

Feasibility Report

2nd Street SW, between West Belle Street
and West North Street

City of Cannon Falls, Minnesota

SEH No. CANNO 128416

June 2, 2014



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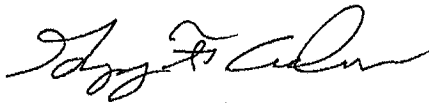
Engineers | Architects | Planners | Scientists

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I hereby certify that this report was prepared by me or under my direct supervision,
and that I am a duly Licensed Professional Engineer under the laws of the State of
Minnesota.



City Engineer

Date: June 2, 2014

Lic. No.: 26859

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3535 Vadnais Center Drive
St. Paul, MN 55110-5196
651.490.2000

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Feasibility Report

2nd Street SW, between West Belle Street and West North Street

Prepared for City of Cannon Falls

1.0 Introduction

In mid-April, the existing water main in 2nd Street SW, between West Belle Street and West North Street, broke after a winter of extreme cold winter conditions. Several service lines in the block froze and/or experienced issues during the winter. The first water main break was repaired, but the main broke again a week later. Since the second break, the six homes serviced by this block of water main have been placed on temporary water service from the hydrant at the North Street & 2nd Street.

The water main in this block is being repaired as part of a separate project. The Public Works Commission and City Council discussed these improvements in May. On May 20, 2014 the City Council authorized this feasibility report to study the street improvements that will be needed to repair the street after the water main is repaired.

2.0 Existing Conditions

This block of 2nd Street SW is a 30-foot wide bituminous street with B612 concrete curb & gutter. The street pavement is in good condition. The 2009 CIP had this area of the City scheduled for improvements in 2023. Upon digging up the broken water main, it was discovered that the existing water main had only 5.5 feet of cover. Typical water main depth is 7.5 feet. While not exactly certain how the water main ended up with shallower than normal cover, thoughts are that when the streets in this neighborhood were improved in the late 1980's, the water main was left in place and the street grade adjusted to better match driveways and existing yards.

The northern 2/3rds of the west side of this block include a "bumped out" parking area that utilizes the existing sidewalk along the 1st English Lutheran Church as the "curb". This sidewalk is in good shape and will be left in place during construction. The rest of the curb on the block is also in good shape. Replacing the water main and services will require the removal of short sections of the curb & gutter where each house service is replaced. The existing curb and gutter is B612, this is the standard design for parking lots, B618 is the standard curb & gutter used on new street construction.

The water main itself lies generally down the center of the street. The existing sanitary sewer in this neighborhood runs down the alleys, not in 2nd Street. This block also does not have storm sewer. Storm drainage is overland in the curb generally running south to north.

3.0 Proposed Improvements

All of the bituminous pavement will need to be replaced after water main is replaced. As mentioned above, the existing sidewalk along 1st English Lutheran Church will be left in place. The water main replacement project will only remove the existing curb & gutter as needed for water service replacement. A decision will need to be made on the remaining curb & gutter. The existing curb & gutter is B612 in design, meaning the curb height is 6-inches and the gutter width is 12-inches. Typical new street construction utilizes B618 or 18-inch wide gutter. The existing curb & gutter functions fine. New curb & gutter installation could be limited to only the sections removed for the water service line replacement to the six homes.

This partial or "spot" curb & gutter replacement has been performed in the past to varying success. Often the new curb & gutter will move differently in then the curb & gutter that was left in place, thereby creating offset joints that can trap water and debris. A common misconception with "spot" curb replacement is that it is cheaper than replacing all the curb. This is often not the case as the "spot" repair requires more labor/effort than to remove the entire block and pour the new curb with a machine versus by hand as with the "spot" repair.

Another consideration with the "spot" repair is that if assessing a portion of the project costs, residents may feel that they are not getting a completely "new" project as the new curb "spots" will definitely stand out in contrast to the existing curb & gutter. Given the soil conditions and the condition of the existing curb & gutter, the "spot" repair may function fine.

An option to consider is to bid the work as "spot" repair and add a bid alternate for a full replacement. This could be accommodated without a lot of extra effort.

For discussion purposes, we will assume the costs and quantities for a full replacement of the existing curb & gutter along with the standard pavement section for new residential streets of 3.5-inches of new bituminous pavement over 8-inches aggregate base.

4.0 Permits and Approvals

The proposed improvements will not require any permits to complete.

5.0 Summary of Estimated Costs

The estimated project cost of the improvements in this report is \$75,000.

These costs include construction costs along with 10 percent for contingencies. Legal, administrative, financing, and engineering costs have also been included in this estimate with a 15 percent allowance, funding for this project will come from assessments, capital improvement funds, and possibly reserves.

