



**BOLTON
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Feasibility Report For

Allen Avenue Improvements

City of Little Canada, MN

November 20, 2019



Submitted by:

Bolton & Menk, Inc.
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Maplewood, MN 55109
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Certification

Feasibility Report

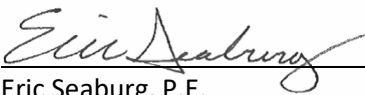
For

Allen Avenue Improvements

City of Little Canada
N15.119846

November 2019

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.

By: 
Eric Seaburg, P.E.
License No. 53712

Date: November 20, 2019

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I. INTRODUCTION

The City of Little Canada is planning to rehabilitate several residential streets during the 2020 construction season, in accordance with the Capital Improvement Plan. The City's 2020 work plan includes proposed street and utility improvements to Allen Avenue between Centerville Road and Edgerton Street. Refer to Figure 1 in Appendix A for a depiction of the project area. Additionally, the City has been asked by the Pitrina Terrace Townhome Association to investigate the five private culdesacs that serve the development.

This report focuses on neighborhood improvements that include street rehabilitation with curb & gutter improvements, watermain improvements, storm and sanitary sewer improvements, and other improvements in accordance with the City's Comprehensive Plan.

See Figure 2 in Appendix A for a map of the existing conditions.

This report will review the existing conditions in the project area and discuss, in detail, the proposed improvements. It will also provide preliminary cost estimates for the proposed improvements with financing for the project coming from a combination of assessments, the City's utility funds, and the City's pavement management funds.

An informational meeting was held with the affected property owners on October 29, 2019. The proposed project scope, costs, and funding sources were discussed at the meeting. Property owners had an opportunity to comment on the project and ask questions. Generally, those in attendance were in support of the project.

If the City decides to proceed with the proposed street and utility improvements described in this report, it is anticipated construction would begin in 2020 as shown in the project schedule found on Page 11.

II. ALLEN AVENUE

A. BACKGROUND

Allen Avenue from Centerville Road to Edgerton Street is an urban residential street. Annual average daily traffic (AADT) data for this road is unavailable but assumed to be less than 2,000 vehicles per day classifying it as a low-volume road. Refer to Figure 1 in Appendix A for a depiction of the project location.

The Allen Avenue street and utility infrastructure between Desoto Street and Edgerton Street were constructed in 1993 as part of the 1993 Street and Utility Improvements Project, City Project No. 92-11. The Allen Avenue street and utility infrastructure between Centerville Road and Desoto Street was constructed in 1998 as part of the Pitrina Park Terrace development. Allen Avenue has received crack seal and sealcoat treatments in an effort to prolong the life of the pavement. Annual pavement patching has also occurred as needed. The utility infrastructure has been maintained on a routine basis since construction.

B. EXISTING CONDITIONS

1. Streets

West of Desoto Street, Allen Avenue is 30' wide measured from face of curb to face of curb and includes surmountable curb and gutter. East of Desoto Street, Allen Avenue is 32' wide and includes B618 barrier curb and gutter. The bituminous pavement within the study area shows wear and distress due mostly to age, as indicated by the pavement oxidation, cracking, raveling, and potholes.

A geotechnical investigation was performed by Braun Intertec which included 5 pavement cores. The associated report is not included with this report but is available at City Hall. The soil borings indicated that the bituminous thickness ranges between 2.25 inches and 5.25 inches. The aggregate base thickness ranges between 12 inches and 24 inches.

2. Watermain

The existing watermain is a 16-inch diameter ductile iron pipe from Centerville Road to Desoto Street. East of Desoto Street, the existing main is 8-inch diameter ductile iron pipe and 6-inch diameter ductile iron pipe. Refer to Figure 2 in Appendix A for a depiction of the existing utility infrastructure. The water system has performed well and there are no known issues with the system. Based on the age, type, and positive performance of the watermain, the useful life of the system is expected to outlast the pavement improvements described in this report.

3. Sanitary Sewer

The existing sanitary sewer 12-inch diameter reinforced concrete pipe and conveys wastewater west towards Centerville Road. City maintenance personnel has noted that there are no known deficiencies with the sanitary sewer system. Bolton and Menk staff reviewed each of the sanitary sewer structures within the project area. The structures are precast and in good to very good condition. Based on the age, material, and positive performance, the useful life of the sanitary system is expected to outlast the pavement improvements described in this report.

4. Storm Sewer

The existing storm sewer varies in size from 8-inch diameter to 48-inch diameter and is a combination of reinforced concrete pipe and high-density polyethylene. Drainage from the project is conveyed via piping to a series of regional stormwater ponds located north of Allen Avenue. City maintenance personnel has noted that there are no known deficiencies with the storm sewer system. Bolton and Menk staff reviewed each of the

storm sewer structures within the project area. The structures are a combination of block-built and precast structures and are in fair to good condition. The catch basin manhole at the northwest quadrant of Allen Avenue and Desoto Street is block-built, has a failing invert, and failing doghouses. Few other structures have doghouses and rings in need of repair. Overall, the system is in good condition and the useful life of the storm sewer system is expected to outlast the pavement improvements described in this report.

C. STREET IMPROVEMENTS

The pavement investigation and analysis performed by Braun Intertec included three pavement cores. The analysis indicated that the bituminous pavement section is too thin in most locations to support a mill and overlay rehabilitation. However, it was determined that there is good aggregate base material with thicknesses ranging from 12 inches to 24 inches. As such, full depth reclamation (FDR) is recommended for this project. FDR typically includes the grinding and mixing of the asphalt pavement and aggregate base, spot curb and gutter replacement, and re-paving. It is only recommended when the road section is still structurally sound with a good aggregate base and the subgrade is not susceptible to frost heaving.

