City of Sunfish Lake

FEASIBLITY REPORT

2017 STREET IMPROVEMENT PROJECT

September 29, 2016

City of Sunfish Lake

WSB PROJECT NO. 2182-22

WSB

FEASIBILITY REPORT

2017 STREET IMPROVEMENT PROJECT
FOR THE
CITY OF SUNFISH LAKE
CITY PROJECT 2016-02 ROANOKE ROAD
CITY PROJECT 2016-03 SALEM CHURCH ROAD

September 29, 2016

Prepared By:

WSB & Associates, Inc.
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September 29, 2016

Honorable Mayor and City Council
City of Sunfish Lake
15 Sunnyside Lane
Sunfish Lake, MN 55118

RE: Feasibility Report
2017 Street Improvement Project
City of Sunfish Lake, MN
WSB Project No. 2182-22

Dear Mayor and City Council Members:

WSB & Associates, Inc. (WSB) is submitting the enclosed Feasibility Report for improvements to Salem Church Road and Roanoke Road as requested by the City Council.

The study looked at pavement rehabilitation utilizing bituminous reclamation of the existing bituminous surface and the placement of bituminous surfacing. The project cost is proposed to be recovered by assessment to benefiting parcels, City financing, and ad-valorem taxes.

Once you have had an opportunity to review this report, if you have any questions or comments, please contact me at 763-231-4859.

Sincerely,

WSB & Associates, Inc.

Donald W. Sterna, PE
City Engineer

Enclosure

cc: Richard Williams, Jr., Council Member
Steven Bulach, Council Member
Mike Hovey, Council Member
Joanne Wahlstrom, Council Member
Timothy Kuntz, City Attorney
Ryan Grittman, City Planner, Northwest Consultants
Jim Nayes, City Forester
Mike Andrejka, Building Inspector
Cathy Iago, City Clerk

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.

Eric M. Eckman, PE

Date: September 29, 2016 License No. 49954

Quality Control Reviewed by:

Donald W. Sterna, PE

Date: September 29, 2016 License No. 19103

TABLE OF CONTENTS

1. EXECUTIVE SUMMARY

The 2016 Capital Improvements Plan (CIP) identified two (2) separate projects located on Salem Church Road and Roanoke Road that need improvements to maintain the roadway infrastructure in the City. The City's Capital Improvement Plan is a multi-year tool to plan, finance, and maintain City infrastructure. This plan identifies street and drainage improvements and major street maintenance items to sustain and maintain the City's infrastructure to obtain the most useful life.

The City has also established a Pavement Management Program that evaluates street pavement conditions of all City streets. The Pavement Management Program rates the structural condition of City streets utilizing a system called Pavement Condition Index (PCI). The PCI rating scale is from one to 100 with 100 being a pavement with no deterioration. A rating below 60 to 65 indicates a pavement structure that has defects that are too large for corrective measures by mere maintenance such as crack seal and seal coat. Streets with these ratings require reconstruction or rehabilitation to extend the pavement life.

Sunfish Lake roads were evaluated in 2015. The eastern section of Salem Church Road from Roanoke Road to Robert Street had PCI ratings between 40 and 49. Roanoke Road had PCI ratings below between 50 and 59.

Due to the low PCI ratings, it was determined that full depth mill (reclamation) and overlay would be the most cost-effective way to extend the life of Salem Church Road and a 2-inch overlay was required on Roanoke Road.

The proposed improvements on Salem Church Road consist of full depth reclamation of the existing bituminous surface and placing four inches of bituminous surfacing, shouldering, roadside swale grading and turf restoration. Roanoke Road is recommended to have a 2-inch overlay paced on top of the existing pavement.

The total combined estimated project cost is $413,980 of which $133,000 is proposed to be assessed to the adjacent benefiting property owners. The recommended assessment rates were determined based on comparisons with the City's current assessment policy and a review of previously assessed project of similar work characteristics. The proposed assessments recommended for the project areas are as follows:

- $5,000 / unit for Salem Church Road (15 Total Units)
- $6,000 / unit for Roanoke Road (8 Total Units)

2. INTRODUCTION

2.1 Authorization

The 2016 Capital Improvement Plan (CIP) identified street rehabilitation of Roanoke Road and Salem Church Road between Roanoke Road and Robert Street. The CIP preliminarily identified project costs and funding sources. The City Council authorized preparation of a feasibility study on May 3, 2016, for Roanoke Road and Salem Church Road between Roanoke Road and Robert Street, and Roanoke Road. These projects have been designated as City Project Nos. 2016-02 and 2016-03. A project location map is shown on ***Figure 1*** located in ***Appendix A***.

2.2 Scope

Roanoke Road and Salem Church Road between Roanoke Road and Robert Street were reviewed for existing bituminous pavement conditions and local drainage conditions within the roadway right of way to determine the best rehabilitation measures to extend the pavement life in 2015. Work and quantities are to be estimated to determine the project construction cost and indirect cost to complete the identified improvements. The proposed improvements, project cost, anticipated benefit, project schedule, and preliminary assessment roll will be part of the feasibility study and presented in the feasibility report.

2.3 Pavement Management

The City of Sunfish Lake rates the condition of the City's streets. These ratings are completed on a three-year cycle. The pavement rating known as Pavement Condition Index (PCI) ranks pavements on a scale according to the amount of pavement deterioration that is visually evident. A Pavement Condition Index map for the City is shown on ***Figure 5*** located in ***Appendix A***.

2.3.1 Pavement Life Cycle

All pavements will deteriorate over time. Typically, pavement deteriorates at an ever-increasing rate. At first, very few distresses are present, and the pavement stays in relatively good condition. As the pavement ages, more distresses develop, and each distress makes it easier for subsequent distresses to develop. For instance, once a substantial crack occurs, it is then easier for water to infiltrate the hot-mix asphalt layer, penetrating and weakening the subgrade. This cycle is exacerbated by freeze-and-thaw cycles.

The existing bituminous pavement condition for the City's streets have been observed, deteriorations identified, and the streets assigned a Pavement Condition Index for each segment of roadway.

PCI values were calculated based on ratings and measurement of actual distresses encountered in the pavements. Some examples of typical pavement distresses include transverse and longitudinal cracking, block cracking, and alligator cracking. The calculation of the PCI value for an individual street takes into account the area of

distresses encountered as well as the severity of each distress. The evaluation was completed, and the calculations of the Pavement Condition Index for the distress category were based on the data and methods as described in the "Pavement Maintenance Management System" prepared by the U.S. Army Corps of Engineers. ***Figure A*** found on ***Page 4*** graphically shows the relationship between the street age, pavement condition index, and maintenance requirements.

2.3.2 Maintenance Strategy

Maintenance and rehabilitation are two principal treatments used to extend pavement life. Reconstruction is the final, and most drastic, treatment necessary to bring a street back to a new condition. These treatments will first, immediately increase the pavement condition and secondly, affect the future rate of deterioration. In general, maintenance can slow the rate of deterioration by correcting small pavement defects before they can worsen and contribute to further defects. *Beyond a certain point, typically a PCI of 65, defects become very cost prohibitive to correct, and maintenance is no longer effective.* At this point, rehabilitation or reconstruction can be used to affect a wholesale correction of a large number of relatively severe defects, which provides a step increase in pavement condition.

Figure A on the following page illustrates the relationship between Pavement Condition Index, age of street, and maintenance condition. ***Table 1*** below identifies the street characteristics associated with PCI ratings and the typical maintenance, rehabilitation, or rehabilitation strategies necessary to extend pavement life.

