



2020 Street and Utility Improvement Project



Feasibility Report
August 13, 2019

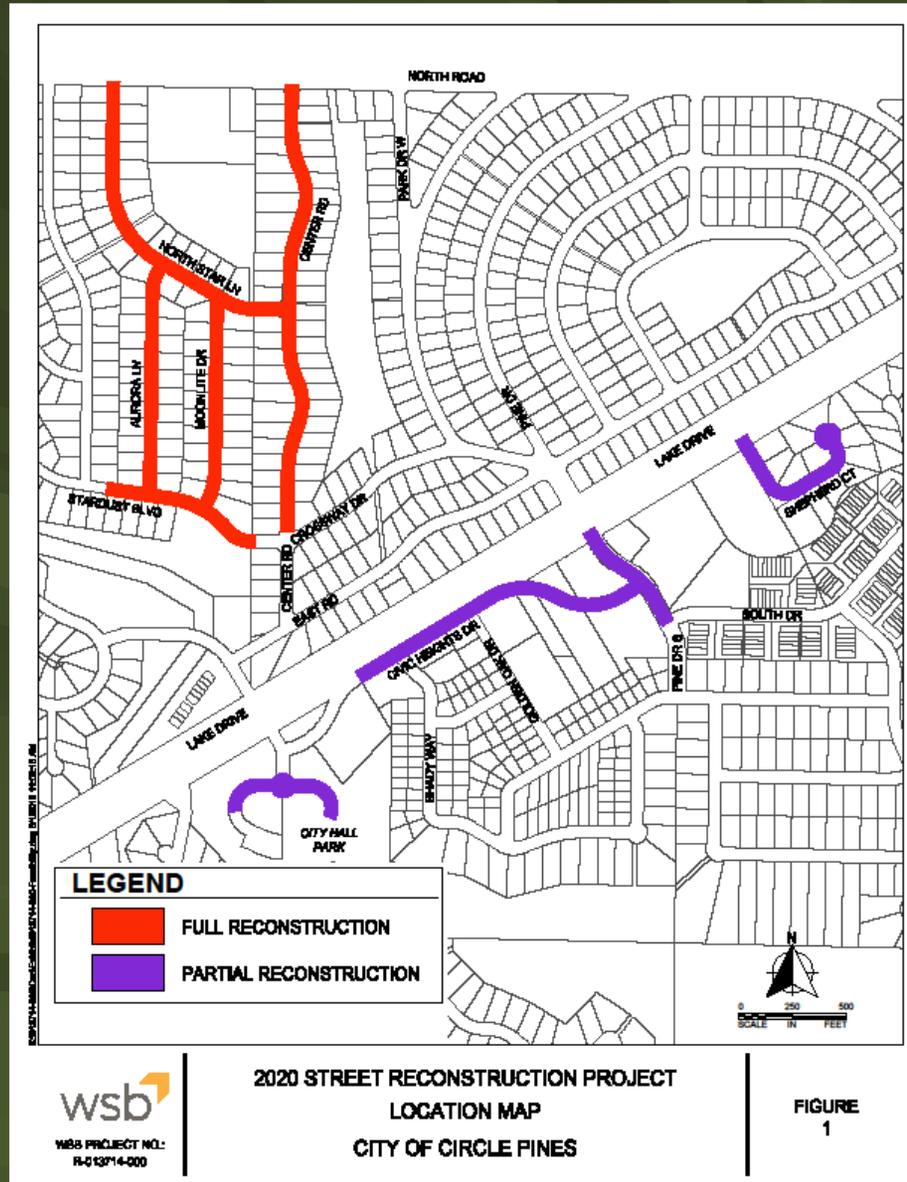
Overview

- ❖ Project Location
- ❖ Existing Conditions
- ❖ Proposed Improvements
- ❖ Project Costs
- ❖ Assessments / Funding
- ❖ Schedule
- ❖ Questions and Comments



Center Road

Project Location



Existing Conditions

❖ Streets - Full Reconstruct

- ❖ 1.2 miles of residential roads were mostly constructed in 1967 (50 years old)
- ❖ Prevalent cracking in pavement (alligator, transverse, longitudinal, and edge)
- ❖ Condition index rated as “Poor” according to 2011 Pavement Management Program

