



MARSHALL  
CULTIVATING THE BEST IN US

# FEASIBILITY REPORT

Project ST-010

Lyon Circle Reconstruction Project

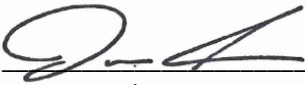
February 27, 2024



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

By:   
Jason R. Anderson, P.E.  
Registration No. 53322

# FEASIBILITY REPORT

## PROJECT ST-010 LYON CIRCLE RECONSTRUCTION PROJECT

### CITY OF MARSHALL, MINNESOTA

#### 1.0 SCOPE

This Feasibility Report as authorized by the City Council, covers the following proposed improvements: reconstruction and utility replacement on Lyon Circle off East Lyon Street West of the intersection of Jewett Street and East Lyon. Utilities will be installed, including watermain and sanitary sewer, Storm Sewer, on Lyon Circle. Other items of work included in this project are pavement removal, aggregate base, concrete surfacing, curb and gutter and other minor work.

#### 2.0 BACKGROUND / EXISTING CONDITIONS

##### Street

City records indicate that this circle was originally constructed in 1981. The existing pavement surface had fallen apart and is currently a mix of millings and gravel.

The existing segment of Lyon Circle measures approximately 41-FT as measured from the back of curb to the back of curb with a 50' radius on the circle. Currently, the existing segment of Lyon Circle is wide enough to accommodate two travel lanes and parallel parking on both sides of the street.

There is currently no sidewalk on Lyon Circle, we do not recommend adding sidewalk to the circle.

##### Utilities

There is currently 6" PVC watermain and 8" VCP sanitary sewer along this segment of Lyon Circle. Properties adjacent to Lyon Circle are serviced by aging sanitary service lines. The existing sanitary main in the circle is 8" vitrified clay pipe (VCP) and is in poor condition. There is 12" RCP storm sewer crossing the north end of Lyon Circle. Storm sewer is recommended to be replaced under a new valley gutter.

### 3.0 PROPOSED IMPROVEMENTS

#### Street

A bituminous pavement section will be proposed and discussed in this feasibility report. Staff is proposing a street section comprised of a 4" thick bituminous surfacing, a 12" thick section of Class 5 aggregate base. A geotextile fabric will be placed on the subgrade prior to the placement of the class 5 aggregate. A 6" perforated drain tile shall be installed at the back of the curb below the aggregate base to provide subsurface drainage for the street section.

The proposed roadway on Lyon Circle (as measured from curb face to curb face) will be 32-FT with a 40.5' radius on the circle. The project proposes two 13-FT travel lanes and two 3' wide recovery areas. It is the opinion of staff that the proposed road width will be adequate to serve the corridor.

A 10-FT sidewalk opening will be installed on the north end of the circle for future 10' wide bike path to be installed.

#### Utilities

The proposed utility improvements include installing new sanitary sewer, sanitary services throughout the block with service lines extended into the adjacent properties.

The watermain improvements will consist of installing a new hydrant for fire protection. The new hydrant will connect to the existing 6" PVC watermain.

The sanitary sewer system improvements will include installing new manhole, sewer main, and sewer services along Lyon Circle. The main will be new 8" PVC main. New sewer services will be installed to the right-of-way (ROW) with a minimum 4" pipe size. Storm sewer will be improved under the new valley gutter.

### 4.0 STATEMENT OF PROBABLE COST

The estimated costs to complete the proposed improvements are shown below. The estimated construction costs include a 10% allowance for contingencies and a 16% allowance for administrative and engineering costs. The unit prices for each item of work used in determining the estimated cost of construction is based on previous projects similar in nature and is subject to change.

<i>Street and Curb and Gutter</i>	<i>\$150,000.00</i>
<i>Watermain Replacement</i>	<i>\$10,000.00</i>
<i>Storm Sewer Replacement</i>	<i>\$24,000.00</i>
<i>Sanitary Sewer Replacement</i>	<i><u>\$51,000.00</u></i>
<i>Subtotal Estimated Construction Cost</i>	<i>\$235,000.00</i>
<i>Contingencies (10%)</i>	<i><u>\$23,500.00</u></i>
<i>Total Estimated Construction Cost</i>	<i>\$258,500.00</i>
<i>Estimated Engineering, &amp; Administration (16%)</i>	<i><u>\$41,360.00</u></i>
<i>Total Estimated Project Cost</i>	<i><u>\$299,860.00</u></i>

## 5.0 PROPOSED ASSESSMENTS

The adjacent properties will not be assessed for the watermain improvements. All costs for watermain and related work will be paid by MMU.

