



# ENGINEERING NEWS

SIoux FALLS, SOUTH DAKOTA

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## MISSION STATEMENT

### Engineering Division

To enhance the economic well-being and quality of life in Sioux Falls by working with both public and private partners to provide for a safe, cost-effective, and efficient public infrastructure system.

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### Engineering News

is published quarterly in January, April, July, and October. Send articles and comments to [lfuller@siouxfalls.org](mailto:lfuller@siouxfalls.org)

## Welcome

With spring finally here and bid openings every week, construction season will soon be in full swing.

I thank everyone for their patience during our remodel project. Portions of the office received new flooring, paint, and work stations. The highlight of the project was the new front counter. I especially want to thank my staff for their patience in dealing with the inconveniences. Several of

you had to be relocated once or twice to accommodate the improvements and some days it took a while to find the copy machine. In addition, I thank Rod Harms and Mike Bassing with Engineering for managing the project and the City's Informational Technology and Facilities Management groups for all of their assistance. A job well done!

The Engineering Division is always looking for ways to

improve customer service and conduct business more efficiently. As we move forward in this construction season, I look forward to hearing from you on how we can accomplish these important goals.

Chad J. Huwe, P.E.  
City Engineer  
[chuwe@siouxfalls.org](mailto:chuwe@siouxfalls.org)



BEFORE



AFTER

## Electronic Plan Distribution

The Engineering Division is pleased to announce that we have begun to electronically distribute our plans and specifications for formally bid projects. These documents are available on the City's website at the following location: <http://eplans.siouxfalls.org>.

All users of the website must create an account. After the account is approved, the user can log in and download the plans and specifications. There are currently over 225 registered users representing over 150 organizations.

One of the goals of the website is to reduce the amount of paper distributed to contractors, thus reducing the City's copying costs. As an example of how this system has helped reduce the amount of paper needed, we recently advertised a construction project on East 41st Street. Fifty-eight of the sixty plan holders received their plans electronically. If all the electronic plan holders had received hard copies, over 3,700 sheets of paper would have been needed to produce the documents.

Since this is a new process, the City is still furnishing hard copies of the plans and specifications to contractors. In the upcoming months, the City will be evaluating the feasibility of eliminating or charging for hard copies of the plans and specifications. The Engineering Division would like to recognize and thank the City's Webmasters for all their assistance in the development of the website.

Shannon VerHey, P.E.  
Assistant City Engineer  
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## Phillips Avenue Reconstruction Project

Downtown Sioux Falls will receive infrastructure and streetscape improvements this spring when Phillips Avenue is reconstructed between 10th Street and 12th Street. The \$1.5 million project began in mid-March and includes the total reconstruction of the street from building to building, including miscellaneous underground utility work.

Also included in the project are upgrades to the streetscape elements. These streetscape improvements include permanent sculpture bases, decorative stone walls, landscape planters with ornamental railings, decorative monument piers, perennial landscape plantings, trees, bike loops, smokers' posts, benches, trash and recycling receptacles, and historic street lights. The historic lights will include electrical outlets for both holiday lights and vendor use during downtown events. Water spigots will be incorporated into some of the decorative stone walls to allow the sidewalk to be cleaned more easily after downtown events.

T&R Contracting Inc. of Sioux Falls was awarded the project with a bid of \$1,485,703.42. Due to the large impact to the businesses and residents along Phillips Avenue and the busy downtown summer events schedule, a \$10,000 per day incentive/disincentive will be applied to the project's interim completion date of June 12, 2009. All underground utility work and the street/sidewalk surfacing must be completed by this date. This will allow Phillips Avenue to be utilized for Automania on June 17. An additional \$1,000 per day

incentive/disincentive will be applied to the project's overall completion date of July 3, 2009. This will allow Phillips Avenue to be fully completed for Hot Harley Nights on July 11 and Hot Summer Nites on July 15.

Public involvement has been crucial during both the design and construction of this project. Over 200 people attended the four public meetings and various downtown committee meetings during the design phase. The City is continuing to involve the public during construction by having fifteen-minute daily sidewalk briefings for interested people, weekly construction coordination/public information meetings, and publishing a weekly construction bulletin. A webcam is also set up to provide live images of construction during the project.