❖ Streets - Partial Reconstruct

- ❖ 0.7 Miles of Commercial and residential streets to be reconstructed
 - ❖ Civic Heights Drive was constructed in 1991 (28 years old)
 - ❖ Shepherd Court was constructed in 1984 (35 years old)
- ❖ Prevalent cracking in pavement (alligator, transverse, longitudinal, and edge)
- ❖ Curb and gutter is relatively in good shape
- ❖ Condition index rated as “Poor, Moderate or Average” according to 2011 Pavement Management Program

Existing Sanitary Sewer Conditions

❖ **Sanitary Sewer - Full Reconstruct**

- ❖ Root intrusion in mainline and service lines, cracked segments, and mineral deposits at joints
- ❖ Sanitary sewer has multiple sagging segments
- ❖ High infiltration rate
- ❖ Existing Sanitary Sewer is Vitrified Clay Pipe

❖ **Sanitary Sewer - Partial Reconstruct**

- ❖ Existing sanitary sewer is Vitrified Clay Pipe or PVC pipe
- ❖ Sanitary has short sagging sections that are not impacting function

Existing Water Main Conditions

❖ **Water Main - Full Reconstruct**

- ❖ Existing main line is cast iron pipe
- ❖ Some hydrant locations are not easily accessible

❖ **Water Main - Partial Reconstruct**

- ❖ Existing main line is Ductile Iron Pipe
- ❖ Minimal water main breaks in the area

Existing Storm Sewer Conditions

❖ Storm Sewer - Full Reconstruct

- ❖ Existing storm sewer was sized for design standards at the time of construction
- ❖ Storm sewer discharges directly to ditch which runs to Golden Lake
- ❖ Surface flow can cause surface deterioration of the pavement
- ❖ Existing storm sewer has no treatment for storm water

❖ Storm Sewer - Partial Reconstruct

- ❖ Existing storm sewer was sized for design standards at the time of construction
- ❖ Storm sewer discharges south of Shepherd Court then connects to the storm sewer of Pine Drive and flows to Baldwin Park
- ❖ Surface flow can cause surface deterioration of the pavement

Proposed Improvements

❖ **Street Reconstruct - Full Reconstruct**

- ❖ Remove entire roadway pavement and correct subgrade as needed
- ❖ Replace roadway with new pavement section
 - ❖ 3.5 inches of bituminous
 - ❖ 6 inches of aggregate base
- ❖ Full curb and gutter replacement with B618 curb and gutter

❖ **Street Reconstruct - Partial Reconstruct**

- ❖ Remove entire roadway pavement and correct subgrade as needed
- ❖ Replace roadway with new pavement section
 - ❖ 3.5 inches of bituminous for Shepherd Court, 6 inches of agg base
 - ❖ 4 inches of bituminous for Civic Heights Drive and Pine Drive
 - ❖ 8 inches of aggregate base
- ❖ Includes spot curb and gutter replacement to damaged segments

