

Feasibility Report

# 2026 Street & Utility Improvements

St. Joseph, Minnesota

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STJOE 188782 | December 15, 2025



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December 15, 2025

RE: 2026 Street & Utility Improvements  
Feasibility Report  
St. Joseph, Minnesota  
SEH No. STJOE 188782 4.00

Honorable Mayor and Members of the City Council  
c/o Mr. David Murphy, City Administrator  
City of St. Joseph, Minnesota  
75 Callaway Street East  
St. Joseph, MN 56374

Dear Mayor and Members of the Council:

Enclosed is the Feasibility Report for the above referenced improvements. The study includes recommendations for proposed improvements, opinions of probable costs, and preliminary special assessments.

vSincerely,

A handwritten signature in blue ink that reads "Bryce Johnson".

Bryce Johnson, PE  
Project Manager  
(Lic. MN)

bnj/mrb

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# Feasibility Report

2026 Street & Utility Improvements  
St. Joseph, Minnesota

SEH No. STJOE 188782

December 15, 2025

I hereby certify that this 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.

*Bryce Johnson*

\_\_\_\_\_  
Bryce Johnson, PE

Date: December 15, 2025

License No.: 57179

Reviewed By: Randy Sabart, PE

Date: December 15, 2025

Short Elliott Hendrickson Inc.  
2351 Connecticut Avenue, Suite 300  
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# Feasibility Report

## 2026 Street & Utility Improvements

Prepared for City of St. Joseph, Minnesota

### 1 Scope

This report has been prepared for the City of St. Joseph to provide information about street and utility improvements to the following areas:

- Morningside, Foxmore Hollow, Hillside, and Hilltop Subdivisions:
  - 1<sup>st</sup> Avenue SW
  - Foxmore Way
  - 2<sup>nd</sup> Avenue SW
  - Hill Street West
  - 3<sup>rd</sup> Avenue SW
  - Iverson Street West
  - Morningside Loop

Bituminous surfacing improvements to the following areas:

- Northland Heights Subdivision:
  - Iris Lane
  - 13<sup>th</sup> Avenue NE
  - 14<sup>th</sup> Avenue NE
  - Jasmine Lane E
- MJH Subdivision:
  - Ridgewood Court
- Buettner Business Park, Borgert Industrial Park Plat 2, and Rennie Subdivisions:
  - Elm Street E
  - 15<sup>th</sup> Avenue NE
  - 19<sup>th</sup> Avenue NE
- Cloverdale Estates 2<sup>nd</sup> Addition:
  - Baker Street E
- Rivers Bend Subdivision:
  - Jade Road
- Liberty Pointe Subdivision:
  - Dale Street

- Klinefelter Park:
  - Klinefelter Way Parking lot
- College Subdivision 2<sup>nd</sup> Addition
  - Callaway Street East

The location of improvements has been identified and can be seen in **Figure 1**.

## 2 Feasibility

The project, as presented in this report, is both cost effective and feasible from an engineering perspective. The opinions of probable project cost are presented to assist the City in determining the feasibility of the project from a fiscal perspective. The projects are necessary to extend the life of existing bituminous street pavements, where present, to protect the investment in surface improvements where underlying utility improvements are needed, and to replace deteriorating pavements.

## 3 Existing Conditions

### 3.1 Morningside, Foxmore Hollow, Hillside, and Hilltop Subdivisions

Hill Street West and 3<sup>rd</sup> Avenue SW were last reconstructed in 2004. The Hill Street West pavement section is a 32-foot wide (west of 3<sup>rd</sup> Avenue) and 34-foot wide (east of 3<sup>rd</sup> Avenue) rural section consisting of 3.5-inches of bituminous surfacing overlaying 6-inches of aggregate base, with a 2-foot-wide aggregate shoulder on each side. The 3<sup>rd</sup> Avenue SW pavement section consists of a 34-foot-wide rural section consisting of 3.5-inches of bituminous surfacing overlaying 6-inches of aggregate base, with a 2-foot-wide aggregate shoulder on each side.

The Foxmore Hollow Addition was originally constructed in 2004. The pavement section of 1<sup>st</sup> Avenue SW, 2<sup>nd</sup> Avenue SW, and Foxmore Way SW is a 32-foot-wide urban section consisting of 3.5-inches of bituminous surfacing overlaying 8-inches of aggregate base.

The Morningside Acres Second Addition was originally constructed in 2004. The pavement section of Iverson Street W is a 36-foot-wide urban section consisting of 4-inches of bituminous surfacing 36-foot-wide 0-inches of aggregate base overlying 8-inch-thick structural section of granular borrow from County Road 121 to roughly 450 feet west of County Road 121. The rest of Iverson Street W is a 36-foot-wide urban section consisting of 3.5-inches of bituminous surfacing overlying 12-inches of aggregate base. From Iverson Street W to roughly 300 feet north of Iverson Street W, Morningside Loop is a 33-foot-wide urban section consisting of 3.5-inches of bituminous surfacing overlying 12-inches of aggregate base. The rest of Morningside Loop is a 33-foot-wide urban section consisting of 3.5-inches of bituminous surfacing overlying 6-inches of aggregate base overlying an 18-inch structural section of granular borrow and 4-inch perforated drain tile.

Online mapping indicates the maintenance activities performed in the neighborhoods include crack filling in 2014 and seal coating in 2016.

The sanitary sewer in the entire Morningside neighborhood consists of 8-inch polyvinyl chloride (PVC) gravity sanitary sewer. The water main along Morningside Loop, Hill Street West (3<sup>rd</sup> Avenue SW to western extents), 1<sup>st</sup> Avenue SW, 2<sup>nd</sup> Avenue SW, and Foxmore Way is 8-inch ductile iron pipe (DIP). The watermain along Iverson Street W, Hill Street West (College Avenue S to 3<sup>rd</sup> Avenue SW), and 3<sup>rd</sup> Avenue SW is 10-inch ductile iron pipe (DIP). The sanitary sewer mains are in operational condition and within their pipe material lifespan.

Three watermain leaks have occurred in the last 15 years in the Reischls Hillside Estates and Morningside Acres Additions.

Cathodic Protection Interference testing was completed in November 2024. This testing investigated the potential electrical current interference from nearby gas pipelines cathodic protection systems and the ductile iron pipe watermain system. This type of electrical interference can cause corrosion on ductile iron pipe. The testing performed in November 2024 did not identify any measurable influence from nearby pipeline cathodic protection systems. This report is included in Appendix D.

Geotechnical sampling and testing was performed in April 2025. Corrosion testing identified the presence of corrosive soils in the following areas:

- Hill Street West (west of 3<sup>rd</sup> Avenue SW)
- Western area of Iverson Street W
- Western area of Morningside loop

The problematic soil strata at watermain depths appears to exist at the higher elevations in the Morningside area consistent with the corrosive soils testing identified above. This geotechnical report is included in Appendix C.

Recently, a watermain connection was completed for a new apartment complex at the intersection of Hill Street W and 1<sup>st</sup> Avenue SW, City staff and construction crews observed watermain pipe that appeared to be in good condition.

## 3.2 Northland Heights Subdivision

The Northland Heights area was originally constructed between 2005 and 2006.

Iris Lane is a 36-foot-wide pavement section; 13<sup>th</sup> Avenue NE, 14<sup>th</sup> Avenue NE, and Jasmine Lane are 32-foot pavement sections, all consisting of 3.5-inches of bituminous overlying 6 inches of aggregate base overlying an 18-inch structural section of select granular material. At the bottom of the structural section is geotextile fabric to separate underlying soils from the street section, 4-inch perforated drain tile is installed at the bottom of the structural section to manage sub-surface drainage from the street section.

Online mapping indicates the maintenance activities performed in the neighborhoods include crack filling in 2013 and seal coating in 2016.

The sanitary sewer in the Northland Heights neighborhood consists of 8-inch polyvinyl chloride (PVC) gravity sanitary sewer. The water main is all 8-inch ductile iron pipe (DIP). The sanitary sewer and water mains are in operating condition and within their pipe material lifespan.

Storm sewer exists throughout the neighborhood to collect and convey stormwater to stormwater treatment basins. A 15-inch diameter reinforced concrete pipe (RCP) storm sewer main and catch basins collect storm water along 13<sup>th</sup> Avenue NE. A portion of 13<sup>th</sup> Avenue NE and Iris Lane has a 6" PVC drain tile installed to manage sub-surface drainage below the RCP storm sewer. This sub-drain system was installed in 2023 after suspected frost heaving caused pavement and curb and gutter damage overlying the storm sewer. No heaving has been observed since the improvements in 2023 were performed.

Online mapping indicates the maintenance activities performed in the neighborhoods include crack filling in 2013 and seal coating in 2016.

### 3.3 MJH Subdivision

Ridgewood Court was last resurfaced in 2013.

The pavement section is a rural section consisting of 3-inches of bituminous surfacing. Concrete pavement underlies the bituminous surfacing for a roughly 440-foot long segment of the street, roughly centered between the west end of the cul-de-sac bulb and County Road 134. Outside of the 440-foot long segment, the rest of Ridgewood Court had a 1.5-inch bituminous overlay installed with the 2013 project.

### 3.4 Buettner Business Park, Borgert Industrial Park Plat 2, and Rennie Subdivisions

19<sup>th</sup> Avenue NE (originally named Joseph Street) was originally constructed in 1999. The pavement section is a 40-foot wide urban section consisting of 4-inches of bituminous surfacing overlaying 8-inches of aggregate base.

Elm Street E and 15<sup>th</sup> Avenue NE were last reconstructed in 2002. The pavement section is a 40-foot wide urban section consisting of 4-inches of bituminous surfacing overlaying 8-inches of aggregate base.

The sanitary sewer along 19<sup>th</sup> Avenue NE consists of 15-inch polyvinyl chloride (PVC) gravity sanitary sewer. The sanitary sewer along Elm Street E and 15<sup>th</sup> Avenue NE consists of 10-inch polyvinyl chloride (PVC) gravity sanitary sewer. The water main along Elm Street and 19<sup>th</sup> Avenue NE is 16-inch ductile iron pipe (DIP). The water main along 15<sup>th</sup> Avenue NE is 10-inch ductile iron pipe (DIP). The sanitary sewer and water mains are in operating condition and within their pipe material lifespan.

### 3.5 Cloverdale Estates 2<sup>nd</sup> Addition

Baker Street E was originally constructed in 1978. Baker Street is a MSAS Street. The original pavement section consisted of 2-inches of bituminous surfacing overlaying 6-inches of aggregate base.

The sanitary sewer consists of 10-inch gravity sanitary sewer. The water main is 6-inch and 8-inch ductile iron pipe (DIP). The sanitary sewer and water mains are in operating condition, but near the mid-point of their average material lifespan.

### 3.6 Rivers Bend Subdivision

Jade Road was constructed in 2007. The pavement section is a 40-foot wide urban section consisting of 3.5-inches of bituminous surfacing overlying 6-inches of aggregate base overlying an 18-inch structural section of select granular material. At the bottom of the structural section is geotextile fabric to separate underlying soils from the street section.

12" DIP watermain exists along Jade Road, originally constructed in 2007. No sanitary sewer exists along this segment of Jade Road. The water main is in operating condition and within it's pipe material lifespan.

### 3.7 Liberty Pointe Subdivision

Dale Street was originally constructed in 2003. The pavement section is a 38-foot wide urban section consisting of 4-inches of bituminous overlying 6 inches of aggregate base overlying an 18-inch structural section of select granular material. At the bottom of the structural section is geotextile fabric to separate underlying soils from the street section, 4-inch perforated drain tile was also installed at the bottom of the structural section to manage sub-surface drainage from the street section.

The sanitary sewer consists of 8-inch gravity sanitary sewer. The water main is 8-inch ductile iron pipe (DIP). The sanitary sewer and water mains are in operating condition and within their pipe material lifespan.

### 3.8 Klinefelter Park

Klinefelter Park pedestrian trail was originally constructed in 1996 and recently resurfaced in 2024.

The paved 10<sup>th</sup> Avenue parking lot on the north side of the park shelter was constructed in 2007.

The age of the Klinefelter Way gravel parking lot is not exactly known, but historical aerial photos suggest it developed between 2004 and 2006 with the Graceview Estates subdivision. The Klinefelter Way parking lot consists of aggregate surfacing.

### 3.9 College Subdivision 2<sup>nd</sup> Addition

Callaway Street East was originally constructed in 2004. The pavement section is a 36-foot wide urban section consisting of 3.5-inches of bituminous overlying 7 inches of aggregate base.

No sanitary sewer or watermain underly this segment of Callaway Street East, aside from a small stretch near 4<sup>th</sup> Avenue SE. Sanitary sewer and watermain that served the College 2<sup>nd</sup> and 3<sup>rd</sup> Additions were installed in the southern boulevard in 2012. The sanitary sewer and water mains that do exist along Callaway Street E are in operating condition and within their pipe material lifespan.

# 4 Proposed Improvements

## 4.1 Morningside, Foxmore Hollow, Hillside, and Hilltop Subdivisions

Morningside Loop, and a portion of 2<sup>nd</sup> Avenue SW are proposed to be improved by Full Depth Reclamation (FDR) and repave methods. This work entails reclaiming (grinding) existing bituminous surfacing and underlying aggregate base into a uniform blend, grading and compacting, and placing 3.5-inches of new bituminous surfacing. Hill Street West, Iverson Street W and 3<sup>rd</sup> Avenue SW are proposed to be improved by the FDR method with 4-inches of new bituminous surfacing. These improvements will allow the existing aggregate base and curb and gutter to be left in place but also provide a brand-new pavement surface. Because all existing pavement will be reclaimed, reflective cracking will be minimized by comparison to an overlay. ADA improvements are proposed along Hill Street West and Iverson Street West to bring existing pedestrian ramps up to current ADA standards. Existing damaged sidewalk and severely damaged curb and gutter, where present, is proposed to be replaced on a spot basis as needed. Not all curb and gutter will be identified for replacement and only the worst will be targeted for replacement. Aggregate shouldering is proposed along Hill Street West and 3<sup>rd</sup> Avenue SW where no curb and gutter exists.

1<sup>st</sup> Avenue SW, Foxmore Way SW, and parts of 2<sup>nd</sup> Avenue SW are proposed to be improved with an edge mill and bituminous overlay. A bituminous overlay will help to extend the pavement service life expectancy of the original roadway past the 20-year design period and is used for functional improvements including enhanced smoothness, friction, and profile of the roadway. Overlays are applied over stable pavements with a sound (gravel/subsurface) base where visible surface distresses may include moderate to extreme raveling, longitudinal and transverse cracks, and a moderate amount of existing patching in good condition. Depending on traffic levels, an overlay will help extend the service life of a bituminous street an additional 10- to 12-years when combined with other maintenance techniques. Overlays typically do not prevent reflective cracking from developing from the underlying pavement layers, and cracking may develop within one year of overlaying. The improvements for 1<sup>st</sup> Avenue SW, Foxmore Way SW, and 2<sup>nd</sup> Avenue SW are illustrated in **Figure 2**.

To accommodate the extra thickness of bituminous on top of the existing surface, the outside 6- to 8-feet of bituminous pavement surface will be milled down approximately 1-inch to allow the new pavement layer to be paved more closely to the surface level of the concrete gutter on urban roadways and the driveways on rural roadways. A typical bituminous overlay is shown in **Figure 9**. Damaged curb and gutter is proposed to be replaced as needed.

Watermain is proposed to be replaced as shown in **Figure 2**. PVC watermain pipe materials are proposed to be used for the mains, and polyethylene (PE) pipe for service lines. PVC and PE pipes are more resistant to corrosion than DIP.

Areas with utility improvements will require streets to be reconstructed. This includes excavating materials to a subgrade level where native soils are present. Aggregate base will be installed, graded, and compacted, followed by installation of concrete curb and gutter (where necessary). Finally, new bituminous surfacing will be installed.

To maintain compliance with sign reflectivity requirements of the Minnesota Manual of Uniform Traffic Control Devices (MMUTCD), both regulatory and street name signs panels are proposed to be replaced where needed.

## 4.2 Northland Heights Subdivision

The Northland Heights subdivision (Iris Lane, Jasmine Lane E, 13<sup>th</sup> Avenue NE, and 14<sup>th</sup> Avenue NE) is proposed to be improved with a bituminous overlay. A bituminous overlay will help to extend the pavement service life expectancy of the original roadway past the 20-year design period and is used for functional improvements including enhanced smoothness, friction, and profile of the roadway. Overlays are applied over stable pavements with a sound (gravel/subsurface) base where visible surface distresses may include moderate to extreme raveling, longitudinal and transverse cracks, and a moderate amount of existing patching in good condition. Depending on traffic levels, an overlay will help extend the service life of a bituminous street an additional 10- to 12-years when combined with other maintenance techniques. Overlays typically do not prevent reflective cracking from developing from the underlying pavement layers. Cracking may develop within one year of overlaying. The improvements for the Northland Heights subdivision are illustrated in **Figure 3**.

To accommodate the extra thickness of bituminous on top of the existing surface, the outside 6- to 8-feet of bituminous pavement surface will be milled down approximately 1-inch to allow the new pavement layer to be paved more closely to the concrete gutter surface on urban roadways and the driveways on rural roadways. A typical bituminous overlay section is shown in **Figure 10**. Significantly damaged curb and gutter are proposed to be replaced on a limited spot basis.

To maintain compliance with sign reflectivity requirements of the Minnesota Manual of Uniform Traffic Control Devices (MMUTCD), both regulatory and street name signs panels are proposed to be replaced where needed.

## 4.3 MJH Subdivision

Ridgewood Court was listed on the City's 2019 Pavement Maintenance Plan for potential improvement in 2026. After review, it is proposed that no improvements are performed along Ridgewood Court in 2026, and that this street segment is evaluated as part of the City's new CIP.

## 4.4 Buettner Business Park, Borgert Industrial Park Plat 2, and Rennie Subdivisions

Elm Street E, 19<sup>th</sup> Avenue NE, and 15<sup>th</sup> Avenue NE are proposed to be improved with Full Depth Reclamation (FDR) and repave methods. This work entails reclaiming (grinding) existing bituminous surfacing and underlying aggregate base into a uniform blend, grading and compacting, and placing 4-inches of new bituminous surfacing. These improvements will allow the existing aggregate base and curb and gutter to be left in place but also provide a brand-new pavement surface. Because all existing pavement will be reclaimed, reflective cracking will be minimized by comparison to an overlay. Existing damaged curb and gutter, where present, is proposed to be replaced on a spot basis as needed. Improvements and typical sections for this area are illustrated in **Figures 4 & 10**.

To maintain compliance with sign reflectivity requirements of the Minnesota Manual of Uniform Traffic Control Devices (MMUTCD), both regulatory and street name signs panels are proposed to be replaced where needed.

## 4.5 Cloverdale Estates 2<sup>nd</sup> Addition

Baker Street E is proposed to be improved with Full Depth Reclamation (FDR) and repave methods. This work entails reclaiming (grinding) existing bituminous surfacing and underlying aggregate base into a uniform blend, grading and compacting, and placing 4-inches of new bituminous surfacing. These improvements will allow the existing aggregate base and curb and gutter to be left in place but also provide a brand-new pavement surface. Because all existing pavement will be reclaimed, reflective cracking will be minimized by comparison to an overlay. Existing damaged curb and gutter, where present, is proposed to be replaced on a spot basis as needed. Improvements and typical sections for this area are illustrated in **Figures 5 & 10**.

Bituminous trail construction is proposed along the south side of Baker Street west of 7<sup>th</sup> Avenue SE. Concrete walk is proposed along the south side of Baker Street from 7<sup>th</sup> Avenue SE to 12<sup>th</sup> Avenue SE. Residential driveways will be patched to accommodate the new concrete walk. ADA Pedestrian ramps are proposed at street intersections. Typical sections for bituminous trail and concrete walk are illustrated in **Figure 11**.

To maintain compliance with sign reflectivity requirements of the Minnesota Manual of Uniform Traffic Control Devices (MMUTCD), both regulatory and street name signs panels are proposed to be replaced where needed.

## 4.6 Rivers Bend Subdivision

Jade Road is proposed to be improved with a bituminous overlay. A bituminous overlay will help to extend the pavement service life expectancy of the original roadway past the 20-year design period and is used for functional improvements including enhanced smoothness, friction, and profile of the roadway. Overlays are applied over stable pavements with a sound (gravel/subsurface) base where visible surface distresses may include moderate to extreme raveling, longitudinal and transverse cracks, and a moderate amount of existing patching in good condition. Depending on traffic levels, an overlay will help extend the service life of a bituminous street an additional 10- to 12-years when combined with other maintenance techniques. Overlays typically do not prevent reflective cracking from developing from the underlying pavement layers. Cracking may develop within one year of overlaying. The improvements for Jade Road are illustrated in **Figure 6**.

To accommodate the extra thickness of bituminous on top of the existing surface, the outside 6- to 8-feet of bituminous pavement surface will be milled down approximately 1-inch to allow the new pavement layer to be paved more closely to the concrete gutter surface on urban roadways and the driveways on rural roadways. A typical bituminous overlay section is shown in **Figure 11**. Significantly damaged curb and gutter are proposed to be replaced on a limited spot basis.

To maintain compliance with sign reflectivity requirements of the Minnesota Manual of Uniform Traffic Control Devices (MMUTCD), both regulatory and street name signs panels are proposed to be replaced where needed.

## 4.7 Liberty Pointe Subdivision

Dale Street is proposed to be improved with Full Depth Reclamation (FDR) and repave methods. This work entails reclaiming (grinding) existing bituminous surfacing and underlying aggregate base into a uniform blend, grading and compacting, and placing 4-inches of new bituminous surfacing. These improvements will allow the existing aggregate base and curb and gutter to be left in place but also provide a brand-new pavement surface. Because all existing pavement will be reclaimed, reflective cracking will be minimized by comparison to an overlay. Existing damaged curb and gutter, where present, is proposed to be replaced on a spot basis as needed. Improvements and typical sections for this area are illustrated in **Figures 7 & 10**.

To maintain compliance with sign reflectivity requirements of the Minnesota Manual of Uniform Traffic Control Devices (MMUTCD), both regulatory and street name signs panels are proposed to be replaced where needed.

## 4.8 Klinefelter Park

The Klinefelter Park gravel parking lot at the end of Klinefelter Way is proposed to be reconstructed. This improvement would include concrete curb and gutter, storm sewer (if necessary), aggregate base, and bituminous surfacing. This improvement will increase the capacity of the parking lot. Striping would be added to the parking lot, including designated handicap parking stalls. Improvements and typical sections for this area are illustrated in **Figures 8 & 11**.

## 4.9 College Subdivision 2<sup>nd</sup> Addition

Callaway Street E is proposed to be improved with a bituminous overlay. A bituminous overlay will help to extend the pavement service life expectancy of the original roadway past the 20-year design period and is used for functional improvements including enhanced smoothness, friction, and profile of the roadway. Overlays are applied over stable pavements with a sound (gravel/subsurface) base where visible surface distresses may include moderate to extreme raveling, longitudinal and transverse cracks, and a moderate amount of existing patching in good condition. Depending on traffic levels, an overlay will help extend the service life of a bituminous street an additional 10- to 12-years when combined with other maintenance techniques. Overlays typically do not prevent reflective cracking from developing from the underlying pavement layers. Cracking may develop within one year of overlaying. The improvements for Callaway Street E are illustrated in **Figure 9**.

To accommodate the extra thickness of bituminous on top of the existing surface, the outside 6- to 8-feet of bituminous pavement surface will be milled down approximately 1-inch to allow the new pavement layer to be paved more closely to the concrete gutter surface on urban roadways and the driveways on rural roadways. A typical bituminous overlay section is shown in **Figure 10**. Significantly damaged curb and gutter are proposed to be replaced on a limited spot basis.

To maintain compliance with sign reflectivity requirements of the Minnesota Manual of Uniform Traffic Control Devices (MMUTCD), both regulatory and street name signs panels are proposed to be replaced where needed.

## 5 Probable Costs

The probable costs for the improvements are summarized below. A detailed opinion of cost appears in the Appendix.

Table 1 – Opinion of Probable Cost

Item	Cost
Construction	\$4,852,500
Contingency	\$578,800
Feasibility Report	\$38,900
Design and Construction	\$679,500
Soil Borings	\$9,700
Legal, Fiscal, and Administrative	\$388,300
<b>Total</b>	<b>\$6,547,700</b>

Table 2 – Probable Cost by Project Area

Item	Type of Improvement	Cost
Morningside Neighborhood	Watermain / Overlay / Reclaim & Repave / Reconstruction	\$3,930,200
Northland Heights	Edge Mill & Overlay	\$419,800
Business Park-Elm St, 15 <sup>th</sup> & 19 <sup>th</sup> Ave	Full Depth Mill & Repave	\$1,221,000
Baker Street	Full Depth Mill & Repave	\$489,800
Jade Road	Edge Mill & Overlay	\$200,100
Dale Street	Full Depth Mill & Repave	\$108,200
Klinefelter Parking Lot	New Construction	\$59,300
Callaway Street	Edge Mill & Overlay	\$119,300
	<b>Total</b>	<b>\$6,547,700</b>

## 6 Project Funding and Special Assessments

For surface improvements, the City's Special Assessment Policy prescribes the assessment methodology to be on the basis of "frontage" or "footage" unless the assessable costs would be more equitably distributed on a different basis. Since many of the lots abutting the project are regular shaped, the frontage methodology will be applicable.

For frontage assessments, rectangular interior lots are assessed the frontage equal to the dimension of the side of the lot abutting the improvement. Rectangular corner lots are assessed 100% of the short side footage of the lot abutting the improvement and 50% of the long side footage of the lot abutting the improvement. For irregular shaped lots, the "frontage" shall be computed as the average width of the lot.

The City's assessment policy describes that it will specially assess properties that have been previously assessed for improvements up to 60% of the total project cost and to subsidize the

remaining percentage with City funds. The improvements to pedestrian ramps to conform with ADA standards shall not be assessed.

Table 3 – Preliminary Funding by Project Area

Project Area	Surface Assessment Level (60%)	City Subsidy	Total
Morningside Neighborhood-Street	\$504,049	\$861,151	\$1,365,200
Morningside Neighborhood-Watermain		\$2,565,000	\$2,565,000
Northland Heights	\$216,582	\$203,218	\$419,800
Business Park-Elm St, 15 <sup>th</sup> & 19 <sup>th</sup> Ave	\$732,560	\$488,440	\$1,221,000
Baker Street	\$182,774	\$307,026	\$489,800
Jade Road	\$120,072	\$80,028	\$200,100
Dale Street	\$81,006	\$27,194	\$108,200
Klinefelter Parking Lot		\$59,300	\$59,300
Callaway Street	\$110,893	\$8,407	\$119,300
<b>Total</b>	<b>\$1,942,434</b>	<b>\$4,605,266</b>	<b>\$6,547,700</b>

Table 4 – Preliminary Special Assessment Rates

Project Area	Type of Improvement	32' Wide Street Overlay (60%)	36' Wide Street Overlay (60%)	32'-34' Wide Reclaim & Repave (60%)	36'-38' Wide Reclaim & Repave (60%)	40' Wide Reclaim & Repave (60%)	40' Wide Street Overlay (60%)
1 <sup>st</sup> Ave SW, Foxmore Way, 2 <sup>nd</sup> Ave SW, Jasmine Lane, 13 <sup>th</sup> Ave NE, 14 <sup>th</sup> Ave NE	Overlay	\$27.86					
2 <sup>nd</sup> Ave SW, Hill St W, 3 <sup>rd</sup> Ave SW, Morningside Loop	Reclaim & Repave			\$27.25			
Iverson Street W, Baker Street, Dale Street	Reclaim & Repave				\$74.00		
Iris Lane, Callaway St E	Overlay		\$36.78				
Business Park-Elm St, 15 <sup>th</sup> & 19 <sup>th</sup> Ave	Reclaim & Repave					\$70.59	
Jade Road	Overlay						\$43.69

# Figures

Figure 1 – Location Map

Figure 2 – Morningside, Foxmore Hollow, Hillside, and Hilltop Subdivisions

Figure 3 – Northland Heights Subdivision

Figure 4 – Buettner Business Park, Borgert Industrial Park Plat 2, and Rennie Subdivisions

Figure 5 – Cloverdale Estates 2<sup>nd</sup> Addition

Figure 6 – Rivers Bend Subdivision

Figure 7 – Liberty Pointe Subdivision

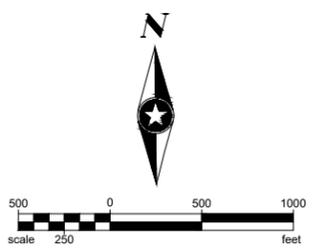
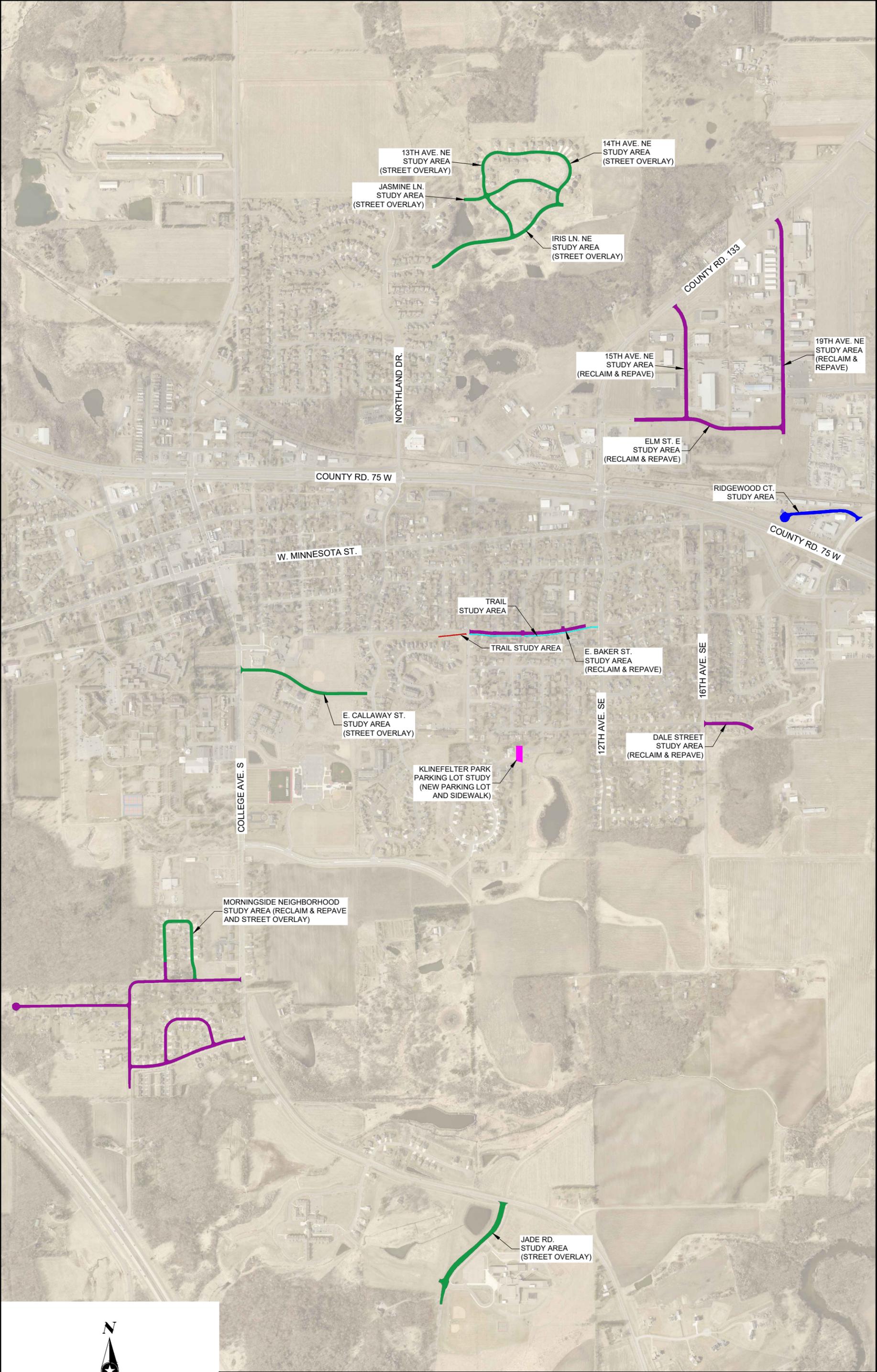
Figure 8 – Klinefelter Park