6.0 Benefits and Assessments

The City intends to levy assessments to benefited properties in accordance with Minnesota Statute 429. This state law allows the City to assess adjacent properties for costs associated with the project improvements. Also, the City Council will be responsible for establishing the policies and assessments for this project. Per the Statute a minimum of 20 percent of the project costs must be assessed to the benefitting properties.

6.1 Assessment Option 1 – Per Unit Basis

An initial assessment review has been completed using 20 percent of the project costs and assessing them a per unit basis for council consideration.

Based on the online GIS data from Goodhue County, there appears to be 10 benefitting parcels on this project. With a majority of the parcels within the project area being generally the same size, the per unit method would be appropriate.

The estimated cost for improvement is \$75,000. Assessing 20 percent of the total project cost works out to \$15,000 in assessments and \$60,000 in City contributions.

Dividing the project assessment by the total number of parcels in the project area (10) results in a per unit assessment of \$1,500.

A preliminary assessment role showing assessment for parcels within the project area is included in Appendix B of this report.

An appraiser or assessment professional should be included in the project at an early stage to determine the assessment amounts that may be reasonable applied to each property, based on benefit.

6.2 Assessment Option 2 – Front Foot Basis

This option bases assessments on the lineal front footage of 2nd Street SW each parcel has. There is approximately 801 feet of frontage on this block. The total amount to be assessed is \$15,000; Therefore, the cost per front foot of 2nd Street SW assessment is $\$75,000/810 = \18.73 per frontage foot.

Within this option, a 100-foot wide lot will be assessed \$1,872.66 for the improvements. The preliminary assessment role is in Appendix A.

7.0 Project Schedule

The following table lists project items from report acceptance, through design and construction, to assessment hearing with their anticipated dates.

Item	Date
Council Accepts Feasibility Report and Orders Improvement Hearing	June 3, 2014
Improvement Hearing	July 1, 2014
Council Orders Improvements	July 1, 2014
Council Accepts Plans & Orders Advertisement for Bids	July 15, 2014
Award Project	August 19, 2014
Project Construction	September - October 2014
Assessment Hearing	October 21, 2014

8.0 Conclusions and Recommendations

8.1 Conclusions

As a result of our study and investigations, it is concluded that:

- This project is necessary to improve the street pavement after the water main repair to provide a better driving surface.
- The proposed improvements are necessary to maintain the City's infrastructure. The project is feasible and cost effective from an engineering standpoint.