Table 1
PCI Values and Maintenance Strategies

PCI Range	Street Characteristics	Maintenance Method	Additional Items Often Repaired
71-100	Low to medium severity potholes, frost cracking, medium severity transverse cracking, aggregate polishing, low severity raveling	Routine Maintenance/ Crack Seal/Seal Coat	Spot Patching
61-70	Low to medium severity longitudinal and transverse cracking, low and moderate severity edge and curb cracking and spalling, low to medium severity block cracking, medium severity raveling	Patch/Repair	Review area for drainage improvements, spot overlays
0-60	Medium to high severity longitudinal and transverse cracking, medium to high severity reflective cracking, alligator cracking, medium to high severity potholes, high severity edge and curb cracking and spalling, rutting, excessive skin patching, high severity raveling, medium to high severity frost heaving	Mill and Overlay/Reclaim and Recycle/Reconstruct/ Upgrade	Replace or install culverts or storm sewer, adjust road grade and alignment, replace or install curb and gutter


LOW COST
MIN. MAINT.
MODERATE COST
SPECIAL MAINT.
HIGH COST
RECONSTRUCT
PAVEMENT CONDITION INDEX
AGE OF STREET
100
90
80
70
60
50
40
30
20
10
0
0
2
4
6
8
10
12
14
16
18
20

Figure A

3. EXISTING CONDITIONS

3.1 2017 Street Improvements

Salem Church Road is a collector roadway that was originally constructed to provide access to the adjacent parcels and as an east to west link between Delaware Avenue and Minnesota Trunk Highway 3, (Robert Street). Construction of Interstate 494 realigned the east end of Salem Church Road from Roanoke Road to Robert Street. The segment of Salem Church Road being studied with this report was originally reconstructed as part of I-494 construction.

Roanoke Road was constructed in 1989 as a local cul-de-sac roadway serving only the adjoining eight (8) residential properties.

3.1.1 Street Section

The existing pavement width is 18- to 24-feet wide with a two to four foot shoulder width. The shoulder width is inconsistent and tends to be narrower in locations of fill sections with steep slopes. The following are the current roadway widths:

- Salem Church Road 23-24 feet
- Roanoke Road 22 feet

3.1.2 Pavement

The City of Sunfish Lake's roads were evaluated in 2015 for the Pavement Condition Index. Roanoke Road had a PCI rating between 50 and 59. The section of Salem Church Road between Roanoke Road and Robert Street had a PCI rating between 40 and 49.

Salem Church Road pavement surface has areas of spalling, potholes, longitudinal cracking, considerable transverse cracking, and block cracking. The rate of deterioration has been increasing over the past 3 to 4 years with increasing pothole and surface repairs. Rutting is also occurring within the wheel tracks of the roadway in several locations. The pavement surface has deteriorated to a point where an overlay is no longer a viable surface repair method.

Roanoke Road was originally constructed in 1989 when this neighborhood was subdivided. The roadway is a low volume local roadway that is cul-de-sac thereby, limiting non-resident vehicle traffic. Roanoke was originally a private roadway however, was constructed to city standards. In the 1990's, the residents successfully petitioned the City Council to accept the roadway as a public street. The roadway maintenance today has consisted of crack filling and seal coating.

Roanoke Road pavement surface has areas of transverse cracking and the surface is showing early signs of distress, which means seal coating is no longer the selected maintenance method to extend its life cycle.

3.1.3 Drainage

Drainage along Salem Church Road consists of roadside swales with culverts at driveways and cross culverts or centerline culverts. Four centerline culverts convey runoff from one side of Salem Church Road to the other. Three center culverts are corrugated steel and the fourth is reinforced concrete. Although these culverts appear to be in adequate condition, City policy is to replace corrugated metal culverts when roadways are reconstructed.

The north side of the westerly one-third of Salem Church Road from Roanoke Road to 500 feet east of Salem Lane has its runoff flow to a 24 inch diameter corrugated metal centerline culvert. The runoff flows south across a drainage easement to interstate 494 where it discharges into MnDOT Right-of Way. The middle third of Salem Church Road up to Windy Hill Road flows east to a 54 inch reinforced culvert that carries the water across interstate 494 toward Horseshoe Lake. The remaining drainage along Salem Church Road drainers east and north through two (2) corrugated metal drainage pipes that carry the drainage northerly to a MnDOT pond located in the northwest quadrant of Salem Church Road and Robert Street. These areas collect runoff prior to discharge downstream.

3.1.4 Driveways

Multiple driveways extend along Salem Church Road and Roanoke Road. The sight lines and distances from these driveways are generally good; however, over time vegetation growth begins to impact these sightlines. Sight distance, due to growth of roadside trees and shrubs, is restrictive in a couple of instances. The private driveways consist of bituminous and concrete surfacing with corrugated steel culverts to maintain drainage.

4. PROPOSED IMPROVEMENTS

4.1 Road Alignment

The existing horizontal and vertical alignment of the roadway will be maintained. The vertical alignment will have minor adjustments resulting from the proposed reclaiming of the bituminous surface and roadway grading. The proposed pavement improvements will raise the centerline profile on Roanoke Road by 2 inches and on Salem Church Road around 4 to 5 inches.

4.2 Street Section

The proposed pavement section recommendation varies from a 22-foot wide bituminous surface on Roanoke Road, to a 24-foot wide bituminous surface with two-foot aggregate shoulders along Salem Church Road. This generally matches the existing sections that are currently in place.

4.3 Pavement Reconstruction

4.3.1 Salem Church Road

The existing roadway consists of 4 to 6 inches of bituminous pavement over 6 to 8 inches of aggregate base with moderated to sever deterioration. Over the past several years, the numbers of potholes and full depth patch repairs have increased to a point where just and overlay is no longer a viable financial repair method. Salem Church Road is recommended to be a full depth reclamation, which will involve grinding up the bituminous surface and blend it into the underlying aggregate surface. The reclaimed roadway section will have 2 lifts of 2 inches of bituminous pavement placed over the reclaimed roadway. The new surface will be raised about 5 inches above the current elevation.

4.3.2 Roanoke Road

The existing roadway consists of approximately 4 inches of bituminous pavement over 6 to 8 inches of aggregate base. The current surface condition is starting to show early signs of distress where an overlay is the best financial method to extend the life cycle of this roadway. The new surface will be raised 2 inches above the current elevation.

4.4 Drainage Improvements

The existing corrugated metal centerline culverts have life expectancy of 35 to 50 years. Although visual inspection of the culverts indicates they are in adequate condition, culvert replacement of the corrugate steel culverts is proposed due to the age of the existing culverts and potential for material failure in the near future. There is one reinforced concrete culvert that was installed as part of the I-494 project which is recommended to remain in place and is in good condition. Three of the four existing centerline culverts are corrugated metal and are proposed to

be replaced with dual wall HDPE (High Density Polyethylene) smooth wall pipe of the same size.

4.5 Driveways

The proposed improvements will result in slightly raising the profile of the roadway. This requires minor adjustments to driveways and public street intersections to match the proposed grade of Salem Church Road and Roanoke Road. The driveways will be cut back approximately ten to fifteen feet and reconstructed with bituminous pavement. Existing concrete driveways will be replaced with bituminous pavement since these existing improvements extend into public right of way.