Curb and gutter that is cracked, weathered, or heaved will be cut out and replaced with new curb and gutter. This is important because cracks and voids in the curb allow water intrusion into the pavement. The more water intrusion that occurs, the faster the pavement and curb will deteriorate. In cases where curb and gutter is in very poor condition on an FDR project, generally when over 50% of the curb needs replacing, it is more economical to replace 100% of the curb and gutter. When this occurs, more extensive impacts to yards, driveways, and private irrigation systems is expected at each property. Preliminary site inspection indicates that approximately 20% of the curb will need to be replaced on Allen Avenue.

D. WATERMAIN IMPROVEMENTS

The existing ductile iron watermain is in good condition and is proposed be left in place. Existing water services are also proposed to be left in place. However, existing bolts on gate valve fittings and hydrant fittings will be removed and replaced. These are typically the features that fail first on the water system. Bolt replacement is a proactive way to limit the number of leaks and breaks the system experiences as it ages.

E. STORM SEWER IMPROVEMENTS

The storm sewer network is generally in good condition and is proposed to be left in place. However, there is a large storm sewer manhole in the intersection of Allen Avenue and Desoto Street that requires full replacement.

Each of the storm sewer manholes in the pavement will be ‘adjusted’ to the new pavement elevation. This typically involves removing the casting, plating the structure until after base course is paved, and re-installing the casting on new rings. Catch basins structures with deteriorated rings will receive a similar adjustment. Doghouses that are deteriorated will receive mud work.

F. SANITARY SEWER IMPROVEMENTS

The storm sewer network is in good condition and is proposed to be left in place. Each of the sanitary sewer manholes in the pavement will be ‘adjusted’ to the new pavement elevation. This typically involves removing the casting, plating the structure until after base course is paved, and re-installing the casting on new rings with a new I/I barrier. Benches and inverts that have deteriorated will receive mud work.

G. PEDESTRIAN IMPROVEMENTS

The City's Parks and Recreation Master Plan identifies a future sidewalk along Allen Avenue. The sidewalk would extend from Centerville Road to Desoto Street, connecting to the existing sidewalks along Centerville Road and Desoto Street creating a loop around Pioneer Park. The sidewalk would also connect to a future extension of the linear trail that extends through Thunder Bay and Westwind Parks.

Construction of a sidewalk on the south side of Allen Avenue is favorable when compared to the north side for the following reasons:

1. The south side provides an easier connection to existing sidewalks at Centerville Road and Desoto Street.
2. The north side of Allen Avenue would require significantly more driveway crossings
3. The south side of Allen Avenue is predominantly side-yard frontage

The existing topography is relatively flat. However, there are existing berms with trees along the Pitrina Terrace Association that provide screening to Allen Avenue. As such, the sidewalk would be most feasible if placed at the back of curb with a two-foot decorative concrete buffer. Several road signs, hydrants, lights, and private utility boxes would still need to be relocated to accommodate the sidewalk. These items have been included in the preliminary cost estimate shown in Appendix B.

The sidewalk concept discussed above was developed *after* the informational meeting held with residents on October 29, 2019. As such, residents are likely not aware of this concept at the time City Council considers and accepts this feasibility report at its November 20, 2019 meeting. Additional outreach and communication with residents would occur during final design if the sidewalk installation is desired.

III. PITRINA PARK TERRACE ASSOCIATION

A. BACKGROUND

A series of five private culdesac streets were constructed as part of the Pitrina Park Terrace Association to serve the new townhomes. The culdesacs include Caroline Court, Sherry Court, Frattalone Lane, David Circle, and Pitrina Way.

The five culdesacs' street and utility infrastructure were constructed in 1998 as part of the Pitrina Park Terrace development. The City was asked by the homeowners association to evaluate the feasibility and costs associated with rehabilitating these culdesacs in conjunction with the City-led Allen Avenue Improvements.

Because the culdesacs are private streets owned and are maintained by the homeowners association, the association is responsible for 100% of the street costs. As such, the association will need to review the findings of this feasibility report and decide whether to proceed with the improvements. If the association decides to proceed, it would need to enter into a special assessment agreement with the City. This agreement would outline the anticipated project costs and the association's cost participation.

B. EXISTING CONDITIONS

1. Streets

The Pitrina Association culdesacs include five roads: Caroline Court, Sherry Court, Frattalone Lane, David Circle, and Pitrina Way. The bituminous pavement within the study area shows wear and distress due mostly to age, as indicated by the pavement oxidation, cracking, raveling, and potholes.

A geotechnical investigation was performed by Braun Intertec which included two pavement cores. The associated report is not included with this Report but is available at City Hall. The soil borings indicated that the bituminous thickness ranges between 2.25 inches and 5.25 inches. The aggregate base thickness ranges between 12 inches and 24 inches.

2. Watermain

Each of the culdesacs includes a 6-inch diameter ductile iron watermain lateral. Refer to Figure 2 in Appendix A for a depiction of the existing utility infrastructure. The water system has performed well and there are no known issues with the system. Based on the age, type, and positive performance of the watermain, the useful life of the system is expected to outlast the pavement improvements described in this report.

