PE
- James N. Riess PE
- Robert A. Martini PE
- Terry L. Stofferahn PE

Firm Personnel by Discipline
- Mechanical Engineers 16
- Electrical Engineers 10
- Architects 50
- Other Professional/Technical 15
- Administrative 10
- TOTAL 101

ATS&R Expertise: Quality control and coordination during design, construction, post-occupancy; design of HVAC, plumbing, Direct Digital Control Systems; design of electrical systems including computer facilities, communications; energy conservation including active/passive solar, heat exchange systems, geo-thermal heat pumps, variable air volume, earth berming, ice storage, natural daylighting, energy management systems, energy efficient lighting, heat pumps; Technology including video, voice and data systems.

- Champlin Park High School, Brooklyn Park, MN; Stillwater Area High School, Stillwater, MN; Farmington Middle School, Farmington, MN; Maple Grove Junior High School, Maple Grove, MN; Calvary Lutheran Church, Golden Valley, MN

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**BKBM ENGINEERS, INC.**

219 North 2nd Street, #200
Minneapolis, MN 55401
Tel: 612/333-7101
Fax: 612/342-9482
Established 1967

- Charles L. Ballou PE
- Harold P. Bakke PE
- Thomas J. Downs PE
- John A. Clark PE

Personnel by Discipline
- Civil Engineers 3
- Structural Engineers 15
- Mechanical Engineers 5
- Electrical Engineers 3
- Other Professional/Technical 11
- Administrative 5
- TOTAL 42

Civil, electrical, mechanical and structural consulting services for buildings and bridges. Design of heating, ventilating, air conditioning, electrical power distribution, lighting systems, and energy management studies for industrial, commercial and institutional facilities. Structural design and investigations for buildings, bridges, heavy and special structure design together with field surveying including construction management service. Historic building preservation, evaluation studies, Railroad engineering, bridges-tracks facilities.

- Lakeville High School, Lakeville, MN; Minnesota Judicial Center, St. Paul, MN; John & Sage Cowles Conservatory & Sculpture Garden, Minneapolis, MN; City/County Government Center, Rochester, MN; First Street Parking Ramp & Skyway, Rochester, MN.

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**DAVID BRASLAV ASSOCIATES, INC.**

1313 5th Street SE, Ste. 322
Minneapolis, MN 55414
Tel: 612/331-4571
Fax: 612/331-4572
Established 1971

- Dr. David Braslau PE

Firm Personnel by Discipline
- Acoustical Engineers 1
- Other Professional/Technical 1
- Administrative 1
- TOTAL 3

Architectural and performance space acoustics, building and partition noise isolation, environmental noise control, exterior facade preparation for aircraft and other sources, sound system design, industrial noise control, acoustic and noise measurements, control of vibration, blast and small arms ranges, land use compatibility, environmental assessments, impact statements and indirect source permits.

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**BRAUN INTERTEC CORPORATION**

8000 Town Line Avenue South
Minneapolis, MN 55439-0108
Tel: 612/946-6000
Fax: 612/946-6190
Established 1957

Other Offices: Apple Valley, Blaine, Hibbing, Mendota Heights, Edina, Rochester, St. Cloud, St. Paul, MN; Chicago, IL; Billings and Butte, MT; Bismarck and Fargo, ND; Eugene, Portland and Salem, OR; Eau Claire, La Crosse and Milwaukee, WI

- J.S. Braun PE
- George D. Klumpke PE
- Cameron G. Kruse PE

Firm Personnel by Discipline
- Civil Engineers 49
- Other Engineers 19
- Architects 1
- Other Professional 5
- Technical 314
- Administrative 123
- TOTAL 511

Braun Intertec is an engineering and environmental consulting and testing company providing services to public and private clients from 22 office locations in six states. Services include geotechnical materials and environmental engineering, infrastructure and pavement management; site assessments, natural resource management and air quality testing, lead-based paint consulting and laboratory analysis.

- Mall of America, Bloomington, MN; Target Center Sports Arena, Minneapolis, MN; Neiman Marcus Plaza, Minneapolis, MN; Strategic Highway Research Program (SHRP), North Central Region, USA; County Road 18 River Bridge, Minneapolis, MN
CARROLL, FRANCK & ASSOCIATES
1357 Highland Parkway
St. Paul, MN 55116
Tel: 612/690-9162
Fax: 612/690-9136
Established 1965

Anne R. Carroll
Bruno M. Franck
Ph.D., PE

Firm Personnel by Discipline
Structural Engineers 1
Other Professional 1
TOTAL 2

Structural engineering services for religious, educational, residential, and industrial buildings. Expertise in design with wood for historical or contemporary architecture using recycled lumber or modern structural wood components; design of masonry, steel and concrete structures. Technical routing of reports, analyses, government regulations, permits, specifications, etc.

Beautiful Savior Lutheran Church, New Hope, MN; Audubon Center of the North Woods, Sandstone, MN; Brandenburg Residence, Ely, MN; Duckett Residence, Hudson, WI; Bennett-Wakeman Residence, Los Alamos, NM

CLARK ENGINEERING CORPORATION
2815 Wayzata Boulevard
Minneapolis, MN 55405
Tel: 612/374-4740
Fax: 612/374-4749
Established 1937

Other Offices: Aberdeen and Rapid City, SD; Fort Meyers, FL

Charles E. Hansen PE
Larry G. McMurtry PE
Hadji Sajadi PE
Michael Fowler PE
Kenroy K. Janzen PE, RLS

Firm Personnel by Discipline
Civil Engineers 13
Structural Engineers 13
Technical 30
Administrative 7
TOTAL 63

Complete structural engineering, civil engineering and land surveying for commercial, industrial and public buildings, bridges, towers, foundations, etc. Water supply distribution and storage, solid and liquid waste collection, treatment and disposal; street, highway, storm water systems; site development planning, investigations, studies, reports, plans and specifications.

Stillwater Area High School, Stillwater, MN; Champlin Park High School, Brooklyn Park, MN; Mystic Lake and Dakota County Casinos, Prior Lake, MN; Remmele Engineering Company Corporate Headquarters, New Brighton, MN; Carlson Towers, Minnetonka, MN

DARG BOLGREAN, MENK, INC.
7575 Golden Valley Road., Ste. 210
Golden Valley, MN 55427
Tel: 612/544-8456
Fax: 612/544-8914
Established 1966

Lloyd W. Darg PE
Gene Bolgrean PE
Harry D. Menk PE

Firm Personnel by Discipline
Structural Engineers 4
Technical 2
Administrative 1
TOTAL 7

Complete structural engineering services for commercial/retail office, warehouse, academic, industrial, governmental, medical, health, housing, religious and parking facilities. With expertise in steel, concrete masonry and wood, DBM has engineered new construction, additions, renovations/restorations and performed for the architectural profession, owners, developers, contractors and fabricators.