Figure 9 – College Subdivision 2<sup>nd</sup> Addition

Figure 10 – Typical Sections

Figure 11 – Typical Sections

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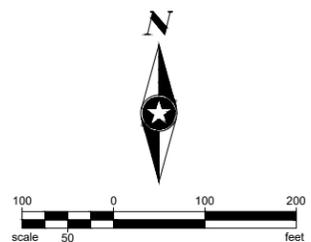
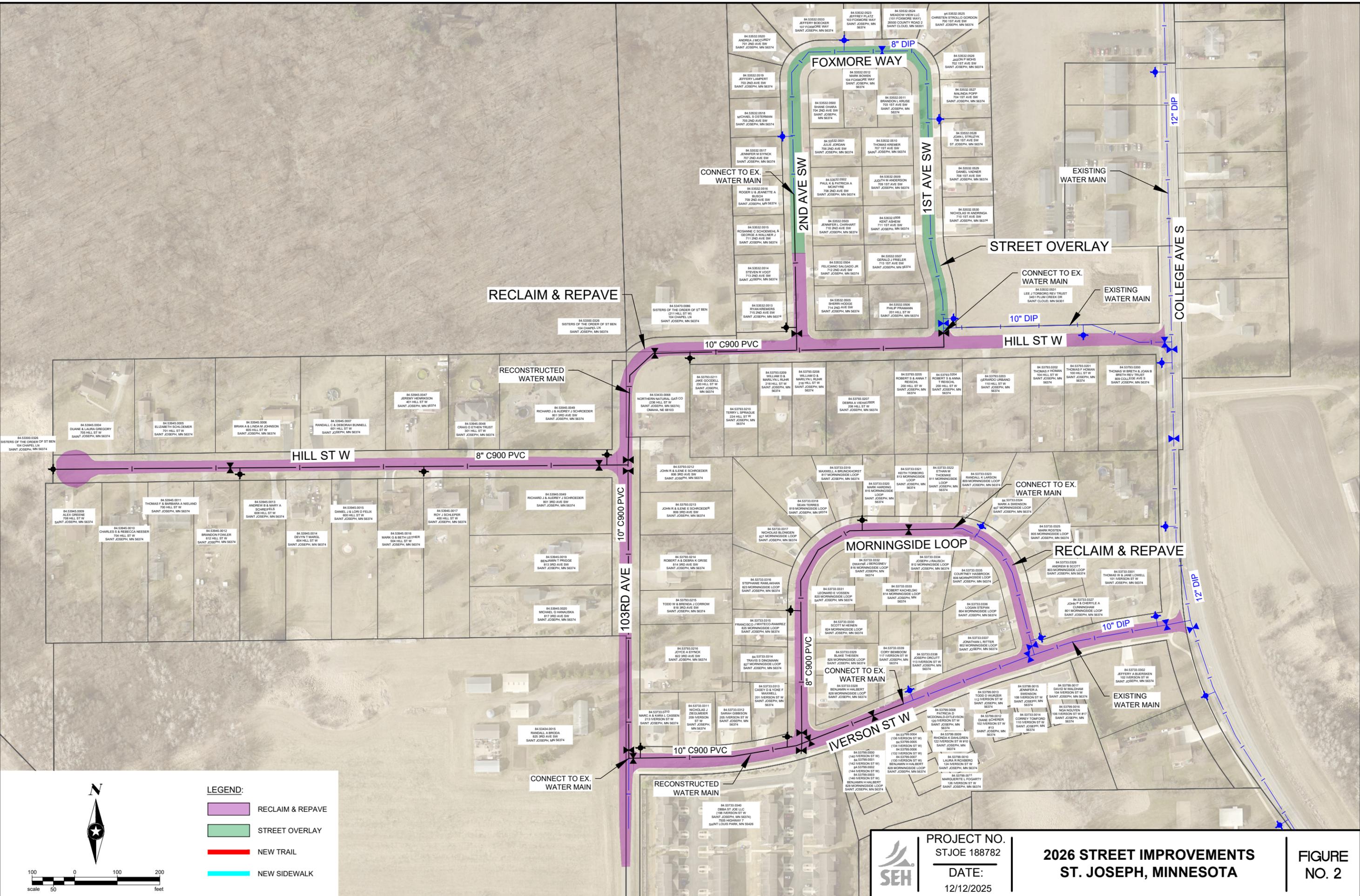


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PROJECT NO.  
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DATE:  
12/12/2025

**2026 STREET IMPROVEMENTS  
ST. JOSEPH, MINNESOTA**

**FIGURE  
NO. 1**

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- LEGEND:**
- RECLAIM & REPAVE
  - STREET OVERLAY
  - NEW TRAIL
  - NEW SIDEWALK



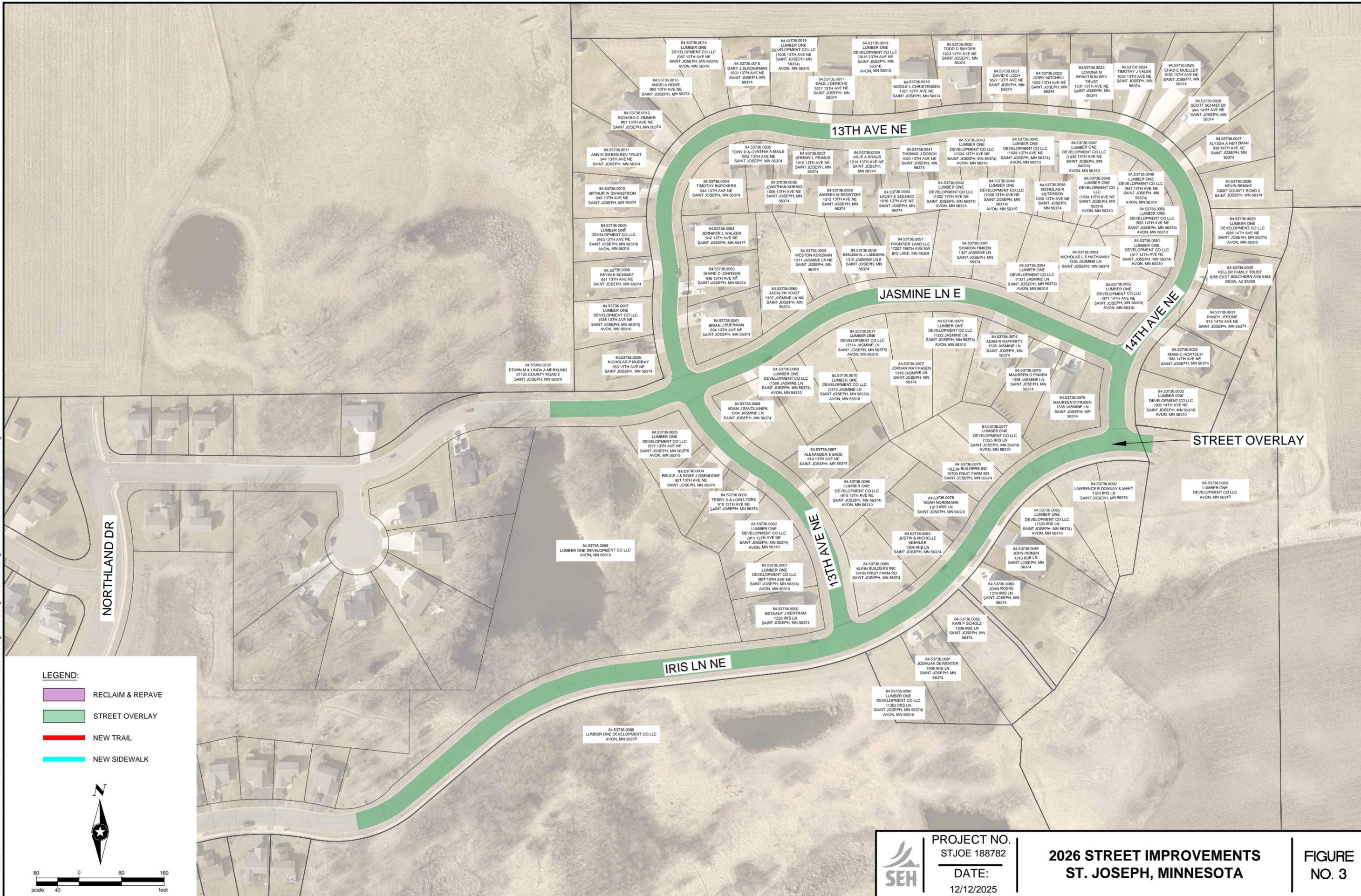
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STJOE 188782

**DATE:**  
12/12/2025

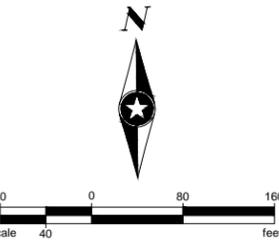
**2026 STREET IMPROVEMENTS**  
**ST. JOSEPH, MINNESOTA**

**FIGURE**  
**NO. 2**

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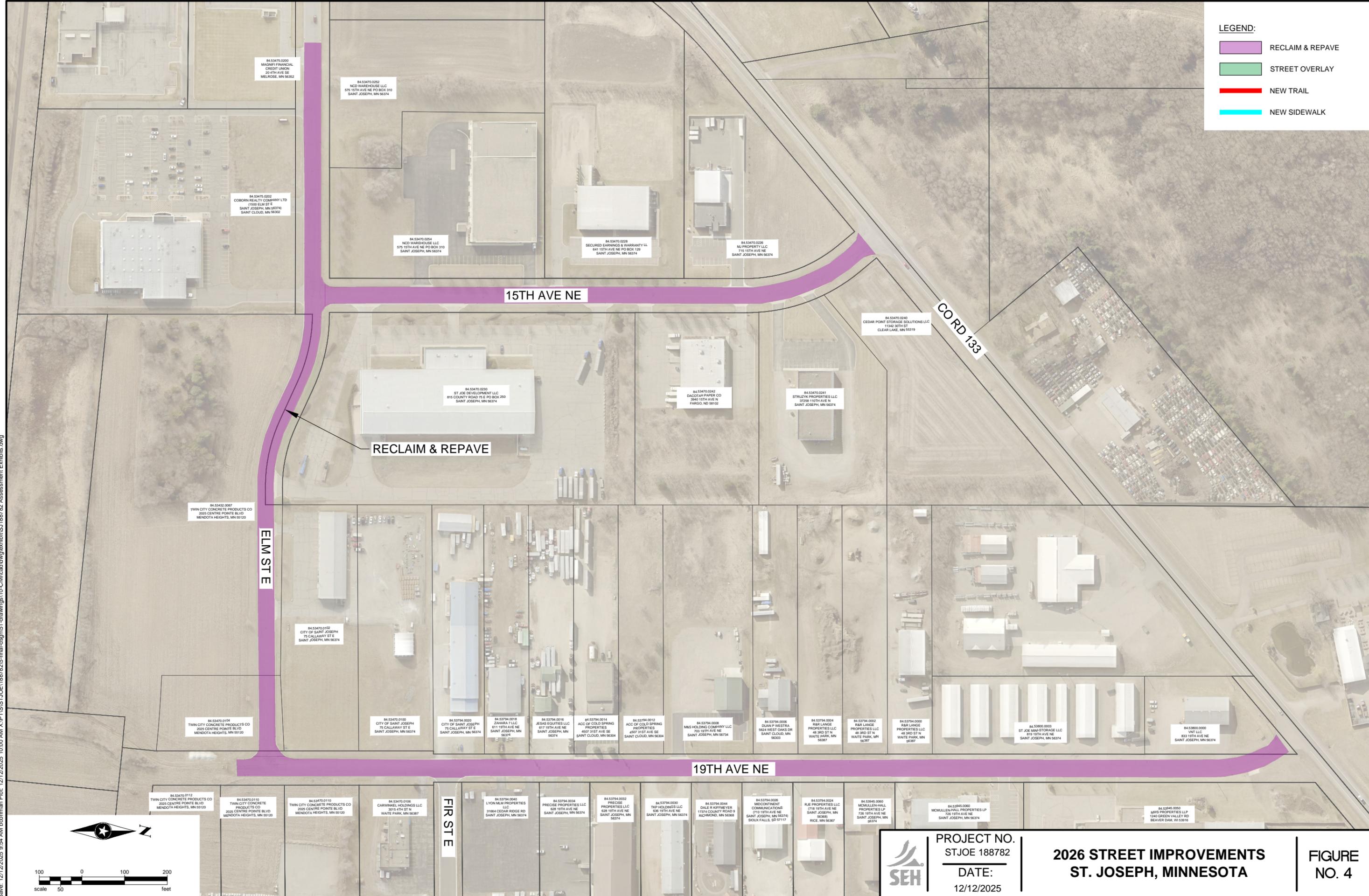
- LEGEND:**
- RECLAIM & REPAVE
  - STREET OVERLAY
  - NEW TRAIL
  - NEW SIDEWALK



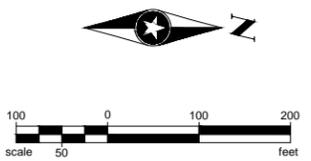
	<p><b>PROJECT NO.</b> STJOE 188782</p> <p><b>DATE:</b> 12/12/2025</p>	<p><b>2026 STREET IMPROVEMENTS</b> <b>ST. JOSEPH, MINNESOTA</b></p>	<p><b>FIGURE</b> <b>NO. 3</b></p>
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**LEGEND:**

- RECLAIM & REPAVE
- STREET OVERLAY
- NEW TRAIL
- NEW SIDEWALK

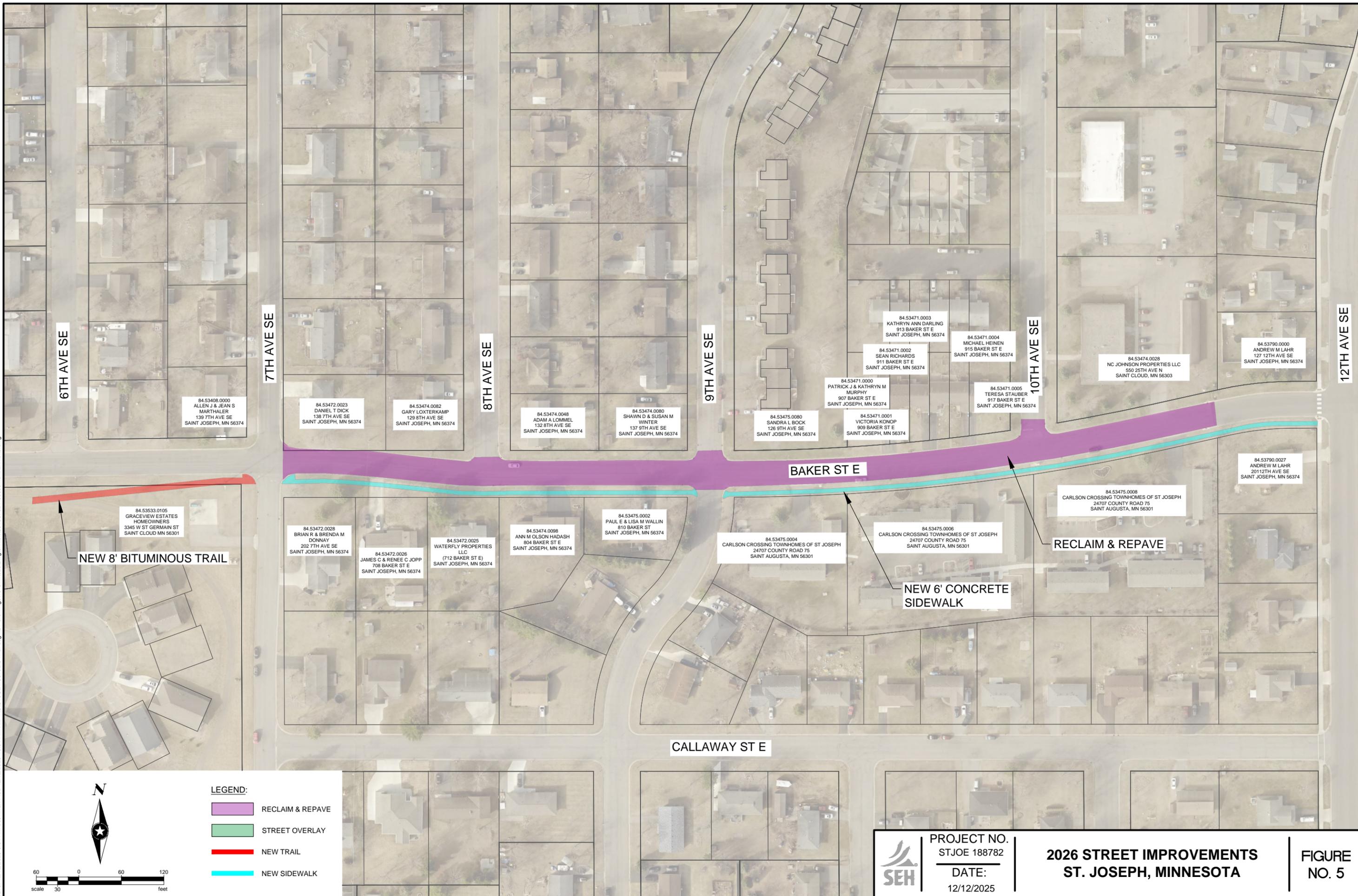


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	<p><b>PROJECT NO.</b> STJOE 188782</p> <p><b>DATE:</b> 12/12/2025</p>	<p><b>2026 STREET IMPROVEMENTS</b> <b>ST. JOSEPH, MINNESOTA</b></p>	<p><b>FIGURE</b> <b>NO. 4</b></p>
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- LEGEND:**
- RECLAIM & REPAVE
  - STREET OVERLAY
  - NEW TRAIL
  - NEW SIDEWALK

**PROJECT NO.**  
STJOE 188782

**DATE:**  
12/12/2025

**2026 STREET IMPROVEMENTS**  
**ST. JOSEPH, MINNESOTA**

**FIGURE**  
**NO. 5**

84.53533.0105  
GRACEVIEW ESTATES  
HOMEOWNERS  
3345 W ST GERMAIN ST  
SAINT CLOUD MN 56301

**NEW 8' BITUMINOUS TRAIL**

84.53472.0028  
BRIAN R & BRENDA M  
DONNAY  
202 7TH AVE SE  
SAINT JOSEPH, MN 56374

84.53472.0026  
JAMES C & RENEE C JOPP  
708 BAKER ST E  
SAINT JOSEPH, MN 56374

84.53472.0025  
WATERFLY PROPERTIES  
LLC  
(712 BAKER ST E)  
SAINT JOSEPH, MN 56374

84.53474.0098  
ANN M OLSON HADASH  
804 BAKER ST E  
SAINT JOSEPH, MN 56374

84.53475.0002  
PAUL E & LISA M WALLIN  
810 BAKER ST  
SAINT JOSEPH, MN 56374

84.53475.0004  
CARLSON CROSSING TOWNHOMES OF ST JOSEPH  
24707 COUNTY ROAD 75  
SAINT AUGUSTA, MN 56301

84.53475.0006  
CARLSON CROSSING TOWNHOMES OF ST JOSEPH  
24707 COUNTY ROAD 75  
SAINT AUGUSTA, MN 56301

84.53475.0008  
CARLSON CROSSING TOWNHOMES OF ST JOSEPH  
24707 COUNTY ROAD 75  
SAINT AUGUSTA, MN 56301

**RECLAIM & REPAVE**

84.53790.0027  
ANDREW M LAHR  
20112TH AVE SE  
SAINT JOSEPH, MN 56374

6TH AVE SE

7TH AVE SE

8TH AVE SE

9TH AVE SE

10TH AVE SE

12TH AVE SE

BAKER ST E

CALLAWAY ST E

84.53408.0000  
ALLEN J & JEAN S  
MARTHALER  
139 7TH AVE SE  
SAINT JOSEPH, MN 56374

84.53472.0023  
DANIEL T DICK  
138 7TH AVE SE  
SAINT JOSEPH, MN 56374

84.53474.0082  
GARY LOXTERKAMP  
129 9TH AVE SE  
SAINT JOSEPH, MN 56374

84.53474.0048  
ADAM A LOMMEL  
132 9TH AVE SE  
SAINT JOSEPH, MN 56374

84.53474.0080  
SHAWN D & SUSAN M  
WINTER  
137 9TH AVE SE  
SAINT JOSEPH, MN 56374

84.53475.0080  
SANDRA L BOCK  
126 9TH AVE SE  
SAINT JOSEPH, MN 56374

84.53471.0000  
PATRICK J & KATHRYN M  
MURPHY  
907 BAKER ST E  
SAINT JOSEPH, MN 56374

84.53471.0002  
SEAN RICHARDS  
911 BAKER ST E  
SAINT JOSEPH, MN 56374

84.53471.0003  
KATHRYN ANN DARLING  
913 BAKER ST E  
SAINT JOSEPH, MN 56374

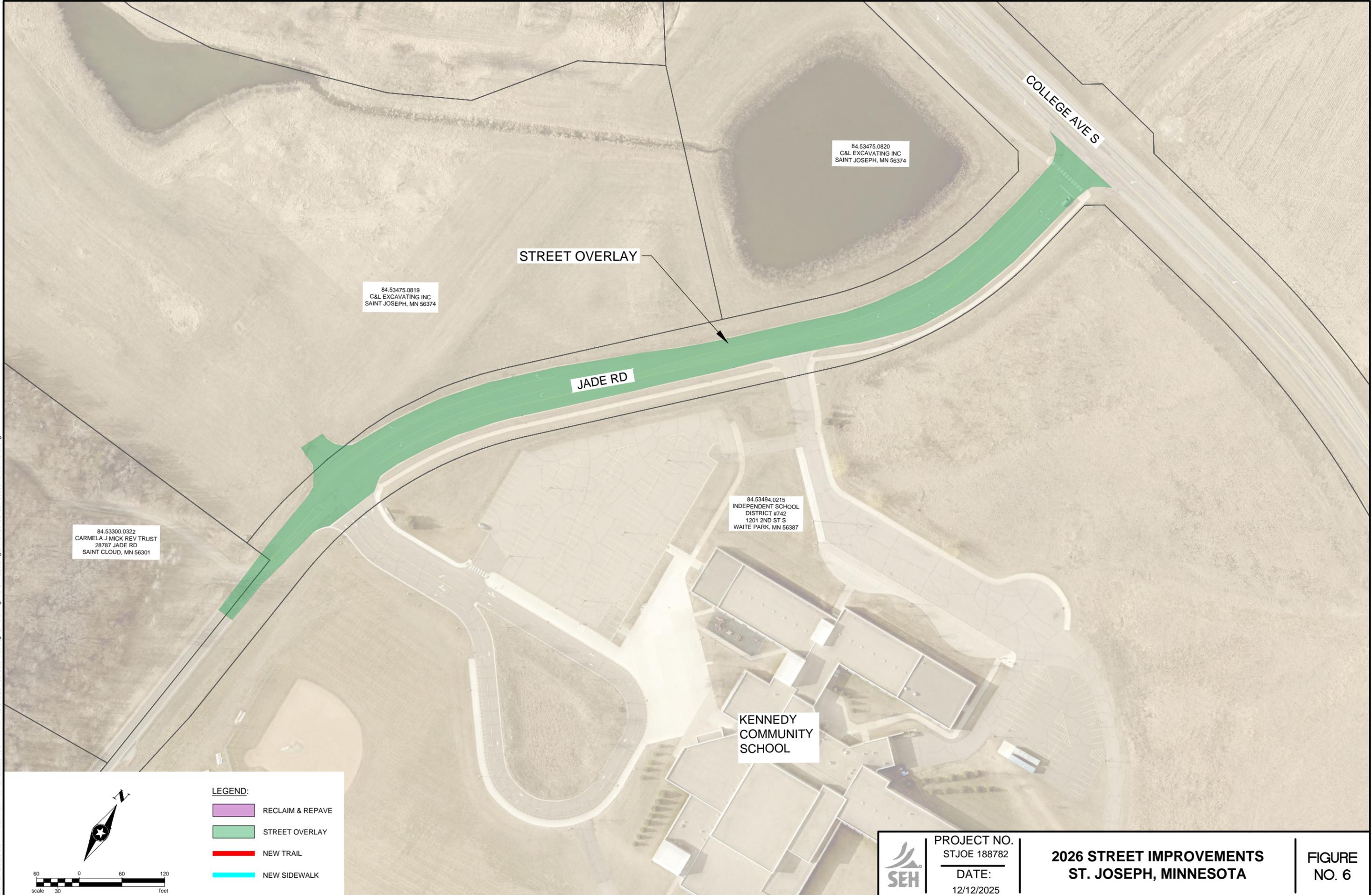
84.53471.0004  
MICHAEL HEINEN  
915 BAKER ST E  
SAINT JOSEPH, MN 56374

84.53471.0005  
TERESA STAUBER  
917 BAKER ST E  
SAINT JOSEPH, MN 56374

84.53474.0028  
NC JOHNSON PROPERTIES LLC  
550 25TH AVE N  
SAINT CLOUD, MN 56303

84.53790.0000  
ANDREW M LAHR  
127 12TH AVE SE  
SAINT JOSEPH, MN 56374

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COLLEGE AVE S

STREET OVERLAY

JADE RD

84.53475.0819  
C&L EXCAVATING INC  
SAINT JOSEPH, MN 56374

84.53475.0820  
C&L EXCAVATING INC  
SAINT JOSEPH, MN 56374

84.53300.0322  
CARMELA J MICK REV TRUST  
28787 JADE RD  
SAINT CLOUD, MN 56301

84.53494.0215  
INDEPENDENT SCHOOL  
DISTRICT #742  
1201 2ND ST S  
WAITE PARK, MN 56387

KENNEDY  
COMMUNITY  
SCHOOL

- LEGEND:**
- RECLAIM & REPAVE
  - STREET OVERLAY
  - NEW TRAIL
  - NEW SIDEWALK



**SEH** PROJECT NO.  
STJOE 188782  
DATE:  
12/12/2025

**2026 STREET IMPROVEMENTS  
ST. JOSEPH, MINNESOTA**

**FIGURE  
NO. 6**

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16TH AVE SE

84.53550.0019  
CATHERINE L BROCKWAY  
1605 DALE ST E  
SAINT JOSEPH, MN 56374

84.53550.0020  
RAYMOND J  
BECHTOLD  
1609 DALE ST E  
SAINT JOSEPH, MN  
56374

84.53550.0021  
STEVEN & NANCY  
FANGMEIER  
(1615 DALE ST E  
SAINT JOSEPH, MN  
56374)  
17248 PLEASANT LN  
BRAINERD, MN 56401

84.53550.0022  
CHERYL L PLOOF  
1619 DALE ST E  
SAINT JOSEPH, MN  
56374

84.53550.0089  
CURTIS & TRACY A  
OPHOVEN  
1308 DALE ST E  
SAINT JOSEPH, MN  
56374

84.53550.0090  
KELLI F NADEAU  
1707 DALE ST E  
SAINT JOSEPH, MN  
56374

84.53550.0091  
VERA M POGATCHNIK  
353 JEFFERSON LN  
SAINT JOSEPH, MN  
56374

84.53550.0096  
FRED I SCHROEDER  
348 JEFFERSON LN  
SAINT JOSEPH, MN  
56374

84.53550.0103  
PAUL E & PATRICA A  
GANNON  
1606 DALE ST E  
SAINT JOSEPH, MN  
56374

84.53550.0104  
ELIANE JO GISLER TRUST  
1610 DALE ST E  
SAINT JOSEPH, MN 56374

84.53550.0081  
DENNIS P LOECKEN &  
CONNIE L LOECKEN REV  
1616 DALE ST E  
SAINT JOSEPH, MN 56374

84.53550.0082  
TARA DARNALL  
1602 DALE ST E  
SAINT JOSEPH, MN  
56374

84.53550.0105  
ANN LANG  
1704 DALE ST E  
SAINT JOSEPH, MN  
56374

84.53550.0106  
ROSE M HULS  
1708 DALE ST E  
SAINT JOSEPH, MN  
56374

84.53550.0107  
LIBERTY POINTE HOMEOWNERS ASOC  
SAINT CLOUD, MN 56302

84.53550.0095  
LIBERTY POINTE HOMEOWNERS ASOC  
SAINT CLOUD, MN 56302

DALE ST

JEFFERSON LN E

RECLAIM & REPAVE

N



LEGEND:

-  RECLAIM & REPAVE
-  STREET OVERLAY
-  NEW TRAIL
-  NEW SIDEWALK

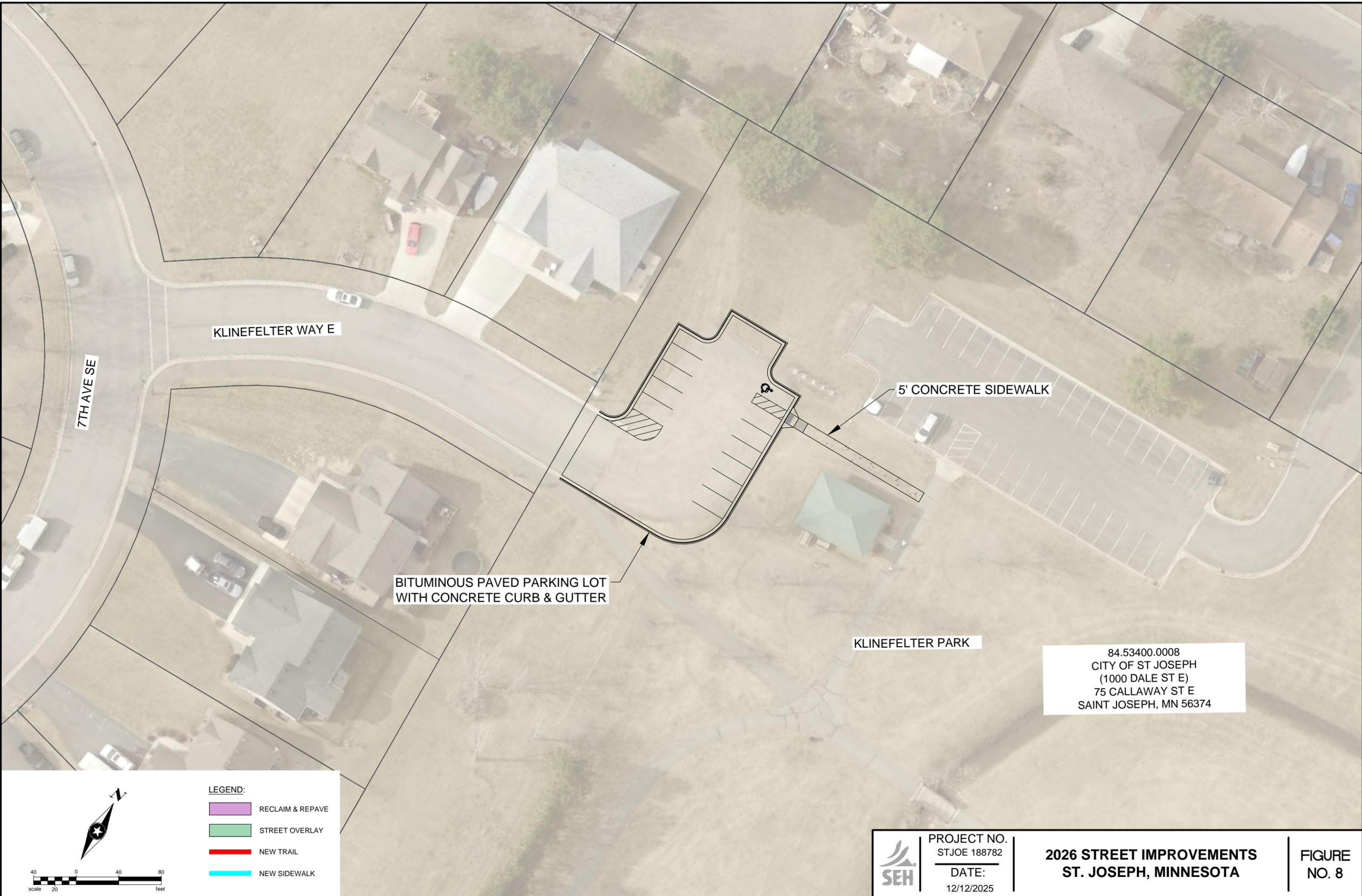


PROJECT NO.  
STJOE 188782  
DATE:  
12/12/2025

2026 STREET IMPROVEMENTS  
ST. JOSEPH, MINNESOTA

FIGURE  
NO. 7

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7TH AVE SE

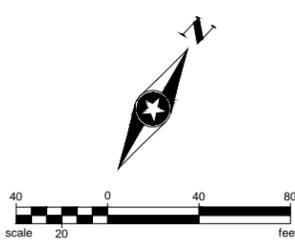
KLINEFELTER WAY E

5' CONCRETE SIDEWALK

BITUMINOUS PAVED PARKING LOT WITH CONCRETE CURB & GUTTER

KLINEFELTER PARK

84.53400.0008  
CITY OF ST JOSEPH  
(1000 DALE ST E)  
75 CALLAWAY ST E  
SAINT JOSEPH, MN 56374



- LEGEND:**
- RECLAIM & REPAVE
  - STREET OVERLAY
  - NEW TRAIL
  - NEW SIDEWALK

	PROJECT NO. STJOE 188782 DATE: 12/12/2025	<b>2026 STREET IMPROVEMENTS</b> <b>ST. JOSEPH, MINNESOTA</b>	<b>FIGURE</b> <b>NO. 8</b>
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COLLEGE AVE S

84.53797.0950  
CITY OF ST JOSEPH  
75 CALLAWAY ST E  
SAINT JOSEPH, MN 56374

84.53797.0951  
MOXIE INVESTMENTS LLC  
PO BOX 285  
ST JOSEPH, MN 56374-0285

84.53475.0502  
COLLEGE OF ST BENEDICT  
37 COLLEGE AVE S  
ST JOSEPH, MN 56374

STREET OVERLAY

84.53733.0170  
MILL STREAM VILLAGE HOMEOWNERS ASSOCIATION  
PO BOX 423  
ST JOSEPH, MN 56374-0423

84.53797.0952  
CITY OF ST JOSEPH  
75 CALLAWAY ST E  
SAINT JOSEPH, MN 56374

84.53533.0000  
ISSE NOOR SUBANE  
245 4TH AVE SE  
SAINT JOSEPH, MN 56374  
(ASSESSED ON 4TH AVE  
IMPROVEMENTS)

CALLAWAY ST E

COLMAN CT

COLLEGE CIR

84.53733.0169  
WYNN HOLDINGS LLC  
28542 HELD CT  
COLD SPRING, MN 56320

84.53475.0512  
COLLEGE OF ST BENEDICT  
37 COLLEGE AVE S  
ST JOSEPH, MN 56374

84.53533.0017  
JESSY F & ANGELA L MCKENZIE  
303 4TH AVE SE  
ST JOSEPH, MN 56374  
(ASSESSED ON 4TH AVE  
IMPROVEMENTS)

4TH AVE SE



LEGEND:

-  RECLAIM & REPAVE
-  STREET OVERLAY
-  NEW TRAIL
-  NEW SIDEWALK

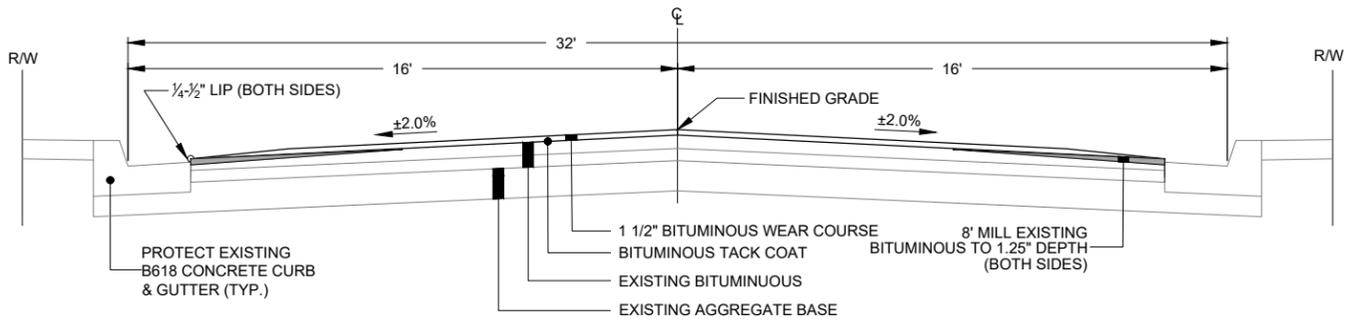


PROJECT NO.  
STJOE 188782  
DATE:  
12/12/2025

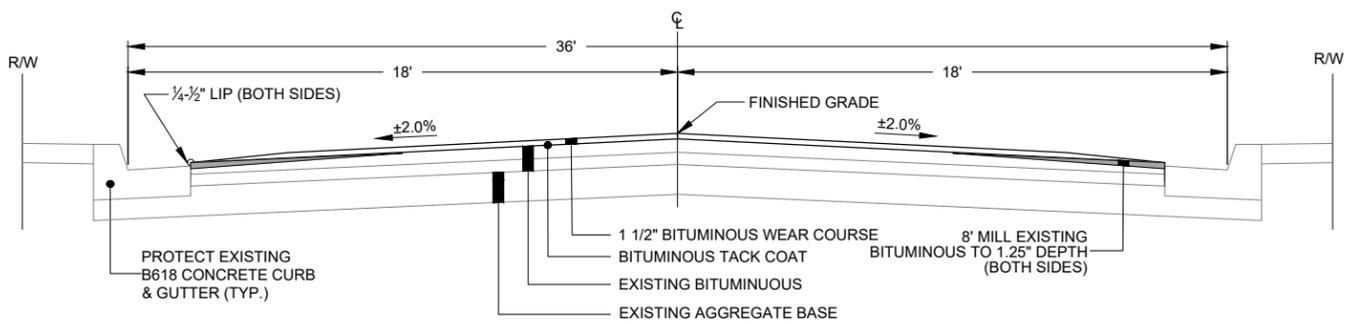
2026 STREET IMPROVEMENTS  
ST. JOSEPH, MINNESOTA

FIGURE  
NO. 9

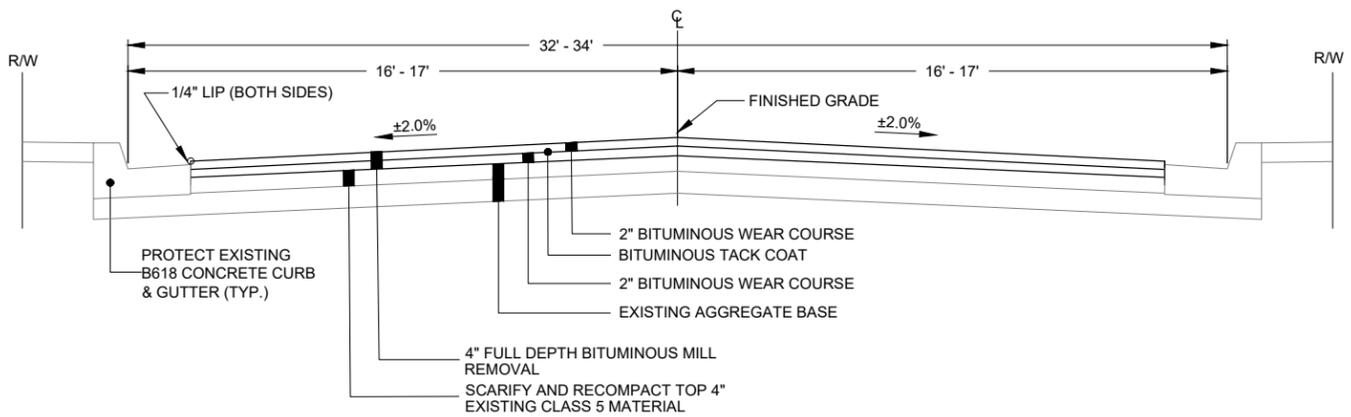
**TYPICAL SECTION**  
**PROPOSED BITUMINOUS EDGE MILL AND OVERLAY**  
 1ST AVENUE SW, 2ND AVENUE SW, 13TH AVENUE NE, 14TH AVENUE NE,  
 FOXMORE WAY, AND JASMINE LANE



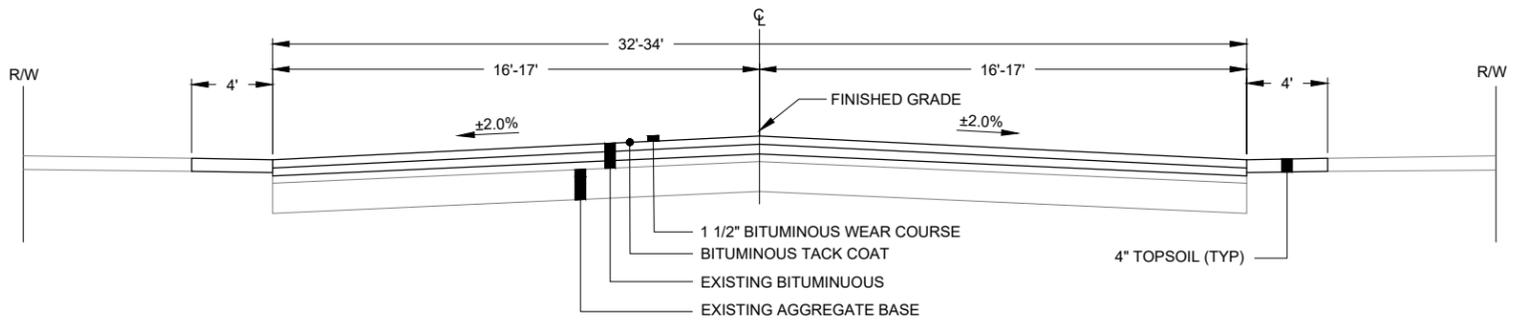
**TYPICAL SECTION**  
**PROPOSED BITUMINOUS EDGE MILL AND OVERLAY**  
 CALLAWAY STREET E AND IRIS LANE NE



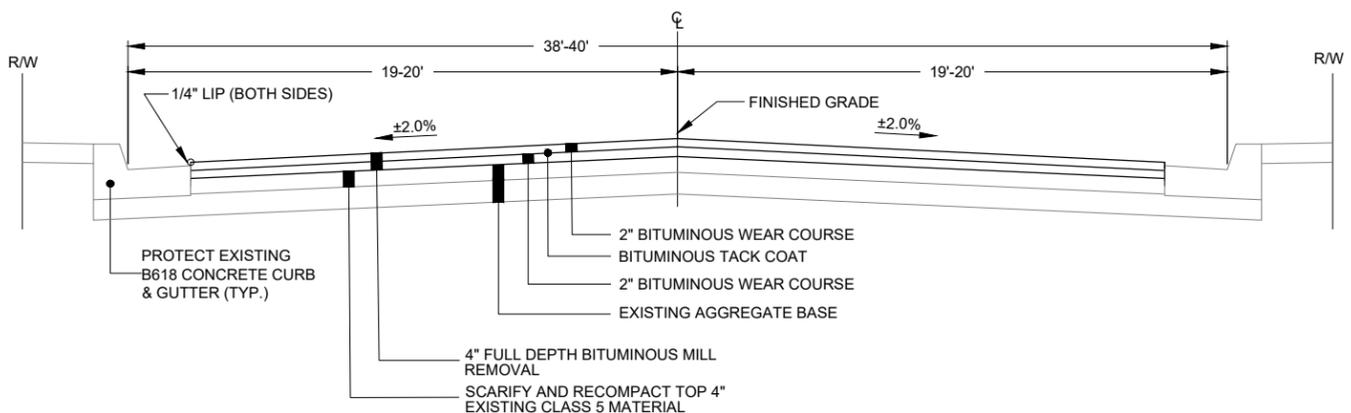
**TYPICAL SECTION**  
**PROPOSED RECLAIM AND REPAVE**  
 2ND AVENUE SW AND MORNINGSIDE LOOP



**TYPICAL SECTION**  
**PROPOSED BITUMINOUS OVERLAY**  
 HILL STREET W AND 3RD AVENUE SW

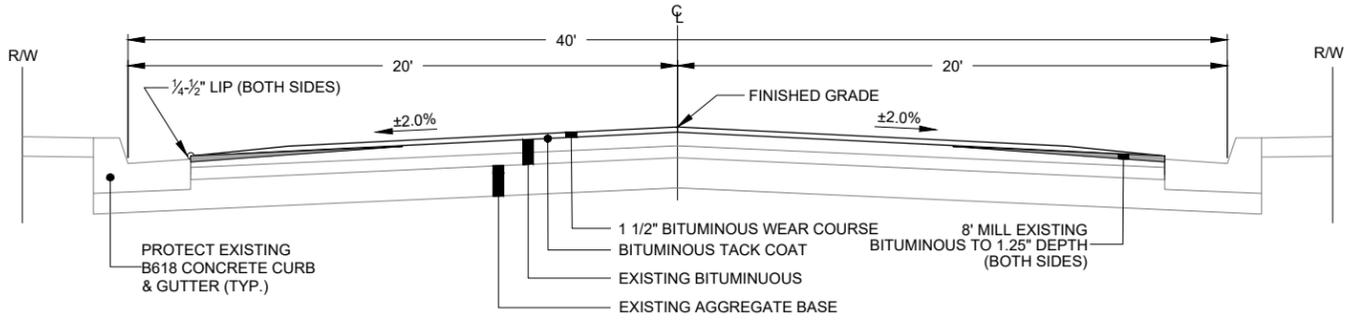


**TYPICAL SECTION**  
**PROPOSED RECLAIM AND REPAVE**  
 15TH AVENUE NE, 19TH AVENUE NE, DALE STREET, AND ELM STREET E

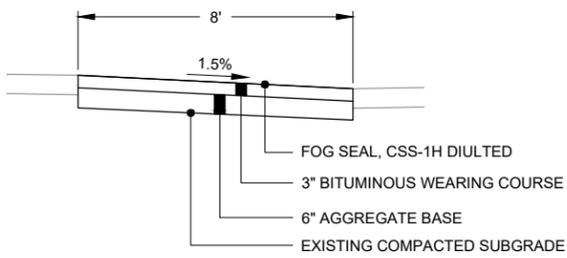


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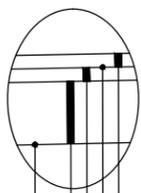
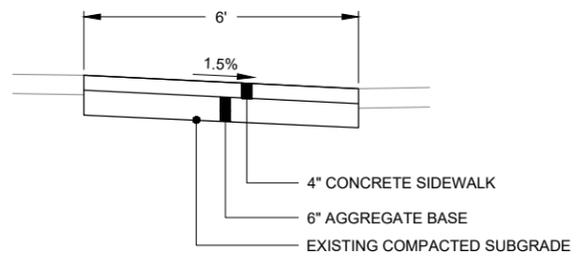
**TYPICAL SECTION  
PROPOSED BITUMINOUS EDGE MILL AND OVERLAY  
JADE ROAD**



**TYPICAL SECTION  
PROPOSED BITUMINOUS TRAIL  
BAKER ST E**

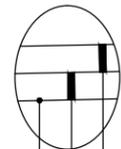


**TYPICAL SECTION  
PROPOSED CONCRETE SIDEWALK  
BAKER ST E**



**KLINFELTER PARK  
NEW PARKING AREA**

- 1.5" TYPE SP9.5 WEARING COURSE MIXTURE (SPWEA240C)
- BITUMINOUS TACK COAT
- 2" TYPE SP12.5 WEARING COURSE MIXTURE (SPWEB230C)
- 8" AGGREGATE BASE, CLASS V
- COMPACTED SUBGRADE



**PEDESTRIAN RAMP**

- 6" CONCRETE SIDEWALK
- 6" AGGREGATE BASE, MNDOT CLASS V ①
- COMPACTED SUBGRADE

NOTES: ① EXCAVATION OF EXISTING BASE MATERIALS IS INCIDENTAL TO CONSTRUCTION

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# Appendix A

Opinion of Probable Costs





2026 STREET IMPROVEMENTS  
CITY OF ST. JOSEPH, MINNESOTA  
SEH NO. STJOE 188782

PRELIMINARY OPINION OF PROBABLE COST

PRELIMINARY OPINION OF PROBABLE COST

NOTES	ITEM NO.	ITEM DESCRIPTION	UNIT	UNIT PRICE	HILL STREET W (32'-34' RECLAIM & REPAVE)		1ST AVENUE SW (32' STREET OVERLAY)		FOXMORE WAY (32' STREET OVERLAY)		2ND AVENUE SW (32' STREET OVERLAY)		2ND AVENUE SW (32'-34' RECLAIM & REPAVE)		3RD AVENUE SW (32'-34' RECLAIM & REPAVE)		IVERSON STREET W (36'-38' RECLAIM & REPAVE)		MORNINGSIDE LOOP (32'-34' RECLAIM & REPAVE)		TOTAL QUANTITY	TOTAL COST
					APPROXIMATE QUANTITY	COST	APPROXIMATE QUANTITY	COST	APPROXIMATE QUANTITY	COST	APPROXIMATE QUANTITY	COST	APPROXIMATE QUANTITY	COST	APPROXIMATE QUANTITY	COST	APPROXIMATE QUANTITY	COST	APPROXIMATE QUANTITY	COST		
<b>BASE BID GENERAL</b>																						
	1	MOBILIZATION	LUMP SUM	\$75,000.00	0.37	\$27,750.00	0.04	\$3,000.00	0.02	\$1,500.00	0.04	\$3,000.00	0.04	\$3,000.00	0.13	\$9,750.00	0.23	\$17,250.00	0.13	\$9,750.00	1.00	\$75,000.00
	2	TRAFFIC CONTROL	LUMP SUM	\$25,000.00	0.37	\$9,250.00	0.04	\$1,000.00	0.02	\$500.00	0.04	\$1,000.00	0.04	\$1,000.00	0.13	\$3,250.00	0.23	\$5,750.00	0.13	\$3,250.00	1.00	\$25,000.00
	3	REMOVE SIGN ASSEMBLY	EACH	\$25.00	11.00	\$275.00	1.00	\$25.00	2.00	\$50.00	1.00	\$25.00	1.00	\$25.00	2.00	\$50.00	9.00	\$225.00	6.00	\$150.00	33.00	\$825.00
	4	SALVAGE MAILBOX	EACH	\$125.00		\$0.00		\$0.00		\$0.00		\$0.00	6.00	\$750.00		\$0.00				6.00	\$750.00	
	5	REMOVE CONCRETE CURB & GUTTER	LIN FT	\$5.50	100.00	\$550.00	120.00	\$660.00	20.00	\$110.00	150.00	\$825.00	150.00	\$825.00		\$0.00	282.00	\$1,551.00	55.00	\$302.50	877.00	\$4,823.50
	6	REMOVE CONCRETE WALK	SQ YD	\$4.50	30.00	\$135.00	15.00	\$67.50		\$0.00		\$0.00		\$0.00		\$0.00	268.00	\$1,206.00			313.00	\$1,408.50
	7	REMOVE BITUMINOUS DRIVEWAY PAVEMENT	SQ YD	\$4.00	603.00	\$2,412.00		\$0.00		\$0.00	20.00	\$80.00	0.00	\$0.00		\$0.00					623.00	\$2,492.00
	8	REMOVE CONCRETE DRIVEWAY PAVEMENT	SQ YD	\$6.50	110.00	\$715.00		\$0.00		\$0.00	60.00	\$390.00	0.00	\$0.00	20.00	\$130.00					190.00	\$1,235.00
3	9	REMOVE GATE VALVE EXTENSION ROD	EACH	\$400.00	3.00	\$1,200.00	2.00	\$800.00	0.00	\$0.00	1.00	\$400.00	1.00	\$400.00		\$0.00	1.00	\$400.00	1.00	\$400.00	9.00	\$3,600.00
	10	SAWING BITUMINOUS PAVEMENT (FULL DEPTH)	LIN FT	\$3.50	700.00	\$2,450.00	65.00	\$227.50		\$0.00		\$0.00	28.00	\$98.00		\$0.00		\$0.00		\$0.00	793.00	\$2,775.50
	11	STABILIZED CONSTRUCTION EXIT	LUMP SUM	\$1,500.00	0.37	\$555.00	0.04	\$60.00	0.02	\$30.00	0.04	\$60.00	0.04	\$60.00	0.13	\$195.00	0.23	\$345.00	0.13	\$195.00	1.00	\$1,500.00
		<b>TOTAL</b>				<b>\$45,292.00</b>	<b>TOTAL</b>	<b>\$5,840.00</b>	<b>TOTAL</b>	<b>\$2,190.00</b>	<b>TOTAL</b>	<b>\$5,780.00</b>	<b>TOTAL</b>	<b>\$6,158.00</b>	<b>TOTAL</b>	<b>\$13,375.00</b>	<b>TOTAL</b>	<b>\$26,727.00</b>	<b>TOTAL</b>	<b>\$14,047.50</b>		<b>\$119,409.50</b>
<b>STREETS AND UTILITIES</b>																						
	12	MILL BITUMINOUS SURFACE	SQ YD	\$3.00		\$0.00	1,289.00	\$3,867.00	934.00	\$2,802.00	703.00	\$2,109.00		\$0.00							2,926.00	\$8,778.00
	13	FULL DEPTH RECLAMATION	SQ YD	\$1.50	8,373.00	\$12,559.50		\$0.00		\$0.00		\$0.00	968.00	\$1,452.00	4,060.00	\$6,090.00	5,197.00	\$7,795.50	3,764.00	\$5,646.00	22,362.00	\$33,543.00
2	14	COMMON EXCAVATION (LV)	CU YD	\$20.00		\$0.00	12.00	\$240.00	2.00	\$40.00		\$0.00	123.00	\$2,460.00		\$0.00	611.00	\$12,220.00	429.00	\$8,580.00	1,177.00	\$23,540.00
2	15	COMMON EMBANKMENT (CV)	CU YD	\$7.00		\$0.00	17.00	\$119.00	3.00	\$21.00		\$0.00	92.00	\$644.00		\$0.00	453.00	\$3,171.00	318.00	\$2,226.00	883.00	\$6,181.00
1	16	SUBGRADE EXCAVATION	CU YD	\$20.00	466.00	\$9,320.00		\$0.00		\$0.00		\$0.00	54.00	\$1,080.00	226.00	\$4,520.00	289.00	\$5,780.00	210.00	\$4,200.00	1,245.00	\$24,900.00
	17	SUBGRADE PREPARATION	ROAD STA	\$290.00	29.00	\$8,410.00		\$0.00		\$0.00		\$0.00	3.00	\$870.00	11.00	\$3,190.00	13.50	\$3,915.00	12.00	\$3,480.00	68.50	\$19,865.00
	18	WATER	MGAL	\$10.00	84.000	\$840.00		\$0.00		\$0.00	2.00	\$20.00	8.00	\$80.00	41.000	\$410.00	52.000	\$520.00	38.000	\$380.00	225.00	\$2,250.00
	19	BITUMINOUS DRIVEWAY PATCH-RESIDENTIAL	SQ YD	\$31.00	603.000	\$18,693.00		\$0.00		\$0.00	20.00	\$620.00	0.00	\$0.00	44.000	\$1,364.00					667.00	\$20,677.00
	20	BITUMINOUS DRIVEWAY PATCH-COMMERCIAL	SQ YD	\$44.00		\$0.00		\$0.00		\$0.00		\$0.00	0.00	\$0.00		\$0.00	194.000	\$8,536.00			194.00	\$8,536.00
	21	BITUMINOUS STREET PATCH	SQ YD	\$50.00		\$0.00	27.00	\$1,350.00	5.00	\$250.00		\$0.00	34.00	\$1,700.00		\$0.00					66.00	\$3,300.00
	22	TYPE SP 9.5 WEARING COURSE MIXTURE (SPWEA340C)	TON	\$89.00	1,047.00	\$93,183.00	197.00	\$17,533.00	84.00	\$7,476.00	105.00	\$9,345.00	91.00	\$8,099.00	381.00	\$33,909.00	488.00	\$43,432.00	353.00	\$31,417.00	2,746.00	\$244,394.00
	23	TYPE SP 12.5 WEARING COURSE MIXTURE (SPWEB330C)	TON	\$89.00	1,047.00	\$93,183.00		\$0.00		\$0.00		\$0.00	121.00	\$10,769.00	508.00	\$45,212.00	650.00	\$57,850.00	471.00	\$41,919.00	2,797.00	\$248,933.00
	24	BITUMINOUS MATERIAL FOR TACK COAT	GAL	\$2.50	587.00	\$1,467.50	147.00	\$367.50	63.00	\$157.50	79.00	\$197.50	68.00	\$170.00	285.00	\$712.50	364.00	\$910.00	264.00	\$660.00	1,857.00	\$4,642.50
	25	TOPSOIL SHOULDERING (LV)	CU YD	\$30.00	645.00	\$19,350.00		\$0.00		\$0.00		\$0.00		\$0.00	245.00	\$7,350.00					890.00	\$26,700.00
4	26	AGGREGATE SURFACING (CV)	CU YD	\$60.00	18.00	\$1,080.00		\$0.00		\$0.00		\$0.00		\$0.00	17.00	\$1,020.00					35.00	\$2,100.00
1	27	AGGREGATE BASE CLASS 5 (CV)	CU YD	\$32.00	280.00	\$8,960.00		\$0.00		\$0.00		\$0.00	33.00	\$1,056.00	156.00	\$4,992.00	194.00	\$6,208.00	146.00	\$4,672.00	809.00	\$25,888.00
	28	CASTING ASSEMBLY	EACH	\$1,500.00	4.00	\$6,000.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00			1.00	\$1,500.00	5.00	\$7,500.00
	29	4" PVC PIPE SEWER	LIN FT	\$35.00		\$0.00		\$0.00		\$0.00	280.00	\$9,800.00		\$0.00		\$0.00					280.00	\$9,800.00
	30	SUMP PUMP DRAIN LINE SERVICE	EACH	\$800.00		\$0.00		\$0.00		\$0.00	4.00	\$3,200.00		\$0.00		\$0.00					4.00	\$3,200.00
1	31	CONNECT TO EXISTING SUMP PUMP SERVICE	EACH	\$200.00		\$0.00		\$0.00		\$0.00	4.00	\$800.00		\$0.00		\$0.00					4.00	\$800.00
	32	RANDOM RIPRAP CLASS II	CU YD	\$150.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00			7.00	\$1,050.00	7.00	\$1,050.00
	33	4" CONCRETE WALK W/ SAND BEDDING	SQ FT	\$9.00	200.00	\$1,800.00	80.00	\$720.00		\$0.00		\$0.00		\$0.00		\$0.00	1,972.00	\$17,748.00			2,252.00	\$20,268.00
	34	6" CONCRETE WALK	SQ FT	\$15.00	120.00	\$1,800.00	60.00	\$900.00		\$0.00		\$0.00		\$0.00		\$0.00	640.00	\$9,600.00			820.00	\$12,300.00
	35	CONCRETE DRIVEWAY PAVEMENT	SQ YD	\$100.00	110.00	\$11,000.00		\$0.00		\$0.00	60.00	\$6,000.00		\$0.00	20.00	\$2,000.00					190.00	\$19,000.00
	36	TRUNCATED DOMES	SQ FT	\$58.00	24.00	\$1,392.00	12.00	\$696.00		\$0.00		\$0.00		\$0.00		\$0.00					36.00	\$2,088.00
	37	CONCRETE CURB & GUTTER, DESIGN B618	LIN FT	\$39.00	100.00	\$3,900.00	120.00	\$4,680.00	20.00	\$780.00		\$0.00	150.00	\$5,850.00		\$0.00	282.00	\$10,998.00	55.00	\$2,145.00	727.00	\$28,353.00
	38	CONCRETE VALLEY GUTTER	LIN FT	\$70.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	124.00	\$8,680.00			124.00	\$8,680.00
	39	SAW AND SEAL CONCRETE CURB AND GUTTER CRACK	EACH	\$50.00		\$0.00	6.00	\$300.00	4.00	\$200.00	5.00	\$250.00	2.00	\$100.00		\$0.00	10.00	\$500.00	10.00	\$500.00	37.00	\$1,850.00
	40	CHIMNEY SEAL	EACH	\$350.00	0.00	\$0.00	0.00	\$0.00	0.00	\$0.00	0.00	\$0.00	0.00	\$0.00	4.00	\$1,400.00	9.00	\$3,150.00	9.00	\$3,150.00	22.00	\$7,700.00
5	41	F&I PAVING RING(MANHOLE)	EACH	\$300.00		\$0.00	4.00	\$1,200.00	3.00	\$900.00	2.00	\$600.00		\$0.00		\$0.00					9.00	\$2,700.00
	42	ADJUST FRAME & RING CASTING	EACH	\$620.00	8.00	\$4,960.00	1.00	\$620.00		\$0.00	0.00	\$0.00	1.00	\$620.00	4.00	\$2,480.00	9.00	\$5,580.00	9.00	\$5,580.00	32.00	\$19,840.00



