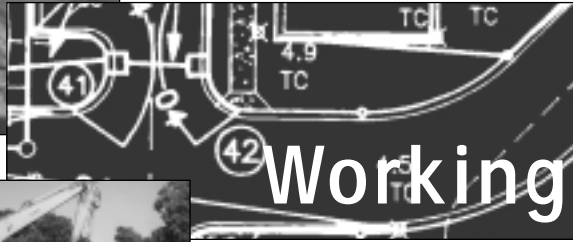




*Volume VIII
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Summer 1998

BY DESIGN



Working Together

Procedural Standards Bring Consistency to Bolton & Menk's Design Delivery



When bringing an engineering firm into a project, you expect the expertise of qualified technical professionals who can translate your conceptual ideas into a high quality design with construction documents that will allow the project to be constructed in a cost-effective and timely manner. Successful completion of the project, of course, depends upon commitments from you as project owner or client, the engineer and project contractors. A key commitment at the very heart of a successful project is the ability of your engineering firm to bring together a team of qualified professional and technical employees with the tools and resources necessary to meet your project goals. Although largely invisible to you and the public, the internal production procedures within an engineering firm strongly influence the success of the project and ultimately, your satisfaction with the firm.

History Influences Procedures

In the 1950's, Bolton and Menk operated as a single office. Communication and standardization between staff members was quite simple — most of the designers and drafters shared the same room and much of the drafting was performed by engineers. Over the next 20 years, Bolton & Menk strove to deliver services more directly to clients through the establishment of branch offices. The move established BMI's presence in a variety of regional locations and created a closer working relationship between clients and engineers. While the firm maintained strong business, managerial

and ethical standards, project procedures were largely geared to the capabilities and talents of the staff in the individual offices and to client preferences.

Growth & Technology Promote Consistency

As the firm continued to grow and add new offices over the last 15 years, new technology has significantly changed the project production process. The need to control the amount of data generated by new systems; the opportunity to more cost-effectively utilize staff throughout the firm; and provide comprehensive quality control and assurance, has necessitated the development of standards for surveying, drafting, design and software. With new technology, design information can be easily moved from survey crew to drafter to designer or from office to office; but only if the format of the information is consistent in almost every detail. Variations in even simple features such as fonts, abbreviations, line types or drawing symbols can completely thwart system efficiencies.

The Standardization Process

Most modern organizations face similar standardization needs. But for engineering companies like BMI, which must consider the special needs of many individual clients and a wide range of internal specialties, standardization can be particularly challenging. To address the need, Bolton & Menk

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New Associates Named...

Bolton & Menk is pleased to announce that Bradley DeWolf and Brian DeWolf have been named Associates of the firm.



Bradley DeWolf, P.E.

Bradley DeWolf, of Bolton and Menk's Burnsville office, is a registered professional engineer with a bachelor of science degree in civil engineering from North Dakota State University. He joined Bolton & Menk's Civil Division in 1996 and he has more than seven years of experience with civil engineering projects for both private and public clients. DeWolf also serves as Project Manager for several municipalities.



Brian DeWolf, P.E.

Brian DeWolf, of BMI's Willmar office, joined the company in 1994. He is a registered professional engineer with a bachelor of science degree in civil engineering from North Dakota State University. In 1997, DeWolf was named to lead the Environmental Division of BMI's Willmar office and also became a Project Manager. He brings more than six years of experience to work on a variety of projects including street, water, and wastewater improvement projects.

Bolton & Menk, Inc. recognizes these brothers for their exemplary professional and personal achievements, successful completion of a variety of civil and environmental projects for public and private clients as well as their valuable engineering experience.

Civil Engineering Expertise a Benefit to Institutional Organizations



Institutional organizations with sizable physical facilities (such as schools and hospitals) have specialized engineering needs when facility upgrades become necessary. Projects for such groups may include street and parking lot improvements, utility improvements, sidewalks, the establishment of athletic fields or playgrounds, demolitions, fire protection, outdoor lighting, and the like. Many of these institutions deal with upgrading and maintenance issues similar to those of cities, but have smaller staffs that make it necessary to call upon the skills of a consultant.

Such projects require City, County, and State permits and are usually tied to municipal systems and infrastructure, requiring close cooperation with municipalities.

Mark Kasma, BMI engineer, notes that the company is frequently called upon to contribute to the projects of school districts, hospitals and universities because of its experience with civil and environmental engineering. "Our private clients expect BMI to act as a liaison with local governments. They often hire us for that reason; they know that we understand local government regulations. They also know we have the expertise and staff to get the project approved and completed on time. I personally find these projects very satisfying because they allow me to facilitate positive change and, as the liaison, deal with so many interesting people."

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Offices:

515 N. Riverfront Drive
Mankato, MN 56001-3499
Phone 507-625-4171 FAX 507-625-4177

219 North Main Street
Fairmont, MN 56031-1833
Phone 507-238-4738 FAX 507-238-4732

134 Second Avenue South, P.O. Box 434
Sleepy Eye, MN 56085-0434
Phone 507-794-5541 FAX 507-794-5542

1515 East Highway 13
Burnsville, MN 55337-6857
Phone 612-890-0509 FAX 612-890-8065

316 SW 4th Street, P.O. Box 895
Willmar, MN 56201-0895
Phone 320-231-3956 FAX 320-231-9710

2730 Ford Street, P.O. Box 668
Ames, IA 50010-0668
Phone 515-233-6100 FAX 515-233-4430

108 North Water Street
Liberty, MO 64068-1787
Phone 816-792-5100 FAX 816-792-2133

www.bolton-menk.com
e-mail: bmi@bolton-menk.com

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Quality Engineering for
Tomorrow's World.