Eagles Nest Casino, Woodstock, New Brunswick, Canada; Findlay Golf Clubhouse, Findlay, OH; Widsten Apartments, Wayzata, MN; Harmony Scenic Studios, Minneapolis, MN; C. G. Hill & Sons Manufacturing Building, Mounds View, MN

DOLEJS ASSOCIATES INC.
1624 North Riverfront Drive
Mankato, MN 56001
Tel: 507/625-3809 or 612/375-1936
Fax: 507/388-9225
Established 1977

Joseph M. Dolejs PE
David A. Kroedl PE

Firm Personnel by Discipline
Mechanical Engineers 1
Technical 8
Administrative 1.5
TOTAL 11

Dolejs Associates provides mechanical and electrical design services for the building industry. An experienced and stable staff provides expertise in 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.

Blue Earth Area High School, Blue Earth, MN; Gymnasium, Bethany College, Mankato, MN; Fire Alarm Retrofit, ISD #77, Mankato, MN; Real Life Housing 125 units, Burnsville, MN; University of Minnesota Child Care, Minneapolis, MN

DOLEJS ASSOCIATES, INC.
9141 Grand Avenue South
Minneapolis, MN 55420
Tel: 612/885-1800
Fax: 612/885-1856
Established 1960

Other Offices: Rapid City, SD; Las Vegas, NV

George F. Dunham PE
Kathleen M. Kolbeck PE
Dale J. Holland PE
Ronald L. Feldhaus PE
Brion P. Szweed PE

Firm Personnel by Discipline
Structural Engineers 6
Mechanical Engineers 26
Electrical Engineers 18
Other Professional 30
Administrative 18
TOTAL 98

Dunham Associates, Inc. offers mechanical, electrical, lighting design, and structural consulting engineering services. Specialized areas include health care facilities, retail, parking ramps and skyways, data centers, clean rooms, central chiller and boiler plants, structural load studies and design, industrial ventilation and process cooling, master planning and energy conservation studies for central utilities.

Minneapolis/St. Paul International Airport Vertical Circulation Towers and Skyways, MN; Minneapolis/St. Paul International Airport Central Chiller and Boiler Systems, MN; West Health Campus, Plymouth, MN; Unity Hospital Surgery Addition, Fridley, MN; University of Minnesota Duluth, Student Center, Duluth, MN

ELLERBE BECKET INC.
800 LaSalle Avenue
Minneapolis, MN 55402
Tel: 612/276-2000
Fax: 612/276-2271
Established 1909

Other Offices: Los Angeles, Kansas City, New York, Washington D.C.

Doug Maust PE
Al Wenzel PE
Jay Rudberg PE
Rovert Brown PE
Mark Duoma PE

Firm Personnel by Discipline
Civil Engineers 8
Structural Engineers 50
Mechanical Engineers 80
Electrical Engineers 50
Architects 300
TOTAL 800

We understand the difference between buildings and Architecture, and we know how to integrate Engineering with Architecture. At the same time, we have the sophistication to deliver engineering foresight and analysis essential to planning a project or a campus. Estimating and construction services complete our offering.

LaSalle Plaza, Minneapolis, MN; 1st Avenue Cooling Plant, Minneapolis, MN; National Archives II, Washington D.C.; Historic Preservation of Minneapolis Veterans’ Home; State Farm Corporate Headquarters, Bloomington, IL.
### ENCOMPASS, INC.
2850 Metro Drive, Suite 523
Bloomington, MN 55425
Tel: 612/854-4511
Fax: 612/854-3126
Established 1979

Howard Noziska  PE
Firm Personnel by Discipline
Structural Engineers 3
Other Professional/Technical 1
Administrative 1
TOTAL 5

Structural design and facade detailing services for buildings, with extensive experience in masonry construction. Encompass provides preconstruction analysis of details and specifications for the purpose of preventing construction problems or failures. We offer inspection services to ensure compliance with contract documents or record conditions to facilitate problem analysis and repair.

- Gran-A-Stone, Office, Warehouse and Stone Cutting Facility, St. Cloud, MN; ISD 196, Five-Year Facilities Maintenance Plan, Rosemount, MN; State Secondary Governmental Complex, Lansing, MI; MEeco, Office and Manufacturing Building, St. Louis, MO; Drummer Office Building, Troy, MI; DeRoy Apartments, Wayne State University, Detroit, MI.

### ENGINEERING DESIGN GROUP OF MINNESOTA, INC.
547 Lowell Avenue
Roseville, MN 55113
Tel: 612/481-9195
Fax: 612/481-9195
Established 1989

Sean K. Hallet  PE
Firm Personnel by Discipline
Civil Engineers 1
Structural Engineers 1
Technical .5
Administrative .5
TOTAL 3

EEA’s professional service combines state-of-art planning and design for mechanical and electrical systems including: HVAC, chemical distribution, ground source heat pumps, fire protection, specialty lighting, voice/data communications and security/surveillance. EEA has significant experience in design of aircraft facilities, clean rooms, correctional, data processing, educational health care, libraries, municipal, state and federal projects.

Frederick R. Weisman Art Museum, University of Minnesota, Minneapolis, MN; U.S. Embassy, Santiago, Chile; Henry Sibley Senior High School, West St. Paul, MN; Minnesota Correctional Facility at Red Wing, Secure Housing, Red Wing, MN; University of Minnesota Hospitals, Short Stay Center, Masonic Building, Minneapolis, MN

### ERICKSEN, ROED AND ASSOCIATES, INC.
300 First Avenue North, Suite 420
Minneapolis, MN 55401
Tel: 612/342-9210
Fax: 612/342-9214
Established 1985

Alfred G. “ Buzz” Ericksen  PE
Thomas E. Amundson  PE
James D. Roed  PE
Robert A. Curtis  PE
Firm Personnel by Discipline
Structural Engineers 10
Other Professional/Technical 10
Administrative 3
TOTAL 23

Professional Structural Engineering services from planning through construction for corporate, commercial, educational, health care, industrial, sports facilities, parking ramps, aircraft engine test facilities, and restoration engineering. We provide construction documents, specifications, existing building analysis reports and forensic engineering.