Stockwell Engineers Inc. headed up the design team for this project. They were assisted by Confluence (streetscape) and Associated Consulting Engineers Inc. (electrical). Numerous City departments also had input in the design of this project, including Engineering, Planning, Lights, and Public Parking. Stockwell Engineers



*South intersection of 11th Street and Phillips Avenue.*



*South intersection of 11th Street and Phillips Avenue.*

Inc. is providing construction administration services for the City during construction.

Brad Ludens, P.E.  
Civil Engineer  
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Keep up-to-date on the project by downloading the latest construction bulletin or view the webcam at [http://www.siouxfalls.org/PublicWorks/special\\_projects/phillips\\_10\\_12](http://www.siouxfalls.org/PublicWorks/special_projects/phillips_10_12).

There is also a link to this page on the home page of [www.siouxfalls.org](http://www.siouxfalls.org) in the left hand column under "Featured Items."



## Traffic Sign Assessment and Management Program

Traffic signs provide important information to drivers both day and night. To be effective, their visibility must be maintained. The Federal Highway Administration, through its Manual on Uniform Traffic Control Devices (MUTCD), has introduced new language establishing minimum retro-reflectivity levels for traffic signs.

All governmental agencies have until January 2012 to establish and implement a sign assessment or management method to maintain minimum levels of sign retro-reflectivity. The federal compliance dates for meeting these minimum retro-reflectivity standards are as follows:

- January 2015—All regulatory, warning, and ground-mounted guide signs
- January 2018—All overhead guide signs and street name signs

Signs that do not have to meet the minimum retro-reflectivity standards are parking, informational, recreational, bicycle, and pedestrian signs.



## Northeast Transportation Study

During the creation of the 2025 Long Range Transportation Plan and other planning documents, the Sioux Falls Metropolitan Planning Organization (MPO) identified transportation network deficiencies in the northeast part of the MPO. The traffic forecasting model has identified a need to improve transportation corridors between Sioux Falls and Brandon for future commuting traffic. For these reasons, the City has contracted with HDR Engineering to conduct the Northeast Transportation Study.

For the purpose of the study, the northeast area has been identified as the area bounded by Minnesota Avenue on the west side, the Tenth Street/Arrowhead Parkway corridor on the south side, Interstate 90 on the north side, and the Big Sioux River on the east side. Some of the concepts generated are an extension between Russell Street and Rice Street, an extension between Rice Street and Maple Street, and ideas to improve Tenth Street/Arrowhead Parkway.

The Northeast Transportation Study will evaluate alternatives to improve the transportation network in this area. The City of Sioux Falls will be hosting future public meetings to request public comments on alternatives, and to request new ideas on how the transportation network should be developed.

Once the alternatives are finalized, a feasibility analysis will be conducted to evaluate issues such as constructability, environmental constraints, cost, and public comments. The final product will be a list of feasible alternatives ranked by cost.

Heath Hoftiezer, P.E. P.T.O.E  
Traffic Engineer  
hhoftiezer@siouxfalls.org

During the summer of 2009, the Sioux Falls City Engineering Office will be conducting the first step in preparing its traffic sign assessment and management program. Summer interns will conduct an inventory of all traffic control signs in the City. A photograph of each sign will be taken and the following data will be collected and entered into the City's GIS system: location, message, size, date of installation, and type of post the sign is mounted on. Once the inventory is completed, the City's sign management program will begin with the replacement of signs with substandard sheeting material, followed by signs according to their age.

Having the traffic sign inventory in the GIS system will be a valuable asset in the management of the City's traffic control signs. We will be able to display the location on maps and query the sign attribute data to develop an effective sign replacement program.

Dallas Hofer, P.E.  
Principal Traffic Engineer  
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## What does Engineering do?

- Manage nearly 800 miles of streets and public right-of-way within the city limits.
- Annually manage over 800 agreements, formal and informal construction contracts.
- Provide engineering support and services to other departments of the city.
- Operate 236 traffic signals.
- Responsible for over 40,000 traffic control signs.
- Manage over 520 lane-miles of pavement markings.
- Perform 150 surveys annually for legal and construction needs.
- Issue 270 permits annually for right-of-way parking and usage.
- Manage 350 miles of storm sewer pipe.
- Manage 64 miles of sump pump collection pipe.
- Manage over 840 acres of City-owned ponds and drainage ways.
- Manage 750 miles of public sanitary sewer. There are also 44 miles of private sanitary sewer.
- Manage 940 miles of water lines.