Proposed Improvements

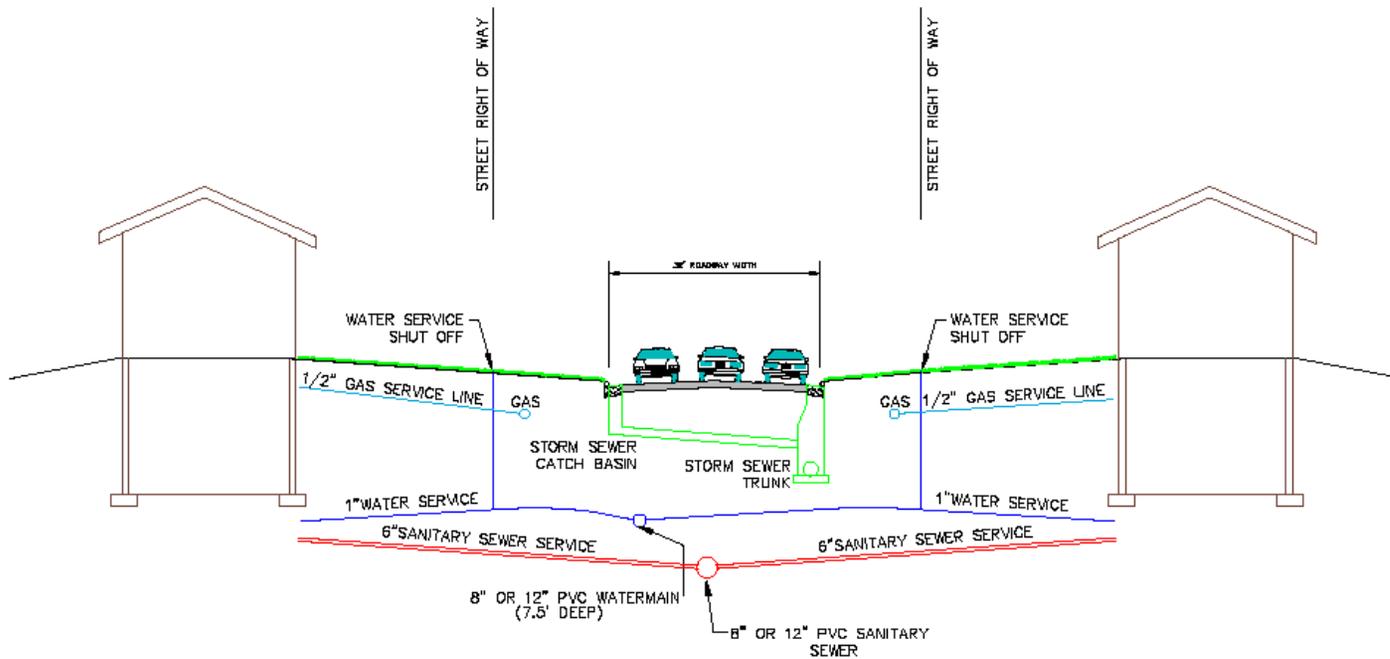
❖ Storm Sewer

- ❖ Drainage improvements
 - ❖ Increase number of catch basins to decrease surface flow
 - ❖ Extend storm sewer along Aurora Lane and Moonlite Drive
- ❖ Utilize existing storm sewer outlet locations
- ❖ Storm water treatment options are being analyzed
- ❖ Storm issue along Shepherd Court is being analyzed

Proposed Improvements

- ❖ **Gas Main (by Centennial Utilities) - Full Reconstruct**
 - ❖ Dual 2" plastic gas main (1 main on each side of street)
 - ❖ Gas service replacement from the main to the home meter
 - ❖ Completed prior to street and utility construction
- ❖ **Water Main Replacement - Full Reconstruct**
 - ❖ 8" and 12" PVC water main
 - ❖ 1" HDPE water services replaced to the Right-of-Way
 - ❖ New hydrants and gate valves
 - ❖ Raw water main to be replaced if necessary
- ❖ **Sanitary Sewer Replacement - Full Reconstruct**
 - ❖ 8" and 12" PVC sanitary sewer main
 - ❖ 6" PVC sanitary sewer services replaced to the Right-of-Way