- Minneapolis Federal Courthouse, Minneapolis, MN; Target Center, Minneapolis, MN; University of Minnesota Basic Sciences, Minneapolis, MN; North Memorial Hospital Expansion, Minneapolis, MN; AT&T Office Tower, Minneapolis, MN

### FOSS ASSOCIATES
810 Fourth Avenue South
(P.O. Box 306)
Minneapolis, MN 55401
Tel: 218/236-1202
Fax: 218/236-4945
Established 1898
Other Offices: Fargo, ND

- Paul Jacobson  PE
- Charles Zeltinger  RLS
- Bill Cowman  AIA
- Robert Ames  AIA
- Willis Stelter  AIA
- Firm Personnel by Discipline
  Structural Engineers 1
  Land Surveyor 1
  Architects 7
  Other Professional 4
  Technical .5
  Administrative 1.5
  TOTAL 15

Structural, land survey and architectural firm with full design and construction observation services for commercial, educational, recreational, institutional, law enforcement, research, health care and governmental agency clients. Specialties include site development, analysis of existing buildings, reroofing, handicapped accessibility, feasibility studies, programming plus traditional engineering and architectural services.

- Norman County East Public Schools, Twin Valley, MN; Perham Public Library, Perham, MN; St. Mary’s Church, Fosston, MN; Sibley County Jail, Gaylord, MN; Douglas County Hospital, Alexandria, MN

### FOSTER, JACOBS & JOHNSON, INC.
345 Canal Park Drive, Suite 200
Duluth, MN 55802
Tel: 218/722-3060
Fax: 218/722-1931
Established 1922

James R. Johnson  PE
Charles F. Jacobs  PE
Firm Personnel by Discipline
Mechanical Engineers 2
Electrical Engineers 2
Other Professional/Technical 3
Administrative 1.5
TOTAL 8.5

Mechanical and Electrical engineering services for all building types: Design of power, lighting, security and communication systems. Significant experience in design of energy conserving systems in new construction and retrofit. Including energy management systems, daylighting and energy efficient lighting.

- Duluth Entertainment and Convention Center, Duluth, MN; Aircraft Fire Fighting Training Facility, Duluth, MN; Natural Resources Research Institute, Duluth, MN; Douglas County Courthouse Renovation, Superior, WI; Food Service Renovation, Federal Correctional Institution, Sandstone, MN.
GAUSMAN & MOORE ASSOCIATES, INC.
1700 West Highway 36,
Suite 700, Rosedale Towers
Roseville, MN 55113
Tel: 612/639-9606
Fax: 612/639-9618
Established 1935
Other Offices: Brainerd and Duluth, MN

James W. Giefer PE
James A. Keller PE
D. Lane Hersey PE
Robert B. Full PE
Andrew P. H. Keller PE

Firm Personnel by Discipline
Mechanical Engineers 6
Electrical Engineers 5
Technical 31
Administrative 12
TOTAL 54

Mechanical and Electrical engineering services for all building types including design of HVAC, plumbing, fire protection, power distribution, security and audio/visual systems. Also specialty lighting design, computer network/voice network design, energy conservation design/funding studies.

Musicland Corp. Stores, Nationwide; Rochester City Hall, Rochester, MN; Montevideo Middle School, Montevideo, MN; Northern Illinois University, Rockford, IL; World Trade Center, Chicago, IL; University of Minnesota, St. Paul, MN; Andover High School, MN; Tesoro Refinery, Lakeview, TX; Best Buy, Eden Prairie, MN; Spectrum Place, Minneapolis, MN; Mpls Toys "R" Us, Minneapolis, MN; Minneapolis St Paul Airport, Hennepin Co.

HALLBERG ASSOCIATES, INC.
2207 Third Street
White Bear Lake, MN 55110
Tel: 612/429-5655
Fax: 612/429-6215
Established 1984

Joseph W. Hallberg PE

Firm Personnel by Discipline
Mechanical Engineers 3
Technical 8
Administrative 3
TOTAL 14

Specializing in Mechanical Design and Energy Conservation in Minnesota Educational Facilities.

Alexandria Junior High School, MN; Big Lake Senior High School, MN; St. Michael/Albertville High School, MN; Warroad Middle School, MN; Burnside Elementary School, Red Wing, MN

HAMMEL GREEN AND ABAHAMSON, INC.
1201 Harmon Place
Minneapolis, MN 55403
Tel: 612/337-4100
Fax: 612/332-9013
Established 1953
Other Offices: Milwaukee, WI; Rochester, MN

Harry R. Wilcox PE
James M. Moravec PE
Steve Bieniek (Rochester) PE

Firm Personnel by Discipline
Civil Engineers 9
Structural Engineers 12
Mechanical Engineers 25
Electrical Engineers 17
Architects 82
Other Professional 28
Technical 25
Administrative 42
TOTAL 240

HGA Engineering, in addition to serving clients through the full-service A/E approach, has a broad independent client base. HGA engineers pride themselves on using their creativity and imagination to develop workable, cost-effective solutions to engineering challenges. Each discipline is highly capable and intent upon providing the best possible service to all clients.

3M, Corporate Administration Building and Cafeteria Building, St. Paul, MN; Northern States Power Company, Eau Claire and LaCrosse, WI; IBM Campus, Rochester, MN; Metropolitan Waste Control Commission, Minneapolis, MN; Iowa-Illinois Gas & Electric, Davenport, IA

HOLABIRD & ROOT
400 South Broadway
Rochester, MN 55904
Tel: 507/288-8088
Fax: 507/288-7311
Established 1880
Rochester Office Established 1990

Gregory B. Cook AIA
James W. Baird AIA
Nicholas A. Bilandic PE
Gerald Horn FAIA

Firm Personnel by Discipline
Civil Engineers 3
Structural Engineers 10
Mechanical Engineers 11
Electrical Engineers 9
Architects 30
Technical 5
Administrative 20
TOTAL 88

Holabird & Root's Engineering staff works closely with clients to develop appropriate engineering solutions based on economy, efficiency, and durability. A complete range of inhouse services are available to meet the varied requirements of projects, including harmonics/shielding, energy conservation, cleanrooms, and process piping.