4.6 Restoration

Restoration of disturbed areas will be by seed and mulch of areas that are currently not maintained and sodding of maintained turf areas. Erosion control blanket will be placed on non-sodded embankment slopes and in any disturbed ditch areas. Silt fence and culvert inlet protection will be installed as necessary around areas susceptible to erosion.

5. FINANCING

5.1 Opinion of Probable Cost

Appendix B includes a Preliminary Opinion of Cost for the proposed bituminous reclaiming and overlay, culvert improvements, driveway reconstruction, and restoration. The opinion of probable cost includes a ten percent construction contingency and a 25 percent overhead multiplier for indirect project costs. Indirect project cost includes administrative, engineering, legal, bonding cost, capitalized interest, geotechnical, and other miscellaneous project costs.

Salem Church Road Reconstruction (C.P. 2016-03)	
Street Improvements Cost	$341,780
Drainage Improvement Cost	$13,060
Total Project Cost	$354,840
Roanoke Road Overlay (C.P. 2016-02)	
Street Improvements Cost	$59,140
Total Project Cost	$59,140

5.2 Funding

Below are proposed assessment scenarios based on the City's current assessment policy. A copy of the City's current assessment policy can be found in ***Appendix C***. Due to different types of properties and the variation in the type of repair construction methods proposed for each roadway segment the City undertook an independent Benefit Analysis study to assist in establishing the preliminary assessment rolls. In ***Appendix D*** is a copy of the Benefit Analysis report for your information. The proposed funding for the improvements will be a combination of funding from City funds, assessments to benefiting properties, and ad-valorem taxes. The following are separate funding scenarios and proposed assessments.

5.2.1 Roanoke Road – 80-20 Assessment (Local Street) per Policy

The City's assessment policy has identified an 80-20 split between assessment to benefitting properties and City funds for rehabilitation improvements to local roadways. Roanoke Road is classified as local streets as defined in the City's assessment policy and the following assessment calculations were made using this policy.

Roanoke Road

The total estimated project cost is $59,140.00.

Utilizing an 80-20 Split for Assessment the Assessable cost is:

$59,140 x 80% = $47,312.00

The assessment amount per unit is then:

$47,302/8 units = $5,914.00/unit

The City's share (20%) would is estimated to be $11,828.00.

5.2.2 Salem Church Road – 40-60 Assessment (Collector) per Policy

The City's assessment policy has identified a 40-60 split between assessment to benefitting properties and City funds for rehabilitation improvements to collector roadways. Salem Church Road is classified as a Collector Roadway as defined in the City's assessment policy and the following assessment calculations were made using this policy.

Salem Church Road

The total estimated project cost is $354,840.00.

Utilizing a 40-60 Split for Assessment the Assessable cost is:

$354,840.00 x 40% = $141,936.00

The assessment amount per unit is then:

$141,936.00/15 units = $9,462.00/unit

The City's share (60%) would is estimated to be $212,904.00.

5.2.3 Recommended Assessments

There are 2 separate project areas proposed to bid together as part of the 2017 Street Improvement Project for the City. The calculated assessments per the City's assessment policy for the project areas are (as explained in section 5.2 Funding above):

- Roanoke Road $6,000.00 / unit (80% assessment rate)
- Salem Church Road $9500.00 / unit (40% assessment rate)

Based on extensive discussions with the city attorney's office, staff recommends that Roanoke Road follow the City Assessment Policy. Salem Church Road however, is recommended assessing based on an adjustment to the City's Assessment Policy due to several distinct limiting factors, which have reduced assessable properties on this section of Salem Church Road. The presence of I-494 along the south side of Salem Church Road prevented development along half of this roadway section. Secondly, a large undeveloped property, which is planned to only have one lot access to Salem Church Road do to the topography of the lot, which further limits the assessable units.

It is recommended that Salem Church Road, areas be assessed at about a 53% of the full benefit rate due to the limitations on assessable units of this section of Salem Church

Road properties. Parcel 23, as identified on ***Figure 4*** is proposed to be assessed for 1 unit since this lot was originally proposed to have once lot access to Salem Church Road on the lower portion of the lot with the remaining upper area accessing to Windy Hill Road. Roanoke Road is proposed to just have a pavement overlay. Therefore staff recommends to follow the City Assessment Policy. **The proposed assessments recommended for the project areas therefore are as follows:**

- **$6,000 / unit for Roanoke Road (80% assessment rate)**
- **$5,000 / unit for Salem Church Road (21% assessment rate)**

6. LEGAL DESCRIPTION

The Salem Church Road Reconstruction Improvements are proposed to be assessed to the adjacent benefiting properties. The benefiting properties shall be all parcels that have direct or indirect access from Salem Church Road. Direct access is defined as a private driveway that extends from Salem Church Road. Indirect access includes parcels with multiple-user private driveways and private streets.

The legal description for the benefiting parcel is:

> *All parcels extending from Salem Church Road located between Roanoke Road to the east and Robert Street to the west within Section 31, Township 28N, Range 22W, City of Sunfish Lake, Dakota County, Minnesota.*

The Roanoke Road Improvements are proposed to be assessed to the adjacent benefiting properties. The benefiting properties shall be all parcels that have direct access from Roanoke Road. Direct access is defined as a private driveway that extends from Roanoke Road.

The legal description for the benefiting parcel is:

> *All parcels extending from Roanoke Road located south of Salem Church Road within Section 31, Township 28N, Range 22W, City of Sunfish Lake, Dakota County, Minnesota.*

7. PROJECT SCHEDULE

The preliminary project schedule identifies the estimated time schedule to complete the various tasks. The project schedule is based on acquisition of street easements and construction in 2017.

Receive Draft Feasibility Study ..... October 2016

Accepts Feasibility Report/Draft Financing Plan/Schedule ..... November 2016

Order Public Hearing ..... December 2016

Open House ..... January 2017

Receive Final Feasibility Study ..... February 2017

Public Hearing ..... February 2017

Order Plans and Specifications ..... February 2017

Approve Plans and Specifications and
Authorize Advertisement for Bids ..... March 2017