3. Sanitary Sewer

Each of the culdesacs includes an 8-inch diameter PVC lateral. City maintenance personnel has noted that there are no known deficiencies with the sanitary sewer system. Bolton and Menk staff inspected each of the sanitary sewer structures within the project area. The structures are precast and in good to very good condition. Based on the age, material, and positive performance, the useful life of the sanitary system is expected to outlast the pavement improvements described in this report.

4. Storm Sewer

The street drainage for each of the culdesacs flows north to catch basins at each of the curb radii with Allen Avenue. These catch basins are considered part of the Allen Avenue storm sewer network and no costs for work to these structures is being attributed to the Pitrina Association.

C. STREET IMPROVEMENTS

The pavement investigation and analysis performed by Braun Intertec included two pavement cores. The analysis indicated that the bituminous pavement section is too thin in most locations to support a mill and overlay rehabilitation. However, it was determined that there is good aggregate base material with thicknesses ranging from 12 inches to 24 inches. As such, full depth reclamation (FDR) is recommended for this project. FDR typically includes the grinding and mixing of the asphalt pavement and aggregate base, spot curb and gutter replacement, and re-paving. It is only recommended when the road section is still structurally sound with a good aggregate base and the subgrade is not susceptible to frost heaving.

Curb and gutter that is cracked, weathered, or heaved will be cut out and replaced with new curb and gutter. This is important because cracks and voids in the curb allow water intrusion into the pavement. The more water intrusion that occurs, that faster the pavement and curb will deteriorate. In cases where curb and gutter is in very poor condition on an FDR project, generally when over 50% of the curb needs replacing, it is more economical to replace 100% of the curb and gutter. When this occurs, more extensive impacts to yards, driveways, and private irrigation systems is expected at each property. Preliminary site inspection indicates that approximately 50% of the curb will need to be replaced on the culdesac streets.

A depiction of the proposed street and utility improvements is shown in Figure 3 in Appendix A.

D. WATERMAIN IMPROVEMENTS

The existing ductile iron watermain is in good condition and is proposed be left in place. Existing water services are also proposed to be left in place. However, existing bolts on gate valve fittings and hydrant fittings will be removed and replaced. These are typically the features that fail first on the water system. Bolt replacement is a proactive way to limit the number of leaks and breaks the system experiences as it ages.

E. SANITARY SEWER IMPROVEMENTS

The storm sewer network is in good condition and is proposed to be left in place. Each of the sanitary sewer manholes in the pavement will be ‘adjusted’ to the new pavement elevation. This typically involves removing the casting, plating the structure until after base course is paved, and re-installing the casting on new rings with a new I/I barrier. Benches and inverts that have deteriorated will receive mud work.

IV. ESTIMATED COSTS

The estimated project cost to complete the improvements proposed herein are presented below. These costs include estimated construction costs, a 10% contingency, and 25% indirect costs (legal, engineering, administration, and finance).

These cost estimates are based upon public construction cost information. Since the consultant has no control over the cost of labor, materials, competitive bidding process, weather conditions, and other factors affecting the cost of construction, all cost estimates are opinions for general information of the client and no warranty or guarantee as to the accuracy of construction cost estimates is made. It is recommended that costs for project financing should be based upon actual, competitive bid prices with reasonable contingencies.

A. ALLEN AVENUE

**Table 1 – Estimated Cost Summary
Allen Avenue
Centerville Road to Edgerton Street
(See Appendix B for Detailed Cost Estimate)**

Item	Total Estimated Cost
Street	\$574,936
Sanitary Sewer	\$13,063
Watermain	\$51,769
Storm Sewer	\$42,048
Sidewalk	\$282,679
Total	\$964,494

B. PITRINA ASSOCIATION CULDESACS

**Table 2 – Estimated Cost Summary
Pitrina Association Culdesacs
(See Appendix B for Detailed Cost Estimate)**

Item	Total Estimated Cost
Street	\$395,257
Sanitary Sewer	\$4,813
Watermain	\$39,600
Storm Sewer	\$0
Total	\$439,670

V. FINANCING

All streets that are proposed to be rehabilitated are considered residential streets. The properties adjacent to the residential streets include 114 residential properties and 1 commercial property.

Street: The assessment policy is for 50% of the street costs to be assessed. Remaining street costs will be funded using the City's Pavement Management Fund.

Water, Sewer, and Storm: This project includes only minor water, sanitary, and storm sewer repairs. As such, in accordance with the City's Special Assessment Policy, water, sanitary, and storm sewer improvements will not be assessed. Instead, they will be funded by the City's utility funds.

Sidewalk: In accordance with the City's Special Assessment Policy, sidewalk installation will not be assessed.

A. SPECIAL ASSESSMENT – STREET COSTS ASSESSED

Per the City's current assessment policy, properties that benefit from full or partial access to the improved streets will be assessed. A per unit assessment method is being utilized for this project due to the consistency of adjacent property uses.

The per policy assessments for street improvements are:

- Unit Assessment Rate *\$2,549*

Appendix C identifies the Assessment Roll and benefiting properties.

B. SPECIAL ASSESSMENT – PITRINA TERRACE ASSOCIATION

The Pitrina Association culdesacs and utilities discussed in this report are privately owned by the association. As such, if the association wishes to proceed with the work, they would be responsible for 100% of the street and utility costs. The association would therefore be responsible for the costs shown below.

- Lump Sum Special Assessment *\$439,670*

C. FINANCING SUMMARY

The financing summary shown below is based on pavement reclamation with spot curb and gutter replacement.