Electronic Manufacturing Client, Continuing Services, Rochester, MN; University of St. Thomas, Science and Technology Center, St. Paul, MN; University of Minnesota, Tate Laboratory of Physics, Minneapolis, MN; Osram Sylvania, Coating Application Cleanroom, Seymour, IN; Northern States Power Company, Energy Audits and Retrofits, Faribault, MN

HUNTINGDON ENGINEERING & ENVIRONMENTAL, INC.
737 Pelham Blvd.
St. Paul, MN 55114
Tel: 612/645-3601
Fax: 612/659-7348
Established 1933
Other Offices: 72 offices nationwide with Corporate Headquarters in Middleport, NY. Offices in Minnesota include Duluth, Mankato, Rochester, St. Cloud and St. Paul.

Mark Shannon PE
Dave Hausler PE
Samuel Ng PE
Steve Olson PE
Paul Schultz PE

TOTAL STAFF 1,670

Huntingdon is a support service organization with 72 offices nationwide, including 12 laboratories. Huntingdon provides QA/QC testing for all types of construction projects, including geotechnical engineering construction, material testing, drilling, and failure analysis.

Milac Indian Museum, Vineeland, MN; Norwest Tower, Minneapolis, MN; Olmsted County Government Center, Rochester, MN; Minneapolis Convention Center, Minneapolis, MN; Guggenheim Medical Research Building, Rochester, MN

KRECH, O'BRIEN, MUELLER & WASS, INC.
6115 Cahill Avenue
Inver Grove Heights, MN 55076
Tel: 612/451-4605
Fax: 612/451-0917
Established 1985

Jim Krech PE
Dan O'Brien AIA
Brady Mueller AIA
Brian Wass AIA

Firm Personnel by Discipline
Structural Engineers 2
Architects 5
Other Professional/Technical 1
TOTAL 13

Structural engineering for commercial, industrial, medical, retail, agricultural facilities and residential projects. We offer Auto-CAD and have a current library of structural design software. Services are provided for architects, owners, contractors, and various agencies.

National Checking Addition, St. Paul, MN; ConAgra Remodeling, Hastings, MN; AFSCME Office, South St. Paul, MN; Cedars Addition, Minneapolis, MN; Tousley Ford Addition, White Bear Lake, MN; National Car Rental, GA: Live-stock Facility, South St. Paul, MN

LARSON ENGINEERING OF MINNESOTA
3524 Labore Road
White Bear Lake, MN 55110
Tel: 612/481-9120
Fax: 612/481-9201
Established 1978
Other Offices: Chicago, IL

Wayne C. Larson PE
Lee A. Granquist PE
Henry W. Voth PE
Kesh P. Ramdular PE

Firm Personnel by Discipline
Civil Engineers 2
Structural Engineers 11
Technical 4
Administrative 2
TOTAL 19

Structural engineering services for commercial, industrial, educational, institutional, and residential facilities. Serving architects, contractors, developers, and owners. Special expertise in the design of curtain wall systems. Structural design of industrial structures including storage, manufacturing, and processing systems. Extensive experience in plant expansions and remodeling.
LS ENGINEERS, INC.
200 South Main Street
LeSueur, MN 56058
Tel: 612/665-6255
Fax: 612/665-6818
Established 1989

Robert L. Sprengeler PE
William P. Lehnertz PE

Firm Personnel by Discipline
Structural Engineers 2
Technical 3
Administrative 1
TOTAL 6

Structural engineering services for all building types in the areas of industrial, commercial, religious, institutional, residential, manufacturing, as well as specialized structures for water and wastewater plants. Full range of services including feasibility studies, investigations, construction documents, cost estimates, and field observations.

Montevideo Middle School, Montevideo, MN; Cub Tool Store, Columbus, OH; Brown County Law Enforcement Center, New Ulm, MN; Bethany Chapel, Mankato, MN; Lyndale Shops, Minneapolis, MN

LUNDQUIST, WILMAR, POTVIN & BENDER, INC. (LWPB ENGINEERS)
1935 W. County Road B2, Suite 300
St. Paul, MN 55113-2722
Tel: 612/633-1223
Fax: 612/633-1355
Established 1969

Leonard A. Lundquist PE
Peter A. Potvin PE
Gayland J. Bender PE
John M. Killeen PE

Firm Personnel by Discipline
Mechanical Engineers 6
Electrical Engineers 6
Technical 27
Administrative 8
TOTAL 47

Professional Mechanical, Electrical, and Industrial Engineering Services for all types of facilities. Design expertise in HVAC, sanitation, refrigeration, DDC systems, site utilities, lighting design, power, communication, security systems, fire and life safety systems, life cycle costing, value engineering, energy conservation and management, feasibility studies and building commissioning. Industrial Engineering Services include facility planning, material handling, and manufacturing/ process engineering.

US West Market Street Facilities Remodeling, St. Paul, MN; Target Stores, Nationwide; Brainerd Regional Human Services Center, Central Chilled Water Plant, Brainerd, MN; United Health-Care Corporation, Edina and Golden Valley, MN; St. Olaf College, Library, Dormitory and Fieldhouse, Northfield, MN

MATTSON/MACDONALD, INC.
1516 West Lake Street
Minneapolis, MN 55408
Tel: 612/827-7825
Fax: 612/827-0805
Established 1983

Wesley C. Mattson PE
David H. Macdonald PE

Firm Personnel by Discipline
Structural Engineers 1
Other Professional 1
TOTAL 2

Mattson/Macdonald provides structural engineering services to architectural firms serving the five-state Midwest area. Mattson/Macdonald has considerable experience with a wide range of building types: housing, retail, office, manufacturing, hospitals, churches, educational and institutional facilities.

Earle Brown Heritage Center, Brooklyn Center, MN; Warroad Public Library, Warroad, MN; Mille Lacs Indian Museum, Garrison, MN; Theater De La Jeune Leune, Minneapolis, MN; Lac Qui Parle Valley High School, Madison, MN

McCONKEY & ASSOCIATES, INC.
3144 Hennepin Avenue South
Minneapolis, MN 55408
Tel: 612/822-6950
Fax: 612/822-8385
Established 1978

H. James McConkey PE

Firm Personnel by Discipline
Structural Engineers 4
Technical 2
Administrative 1
TOTAL 7

Structural engineering consulting services for commercial, industrial, institutional, public and residential building projects; Special design for bins, stacks, equipment supports, material handling; Rehabilitation and remodeling of existing structure; Structural investigations and reports. Licensed in 23 states.

