



FEASIBILITY STUDY – WOODLAND CIRCLE AND WOODLAND LANE - BA 345 ENGINEERING DEPARTMENT CITY OF EDINA

STREET AND UTILITY IMPROVEMENTS WOODLAND CIRCLE AND WOODLAND LANE JULY 1, 2008

LOCATION:

The Woodland Circle and Woodland Lane Street and Utility Improvement Project includes the streets of Woodland Circle and Woodland Lane. This area is platted as the Colonial Grove 3rd and 4th additions. The project area is bordered by West 56th Street on the north, France Avenue on the east and Minnehaha Creek on the south and west. (See Figure 1)

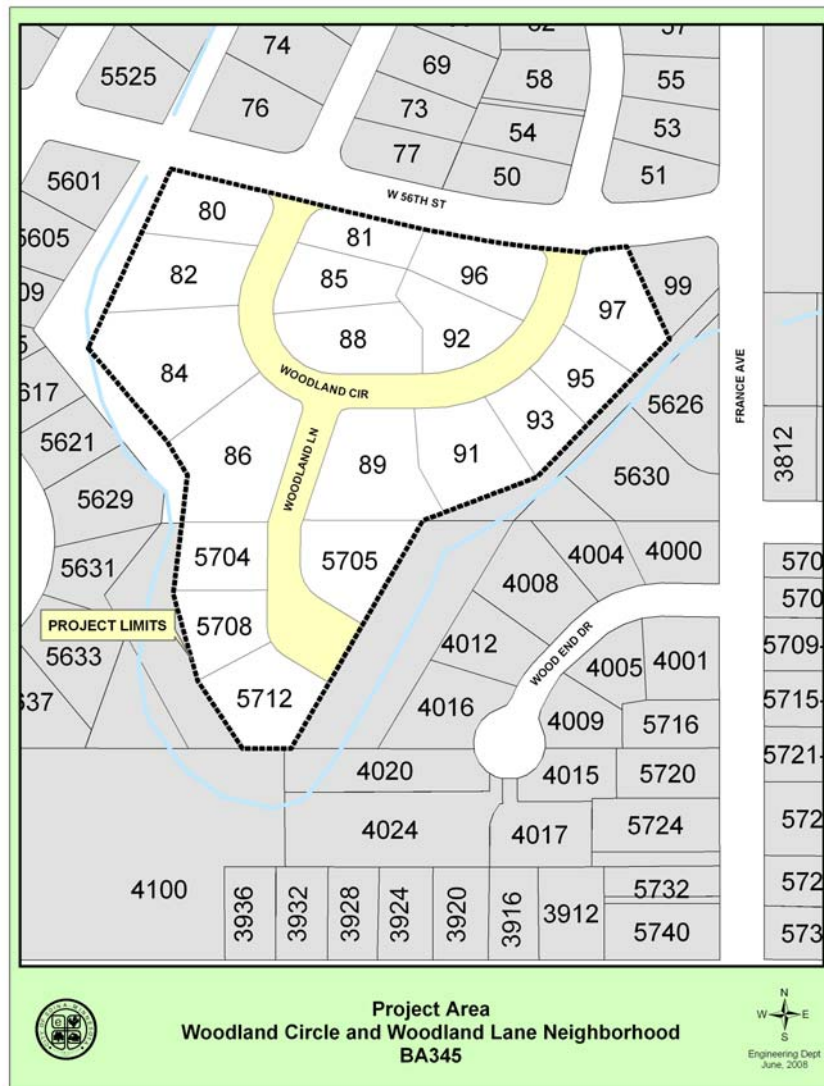


Figure 1. Project Area Map

INITIATION & ISSUES: The Woodland Circle/Lane project was initiated by the Engineering Department as part of the City's street reconstruction program and Capital Improvement Program to update aging infrastructure and address several issues including watermain improvements, drainage problems and sanitary sewer problems.

The following are existing features that present issues in determining the feasibility of the project and are addressed in this report:

- Undersized Watermain
- Numerous watermain/service breaks
- Poor condition of existing pavement
- Surface rainwater drainage and storm sewer issues
- Existing landscaping, islands, retaining walls, driveways.
- Sump pump discharge
- Sanitary sewer and watermain deficiencies
- Existing mature trees

EXISTING CONDITIONS: The roadways and utilities in this neighborhood were originally constructed in the early 1950's. The roadway widths vary in this neighborhood ranging from 27-ft to 31-ft. General ongoing maintenance has occurred throughout the years to minimize cracking and potholes. The pavements throughout these streets are at the end of their useful life while the costs to maintain and repair the roadways are steadily increasing. Overlaying or seal coating the pavement is no longer feasible or cost effective.



Photo 1. Existing Pavement Condition



Photo 2. Block Cracking and Patches

Street grades are relatively flat along Woodland Circle. Woodland Lane has a steeper grade as it heads to Minnehaha Creek. The streets have a rural cross section without curb and gutter. The streets are also void of a storm sewer system.