2026 STREET IMPROVEMENTS  
CITY OF ST. JOSEPH, MINNESOTA  
SEH NO. STJOE 188782

PRELIMINARY OPINION OF PROBABLE COST

PRELIMINARY OPINION OF PROBABLE COST

NOTES	ITEM NO.	ITEM DESCRIPTION	UNIT	UNIT PRICE	HILL STREET W (32'-34' RECLAIM & REPAVE)		1ST AVENUE SW (32' STREET OVERLAY)		FOXMORE WAY (32' STREET OVERLAY)		2ND AVENUE SW (32' STREET OVERLAY)		2ND AVENUE SW (32'-34' RECLAIM & REPAVE)		3RD AVENUE SW (32'-34' RECLAIM & REPAVE)		IVERSON STREET W (36'-38' RECLAIM & REPAVE)		MORNINGSIDE LOOP (32'-34' RECLAIM & REPAVE)		TOTAL	TOTAL COST		
					APPROXIMATE QUANTITY	COST	APPROXIMATE QUANTITY	COST	APPROXIMATE QUANTITY	COST	APPROXIMATE QUANTITY	COST	APPROXIMATE QUANTITY	COST	APPROXIMATE QUANTITY	COST	APPROXIMATE QUANTITY	COST	APPROXIMATE QUANTITY	COST	APPROXIMATE QUANTITY	COST	APPROXIMATE QUANTITY	COST
5	43	F&I PAVING RING(GATE VALVE)	EACH	\$150.00		\$0.00	2.00	\$300.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		2.00	\$300.00	
	44	ADJUST GATE VALVE BOX-TOP SECTION	EACH	\$300.00	2.00	\$600.00	2.00	\$600.00		\$0.00		\$0.00		\$0.00		\$0.00		\$300.00	1.00	\$300.00	1.00	\$300.00	6.00	\$1,800.00
	45	ADJUST GATE VALVE BOX-ALL SECTIONS	EACH	\$1,600.00	1.00	\$1,600.00	0.00	\$0.00		\$0.00		\$0.00	1.00	\$1,600.00		\$0.00		\$0.00		\$0.00	1.00	\$1,600.00	3.00	\$4,800.00
3	46	F & I GATE VALVE BOX EXTENSION ROD	EACH	\$200.00	3.00	\$600.00	4.00	\$800.00		\$0.00		\$0.00	1.00	\$200.00		\$0.00		\$200.00	1.00	\$200.00	2.00	\$400.00	11.00	\$2,200.00
	47	24" SOLID LINE MULTI COMP GR IN	LIN FT	\$21.25	20.00	\$425.04	0.00	\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$425.04	20.00	\$425.04		\$0.00	40.00	\$850.08
	48	PAVT MSSG-CROSSWALK MULTI COMP GR IN	SQ YD	\$115.00	15.00	\$1,725.00	0.00	\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$1,150.00	10.00	\$1,150.00		\$0.00	25.00	\$2,875.00
	49	F&I SIGN PANELS TYPE C	SQ FT	\$65.00	58.00	\$3,770.00	6.25	\$406.25	0.00	\$0.00		\$0.00	6.25	\$406.25	7.00	\$455.00		\$2,080.00	32.00	\$2,080.00	13.00	\$845.00	122.50	\$7,962.50
	50	F&I STREET NAME SIGN ASSEMBLY	EACH	\$300.00	5.00	\$1,500.00	1.00	\$300.00	2.00	\$600.00		\$0.00	1.00	\$300.00		\$0.00		\$600.00	2.00	\$600.00	2.00	\$600.00	13.00	\$3,900.00
	51	INSTALL MAILBOX	EACH	\$300.00		\$0.00		\$0.00		\$0.00		\$0.00	6.00	\$1,800.00		\$0.00		\$0.00		\$0.00		\$0.00	6.00	\$1,800.00
	52	STREET SWEEPING TYPE WET PICKUP	HOUR	\$65.00	10.00	\$650.00	3.00	\$195.00	1.00	\$65.00		\$130.00	2.00	\$130.00	1.00	\$65.00	5.00	\$325.00	6.00	\$390.00	4.00	\$260.00	32.00	\$2,080.00
		<b>TOTAL</b>			<b>\$308,768.04</b>	<b>\$35,193.75</b>	<b>\$13,291.50</b>	<b>\$33,071.50</b>	<b>\$39,321.25</b>	<b>\$115,429.50</b>	<b>\$211,738.54</b>	<b>\$121,110.00</b>	<b>\$877,924.08</b>											
<b>TURF RESTORATION</b>																								
	53	STORM DRAIN INLET PROTECTION	EACH	\$150.00	2.00	\$300.00	5.00	\$750.00	2.00	\$300.00	4.00	\$600.00	2.00	\$300.00	2.00	\$300.00	8.00	\$1,200.00	6.00	\$900.00	6.00	\$900.00	31.00	\$4,650.00
	54	COMMON TOPSOIL BORROW (LV)	CU YD	\$45.00	211.00	\$9,495.00	17.00	\$765.00	9.00	\$405.00	0.00	\$0.00	17.00	\$765.00		\$0.00	25.00	\$1,125.00	9.00	\$405.00	9.00	\$405.00	288.00	\$12,960.00
	55	SEEDING	ACRE	\$1,900.00	0.55	\$1,045.00	0.02	\$38.00	0.01	\$19.00	0.00	\$0.00	0.02	\$38.00	0.13	\$247.00	0.03	\$57.00	0.01	\$19.00	0.01	\$19.00	0.77	\$1,463.00
	56	SEED MIXTURE 25-151	POUND	\$9.00	220.00	\$1,980.00	8.00	\$72.00	4.00	\$36.00	0.00	\$0.00	8.00	\$72.00	52.00	\$468.00	12.00	\$108.00	4.00	\$36.00	4.00	\$36.00	308.00	\$2,772.00
	57	HYDRAULIC MATRIX TYPE BFM	POUND	\$2.00	1,925.00	\$3,850.00	70.00	\$140.00	35.00	\$70.00	0.00	\$0.00	70.00	\$140.00	455.00	\$910.00	105.00	\$210.00	35.00	\$70.00	35.00	\$70.00	2,695.00	\$5,390.00
	58	FERTILIZER TYPE 22-5-10	POUND	\$2.00	193.00	\$386.00	7.00	\$14.00	4.00	\$8.00	0.00	\$0.00	7.00	\$14.00	46.00	\$92.00	11.00	\$22.00	4.00	\$8.00	4.00	\$8.00	272.00	\$544.00
		<b>TOTAL</b>			<b>\$17,056.00</b>	<b>\$1,779.00</b>	<b>\$838.00</b>	<b>\$600.00</b>	<b>\$1,329.00</b>	<b>\$2,017.00</b>	<b>\$2,722.00</b>	<b>\$1,438.00</b>	<b>\$27,779.00</b>											
		<b>TOTAL BASE BID</b>			<b>\$371,116.04</b>	<b>\$42,812.75</b>	<b>\$16,319.50</b>	<b>\$39,451.50</b>	<b>\$46,808.25</b>	<b>\$130,821.50</b>	<b>\$241,187.54</b>	<b>\$136,595.50</b>	<b>\$1,025,112.58</b>											
<b>SUMMARY</b>																								
		<b>TOTAL BASE BID</b>			<b>\$371,100.00</b>	<b>\$42,800.00</b>	<b>\$16,300.00</b>	<b>\$39,500.00</b>	<b>\$46,800.00</b>	<b>\$130,800.00</b>	<b>\$241,200.00</b>	<b>\$136,600.00</b>	<b>\$1,025,100.00</b>											
		CONTINGENCY			\$37,110.00	\$4,280.00	\$1,630.00	\$3,950.00	\$4,680.00	\$13,080.00	\$24,120.00	\$13,660.00	\$102,500.00											
1		DISCRETIONARY QUANTITY TO BE USED AS DIRECTED BY ENGINEER.			FEASIBILITY REPORT	\$4,400.00	\$500.00	\$200.00	\$500.00	\$600.00	\$1,500.00	\$2,800.00	\$1,600.00	\$11,900.00										
2		QUANTITY INCLUDES TOPSOIL AND EXCESS RECLAIM MATERIAL USED TO FILL SUBGRADE EX AREAS, OR HAULED OFFSITE.			DESIGN AND CONSTRUCTION	\$52,000.00	\$6,000.00	\$2,300.00	\$5,500.00	\$6,600.00	\$18,300.00	\$33,800.00	\$19,100.00	\$143,600.00										
					SOIL BORINGS																			
3		EXCAVATION, AS NECESSARY, SHALL BE INCIDENTAL.			LEGAL, FISCAL, AND ADMINISTRATIVE	\$29,700.00	\$3,400.00	\$1,300.00	\$3,200.00	\$3,700.00	\$10,500.00	\$19,300.00	\$10,900.00	\$82,100.00										
4		MATCH EXISTING DRIVEWAY MATERIAL, INCIDENTAL.			<b>GRAND TOTAL</b>	<b>\$494,310.00</b>	<b>\$56,980.00</b>	<b>\$21,730.00</b>	<b>\$52,650.00</b>	<b>\$62,380.00</b>	<b>\$174,180.00</b>	<b>\$321,220.00</b>	<b>\$181,860.00</b>	<b>\$1,365,200.00</b>										
5		EDGE MILL AND OVERLAY STREETS ONLY.																						



PRELIMINARY OPINION OF PROBABLE COST

NOTES	ITEM NO.	ITEM DESCRIPTION	UNIT	UNIT PRICE	HILL STREET W		3RD AVENUE SW		IVERSON STREET W		MORNINGSIDE LOOP		TOTAL QUANTITY	TOTAL COST
					APPROXIMATE QUANTITY	COST								
<b>BASE BID GENERAL</b>														
	1	MOBILIZATION	LUMP SUM	\$110,000.00	0.25	\$27,500.00	0.29	\$31,900.00	0.25	\$27,500.00	0.21	\$23,100.00	1.00	\$110,000.00
	2	REMOVE SIGN ASSEMBLY	EACH	\$25.00	15.00	\$375.00	2.00	\$50.00	9.00	\$225.00	6.00	\$150.00	32.00	\$800.00
	3	SALVAGE MAILBOX	EACH	\$125.00	6.00	\$750.00	0.00	\$0.00	0.00	\$0.00	0.00	\$0.00	6.00	\$750.00
	4	REMOVE CONCRETE CURB & GUTTER	LIN FT	\$5.50	70.00	\$385.00	0.00	\$0.00	1,375.00	\$7,562.50	1,180.00	\$6,490.00	2,625.00	\$14,437.50
	5	REMOVE CONCRETE WALK	SQ YD	\$4.50	0.00	\$0.00	45.00	\$202.50	185.00	\$832.50	0.00	\$0.00	230.00	\$1,035.00
	6	REMOVE WATERMAIN	LIN FT	\$2.00	1,440.00	\$2,880.00	2,480.00	\$4,960.00	1,410.00	\$2,820.00	1,270.00	\$2,540.00	6,600.00	\$13,200.00
	7	REMOVE HYDRANT	EACH	\$250.00	4.00	\$1,000.00	3.00	\$750.00	4.00	\$1,000.00	4.00	\$1,000.00	15.00	\$3,750.00
	8	REMOVE GATE VALVE & BOX	EACH	\$200.00	5.00	\$1,000.00	9.00	\$1,800.00	10.00	\$2,000.00	7.00	\$1,400.00	31.00	\$6,200.00
	9	STABILIZED CONSTRUCTION EXIT	LUMP SUM	\$1,500.00	0.00	\$0.00	0.50	\$750.00	0.50	\$750.00	0.00	\$0.00	1.00	\$1,500.00
	10	DEWATERING	LUMP SUM	\$20,000.00	1.00	\$20,000.00	0.00	\$0.00	0.00	\$0.00	0.00	\$0.00	1.00	\$20,000.00
		<b>TOTAL</b>				<b>\$33,890.00</b>		<b>\$40,412.50</b>		<b>\$42,690.00</b>		<b>\$34,680.00</b>		<b>\$171,672.50</b>
<b>STREETS AND UTILITIES</b>														
	13	COMMON EXCAVATION	CU YD	\$20.00	3,316.00	\$66,320.00	1,608.00	\$32,160.00	2,058.00	\$41,160.00	1,491.00	\$29,820.00	8,473.00	\$169,460.00
	14	SUBGRADE EXCAVATION	CU YD	\$20.00	466.00	\$9,320.00	226.00	\$4,520.00	289.00	\$5,780.00	210.00	\$4,200.00	1,191.00	\$23,820.00
	15	WATER	MGAL	\$10.00	84.000	\$840.00	41.000	\$410.00	52.000	\$520.00	38.000	\$380.00	215.00	\$2,150.00
	16	SELECT GRANULAR EMBANKMENT (CV)	CU YD	\$20.00	4,187.00	\$83,740.00	2,030.00	\$40,600.00	436.00	\$8,720.00	1,800.00	\$36,000.00	8,453.00	\$169,060.00
	17	AGGREGATE SURFACING (CV)	CU YD	\$60.00	18.00	\$1,080.00	17.00	\$1,020.00	0.00	\$0.00	0.00	\$0.00	35.00	\$2,100.00
	18	AGGREGATE BASE CLASS 5 (CV)	CU YD	\$32.00	1,396.00	\$44,672.00	677.00	\$21,664.00	1,733.00	\$55,456.00	1,000.00	\$32,000.00	4,806.00	\$153,792.00
	19	CASTING ASSEMBLY	EACH	\$1,350.00	2.00	\$2,700.00	2.00	\$2,700.00	0.00	\$0.00	2.00	\$2,700.00	6.00	\$8,100.00
	20	4" PVC PIPE SEWER	LIN FT	\$14.00	0.00	\$0.00	0.00	\$0.00	450.00	\$6,300.00	900.00	\$12,600.00	1,350.00	\$18,900.00
	21	CONNECT TO EXISTING WATERMAIN	EACH	\$3,975.00	0.00	\$0.00	1.00	\$3,975.00	5.00	\$19,875.00	0.00	\$0.00	6.00	\$23,850.00
	22	HYDRANT	EACH	\$6,900.00	4.00	\$27,600.00	3.00	\$20,700.00	4.00	\$27,600.00	4.00	\$27,600.00	15.00	\$103,500.00
	23	6" GATE VALVE & BOX	EACH	\$2,100.00	4.00	\$8,400.00	3.00	\$6,300.00	4.00	\$8,400.00	4.00	\$8,400.00	15.00	\$31,500.00
	24	8" GATE VALVE & BOX	EACH	\$2,100.00	1.00	\$2,100.00	0.00	\$0.00	0.00	\$0.00	3.00	\$6,300.00	4.00	\$8,400.00
	25	10" GATE VALVE & BOX	EACH	\$5,000.00	0.00	\$0.00	6.00	\$30,000.00	6.00	\$30,000.00	0.00	\$0.00	12.00	\$60,000.00
	26	6" PVC WATERMAIN	LIN FT	\$70.00	75.00	\$5,250.00	60.00	\$4,200.00	60.00	\$4,200.00	80.00	\$5,600.00	275.00	\$19,250.00
	27	8" PVC WATERMAIN	LIN FT	\$85.00	1,370.00	\$116,450.00	0.00	\$0.00	0.00	\$0.00	1,190.00	\$101,150.00	2,560.00	\$217,600.00
	28	10" PVC WATERMAIN	LIN FT	\$110.00	0.00	\$0.00	2,420.00	\$266,200.00	1,350.00	\$148,500.00	0.00	\$0.00	3,770.00	\$414,700.00
	29	DUCTILE IRON FITTINGS	POUND	\$10.50	250.00	\$2,625.00	1,215.00	\$12,757.50	1,100.00	\$11,550.00	400.00	\$4,200.00	2,965.00	\$31,132.50
	30	1" CORP STOP	EACH	\$350.00	15.00	\$5,250.00	23.00	\$8,050.00	6.00	\$2,100.00	26.00	\$9,100.00	70.00	\$24,500.00
	31	1" WATER SERVICE PIPE	LIN FT	\$50.00	495.00	\$24,750.00	759.00	\$37,950.00	198.00	\$9,900.00	858.00	\$42,900.00	2,310.00	\$115,500.00
	32	CONNECT TO EXISTING WATER SERVICE	EACH	\$250.00	15.00	\$3,750.00	23.00	\$5,750.00	6.00	\$1,500.00	26.00	\$6,500.00	70.00	\$17,500.00
	33	6" CONCRETE WALK	SQ FT	\$15.00	0.00	\$0.00	400.00	\$6,000.00	0.00	\$0.00	0.00	\$0.00	400.00	\$6,000.00
	34	CONCRETE CURB & GUTTER, DESIGN B618	LIN FT	\$27.00	70.00	\$1,890.00	0.00	\$0.00	1,473.00	\$39,771.00	1,350.00	\$36,450.00	2,893.00	\$78,111.00
	35	STREET SWEEPING TYPE WET PICKUP	HOURL	\$65.00	9.00	\$585.00	5.00	\$325.00	6.00	\$390.00	4.00	\$260.00	24.00	\$1,560.00
		<b>TOTAL</b>				<b>\$407,322.00</b>		<b>\$505,281.50</b>		<b>\$421,722.00</b>		<b>\$366,160.00</b>		<b>\$1,700,485.50</b>
		<b>TOTAL BASE BID</b>				<b>\$441,212.00</b>		<b>\$545,694.00</b>		<b>\$464,412.00</b>		<b>\$400,840.00</b>		<b>\$1,872,158.00</b>
<b>SUMMARY</b>														
		<b>TOTAL BASE BID</b>				<b>\$441,200.00</b>		<b>\$545,700.00</b>		<b>\$464,400.00</b>		<b>\$400,800.00</b>		<b>\$1,872,200.00</b>
		CONTINGENCY				\$66,180.00		\$81,855.00		\$69,660.00		\$60,120.00		\$280,800.00
		DESIGN AND CONSTRUCTION				\$61,800.00		\$76,400.00		\$65,000.00		\$56,100.00		\$262,200.00
		SOIL BORINGS												
		LEGAL, FISCAL, AND ADMINISTRATIVE				\$35,300.00		\$43,700.00		\$37,200.00		\$32,100.00		\$149,800.00
		<b>GRAND TOTAL</b>				<b>\$604,480.00</b>		<b>\$747,655.00</b>		<b>\$636,260.00</b>		<b>\$549,120.00</b>		<b>\$2,565,000.00</b>

# Appendix B

Preliminary Assessment Worksheets



PRELIMINARY SPECIAL ASSESSMENT WORKSHEET

2026 STREET IMPROVEMENTS - NORTHLAND HEIGHTS  
ST. JOSEPH, MINNESOTA  
STJOE 188782

PRELIMINARY SPECIAL ASSESSMENT RATES  
32' wide street overlay \$27.86 /L/F  
36' wide street overlay \$36.78 /L/F

12/12/2025

ITEM NO.	PARCEL ID NO.	PROPERTY DESCRIPTION	PROPERTY OWNER	PROPERTY ADDRESS	MAILING ADDRESS	PLATTED ABUTTING FOOTAGE		32' WIDE STREET OVERLAY ADJUSTED FOOTAGE			36' WIDE STREET OVERLAY ADJUSTED FOOTAGE			SPECIAL ASSESSMENTS		TOTAL ASSESSMENT	
						LONG SIDE	SHORT SIDE	LONG SIDE	SHORT SIDE	ASSESSED FOOTAGE	LONG SIDE	SHORT SIDE	ASSESSED FOOTAGE	32' OVERLAY	36' OVERLAY		
53	84.53736.0038	LOT 005 BLK 003 NORTHLAND HEIGHTS SECTION 03 TOWNSHIP 124 RANGE 029	ANDREA M REDEZTKE	1012 13TH AVE NE ST JOSEPH MN 56374	1012 13TH AVE NE ST JOSEPH MN 56374		47.29		47.29	47.29			0.00	\$1,317.50		\$1,317.50	
54	84.53736.0039	LOT 006 BLK 003 NORTHLAND HEIGHTS SECTION 03 TOWNSHIP 124 RANGE 029	JULIE A KRAUS	1014 13TH AVE NE ST JOSEPH MN 56374	1014 13TH AVE NE SAINT JOSEPH MN 56374		46.23		46.23	46.23			0.00	\$1,287.97		\$1,287.97	
55	84.53736.0040	LOT 007 BLK 003 NORTHLAND HEIGHTS SECTION 03 TOWNSHIP 124 RANGE 029	LACEY E SOLHEID	1016 13TH AVE NE ST JOSEPH MN 56374	1016 13TH AVE NE SAINT JOSEPH MN 56374		46.05		46.05	46.05			0.00	\$1,282.95		\$1,282.95	
56	84.53736.0041	LOT 008 BLK 003 NORTHLAND HEIGHTS SECTION 03 TOWNSHIP 124 RANGE 029	THOMAS J DOSCH	1020 13TH AVE NE ST JOSEPH MN 56374	1020 13TH AVE NE SAINT JOSEPH MN 56374		50.85		50.85	50.85			0.00	\$1,416.68		\$1,416.68	
57	84.53736.0042	LOT 009 BLK 003 NORTHLAND HEIGHTS SECTION 03 TOWNSHIP 124 RANGE 029	LUMBER ONE DEVELOPMENT CO LLC	1022 13TH AVE NE ST JOSEPH MN 56374	PO BOX 7 AVON MN 56310		51.85		51.85	51.85			0.00	\$1,444.54		\$1,444.54	
58	84.53736.0043	LOT 010 BLK 003 NORTHLAND HEIGHTS SECTION 03 TOWNSHIP 124 RANGE 029	LUMBER ONE DEVELOPMENT CO LLC	1024 13TH AVE NE ST JOSEPH MN 56374	PO BOX 7 AVON MN 56310		56.09		56.09	56.09			0.00	\$1,562.67		\$1,562.67	
59	84.53736.0044	LOT 011 BLK 003 NORTHLAND HEIGHTS SECTION 03 TOWNSHIP 124 RANGE 029	LUMBER ONE DEVELOPMENT CO LLC	1026 13TH AVE NE ST JOSEPH MN 56374	PO BOX 7 AVON MN 56310		55.77		55.77	55.77			0.00	\$1,553.75		\$1,553.75	
60	84.53736.0045	LOT 012 BLK 003 NORTHLAND HEIGHTS SECTION 03 TOWNSHIP 124 RANGE 029	LUMBER ONE DEVELOPMENT CO LLC	1028 13TH AVE NE ST JOSEPH MN 56374	PO BOX 7 AVON MN 56310		49.02		49.02	49.02			0.00	\$1,365.70		\$1,365.70	
61	84.53736.0046	LOT 013 BLK 003 NORTHLAND HEIGHTS SECTION 03 TOWNSHIP 124 RANGE 029	NICHOLAS R PETERSON	1030 13TH AVE NE ST JOSEPH MN 56374	1030 13TH AVE NE SAINT JOSEPH MN 56374		50.59		50.59	50.59			0.00	\$1,409.44		\$1,409.44	
62	84.53736.0047	LOT 014 BLK 003 NORTHLAND HEIGHTS SECTION 03 TOWNSHIP 124 RANGE 029	LUMBER ONE AVON INC	1032 13TH AVE NE ST JOSEPH MN 56374	PO BOX 7 AVON MN 56310		52.14		52.14	52.14			0.00	\$1,452.62		\$1,452.62	
63	84.53736.0048	LOT 015 BLK 003 NORTHLAND HEIGHTS SECTION 03 TOWNSHIP 124 RANGE 029	LUMBER ONE DEVELOPMENT CO LLC	1034 13TH AVE NE ST JOSEPH MN 56374	PO BOX 7 AVON MN 56310		82.41		53.17	53.17			0.00	\$1,481.32		\$1,481.32	
64	84.53736.0049	LOT 016 BLK 003 NORTHLAND HEIGHTS SECTION 03 TOWNSHIP 124 RANGE 029	LUMBER ONE DEVELOPMENT CO LLC	941 14TH AVE NE ST JOSEPH MN 56374	PO BOX 7 AVON MN 56310		83.72		48.63	48.63			0.00	\$1,354.83		\$1,354.83	
65	84.53736.0050	LOT 017 BLK 003 NORTHLAND HEIGHTS SECTION 03 TOWNSHIP 124 RANGE 029	LUMBER ONE DEVELOPMENT CO LLC	929 14TH AVE NE ST JOSEPH MN 56374	PO BOX 7 AVON MN 56310		84.04		49.44	49.44			0.00	\$1,377.40		\$1,377.40	
66	84.53736.0051	LOT 018 BLK 003 NORTHLAND HEIGHTS SECTION 03 TOWNSHIP 124 RANGE 029	LUMBER ONE DEVELOPMENT CO LLC	917 14TH AVE NE ST JOSEPH MN 56374	PO BOX 7 AVON MN 56310		84.27		58.33	58.33			0.00	\$1,625.07		\$1,625.07	
67	84.53736.0052	LOT 019 BLK 003 NORTHLAND HEIGHTS SECTION 03 TOWNSHIP 124 RANGE 029	LUMBER ONE DEVELOPMENT CO LLC	911 14TH AVE NE ST JOSEPH MN 56374	PO BOX 7 AVON MN 56310	142.17	78.36	71.09	78.36	149.25			0.00	\$4,163.54		\$4,163.54	
68	84.53736.0053	LOT 020 BLK 003 NORTHLAND HEIGHTS SECTION 03 TOWNSHIP 124 RANGE 029	NICHOLAS L S HATHAWAY	1335 JASMINE LN ST JOSEPH MN 56374	1335 JASMINE LN NE SAINT JOSEPH MN 56374		74.99		74.99	74.99			0.00	\$2,089.22		\$2,089.22	
69	84.53736.0054	LOT 021 BLK 003 NORTHLAND HEIGHTS SECTION 03 TOWNSHIP 124 RANGE 029	LUMBER ONE DEVELOPMENT CO LLC	1331 JASMINE LN ST JOSEPH MN 56374	PO BOX 7 AVON MN 56310		72.45		72.45	72.45			0.00	\$2,018.46		\$2,018.46	
70	84.53736.0091	LOTS 22 & 23 BLK 3 NORTHLAND HEIGHTS SECTION 03 TOWNSHIP 124 RANGE 029	SHARON FINKEN	1327 JASMINE LN ST JOSEPH MN 56374	1327 JASMINE LN SAINT JOSEPH MN 56374		150.89		150.89	150.89			0.00	\$4,203.80		\$4,203.80	
71	84.53736.0057	LOT 024 BLK 003 NORTHLAND HEIGHTS SECTION 03 TOWNSHIP 124 RANGE 029	FRONTIER LAND LLC	1319 JASMINE LN ST JOSEPH MN 56374	17207 19TH AVE NW BIG LAKE MN 55309		60.28		60.28	60.28			0.00	\$1,679.40		\$1,679.40	
72	84.53736.0058	LOT 025 BLK 003 NORTHLAND HEIGHTS SECTION 03 TOWNSHIP 124 RANGE 029	BENJAMIN J LANNERS	1315 JASMINE LN ST JOSEPH MN 56374	1315 JASMINE LN E SAINT JOSEPH MN 56374		91.39		91.39	91.39			0.00	\$2,546.13		\$2,546.13	
73	84.53736.0059	LOT 026 BLK 003 NORTHLAND HEIGHTS SECTION 03 TOWNSHIP 124 RANGE 029	WESTON KERZMAN	1311 JASMINE LN ST JOSEPH MN 56374	1311 JASMINE LN NE SAINT JOSEPH MN 56374		72.03		72.03	72.03			0.00	\$2,006.76		\$2,006.76	
74	84.53736.0060	LOT 027 BLK 003 NORTHLAND HEIGHTS SECTION 03 TOWNSHIP 124 RANGE 029	JACALYN VOIGT	1307 JASMINE LN ST JOSEPH MN 56374	1307 JASMINE LN NE SAINT JOSEPH MN 56374		73.34		73.34	73.34			0.00	\$2,043.25		\$2,043.25	
75	84.53736.0068	LOT 028 BLK 003 NORTHLAND HEIGHTS SECTION 03 TOWNSHIP 124 RANGE 029	ADAM J SAVOLAINEN	1304 JASMINE LN ST JOSEPH MN 56374	1304 JASMINE LN SAINT JOSEPH MN 56374	181.79	107.17	90.90	107.17	198.07			0.00	\$5,518.09		\$5,518.09	
76	84.53736.0069	LOT 006 BLK 004 NORTHLAND HEIGHTS SECTION 03 TOWNSHIP 124 RANGE 029	LUMBER ONE DEVELOPMENT CO LLC	1306 JASMINE LN ST JOSEPH MN 56374	PO BOX 7 AVON MN 56310		74.21		74.21	74.21			0.00	\$2,067.49		\$2,067.49	
77	84.53736.0070	LOT 007 BLK 004 NORTHLAND HEIGHTS SECTION 03 TOWNSHIP 124 RANGE 029	LUMBER ONE DEVELOPMENT CO LLC	1310 JASMINE LN ST JOSEPH MN 56374	PO BOX 7 AVON MN 56310		87.46		87.46	87.46			0.00	\$2,436.64		\$2,436.64	
78	84.53736.0071	LOT 008 BLK 004 NORTHLAND HEIGHTS SECTION 03 TOWNSHIP 124 RANGE 029	LUMBER ONE DEVELOPMENT CO LLC	1314 JASMINE LN ST JOSEPH MN 56374	PO BOX 7 AVON MN 56310		96.28		63.94	63.94			0.00	\$1,781.37		\$1,781.37	
79	84.53736.0072	LOT 009 BLK 004 NORTHLAND HEIGHTS SECTION 03 TOWNSHIP 124 RANGE 029	JORDAN MATHIASSEN	1316 JASMINE LN ST JOSEPH MN 56374	1316 JASMINE LN NE SAINT JOSEPH MN 56374		88.39		74.02	74.02			0.00	\$2,062.20		\$2,062.20	
80	84.53736.0073	LOT 010 BLK 004 NORTHLAND HEIGHTS SECTION 03 TOWNSHIP 124 RANGE 029	LUMBER ONE DEVELOPMENT CO LLC	1322 JASMINE LN ST JOSEPH MN 56374	PO BOX 7 AVON MN 56310		95.54		75.20	75.20			0.00	\$2,095.07		\$2,095.07	
81	84.53736.0074	LOT 011 BLK 004 NORTHLAND HEIGHTS SECTION 03 TOWNSHIP 124 RANGE 029	ADAM R RAFFERTY	1328 JASMINE LN ST JOSEPH MN 56374	1328 JASMINE LN SAINT JOSEPH MN 56374		104.07		79.80	79.80			0.00	\$2,223.23		\$2,223.23	
82	84.53736.0075	LOT 012 BLK 004 NORTHLAND HEIGHTS SECTION 03 TOWNSHIP 124 RANGE 029	MAUREEN D FINKEN	1334 JASMINE LN ST JOSEPH MN 56374	1338 JASMINE LN NE SAINT JOSEPH MN 56374		59.86		69.43	69.43			0.00	\$1,934.32		\$1,934.32	
83	84.53736.0076	LOT 013 BLK 004 NORTHLAND HEIGHTS SECTION 03 TOWNSHIP 124 RANGE 029	MAUREEN D FINKEN	1338 JASMINE LN ST JOSEPH MN 56374	1338 JASMINE LN NE SAINT JOSEPH MN 56374	192.39	134.33	96.20	96.20	96.20	67.17	67.17	0.00	\$2,679.99	\$2,470.33	\$5,150.32	
84	84.53736.0077	LOT 014 BLK 004 NORTHLAND HEIGHTS SECTION 03 TOWNSHIP 124 RANGE 029	LUMBER ONE DEVELOPMENT CO LLC	1325 IRIS LN ST JOSEPH MN 56374	PO BOX 7 AVON MN 56310		72.93		0.00	0.00	75.35	75.35	0.00	\$2,771.37		\$2,771.37	
85	84.53736.0078	LOT 015 BLK 004 NORTHLAND HEIGHTS SECTION 03 TOWNSHIP 124 RANGE 029	KLEIN BUILDERS INC	1317 IRIS LN ST JOSEPH MN 56374	15703 FRUIT FARM RD SAINT JOSEPH MN 56374		68.70		0.00	0.00	80.29	80.29	0.00	\$2,953.07		\$2,953.07	
86	84.53736.0079	LOT 016 BLK 004 NORTHLAND HEIGHTS SECTION 03 TOWNSHIP 124 RANGE 029	NOAH NORDMANN	1313 IRIS LN ST JOSEPH MN 56374	1313 IRIS LN SAINT JOSEPH MN 56374		88.05		0.00	0.00	88.05	88.05	0.00	\$3,238.48		\$3,238.48	
87	84.53736.0084	LOT 001 BLK 004 NORTHLAND HEIGHTS SECTION 03 TOWNSHIP 124 RANGE 029	JUSTIN & MICHELLE BEEHLER	1309 IRIS LN ST JOSEPH MN 56374	1309 IRIS LN SAINT JOSEPH MN 56374		97.41		0.00	0.00	97.41	97.41	0.00	\$3,582.74		\$3,582.74	
88	84.53736.0065	LOT 002 BLK 004 NORTHLAND HEIGHTS SECTION 03 TOWNSHIP 124 RANGE 029	KLEIN BUILDERS INC	1303 IRIS LN ST JOSEPH MN 56374	15703 FRUIT FARM RD SAINT JOSEPH MN 56374	154.10	131.54	77.09	77.09	77.09	131.54	131.54	0.00	\$2,147.73	\$4,838.04	\$6,985.77	
89	84.53736.0066	LOT 003 BLK 004 NORTHLAND HEIGHTS SECTION 03 TOWNSHIP 124 RANGE 029	LUMBER ONE DEVELOPMENT CO LLC	910 13TH AVE NE ST JOSEPH MN 56374	PO BOX 7 AVON MN 56310		87.23		87.23	87.23			0.00	\$2,430.23		\$2,430.23	
90	84.53736.0067	LOT 004 BLK 004 NORTHLAND HEIGHTS SECTION 03 TOWNSHIP 124 RANGE 029	ALEXANDER E BADE	914 13TH AVE NE ST JOSEPH MN 56374	914 13TH AVE NE SAINT JOSEPH MN 56374		92.31		92.31	92.31			0.00	\$2,571.76		\$2,571.76	
<b>TOTALS:</b>							<b>7345.57</b>	<b>6806.32</b>	<b>6911.56</b>	<b>5511.12</b>	<b>6073.27</b>	<b>1597.45</b>	<b>1208.80</b>	<b>1358.27</b>	<b>\$169,201.30</b>	<b>\$47,380.36</b>	<b>\$216,581.67</b>