Minnesota Correctional Facility, Faribault, MN; Target Store, Myrtle Beach, SC; Cinema 6 Theater, St. Louis Park, MN; Carisch Commercial Property and Parking Ramp, Wayzata, MN; St. John the Baptist Church, Savage, MN

MEYER, BORGMAN & JOHNSON, INC.
810 Plymouth Building
Minneapolis, MN 55402
Tel: 612/338-0713
Fax: 612/337-5325
Established 1955

John E. Meyer PE
Roland Johnson PE
Michael Ramerth PE
Richard E. Wiele PE
Daniel E. Murphy PE

Firm Personnel by Discipline
Structural Engineers 10
Technical 5
Administrative 2
TOTAL 17

Single discipline consisting of Structural engineering services applied to the design of commercial, educational, industrial, recreational, religious and residential facilities.

Mankato Civic Center, Mankato, MN; West Health Campus, Plymouth, MN; Minnesota Children’s Museum, St. Paul, MN; Fredrick R. Wiesman Art Museum, Minneapolis, MN; St. Paul High School, St. Paul, MN
MICHAUD COOLEY ERICKSON
335 South Seventh Street, Suite 1200
Minneapolis, MN 55402
Tel: 612/339-4941
Fax: 612/339-8354
Established 1946

Dean A. Raftery PE
Monty L. Talbert, Jr. PE
Douglas C. Cooley PE

Firm Personnel by Discipline
Mechanical Engineers 22
Electrical Engineers 14
Other Professional 2
Technical 42
Administrative 14
TOTAL 94

MCE designs mechanical, electrical, lighting, and special systems for corporate, medical, data processing, high-tech R&D, retail, industrial, educational, public, and commercial buildings. Examples of special systems include: security and surveillance, life/safety, fire protection, audiovisual and sound reinforcement, paging and intercom, cable or master antenna television signal distribution.

IDS Operations Center, Minneapolis, MN; First Bank Place, Tenant Fit-up and Owner Representation, Minneapolis, MN; H. B. Fuller Company, New Research and Development Lab Building, Vadnais Heights, MN; North Memorial Medical Center, Expansion and Renovation, Robbinsdale, MN; Medtronic Corporation, Multiple Projects

MSA, CONSULTING ENGINEERS
1326 Energy Park Drive
St. Paul, MN 55108
Tel: 612/644-4389
Fax: 612/644-4389
Established 1980

Other Offices: Minneapolis, Waseca, Prior Lake, MN

John Stewart PE
Terry Malirer PE
Tom Majdan PE
Steve Gathin PE
Boyd Paul PE

Firm Personnel by Discipline
Civil Engineers 25
Structural Engineers 2
Mechanical Engineers .5
Electrical Engineers .5
Other Professional 15
Technical 35
Administrative 6
TOTAL 84

MSA specializes in site engineering, stormwater management, wetland mitigation, transportation planning and environmental engineering. MSA provides engineering services from project inception to design and through construction. MSA has full structural engineering capabilities and construction management capabilities.

Toys "R" Us Retail Store, St. Cloud, MN; River Valley Clinic, Woodbury, MN; Northland Insurance Corporate Center, Mendota Heights, MN; Daily Printing, Plymouth, MN; Target Center Skyway, Minneapolis, MN

ORR-SCEHEN-MAYERON & ASSOCIATES, INC.
309 Park Place East
5775 Wayzata Boulevard
Minneapolis, MN 55416-1228
Tel: 612/595-5775
Fax: 612/595-5773
Established 1922

Other Offices: Eau Claire, WI

Marlin D. "Butch" Larsen PE
Jerry A. Turner AIA
Edward J. DeLaForest PE
Ernest E. Fenton PE
D. Edward Ames LS

Firm Personnel by Discipline
Civil Engineers 15
Structural Engineers 4
Mechanical Engineers 12
Electrical Engineers 10
Other Engineers 7
Architects 6
Other Professional 6
Technical 76
Administrative 23
TOTAL 159

Engineers, Architects, Planners and Surveyors providing services to the medical, educational, industrial, commercial, and governmental sectors. Specific Services include: mechanical, electrical and structural engineering, architecture, municipal, water resources, transportation and environmental engineering, land surveying and landscape architecture. Full Service, Client-oriented Firm, experienced with multi-disciplinary projects. Complete project capabilities inhouse.

Facilities Engineering, 3M Corporation, St. Paul, MN; HealthEast Corporate Master Plan, St. Paul, MN; EAW for DAMARK Facility, Brooklyn Park, MN; BFI Hoving & Sons Transfer Station Remodeling and Additions, Chicago, IL; Water Treatment Plant Expansion, Richfield, MN

SCHOELL & MADSON, INC.
10530 Wazazta Blvd., Suite #1
Minnetonka, MN 55305
Tel: 612/546-7601
Fax: 612/546-9065
Established 1956

James Orr PE
Kenneth Adolf PE
Theodore Kemna RLS

Firm Personnel by Discipline
Civil Engineers 8
Other Professional 9
Technical 15
Administrative 3
TOTAL 35

Complete wetlands identification, classification, and delineation; EAWS, EIS and natural resource services; environmental site assessments, regulatory compliance and permitting; civil engineering system studies, design and construction/contract administration; land surveying, topographic, construction, and as-built surveys; quality control soil testing.

Opus II Business Park, Minnetonka, MN; Norwest Properties, Statewide; Gaming Corporation of America, WI; Laurel Village, Minneapolis, MN; Restoration of Historic Main Street, Minneapolis, MN.
TOLTZ, KING, DUVALL, ANDERSON AND ASSOCIATES INC.
1500 Piper Jaffray
444 Cedar Street
St. Paul, MN 55101-2140
Tel: 612/292-4400
Fax: 612/292-0093
Established 1910

Duane T. Prew
PE
Darrel Berkowitz
PE
Robert A. Boyer
PE
James E. Voyen
PE
Westly Hendrickson
AIA

Firm Personnel by Discipline
Civil Engineers 36
Structural Engineers 10
Mechanical Engineers 7
Electrical Engineers 2
Other Engineers 14
Architects 15
Technical 49
Administrative 24
TOTAL 157

TKDA provides civil, electrical, environmental, mechanical, structural, and transportation engineering services to governmental, institutional, and corporate clients. TKDA’s electrical, mechanical, and structural engineers provide building systems design in support of TKDA’s architectural department. TKDA’s civil, environmental and transportation engineers provide design for municipal utilities, highways, bridges, airports and railroads.

