

**FEASIBILITY REPORT  
AND COST ESTIMATE  
FOR  
IMPROVEMENT PROJECT NO. 15-20  
PAVEMENT MANAGEMENT PROGRAM  
RECONSTRUCTION OF 91<sup>ST</sup> AVENUE**

**CITY OF BLAINE, MINNESOTA**

**April 7, 2016**

**Water main replacement, storm sewer, concrete curb, asphalt pavement replacement,  
class 5 aggregate base, 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.



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Assistant City Engineer  
Minn. Reg. No. 41290



**CITY OF BLAINE**  
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# FEASIBILITY REPORT PROJECT NO. 15-20

## EXECUTIVE SUMMARY

The proposed project will reconstruct 91<sup>st</sup> Avenue from Jefferson Street to Polk Street. Proposed improvements include installing concrete curb and gutter, storm sewer improvements, asphalt surface, traffic control signage, replacement of existing water main, and appurtenant construction.

The estimated cost of improvements is \$1,143,450.00 with \$170,778.65 proposed to be assessed over a ten-year period. Replacement of existing sanitary sewer castings/rings and a sanitary manhole at an estimated cost of \$43,470.00 and replacement of existing water main at an estimated cost of \$310,230.00 is proposed to be paid for by City Public Utility Funds. The remaining portion of \$618,961.35 is proposed to be paid from the City's Pavement Management Program Fund.

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 December 17, 2015, with Resolution No. 15-209.

This report is based on field observations, record drawing information, 2014 aerial photography, and a 2015 topographic survey.

**2. PROJECT AREA CHARACTERISTICS**

The project area includes 91<sup>st</sup> Avenue, beginning at Jefferson Street and terminating at Polk Street.

The existing segment of 91<sup>st</sup> Avenue, approximately 2,820 feet long, was originally constructed in 1966 as a 30 foot wide paved street. Surmountable concrete curb and gutter is present along the north side from Jefferson Street to Jackson Street. The remaining portion of the street has no curb and gutter. Storm sewer, consisting of two storm sewer catch basins mid-block between Van Buren Street and Tyler Street and one catch basin on the north side of the street at Madison Street is present. Previous pavement preservation treatments include an overlay done in 1994 and a sealcoat done in 2000.

The Anoka County Soil Survey indicates the predominant soil types in the project area to be Zimmerman fine sand, Lino loamy fine sand and Isanti fine sandy loam. Based on past projects in the area, the project will likely require dewatering operations to install some of the underground improvements.

The proposed project is located in the Coon Creek Watershed District. 91<sup>st</sup> Avenue drains to County Ditch 17 through the existing storm sewer mentioned above. 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 reconstruction of the existing street section, additional storm sewer and replacement of water main and 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 staff has reviewed the existing sanitary sewer along the 91<sup>st</sup> Avenue corridor and concur that there are no issues with the existing mains with the exception of one sanitary manhole which has settled and needs to be replaced. The entire sewer main was recently lined in 2011 as a part of the sanitary sewer lining project. The project will also include the removal of the existing manhole castings/rings and installation of new castings/rings on all sanitary manholes.

**B. Water Main**

Public Works and Engineering staff has reviewed the water main installation dates and water main break data along the 91<sup>st</sup> Avenue corridor and concur that the existing cast iron water main installed in 1960 should be replaced. Cast iron water main is more susceptible to water main breaks than modern ductile iron or PVC water main pipe. Because the lifespan of the new road is anticipated to be at least 30 years, the existing water main would be approaching or exceeding 100 years old before another opportunity would exist to replace it.

Therefore, the project will include replacement of existing cast iron water main in the project corridor. The work will include abandonment of existing water main, removal of existing hydrants, removal of existing water services to the right of way, and installation of new hydrants, valves, water main and water services.

**C. Street Construction**

The proposed construction will begin at the intersection of Jefferson Street and continue easterly within the existing 91<sup>st</sup> Avenue alignment, terminating at the intersection of Polk Street. The proposed project will reconstruct the entire road, removing all existing pavement and curb and gutter, and constructing a new road with a typical section composed of 3-1/2 inches of bituminous on 4 inches of Class 5 gravel base over a compacted subgrade. The new road section will include B618 concrete curb and gutter along the entire length of the road.

As directed by the City Council, the project does not include the construction of any sidewalk unless the residents request sidewalk installation.

It is not anticipated that additional right-of-way will be needed for the project.