X:\PT\STJOE\188782\proj-mgmt\25-cost-est\Assessment[S]\188782 PAW.xlsx\Rates



PRELIMINARY SPECIAL ASSESSMENT WORKSHEET

2026 STREET IMPROVEMENTS - BUETTNER BUSINESS PARK 2 & 3, TJ ADDITION, RENNIE ADDITION, AND WHITNEY WING ST. JOSEPH, MINNESOTA STJOE 188782

PRELIMINARY SPECIAL ASSESSMENT RATES 40' wide reclaim & repave \$70.59 /LF

12/12/2025

Table with 6 columns: ITEM NO., PARCEL ID NO., PROPERTY DESCRIPTION, PROPERTY OWNER, PROPERTY ADDRESS, MAILING ADDRESS. Contains 35 rows of property data.

Table with 2 columns: LONG SIDE, SHORT SIDE. Contains 35 rows of abutting footage data.

Table with 3 columns: LONG SIDE, SHORT SIDE, ASSESSED FOOTAGE. Contains 35 rows of 40' wide reclaim & repave adjusted footage data.

Table with 2 columns: 40' RECLAIM, TOTAL ASSESSMENT. Contains 35 rows of special assessment data.



**PRELIMINARY SPECIAL ASSESSMENT WORKSHEET**

2026 STREET IMPROVEMENTS - BUETTNER BUSINESS PARK 2 & 3, TJ ADDITION, RENNIE ADDITION, AND WHITNEY WING  
 ST. JOSEPH, MINNESOTA  
 STJOE 188782

**PRELIMINARY SPECIAL ASSESSMENT RATES**  
 40' wide reclaim & repave \$70.59 /LF

12/12/2025

ITEM NO.	PARCEL ID NO.	PROPERTY DESCRIPTION	PROPERTY OWNER	PROPERTY ADDRESS	MAILING ADDRESS
36	84.53794.0004	LOT 006 BLK 001 RENNIE ADD SECTION 11 TOWNSHIP 124 RANGE 029	R & R LANGE PROPERTIES LLC	717 19TH AVE NE ST JOSEPH MN 56374	48 3RD ST N WAITE PARK MN 56387
37	84.53794.0002	LOT 005 BLK 001 RENNIE ADD SECTION 11 TOWNSHIP 124 RANGE 029	R & R LANGE PROPERTIES LLC	725 19TH AVE NE ST JOSEPH MN 56374	48 3RD ST N WAITE PARK MN 56387
38	84.53794.0000	LOT 004 BLK 001 RENNIE ADD SECTION 11 TOWNSHIP 124 RANGE 029	R & R LANGE PROPERTIES LLC	731 19TH AVE NE ST JOSEPH MN 56374	48 3RD ST N WAITE PARK MN 56387
39	84.53800.0003	LOTS 2 & 3 BLOCK 1 T.J. ADD SECTION 02 TOWNSHIP 124 RANGE 029	ST JOE MINI-STORAGE LLC	819 19TH AVE NE ST JOSEPH MN 56374	PO BOX 639 SAINT JOSEPH MN 56374
40	84.53800.0000	LOT 001 BLK 001 T.J. ADD SECTION 02 TOWNSHIP 124 RANGE 029	VNT LLC	833 19TH AVE NE ST JOSEPH MN 56374	833 19TH AVE NE SAINT JOSEPH MN 56374

**TOTALS:**

PLATTED ABUTTING FOOTAGE	
LONG SIDE	SHORT SIDE
	105.00
	105.00
	105.02
498.00	
357.40	

**4654.85      6771.13**

40' WIDE RECLAIM & REPAVE ADJUSTED FOOTAGE		
LONG SIDE	SHORT SIDE	ASSESSED FOOTAGE
	105.00	105.00
	105.00	105.00
	105.02	105.02
498.00		498.00
357.40		357.40

**3606.54      6771.13      10377.67**

SPECIAL ASSESSMENTS	TOTAL ASSESSMENT
40' RECLAIM	
\$7,411.95	\$7,411.95
\$7,411.95	\$7,411.95
\$7,413.36	\$7,413.36
\$35,153.82	\$35,153.82
\$25,228.87	\$25,228.87

**\$732,559.73      \$732,559.73**

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**PRELIMINARY SPECIAL ASSESSMENT WORKSHEET**

2026 STREET IMPROVEMENTS - EASTERN PARK 1ST ADD, CLOVERDALE ESTATES & 2ND ADD, CLOVERDALE TOWNHOUSE ADD, CEDAR VILLAGE TOWNHOUSES  
 ST. JOSEPH, MINNESOTA  
 STJOE 188782

**PRELIMINARY SPECIAL ASSES**  
 36'-38' wide reclaim & repave

ITEM NO.	PARCEL ID NO.	PROPERTY DESCRIPTION	PROPERTY OWNER	PROPERTY ADDRESS	MAILING ADDRESS	PLATTED ABUTTING FOOTAGE		36'-38' WIDE RECLAIM & ADJUSTED FOOTAGE	
						LONG SIDE	SHORT SIDE	LONG SIDE	SHORT SIDE
1	84.53472.0032	LOT 002 BLK 004 CLOVERDALE ESTATES TO ST JOE SECTION 10 TOWNSHIP 124 RANGE 029	DANIEL T DICK	138 7TH AVE SE ST JOSEPH MN 56374	138 7TH AVE SE SAINT JOSEPH MN 56374	144.37		144.37	
2	84.53474.0082	LOT 001 BLK 006 CLOVERDALE ESTATES 2ND ADD SECTION 10 TOWNSHIP 124 RANGE 029	GARY LOXTERKAMP	129 8TH AVE SE ST JOSEPH MN 56374	129 8TH AVE SE SAINT JOSEPH MN 56374		110.00		110.00
3	84.53474.0048	LOT 001 BLK 005 CLOVERDALE ESTATES 2ND ADD SECTION 10 TOWNSHIP 124 RANGE 029	ADAM A LOMMEL	132 8TH AVE SE ST JOSEPH MN 56374	132 8TH AVE SE ST JOSEPH MN 56374	250.00		250.00	
4	84.53474.0080	LOT 017 BLK 005 CLOVERDALE ESTATES 2ND ADD SECTION 10 TOWNSHIP 124 RANGE 029	SHAWN D & SUSAN M WINTER	137 9TH AVE SE ST JOSEPH MN 56374	137 9TH AVE SE ST JOSEPH MN 56374	125.00		125.00	
5	84.53475.0080	AND UNDIVIDED 1/20 INTEREST IN LOT 1 BLK 6 CLOVERDALE TOWNHOUSE ADD SECTION 10 TOWNSHIP 124 RANGE 029	SANDRA L BOCK	126 9TH AVE SE ST JOSEPH MN 56374	126 9TH AVE SE ST JOSEPH MN 56374		125.00		
5A	84.53475.0090	AND UNDIVIDED 1/20 INTEREST IN LOT 1 BLK 6 CLOVERDALE TOWNHOUSE ADD SECTION 10 TOWNSHIP 124 RANGE 029	LISA R WURZBERGER	146 9TH AVE SE ST JOSEPH MN 56374	146 9TH AVE SE SAINT JOSEPH MN 56374		6.25		6.25
5B	84.53475.0089	AND UNDIVIDED 1/20 INTEREST IN LOT 1 BLK 6 CLOVERDALE TOWNHOUSE ADD SECTION 10 TOWNSHIP 124 RANGE 029	MEGHAN SCHNEIDER	144 9TH AVE SE ST JOSEPH MN 56374	144 9TH AVE SE SAINT JOSEPH MN 56374		6.25		6.25
5C	84.53475.0088	AND UNDIVIDED 1/20 INTEREST IN LOT 1 BLK 6 CLOVERDALE TOWNHOUSE ADD SECTION 10 TOWNSHIP 124 RANGE 029	JASON & PAULA M BLOCH	142 9TH AVE SE ST JOSEPH MN 56374	142 9TH AVE SE ST JOSEPH MN 56374		6.25		6.25
5D	84.53475.0087	AND UNDIVIDED 1/20 INTEREST IN LOT 1 BLK 6 CLOVERDALE TOWNHOUSE ADD SECTION 10 TOWNSHIP 124 RANGE 029	SARAH J KLINNERT	140 9TH AVE SE ST JOSEPH MN 56374	140 9TH AVE SE ST JOSEPH MN 56374		6.25		6.25
5E	84.53475.0086	AND UNDIVIDED 1/20 INTEREST IN LOT 1 BLK 6 CLOVERDALE TOWNHOUSE ADD SECTION 10 TOWNSHIP 124 RANGE 029	MARAN M WAGNER	138 9TH AVE SE ST JOSEPH MN 56374	138 9TH AVE SE SAINT JOSEPH MN 56374		6.25		6.25
5F	84.53475.0085	AND UNDIVIDED 1/20 INTEREST IN LOT 1 BLK 6 CLOVERDALE TOWNHOUSE ADD SECTION 10 TOWNSHIP 124 RANGE 029	MICHAEL D MURPHY	136 9TH AVE SE ST JOSEPH MN 56374	136 9TH AVE SE ST JOSEPH MN 56374		6.25		6.25
5G	84.53475.0084	AND UNDIVIDED 1/20 INTEREST IN LOT 1 BLK 6 CLOVERDALE TOWNHOUSE ADD SECTION 10 TOWNSHIP 124 RANGE 029	MARK T & DEVONA M EMERSON	134 9TH AVE SE ST JOSEPH MN 56374	134 9TH AVE SE ST JOSEPH MN 56374		6.25		6.25
5H	84.53475.0083	AND UNDIVIDED 1/20 INTEREST IN LOT 1 BLK 6 CLOVERDALE TOWNHOUSE ADD SECTION 10 TOWNSHIP 124 RANGE 029	THERESA A PFLUEGER	132 9TH AVE SE ST JOSEPH MN 56374	132 9TH AVE SE SAINT JOSEPH MN 56374		6.25		6.25
5I	84.53475.0082	AND UNDIVIDED 1/20 INTEREST IN LOT 1 BLK 6 CLOVERDALE TOWNHOUSE ADD SECTION 10 TOWNSHIP 124 RANGE 029	DEBORAH ANN REBER	130 9TH AVE SE ST JOSEPH MN 56374	130 9TH AVE SE ST JOSEPH MN 56374		6.25		6.25
5J	84.53475.0081	AND UNDIVIDED 1/20 INTEREST IN LOT 1 BLK 6 CLOVERDALE TOWNHOUSE ADD SECTION 10 TOWNSHIP 124 RANGE 029	SARA MASTEY	128 9TH AVE SE ST JOSEPH MN 56374	128 9TH AVE SE SAINT JOSEPH MN 56374		6.25		6.25
5K	84.53475.0079	AND UNDIVIDED 1/20 INTEREST IN LOT 1 BLK 6 CLOVERDALE TOWNHOUSE ADD SECTION 10 TOWNSHIP 124 RANGE 029	CHRISTOPHER R WENZEL	124 9TH AVE SE ST JOSEPH MN 56374	124 9TH AVE SE SAINT JOSEPH MN 56374		6.25		6.25
5L	84.53475.0078	AND UNDIVIDED 1/20 INTEREST IN LOT 1 BLK 6 CLOVERDALE TOWNHOUSE ADD SECTION 10 TOWNSHIP 124 RANGE 029	GERALD P KNAPP	122 9TH AVE SE ST JOSEPH MN 56374	122 9TH AVE SE ST JOSEPH MN 56374		6.25		6.25
5M	84.53475.0076	AND UNDIVIDED 1/20 INTEREST IN LOT 1 BLK 6 CLOVERDALE TOWNHOUSE ADD SECTION 10 TOWNSHIP 124 RANGE 029	DAWN L OTTESEN	120 9TH AVE SE ST JOSEPH MN 56374	120 9TH AVE SE SAINT JOSEPH MN 56374		6.25		6.25
5N	84.53475.0075	AND UNDIVIDED 1/20 INTEREST IN LOT 1 BLK 6 CLOVERDALE TOWNHOUSE ADD SECTION 10 TOWNSHIP 124 RANGE 029	JORDAN P MEYER	118 9TH AVE SE ST JOSEPH MN 56374	118 9TH AVE SE SAINT JOSEPH MN 56374		6.25		6.25
5O	84.53475.0074	AND UNDIVIDED 1/20 INTEREST IN LOT 1 BLK 6 CLOVERDALE TOWNHOUSE ADD SECTION 10 TOWNSHIP 124 RANGE 029	ANNA L GOHMAN	116 9TH AVE SE ST JOSEPH MN 56374	116 9TH AVE SE SAINT JOSEPH MN 56374		6.25		6.25
5P	84.53475.0073	AND UNDIVIDED 1/20 INTEREST IN LOT 1 BLK 6 CLOVERDALE TOWNHOUSE ADD SECTION 10 TOWNSHIP 124 RANGE 029	ALLEN A SCHLEICHER LEGACY TRUST	114 9TH AVE SE ST JOSEPH MN 56374	218 CROCUS LN MONTICELLO MN 55362		6.25		6.25
5Q	84.53475.0072	AND UNDIVIDED 1/20 INTEREST IN LOT 1 BLK 6 CLOVERDALE TOWNHOUSE ADD SECTION 10 TOWNSHIP 124 RANGE 029	JOSHUA J RASSIER	112 9TH AVE SE ST JOSEPH MN 56374	112 9TH AVE SE SAINT JOSEPH MN 56374		6.25		6.25
5R	84.53475.0071	AND UNDIVIDED 1/20 INTEREST IN LOT 1 BLK 6 CLOVERDALE TOWNHOUSE ADD SECTION 10 TOWNSHIP 124 RANGE 029	KRISTI BIVENS	110 9TH AVE SE ST JOSEPH MN 56374	110 9TH AVE SE SAINT JOSEPH MN 56374		6.25		6.25
5S	84.53475.0070	AND UNDIVIDED 1/20 INTEREST IN LOT 1 BLK 6 CLOVERDALE TOWNHOUSE ADD SECTION 10 TOWNSHIP 124 RANGE 029	ERIN L STOCKER	108 9TH AVE SE ST JOSEPH MN 56374	108 9TH AVE SE SAINT JOSEPH MN 56374		6.25		6.25
6	84.53471.0000	LOT 001 BLK 001 CEDAR VILLAGE TOWNHOUSE SECTION 10 TOWNSHIP 124 RANGE 029	PATRICK J & KATHRYN M MURPHY	907 BAKER ST E ST JOSEPH MN 56374	907 BAKER ST E ST JOSEPH MN 56374		60.15		60.15
7	84.53471.0001	LOT 002 BLK 001 CEDAR VILLAGE TOWNHOUSE SECTION 10 TOWNSHIP 124 RANGE 029	VICTORIA KONOP	909 BAKER ST E ST JOSEPH MN 56374	909 BAKER ST E SAINT JOSEPH MN 56374		28.10		28.10
8	84.53471.0002	LOT 003 BLK 001 CEDAR VILLAGE TOWNHOUSE SECTION 10 TOWNSHIP 124 RANGE 029	SEAN RICHARDS	911 BAKER ST E ST JOSEPH MN 56374	911 BAKER ST E SAINT JOSEPH MN 56374		28.13		28.13
9	84.53471.0003	LOT 004 BLK 001 CEDAR VILLAGE TOWNHOUSE SECTION 10 TOWNSHIP 124 RANGE 029	KATHRYN ANN DARLING	913 BAKER ST E ST JOSEPH MN 56374	913 BAKER ST E SAINT JOSEPH MN 56374		28.16		28.16
10	84.53471.0004	LOT 005 BLK 001 CEDAR VILLAGE TOWNHOUSE SECTION 10 TOWNSHIP 124 RANGE 029	MICHAEL HEINEN	915 BAKER ST E ST JOSEPH MN 56374	915 BAKER ST SAINT JOSEPH MN 56374		28.19		28.19



**PRELIMINARY SPECIAL ASSESSMENT WORKSHEET**

2026 STREET IMPROVEMENTS - EASTERN PARK 1ST ADD, CLOVERDALE ESTATES & 2ND ADD, CLOVERDALE TOWNHOUSE ADD, CEDAR VILLAGE TOWNHOUSES  
 ST. JOSEPH, MINNESOTA  
 STJOE 188782

**PRELIMINARY SPECIAL ASSES**  
 36'-38' wide reclaim & repave

ITEM NO.	PARCEL ID NO.	PROPERTY DESCRIPTION	PROPERTY OWNER	PROPERTY ADDRESS	MAILING ADDRESS
11	84.53471.0005	LOT 006 BLK 001 CEDAR VILLAGE TOWNHOUSE SECTION 10 TOWNSHIP 124 RANGE 029	TERESA STAUBER	917 BAKER ST E ST JOSEPH MN 56374	917 BAKER ST E SAINT JOSEPH MN 56374
12	84.53474.0028	LOT 001 BLK 003 CLOVERDALE ESTATES 2ND ADD SECTION 10 TOWNSHIP 124 RANGE 029	NC JOHNSON PROPERTIES LLC	116 10TH AVE SE ST JOSEPH MN 56374	550 25TH AVE N SAINT CLOUD MN 56303
13	84.53475.0008	CLOVERDALE TH CLOVERDALE ESTATES 2ND ADD SECTION 10 TOWNSHIP 124 RANGE 029	CARLSON CROSSING TOWNHOMES OF ST JOSEPH	1004 BAKER ST E ST JOSEPH MN 56374	24707 COUNTY ROAD 75 SAINT AUGUSTA MN 56301
14	84.53475.0006	CLOVERDALE TH CLOVERDALE ESTATES 2ND ADD SECTION 10 TOWNSHIP 124 RANGE 029	CARLSON CROSSING TOWNHOMES OF ST JOSEPH	912 BAKER ST E ST JOSEPH MN 56374	24707 COUNTY ROAD 75 SAINT AUGUSTA MN 56301
15	84.53475.0004	CLOVERDALE TH CLOVERDALE ESTATES 2ND ADD SECTION 10 TOWNSHIP 124 RANGE 029	CARLSON CROSSING TOWNHOMES OF ST JOSEPH	904 BAKER ST E ST JOSEPH MN 56374	24707 COUNTY ROAD 75 SAINT AUGUSTA MN 56301
16	84.53475.0002	LOT 002 BLK 007 CLOVERDALE ESTATES 2ND ADD SECTION 10 TOWNSHIP 124 RANGE 029	PAUL E & LISA M WALLIN	810 BAKER ST E ST JOSEPH MN 56374	810 BAKER ST ST JOSEPH MN 56374
17	84.53474.0098	LOT 001 BLK 007 CLOVERDALE ESTATES 2ND ADD SECTION 10 TOWNSHIP 124 RANGE 029	ANN M OLSON HADASH	804 BAKER ST E ST JOSEPH MN 56374	804 BAKER ST E SAINT JOSEPH MN 56374
18	84.53472.0025	LOT 006 BLK 003 CLOVERDALE ESTATES TO ST JOE SECTION 10 TOWNSHIP 124 RANGE 029	WATERFLY PROPERTIES LLC	712 BAKER ST E ST JOSEPH MN 56374	PO BOX 117 SAINT JOSEPH MN 56374
19	84.53472.0026	LOT 007 BLK 003 CLOVERDALE ESTATES TO ST JOE SECTION 10 TOWNSHIP 124 RANGE 029	JAMES C & RENEE C JOPP	708 BAKER ST E ST JOSEPH MN 56374	708 BAKER ST E ST JOSEPH MN 56374
20	84.53472.0028	LOT 008 BLK 003 CLOVERDALE ESTATES TO ST JOE SECTION 10 TOWNSHIP 124 RANGE 029	BRIAN R & BRENDA M DONNAY	202 7TH AVE SE ST JOSEPH MN 56374	202 7TH AVE SE ST JOSEPH MN 56374
<b>TOTALS:</b>					

PLATTED ABUTTING FOOTAGE	
LONG SIDE	SHORT SIDE
	58.52
	231.26
	264.79
	264.53
	159.80
146.00	
	120.00
	101.39
	101.39
	101.39
<b>665.37</b>	<b>1,929.55</b>

36'-38' WIDE RECLAIM & ADJUSTED FOOTAGE	
LONG SIDE	SHORT SIDE
	58.52
	231.26
	264.79
	264.53
	159.80
146.00	
	120.00
	101.39
	101.39
	101.39
<b>665.37</b>	<b>1,804.55</b>

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**ASSESSMENT RATES**  
 \$74.00 /LF

12/12/2025

REPAVE GE	SPECIAL ASSESSMENTS	
	36-38' RECLAIM	TOTAL ASSESSMENT
ASSESSED FOOTAGE		
58.52	\$4,330.48	\$4,330.48
231.26	\$17,113.24	\$17,113.24
264.79	\$19,594.46	\$19,594.46
264.53	\$19,575.22	\$19,575.22
159.80	\$11,825.20	\$11,825.20
146.00	\$10,804.00	\$10,804.00
120.00	\$8,880.00	\$8,880.00
101.39	\$7,502.86	\$7,502.86
101.39	\$7,502.86	\$7,502.86
101.39	\$7,502.86	\$7,502.86
<b>2469.92</b>	<b>\$182,774.08</b>	<b>\$182,774.08</b>





**PRELIMINARY SPECIAL ASSESSMENT WORKSHEET**

2026 STREET IMPROVEMENTS - COUNTRY MANOR SENIOR LIVING CAMPUS, AND RIVERS BEND ISD 742  
 ST. JOSEPH, MINNESOTA  
 STJOE 188782

**PRELIMINARY SPECIAL ASSESSMENT RATES**

40' wide street overlay \$43.69 /LF

12/12/2025

ITEM NO.	PARCEL ID NO.	PROPERTY DESCRIPTION	PROPERTY OWNER	PROPERTY ADDRESS	MAILING ADDRESS
1	84.53494.0215	LOT 001 BLK 001 RIVERS BEND ISD 742 PARCEL SECTION 22 TOWNSHIP 124 RANGE 929	INDEPENDENT SCHOOL DISTRICT #742	1300 JADE RD ST CLOUD MN 56301	1201 2ND ST S WAITE PARK MN 56387
2	84.53300.0322	10.00A THAT PART OF NE4NW4 & OF NW4NE4 DAF BEG SE COR NE4NW4 - S89D W 144.45' - N 486.29' - S83D E 1065.93' TO CI TWP RD - S89D W ON CI 364.67' TO S 1 N	CARMELA J MICK REV TRUST	28787 JADE RD ST CLOUD MN 56301	28787 JADE RD SAINT CLOUD MN 56301
3	84.53475.0819	LOT OUTLOT F COUNTRY MANOR SENIOR LIVING CAMPUS SECTION 22 TOWNSHIP 124 RANGE 29	C & L EXCAVATING INC	N/A	PO BOX 99 ST JOSEPH MN 56374
4	84.53475.0820	LOT OUTLOT G COUNTRY MANOR SENIOR LIVING CAMPUS SECTION 22 TOWNSHIP 124 RANGE 29	C & L EXCAVATING INC	N/A	PO BOX 99 ST JOSEPH MN 56374

**TOTALS:**

PLATTED ABUTTING FOOTAGE	
LONG SIDE	SHORT SIDE
2384.41	
	364.65
	759.43
	505.40
<b>2384.41</b>	<b>1629.48</b>

40' WIDE STREET OVERLAY ADJUSTED FOOTAGE		
LONG SIDE	SHORT SIDE	ASSESSED FOOTAGE
1384.55		1384.55
	98.89	98.89
	759.43	759.43
	505.40	505.40
<b>1384.55</b>	<b>1363.72</b>	<b>2748.27</b>

SPECIAL ASSESSMENTS	TOTAL ASSESSMENT
40' OVERLAY	
\$60,490.99	\$60,490.99
\$4,320.50	\$4,320.50
\$33,179.50	\$33,179.50
\$22,080.93	\$22,080.93
<b>\$120,071.92</b>	<b>\$120,071.92</b>