Proposed Improvements



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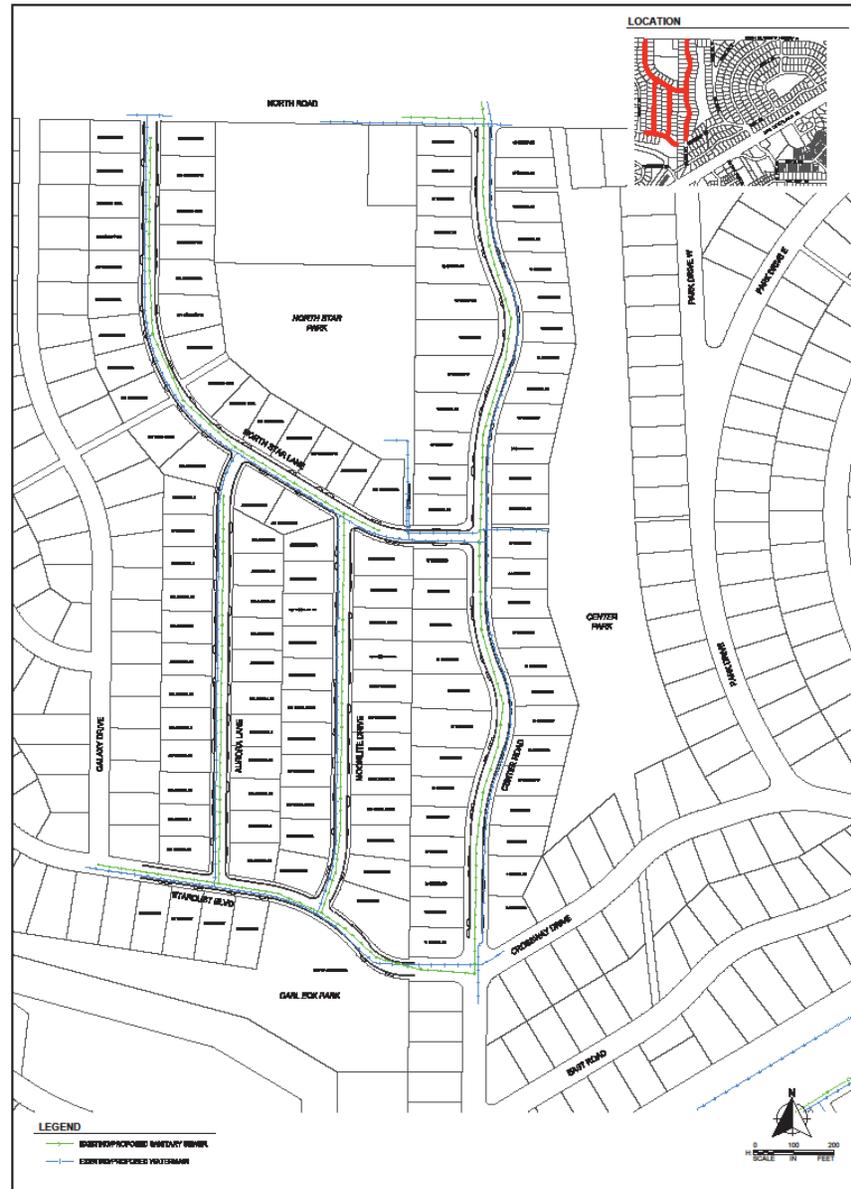
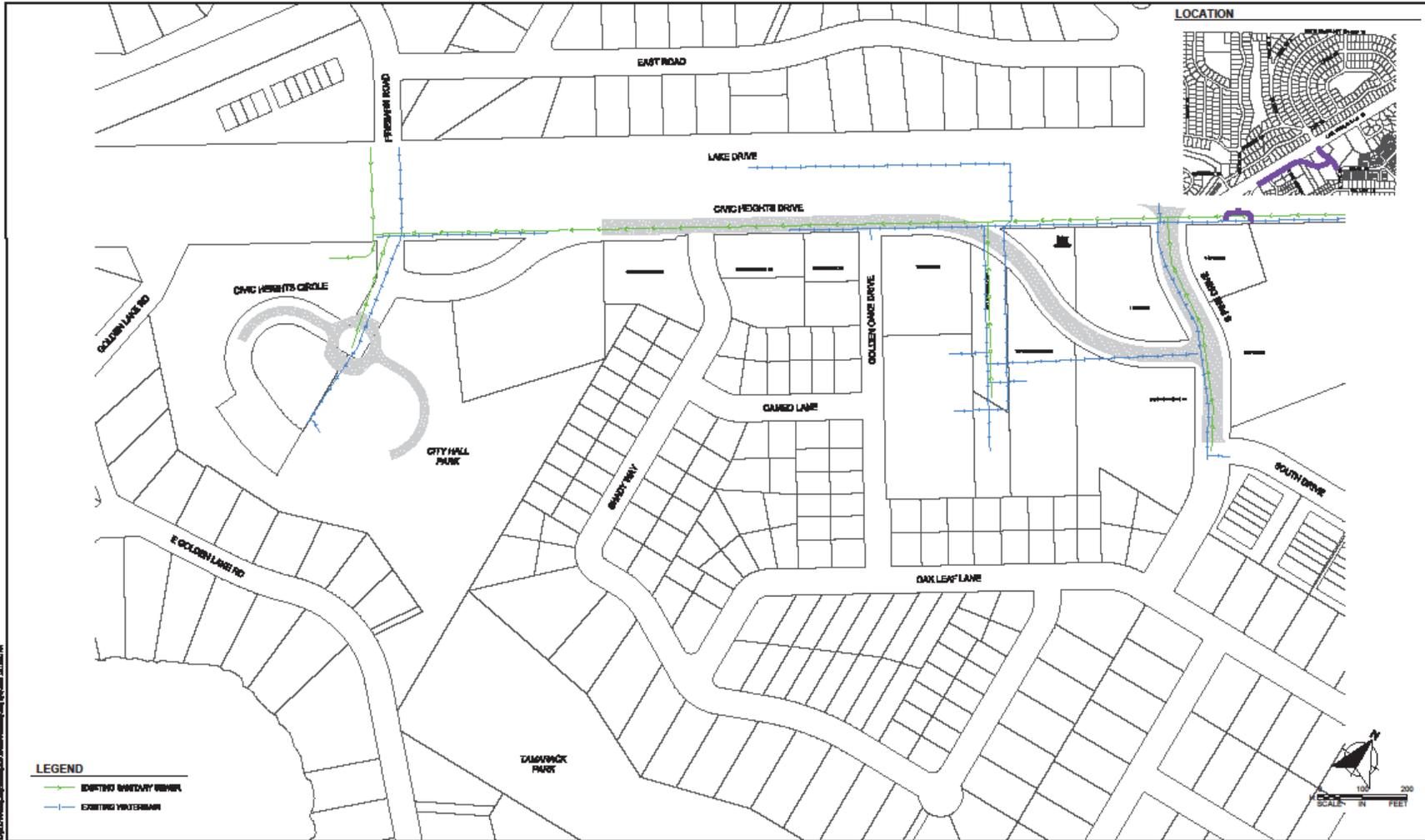