**D. Storm Drainage**

Storm water runoff from the streets will be captured and controlled with catch basins and a storm sewer pipe system. The existing storm sewer system will be supplemented with the addition of additional catch basins and storm sewer pipe to aid in capturing runoff. Sump catch basin structures will be utilized where appropriate to aid in the removal of sediments.

With the addition of concrete curb and gutter, it is anticipated that infiltration practices will need to be incorporated into the existing storm sewer system to meet the watershed requirements. Staff will work with

Coon Creek Watershed District to determine how to meet infiltration requirements in a feasible and cost effective way within the right of way.

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

**4. IMPACT OF PROPOSED IMPROVEMENTS**

The proposed street improvements will not create any new maintenance issues for the Public Works staff other than the annual cleaning of the sump manholes. 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.

**5. SUMMARY OF ESTIMATED PROJECT COSTS AND FUNDING**

**Project:** 15-20  
**Description:** 91<sup>st</sup> Avenue Reconstruction

Cost Item	Percent	Amount
<b>Construction Costs</b>		
Street Construction		\$ 585,000
Water Main		229,800
Sanitary Sewer		32,200
<b>Total Construction Costs</b>		<b>\$ 847,000</b>
<b>Administrative Costs</b>		
Engineering	18%	\$ 152,460
Assessment	1%	8,470
Legal	2%	16,940
Administration	4%	33,880
Capitalized Interest	8%	67,760
Bonding	2%	16,940
<b>Total Administrative Costs</b>		<b>\$ 296,450</b>
 <b>TOTAL ESTIMATED PROJECT COSTS</b>		 <b>\$ 1,143,450</b>

**Temporary Funding Source**

City Internal Funds

**Permanent Funding Source**

Assessments, Pavement Management Program Funds (PMP Funds), and Public Utility Funds,

**Funding**

Total Paid from Public Utility Funds	\$ 353,700
Total Generation from Assessments	\$ 170,778.65
Total Paid from PMP Funds	\$ 618,961.35

## 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 unit method for the residential properties. The large school parcel is proposed to be assessed per linear foot. Proposed unit and linear foot assessments are based on 25% of the entire cost of the improved street section, and do not include costs for water main or sanitary sewer work.

See Exhibit No. 2 for the parcels proposed to be assessed and Exhibit Nos. 3 and 4 for the proposed assessment rolls.

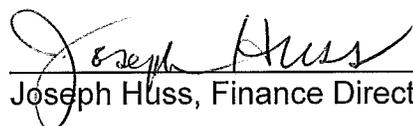
## 7. FINANCE

The proposed project will be temporarily financed by the City. Permanent funding will be provided by the 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 15-20 as prepared by the City of Blaine Engineering Department dated April 7, 2016, I find the following:

1. The project will be temporarily funded through existing City internal funds whereupon permanent financing will be obtained through the 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 \$170,778.65 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 \$353,700.00.

  
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Joseph Huss, Finance Director

**8. PROJECTED SCHEDULE**

April 7, 2016	Receive Feasibility Report Order Public Hearing
April 13, 2016	Public Information Meeting to discuss project and proposed assessments
May 5, 2016	Hold Public Hearing Order Improvements and Order Preparation of Plans and Specifications
May 5, 2016	Approve Plans and Specifications Order Advertisement for Bids
June 1, 2016	Open Bids
June 16, 2016	Award Contract
June – Sept 2016	Construct Improvements
September 2016	Assess Project
2017	First assessment payment due with real estate taxes