Receive Bids ..... April 2017

Award Contract ..... April 2017

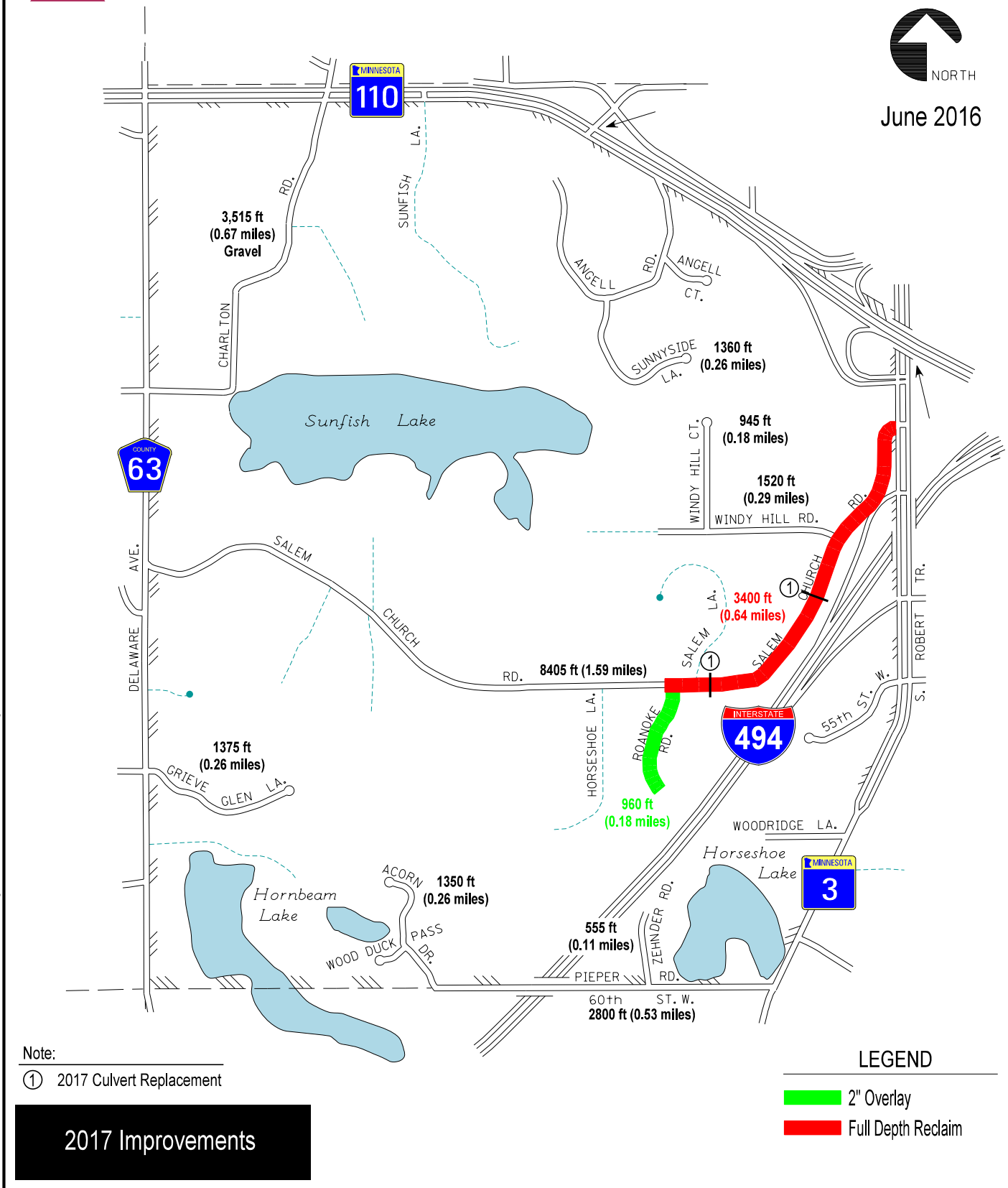
Begin Construction ..... June 2017

Complete Construction ..... July 2017

Assessment Hearing ..... September 2017

APPENDIX A

Figure 1 − Location
Figure 2 − Typical Section Salem Church Road
Figure 3 – Typical Section Roanoke Road
Figure 4 – Proposed Assessment Area
Figure 5 – Pavement Condition Index Map



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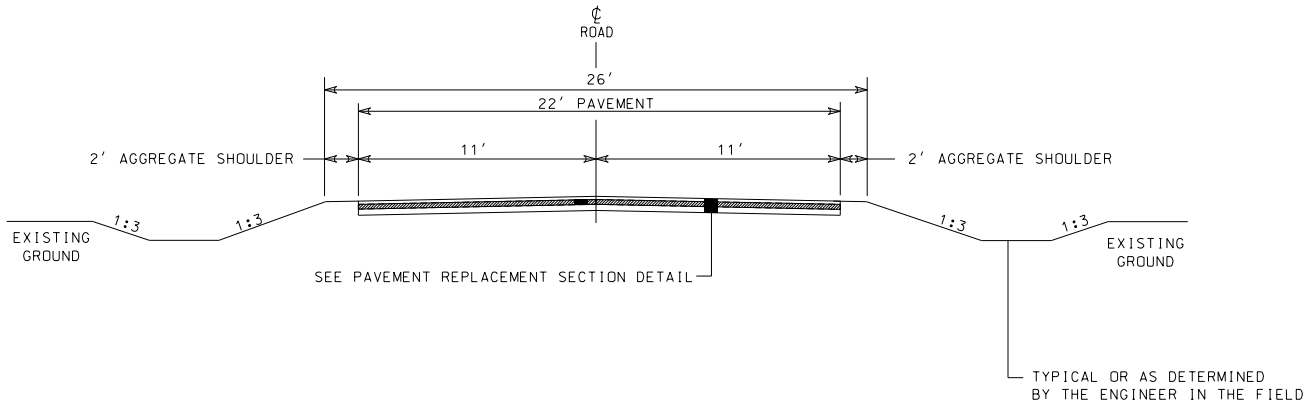
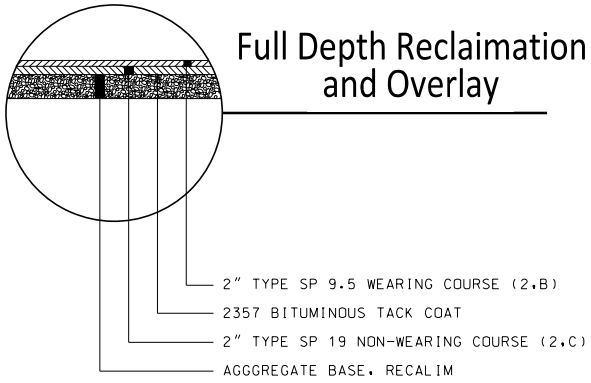
2017 Street Improvements
Sunfish Lake, Minnesota

Figure 1
2017 Street Improvements
Location and Improvements Map



Typical Section



Full Depth Reclaimation and Overlay

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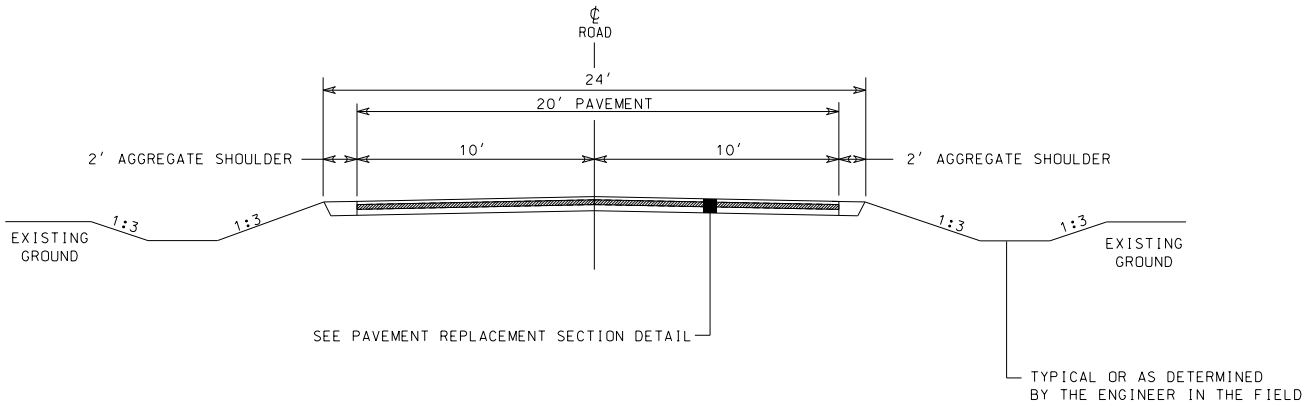
2017 Street Improvements