Watermain/service breaks have been occurring with increased frequency on Woodland Circle and Woodland Lane. The watermain on both streets was installed in the early 1950's. A 1.5" watermain runs along Woodland Lane. This small diameter main has had 9 breakages in the last 10 years. The main is undersized for distribution of water to 4 homes and does not allow a hydrant to be installed at the cul-de-sac for fire protection.

Woodland Circle has 13 homes connected to a 6 inch watermain. This section of watermain has had 4 breaks in last 10 years.

Sanitary sewer blockages have not been reported with much frequency in the neighborhood. However, the sanitary sewer was inspected using a televising system in December of 2007 and has shown no areas the need improvement.

Most of the private utilities in this neighborhood are overhead (with the exception of the gas lines). There are street lighting consists of standard "cobra head" lights mounted on wooden poles and are typically located at the intersections.

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No sidewalk is present in the neighborhood. All pedestrian movements currently occur on the street network. The roadway serves just 18 homes and has little to no cut-thru potential.

RESIDENT INVOLVEMENT: City staff initiated the project by sending out an informational newsletter and questionnaire to the 18 residents of the neighborhood on April 24, 2008 to inform them of the project. Seven of the questionnaires were returned, for a 39% return rate. The results to the survey are shown in Figure 2.

**WOODLAND CIRCLE/LANE NEIGHBORHOOD - Survey Results from April 24, 2008
Questionnaire Sheet**

Total Surveyed	Surveys Returned	Lighting Style Preference			Prefer New Sidewalk	
		Basic	Decorative	No Change	Yes	No
18	7	0	5	0	1	5
% of Returned Surveys	39%	0%*	28%*	0%*	1%*	28%*

* Percentages are based on responses of returned surveys and may not equal 100% if survey questions were not answered on questionnaire.

Figure 2. Survey Results from April 24, 2008 Questionnaire

A neighborhood informational meeting was held on May 22, 2008 to provide information, gather data and answer questions the homeowners had relating to the project. Ten residents attended this meeting, representing approximately 8 households. We also invited the residents who live on Wood End Drive to the meeting as there is a potential project for their street. Input from this meeting and comments received throughout the planning of this project have been included in this report as attachments in Attachment A thru I. There has been very little correspondence from residents on this project.

PROPOSED IMPROVEMENTS:

Staff has analyzed the feasibility of reconstruction in the Woodland Circle and Woodland Lane and has addressed the various components of the project. The following information is staffs recommendations for this project:

- Removal of the bituminous roadway section throughout the neighborhood and replacement with 8" of aggregate base material and 4" of bituminous pavement.
- New watermain along Woodland Circle and Woodland Lane.
- Connect watermain to Woodend Circle's watermain to provide a "looped" system.
- Construct bulkhead style concrete curb and gutter throughout the neighborhood.

- New driveway aprons to tie in to the new curb and gutter.
- Construction of the storm sewer system including additional catch basins and a stormwater treatment structure.
- Install coach style decorative lighting
- Upgrading fire hydrants.
- Installing sump pump drains where needed.

The proposed design acknowledges and addresses as many comments and concerns by residents of the neighborhood as possible while still maintaining the desired minimum standards of the engineering and public works staff.

Other utility activities may include replacement of gas mains along the street which is determined and coordinated by the local gas utility company (CenterPoint Energy).

**RIGHT-OF-WAY
& EASEMENTS:**

The majority of the right-of-way throughout the streets are 50 feet wide. All proposed improvements stay within this right-of-way and existing easements. In order to facilitate the installation of a watermain to loop under Minnehaha Creek a 10-foot utility easement was purchased from two homes on Wood End Drive.

PROJECT COSTS:

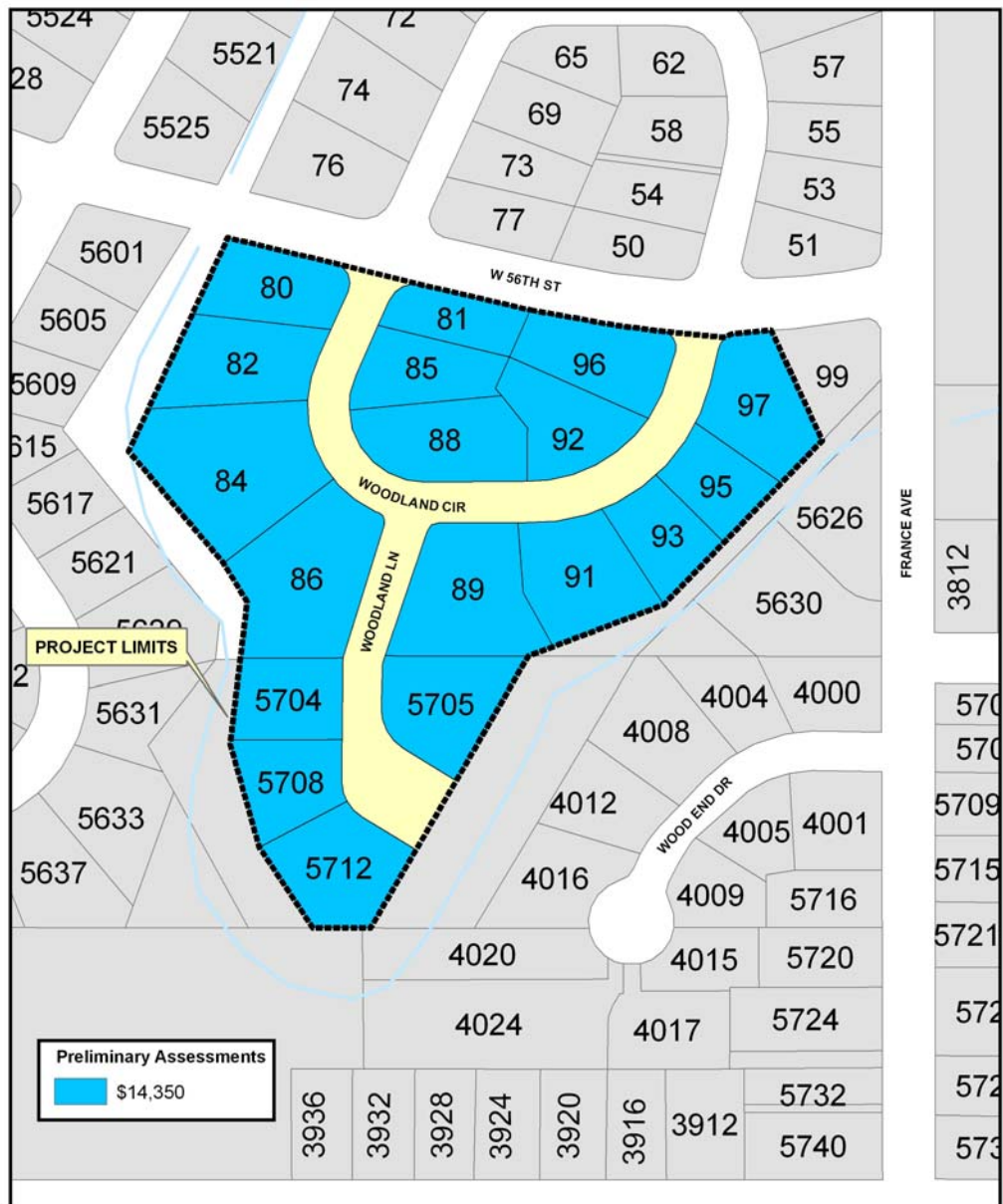
The total estimated project cost is \$598,250 (see Table 1). The total cost includes indirect costs of 15% for engineering and clerical costs and 7.5% for first year finance costs. Funding for the entire project will be from a combination of special assessment and utility funds. The estimated roadway construction cost is \$258,250 and will be 100 percent funded by special assessments. The new concrete curb and gutter is included under the storm sewer fund not under the roadway special assessment. The estimated utility improvements and repairs amount to \$340,000 and will be funded through the respective utility fund.

Item	Amount	Total Cost
Roadway:	\$258,250	
Roadway Total:		\$ 258,250
Utilities:		
Storm Sewer	\$ 110,000	
Watermain	\$ 150,000	
Sanitary Sewer	\$ 80,000	
Utility Total:		\$ 340,000
Total Project Cost:		\$ 598,250

Table 1. Estimated Project Costs

ASSESSMENTS:

A special assessment of approximately \$14,350 per residential equivalent unit will be levied against residents adjacent to the neighborhood's roadways. The justification for assessments is attributed to properties receiving benefit of the new roadway and is established in accordance with the City's Special Assessment Policy dated August 16, 2005. The assessable lot is based on a detached single family home (see Figure 3).



Preliminary Assessments
Woodland Circle and Woodland Lane Neighborhood
BA345



Figure 3 Preliminary Assessment Map

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PROJECT SCHEDULE: The following schedule is feasible from an Engineering standpoint:

Informational Meeting/Open House.....	May 22, 2008
Council Orders Public Hearing	June 3, 2008
Receive Feasibility Report.....	July 1, 2008
Public Hearing	July 1, 2008
Bid Opening	July/August 2008
Award Contract	August 2008
Begin Construction	Summer 2008
Complete Construction	Fall 2008
Final Assessment Hearing.....	Fall 2009

FEASIBILITY: Staff believes the construction of this project is necessary, cost effective and feasible to improve the road and utility infrastructure of Woodland Circle and Woodland Lane.

ATTACHMENTS:

- A. Informational Newsletter
- B. Property Owners Questionnaire
- C. Questionnaire Results
- D. Informational Meeting Attendance List and Comments
- E. Information Meeting PowerPoint Presentation
- F. Project comments and Letters Received
- G. Recommendation to Set Public Hearing
- H. Public Hearing Notices, Certificate of Mailing and List of Labels
- I. Preliminary Assessment Roll
- J. Location of proposed new 6 inch watermain