Recreation and Fitness Facility, St. Mary’s College, Winona, MN; Sports/Recreation Center, College of St. Catherine, St. Paul, MN; Grand Rapids Airport Terminal, City of Grand Rapids, MN; St. Paul Municipal Stadium Expansion, City of St. Paul, MN; Integrated Waste Management Facility, University of Minnesota, Minneapolis, MN

WALKER PARKING CONSULTANTS
5775 Wayzata Blvd., Suite 425
Minneapolis, MN 55416
Tel: 612/595-9116
Fax: 612/595-9181
Established 1965

Other Offices: Boston, MA; Denver, CO; Elgin, IL; Houston, TX; Indianapolis, IN; Kalamazoo, MI; Newport Beach and San Francisco, CA; Philadelphia, PA

William C. Arons
PE
Richard J. Kenney
PE
Terrence A. Hakkola
PE
James I. Meyer
PE
Stephen D. Disch
PE
Firm Personnel by Discipline
Structural Engineers 85
Electrical Engineers 1
Restoration, Transportation Engineers 13
Architects 7
Parking Operations & Management 2
Technical 42
Administrative 35
TOTAL 185

Walker specializes in the study, planning, design and restoration of parking facilities. Services include 1) FEASIBILITY STUDIES: parking, traffic, operations and management, parking need analysis, rate/revenue; 2) DESIGN: function layouts, structural engineering, civil/site, graphics, parking equipment; 3) RESTORATION: condition appraisals, repair programs, maintenance programs.

Mall of America Parking Facilities, Bloomington, MN; Minneapolis/St. Paul International Airport Parking Facilities, Minneapolis, MN; St. Cloud Hospital Parking Facilities, St. Cloud, MN; Mayo Clinic Employee Ramp, Rochester, MN; Condition Appraisal City of Minneapolis Parking Ramps, MN

WEI is a structural and civil engineering firm dedicated to meeting the unique goals and requirements of each client. WEI’s expertise encompasses new facilities renovations, additions to existing buildings and investigating buildings experiencing structural distress for many building types: commercial, industrial, public, retail, education, religious and healthcare.

120 Railroad Bridge, Shreveport, LA; Dulles International Airport, Washington, D.C.; Basic Sciences and Biomedical Engineering Building, University of Minnesota, St. Paul, MN; Burnsville Maintenance Center, Burnsville, MN; Minneapolis Clean Water Reservoir, Columbia Heights, MN

WOLD ARCHITECTS AND ENGINEERS
6 West Fifth Street
St. Paul, MN 55102
Tel: 612/227-7773
Fax: 612/223-5646
Established 1968

Michael Cox
AIA
Norman Glewwe
AIA
Kevin Sullivan
AIA
Craig Anding
PE
Paul Juntilla
PE
Firm Personnel by Discipline
Mechanical Engineers 7
Electrical Engineers 5
Architects 36
Technical 5
Administrative 12
TOTAL 65

WOLD ENGINEERING CAPABILITIES: HVAC system design, plumbing system design, fire protection systems engineering, energy management engineering, voice/data communications systems, media technologies, design and specification of primary/secondary electrical systems, and security system design.

High School #4, Rosemount/Apple Valley/Eagan, MN; Middle School #6, Rosemount/Apple Valley/Eagan, MN; Ramsey County Correctional Facility Phase II Renovations, Maplewood, MN; Owatonna/Steele County Joint-Use Fire Station and Law Enforcement Center, Owatonna, MN; Wright-Hennepin Electrical Cooperative Engineering and Maintenance Facility, Rockford, MN

YAGGY COLBY ASSOCIATES
717 Third Avenue SE
Rochester, MN 55904
Tel: 507/288-6144
Fax: 507/288-5550
Established 1970
Other Offices: Mason City, IA

Ronald V. Yaggy
PE
Donald R. Borchering
RLS, PE
Christopher W. Colby
AIA
Ronald L. Fiscus
ASLA

Firm Personnel by Discipline
Civil Engineers 10
Architects 6
Other Professional 9
Technical 30
Administrative 12
TOTAL 67

Yaggy Colby Associates focuses on providing professional personalized municipal, environmental, transportation, land development and geotechnical engineering services throughout the Upper Midwest. Specialties include: site design, residential and commercial development, economic development, wetland evaluation and landscape design. Other services include: architecture, community planning, surveying, landscape architecture and urban design.

Wal*Mart/Northwest Plaza Shopping Center, Rochester, MN; Main Street and Highway 63 Reconstruction, Stewartville, MN; Chester Woods Regional Park, Olmsted County, MN; Apache Mall Traffic Analysis and Site Improvements, Rochester, MN
The Minnesota Architectural Foundation would like to thank those listed below for their generous support of its 1994 Raffle. It’s contributions like these that have enabled the Foundation to create a Minority Scholarship Program that provides a full, six year, architectural scholarship at the University of Minnesota for a minority student. In addition, these contributions have added to the Ralph Rapson Traveling Scholarship Fund, a program providing major travel/study grants to young practicing architects.

If you would like to join this notable group of contributors, or if you’d like further information about the Foundation, contact Peter Rand, FAIA, at 612/338-6763 or write to Minnesota Architectural Foundation, 275 Market Street, Suite 54, Minneapolis, MN 55405.

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Bob Franske
Charlie Crowell
Boz Albinson
Bob Swiller
Jeff Hagen
David T. Runyan
Monty Talbert Jr.
Fred Chute Jr.
You can’t

drive to work, walk the dog, cook that pot roast, bake that bread, shower after jogging, watch 60 Minutes, toast the toast, brew the coffee, mow the lawn, call your mother, be cool in the summer, wash your sweat suit, dine out, play computer games, medicate your cold, build your new house, listen to “old blue eyes”, ride your bike, videotape that wedding, vacuum the rug, recycle your garbage, play baseball at night, be warm in the winter, fly to Hawaii.

check the time, flush the toilet, buy a fresh tomato in winter, fill that cavity, use the cash machine

without an engineer.

For a free copy of the Consulting Engineers directory contact:
Consulting Engineers Council of Minnesota
5407 Excelsior Blvd., Suite A
Minneapolis, MN 55416
(612) 922-9696

Whittier
Continued from page 19

ciation allowances provided the incentive for Bel Mar to build a dozen of these apartments throughout Whittier.