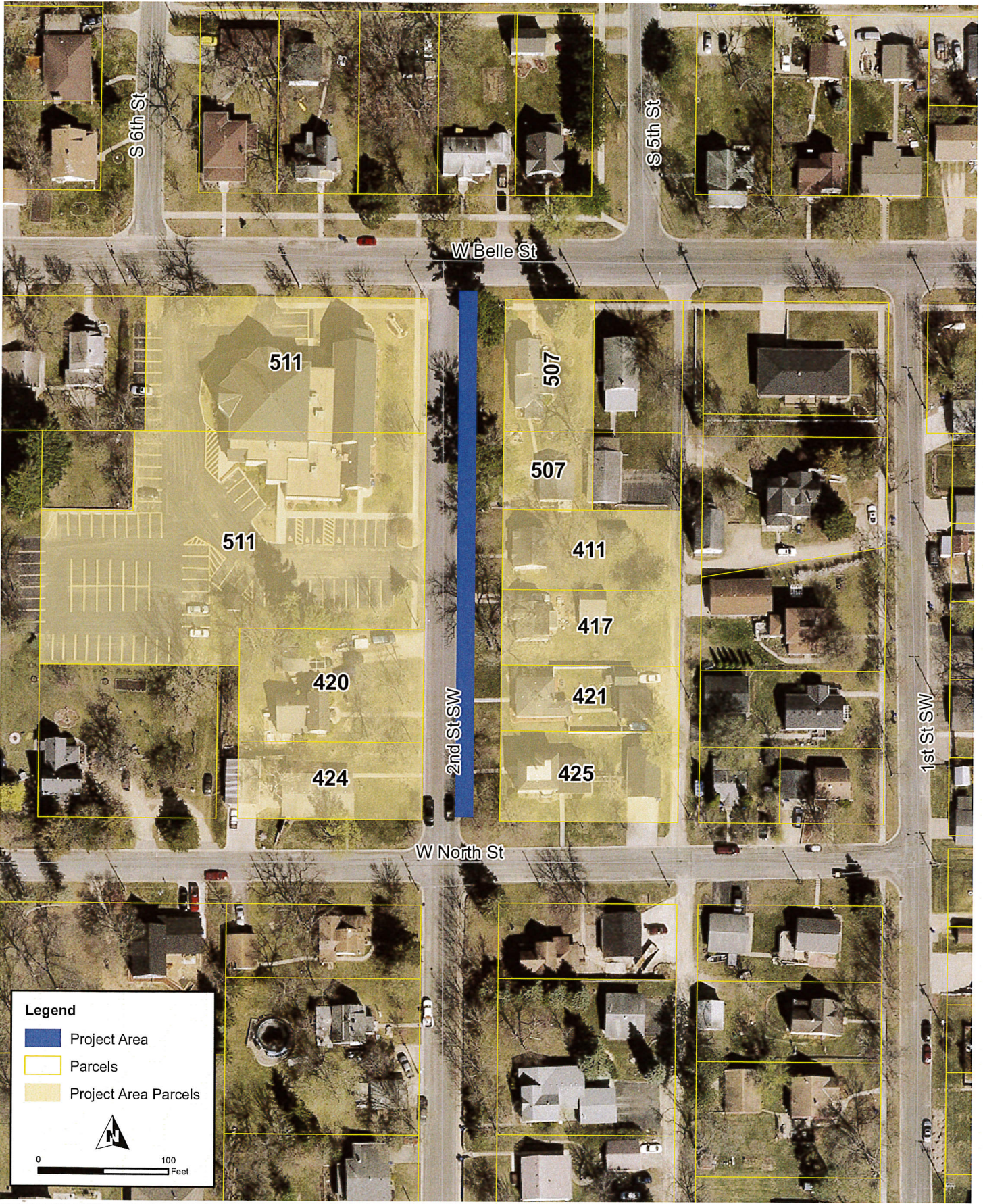
8.2 Recommendations

Based on the above conclusions, it is recommended:

- The City reviews this report with financial and legal advisors.
- The City Council accept this report and if funding is available, order a public hearing with the affected property owners to review the report and to entertain public input and comments.
- The cost of the improvements as proposed be recovered from benefited properties through assessments and City contribution. The ability to assess the amounts proposed should be verified.

List of Figures


Figure 1 – Proposed Street Improvements Map



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Legend

- Project Area
- Parcels
- Project Area Parcels


 0 100
 Feet

Project Number: CANNO 128416
 Print Date: 06/02/2014



Map by: shack
 Projection: Goodhue - county coordinates - english
 Source: Goodhue County, MnGEO, MnDOT, SEH.

2ND STREET SW STREET IMPROVEMENTS Cannon Falls, Minnesota

FIGURE 1
PROPOSED STREET IMPROVEMENTS

This map is neither a legally recorded map nor a survey map and is not intended to be used as one. This map is a compilation of records, information, and data gathered from various sources listed on this map and is to be used for reference purposes only. SEH does not warrant that the Geographic Information System (GIS) Data used to prepare this map are error free, and SEH does not represent that the GIS Data can be used for navigational, tracking, or any other purpose requiring exacting measurement of distance or direction or precision in the depiction of geographic features. The user of this map acknowledges that SEH shall not be liable for any damages which arise out of the user's access or use of data provided.

Appendix A

Preliminary Assessment

2nd Street SW Street Improvements - 128416
Preliminary Assessment Roll

PIN	NAME	ADDRESS 1	ADDRESS 2	CITY	STATE	ZIP	UNIT	Assessment Per Unit	Front Footage	Assessment per Front Footage
523200010	DARRYL W MCLAIN	507 W BELLE ST	PO BOX 126	CANNON FALLS	MIN	55009	1	\$1,500	60.0	\$1,123.80
523200030	DANNETTE J LAWRENCE	411 SW 2ND ST		CANNON FALLS	MIN	55009	1	\$1,500	61.4	\$1,150.02
523200040	CHARLES M EKSTROM	417 2ND ST SW		CANNON FALLS	MIN	55009	1	\$1,500	58.0	\$1,086.34
523200050	JANE L KNOWLTON	425 2ND ST SW		CANNON FALLS	MIN	55009	1	\$1,500	69.5	\$1,301.74
523200060	NICOLE ODEGARD	421 2ND ST SW		CANNON FALLS	MIN	55009	1	\$1,500	50.5	\$945.87
523200380	KARL M NELSON	424 2ND ST SW		CANNON FALLS	MIN	55009	1	\$1,500	59.3	\$1,110.69
523200390	JASON R KOSTRZEWSKI	420 SW 2ND ST		CANNON FALLS	MIN	55009	1	\$1,500	86.7	\$1,623.89
523200400	FIRST ENGLISH LUTHERAN CHURCH	511 W BELLE ST		CANNON FALLS	MIN	55009	1	\$1,500	103.4	\$1,936.68
525400100	DARRYL W MCLAIN	507 W BELLE ST	PO BOX 126	CANNON FALLS	MIN	55009	1	\$1,500	101.5	\$1,901.10
525400110	FIRST ENGLISH LUTHERAN CHURCH	511 W BELLE ST		CANNON FALLS	MIN	55009	1	\$1,500	151.1	\$2,830.10