FEASIBILITY REPORT AND COST ESTIMATE FOR

IMPROVEMENT PROJECT NO. 12-18 101st AVENUE FROM FLANDERS STREET TO NAPLES STREET

CITY OF BLAINE, MINNESOTA
January 17, 2013

Storm drainage improvements, storm water quality management, class 5 aggregate base, spot concrete curb and gutter replacement, asphalt pavement replacement, signage and striping, and related appurtenant construction.

I hereby certify that this plan, specification, or 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.

Daniel S. Schluender, PE Assistant City Engineer

Minn. Lic. No. 26771

CITY OF BLAINE

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Prepared By:

Daniel Schluender, PE Assistant City Engineer



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FEASIBILITY REPORT PROJECT NO. 12-18

EXECUTIVE SUMMARY

The proposed project will partially reconstruct 101st Avenue NE from Flanders Street NE to Naples Street NE. Proposed improvements include spot ditch grading/repair, storm sewer structures, asphalt surface, traffic control signage, striping, and appurtenant construction.

The estimated cost of improvements is \$440,400 with \$140,049 proposed to be assessed over a ten-year period. Replacement of existing hydrants and existing sanitary sewer structure castings/rings, at an estimated cost of \$56,160, is proposed to be paid for by the City Public Utility Fund. The remaining portion of \$244,191 is proposed to be paid from the City's Municipal State Aid Street funds and the City's Pavement Management Program Funds.

The project is necessary, cost-effective, and feasible and will result in a benefit to the properties proposed to be assessed.

1. **PROJECT HISTORY**

The Blaine City Council initiated the project and ordered the preparation of a feasibility report on October 18, 2012, with Resolution No. 12-139.

This report is based on field observations, record drawing information, 2011 aerial photography, and 2012 topographic survey.

2. PROJECT AREA CHARACTERISTICS

The project area includes 101st Avenue NE, beginning at the intersection with Flanders Street NE and terminating at the intersection with Naples Street NE.

The existing 101st Avenue was constructed in 1994. The street was constructed as a rural section with a 24 foot paved surface, ditches with culverts, sanitary sewer, and water main. The street has received no previous pavement preservation treatments.

The Anoka County Soil Survey indicates the predominant soil types in the project area to be Lacustrine sand with silt. Based on past projects in the area, the project will require dewatering operations to install underground improvements.

The proposed project is located in the Rice Creek Watershed District. The project is located in a part of the Federal Emergency Management Agency designated flood area. As the project is not proposing to change the elevation of the roadway there will be no impacts to the flood plain. No portion of the project will impact wetlands as identified on the City's wetland inventory map.

See Exhibit No. 1 for the project location.

3. PROPOSED IMPROVEMENTS

The proposed improvements will include partial reconstruction of the existing rural street section, grading the existing ditches, replacement of hydrants, and replacement of sanitary sewer castings and rings. The improvements are necessary, cost-effective, and feasible. Each improvement is further described as follows:

A. Sanitary Sewer

Public Works and Engineering staffs have reviewed the existing sanitary sewer along the 101st Avenue NE corridor and concur that there are no issues with the existing mains. The project will include the removal of the existing manhole castings/rings and installation of new castings/rings on all sanitary manholes.

See Exhibit No. 2 for the sanitary sewer location map.

B. Water Main

Public Works and Engineering staffs have also reviewed the water main installation dates and water main break data along the 101st Avenue NE corridor and concur that there are no issues with the existing main. Therefore, the scope of the project will not include any replacement of existing water main along the corridor. The project will include removal and replacement of the existing hydrants and hydrant gate valves along with adjusting existing gate valve boxes located within the street typical sections.

See Exhibit No. 3 for the water main location map.

C. Street Construction

The proposed construction will begin at the westerly terminus of Flanders Street NE and continue easterly over the existing 101st Avenue NE alignment, terminating at Naples Street NE. The proposed project will partially reconstruct the existing typical section. The street typical section will be reconstructed with a section composed of 4-inches bituminous on 8-inches of reclaimed gravel base over a compacted subgrade. To improve drainage the project is proposing minor grading of the shoulders and ditches.