Bolton & Menk is an affirmative action employer.

RANKED AMONG THE 500 TOP ENGINEERING FIRMS IN THE UNITED STATES BY ENGINEERING NEWS RECORD

Clear Procedural Standards Lead to Cost-Effective Operations & Efficient Use of Personnel at BMI

Procedures
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set up a group of standardization committees which meet regularly to establish and review standards in such areas as survey data collection, plan preparation, specifications, and quality control. These groups are intentionally diverse in their makeup, representing both BMI's geographical locations and engineering specialties. This intentional mix of staff members leads to the establishment of realistic and workable procedures targeted towards addressing the full range of client needs. Committee diversity has, as an added benefit, promoted a better understanding of the company's personnel resources and binds the firm as a cohesive unit rather than individual offices.

Training

Bolton & Menk's attention to *how* things get done, *helps* things get done. Recurrent internal training and feed-back sessions promote the standardization process and build a work environment that promotes interdependence and the sharing of expertise. Ultimately, client satisfaction and quality assurance are the goals.

Common Goals

Obviously, the standardization process is time-consuming and internally expensive. However, the process has had immediate pay-back for both the firm and clients. Standardization allows BMI to more quickly and efficiently assemble project teams, capitalizing on expertise throughout the firm, not just one office. Little time is wasted on routine project details since these are addressed through standardization. More time can be spent dealing with real project issues and client concerns, resulting in a more cost-effective design product.

Standardization has created efficiencies which allow the firm to effectively address a myriad of client needs. For example, traffic engineers

in BMI's Burnsville office can be called upon to readily assist on a project in Sleepy Eye. A Mankato project manager can communicate with drafters in Fairmont to produce finished drawings that are identical to a product that might have been produced wholly in Mankato. A recent stormwater management project in Marshall was designed in Fairmont to take advantage of public drainage expertise there. Local contract administration and construction staking expertise was furnished through the Willmar and Sleepy Eye offices respectively. Prior to recent technology and BMI's standardization process, such project diversity and efficiencies would have been nearly impossible. Upon exposure to BMI's data collection and graphics standards, several clients have sought the assistance of BMI's staff to upgrade their own procedures.

Client Driven Success

At Bolton & Menk, success is driven by a desire to meet the needs of our clients. In today's market place, these needs are constantly changing with new technology. Bolton & Menk has made a commitment to

addressing the technological needs of our clients and, through its internal standardization process, has a proven structure for maintaining quality as technology evolves.

We hope this gives you some insight into the work behind the scenes at Bolton & Menk. The next time you review a set of construction documents, think about the thought and effort that goes into even the most basic graphic elements. We are proud of our commitment to the design delivery process and on-going improvements thereto.



The question is: how do you keep more than 100 people going in the same direction? Our commitment to standards is the answer. Standards ensure quality.

— Bruce Firkins
Vice President
Bolton & Menk, Inc.

Client Cities Hit Hard By March 29 Tornado



The City of Saint Peter, one of Bolton and Menk's oldest clients and home to many Bolton & Menk employees, sustained severe damage on the evening of March 29, when 220 m.p.h winds ripped through the City.

Saint Peter City Engineer, Tim Loose, helped assess damage and assisted with stabilization activities

immediately following the storm. "I was familiar enough with City facilities to help officials document damage to parks and buildings. I was there in an official capacity, but perhaps more importantly, I wanted to be there as a friend. At a time of incredible loss, I wanted to do as much as I could to help; the event made me think in a new way about what's really important."

Among City facilities, Saint Peter's Community Center suffered the most notable damage; the facility lost its roof, windows and the gymnasium area collapsed. Damage recorded elsewhere is extensive, but

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Saint Peter Park Clean-up Prioritized To Facilitate Summer Youth Programs



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Loose estimates that municipal damage will far exceed current estimates.

“When immediate needs are met, we’ll turn our attention to sidewalk and street damage, along with new utility services as the next priorities.” Park facilities have been one of the

primary concerns of City officials as they anticipate summer activity. “Programs will proceed,” explains Loose, “because the City made them a priority and moved things along quickly. Ballfields are now in playable condition; turf areas have been raked and vacuumed, infields have been pulled up and replaced, and fence contracts are nearly complete.”

The Church of Saint Peter’s historic building sustained extensive damage in the storm. Bell tower, stained glass and roof portions are gone, leaving the building open to the elements. Currently, the church is sharing space with members of First Lutheran Church.

“As they pick up the pieces, City officials are rethinking facility use and placement,” notes Loose. “They’ll upgrade wherever possible and within limits, funding options will be maximized and community facilities will be improved. Many individuals are doing the same.”

The company recognizes the significant losses suffered by many employees and by company friends including the client communities of Le Center and Comfrey. Our hearts go out to all affected by the tornado of March 29 and we wish them well as the work of rebuilding continues.

Look for us in booth # 89!
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Attn. Circulation
 515 North Riverfront Drive
 Mankato, MN 56001-3471

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