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**PRELIMINARY SPECIAL ASSESSMENT WORKSHEET**

2026 STREET IMPROVEMENTS - LIBERTY POINTE 2ND ADDITION  
ST. JOSEPH, MINNESOTA  
STJOE188782

**PRELIMINARY SPECIAL ASSESSMENT RATES**

36'-38' wide reclaim & repave \$74.00 /LF

12/12/2025

ITEM NO.	PARCEL ID NO.	PROPERTY DESCRIPTION	PROPERTY OWNER	PROPERTY ADDRESS	MAILING ADDRESS
1	84.53550.0095	LOT 007 BLK 001 LIBERTY POINTE 2ND ADDITION SECTION 11 TOWNSHIP 124 RANGE 029	LIBERTY POINTE HOMEOWNERS ASSOCIATION	N/A	PO BOX 5122 SAINT CLOUD MN 56302
1A	84.53550.0019	LOT 020 BLK 001 LIBERTY POINTE SECTION 11 TOWNSHIP 124 RANGE 029	CATHERINE L BROCKWAY	1605 DALE ST E ST JOSEPH MN 56374	1605 DALE ST E ST JOSEPH MN 56374
1B	84.53550.0020	LOT 021 BLK 001 LIBERTY POINTE SECTION 11 TOWNSHIP 124 RANGE 029	RAYMOND J BECHTOLD	1609 DALE ST E ST JOSEPH MN 56374	1609 DALE ST SAINT JOSEPH MN 56374
1C	84.53550.0021	LOT 022 BLK 001 LIBERTY POINTE SECTION 11 TOWNSHIP 124 RANGE 029	STEVEN & NANCY FANGMEIER TRUST	1615 DALE ST E ST JOSEPH MN 56374	17248 PLEASANT LN BRAINERD MN 56401
1D	84.53550.0022	LOT 023 BLK 001 LIBERTY POINTE SECTION 11 TOWNSHIP 124 RANGE 029	CHERYL L PLOOF	1619 DALE ST E ST JOSEPH MN 56374	1619 DALE ST SAINT JOSEPH MN 56374
1E	84.53550.0089	LOT 001 BLK 001 LIBERTY POINTE 2ND ADDITION SECTION 11 TOWNSHIP 124 RANGE 029	CURTIS & TRACY A OPHOVEN	1703 DALE ST E ST JOSEPH MN 56374	1308 DALE ST ST JOSEPH MN 56374
1F	84.53550.0090	LOT 002 BLK 001 LIBERTY POINTE 2ND ADDITION SECTION 11 TOWNSHIP 124 RANGE 029	KELLI F NADEAU	1707 DALE ST E ST JOSEPH MN 56374	1707 DALE ST E SAINT JOSEPH MN 56374
1G	84.53550.0091	LOT 003 BLK 001 LIBERTY POINTE 2ND ADDITION SECTION 11 TOWNSHIP 124 RANGE 029	VERA M POGATCHNIK	353 JEFFERSON LN ST JOSEPH MN 56374	353 JEFFERSON LN ST JOSEPH MN 56374
2	84.53550.0107	LOT 005 BLK 003 LIBERTY POINTE 2ND ADDITION SECTION 11 TOWNSHIP 124 RANGE 028	LIBERTY POINTE HOMEOWNERS ASSOCIATION	N/A	PO BOX 5122 SAINT CLOUD MN 56302
2A	84.53550.0106	LOT 004 BLK 003 LIBERTY POINTE 2ND ADDITION SECTION 11 TOWNSHIP 124 RANGE 028	ROSE M HULS	1708 DALE ST E ST JOSEPH MN 56374	1708 DALE ST SAINT JOSEPH MN 56374
2B	84.53550.0105	LOT 003 BLK 003 LIBERTY POINTE 2ND ADDITION SECTION 11 TOWNSHIP 124 RANGE 028	ANN LANG	1704 DALE ST E ST JOSEPH MN 56374	1704 DALE ST SAINT JOSEPH MN 56374
2C	84.53550.0082	LOT 004 BLK 004 LIBERTY POINTE SECTION 11 TOWNSHIP 124 RANGE 029	TARA DARNALL	1620 DALE ST E ST JOSEPH MN 56374	1620 DALE ST SAINT JOSEPH MN 56374
2D	84.53550.0081	LOT 003 BLK 004 LIBERTY POINTE SECTION 11 TOWNSHIP 124 RANGE 029	DENNIS P LOECKEN & CONNIE L LOECKEN REV	1616 DALE ST E ST JOSEPH MN 56374	1616 DALE ST SAINT JOSEPH MN 56374
2E	84.53550.0104	LOT 002 BLK 003 LIBERTY POINTE 2ND ADDITION SECTION 11 TOWNSHIP 124 RANGE 028	ELIANE JO GISLER TRUST	1610 DALE ST E ST JOSEPH MN 56374	1610 DALE ST SAINT JOSEPH MN 56374
2F	84.53550.0103	LOT 001 BLK 003 LIBERTY POINTE 2ND ADDITION SECTION 11 TOWNSHIP 124 RANGE 028	PAUL E & PATRICIA A GANNON	1606 DALE ST E ST JOSEPH MN 56374	1606 DALE ST ST JOSEPH MN 56374
<b>TOTALS:</b>					

PLATTED ABUTTING FOOTAGE	
LONG SIDE	SHORT SIDE
544.32	
77.76	
77.76	
77.76	
77.76	
77.76	
77.76	
77.76	
77.76	
550.36	
91.73	
91.73	
91.73	
91.73	
91.73	
91.73	
<b>2189.36</b>	<b>0.00</b>

36'-38' WIDE RECLAIM & REPAVE ADJUSTED FOOTAGE		
LONG SIDE	SHORT SIDE	ASSESSED FOOTAGE
		0.00
84.21		84.21
84.21		84.21
84.21		84.21
84.21		84.21
84.21		84.21
84.21		84.21
84.21		84.21
84.21		84.21
		0.00
84.21		84.21
84.21		84.21
84.21		84.21
84.21		84.21
84.21		84.21
84.21		84.21
<b>1094.68</b>	<b>0.00</b>	<b>1094.68</b>

SPECIAL ASSESSMENTS	TOTAL ASSESSMENT
36'-38' RECLAIM	
\$0.00	\$0.00
\$6,231.26	\$6,231.26
\$6,231.26	\$6,231.26
\$6,231.26	\$6,231.26
\$6,231.26	\$6,231.26
\$6,231.26	\$6,231.26
\$6,231.26	\$6,231.26
\$6,231.26	\$6,231.26
\$6,231.26	\$6,231.26
\$6,231.26	\$6,231.26
\$6,231.26	\$6,231.26
\$6,231.26	\$6,231.26
\$6,231.26	\$6,231.26
\$6,231.26	\$6,231.26
\$6,231.26	\$6,231.26
<b>\$81,006.32</b>	<b>\$81,006.32</b>

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PRELIMINARY SPECIAL ASSESSMENT WORKSHEET

2026 STREET IMPROVEMENTS - MORNINGSIDES ACRES 2ND ADDITION, SUNRISE COTTAGES CONDO CIC #81, WALZS HILLTOP ACRES, REISCHLS HILLSIDE ESTATES, AND FOAMORE HOLLOW ST. JOSEPH, MINNESOTA ST. COE 188702

PRELIMINARY SPECIAL ASSESSMENT RATES
32' wide street overlay 27.86 /L/F
36'-36" wide reclaim & repave 74.00 /L/F
32'-34" wide reclaim & repave 27.25 /L/F

12/12/2025

Table with columns: ITEM NO., PARCEL ID NO., PROPERTY DESCRIPTION, PROPERTY OWNER, PROPERTY ADDRESS, MAILING ADDRESS. Contains 61 rows of property data.

Table with columns: PLATTED ADJUSTING FOOTAGE, LONG SIDE, SHORT SIDE. Contains 61 rows of adjusted footage data.

Table with columns: 32' WIDE STREET OVERLAY ADJUSTED FOOTAGE, LONG SIDE, SHORT SIDE, ASSESSED FOOTAGE. Contains 61 rows of street overlay data.

Table with columns: 36-36" WIDE RECLAIM & REPAVE ADJUSTED FOOTAGE, LONG SIDE, SHORT SIDE, ASSESSED FOOTAGE. Contains 61 rows of reclaim & repave data.

Table with columns: 32'-34" WIDE RECLAIM & REPAVE ADJUSTED FOOTAGE, LONG SIDE, SHORT SIDE, ASSESSED FOOTAGE. Contains 61 rows of reclaim & repave data.

Table with columns: SPECIAL ASSESSMENTS (32' OVERLAY, 36' RECLAIM & REPAVE, 32'-34' RECLAIM & REPAVE), TOTAL ASSESSMENT. Contains 61 rows of assessment totals.



PRELIMINARY SPECIAL ASSESSMENT WORKSHEET

2026 STREET IMPROVEMENTS - MORNINGSIDES ACRES 2ND ADDITION, SUNRISE COTTAGES CONDO C#1, WALZS HILLTOP ACRES, REINCHLS HILLSIDE ESTATES, AND FOAMORE HOLLOW ST. JOSEPH, MINNESOTA ST. JOE 580102

PRELIMINARY SPECIAL ASSESSMENT RATES
32' wide street overlay 27.80 /LF
36'-38' wide reclaim & repave 74.00 /LF
32'-34' wide reclaim & repave 27.25 /LF

12/12/2025

Main data table with columns: ITEM NO, PARCEL ID, PROPERTY DESCRIPTION, PROPERTY OWNER, PROPERTY ADDRESS, MAILING ADDRESS, PLATTED ADJUSTING FOOTAGE (LONG SIDE, SHORT SIDE), 32' WIDE STREET OVERLAY ADJUSTED FOOTAGE (LONG SIDE, SHORT SIDE, ASSESSED FOOTAGE), 36-38' WIDE RECLAIM & REPAVE ADJUSTED FOOTAGE (LONG SIDE, SHORT SIDE, ASSESSED FOOTAGE), 32-34' WIDE RECLAIM & REPAVE ADJUSTED FOOTAGE (LONG SIDE, SHORT SIDE, ASSESSED FOOTAGE), SPECIAL ASSESSMENTS (32' OVERLAY, 36' RECLAIM & REPAVE, 32-34' RECLAIM & REPAVE), TOTAL ASSESSMENT.



**PRELIMINARY SPECIAL ASSESSMENT WORKSHEET**

2026 STREET IMPROVEMENTS - MORNINGSIDE ACRES 2ND ADDITION, SUNRISE COTTAGES CONDO CIC #81, WALZS HILLTOP ACRES, REISCHLS HILLSIDE ESTATES, AND FOXMORE HOLLOW ST. JOSEPH, MINNESOTA STAGE 188782

**PRELIMINARY SPECIAL ASSESSMENT RATES**

32' wide street overlay	27.85	/LF
36'-38' wide reclaim & repave	74.00	/LF
32'-34' wide reclaim & repave	27.25	/LF

12/12/2025

ITEM NO.	PARCEL ID NO.	PROPERTY DESCRIPTION	PROPERTY OWNER	PROPERTY ADDRESS	MAILING ADDRESS	PLATTED ABUTTING FOOTAGE		32' WIDE STREET OVERLAY ADJUSTED FOOTAGE			36-38' WIDE RECLAIM & REPAVE ADJUSTED FOOTAGE			32'-34' WIDE RECLAIM & REPAVE ADJUSTED FOOTAGE			SPECIAL ASSESSMENTS			TOTAL ASSESSMENT
						LONG SIDE	SHORT SIDE	LONG SIDE	SHORT SIDE	ASSESSED FOOTAGE	LONG SIDE	SHORT SIDE	ASSESSED FOOTAGE	LONG SIDE	SHORT SIDE	ASSESSED FOOTAGE	32' OVERLAY	36' RECLAIM & REPAVE	32'-34' RECLAIM & REPAVE	
TOTALS:								364.27	2228.89	2593.16	797.93	1619.88	2368.81	723.03	6488.36	9211.39	172,245.39	1176,291.94	1291,019.38	1496,547.62

X:\P\781\0E\188782\2-pm\mgm\25-cost-eat\Assessment\188782 PAW.xlsx\Rates

# Appendix C

Geotechnical Investigation Report-Morningside Neighborhood

# Geotechnical Evaluation Report

St. Joseph 2025 Watermain Backfill Investigation Project  
Portions of Foxmore Way, 2nd Ave SW, 3rd Ave SW, Hill St W,  
Iverson St W, Morningside Loop  
Saint Joseph, Minnesota

*Prepared for the*

## City of St. Joseph

### Professional Certification:

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.



Andrew J. Hillerud, PE  
Project Engineer  
License Number: 59434  
June 20, 2025



June 20, 2025

Project B2502673

Mr. David Murphy  
City of St. Joseph  
75 Callaway Street East  
St. Joseph, MN 56374

Re: Geotechnical Evaluation  
St. Joseph 2025 Watermain Backfill Investigation Project  
Portions of Foxmore Way, 2nd Ave SW, 3rd Ave SW, Hill St W,  
Iverson St W, Morningside Loop  
Saint Joseph, Minnesota

Dear Mr. Murphy:

We are pleased to present this Geotechnical Evaluation Report for the roadway and watermain improvements project in St. Joseph, Minnesota.

Thank you for making Braun Intertec your geotechnical consultant for this project. If you have questions about this report, or if there are other services that we can provide in support of our work to date, please contact Andrew Hillerud at 218.260.09830 (ahillerud@brauintertec.com).

Sincerely,

BRAUN INTERTEC CORPORATION



Andrew J. Hillerud, PE  
Project Engineer



Steven A. Thayer, PE  
Senior Manager, Senior Engineer

c: Randy Sabart, PE; Short Elliott Hendrickson, Inc.  
Bryce Johnson, PE; Short Elliott Hendrickson, Inc.

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### Appendix

Soil Boring Location Sketch

Log of Previous Borings 1 through 5

Log of Boring Sheets 6 through 14

Descriptive Terminology of Soil

Soil Analysis Lab Results (Project X Corrosion Engineering)

## A. Introduction

### A.1. Project Description

This Geotechnical Evaluation Report addresses reconstruction of the bituminous roadways and replacement of the watermain along portions of Foxmore Way, 2nd Avenue Southwest, 3rd Avenue Southwest, Hill Street West, Iverson Street West and Morningside Loop in St. Joseph, Minnesota. Table 1 provides project details.

**Table 1. Project Aspects and Grading Description**

Aspect	Description
Utilities	Watermain – 8 feet deep (Assumed)
Pavement type	Bituminous
Grade changes	Less than 2 feet (Assumed)

Figure 1 below shows the reconstruction area highlighted in pink and our previous and current soil boring in blue and yellow. The alignments shown in the figure will remain near existing.

**Figure 1. Reconstruction Area**

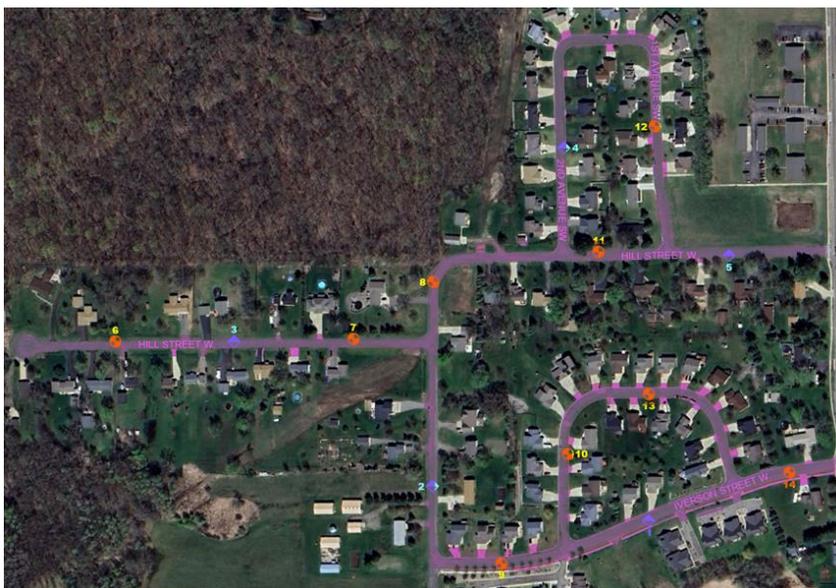


Figure provided by Google Earth®

## **A.2. Purpose**

The purpose of our geotechnical evaluation is to characterize subsurface geologic conditions at selected exploration locations, evaluate their impact on the project, and provide geotechnical recommendations for the design and construction of utilities and roadways.

## **A.3. Background Information and Reference Documents**

We reviewed the following information:

- A proposal request via email from Randy Sabart, PE, Short Elliott Hendrickson, Inc. (SEH, Inc.).
- Communication with Mr. Sabart regarding the scope of the project and the corrosion testing scope.
- A Geologic Map of Minnesota, prepared by Howard C. Hobbs and Joseph E. Goebel, 1982.
- Aerial photographs of the project areas using Google Earth®.

We have described our understanding of the proposed construction and site to the extent others reported it to us. Depending on the extent of available information, we may have made assumptions based on our experience with similar projects. If we have not correctly recorded or interpreted the project details, the project team should notify us. New or changed information could require additional evaluation, analyses and/or recommendations.

## **A.4. Scope of Services**

We performed our scope of services for the project in accordance with our Proposal QTB211665 to Mr. Sabart dated March 10, 2025, and authorized by Mr. David Murphy, City of St. Joseph on March 20, 2025. The following list describes the geotechnical tasks completed in accordance with our authorized scope of services.

- Reviewing the background information and reference documents previously cited.

- Staking and clearing the boring locations of underground utilities. Braun Intertec selected and staked the boring locations. We acquired the surface elevations and locations with GPS technology using the State of Minnesota’s permanent GPS base station network. The Soil Boring Location Sketch included in the Appendix shows the approximate locations of the borings.
- Performing 9 standard penetration test (SPT) borings, denoted as 6 to 14, to nominal depths of 10 feet below grade.
- Performing laboratory testing on select samples to aid in soil classification and engineering analysis.
- Preparing this report containing a boring location sketch, logs of soil borings, a summary of the soils encountered, results of laboratory tests, and recommendations for utility and pavement subgrade preparation and a recommended assumed R-value for bituminous pavement design.

Our scope of services did not include environmental services or testing and our geotechnical personnel performing this evaluation are not trained to provide environmental services or testing. We can provide environmental services or testing at your request.

## **B. Results**

### **B.1. Geologic Overview**

We based the geologic origins used in this report on the soil types, laboratory testing, and available common knowledge of the geological history of the site. Because of the complex depositional history, geologic origins can be difficult to ascertain. We did not perform a detailed investigation of the geologic history for the site.

### **B.2. Previous Geotechnical Information**

We performed 6 borings on Iverson Street West, Hill Street West, and 2nd and 3rd Avenue Southwest in 2024 for project B2401306. We have included the previous boring logs in the appendix of this report.

### B.3. Boring Results

Table 2 provides a summary of the soil boring results, in the general order we encountered the strata. Please refer to the Log of Boring sheets in the Appendix for additional details. The Descriptive Terminology sheets in the Appendix include definitions of abbreviations used in Table 2.

**Table 2. Subsurface Profile Summary\***

Strata	Soil Type - ASTM Classification	Range of Penetration Resistances	Commentary and Details
Pavement section	---	---	<ul style="list-style-type: none"> <li>▪ Overall thickness ranges from 9 to 17 1/2 inches.</li> <li>▪ Bituminous thickness ranges from 3 to 4 inches.</li> <li>▪ Apparent aggregate base thickness ranges from 6 to 13 1/2 inches.</li> </ul>
Fill	SP-SM, SM, SC, CL, CH	5 to 13 BPF	<ul style="list-style-type: none"> <li>▪ Encountered below the pavement section in each boring except Borings 8 and 10.</li> <li>▪ General penetration resistance of 6 to 11 BPF.</li> <li>▪ Moisture condition generally moist to wet.</li> <li>▪ Extended to depths ranging from 4 feet to boring termination depth at 10 feet.</li> <li>▪ Highly variable, soils intermixed.</li> <li>▪ Portions of the CL fill soils from 3 to 7 feet and the SC fill soils from 8 to 9 feet in Boring 11 were black and contained organic material.</li> </ul>
Glacial deposits	SP, SP-SM	6 to 11 BPF	<ul style="list-style-type: none"> <li>▪ Encountered below the pavement section and fill soils in Boring 8, 9, 10, 12, 13, and 14.</li> <li>▪ General penetration resistance of sandy glacial soils ranges from 7 to 8 BPF, indicating they are loose.</li> <li>▪ Layers of glaciofluvial, glacial outwash, and glacial till.</li> <li>▪ Variable amounts of gravel.</li> <li>▪ General penetration resistance of the clayey glacial soils ranges from 5 to 8 BPF indicating they are medium.</li> <li>▪ Moisture condition generally moist to wet.</li> </ul>
	CL, CH	2 to 11 BPF	

\*Abbreviations defined in the attached Descriptive Terminology sheets.

We did not perform gradation analysis on the apparent aggregate base material encountered as part of the pavement section, in accordance with our scope of work. Therefore, we cannot conclusively determine if the encountered material satisfies a particular specification.

For simplicity in this report, we define existing fill to mean existing, uncontrolled or undocumented fill.

## B.4. Groundwater

Table 3 summarizes the depths where we observed groundwater; the attached Log of Boring sheets in the Appendix also include this information and additional details.

**Table 3. Groundwater Summary**

Location	Surface Elevation	Observed Depth to Groundwater (ft)	Corresponding Groundwater Elevation (ft)
6	1145.7	2 1/2	1143 1/2
7	1137.8	Not Observed	---
8	1130.9	Not Observed	---
9	1119.6	Not Observed	---
10	1098.0	Not Observed	---
11	1099.2	Not Observed	---
12	1088.6	Not Observed	---
13	1090.1	Not Observed	---
14	1083.9	Not Observed	---

In clayey soils such as those encountered in most of the borings, groundwater may take days or longer to reach equilibrium in the boreholes and we immediately backfilled the boreholes, in accordance with our scope of work. Project planning should anticipate groundwater in sand seams and layers in the clayey soils and seasonal and annual fluctuations of groundwater.

## B.5. Laboratory and Corrosion Testing Results

### B.5.a. Soil Classification Testing

The results of our general laboratory testing performed on select samples including moisture content, grain size (i.e., fine particles passing a #200 sieve), and Atterberg limits determinations are presented below in Table 4.

**Table 4. General Laboratory Test Results**

Soil Type (USCS)	Moisture Content (%)	Fines Content (%)	Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
SP	6	1 to 4	---	---	---
SP-SM	4	5	---	---	---
SC	9	25	---	---	---
CL	14 to 24	52 to 63	---	---	---
CH	21 to 30	54 to 92	58	26	32

**B.5.b. Corrosivity Testing**

Results of the laboratory tests for corrosivity are presented in Table 5.

**Table 5. Corrosivity Test Results**

Location	Sample Depth (feet)	Chlorides (ppm)	Resistivity (Ohm-cm)	pH	Oxidation/Reduction Potential (mV)	Sulfides (ppm)	Moisture Content	Groundwater Influence	Bi-Metallic Considerations
6	8 to 9 1/2	74.8	2,680	7.7	187	0.96	Wet	Yes	No*
7	7 to 9	14.2	1,206	7.0	180	2.49	Wet	Yes	No*
9	6 to 8	138.4	670	6.6	203	0.21	Wet	Yes	No*
10	7 to 9	21.2	938	5.3	219	0.12	Wet	Yes	No*
11	7 to 9	82.5	3,283	6.2	178	0.7	Wet	Yes	No*
14	7 to 9	22.3	12,730	6.9	173	2.5	Moist	No	No*

\*Assumed

**C. Recommendations**

**C.1. Design and Construction Discussion**

**C.1.a. Utility Installation**

Based on the anticipated utility invert depths and our soil borings, it appears the utility subgrades will consist of a variety of soils including silty sand, clayey sand, and sandy fat clay fill, and native fat clay, sandy lean clay, poorly graded sand with silt, and poorly graded sand soil. Most of the soils generally appear suitable for support of the utilities. Intermittent stabilization of soft subgrade soils will be needed on portions of the project. Dewatering will also be required for installation on portions of the project.

### **C.1.b. Roadway Reconstruction**

The borings indicate the roadway subgrade soils will consist of soils ranging from sand to fat clay. The non-organic soils are suitable for the pavement subgrades, but all of the soils except the poorly graded sand with silt and poorly graded sand soils are considered marginal since they will become unstable when wet and will require moisture conditioning for proper compaction.

### **C.1.c. Reuse of On-Site Soils and Construction Disturbance**

Except for the soils noted as black in color, the existing soils are suitable for reuse as fill and backfill for the utilities and roadways. If black soils containing organic materials are encountered during construction, we do not recommend reusing them below the utilities or roadways.

The existing silty and clayey soils encountered are sensitive to moisture and disturbance. The fat clay and sandy fat clay soils are extremely sensitive to moisture and disturbance. Care should be taken by the contractor to not allow these soils to become saturated or disturbed during utility installation. In addition, these soils will be difficult to re-use as backfill and fill and will require moisture conditioning for adequate compaction.

## **C.2. Utility Installation**

### **C.2.a. Excavations**

It is our opinion that the soils encountered by the borings can be excavated using a typical open-cut method with a backhoe. At the anticipated excavation depths, the soils in the sidewalls of the excavations will be Type C soils under the Department of Labor Occupational Safety and Health Administration (OSHA) guidelines.

### **C.2.b. Excavation Subgrades**

Based on the borings and anticipated invert depths, the utility subgrades will include sand, silty sand, clayey sand, fat clay, sandy fat clay, and sandy lean clay. We anticipate the subgrade soils will generally be suitable for support of the proposed utilities.

Soft soil with penetration resistances of 4 or less were encountered near the watermain invert depth in Borings 3 and 9. These areas, along with other areas with wet subgrades or subgrades that are allowed to become wet will require subgrade stabilization as described below.

### **C.2.c. Subgrade Stabilization**

Each boring except 12, 13, and 14 encountered silty sand, clayey sand, fat clay, sandy fat clay, or sandy lean clay soils near the anticipated utility invert depths. In addition, the clayey sand and fat clay near the watermain depth in Borings 3 and 9 were soft. Stabilization of the subgrades will be necessary where soft soils are present, and other areas where the subgrade soils are wet or allowed to become wet, to facilitate installation of the utilities.

For stabilization, we recommend 6 to 12 inches of coarse sand or gravel having less than 50 percent of the particles by weight passing a number 40 sieve, and less than 5 percent of the particles passing a number 200 sieve. The onsite poorly graded sand glacial outwash soils can be used as bedding material. Alternately, 1 1/2-inch crushed rock (or Class 2 Ballast) could be used.

### **C.2.d. Excavation Dewatering**

We recommend removing groundwater from the excavations. Dewatering will likely be necessary on portions of the project. Project planning should include temporary sumps and pumps for excavations in low-permeability soils, such as clayey sand, sandy lean clay, sandy fat clay, and fat clay.

Dewatering of high-permeability soils (e.g., sands) from within the excavation with conventional pumps has the potential to loosen the soils, due to upward flow. A well contractor should develop a dewatering plan; the design team should review this plan.

### **C.2.e. Selecting Excavation Backfill**

Onsite soils that do not contain black soils, organic material may be used as backfill material. We recommend crushed rock or poorly graded sands be used for bedding. As indicated in Section C.2.g, some of the soils are corrosive.

### **C.2.f. Placement and Compaction of Backfill**

We recommend spreading backfill and fill in loose lifts of 8 to 12 inches prior to compacting. We recommend compacting backfill and fill in accordance with the criteria presented below in Table 6. The relative compaction of utility backfill should be evaluated based on the structure below which it is installed, and vertical proximity to that structure.

**Table 6. Compaction Recommendations Summary**

Area of Backfill Placement	Relative Compaction, percent (ASTM D698 – Standard Proctor)	Moisture Content Variance from Optimum, percentage points	
		< 12% Passing #200 Sieve (typically SP, SP-SM)	> 12% Passing #200 Sieve (typically SC, SM, CL, CH, ML)
Within 1:1 oversize zone of pavements, within 3 feet of subgrade elevations	100	±3	-1 to +3
Within 1:1 oversize zone of pavements, more than 3 feet of subgrade elevations	95	±3	-1 to +3
Below landscaped surfaces	90	±5	±4

**C.2.g. Corrosion Potential**

See Section B.5.b. above for corrosion testing results.

The ANSI/AWWA C105/A21.5 (Appendix A) standard uses a 10-Point System for corrosion evaluation of soils. Based on the 10-point system and the results of the corrosion testing performed, the tested soils have a corrosivity values ranging from 1 to 12. A value of 10 is the threshold for corrosion potential indicating that corrosion protection is required. Test results indicate that the soils at the water main elevation in Boring 7, 9, and 10 are corrosive to ductile iron pipe.

The Ductile Iron Pipe Research Association (DIPRA) standard uses a 60-Point System for corrosion evaluation of soils. Based on the 60-point system and the results of the corrosion testing performed, the tested soils have a corrosivity values ranging from 1 to 12. A value of 21 is the threshold for corrosion potential indicating that encasement is necessary. Test results indicate that the soils at the water main elevation in Borings 6,7, 9, and 10 require ductile iron pipe encasement.

Table 7 Below summarizes the evaluation results of the soils tested based on the ANSI/AWWA C105/A21.5 (Appendix A) and the Ductile Iron Pipe Research Association point systems. Based on the corrosion test results and our evaluation, the soil types that require corrosion protection consist of Fat Clay (CH), Lean Clay (CL), and Silty Sand (SM).

**Table 7. Corrosivity Point-System Summary**

Boring	ANSI/AWWA C105/A21.5 Score	Corrosive to DIP per 10-Point System	DIPRA Score	Encasement necessary per 60-Point System
6	3	No	24.5	Yes
7	12	Yes	31	Yes
9	12	Yes	39.5	Yes
10	12	Yes	35.5	Yes
11	2	No	17	No
14	1	No	4	No

### **C.3. Pavement Reconstruction**

#### **C.3.a. Subgrade Preparation**

We recommend the following steps for pavement subgrade preparation, understanding the alignments will have grade changes of 1 foot or less.

1. If encountered, strip unsuitable soils consisting of organic soils, vegetation, existing pavements from the area, within 3 feet of the surface of the proposed pavement grade.
2. Have a geotechnical representative observe the excavated subgrade to evaluate if additional subgrade improvements are necessary.
3. In areas with clayey subgrade soils, slope the subgrade soils to areas of sand or drain tile to allow the removal of accumulating water.
4. Scarify, moisture condition and surface compact the subgrade with at least 5 passes of a large roller with a minimum drum diameter of 3 1/2 feet.
5. Place pavement engineered fill to grade and compact in accordance with Section C.3.c. to bottom of pavement.
6. Proofroll the pavement subgrade as described in Section C.3.d.

Based on the borings and utility invert depths, excavations during utility installation for most of the project area will extend into clayey sand, sandy lean clay, sandy fat clay, and fat clay soils. If these soils are mixed with the in-place sandy pavement subgrade or used as pavement subgrade backfill, they will become unstable after repeated construction traffic or if they become wet.

Additional subcutting and replacement of these unstable or wet subgrade soils with select granular soils (and possibly a geotextile separator fabric) will be required for pavement subgrade preparation in these areas and should be considered during project planning.