The preliminary survey by Bolton & Menk, Inc. indicates dedicated right-of-way varies between 66 feet on the east end to 80 feet on the west end of the project corridor. There is no anticipated additional right-of-way needed for the project.

See Exhibit No. 4 for the proposed street and storm sewer location map.

D. Storm Drainage

Storm water runoff from the streets will continue to be directed to the existing ditches. The project is proposing to remove all existing storm sewer culverts and structures and reconstruct all to RCP pipe and precast structures.

Rice Creek Watershed District will conduct a plan review for the project.

See Exhibit No. 4 for the proposed street and storm sewer location map.

4. IMPACT OF PROPOSED IMPROVEMENTS

The proposed street improvements will not create any new maintenance issues for the Public Works staff. The City will work with affected property owners and the Contractor to resolve any situation that may arise during construction. Short term traffic delays, construction dust and noise, and erosion will occur. Efforts to minimize these impacts include the restriction of work hours and dust and erosion control measures included in the project. Any disruptions that occur to existing yards, sprinkler systems, and driveways will be restored.

SUMMARY OF ESTIMATED PROJECT COSTS AND FUNDING

Project:

12-18

Description:

101st Avenue NE Improvements

Cost Item	Percent	Amo	ount	
Construction Costs				
Street Construction Storm Sewer Water Main Sanitary Sewer		\$ 230,250 54,550 35,950 5,650		
Total Construction Costs			\$	326,400
Administrative Costs				
Engineering Assessment Legal Administration Capitalized Interest Bonding	18% 1% 2% 4% 8% 2%	\$ 58,750 3,250 6,500 13,000 26,000 6,500		
Total Administrative Costs			\$	114,000
TOTAL ESTIMATED PROJECT COSTS			\$	440,400

Temporary Funding Source	City Internal Funds
Permanent Funding Source	MSAS Funds, Assessments, Pavement Management Program Funds (PMP Funds), and Public Utility Funds,
(ENR Construction Index for December 2012 is 10796.6)	
Funding	
Total Paid from Public Utility Funds	\$ 56,160
Total Generation from Assessments	\$ 140,049
Total Paid from MSAS Fund/PMP Funds	\$ 244,191

6. ASSESSMENT METHODOLOGY

It is proposed that the project be assessed over 10 years in accordance with the City's Assessment Policy. It is proposed to assess this project using the linear foot method for the commercial properties. The front foot assessments are based on 50% of the entire cost of the improved 24 foot street section per the city assessment policy.

See Exhibit No. 5 for the parcels proposed to be assessed and Exhibit No. 6 for the proposed assessment roll.

7. FINANCE

The proposed project will be temporarily financed by the City. Permanent funding will be provided by the MSAS account, MSAS Street Maintenance account, Pavement Management Program Funds, city water and sewer utility funds, and the costs assessed to the benefiting parcels in accordance with current City Assessment Policy and Minnesota Statutes Chapter 429, Special Assessment Laws.

A. Finance Director Statement

With reference to this Feasibility Report for Improvement Project 12-18 as prepared by the City of Blaine Engineering Department dated January 17, 2013, I find the following:

- 1. The project will be temporarily funded through existing City internal funds whereupon permanent financing will be obtained through the City's Municipal State Aid Street Funds, MSAS Street Maintenance Funds, Pavement Management Program Funds, Public Utility Funds, and assessments.
- 2. Sufficient moneys are currently available from the City's internal funds to temporarily fund the special assessment portion of the project. It is estimated that \$140,049 will be assessed.
- 3. Sufficient moneys are currently available from the City's Public Utility Funds to pay for proposed utility improvements for street reconstruction at an estimated cost of \$56,160.