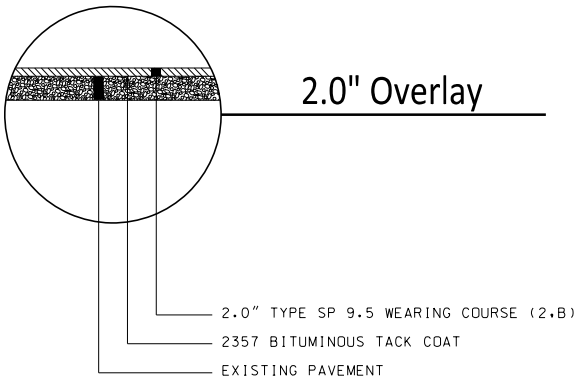
Sunfish Lake, Minnesota

Figure 2

Salem Church Road



Typical Section



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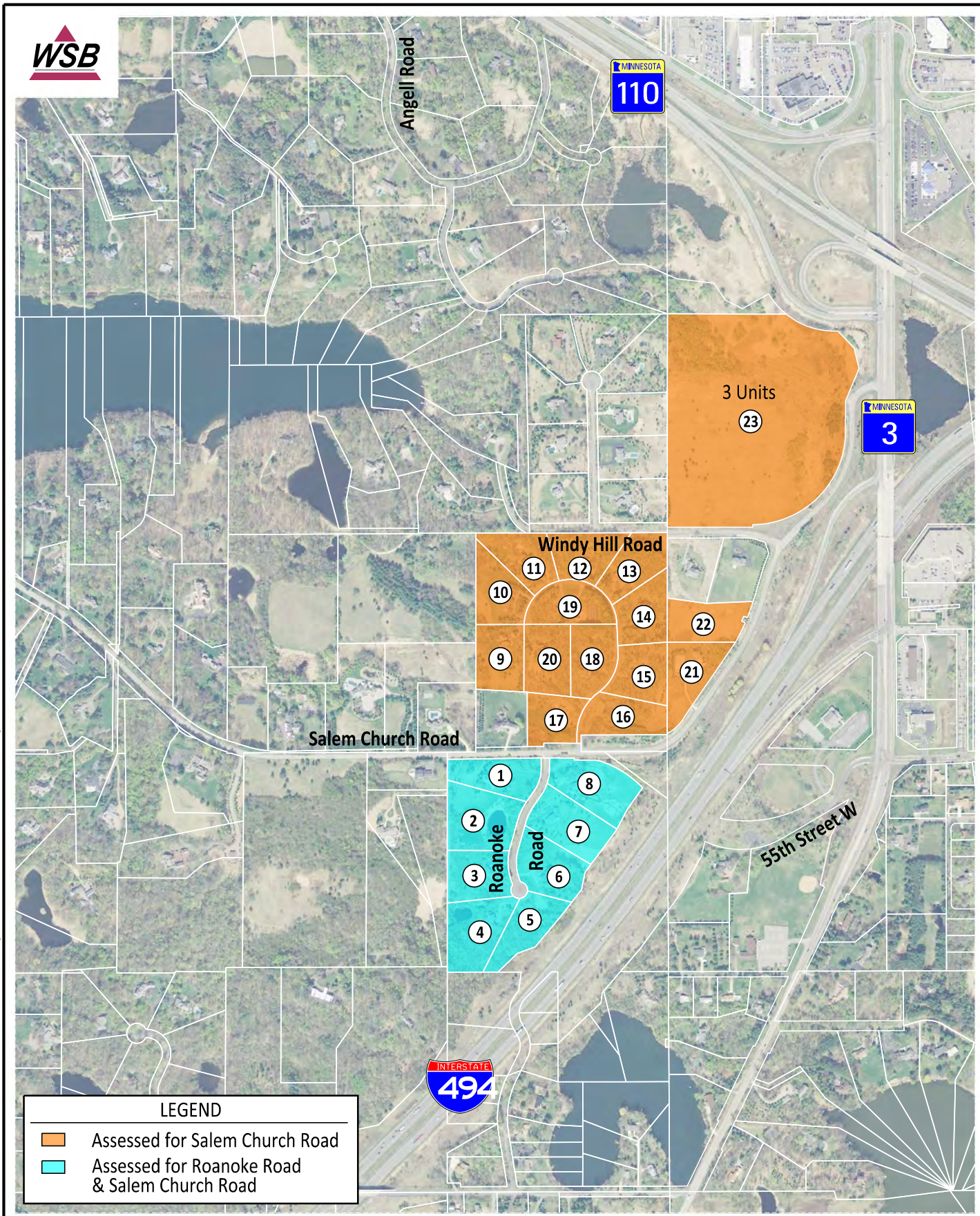
2017 Street Improvements

Sunfish Lake, Minnesota

Figure 3

Roanoke Road



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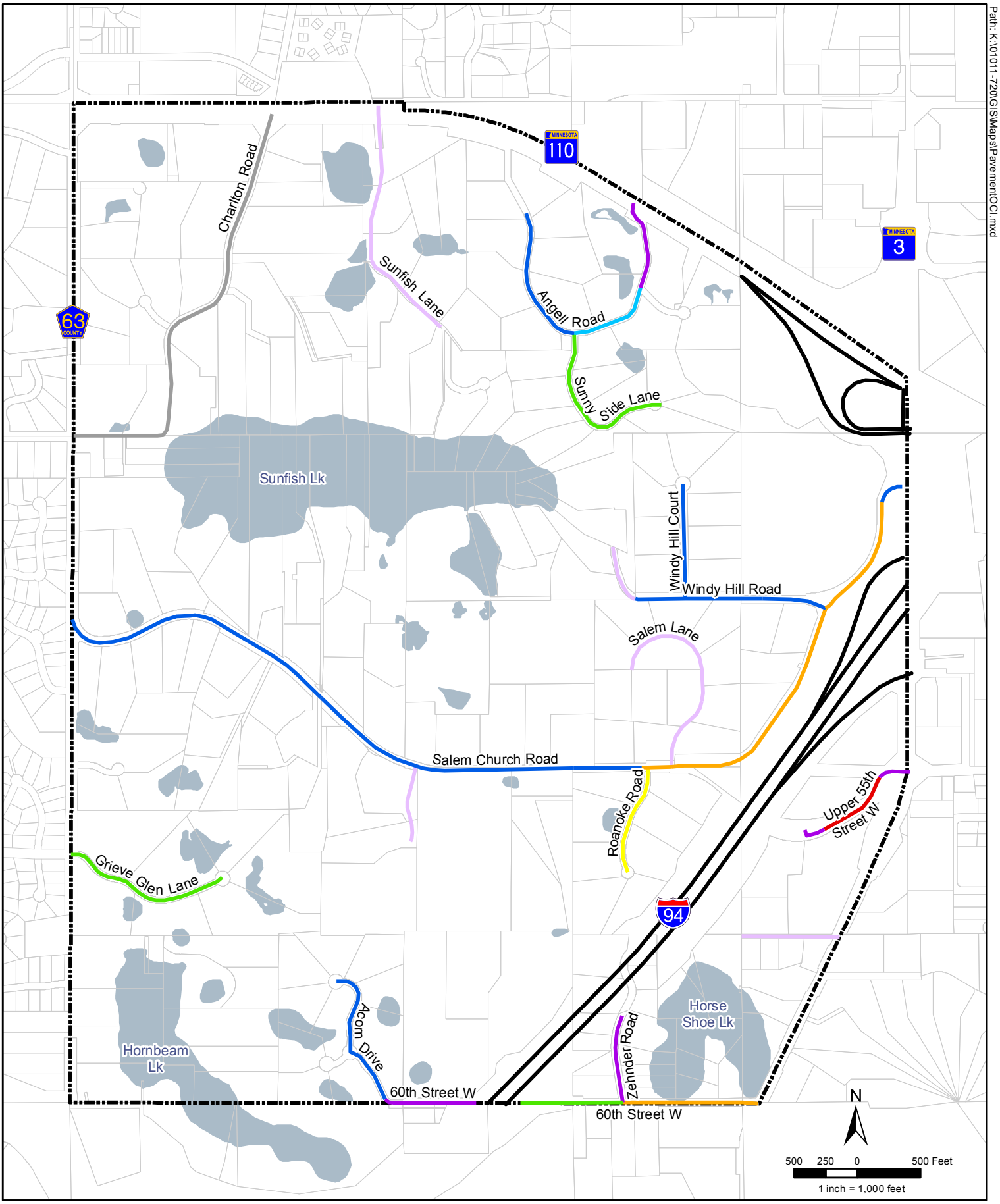
2017 Street Improvements