### **C.3.b. Selecting Excavation Backfill and Additional Required Fill**

On-site soils that are free of black, organic, or foreign materials and debris can be reused as backfill. Soils with less than 12 percent silt and clay should be used for backfill placed below water or on wet subgrades, or immediately below the aggregate base section.

### **C.3.c. Placement and Compaction of Backfill and Fill**

We recommend compacting fill and backfill material within the pavement subgrades to a minimum of 100 percent of their standard Proctor maximum dry density. At depths greater than 3 feet below the street subgrade, the minimum compaction requirement may be decreased to 95 percent of standard Proctor maximum dry density. Fill and backfill soils should be placed at moisture contents as indicated in Table 6 above.

### **C.3.d. Pavement Subgrade Proofroll**

After preparing the subgrades as described above and prior to the placement of the aggregate base, we recommend proofrolling the subgrade soils with a fully loaded tandem-axle truck. We also recommend having a geotechnical representative observe the proofroll. Areas that fail the proofroll likely indicate soft or weak areas that will require additional soil correction work to support pavements.

The contractor should correct areas that display excessive yielding or rutting during the proofroll, as determined by the geotechnical representative. Possible options for subgrade correction include moisture conditioning and recompaction, subcutting and replacement with soil or crushed aggregate, chemical stabilization and/or geotextiles. We recommend performing a second proofroll after the aggregate base material is in place, and prior to placing bituminous or concrete pavement.

## **C.4. Pavements**

### **C.4.a. Design R Value**

Our scope of services for this project did not include laboratory tests on subgrade soils to determine an R-value for pavement design. As noted above, the borings indicate the roadway subgrade soils will consist of soils ranging from sand to clay. Table 8 below provides typical ranges of design R-values based on our experience with similar subgrade soils.

**Table 8. Typical Design R-Values**

<b>Subgrade Soil Description</b>	<b>Typical R-Value Range</b>
SP, SP-SM	50-70
SM, SC	30-50
CL, CH	5-12

Based on our experience, it is our opinion that an R-value of 10 is appropriate for this project.

#### **C.4.b. Bituminous Pavement Materials**

Appropriate mix designs are critical to the performance of flexible pavements. We can provide recommendations for pavement material selection during final pavement design.

#### **C.4.c. Subgrade Drainage**

Portions of the project will have subgrade soils consisting of clayey soils with poor drainage. We recommend installing perforated drainpipes throughout the pavement areas where subgrades are clayey. We also recommend installing drainpipes along pavement edges where exterior grades promote drainage toward those edge areas. The contractor should place drainpipes in small trenches, extended at least 8 inches below the aggregate base material or below the granular subbase layer if present.

#### **C.4.d. Performance and Maintenance**

Many conditions affect the overall performance of the pavements. Some of these conditions include the environment, loading conditions and the level of ongoing maintenance. With regard to bituminous pavements in particular, it is common to have thermal cracking develop within the first few years of placement and continue throughout the life of the pavement. We recommend developing a regular maintenance plan for filling cracks in pavements to lessen the potential impacts for cold weather distress due to frost heave or warm weather distress due to wetting and softening of the subgrade.

## **D. Procedures**

### **D.1. Penetration Test Borings**

We drilled the penetration test borings with a truck-mounted core and auger drill equipped with hollow-stem auger. We performed the borings in general accordance with ASTM D6151 taking penetration test

samples at 2 1/2- or 5-foot intervals in general accordance to ASTM D1586. The boring logs show the actual sample intervals and corresponding depths.

## **D.2. Exploration Logs**

### **D.2.a. Log of Boring Sheets**

The Appendix includes Log of Boring sheets for our penetration test borings. The logs identify and describe the penetrated geologic materials, and present the results of penetration resistance tests performed. The logs also present the results of laboratory tests performed on penetration test samples, and groundwater measurements.

We inferred strata boundaries from changes in the penetration test samples and the auger cuttings. Because we did not perform continuous sampling, the strata boundary depths are only approximate. The boundary depths likely vary away from the boring locations, and the boundaries themselves may occur as gradual rather than abrupt transitions.

### **D.2.b. Geologic Origins**

We assigned geologic origins to the materials shown on the logs and referenced within this report, based on: (1) a review of the background information and reference documents cited above, (2) visual classification of the various geologic material samples retrieved during the course of our subsurface exploration, (3) penetration resistance testing performed for the project, (4) laboratory test results, and (5) available common knowledge of the geologic processes and environments that have impacted the site and surrounding area in the past.

## **D.3. Material Classification and Testing**

### **D.3.a. Visual and Manual Classification**

We visually and manually classified the geologic materials encountered based on ASTM D2488. When we performed laboratory classification tests, we used the results to classify the geologic materials in accordance with ASTM D2487. The Appendix includes a chart explaining the classification system we used.

### **D.3.b. Laboratory Testing**

The exploration logs in the Appendix note most of the results of the laboratory tests performed on geologic material samples. The remaining laboratory test results follow the exploration logs. We performed the tests in general accordance with ASTM procedures.

## **D.4. Groundwater Measurements**

The drillers checked for groundwater while advancing the penetration test borings. We then filled the boreholes noted on the boring logs.

## **E. Qualifications**

### **E.1. Variations in Subsurface Conditions**

#### **E.1.a. Material Strata**

We developed our evaluation, analyses and recommendations from a limited amount of site and subsurface information. It is not standard engineering practice to retrieve material samples from exploration locations continuously with depth. Therefore, we must infer strata boundaries and thicknesses to some extent. Strata boundaries may also be gradual transitions, and project planning should expect the strata to vary in depth, elevation and thickness, away from the exploration locations.

Variations in subsurface conditions present between exploration locations may not be revealed until performing additional exploration work, or starting construction. If future activity for this project reveals any such variations, you should notify us so that we may reevaluate our recommendations. Such variations could increase construction costs, and we recommend including a contingency to accommodate them.

#### **E.1.b. Groundwater Levels**

We made groundwater measurements under the conditions reported herein and shown on the exploration logs, and interpreted in the text of this report. Note that the observation periods were relatively short, and project planning can expect groundwater levels to fluctuate in response to rainfall, flooding, irrigation, seasonal freezing and thawing, surface drainage modifications and other seasonal and annual factors.

## **E.2. Continuity of Professional Responsibility**

### **E.2.a. Plan Review**

We based this report on a limited amount of information, and we made a number of assumptions to help us develop our recommendations. We should be retained to review the geotechnical aspects of the designs and specifications. This review will allow us to evaluate whether we anticipated the design correctly, if any design changes affect the validity of our recommendations, and if the design and specifications correctly interpret and implement our recommendations.

### **E.2.b. Construction Observations and Testing**

We recommend retaining us to perform the required observations and testing during construction as part of the ongoing geotechnical evaluation. This will allow us to correlate the subsurface conditions exposed during construction with those encountered by the borings and provide professional continuity from the design phase to the construction phase. If we do not perform observations and testing during construction, it becomes the responsibility of others to validate the assumption made during the preparation of this report and to accept the construction-related geotechnical engineer-of-record responsibilities.

## **E.3. Use of Report**

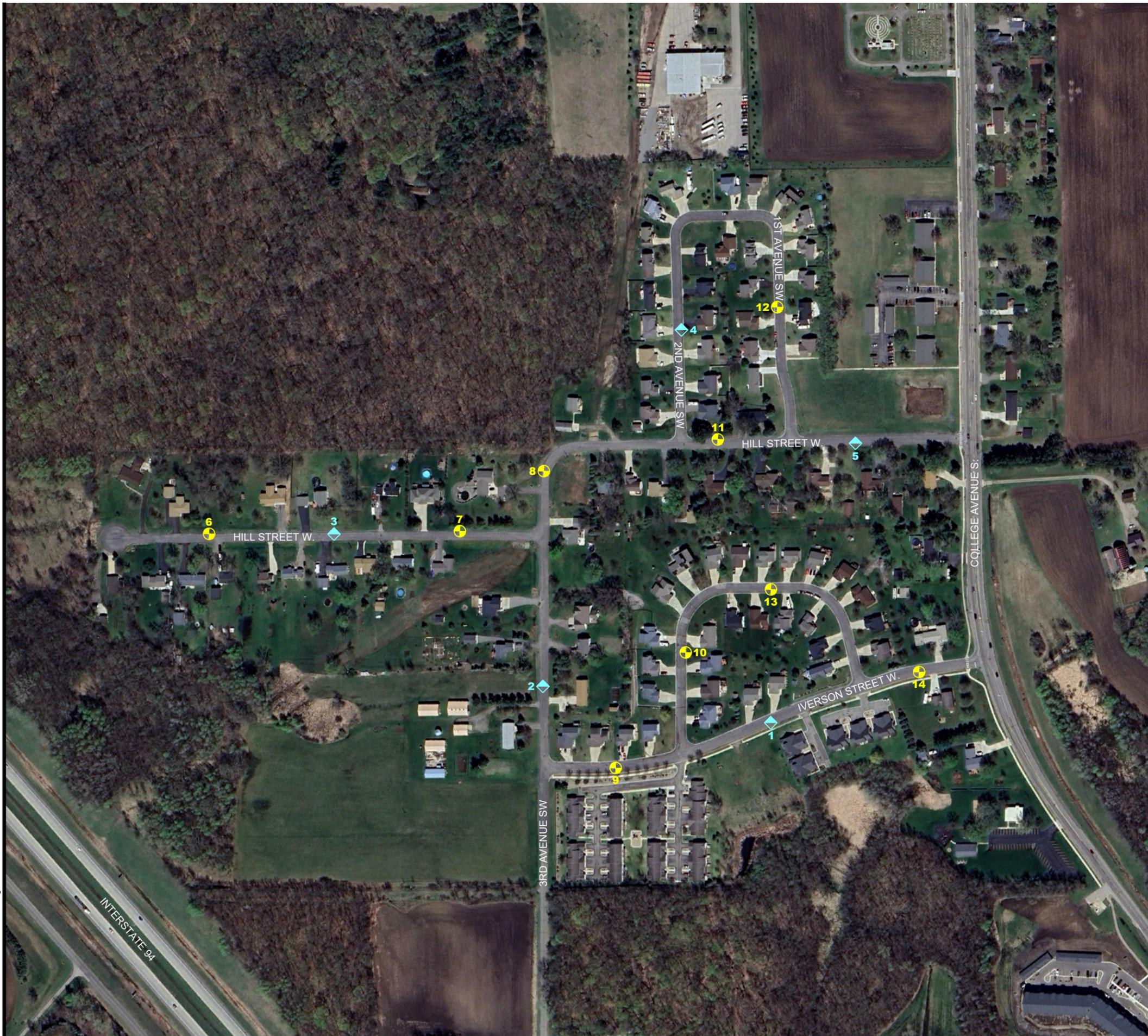
This report is for the exclusive use of the addressed parties. Without written approval, we assume no responsibility to other parties regarding this report. Our evaluation, analyses and recommendations may not be appropriate for other parties or projects.

## **E.4. Standard of Care**

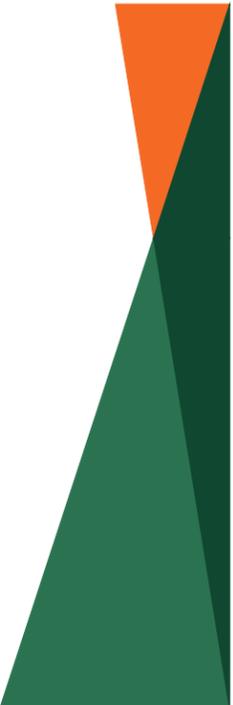
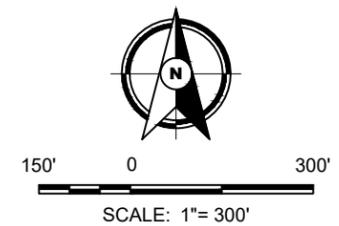
In performing its services, Braun Intertec used that degree of care and skill ordinarily exercised under similar circumstances by reputable members of its profession currently practicing in the same locality. No warranty, express or implied, is made.

## Appendix

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-  DENOTES APPROXIMATE LOCATION OF STANDARD PENETRATION TEST BORING
-  DENOTES APPROXIMATE LOCATION OF PREVIOUSLY PERFORMED SOIL BORING



Drawing Information

Project No:  
B2502673

Drawing No:  
B2502673

Drawn By: JAG  
Date Drawn: 4/30/25  
Checked By: AJH  
Last Modified: 4/30/25

Project Information

2025 Watermain  
Investigation Project

Potions of Foxmore Way,  
2nd Ave. SW,  
3rd Ave. SW, Hill St. W.,  
Iverson St. W. and  
Morningside Loop

St. Joseph, Minnesota

**Soil Boring  
Location Sketch**

See Descriptive Terminology sheet for explanation of abbreviations

<b>Project Number B2401306</b>				BORING: <b>1</b>	
<b>Geotechnical Evaluation</b>				LOCATION: Captured with RTK GPS.	
<b>St. Joseph 2024 Street and Trail Improvements</b>				DATUM: NAD 1983 HARN Adj MN Stearns (US Feet)	
<b>Various Streets and Trails</b>				NORTHING: 198315.8	EASTING: 712847.3
<b>St. Joseph, Minnesota</b>				START DATE: 02/21/24	END DATE: 02/21/24
DRILLER: D. Michalski	LOGGED BY: A. Hillerud	SURFACE ELEVATION: 1089.4 ft		RIG: 7516B	METHOD: 3 1/4" HSA
		SURFACING: Bituminous		WEATHER: Clear 33°	

Elev./Depth ft	Water Level	Description of Materials (Soil-ASTM D2488 or 2487; Rock-USACE EM 1110-1-2908)	Sample	Blows (N-Value) Recovery	q <sub>p</sub> tsf	MC %	Tests or Remarks
1089.1		BITUMINOUS, 3 inches		AU			
0.3		APPARENT AGGREGATE BASE, 15 inches		3-3-4-4			
1087.9		FILL: CLAYEY SAND (SC), trace Gravel, contains lenses of Sand, dark brown and gray, moist		(7) 11"		16	P200=44%
1.5				3-4-7-7			
				(11) 14"			
			5				
1083.4		POORLY GRADED SAND with SILT (SP-SM), fine to medium-grained, brown, moist, medium dense (GLACIAL OUTWASH)		3-5-6			
6.0				(11) 12"			
1080.4		FAT CLAY (CH), brown and gray, moist, stiff (GLACIAL TILL)		3-4-5			
9.0			10	(9) 11"			
1078.4							
11.0		END OF BORING					Water not observed while drilling.
		Boring then backfilled with auger cuttings					
			15				

See Descriptive Terminology sheet for explanation of abbreviations

<b>Project Number B2401306</b>				BORING: <b>2</b>	
<b>Geotechnical Evaluation</b>				LOCATION: Captured with RTK GPS.	
<b>St. Joseph 2024 Street and Trail Improvements</b>				DATUM: NAD 1983 HARN Adj MN Stearns (US Feet)	
<b>Various Streets and Trails</b>				NORTHING: 198425.5	EASTING: 712159.3
<b>St. Joseph, Minnesota</b>				START DATE: 02/21/24	END DATE: 02/21/24
DRILLER: D. Michalski	LOGGED BY: A. Hillerud	SURFACE ELEVATION: 1127.9 ft		RIG: 7516B	METHOD: 3 1/4" HSA
		SURFACING: Bituminous		WEATHER: Clear 33°	

Elev./Depth ft	Water Level	Description of Materials (Soil-ASTM D2488 or 2487; Rock-USACE EM 1110-1-2908)	Sample	Blows (N-Value) Recovery	q <sub>p</sub> tsf	MC %	Tests or Remarks
1127.6		BITUMINOUS, 3 1/2 inches		AU			
0.3		APPARENT AGGREGATE BASE, 5 inches					
1127.2		FILL: POORLY GRADED SAND with SILT (SP-SM), fine to coarse-grained, little Gravel, brown, frozen (moist when thawed) to moist		19-20-8-6 (28) 12"			Geotextile fabric in sampler
0.7							
1124.9		FILL: CLAYEY SAND (SC), little Gravel, brown and dark brown, moist		3-3-5-6 (8) 12"			
3.0			5				
1121.9		FILL: FAT CLAY (CH), dark brown and gray, moist		3-3-3 (6) 9"			
6.0							
1116.9			10	3-3-2 (5) 9"			
11.0		END OF BORING					Water not observed while drilling.
		Boring then backfilled with auger cuttings					
			15				

See Descriptive Terminology sheet for explanation of abbreviations

<b>Project Number B2401306</b>				<b>BORING: 3</b>	
<b>Geotechnical Evaluation</b>				LOCATION: Captured with RTK GPS.	
<b>St. Joseph 2024 Street and Trail Improvements</b>				DATUM: NAD 1983 HARN Adj MN Stearns (US Feet)	
<b>Various Streets and Trails</b>				NORTHING: 198884.3	EASTING: 711528.1
<b>St. Joseph, Minnesota</b>				START DATE: 02/21/24	END DATE: 02/21/24
DRILLER: D. Michalski	LOGGED BY: A. Hillerud		SURFACING: Bituminous		WEATHER: Clear 33°
SURFACE ELEVATION: 1150.3 ft	RIG: 7516B	METHOD: 3 1/4" HSA			

Elev./Depth ft	Water Level	Description of Materials (Soil-ASTM D2488 or 2487; Rock-USACE EM 1110-1-2908)	Sample	Blows (N-Value) Recovery	q <sub>p</sub> tsf	MC %	Tests or Remarks
1150.0		BITUMINOUS, 4 inches		AU			
0.3		APPARENT AGGREGATE BASE, 7 inches					
1149.4		FILL: POORLY GRADED SAND with SILT (SP-SM), fine to medium-grained, little Gravel, brown, moist		5-7-5-5 (12) 15"		5	P200=10% Geotextile fabric in sample
1147.3		FILL: CLAYEY SAND (SC), trace Gravel, brown and dark brown, moist		3-3-4-4 (7) 5"			
3.0			5				
				1-2-2 (4) 4"			
				3-3-3 (6) 4"			
1139.3			10				
11.0		END OF BORING					Water not observed while drilling.
		Boring then backfilled with auger cuttings					
			15				



See Descriptive Terminology sheet for explanation of abbreviations

<b>Project Number B2401306</b>				<b>BORING: 5</b>	
<b>Geotechnical Evaluation</b>				LOCATION: Captured with RTK GPS.	
<b>St. Joseph 2024 Street and Trail Improvements</b>				DATUM: NAD 1983 HARN Adj MN Stearns (US Feet)	
<b>Various Streets and Trails</b>				NORTHING: 199157.8	EASTING: 713103.1
<b>St. Joseph, Minnesota</b>				START DATE: 02/21/24	END DATE: 02/21/24
DRILLER: D. Michalski	LOGGED BY: A. Hillerud		SURFACING: Bituminous		WEATHER: Clear 33°
SURFACE ELEVATION: 1087.3 ft	RIG: 7516B	METHOD: 3 1/4" HSA			

Elev./Depth ft	Water Level	Description of Materials (Soil-ASTM D2488 or 2487; Rock-USACE EM 1110-1-2908)	Sample	Blows (N-Value) Recovery	q <sub>p</sub> tsf	MC %	Tests or Remarks
1087.0		BITUMINOUS, 4 inches		AU			
0.3		APPARENT AGGREGATE BASE, 7 1/2 inches					
1086.3		FILL: SILTY SAND (SM), fine to medium-grained, trace Gravel, brown, frozen (moist when thawed) to moist		28-50-50/2.5" (REF) 9"			
1.0				15-12-10-7 (22) 20"			
			5	4-5-7 (12) 12"			
			10	1-2-3 (5) 12"			
1076.3		END OF BORING					Water not observed while drilling.
11.0		Boring then backfilled with auger cuttings					
			15				

See Descriptive Terminology sheet for explanation of abbreviations

<b>Project Number B2502673</b>				<b>BORING: 6</b>	
<b>Geotechnical Evaluation</b>				LOCATION: Captured with RTK GPS.	
<b>St. Joseph 2025 Watermain Investigation Project</b>				DATUM: NAD 1983 HARN Adj MN Stearns (US Feet)	
<b>Various Streets</b>				NORTHING: 198884.8	EASTING: 711150.6
<b>St. Joseph, Minnesota</b>				START DATE: 04/03/25	END DATE: 04/03/25
DRILLER: D. Michalski	LOGGED BY: A. Hillerud		SURFACING: Bituminous		WEATHER: Clear
SURFACE ELEVATION: 1145.7 ft	RIG: 7516B	METHOD: 3 1/4" HSA			

Elev./Depth ft	Water Level	Description of Materials (Soil-ASTM D2488 or 2487; Rock-USACE EM 1110-1-2908)	Sample	Blows (N-Value) Recovery	q <sub>p</sub> tsf	MC %	Tests or Remarks
1145.4		BITUMINOUS, 3 inches		AU			
0.3		APPARENT AGGREGATE BASE, 7 inches					
1144.9		FILL: POORLY GRADED SAND with SILT (SP-SM), fine to medium-grained, little Gravel, dark brown, wet		4-4-3 (7) 4"			
1141.7		FILL: FAT CLAY (CH), with Sand, contains seams of Silty Sand, gray and brown, moist	5	7-4-3 (7) 12"			
1137.7		FILL: SILTY SAND (SM), fine to medium-grained, little Gravel, dark brown, moist		3-6-7-9 (13) 18"			
1136.2		FILL: CLAYEY SAND (SC), trace Gravel, brown and gray, moist	10	2-5-7-9 (12) 16"			Corrosivity testing performed on sample from 8 to 9 1/2 feet
1135.7		END OF BORING					Water observed at 2.5 feet while drilling.
10.0		Boring then backfilled with auger cuttings					Water observed at 8.0 feet at end of drilling.
			15				Water observed at 4.0 feet with a cave-in depth of 4.0 feet immediately after withdrawal of auger.
			20				
			25				
			30				



See Descriptive Terminology sheet for explanation of abbreviations

<b>Project Number B2502673</b>				BORING: <b>8</b>	
<b>Geotechnical Evaluation</b>				LOCATION: Captured with RTK GPS.	
<b>St. Joseph 2025 Watermain Investigation Project</b>				DATUM: NAD 1983 HARN Adj MN Stearns (US Feet)	
<b>Various Streets</b>				NORTHING: 199073.9	EASTING: 712161.8
<b>St. Joseph, Minnesota</b>				START DATE: 04/03/25	END DATE: 04/03/25
DRILLER: D. Michalski	LOGGED BY: A. Hillerud		SURFACING: Bituminous		WEATHER: Clear
SURFACE ELEVATION: 1130.9 ft	RIG: 7516B	METHOD: 3 1/4" HSA			

Elev./ Depth ft	Water Level	Description of Materials (Soil-ASTM D2488 or 2487; Rock-USACE EM 1110-1-2908)	Sample	Blows (N-Value) Recovery	q <sub>p</sub> tsf	MC %	Tests or Remarks
1130.6		BITUMINOUS, 3 1/2 inches		AU			
0.3		APPARENT AGGREGATE BASE, 8 inches		4-3-4		22	P200=54%
1130.1		SANDY FAT CLAY (CH), with Sand, gray and brown, moist, medium to stiff (GLACIOFLUVIUM)		(7) 12"			
0.8			5	3-4-6 (10) 12"			
				4-4-6-6 (10) 12"			
				3-5-6-9 (11) 22"			
1120.9		END OF BORING	10				Water not observed while drilling.
10.0		Boring then backfilled with auger cuttings					
			15				
			20				
			25				
			30				



See Descriptive Terminology sheet for explanation of abbreviations

<b>Project Number B2502673</b>				<b>BORING: 10</b>	
<b>Geotechnical Evaluation</b>				LOCATION: Captured with RTK GPS.	
<b>St. Joseph 2025 Watermain Investigation Project</b>				DATUM: NAD 1983 HARN Adj MN Stearns (US Feet)	
<b>Various Streets</b>				NORTHING: 198527.3	EASTING: 712590.2
<b>St. Joseph, Minnesota</b>				START DATE: 04/03/25	END DATE: 04/03/25
DRILLER: D. Michalski	LOGGED BY: A. Hillerud		SURFACING: Bituminous		WEATHER: Clear
SURFACE ELEVATION: 1098.0 ft	RIG: 7516B	METHOD: 3 1/4" HSA			

Elev./Depth ft	Water Level	Description of Materials (Soil-ASTM D2488 or 2487; Rock-USACE EM 1110-1-2908)	Sample	Blows (N-Value) Recovery	q <sub>p</sub> tsf	MC %	Tests or Remarks
1097.7 0.3		BITUMINOUS, 4 inches		AU			
1096.5 1.5		APPARENT AGGREGATE BASE, 13 1/2 inches		1-2-2 (4) 6"		30	P200=92%
		FAT CLAY (CH), gray and brown, moist, soft to stiff (GLACIOFLUVIUM)		1-2-2 (4) 12"		27	
			5	4-4-5-6 (9) 16"		28	LL=58, PL=26, PI=32
1088.0 10.0		END OF BORING	10	2-5-6-6 (11) 20"			Corrosivity testing performed on sample from 7 to 9 feet Water not observed while drilling.
		Boring then backfilled with auger cuttings					
			15				
			20				
			25				
			30				

See Descriptive Terminology sheet for explanation of abbreviations

<b>Project Number B2502673</b>				<b>BORING: 11</b>	
<b>Geotechnical Evaluation</b>				LOCATION: Captured with RTK GPS.	
<b>St. Joseph 2025 Watermain Investigation Project</b>				DATUM: NAD 1983 HARN Adj MN Stearns (US Feet)	
<b>Various Streets</b>				NORTHING: 199169.4	EASTING: 712687.3
<b>St. Joseph, Minnesota</b>				START DATE: 04/03/25	END DATE: 04/03/25
DRILLER: D. Michalski	LOGGED BY: A. Hillerud	SURFACE ELEVATION: 1099.2 ft		RIG: 7516B	METHOD: 3 1/4" HSA
		SURFACING: Bituminous		WEATHER: Clear	

Elev./Depth ft	Water Level	Description of Materials (Soil-ASTM D2488 or 2487; Rock-USACE EM 1110-1-2908)	Sample	Blows (N-Value) Recovery	q <sub>p</sub> tsf	MC %	Tests or Remarks
1098.9		BITUMINOUS, 3 inches		AU			
0.3		APPARENT AGGREGATE BASE, 6 inches					
1098.4		FILL: POORLY GRADED SAND with SILT (SP-SM), fine to medium-grained, little Gravel, brown, moist		3-3-3 (6) 12"			Geotextile fabric in sampler
1096.2		FILL: SANDY LEAN CLAY (CL), trace Gravel, black and gray, moist		2-2-3 (5) 6"		18	
3.0			5	2-3-6-7 (9) 20"			Corrosivity testing performed on sample from 7 to 9 feet
1092.2		FILL: SILTY SAND (SM), fine to medium-grained, little Gravel, brown, moist		3-7-5-4 (12) 20"			
7.0		FILL: CLAYEY SAND (SC), little Gravel, brown and black, moist					
1091.2		FILL: SILTY SAND (SM), fine to medium-grained, with Gravel, brown, moist					Water not observed while drilling.
8.0			10				
1090.2							
9.0							
1089.2		END OF BORING					
10.0		Boring then backfilled with auger cuttings					
			15				
			20				
			25				
			30				





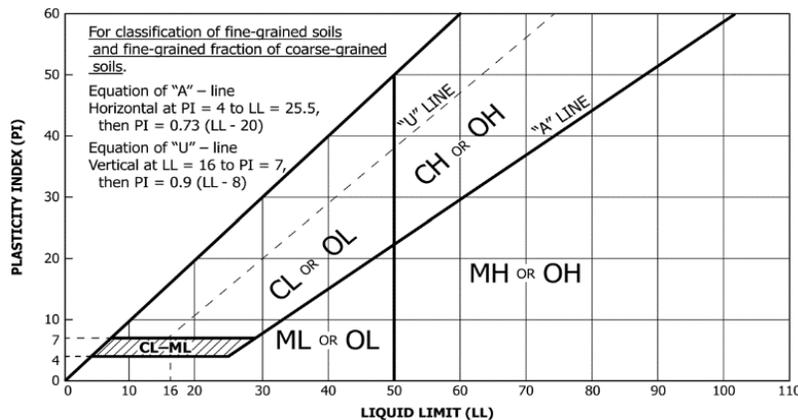
See Descriptive Terminology sheet for explanation of abbreviations

<b>Project Number B2502673</b>				<b>BORING: 14</b>	
<b>Geotechnical Evaluation</b>				LOCATION: Captured with RTK GPS.	
<b>St. Joseph 2025 Watermain Investigation Project</b>				DATUM: NAD 1983 HARN Adj MN Stearns (US Feet)	
<b>Various Streets</b>				NORTHING: 198468.6	EASTING: 713295.2
<b>St. Joseph, Minnesota</b>				START DATE: 04/03/25	END DATE: 04/03/25
DRILLER: D. Michalski	LOGGED BY: A. Hillerud		SURFACING: Bituminous		WEATHER: Clear
SURFACE ELEVATION: 1083.9 ft	RIG: 7516B	METHOD: 3 1/4" HSA			

Elev./Depth ft	Water Level	Description of Materials (Soil-ASTM D2488 or 2487; Rock-USACE EM 1110-1-2908)	Sample	Blows (N-Value) Recovery	q <sub>p</sub> tsf	MC %	Tests or Remarks
1083.6		BITUMINOUS, 4 inches					
0.3		APPARENT AGGREGATE BASE, 10 1/2 inches		AU			
1082.7		FILL: CLAYEY SAND (SC), trace Gravel, dark brown and gray, moist		3-5-8 (13) 12"		9	P200=25%
1079.9		POORLY GRADED SAND (SP), fine to medium-grained, little Gravel, brown, moist, loose (GLACIAL OUTWASH)	5	4-5-3 (8) 16"		6	P200=1% Corrosivity testing performed on sample from 7 to 9 feet Water not observed while drilling.
4.0				3-3-3-4 (6) 18"			
1073.9		END OF BORING	10	4-3-3-3 (6) 18"			
10.0		Boring then backfilled with auger cuttings					
			15				
			20				
			25				
			30				

Criteria for Assigning Group Symbols and Group Names Using Laboratory Tests <sup>A</sup>			Soil Classification		
			Group Symbol	Group Name <sup>B</sup>	
Coarse-grained Soils (more than 50% retained on No. 200 sieve)	Gravels (More than 50% of coarse fraction retained on No. 4 sieve)	Clean Gravels (Less than 5% fines <sup>C</sup> )	$C_u \geq 4$ and $1 \leq C_c \leq 3^D$	GW	Well-graded gravel <sup>E</sup>
		Gravels with Fines (More than 12% fines <sup>C</sup> )	$C_u < 4$ and/or ( $C_c < 1$ or $C_c > 3^D$ )	GP	Poorly graded gravel <sup>E</sup>
			Fines classify as ML or MH	GM	Silty gravel <sup>EFG</sup>
		Sands (50% or more coarse fraction passes No. 4 sieve)	Clean Sands (Less than 5% fines <sup>H</sup> )	$C_u \geq 6$ and $1 \leq C_c \leq 3^D$	SW
	Sands with Fines (More than 12% fines <sup>H</sup> )		$C_u < 6$ and/or ( $C_c < 1$ or $C_c > 3^D$ )	SP	Poorly graded sand <sup>I</sup>
			Fines classify as ML or MH	SM	Silty sand <sup>FGI</sup>
	Fines classify as CL or CH		SC	Clayey sand <sup>FGI</sup>	
	Fine-grained Soils (50% or more passes the No. 200 sieve)	Silts and Clays (Liquid limit less than 50)	Inorganic	PI > 7 and plots on or above "A" line <sup>J</sup>	CL
PI < 4 or plots below "A" line <sup>J</sup>				ML	Silt <sup>KLM</sup>
Organic			Liquid Limit - oven dried	OH	Organic clay <sup>KLMN</sup>
			Liquid Limit - not dried < 0.75		
Silts and Clays (Liquid limit 50 or more)		Inorganic	PI plots on or above "A" line	CH	Fat clay <sup>KLM</sup>
			PI plots below "A" line	MH	Elastic silt <sup>KLM</sup>
		Organic	Liquid Limit - oven dried	OH	Organic clay <sup>KLMN</sup>
			Liquid Limit - not dried < 0.75		
Highly Organic Soils	Primarily organic matter, dark in color, and organic odor		PT	Peat	

- A. Based on the material passing the 3-inch (75-mm) sieve.
- B. If field sample contained cobbles or boulders, or both, add "with cobbles or boulders, or both" to group name.
- C. Gravels with 5 to 12% fines require dual symbols:  
GW-GM well-graded gravel with silt  
GW-GC well-graded gravel with clay  
GP-GM poorly graded gravel with silt  
GP-GC poorly graded gravel with clay
- D.  $C_u = D_{60} / D_{10}$        $C_c = (D_{30})^2 / (D_{10} \times D_{60})$
- E. If soil contains  $\geq 15\%$  sand, add "with sand" to group name.
- F. If fines classify as CL-ML, use dual symbol GC-GM or SC-SM.
- G. If fines are organic, add "with organic fines" to group name.
- H. Sands with 5 to 12% fines require dual symbols:  
SW-SM well-graded sand with silt  
SW-SC well-graded sand with clay  
SP-SM poorly graded sand with silt  
SP-SC poorly graded sand with clay
- I. If soil contains  $\geq 15\%$  gravel, add "with gravel" to group name.
- J. If Atterberg limits plot in hatched area, soil is CL-ML, silty clay.
- K. If soil contains 15 to < 30% plus No. 200, add "with sand" or "with gravel", whichever is predominant.
- L. If soil contains  $\geq 30\%$  plus No. 200, predominantly sand, add "sandy" to group name.
- M. If soil contains  $\geq 30\%$  plus No. 200 predominantly gravel, add "gravelly" to group name.
- N. PI  $\geq 4$  and plots on or above "A" line.
- O. PI < 4 or plots below "A" line.
- P. PI plots on or above "A" line.
- Q. PI plots below "A" line.