Joseph Huss, Finance Director

8. PROJECTED SCHEDULE

Receive Feasibility Report January 17, 2013

Order Public Hearing

Public/Business Information Meeting to discuss project and February 12, 2013

proposed assessments

February 21, 2013 Hold Public Hearing

Order Improvements and Order Preparation of Plans and

Specifications

April 4, 2013 Approve Plans and Specifications

Order Advertisement for Bids

April 30, 2013

Open Bids

Award Contract May 16, 2013

June – Sept 2013 Construct Improvements

Nov 2013

Assess Project

2014

First assessment payment due with real estate taxes

PROJECT FEASIBILITY AND RECOMMENDATION 9.

The project as proposed is technically and financially feasible, cost effective, and will result in a benefit to the properties proposed to be assessed. recommended that the Council accept this report, hold the public hearing, and order the improvements.





Project Location Map Project 12-18



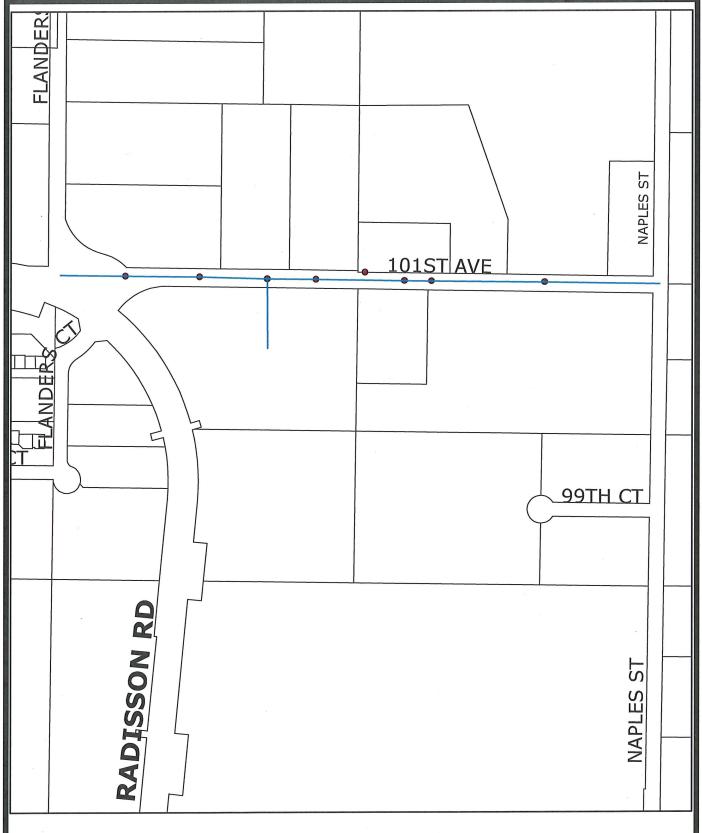




Exhibit 2