Sunfish Lake, Minnesota

Figure 4

Proposed Assement Area



2015 Pavement Condition Index

City of Sunfish Lake, Minnesota

Pavement Condition Index

- 0 - 39
- 40 - 49
- 50 - 59
- 60 - 69
- 70 - 79
- 80 - 89
- 90 - 100
- Private Roads
- Gravel

WSB & Associates, Inc.

APPENDIX B

Opinion of Probable Costs

OPINION OF PROBABLE COSTS

Roanoke Road

City Project No. 2016-02

WSB PROJECT NO. 02182-220

Sunfish Lake, MN

9/30/2016

City of Sunfish Lake
15 Sunnyside Lane
Sunfish Lake, MN 55118

No.	Mat. No.	Item	Units	Qty	Estimated Unit Price	Estimated Total Price
SCHEDULE A - STREET IMPROVEMENTS - ROANOKE ROAD						
1	2021.501	MOBILIZATION	LUMP SUM	1	$5,000.00	$5,000.00
2	2104.505	REMOVE BITUMINOUS PAVEMENT	SQ YD	175	$5.00	$875.00
3	2104.505	REMOVE CONCRETE DRIVEWAY	SQ YD	25	$8.00	$200.00
4	2104.511	SAWING CONCRETE PAVEMENT (FULL DEPTH)	LIN FT	15	$8.00	$120.00
5	2104.513	SAWING BITUMINOUS PAVEMENT (FULL DEPTH)	LIN FT	105	$5.00	$525.00
6	2105.525	TOPSOIL BORROW	CU YD	75	$23.00	$1,725.00
7	2211.501	AGGREGATE BASE CLASS 5 OR CLASS 7	TON	50	$20.00	$1,000.00
8	2350.501	TYPE SP 9.5 WEARING COURSE MIX (2,B)	TON	370	$72.00	$26,640.00
9	2350.505	TYPE SP 9.5 NON WEAR COURSE MIX (2,B)	SQ YD	30	$40.00	$1,200.00
10	2357.502	BITUMINOUS MATERIAL FOR TACK COAT	GALLON	170	$2.50	$425.00
11	2531.507	7" CONCRETE DRIVEWAY PAVEMENT	SQ YD	30	$70.00	$2,100.00
11	2575.605	HYDROSEEDING	SQ YD	400	$3.50	$1,400.00
12	2575.505	SODDING, TYPE LAWN (INCL. TOPSOIL & FERT.)	SQ YD	300	$6.00	$1,800.00
		SUBTOTAL SCHEDULE A - STREET IMPROVEMENTS - ROANOKE ROAD				**$43,010.00**
		+ 10% CONTINGENCIES				**$4,300.00**
		SUBTOTAL SCHEDULE A - STREET IMPROVEMENTS - ROANOKE ROAD				**$47,310.00**
		+ 25% ADMINISTRATIVE, LEGAL, ETC.				**$11,830.00**
		TOTAL SCHEDULE A - STREET IMPROVEMENTS - ROANOKE ROAD				**$59,140.00**

OPINION OF PROBABLE COSTS

Salem Church Road

City Project No. 2016-03

WSB PROJECT NO. 02182-220

Sunfish Lake, MN

9/30/2016

City of Sunfish Lake
15 Sunnyside Lane
Sunfish Lake, MN 55118

No.	Mat. No.	Item	Units	Qty	Estimated Unit Price	Estimated Total Price
SCHEDULE B - STREET IMPROVEMENTS - SALEM CHURCH ROAD						
1	2021.501	MOBILIZATION	LUMP SUM	1	$8,000.00	$8,000.00
2	2104.505	REMOVE BITUMINOUS PAVEMENT	SQ YD	140	$5.00	$700.00
3	2104.505	REMOVE CONCRETE DRIVEWAY	SQ YD	25	$8.00	$200.00
4	2104.511	SAWING CONCRETE PAVEMENT (FULL DEPTH)	LIN FT	15	$8.00	$120.00
5	2104.513	SAWING BITUMINOUS PAVEMENT (FULL DEPTH)	LIN FT	107	$5.00	$535.00
6	2105.501	COMMON EXCAVATION	CU YD	400	$15.00	$6,000.00
7	2105.522	SELECT GRANULAR BORROW (CV)	CU YD	300	$12.00	$3,600.00
8	2105.523	TOPSOIL BORROW	CU YD	200	$23.00	$4,600.00
9	2211.501	AGGREGATE BASE CLASS 5 OR CLASS 7	TON	850	$20.00	$17,000.00
10	2221.502	AGGREGATE SHOULDERING, (LV) CLASS 2	TON	500	$18.00	$9,000.00
11	2331.601	BITUMINOUS PAVEMENT RECLAMATION	SQ YD	8500	$3.50	$29,750.00
12	2350.501	TYPE SP 9.5 WEARING COURSE MIX (2,B)	TON	1040	$72.00	$74,880.00
13	2350.502	TYPE SP 12.5 NON WEAR COURSE MIX (2,B)	TON	1040	$70.00	$72,800.00
14	2350.505	TYPE SP 9.5 WEARING COURSE MIX (2,B) 3.0" THICK	SQ YD	85	$40.00	$3,400.00
15	2357.502	BITUMINOUS MATERIAL FOR TACK COAT	GALLON	490	$2.50	$1,225.00
16	2531.507	7" CONCRETE DRIVEWAY PAVEMENT	SQ YD	25	$70.00	$1,750.00
17	2563.601	TRAFFIC CONTROL	LUMP SUM	1	$2,500.00	$2,500.00
18	2573.502	SILT FENCE, TYPE MACHINE SLICED	LIN FT	500	$4.00	$2,000.00
19	2575.505	HYDROSEEDING	SQ YD	3000	$3.50	$10,500.00
		SUBTOTAL SCHEDULE B - STREET IMPROVEMENTS - SALEM CHURCH ROAD				**$248,560.00**
		+ 10% CONTINGENCIES				**$24,860.00**
		SUBTOTAL SCHEDULE B - STREET IMPROVEMENTS - SALEM CHURCH ROAD				**$273,420.00**
		+ 25% ADMINISTRATIVE, LEGAL, ETC.				**$68,360.00**
		TOTAL SCHEDULE B - STREET IMPROVEMENTS - SALEM CHURCH ROAD				**$341,780.00**