**Table 4 – Financing Summary
Allen Avenue**

Location	Total Estimated Cost	Pavement Management Fund*	Assessments	Storm Sewer Fund	Water & Sewer Fund
Street	\$574,936	\$287,468	\$287,468	\$0	\$0
Sanitary Sewer	\$13,063	\$0	\$0	\$0	\$13,063
Watermain	\$51,769	\$0	\$0	\$0	\$51,769
Storm Sewer	\$42,048	\$0	\$0	\$42,048	\$0
Sidewalk	\$282,679	\$282,679	\$0	\$0	\$0
	\$964,494	\$570,147	\$287,468	\$42,048	\$64,831

VI. PROJECT SCHEDULE

The proposed project schedule is shown below:

Neighborhood Informational Meeting	October 29, 2019
Receive Feasibility Report, Call for Improvement Hearing*	November 20, 2019
Mail Improvement Hearing Notice.....	November 29, 2019
Advertise Improvement Hearing in Pioneer Press Newspaper	December 12 and 26, 2019
Improvement Hearing, Order Plans and Specifications*	January 8, 2020
Approve Plans and Specifications, Authorize Bidding*	February 26, 2020
Bid Opening.....	March 27, 2020
Receive Bids and Award Project *	April 8, 2020
Begin Construction	May 2020
Substantial Completion.....	October 2020
Call for Assessment Hearing*	August 26, 2020
Advertise Assessment Hearing in Pioneer Press Newspaper.....	September 25, 2020
Mail Assessment Hearing Notice.....	September 25, 2020
Assessment Hearing*	October 14, 2020

** Denotes Council action items*

VII. EASEMENTS AND PERMITS

It is expected that all of the proposed improvements will be limited to the existing street right-of-way and easements.

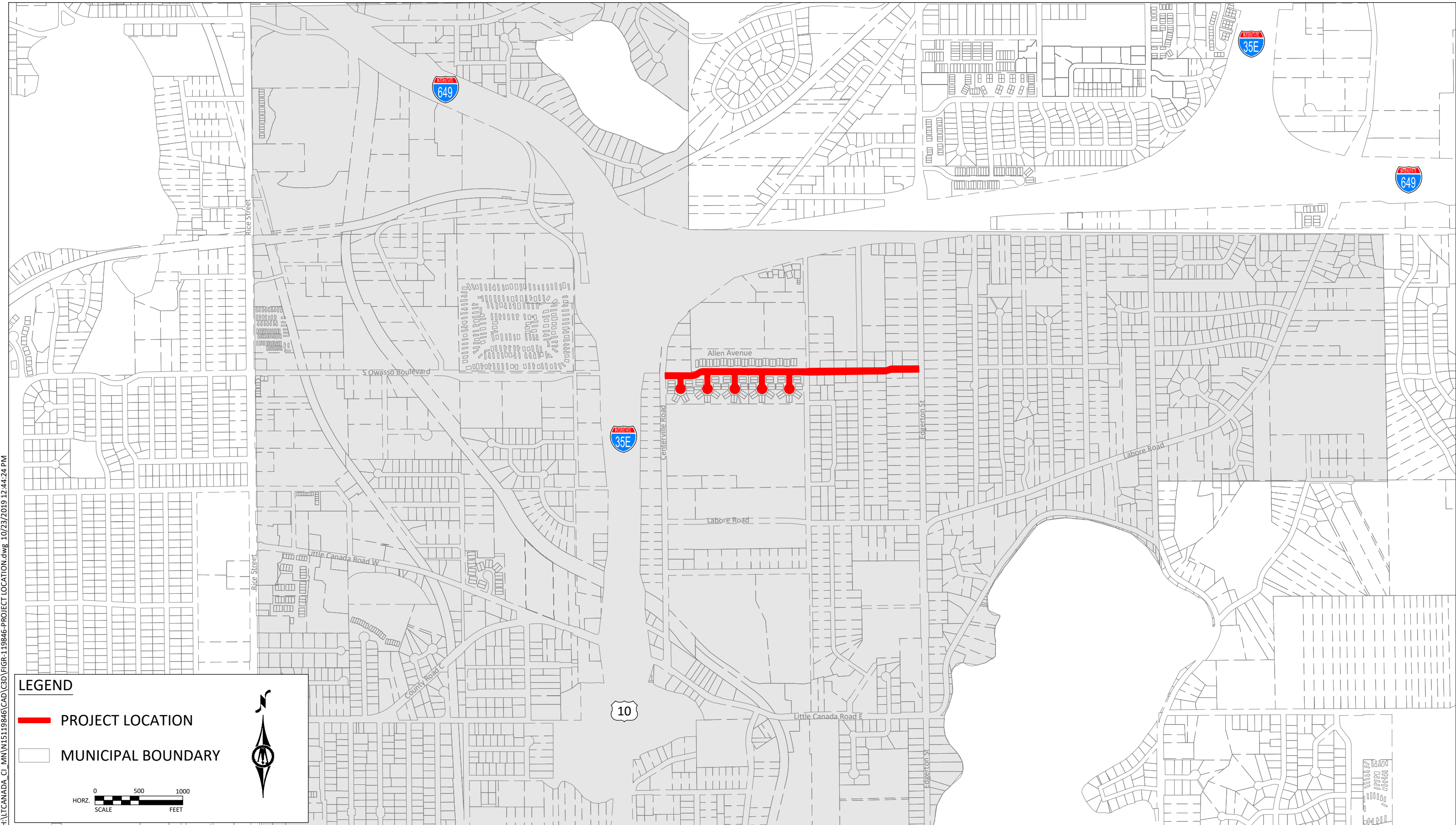
Permits and approvals may be required from the following:

- Minnesota Pollution Control Agency (MPCA) – General Storm Water Permit for Construction Activities under the National Pollutant Elimination System (NPDES) program
- Ramsey County for work along Centerville Road.