They are instantly recognizable and associated with one another by a similar architectural feature—false Mansard roofs that nod to Disneyland instead of their urban surroundings. However, a handful of midcentury apartment buildings in Whittier are worthy of attention, if not praise. At 601 West 28th St., a prosaic rectangle is made memorable by the brown and beige tile mosaic that envelopes the entire structure. Reminiscent of a 1960s shower stall, the design is appropriately biomorphic and singular in the Twin Cities. Across the street, 500 West 28th St., represents another excellent example of modern tile decoration, featuring a diamond motif.

During the late 1960s and 1970s the zenithlike growth of large apartment buildings altered the massing, spacing and façades along Whittier’s streets. Developers predicted that their apartment buildings would prompt an urban renaissance. Instead, they have become the bane of the neighborhood. Cheaply constructed, densely populated with transient renters and poorly sited among single-family homes, they further destabilized the area.

Faced with the residue of these problems, the Dayton Hudson Foundation channeled $1 million into Whittier in 1979, becoming the largest inner-city neighborhood revitalization program undertaken between the private sector and a specific neighborhood. The effort gave birth to the Whittier Alliance, which emerged as a stabilizing force. Its accomplishments include implementing sensitive zoning laws, downsizing large apartment buildings, restoring historic homes, and building new multifamily and single-family dwellings. Today, the Whittier Alliance is committed to increasing home ownership in a neighborhood that is 90 percent renters.

The neighborhood’s amalgamation of housing and people makes for both amusing and unsettling juxtapositions. But Whittier’s architecture offers contemporary practitioners a simple lesson—great design casts an inspiring spell over generations.

David Anger is a frequent contributor to Architecture Minnesota.
Learn from our “Portfolio”

For over 100 years, architects who are members of AIA Minnesota have designed outstanding public architecture. From Cass Gilbert’s design of our State Capitol to the new buildings featured in this special issue of AM, Minnesota architects have a rich and celebrated tradition of building public works that are beautiful, functional and enduring.

Of course, only a small glimpse of that tradition can be editorially highlighted in any single issue of Architecture Minnesota. Therefore, for this issue of AM, we invited all AIA Minnesota firms to share their public architecture expertise with our readers.

The “Civic Architecture Portfolio” on the following pages will introduce you to those AIA Minnesota firms that are actively engaged in the design of civic and municipal facilities. They have chosen to support the publication of this special issue of AM on civic architecture.

Architecture Minnesota appreciates the support of these firms which has enabled us to broaden our distribution of this special issue to include elected officials, public administrators, and community leaders in order that they may learn more about Minnesota’s remarkably fine inventory of public buildings designed by Minnesota architectural firms.

When it comes time to find a firm for your community’s building project, be sure to consider these firms, each of which is owned and operated by members of AIA Minnesota, our state’s Society of the American Institute of Architects.

If your community needs assistance in finding an architect and utilizing a fair and thorough selection process, please contact AIA Minnesota, 612/338-6763. We have brochures and suggested selection methods that can save you time and money as well as enable you to find just the right architect for your project.

Peter Rand, FAIA
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Architectural Resources, Inc., provides architectural, engineering, landscape architectural and planning services throughout greater Minnesota.

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AURORA FIRE HALL - 1994

Peter Kerze Photo

Fire Stations Designed For Functionality, Flexibility, Community Compatibility.

Contact David Kroos, AIA

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This facility received recognition for design excellence by the American Institute of Architects and the American Correctional Association.

**St. Louis County New Jail Facility Duluth, Minnesota**

**St. Louis County Sheriff:**
Gary Waller

**Principal Architect:**
Thomas A. Vecchi, AIA, NCARB

**Completion Date:** July 1995
**Construction Costs:** $13,550,396
**Site Development Costs:** $850,900

This County Jail Facility is designed to house pretrial and sentenced inmates based upon direct supervision, minimum movement of inmates, effective staffing, and secure environment.

- An Arraignment Court has been incorporated. The Sally Port has been oversized to accommodate storage of inmate transportation vans.
- The General Population Housing Pods feature direct supervision with all recreation, dining, programming, visiting and other services provided at the pod areas. Every other cell within the General Population Cell Pod Areas provides double bunking.
- Classification, Segregation and High Risk Security Pods are supervised by an elevated control room, plus an officer roving the floor, providing a combination of direct and indirect supervision.

Electronic security systems are operated from graphic panels in housing cell pods and by touch screen from Central Control. The entire building can be controlled by Central Control in the event of an emergency.

**Technical Data:**
- **Architectural Area:** 101,973 Gross Square Feet
- **Architectural Volume:** 1,443,936 Cubic Feet
- **Standard Net Assignable Area:** 77,544 Square Feet
- **Capacity of Facility:** 212 Inmates (481 Gross Square Feet Per Bed)

Thomas and Vecchi Associates, A.I.A. Architects
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The Celebration Of A Decade
February 24, 1995.

Please reserve the evening of Friday, February 24 as International Market Square and Atrium Catering present The Celebration Of A Decade. That's the night we're marking our 10th anniversary, and thanking you for making it possible. There'll be music, dancing, entertainment, food and whimsy. And none of it will be the slightest bit ordinary. So consider this your alert. Watch for more details or call 612-338-6250.

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Credits

(We encourage you to support the following architects, consultants and suppliers.)

Project: Aircraft Rescue and Fire-fighting Training Facility
Location: Duluth
Client: Duluth Technical College
Architects: the Stansius Johnson architects, inc.
Principal-in-charge: Ken Johnson (design), Ron Stansius (contract documents)
Rick Stansius (Construction)
Project architect: Mark Lundberg
Project designer: Ken Johnson (principal-in-charge of design), Mark Lundberg (project architect)
Structural engineers: Kreuz Qard
Mechanical engineers: Foster Jacobs & Johnson
Electrical engineers: Foster Jacobs & Johnson
Contractor: Reuben Johnson & Sons
Interior design: the Stansius Johnson architects, inc.
Simulator consultant: Contraves, USA
Photographer: Don F. Wong

Project: Aurora Fire Hall
Location: Aurora, Minn.
Client: City of Aurora
Architects: Architectural Resources Inc.
Principal-in-charge: Doug Hildenbrand
Project manager: Earl Thiedens
Project architect: Mark Wirtanan
Project designer: Mark Speer
Mechanical engineers: Architectural Resources Inc.
Electrical engineers: Architectural Resources Inc.
Contractor: H.G. Harvey Constructors
Photographer: Peter Kerze