OPINION OF PROBABLE COSTS

Salem Church Road

City Project No. 2016-03

WSB PROJECT NO. 02182-220

Sunfish Lake, MN

9/30/2016

City of Sunfish Lake
15 Sunnyside Lane
Sunfish Lake, MN 55118

No.	Mat. No.	Item	Units	Qty	Estimated Unit Price	Estimated Total Price
SCHEDULE C - CULVERT IMPROVEMENTS - SALEM CHURCH ROAD						
1	2021.501	MOBILIZATION	LUMP SUM	1	$500.00	$500.00
2	2451.602	GRANULAR FOUNDATION AND/OR BEDDING	TON	20	$20.00	$400.00
3	2501.515	15" CS PIPE APRON	EACH	2	$450.00	$900.00
4	2501.515	24" CS PIPE APRON	EACH	4	$550.00	$2,200.00
5	2503.603	15" HDPE PIPE CULVERT	LIN FT	20	$35.00	$700.00
6	2503.603	24" HDPE PIPE SEWER	LIN FT	120	$40.00	$4,800.00
		SUBTOTAL SCHEDULE C - CULVERT IMPROVEMENTS - SALEM CHURCH ROAD				**$9,500.00**
		+ 10% CONTINGENCIES				**$950.00**
		SUBTOTAL SCHEDULE C - CULVERT IMPROVEMENTS - SALEM CHURCH ROAD				**$10,450.00**
		+ 25% ADMINISTRATIVE, LEGAL, ETC.				**$2,610.00**
		TOTAL SCHEDULE C - CULVERT IMPROVEMENTS - SALEM CHURCH ROAD				**$13,060.00**

APPENDIX C

Preliminary Assessment Roll

Preliminary Assessment Roll

WSB Project: Sunfish Lake 2017 Street Improvements — *Design By:* BFB
Project Location: City Of Sunfish Lake — *Checked By:* DWS
City Project No.: 2016-02/ 2016-03
WSB Project No.: 02182-22 — *Date:* 9/28/2016

Roanoke Road Assessment/Funding Source					Total Buildable Lot Units	Roadway Assessment (80%) per City Policy & Buildable Lot Unit	20% City Cost per City Assessment Policy		Recommended Assessable per Billable Lot Unit $6,000	City Costs
No.	Property Identification No.		Property Owner	Property Owner Address						
ROANOKE ROAD										
1	PID:	037-388880101080	BASKFIELD BRENT J & FLORENCE A	90 SALEM CHURCH RD SUNFISH LAKE MN 55118	1.0	$5,914.00	$1,478.50		$6,000.00	$1,392.50
2	PID:	037-388880101070	BASKFIELD BRENT J & FLORENCE A	90 SALEM CHURCH RD SUNFISH LAKE MN 55118	1.0	$5,914.00	$1,478.50		$6,000.00	$1,392.50
3	PID:	037-388880101060	WIGHT J DAVID TSTE	5 ROANOKE RD SUNFISH LAKE MN 55118-4706	1.0	$5,914.00	$1,478.50		$6,000.00	$1,392.50
4	PID:	037-388880101050	BRYANT ROBERT P	7 ROANOKE RD WEST SAINT PAUL MN 55118	1.0	$5,914.00	$1,478.50		$6,000.00	$1,392.50
5	PID:	037-388880101040	TUTTLE ROBERT W & SUE-MI	8 ROANOKE RD SUNFISH LAKE MN 55118	1.0	$5,914.00	$1,478.50		$6,000.00	$1,392.50
6	PID:	037-388880101030	GONZALEZ-CAMPOY J MICHAEL	6 ROANOKE RD SUNFISH LAKE MN 55118-4706	1.0	$5,914.00	$1,478.50		$6,000.00	$1,392.50
7	PID:	037-388880101020	BOTT TIMOTHY & JOY	4 ROANOKE RD SUNFISH LAKE MN 55118-4706	1.0	$5,914.00	$1,478.50		$6,000.00	$1,392.50
8	PID:	037-388880101010	CHANG GUILLERMO	2 ROANOKE RD SUNFISH LAKE MN 55118-4706	1.0	$5,914.00	$1,478.50		$6,000.00	$1,392.50
				SUBTOTAL	**8.0**	**$47,312.00**	**$11,828.00**		**$48,000.00**	**$11,140.00**

Salem Church Road Assessment/Funding Source					Total Buildable Lot Units	Roadway Assessment (21%) per City Policy & Buildable Lot Unit	79% City Cost per City Assessment Policy		Recommended Assessable per Billable Lot Unit $5,000	City Costs
No.	Property Identification No.		Property Owner	Property Owner Address						
SALEM CHURCH ROAD										
9	PID:	037-389050000080	TANI PAUL M & BARBARA S	19 SALEM LN SAINT PAUL MN 55118-4700	1.0	$4,967.76	$18,688.24		$5,000.00	$18,656.00
10	PID:	037-389050000070	LEFEVOUR ANDREW M & SUZANNE A	15 SALEM LN SUNFISH LAKE MN 55118-4700	1.0	$4,967.76	$18,688.24		$5,000.00	$18,656.00
11	PID:	037-389050000060	LARSON KURT L & KATHERINE A	11 SALEM LN SAINT PAUL MN 55118-4700	1.0	$4,967.76	$18,688.24		$5,000.00	$18,656.00
12	PID:	037-389050000050	HOLUB BONNIE H BENNETT	9 SALEM LN WEST SAINT PAUL MN 55118	1.0	$4,967.76	$18,688.24		$5,000.00	$18,656.00
13	PID:	037-389050000040	SHAVER JAMES M	7 SALEM LN SUNFISH LAKE MN 55118	1.0	$4,967.76	$18,688.24		$5,000.00	$18,656.00
14	PID:	037-389050000030	OJALA REINO O & LIISA J	5 SALEM LN SAINT PAUL MN 55118-4700	1.0	$4,967.76	$18,688.24		$5,000.00	$18,656.00
15	PID:	037-389050000020	STRAFELDA DARREN F	3 SALEM LN SUNFISH LAKE MN 55118	1.0	$4,967.76	$18,688.24		$5,000.00	$18,656.00
16	PID:	037-389050000010	GILL EDWARD B & KARI R	1 SALEM LN SAINT PAUL MN 55118-4700	1.0	$4,967.76	$18,688.24		$5,000.00	$18,656.00
17	PID:	037-389050000100	STREATER MICHAEL H & KATHLEEN	2 SALEM LANE SAINT PAUL MN 55118-4700	1.0	$4,967.76	$18,688.24		$5,000.00	$18,656.00
18	PID:	037-389050000110	JOHNSON GERALD K JR	4 SALEM LN SAINT PAUL MN 55118-4700	1.0	$4,967.76	$18,688.24		$5,000.00	$18,656.00
19	PID:	037-389050000130	PLUNKETT J PATRICK & ANITA	10 SALEM LN SAINT PAUL MN 55118-4700	1.0	$4,967.76	$18,688.24		$5,000.00	$18,656.00
20	PID:	037-389050000120	SEIDLITZ STEPHEN N & MARY	21 SALEM LN SAINT PAUL MN 55118-4700	1.0	$4,967.76	$18,688.24		$5,000.00	$18,656.00
21	PID:	037-380320050011	ESCOTO JOSE LUIS & IRMA	1434 ROBERT ST S WEST SAINT PAUL MN 55118-3140	1.0	$4,967.76	$18,688.24		$5,000.00	$18,656.00
22	PID:	037-388432501030	CASAGRANDE MARK A & LINDA J	45 SALEM CHURCH RD SUNFISH LAKE MN 55118	1.0	$4,967.76	$18,688.24		$5,000.00	$18,656.00
23	PID:	037-380380013010	DEVEE LLC	2111 DELAWARE AVE MENDOTA HEIGHTS MN 55118	1.0	$4,967.76	$18,688.24		$15,000.00	$8,656.00
				SUBTOTAL	**15.0**	**$74,516.40**	**$280,323.60**		**$85,000.00**	**$269,840.00**
Assessment/Funding Source					Buildable	Assessment (80%)	Cost per City		Assessable	Costs
				TOTAL	**23.0**	**$121,828.40**	**$292,151.60**		**$133,000.00**	**$280,980.00**

APPENDIX D

Special Assessment Policy

CITY OF SUNFISH LAKE
DAKOTA COUNTY, MINNESOTA

RESOLUTION NO. 11-12

RESOLUTION APPROVING ASSESSMENT POLICY FOR THE CITY OF SUNFISH LAKE

WHEREAS, Chapter 429 of the Minnesota Statutes authorizes the City to levy special assessments for certain public improvements.