VIII. CONCLUSION

From an engineering standpoint, this project as proposed is feasible, cost effective, and necessary. It can best be accomplished by letting competitive bids for the work under one contract in order to complete the work in an orderly and efficient manner. The City, its financial staff, and the persons assessed will have to determine the economic feasibility of the proposed improvements.

Appendix A: Figures



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Allen Avenue Street Improvements

City of Little Canada

Figure 2 - Existing Conditions

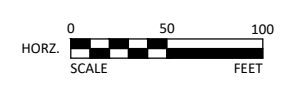
November 2019

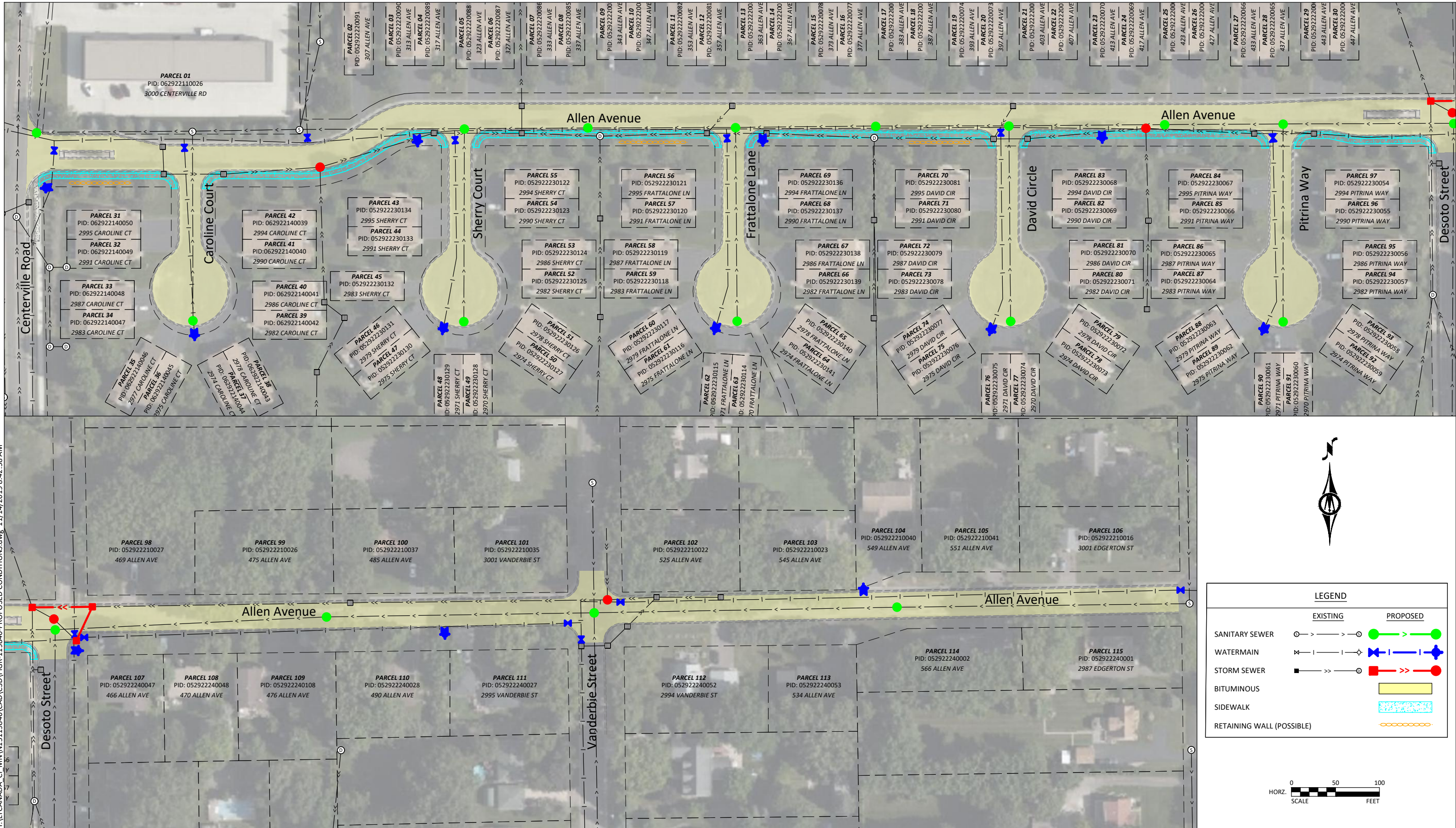


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LEGEND

- EXISTING
- SANITARY SEWER
- WATERMAIN
- STORM SEWER





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Appendix B: Preliminary Cost Estimates