FIGURE 3A

2020 STREET RECONSTRUCTION PROJECT
 EXISTING/PROPOSED SANITARY SEWER AND WATERMAIN
 CITY OF CIRCLE PINES





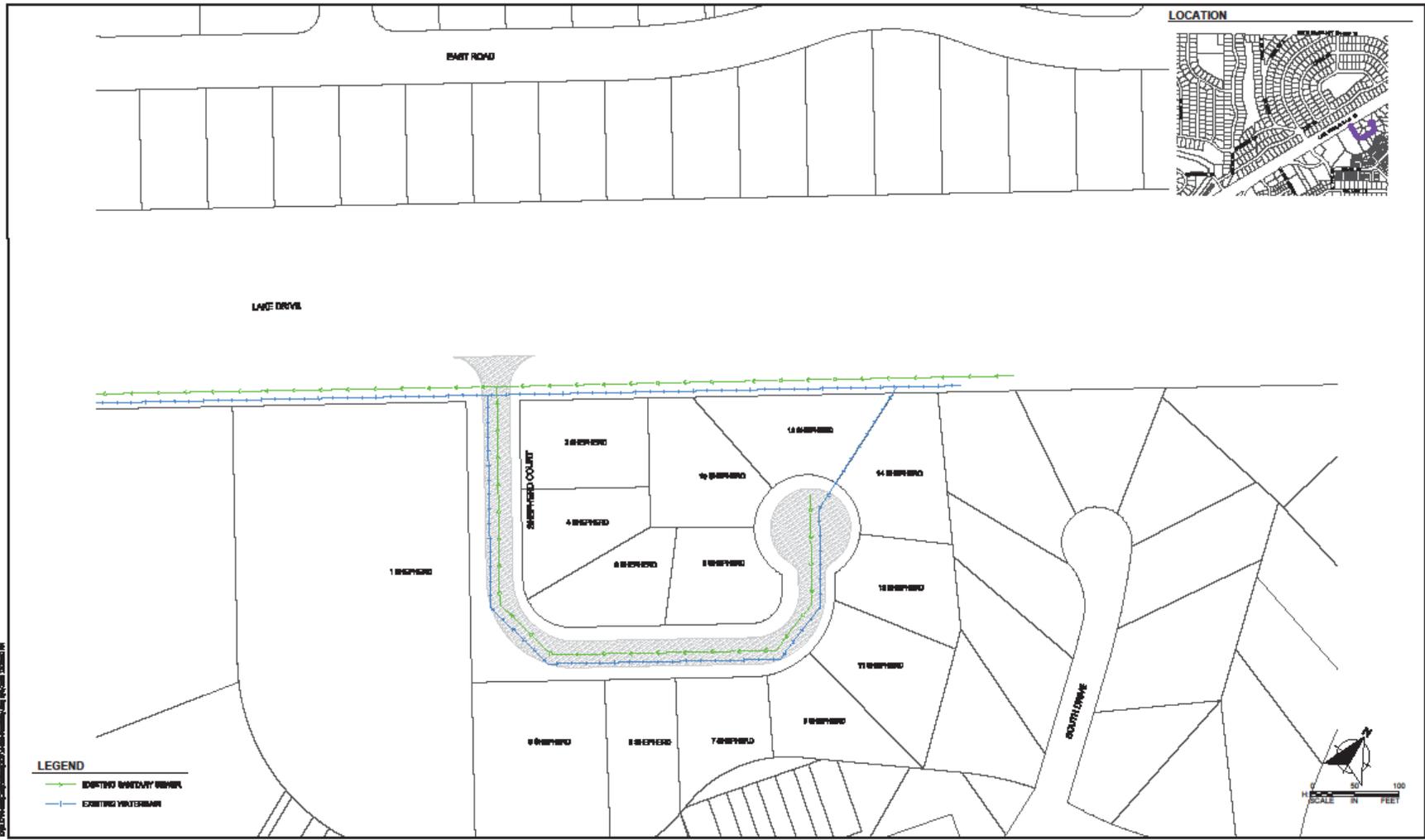


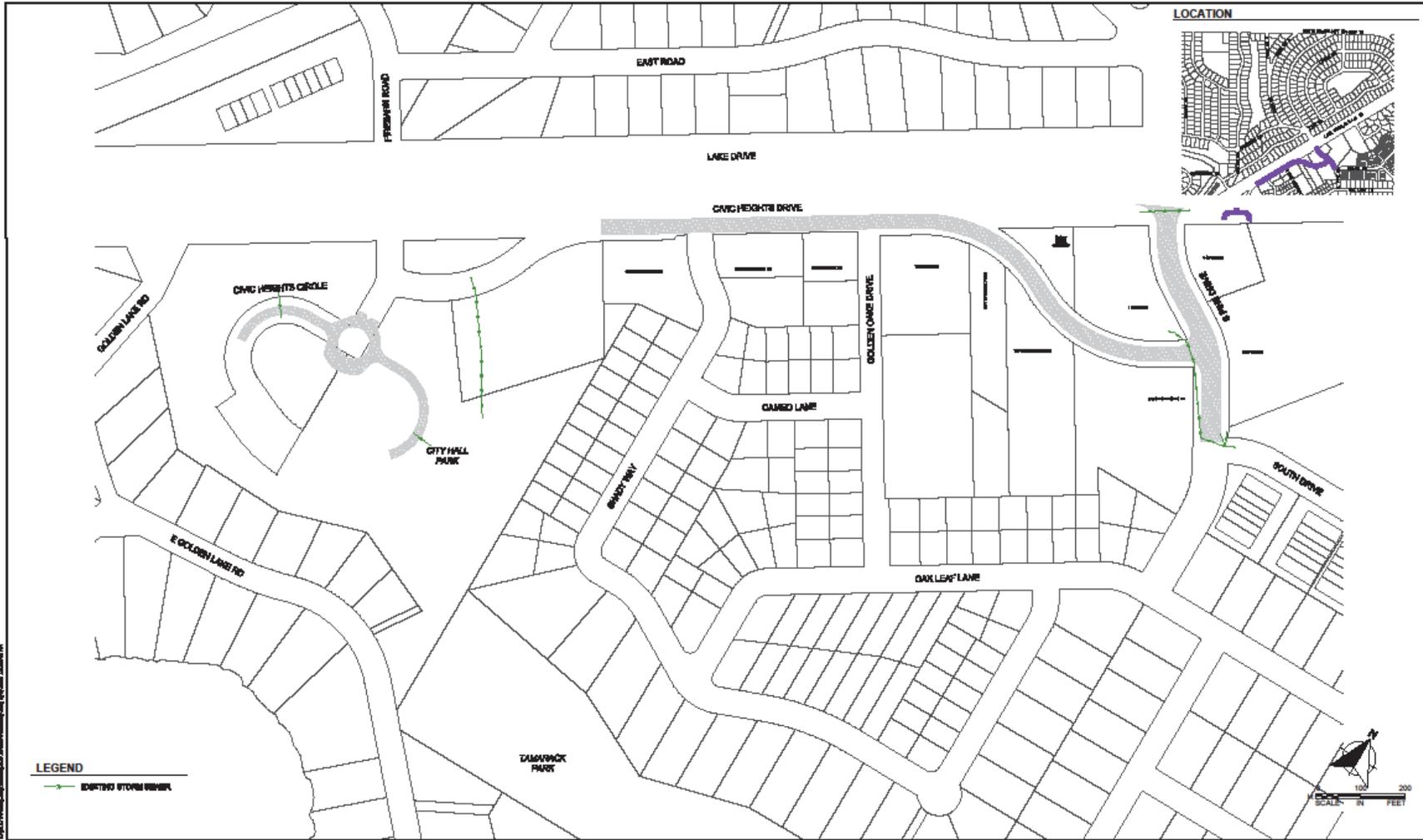


FIGURE
4A

2020 STREET RECONSTRUCTION PROJECT
EXISTING/PROPOSED STORM SEWER
CITY OF CIRCLE PINES



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**2020 STREET RECONSTRUCTION PROJECT
EXISTING STORM SEWER**

CITY OF CIRCLE PINES

**FIGURE
4C**

Proposed Improvements

- ❖ **Remove tress in Right-Of-Way**

- ❖ Increased sight distance on curves and driveways
- ❖ Increased safety for pedestrians and vehicles



2016 East Golden Lake Road Before



2016 East Golden Lake Road After

Project Costs

Summary of Cost

	Total
Street Improvements – Full Recon Area	\$2,552,094
Sanitary Sewer Improvements – Full Recon Area	\$1,070,355
Water Main Improvements – Full Recon Area	\$861,856
Storm Sewer Improvements – Full Recon Area	\$600,428
Civic Heights and Pine Drive - Streets	\$452,910
Shepherd Court - Streets	\$165,366
Civic Heights Circle - Streets	\$114,061
Total	\$5,817,070

Assessment Policy and Funding

❖ Residential Assessment Policy

- ❖ Flat and equal rate for all properties
- ❖ Proposed assessment rates
 - ❖ \$4,880 for full reconstruct
 - ❖ \$2,995 for partial reconstruct

❖ Commercial, Industrial, Apartment Buildings or Tax-Exempt Assessment Policy

- ❖ Assessed based on a front foot basis
- ❖ Assessment rate is based on residential rate divided by 80 (Average property width) and multiplied by 1.25
- ❖ Proposed assessment rate is \$46.80 per front foot
- ❖ Front footage is calculated at Right-of-Way line

❖ City funds remaining street improvements for full recon area. Civic Heights and Pine are SA eligible.