WHEREAS, the City desires to adopt a formal written policy with respect to the methodology of allocating project costs between the City and special assessments and a methodology for dividing the special assessment amount among the specially benefitted properties.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF SUNFISH LAKE:

1. The Council hereby approves the attached Special Assessment Policy.

Passed this 5th day of July, 2011.

Richard A. Williams, Jr., Mayor

ATTEST:

Catherine Iago, City Clerk

CITY OF SUNFISH LAKE
DAKOTA COUNTY, MINNESOTA

SPECIAL ASSESSMENT POLICY

Section 1. Background. Chapter 429 of the Minnesota Statutes authorizes the City to levy special assessments for certain public improvements. The two most common types of public improvements within the City are street improvements and storm water improvements.

The City acknowledges that the validity of any special assessment to a particular lot depends on whether the amount of the assessment is equal to or less than the benefit conferred upon the lot by reason of the public improvement. Under state law, the benefit is determined by the increase in fair market value of the lot caused by reason of the improvement. The benefit rule controls all special assessments and supersedes any City formulas and calculations relating to how project costs are allocated. The City also acknowledges that assessments have to be uniformally imposed on similarly situated properties within a class of properties.

The first step in determining an assessment is to determine which portion of project costs will be paid by the City and which portion will be specially assessed. The second step is to spread or divide the total assessment amount among the various lots that have received a special benefit. This policy addresses both steps. The policy is a guideline and the Council has the authority to alter the policy from time to time based on facts and circumstances that the Council believes justify such changes.

Section 2. Street Improvements. The typical types of street improvements in the City are:

a. Sealcoating;
b. Mill and overlay; and
c. Street reconstruction, including new pavement where none existed before.

If only sealcoating is being performed, the policy is not to assess the cost of the sealcoating. Rather, the City will pay the cost of sealcoating out of the general fund as a maintenance item.

Projects involving mill and overlay and street reconstruction will be specially assessed. The percentage of costs that will be specially assessed depends on the type of street.

Within the City, there are three (3) types of streets. They are:

a. Collector Street. – A collector street is a City street that provides access to local streets, private streets, direct driveway access and is utilized by the surrounding area for trips originating outside of the City and terminating outside of the City limits. The number of through trips exceed the number of local trips. The City streets that meet this criteria are:

- Salem Church Road; and
- Charlton Road.

The assessment policy for a Collector Street is to assess 40% of street improvement cost to the specially benefitted properties.

b. Neighborhood Collector Street - a neighborhood collector street is a City street that provides direct access to local streets, private streets, direct driveway access and has fewer trips that originate outside of the area and terminate outside the area than local trips. A local trip is considered a trip that remains within the City limits. The City streets that meet this criteria are:

- 60th Street North;
- Windy Hill Road; and
- Angell Road (east of Sunnyside Lane).

The assessment policy for a Neighborhood Collector Street is to assess 60% of street improvement cost to the specially benefitted properties.

c. Local Street - a local street is a City Street that only provides direct access to private driveways which has trips that originate on the street and or terminate on the street. A local street includes a public street that provides access to shared driveways. The City Streets that meet this criteria are:

- Acorn Drive;
- Zehnder Road;
- 55th Street West;
- Roanoke Road;
- Grieve Glen Lane;
- Windy Hill Court; and
- Angell Road (west of Sunnyside Lane).

The assessment policy for a Local Street is to assess 80% of street improvement cost to the specially benefitted properties.

The special assessments for mill and overlay and for street reconstruction will be spread or divided on a per buildable lot basis with each such lot receiving an equal amount of assessment.

A special assessment for mill and overlay and for street reconstruction will be amortized over a period of time not less than five years and not more than ten years. The interest rate payable by the landowners on the remaining balance of the special assessments will not be more than 2% above the bond interest rate charged the City. If the City has not issued bonds, the interest rate charged the landowners will not be more than 2% above the estimated interest rate that the City would have incurred if bonds were issued to finance the project. Interest will begin to accrue from the date the assessments are levied.

To the extent storm water improvements are constructed with the street improvements and are incident and ancillary to the street improvement and do not otherwise confer significant benefit to properties outside of the lots that would typically be assessed for the street improvements and do not constitute more than 50% of the project costs, the storm water improvements will be considered as part of the street assessments and will be levied on the same basis as the street assessments.

In general, in determining the specially benefitted properties for a street assessment, the following lots will be included:

a. The lots that adjoin a public street or have indirect driveway access to the public street.
b. The lots that adjoin or have indirect driveway access to a private street where the private street has access to the public street that is being improved.

Section 3. Storm Water Improvements. Storm water improvements include such items as culvert repair or reconstruction, holding ponds, erosion control, drainage ditch reconstruction, surface drainage improvements, trunk lines, and lateral lines.

Storm water improvements can generally be placed into two (2) categories:

a. Lateral Storm Water Management Improvements. Lateral storm water management improvements benefit the immediate adjacent area. Lateral storm water management improvements are storm water infrastructure facilities that receive runoff from adjacent public right of way or from some or all adjacent parcels but do not include significant runoff from locations that are off site of the improvements.

b. Trunk Storm Water Management Improvements. Trunk storm water management improvements benefit an area that extends beyond the immediate property (i.e. beyond the lateral benefit). Trunk storm water management improvements manage runoff from areas of the City that are not immediately adjacent to the improvement. The trunk portion of an improvement is the size or cost of the improvement that exceeds the lateral storm water needs. Trunk storm water management improvements usually have a design and capacity to receive storm water runoff from lots that adjoin the improvement as well as non-adjoining lots.

Lateral storm water management improvements will be assessed to the adjacent specially benefitted properties on the same basis as a street assessment, taking into account the different classes of streets and allocating the assessable portion of the project on a per buildable lot basis.

With respect to trunk storm water management improvements, 50% of the project costs will be assessed and the assessable amount will be spread or divided among the specially benefitted properties on a per buildable lot basis with each such lot receiving an equal amount of assessment.

Special assessments for lateral storm water management improvements and trunk storm water management improvements will be amortized over a period of time not less than five years and not more than ten years. The interest rate payable by the landowners on the remaining balance of the special assessments will not be more than 2% above the bond interest rate charged the City. If the City has not issued bonds, the interest rate charged the landowners will not be more than 2% above the estimated interest rate that the City would have incurred if bonds were issued to finance the project. Interest will begin to accrue from the date the assessments are levied.