CITY OF LITTLE CANADA

ALLEN AVENUE STREET IMPROVEMENTS - PRELIMINARY ENGINEER'S ESTIMATE

CITY PROJECT NUMBER:
 BMI PROJECT NUMBER: N15.119846
 11/14/2019

ITEM NO.	MNDOT SPEC.NO	DESCRIPTION	NOTES	UNIT	UNIT COST	PITRINA ASSOCIATION		ALLEN AVENUE		
						CULDESACS		CENTERVILLE TO EDGERTON		
						QTY	AMOUNT	QTY	AMOUNT	
PART 1: STREETS										
1	2021.501	MOBILIZATION		LS		1	\$14,941	1	\$23,375	
2	2104.601	REMOVE ISLAND AND LANDSCAPING		EACH	\$3,500.00			2	\$7,000	
3	2104.503	REMOVE CURB & GUTTER		LF	\$3.25	1300	\$4,225	1100	\$3,575	
4	2104.504	REMOVE BITUMINOUS DRIVEWAY PAVEMENT		SY	\$12.00	836	\$10,032	152	\$1,824	
5	2105.507	SPOT SUBGRADE EXCAVATION (CORRECTION)	(EV)	CY	\$17.00	340	\$5,774	653	\$11,093	
6	2105.604	FINISH GRADING		SY	\$2.50	5094	\$12,736	9788	\$24,471	
7	2105.607	HAUL EXCESS RECLAIM MATERIAL OFF SITE	(EV)	CY	\$15.00	226	\$3,396	435	\$6,526	
8	2130.501	WATER		MGAL	\$75.00	171	\$12,861	329	\$24,711	
9	2211.607	SUBGRADE CORRECTION W/ EXCESS RECLAIM	(CV)	CY	\$10.00	340	\$3,396	653	\$6,526	
10	2215.504	FULL DEPTH RECLAMATION (P)	(P)	SY	\$2.25	5094	\$11,462	9788	\$22,024	
11	2331.603	JOINT ADHESIVE (MASTIC)		LF	\$0.85	2626	\$2,232	5755	\$4,892	
12	2357.506	BITUMINOUS MATERIAL FOR TACK COAT		GAL	\$3.50	357	\$1,248	685	\$2,398	
13	2360.509	TYPE SP 9.5 WEARING COURSE MIXTURE (3,C)		TON	\$85.00	709	\$60,254	1362	\$115,774	
14	2360.509	TYPE SP 12.5 NON WEARING COURSE MIXTURE (3,C)		TON	\$75.00	709	\$53,166	1362	\$102,154	
15	2360.509	TYPE SP 9.5 WEARING COURSE MIXTURE (2,E), DRIVEWAY		TON	\$200.00	174	\$34,899	32	\$6,345	
16	2531.503	CONCRETE CURB AND GUTTER DESIGN B612 (HAND POUR)		LF	\$30.00			12	\$360	
17	2531.503	CONCRETE CURB AND GUTTER DESIGN B618 (HAND POUR)		LF	\$30.00			500	\$15,000	
18	2531.503	CONCRETE CURB AND GUTTER SURMOUNTABLE (HAND POUR)		LF	\$30.00	1300	\$39,000	588	\$17,640	
19	2563.601	TRAFFIC CONTROL		LS	\$3,500.00	1	\$3,500	1	\$7,000	
20	2573.501	STABILIZED CONSTRUCTION EXIT		LS	\$1,300.00	1	\$1,300	2	\$2,600	
21	2573.501	EROSION CONTROL SUPERVISOR		LS	\$1,000.00	1	\$1,000	1	\$1,000	
22	2573.502	STORM DRAIN INLET PROTECTION		EACH	\$180.00	9	\$1,620	16	\$2,880	
23	2573.503	SEDIMENT CONTROL LOGS, TYPE COMPOST		LF	\$5.00	200	\$1,000	200	\$1,000	
24	2574.507	BOULEVARD TOPSOIL BORROW, 4" THICK	(LV)	CY	\$40.00	127	\$5,084	108	\$4,302	
25	2575.604	FUTERRA FIBER MAT, SEED 25-151, FERTILIZER		SY	\$2.50	1733	\$4,333	1467	\$3,667	
PART 1: STREETS - CONSTRUCTION SUBTOTAL								\$287,460		\$418,135
+10% CONTINGENCY								\$28,746		\$41,814
PART 1: STREETS - CONSTRUCTION TOTAL								\$316,206		\$459,949
+25% INDIRECT (LEGAL, ENGINEERING, ADMINISTRATION, FINANCE)								\$79,051		\$114,987
PART 1: STREETS - PROJECT TOTAL								\$395,257		\$574,936

CITY OF LITTLE CANADA

ALLEN AVENUE STREET IMPROVEMENTS - PRELIMINARY ENGINEER'S ESTIMATE

CITY PROJECT NUMBER:

BMI PROJECT NUMBER: N15.119846

11/14/2019

ITEM NO.	MNDOT SPEC.NO	DESCRIPTION	NOTES	UNIT	UNIT COST	PITRINA ASSOCIATION		ALLEN AVENUE	
						CULDESACS		CENTERVILLE TO EDGERTON	
						QTY	AMOUNT	QTY	AMOUNT
PART 2: SANITARY SEWER									
26	2104.502	REMOVE CASTING & RINGS (SANITARY)		EACH	\$200.00			1	\$200
27	2506.502	ADJUST FRAME AND RING CASTING WITH INFI-SHIELD		EACH	\$700.00	5	\$3,500	11	\$7,700
28	2506.502	INSTALL NEW RINGS AND CASTING (SANITARY)		EACH	\$1,600.00			1	\$1,600
29	2506.602	RECONSTRUCT SANITARY MANHOLE		EACH	\$2,500.00				
PART 2: SANITARY SEWER - CONSTRUCTION SUBTOTAL							\$3,500		\$9,500
+10% CONTINGENCY							\$350		\$950
PART 2: SANITARY SEWER - CONSTRUCTION TOTAL							\$3,850		\$10,450
+25% INDIRECT (LEGAL, ENGINEERING, ADMINISTRATION, FINANCE)							\$963		\$2,613
PART 2: SANITARY SEWER - PROJECT TOTAL							\$4,813		\$13,063
PART 3: WATERMAIN									
30	2504.602	ADJUST VALVE BOX		EACH	\$450.00	4	\$1,800	7	\$3,150
31	2504.602	REMOVE AND REPLACE GATE VALVE BOLTS		EACH	\$1,500.00	9	\$13,500	16	\$24,000
32	2504.602	REMOVE AND REPLACE HYDRANT BOLTS		EACH	\$1,500.00	5	\$13,500	7	\$10,500
PART 3: WATERMAIN - CONSTRUCTION SUBTOTAL							\$28,800		\$37,650
+10% CONTINGENCY							\$2,880		\$3,765
PART 3: WATERMAIN - CONSTRUCTION TOTAL							\$31,680		\$41,415
+25% INDIRECT (LEGAL, ENGINEERING, ADMINISTRATION, FINANCE)							\$7,920		\$10,354
PART 3: WATERMAIN - PROJECT TOTAL							\$39,600		\$51,769

CITY OF LITTLE CANADA

ALLEN AVENUE STREET IMPROVEMENTS - PRELIMINARY ENGINEER'S ESTIMATE

CITY PROJECT NUMBER:
 BMI PROJECT NUMBER: N15.119846
 11/14/2019

ITEM NO.	MNDOT SPEC.NO	DESCRIPTION	NOTES	UNIT	UNIT COST	PITRINA ASSOCIATION		ALLEN AVENUE	
						CULDESACS		CENTERVILLE TO EDGERTON	
						QTY	AMOUNT	QTY	AMOUNT
PART 4: STORM SEWER									
33	2104.502	REMOVE DRAINAGE STRUCTURE		EACH	\$550.00			2	\$1,100
34	2104.503	REMOVE DRAINTILE		LF	\$6.00			40	\$240
35	2104.503	REMOVE SEWER PIPE (STORM)		LF	\$25.00			79	\$1,975
36	2501.503	12" RC PIPE SEWER CL V		LF	\$55.00			43	\$2,365
37	2501.503	30" RC PIPE SEWER CL III		LF	\$90.00			8	\$720
38	2501.503	36" RC PIPE SEWER CL III		LF	\$110.00			8	\$880
39	2502.503	4" PERF PE PIPE DRAIN		LF	\$10.00			40	\$400
40	2506.502	CONST DRAINAGE STRUCTURE DES SPEC (2'X3')		EACH	\$4,000.00			1	\$4,000
41	2506.502	CONST DRAINAGE STRUCTURE DES 72-4020		EACH	\$7,500.00			1	\$7,500
42	2506.602	ADJUST CATCH BASIN FRAME AND RING CASTING		EACH	\$300.00			8	\$2,400
43	2506.602	ADJUST MANHOLE FRAME AND RING CASTING WITH INFI-SHIELD		EACH	\$700.00			6	\$4,200
44	2506.602	REPAIR DRAINAGE STRUCTURE		EACH	\$475.00				
45	2506.602	INSTALL NEW RINGS AND CASTING (STORM)		EACH	\$1,600.00			3	\$4,800
PART 4: STORM SEWER - CONSTRUCTION SUBTOTAL									\$30,580
+10% CONTINGENCY									\$3,058
PART 4: STORM SEWER - CONSTRUCTION TOTAL									\$33,638
+25% INDIRECT (LEGAL, ENGINEERING, ADMINISTRATION, FINANCE)									\$8,410
PART 4: STORM SEWER - PROJECT TOTAL									\$42,048
43 - PROJECT TOTAL									\$50,457
PART 5: SIDEWALK									
46	2104.502	SALVAGE SIGN TYPE C		EACH	\$60.00			13	\$780
47	2104.502	SALVAGE LIGHT FIXTURE		EACH	\$600.00			6	\$3,600
48	2104.602	SALVAGE HYDRANT AND HYDRANT VALVE		EACH	\$1,000.00			4	\$4,000
49	2105.507	COMMON EXCAVATION (P)		CY	\$22.00			950	\$20,900
50	2211.509	AGGREGATE BASE CLASS 5		TON	\$18.00			510	\$9,180
51	2504.602	INSTALL SALVAGED HYDRANT AND HYDRANT VALVE		EACH	\$2,000.00			4	\$8,000
52	2511.618	MODULAR BLOCK RETAINING WALL		SF	\$40.00			770	\$30,800
53	2521.518	4" CONCRETE WALK		SF	\$7.50			11440	\$85,800
54	2521.618	6" CONCRETE PEDESTRIAN CURB RAMP		SF	\$15.00			660	\$9,900
55	2531.618	TRUNCATED DOMES		SF	\$45.00			140	\$6,300
56	2564.602	INSTALL SALVAGED SIGN AND POST		EACH	\$175.00			13	\$2,275
57	2564.602	INSTALL SALVAGED LIGHT FIXTURE		EACH	\$1,200.00			6	\$7,200
58	2573.601	IRRIGATION REPAIRS ALLOWANCE		LS	\$7,500.00			1	\$7,500
59	2574.507	BOULEVARD TOPSOIL BORROW, 4" THICK		CY	\$40.00			150	\$6,000
60	2575.604	FUTERRA FIBER MAT, SEED 25-151, FERTILIZER		SY	\$2.50			1340	\$3,350
PART 5: SIDEWALK - CONSTRUCTION SUBTOTAL									\$205,585
+10% CONTINGENCY									\$20,559
PART 5: SIDEWALK - CONSTRUCTION TOTAL									\$226,144
+25% INDIRECT (LEGAL, ENGINEERING, ADMINISTRATION, FINANCE)									\$56,536
PART 5: SIDEWALK - PROJECT TOTAL									\$282,679
PROJECT SUBTOTALS									
PART "1" - STREETS									\$395,257
PART "2" - SANITARY SEWER									\$13,063
PART "3" - WATERMAIN									\$51,769
PART "4" - STORM SEWER									\$42,048
PART "5" - SIDEWALK									\$282,679
PROJECT TOTAL									\$439,670