Project: Maplewood Community Center
Location: Maplewood, Minn.
Client: City of Maplewood
Architects: Ankeny Keil Richter Walsh Architects, P.A.
Principal-in-charge project management: Frederick C. Richter
Design principal: Duane A. Keil
Project architect: Marianne Repp-Obrien
Project team: Eric Ligerquist, David Carlson, Michael Eckardt, Anne Bockelman-Nelson
Structural engineers: Regstad Associates
Architects: Grooters Leapaldt
Mechanical and Electrical engineers: Gausman & Moore
Construction manager: McCough Construction
Contractor: Adolphson & Peterson
Interior design: AKRW Interiors
Landscape architect: AKRW landscape
Theater consultant: Schulter & Shook, Inc.
Aquatic consultant: Water Technology, Inc.
Photographer: Shin and Joel Koyama

Project: Metropolitan State University
Location: St. Paul
Client: State of Minnesota
Architects: Frederick Bentz
Milo Thompson/Robert Rietow, Inc.
Principal-in-charge: Robert G. Rietow
Project architect: R. Bruce Cornwall
Project designer: Milo H. Thompson
Structural, mechanical, electrical engineers: Dunham Associates
Contractor: Witcher Construction Co.
Interior design: Bentz/Thompson/Rietow
Landscape architects: Sanders Walker
Photographer: Karen Melvin

Project: MTC Transit Center
Location: St. Cloud, Minn.
Client: St. Cloud Metropolitan Transit Commission
Architects: Grooters Leapaldt
Tideman Architects
Principal-in-charge: Daniel Tideman
Project manager: Daniel Tideman
Project architect: Daniel Tideman
Project designer: Pat Waddick
Project team: Daniel Tideman, Pat Waddick, Stuart Bailey
Structural engineers: Duffy Engineering
Mechanical engineers: Lindell Engineering
Electrical engineers: Lindell Engineering
Contractor: Gopher State Contractors
Photographer: Dean Nagel & Nagel Studios, Inc.
different construction techniques in the wreckage, indicating the presence of two ships. The discovery, Anfinson says, demonstrated the value of hiring underwater archaeologists knowledgeable about naval architecture.

The archaeologists who recognized the Spencer were hired as part of the State Historic Preservation Office’s four-year study of Lake Superior shipwrecks in Minnesota waters, which was published in 1993. The Minnesota Historical Society began taking an interest in shipwrecks in 1986. That year, the National Park Service published its investigation of Isle Royale shipwrecks and a Preservation Office intern constructed a preliminary inventory of the state’s Lake Superior shipwrecks based on Labadie’s files.

In 1987, the federal Abandoned Shipwrecks Act stipulated that states were in control of historic resources in their own waters. In 1990, the Historical Society received funding from the Legislative Commission on Minnesota Resources to study Minnesota’s Lake Superior shipwrecks. The study, among other things, documents all known shipwrecks in waters to 100 feet. (More than 100 feet requires decompression diving. The Onoko was documented by avocational divers and submersibles.) This year, a new grant allows Anfinson’s department to move its shipwreck investigation into smaller Minnesota lakes, including Lake Minnetonka.

Of course, there’s much more to the intrigue surrounding shipwrecks than their place in the annals of naval architecture. Danger, wonder and a sense of the macabre add to the mystery of ships lost at sea. But ships wrecked in Lake Superior?

“What’s given shipwrecks in Lake Superior their high profile is, of course, the Edmund Fitzgerald,” Anfinson says. “And how big a story would that have been without the Gordon Lightfoot song?” In 1975, the Edmund Fitzgerald sank during a November storm. Resting in more than 530 feet of water, the wreck has been viewed only with submersibles that just this summer discovered new artifacts and human bodies.

“There’s an allure to shipwrecks,” Anfinson continues, even those in Lake Superior. “It’s not only the prospect of treasure or discovery, but shipwrecks are so inaccessible to the public. That’s why we like the drawings and underwater photos we have of the Madeira and the Onoko wrecks. Because those drawings you give the sense that below the surface of the lake—where you can’t see—there’s a whole new world. There’s a whole new Minnesota down there.”

1. In Submerged Cultural Resources Study: Isle Royale National Park, edited by Daniel J. Lenihan and published by the National Park Service.


Camille LeFevre is a contributing editor of Architecture Minnesota.
Next time you admire the rolling hillocks of Washburn-Fair Oaks Park in Minneapolis's Whittier neighborhood near the Minneapolis Institute of Arts, thank Frederick Law Olmsted. The noted landscape designer, creator of New York's Central Park, assembled the physical features of the grand estate that used to occupy the site.

William Drew Washburn, a Maine-born lawyer who came to Minneapolis to make a fortune in lumber and milling, purchased the block bounded by 22nd and 24th streets, and Stevens and Third avenues in 1868. At that time, only Villa Rosa, the residence of Dorilus Morrison, the city's first mayor, stood anywhere nearby. Washburn waited until 1883 to hire Olmsted and the Milwaukee-based architect E. Townsend Mix (who later designed the now-razed Metropolitan Building) to work on his 10-acre estate.

Two hundred and fifty thousand dollars later, Fair Oaks rose like a jagged, yellow-stone bump on the bare horizon—a collection of Tudor gables, cast-iron ornaments, oriel bays and grouped chimneys arranged in, as one critic observed, “the closest juxtaposition that the building block would permit.” The lavish interior featured frescoes on the ceilings and walls, marble floors, onyx fireplaces, and a library whose walls nearly sagged with oil paintings and heavy tapestries.

But the grounds drew the most attention. Olmsted designed hills, an artificial lake (now a dry depression) and a pond, with a rustic bridge-spanned stream connecting the bodies of water. The house itself, facing 22nd Street, sat on a grassy knoll.

Fair Oaks brought Washburn good luck—he ascended to the U.S. Senate in 1889. Renowned New Year's parties and other gatherings made the neighborhood a fashionable area, and other prominent families moved nearby.

When Washburn died in 1912, his widow left Minneapolis. For several years, only a caretaker's family occupied the estate. In 1914, the Minneapolis Park Board took ownership of the property and during World War I ran it as a recreation center for troops. The house was demolished in 1924 to make way for the park, but sections of the cast-iron fence remained standing for years afterward.

Jack El-Hai