<b>DD</b> Dry density, pcf	<b>q<sub>p</sub></b> Pocket penetrometer strength, tsf
<b>WD</b> Wet density, pcf	<b>q<sub>u</sub></b> Unconfined compression test, tsf
<b>P200</b> % Passing #200 sieve	<b>LL</b> Liquid limit
<b>MC</b> Moisture content, %	<b>PL</b> Plastic limit
<b>OC</b> Organic content, %	<b>PI</b> Plasticity index

**Particle Size Identification**

- Boulders..... over 12"
- Cobbles..... 3" to 12"
- Gravel  
Coarse..... 3/4" to 3" (19.00 mm to 75.00 mm)  
Fine..... No. 4 to 3/4" (4.75 mm to 19.00 mm)
- Sand  
Coarse..... No. 10 to No. 4 (2.00 mm to 4.75 mm)  
Medium..... No. 40 to No. 10 (0.425 mm to 2.00 mm)  
Fine..... No. 200 to No. 40 (0.075 mm to 0.425 mm)
- Silt..... No. 200 (0.075 mm) to .005 mm
- Clay..... < .005 mm

**Relative Proportions<sup>L-M</sup>**

- trace..... 0 to 5%
- little..... 6 to 14%
- with.....  $\geq 15\%$

**Inclusion Thicknesses**

- lens..... 0 to 1/8"
- seam..... 1/8" to 1"
- layer..... over 1"

**Apparent Relative Density of Cohesionless Soils**

- Very loose ..... 0 to 4 BPF
- Loose ..... 5 to 10 BPF
- Medium dense..... 11 to 30 BPF
- Dense..... 31 to 50 BPF
- Very dense..... over 50 BPF

**Consistency of Cohesive Soils      Blows Per Foot      Approximate Unconfined Compressive Strength**

- Very soft..... 0 to 1 BPF..... < 0.25 tsf
- Soft..... 2 to 4 BPF..... 0.25 to 0.5 tsf
- Medium..... 5 to 8 BPF..... 0.5 to 1 tsf
- Stiff..... 9 to 15 BPF..... 1 to 2 tsf
- Very Stiff..... 16 to 30 BPF..... 2 to 4 tsf
- Hard..... over 30 BPF..... > 4 tsf

**Moisture Content:**

- Dry:** Absence of moisture, dusty, dry to the touch.
- Moist:** Damp but no visible water.
- Wet:** Visible free water, usually soil is below water table.

**Drilling Notes:**

**Blows/N-value:** Blows indicate the driving resistance recorded for each 6-inch interval. The reported N-value is the blows per foot recorded by summing the second and third interval in accordance with the Standard Penetration Test, ASTM D1586.

**Partial Penetration:** If the sampler could not be driven through a full 6-inch interval, the number of blows for that partial penetration is shown as #/x" (i.e. 50/2"). The N-value is reported as "REF" indicating refusal.

**Recovery:** Indicates the inches of sample recovered from the sampled interval. For a standard penetration test, full recovery is 18", and is 24" for a thinwall/shelby tube sample.

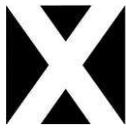
**WOH:** Indicates the sampler penetrated soil under weight of hammer and rods alone; driving not required.

**WOR:** Indicates the sampler penetrated soil under weight of rods alone; hammer weight and driving not required.

**Water Level:** Indicates the water level measured by the drillers either while drilling ( ), at the end of drilling ( ), or at some time after drilling ( ).

**Sample Symbols**

Standard Penetration Test	Rock Core
Modified California (MC)	Thinwall (TW)/Shelby Tube (SH)
Auger	Texas Cone Penetrometer
Grab Sample	Dynamic Cone Penetrometer



# **Results Only Soil Testing for St. Joseph 2025 Watermain Investigation Project**

**April 30, 2025**

**Prepared for:**

**Andrew Hillerud  
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3900 Roosevelt Road, Suite 113  
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**Project X Job#: S250429A  
Client Job or PO#: B2502673**

Prepared by:  
D. Bobrova

Respectfully Submitted,

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## Soil Analysis Lab Results

Client: Braun Intertec Corporation  
 Job Name: St. Joseph 2025 Watermain Investigation Project  
 Client Job Number: B2502673  
 Project X Job Number: S250429A  
 April 30, 2025

Bore# / Description	Method	ASTM D4327		ASTM D4327		ASTM G187		ASTM G51	ASTM G200	SM 4500-D	ASTM D4327	ASTM D6919	ASTM D4327	ASTM D4327					
		Depth	Sulfates		Chlorides		Resistivity		pH	Redox	Sulfide	Nitrate	Ammonium	Lithium	Sodium	Potassium	Magnesium	Calcium	Fluoride
	(ft)	(mg/kg)	(wt%)	(mg/kg)	(wt%)	(Ω-cm)	(Ω-cm)		(mV)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
6	8-9.5	79.9	0.0080	74.8	0.0075	3,149	2,680	7.7	187	0.96	1.0	0.4	ND	50.2	3.1	32.5	123.6	2.9	18.5
7	7-9	32.8	0.0033	14.2	0.0014	1,340	1,206	7.0	180	2.49	2.7	ND	ND	22.0	3.1	31.1	107.1	1.9	3.1
9	6-8	415.8	0.0416	138.4	0.0138	737	670	6.6	203	0.21	0.6	1.7	ND	58.4	5.5	77.5	196.1	4.5	2.0
10	7-9	397.7	0.0398	21.2	0.0021	1,072	938	5.3	219	0.12	0.1	1.3	0.2	44.7	6.5	57.5	137.6	3.3	1.2
11	7-9	25.1	0.0025	82.5	0.0082	4,958	3,283	6.2	178	2.22	0.7	1.9	ND	92.8	3.0	31.5	106.3	4.0	6.7
14	7-9	12.8	0.0013	22.3	0.0022	53,600	12,730	6.9	173	0.93	2.5	1.9	ND	49.3	2.9	24.2	92.0	2.3	10.0

Cations and Anions, except Sulfide and Bicarbonate, tested with Ion Chromatography  
 mg/kg = milligrams per kilogram (parts per million) of dry soil weight  
 ND = 0 = Not Detected | NT = Not Tested | Unk = Unknown  
 Chemical Analysis performed on 1:3 Soil-To-Water extract  
 PPM = mg/kg (soil) = mg/L (Liquid)

For AWWA 105C: 0-3mg/kg sulfide = Negative; 3-6mg/kg = trace; >6mg/kg = Positive

**Note:** Sometimes a bad sulfate hit is a contaminated spot. Typical fertilizers are Potassium chloride, ammonium sulfate or ammonium sulfate nitrate (ASN). So this is another reason why testing full corrosion series is good because we then have the data to see if those other ingredients are present meaning the soil sample is just fertilizer-contaminated soil. This can happen often when the soil samples collected are simply surface scoops. This is why it's best to dig in a foot, throw away the top and test the deeper stuff. Dairy farms are also notorious for these items.

If one sample pops up much more corrosive than all others, we would recommend collecting more samples surrounding the problem sample location to determine if the peak is isolated to it. This allows us to conclude it was a contaminated sample and able to declare it an outlier.

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# Appendix D

Electrical Interference Investigation – Morningside Neighborhood

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**TECHNICAL MEMORANDUM**

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*To:*  
Bryce Johnson, PE

*From:*  
Steven Wenzel

*Date:*  
12/2/2024

*Subject:*  
Watermain Interference Testing

---

## INTRODUCTION

Following two watermain leaks in the past ten years, Lake Superior Consulting, LLC (LSC) was contacted to complete a Cathodic Protection interference investigation on a watermain in Saint Joseph, MN. The area of interest is shown in Figure 1.

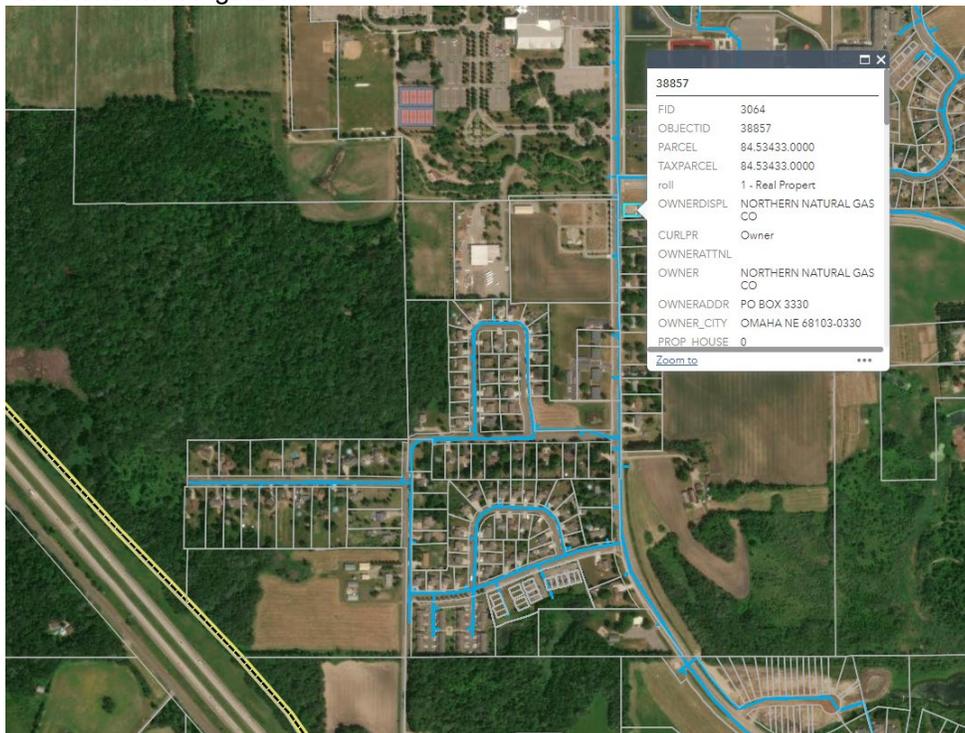


Figure 1: Saint Joesph Watermains

After performing an initial desktop review of known transmission pipelines in the area, via the National Pipeline Mapping System (NPMS) Public Viewer on the Pipeline and Hazardous Materials Safety Administration (PHMSA) website, Northern Natural Gas (Northern) was deemed the closest transmission pipeline utilizing impressed current cathodic protection (ICCP) systems to the watermain. There are also CenterPoint Energy pipelines nearby, however they are suspected to be protected by galvanic anodes, which do not contain the same risk with regards to interference due to lower current outputs. The Northern pipeline crosses the watermain near the locations of the watermain leaks, and there is a Northern rectifier roughly two miles south of the watermain system located at (45.515538, -94.330230). The Northern crossings are at (45.551668, -94.321370) and (45.550915, -94.321981).

## BACKGROUND

Interference is defined by any electrical disturbance on a metallic structure as a result of stray current. Stray current is any current traveling through paths other than the intended circuit.<sup>1</sup> One common form of interference is from ICCP systems. These systems output current from anodes. Anytime another structure is within the voltage gradient created by these anodes, it has the possibility of picking up current. This current can then travel on the metallic structure to a point where it is able to return to the system or pipeline the impressed current groundbed and rectifier was designed to protect. The current will flow back to the source via the protected pipeline in the form of electrons through the soil which will result in corrosion on the pipeline. This can be seen in Figure 2 with the anodes represented as the “ $\ominus$ ” symbol and the direction of current from voltage gradients represented by the arrows.

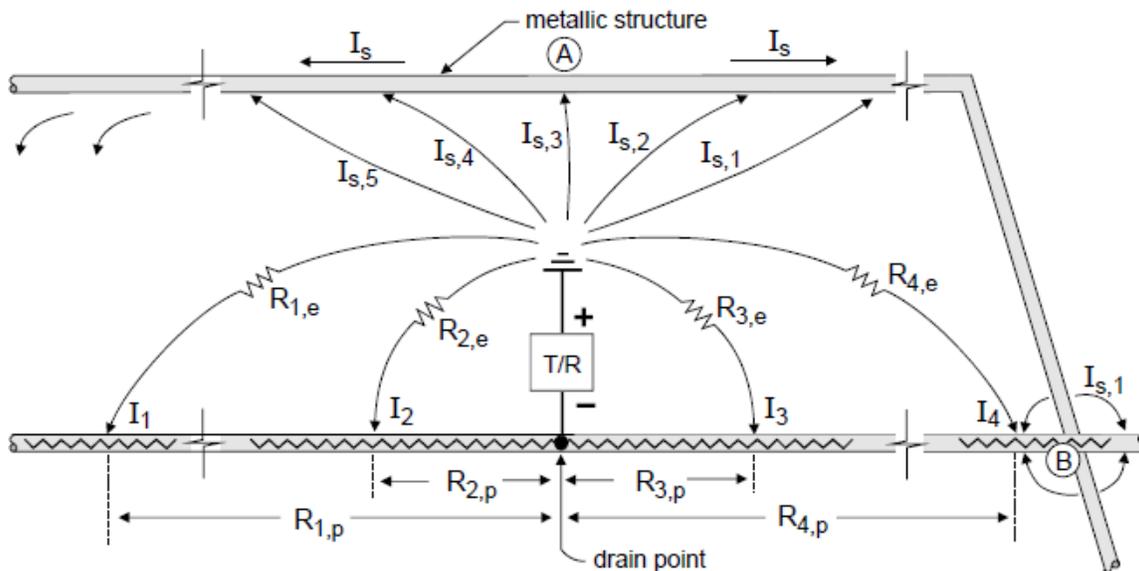


Figure 2: Diagram of Interference<sup>2</sup> – Corrosion caused by interference will occur at B I<sub>s,1</sub>

Corrosion can occur at a rapid rate when it is caused by interference and is dependent upon the amount of current flowing between the structures which is affected by factors such as the coating quality of each structure and the resistivity of the surrounding soil. When current is picked up by a structure from a foreign ICCP system, potentials will become more electronegative. When this current is discharged, the potentials will become more positive, and when this current is interrupted or turned off, an electronegative shift will occur in the potentials. There are other types of interference as well, however they were not tested due to the location of the watermain.

## FIELD TESTING

To test for interference, LSC coordinated interruption of current sources with Northern to see if the influence could be seen on various test points of the watermain. Prior to testing the watermain, LSC confirmed interruption on the rectifier at (45.515538, -94.330230) by amp clamping the conduit. The rectifier was outputting 1.4 amps. This output is relatively low compared to many transmission pipeline rectifiers. Waveforms were taken off valve stems or taken off the tool that the city employee brought to ensure contact to the valves. Due to the pipeline being coupled, the ability to ensure contact from the valve stems to the pipeline segments was limited. However valves closest to the Northern crossings were monitored, and it is unlikely that every testing site resulted in similar results if contact was the issue. LSC also revisited the site to collect waveforms with a probe contacting the pipeline which achieved similar

results to contacting the pipeline via the tool on the valves. If influence is not seen, the waveform will look like Figure 3 on a pipeline without cathodic protection. If interference is occurring, a change in potential of the watermain will occur when the interruption is turned on and off as seen in Figure 4. When interference is occurring the off reading (annotation in the white shaded area) will be more electronegative at a point of discharge.

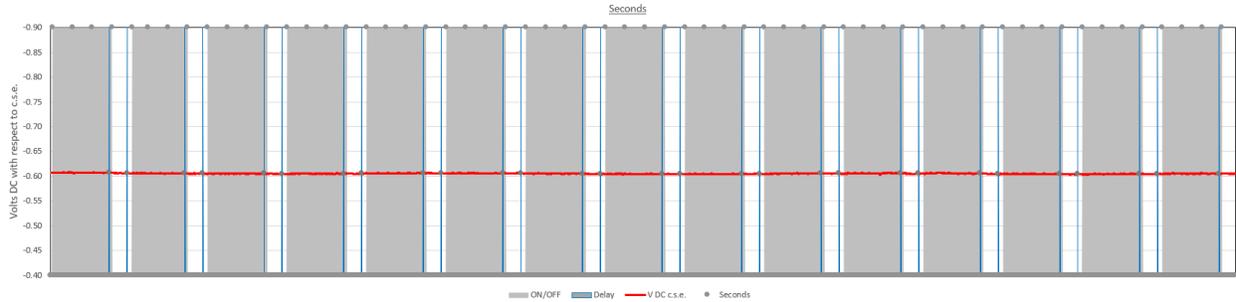


Figure 3: Example of a waveform with no influence

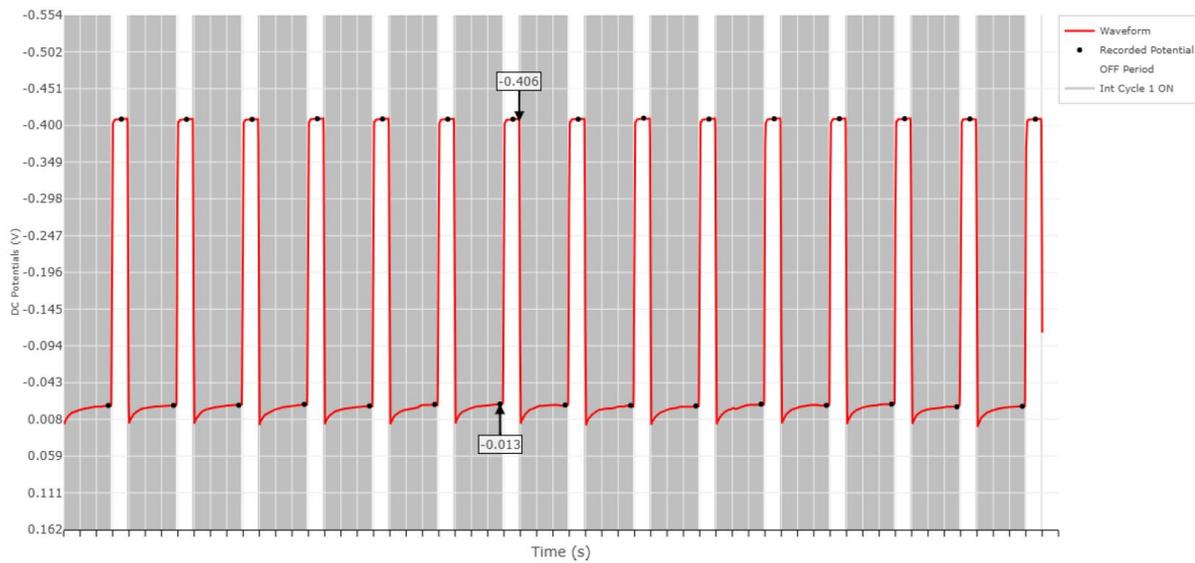


Figure 4: Example waveform indicating interference

At each site tested, there was no influence identified on the waterline in the waveforms collected. LSC also confirmed interruption by capturing a waveform on the Northern pipeline as seen in Figure 5. Table 1 contains locations where waveforms were analyzed.

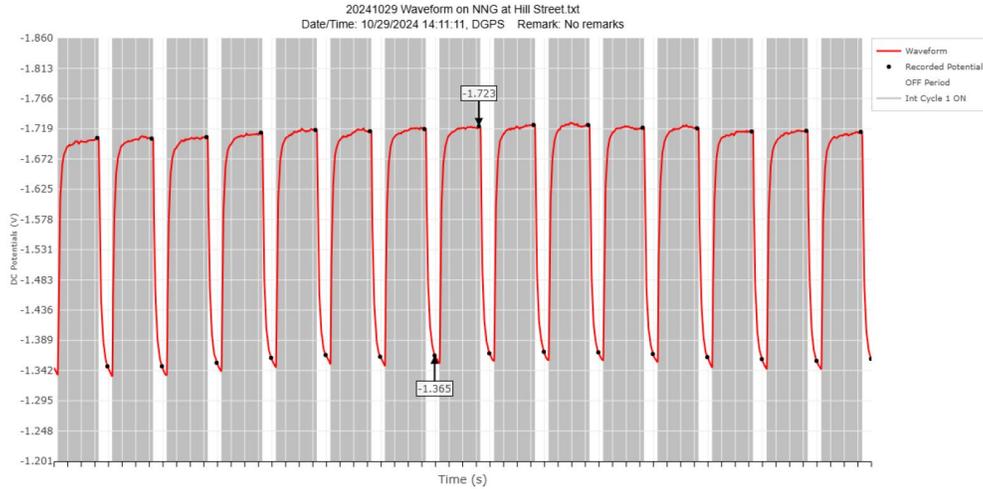


Figure 5: Waveform on Northern Natural Gas at Hill Street

Table 1: Locations waveforms were analyzed

Asset	Latitude	Longitude
Northern	45.551597	-94.321403
Northern	45.550865	-94.322068
Watermain	45.551632	-94.321291
Watermain	45.551736	-94.320276
Watermain	45.550929	-94.321872
Watermain (multiple valves)	45.549141	-94.320294
AC Power Pole Ground	45.551586	-94.321610

At each site tested, minimal to no influence was seen on the watermain. Waveforms collected via a probe on the pipeline are shown in Figures 6, 7, and 8.

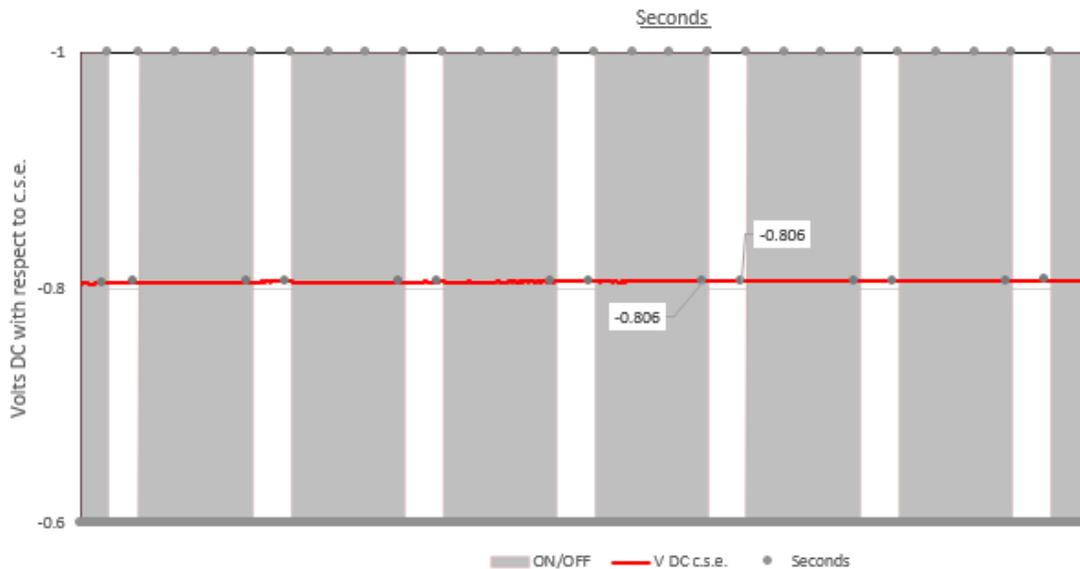


Figure 6: Watermain at 44.551632, -94.321291

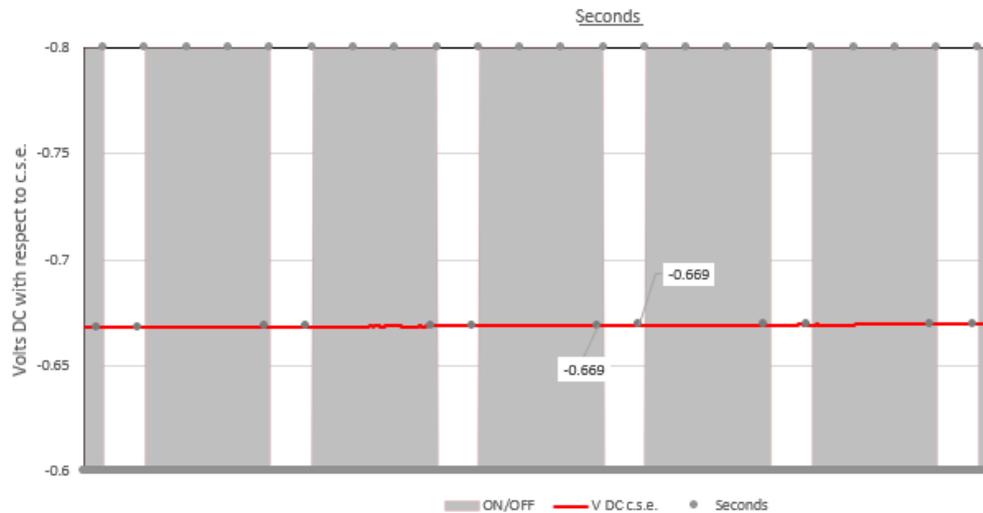


Figure 7: Watermain at 45.549141, -94.320294

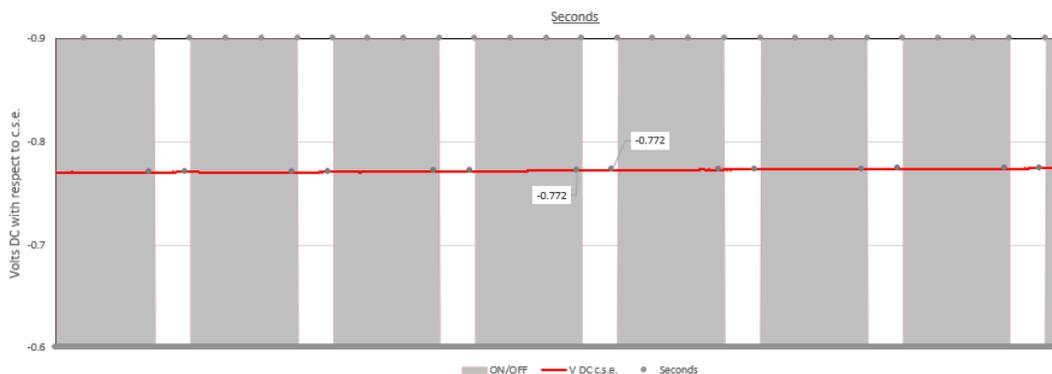


Figure 8: Watermain at 45.550929, -94.321872

## CONCLUSION

Based on the testing results from October and November in 2024, LSC did not identify measurable influence from the interrupting Northern rectifiers on the watermain at any locations tested. Due to valves being set on the watermain, it is possible that electrical continuity was not made during the interference testing, however many sites were investigated, and it is unlikely that this occurred at every site. Additionally, the site was revisited and tested with a probe contacting the pipeline which achieved similar results. Based on the watermain being coupled, designing a corrosion mitigation system will be more challenging without installing bonding cables to ensure continuity throughout the system. If another leak occurs or anytime the pipeline is exposed, LSC suggest the city considers installing magnesium anodes at the locations of the leaks to add protective current and aid in mitigation of any potential stray currents or other corrosion that may arise in the future. Ideally these connections are made through a test stations. Additionally, testing can be performed by making a pipeline connection directly rather than through the valves or anodes leads. A test lead can also be installed to ensure continuity when testing the sites in the future.

## REFERENCES

1. NACE SP 0169-2013, "Control of External Corrosion on Underground or Submerged Metallic Pipeline Systems" (Houston, TX: NACE International)
2. NACE International. (2016). CP Interference (July 2007 ed).

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