**9. PROJECT FEASIBILITY AND RECOMMENDATION**

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

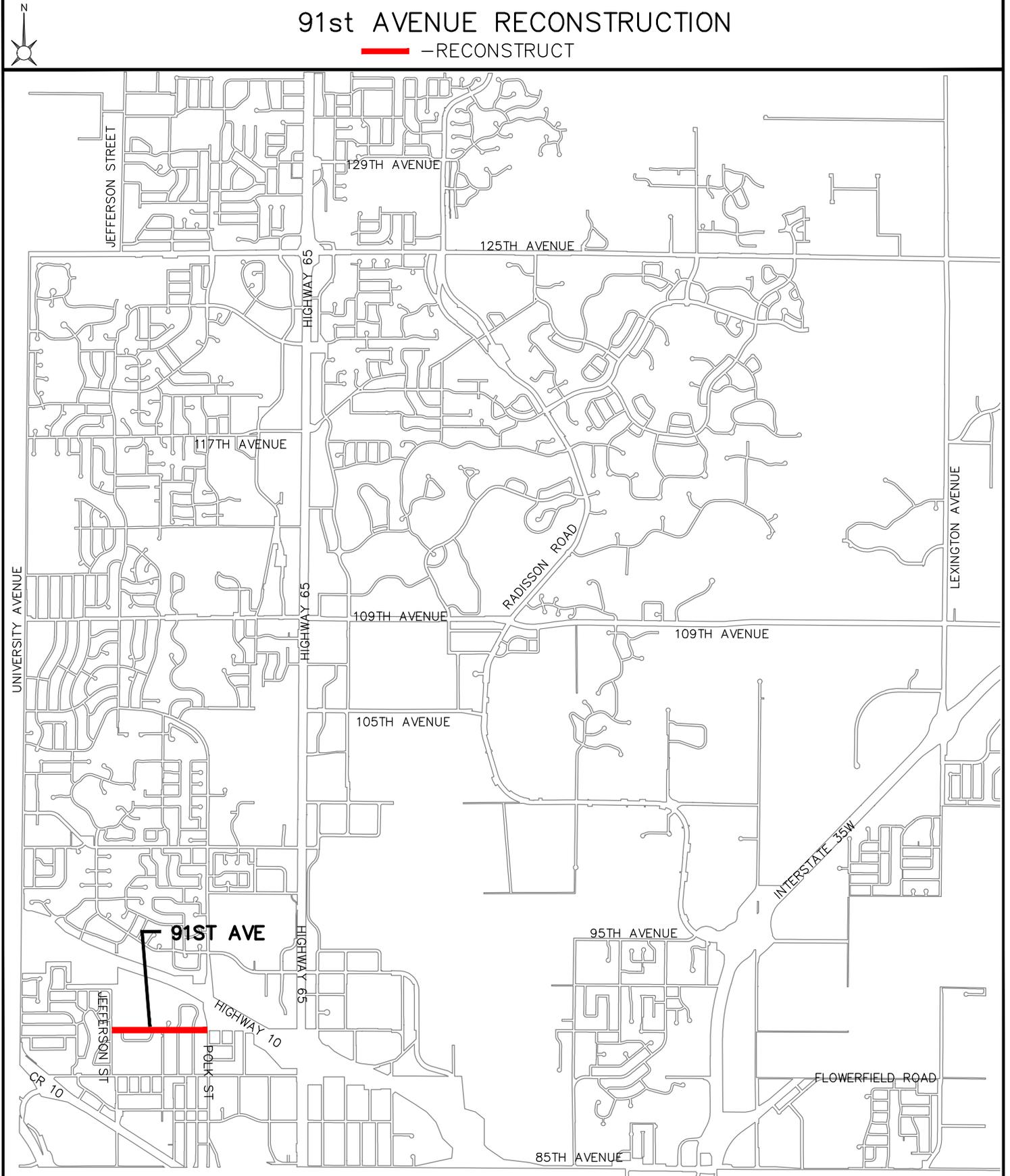


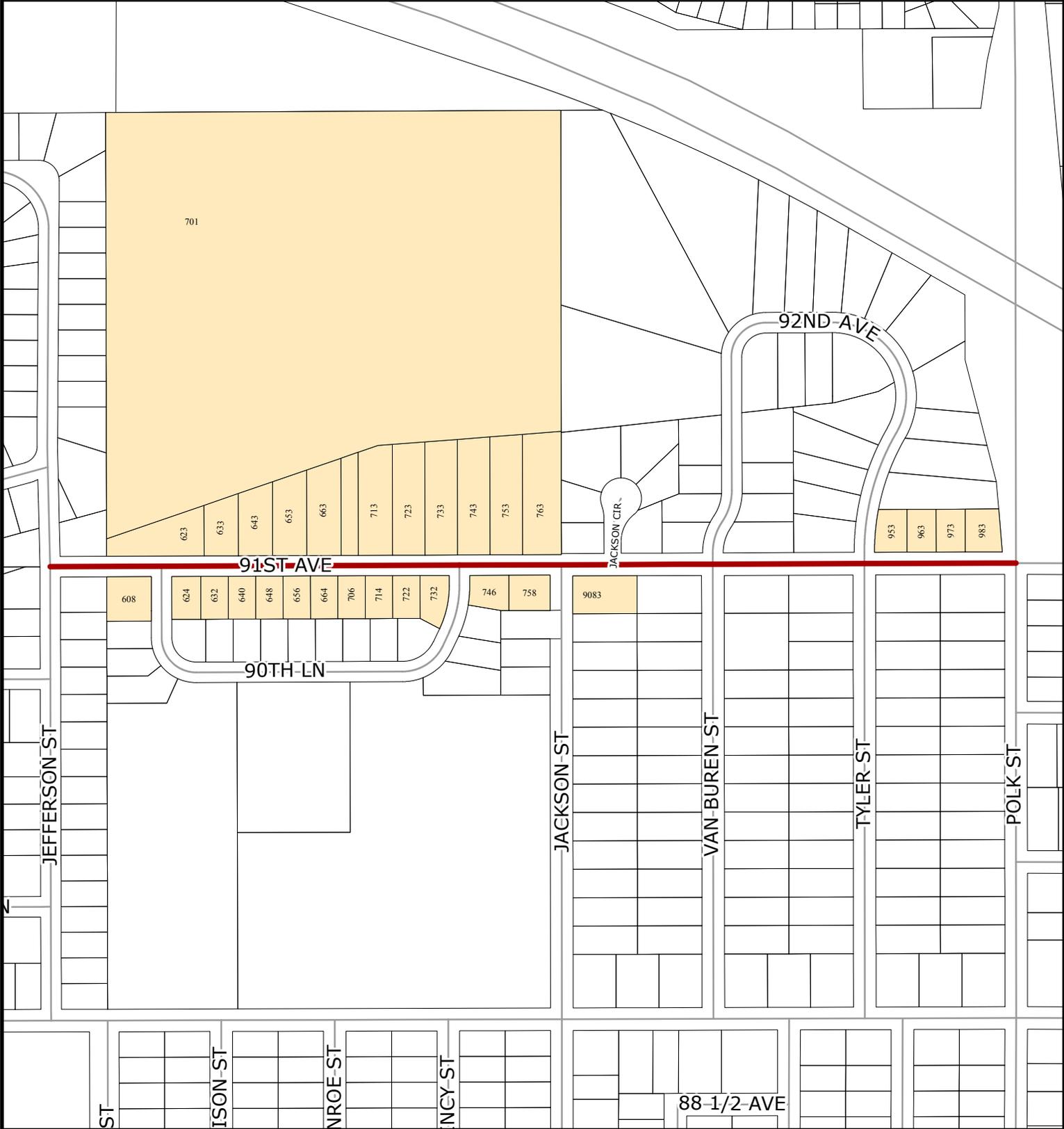
# CITY OF BLAINE

## EXHIBIT 1 - LOCATION MAP

### 91st AVENUE RECONSTRUCTION

 - RECONSTRUCT





Reconstruction of 91st Avenue

 Assessable Parcels



# Assessment Map Project 15-20



PROJECT 15-20  
 RECONSTRUCTION OF 91ST AVENUE  
 CITY OF BLAINE  
 EXHIBIT NO. 3 - 91ST AVENUE PROPERTY ASSESSED BY LINEAR FOOT  
 PROPOSED ASSESSMENT ROLL

<b>ASSESSMENT RATE BREAKDOWN</b>			
CONSTRUCTION COSTS*	\$585,000.00	*(CONSTRUCTION COST DOES NOT INCLUDE WATER MAIN OR SANITARY SEWER COSTS)	
ADMINISTRATIVE COSTS	\$204,750.00		
TOTAL COST	\$789,750.00		ASSESSMENT RATE PER LINEAR FOOT
	<u>RESIDENTIAL RATE</u> x25%	TOTAL LINEAR FOOTAGE	
<b>ASSESSABLE COST</b>	<b>\$197,437.50 /</b>	<b>5019.7 LF</b>	<b>=      \$39.33</b>

PROPERTY PIN	PROPERTY ADDRESS	PROPERTY OWNER	ASSESSABLE LINEAR FOOTAGE	ASSESSMENT RATE PER LINEAR FOOT	PROPOSED ASSESSMENT
313123120017 & 313123120001	701 91ST AVE NE	INDEPENDENT SCHOOL DISTRICT NO 16	1329.0	\$39.33	\$52,269.57
<b>TOTALS:</b>			<b><u>1329.0</u></b>		<b><u>\$52,269.57</u></b>

PROJECT 15-20  
 RECONSTRUCTION OF 91ST AVENUE  
 CITY OF BLAINE  
 EXHIBIT NO. 4 - 91ST AVENUE PROPERTY ASSESSED BY RESIDENTIAL LOT UNIT  
 PROPOSED ASSESSMENT ROLL