Sanitary Sewer Map
Project 12-18



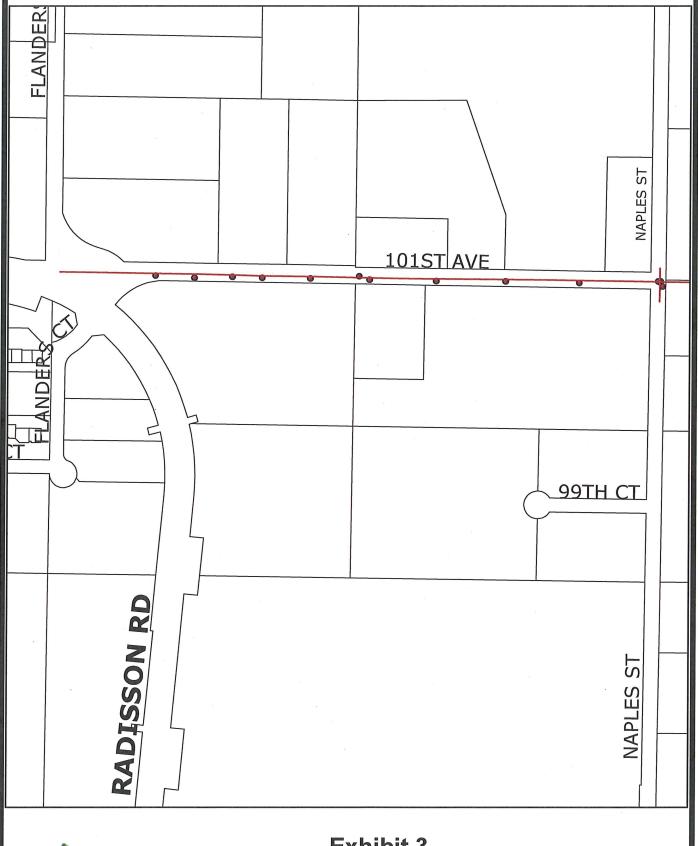
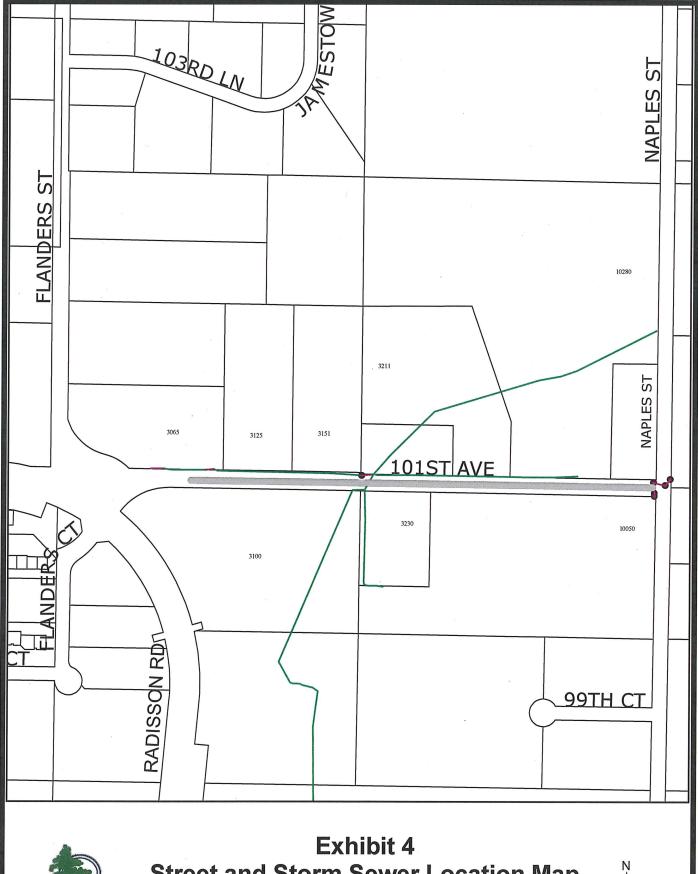




Exhibit 3 Watermain Location Map Project 12-18







Street and Storm Sewer Location Map
Project 12-18





101st Avenue NE Project Number 12-18

Proposed Assessment Roll

				Residential Street Unit	Residential Street Unit
ADDRE	ADDRESS	ADDRESS Total Front Footage (LF)		Street Unit Total Front Footage (LF) Residential Unit (25%)	Total Front Assessment Rate Footage (LF) Residential Unit (25%)
	2005 101 1 1	Footage	Footage (LF)	Footage (LF) Residential Unit	Footage (LF) Residential Unit
		i de la constanta de la consta	Footage (LF)	Footage (LF) Residential Unit	Footage (LF) Residential Unit
	SS	Total Footage	Total Front Footage (LF)	Total Front Assessment Rate Footage (LF) Residential Unit (25%)	Total Front Assessment Rate Footage (LF) Residential Unit (25%)

3098.43

Total

\$140,049.04

90.41/Front Foot

Estimated Commercial/Industrial Assessment Rate