❖ City funds 100% of utility improvements

Project Assessment

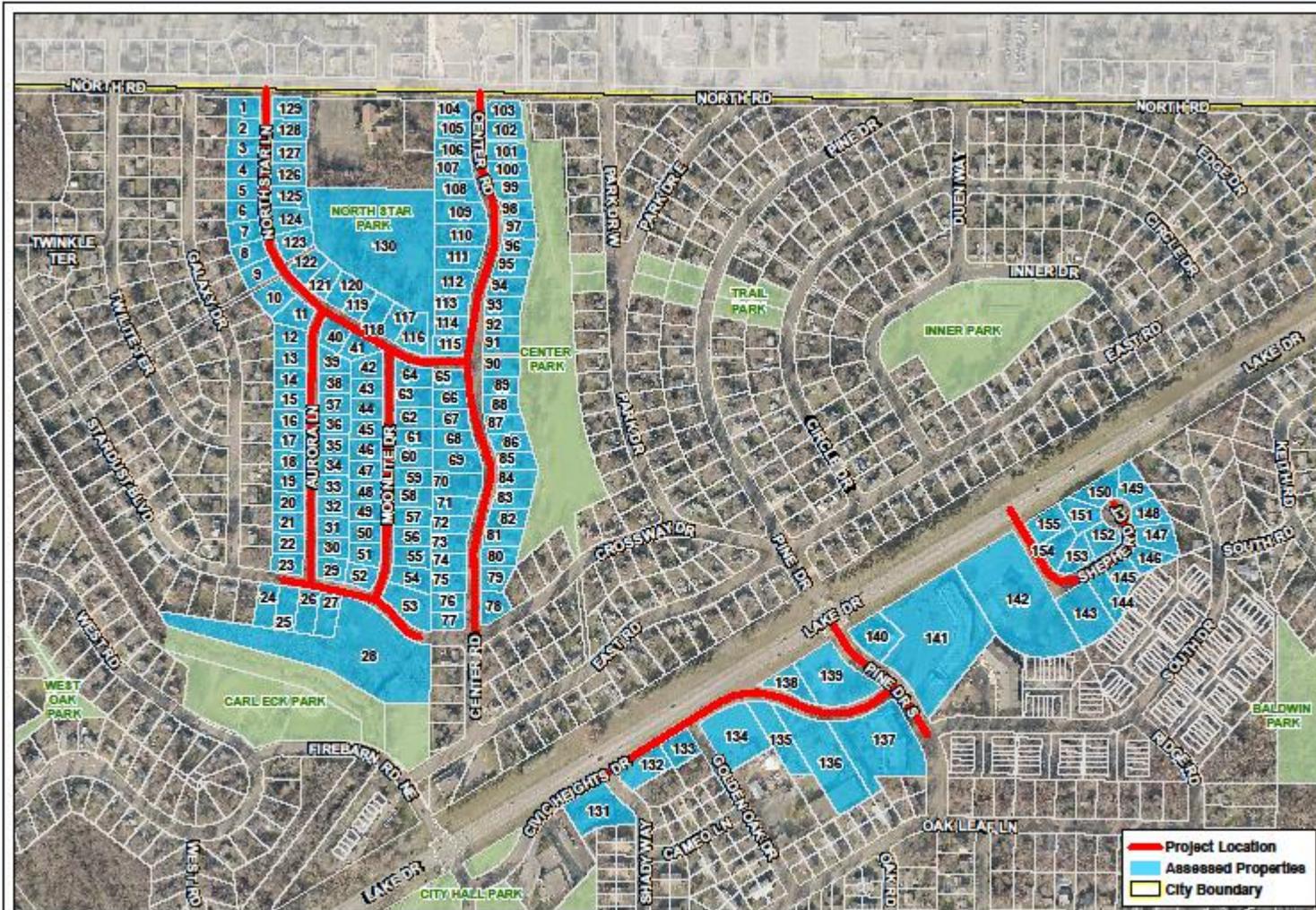
Full Reconstruct Cost	\$2,552,094
Total Assessable Reconstruct Units	130
Assessment Rate	\$4,880
Total Assessment	\$634,400

Shepherd Court	\$165,366
Total Front Footage	316
Assessment Rate	\$46.80
Total Assessable Reconstruct Units	13
Assessment Rate	\$2,995
Total Assessment	\$53,723.80

Project Assessment

Civic Heights Drive and Pine Drive	\$452,910
Total Front Footage	2600.3
Assessment Rate	\$46.80
Total Assessment	\$121,694.04

Assessable Units



Project Location Map
2020 Street & Utility Improvement Project
Circle Pines, MN



0 500 Feet
1 inch = 500 feet



Funding Scenario

Proposed Funding

Special Assessments	\$809,818
Street Reconstruction Fund	\$2,065,896
State Aid Fund	\$408,717
Sanitary Sewer Fund	\$1,070,355
Water Main Fund	\$861,856
Storm Water Fund	\$600,428
Total Funding	\$5,817,070

Proposed Schedule

- ❖ City Approves Engineering Proposal Feb, 2019
- ❖ Survey, Soil Borings, Feasibility April-Aug, 2019
- ❖ Public Informational Meeting August 1, 2019
- ❖ City Accepts Feasibility Study Aug 13, 2019
- ❖ Public Hearing/Authorize Plans Sept, 2019
- ❖ City Approves Final Plans Dec, 2019
- ❖ Receive Bids Jan, 2020
- ❖ Award Contract Mar, 2020
- ❖ Begin Construction May-Jun, 2020
- ❖ Substantial Completion Oct 2020
- ❖ Assessment Hearing Oct-Nov 2020
- ❖ Final Completion Spring 2021

Questions and Comments?