<b>ASSESSMENT RATE BREAKDOWN</b>			
CONSTRUCTION COSTS*	\$585,000.00	*(CONSTRUCTION COST DOES NOT INCLUDE WATER MAIN OR SANITARY SEWER COSTS)	
ADMINISTRATIVE COSTS	<u>\$204,750.00</u>		
TOTAL COST	\$789,750.00		
	RESIDENTIAL RATE	x25%	
		TOTAL LINEAR FOOTAGE	ASSESSMENT RATE PER LINEAR FOOT
<b>ASSESSABLE COST</b>	<b>\$197,437.50 /</b>	<b>5019.7 LF</b>	<b>= \$39.33</b>

**RESIDENTIAL PROPERTY**

ASSESSMENT RATE		ASSESSABLE FOOTAGE		AMOUNT ASSESSED		ASSESSABLE RESIDENTIAL LOT UNITS		ASSESSMENT RATE PER RESIDENTIAL LOT UNIT
\$39.33	X	3013.2 LF	=	\$118,509.16	/	29	=	\$4,086.52

PROPERTY PIN	PROPERTY ADDRESS	PROPERTY OWNER	ASSESSABLE RESIDENTIAL LOT UNITS	ASSESSMENT RATE PER RESIDENTIAL LOT UNIT	PROPOSED ASSESSMENT
313123110003	983 91ST AVE NE	OGROSKE MICHAEL	1	\$4,086.52	\$4,086.52
313123110004	973 91ST AVE NE	LIABOE SANDRA	1	\$4,086.52	\$4,086.52
313123110005	963 91ST AVE NE	SCHUCHARD JAMES J & M S	1	\$4,086.52	\$4,086.52
313123110006	953 91ST AVE NE	GRUENENWALD STANLEY L & B M	1	\$4,086.52	\$4,086.52
313123120004	753 91ST AVE NE	ALI HOSSAM	1	\$4,086.52	\$4,086.52
313123120005	743 91ST AVE NE	DOLL BENJAMIN	1	\$4,086.52	\$4,086.52
313123120006	733 91ST AVE NE	CLARK RONALD D & C A	1	\$4,086.52	\$4,086.52
313123120007	723 91ST AVE NE	KHADGI SAILENDRA	1	\$4,086.52	\$4,086.52
313123120009	663 91ST AVE NE	SNYDER IRVING F & DELORES F	1	\$4,086.52	\$4,086.52
313123120010	653 91ST AVE NE	KRYSTOFIAK GARY W	1	\$4,086.52	\$4,086.52
313123120011	643 91ST AVE NE	FINNEMAN DAVID J	1	\$4,086.52	\$4,086.52
313123120012	633 91ST AVE NE	SUNELL RYAN & KELLY	1	\$4,086.52	\$4,086.52
313123120013	623 91ST AVE NE	SWENSON SUZANNE	1	\$4,086.52	\$4,086.52
313123120015	763 91ST AVE NE	MOE PHILIP	1	\$4,086.52	\$4,086.52
313123120016	713 91ST AVE NE	BEHR MARLA	1	\$4,086.52	\$4,086.52
313123130006	732 91ST AVE NE	GAMER KRISTI S & JOHN H	1	\$4,086.52	\$4,086.52
313123130007	722 91ST AVE NE	ROHRBACH LINDA F	1	\$4,086.52	\$4,086.52
313123130008	714 91ST AVE NE	LATVALA DONALD R	1	\$4,086.52	\$4,086.52
313123130009	706 91ST AVE NE	BYRON JEFFREY	1	\$4,086.52	\$4,086.52
313123130010	664 91ST AVE NE	LAMBERSON THOMAS	1	\$4,086.52	\$4,086.52
313123130011	656 91ST AVE NE	MARQUETTE VIRGINIA MAE	1	\$4,086.52	\$4,086.52
313123130012	648 91ST AVE NE	HALL TRUSTEE NANCY	1	\$4,086.52	\$4,086.52
313123130013	640 91ST AVE NE	DELPERDANG PAUL & KATHLEEN	1	\$4,086.52	\$4,086.52
313123130014	632 91ST AVE NE	REGAN DANIEL	1	\$4,086.52	\$4,086.52
313123130015	624 91ST AVE NE	MONSAAS PATRICE	1	\$4,086.52	\$4,086.52
313123130016	758 91ST AVE NE	KREIDERMACHER STEVEN	1	\$4,086.52	\$4,086.52
313123130017	746 91ST AVE NE	LAVALLE DENISE	1	\$4,086.52	\$4,086.52
313123130042	608 91ST AVE NE	ANDERSON EDITH	1	\$4,086.52	\$4,086.52
313123140087	9083 JACKSON ST NE	TERANO ANTHONY	1	\$4,086.52	\$4,086.52

**TOTALS:** 29 \$118,509.08