## Did you know...

- You can review a summary of what the Engineering Division accomplished in 2008 by downloading the 2008 Engineering Annual Report from our page on the City's website, siouxfalls.org.
- You can download the latest vehicle traffic counts from the City's website. The 2008 Traffic Count Book is posted on the Traffic Engineering page.





**EMPLOYEE SPOTLIGHT**

*Heath Hoftiezer*

**Place of Birth:** Heath was born in Pierre, South Dakota.

**Job Title:** Civil Engineer, P.E., P.T.O.E., Traffic

**Job Functions:** Heath works with all items and issues related to traffic, including programming timings for traffic signals, designing new traffic signals, pavement marking plans, new sign installations, reviewing traffic studies, reviewing access permits, and maintaining crash records and statistics.



**Education/Background:** Heath graduated from T.F. Riggs High School in Pierre in 1997. He then attended South Dakota State University and received a B.S. in Mechanical Engineering in 2001. After graduation he worked as a Traffic Design Engineer for the South Dakota Department of Transportation. During his four years with the SDDOT, he really enjoyed the opportunities that allowed him to occasionally work with traffic signals in the field. Since coming to work for the City of Sioux Falls, he has obtained his Professional Engineer's License and his Professional Traffic Operations Engineer Certificate.

**How long with City of Sioux Falls, Engineering Division:** Heath started his employment with the Engineering Division in May 2006.

**Personal Interest:** Heath enjoys spending the majority of his time with his seven-year-old daughter, Brooklyn.

**Hobbies:** Heath enjoys racing karts, water skiing, and wake boarding. In 1996, Heath was the first person from South Dakota to win a national championship in kart racing, and although he still races occasionally he has turned his focus toward his daughter, who managed to get her first couple of race wins in 2008. Over the past two years, Heath has also combined his racing and engineering knowledge to design two of his favorite kart tracks: the indoor Coke syrup track at the Swiftel Center in Brookings (built once a year in the winter), and the redesigned University Plains Speedway outdoor clay track, also in Brookings.

**Employee updates**

**2009 Service Awards**

- ..... Scott Hinrichs, 25 years in May
- ..... Chuck Serbus, 15 years in May
- ..... Randy Waits, 25 years in April

**2009 City Engineering Tentative Bid Dates**

Project Name	Estimated Bid Date
Air Base Area Water Main Replacement 2009	4/02/09
2009 Various Sanitary Repairs	4/02/09
Braley's Addition Street Reconstruction	4/02/09
City Annex Building Roof Replacement	4/09/09
Large Diameter Valve Replacement 2009	4/09/09
Concrete Pavement Restoration and Joint Replacement - Cliff and Kiwanis	4/09/09
2009 Western Heights Watermain Improvements	4/16/09
2009 Cathedral Area Street Reconstruction	4/16/09
Thelin Park Phase 1 Shelter	4/16/09
Sertoma Avenue from 12th Street to 26th Street	4/16/09
Fawick Park Bike Path & Plaza	4/16/09
Water Purification Plant Backwash Basin and Filter Upgrade	4/16/09
Planing and Milling of Pavement Surface	4/23/09
Asphalt Surface Treatment	4/23/09
Odor Control Collection Systems	4/23/09
Sherman Park Softball Renovation Phase 4	4/30/09
Caille Branch Library Roof Replacement	4/30/09
Pendar Area Street Reconstruction	4/30/09
Landfill Gas Slip Stream Piping	5/07/09
Career Avenue Sidewalk	5/07/09
Benson Road - I-29 to Career Avenue	5/07/09
Rehab Collector Well #37	5/21/09
Orpheum Seating, Painting, and Carpet	5/28/09
2009 Contract Overlay Area	5/28/09
Jefferson Park Redevelopment	5/28/09
69th Street - Connie Avenue to Tallgrass Avenue	5/28/09
Landfill Wetland Mitigation	6/01/09
Water Reclamation Plant Roof Replacement	7/16/09
Basin 13 Trunk Sewer Section 2 Phase 1	8/13/09
Pressure Zone Improvements	8/13/09
Convert Vertical Well #62 to Horizontal Collector Well	8/20/09

Note: Bid dates are tentative and subject to change. Contractors should verify the bid dates by reviewing the Notice to Bidders on the City's website at [www.siouxfalls.org/Business/ntb.aspx](http://www.siouxfalls.org/Business/ntb.aspx). Some bid dates are yet to be determined because of funding and design issues. Not all of the City's projects are listed.