The adjacent properties will not be assessed for sanitary sewer main improvements. All costs for sanitary sewer main will be paid by the City of Marshall Wastewater Department. Sanitary sewer service lines and connection points to the main will be assessed to the adjacent property owners according to current sanitary sewer assessment procedures.

Costs for the street replacements will be partially assessed to the adjacent property owners in accordance with the most recent Special Assessment Policy and partially funded by the Surface Water, Wastewater Department, and MMU.

A preliminary assessment roll showing the estimated assessments for each benefiting parcel, City Participation, and utility participation will be prepared at a later date for consideration by the City Council in accordance with the most recent Special Assessment Policy.

## 6.0 FEASIBILITY/CONDITIONS/QUALIFICATIONS

The proposed improvements as described in this report are necessary, cost-effective, and feasible from an engineering standpoint. The feasibility of this project is contingent upon the findings of the City Council pertaining to project financing and public input.

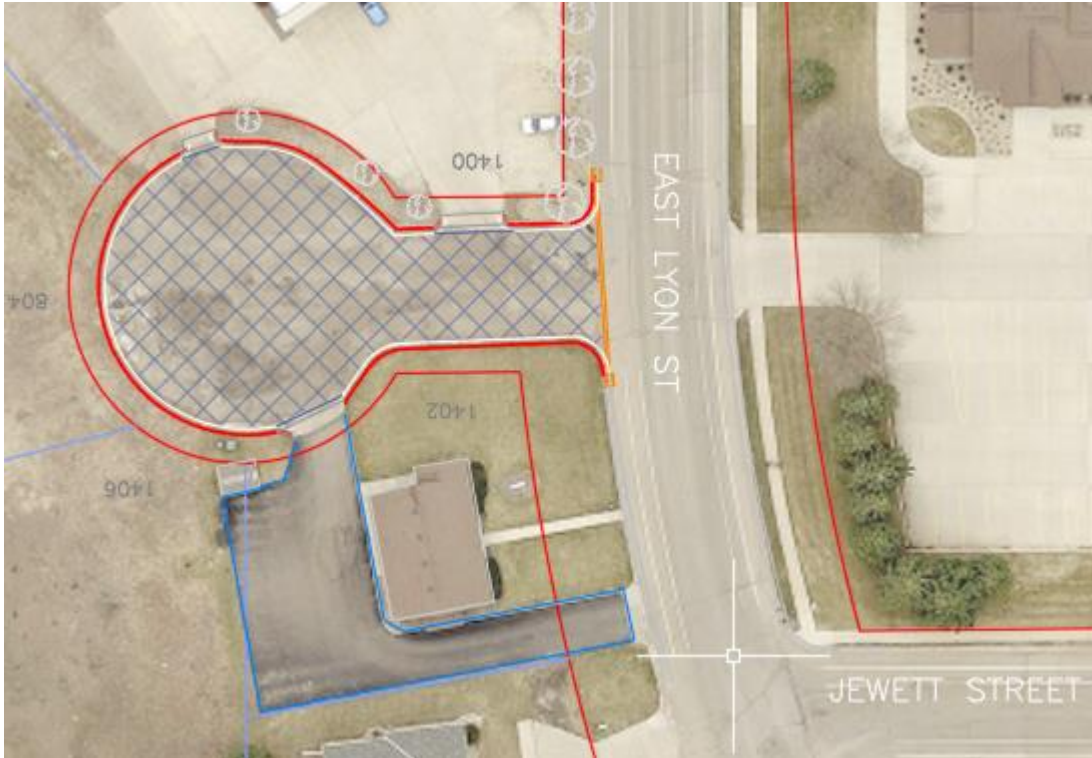
## 7.0 PROPOSED PROJECT SCHEDULE

The following is the anticipated schedule for the project, assuming the City Council elects to proceed with the proposed improvements.

February 27, 2024	Receive Feasibility Report & Call for Hearing on Improvement
March 12, 2024	Public Hearing on Improvement/Order Plans & Specs
March 12, 2024	Approve Plans & Specs/Authorize Call for Bids
March 15-April 5, 2024	Advertise for Bids
April 5, 2024	Bid Opening Date
April 9, 2024	Award Contract
May 2024	Notice to Proceed
June 2024	Begin Construction
October 2024	Public Hearing on Assessment/Adopt Assessment
October 2024	End Construction

# APPENDIX

## PROJECT LIMITS



## PROJECT LAYOUT