Appendix C: Preliminary Assessment Roll

PRELIMINARY ASSESSMENT ROLL

- ALLEN AVENUE -

Group	Streets Cost	Assessable Cost	Total Units	Assessment Per Unit
1	\$574,936	\$287,468	112.8	\$2,548.48

Parcel #	ParcelID	Site Address	Group 1 Units	Group 1 Assessment	Note
1	062922110026	3000 CENTERVILLE RD	0.4	\$1,019.39	(1) (2)
2	052922220091	307 ALLEN AVE	1	\$2,548.48	
3	052922220090	313 ALLEN AVE	1	\$2,548.48	
4	052922220089	317 ALLEN AVE	1	\$2,548.48	
5	052922220088	323 ALLEN AVE	1	\$2,548.48	
6	052922220087	327 ALLEN AVE	1	\$2,548.48	
7	052922220086	333 ALLEN AVE	1	\$2,548.48	
8	052922220085	337 ALLEN AVE	1	\$2,548.48	
9	052922220084	343 ALLEN AVE	1	\$2,548.48	
10	052922220083	347 ALLEN AVE	1	\$2,548.48	
11	052922220082	353 ALLEN AVE	1	\$2,548.48	
12	052922220081	357 ALLEN AVE	1	\$2,548.48	
13	052922220080	363 ALLEN AVE	1	\$2,548.48	
14	052922220079	367 ALLEN AVE	1	\$2,548.48	
15	052922220078	373 ALLEN AVE	1	\$2,548.48	
16	052922220077	377 ALLEN AVE	1	\$2,548.48	
17	052922220076	383 ALLEN AVE	1	\$2,548.48	
18	052922220075	387 ALLEN AVE	1	\$2,548.48	
19	052922220074	393 ALLEN AVE	1	\$2,548.48	
20	052922220073	397 ALLEN AVE	1	\$2,548.48	
21	052922220072	403 ALLEN AVE	1	\$2,548.48	
22	052922220071	407 ALLEN AVE	1	\$2,548.48	
23	052922220070	413 ALLEN AVE	1	\$2,548.48	
24	052922220069	417 ALLEN AVE	1	\$2,548.48	
25	052922220068	423 ALLEN AVE	1	\$2,548.48	
26	052922220067	427 ALLEN AVE	1	\$2,548.48	
27	052922220066	433 ALLEN AVE	1	\$2,548.48	
28	052922220065	437 ALLEN AVE	1	\$2,548.48	
29	052922220064	443 ALLEN AVE	1	\$2,548.48	
30	052922220063	447 ALLEN AVE	1	\$2,548.48	
31	062922140050	2995 CAROLINE CT	1	\$2,548.48	
32	062922140049	2991 CAROLINE CT	1	\$2,548.48	
33	062922140048	2987 CAROLINE CT	1	\$2,548.48	
34	062922140047	2983 CAROLINE CT	1	\$2,548.48	
35	062922140046	2977 CAROLINE CT	1	\$2,548.48	
36	062922140045	2975 CAROLINE CT	1	\$2,548.48	
37	062922140044	2974 CAROLINE CT	1	\$2,548.48	
38	062922140043	2978 CAROLINE CT	1	\$2,548.48	
39	062922140042	2982 CAROLINE CT	1	\$2,548.48	
40	062922140041	2986 CAROLINE CT	1	\$2,548.48	
41	062922140040	2990 CAROLINE CT	1	\$2,548.48	
42	062922140039	2994 CAROLINE CT	1	\$2,548.48	
43	052922230134	2995 SHERRY CT	1	\$2,548.48	

PRELIMINARY ASSESSMENT ROLL

- ALLEN AVENUE -

44	052922230133	2991 SHERRY CT	1	\$2,548.48	
45	052922230132	2983 SHERRY CT	1	\$2,548.48	
46	052922230131	2979 SHERRY CT	1	\$2,548.48	
47	052922230130	2975 SHERRY CT	1	\$2,548.48	
48	052922230129	2971 SHERRY CT	1	\$2,548.48	
49	052922230128	2970 SHERRY CT	1	\$2,548.48	
50	052922230127	2974 SHERRY CT	1	\$2,548.48	
51	052922230126	2978 SHERRY CT	1	\$2,548.48	
52	052922230125	2982 SHERRY CT	1	\$2,548.48	
53	052922230124	2986 SHERRY CT	1	\$2,548.48	
54	052922230123	2990 SHERRY CT	1	\$2,548.48	
55	052922230122	2994 SHERRY CT	1	\$2,548.48	
56	052922230121	2995 FRATTALONE LN	1	\$2,548.48	
57	052922230120	2991 FRATTALONE LN	1	\$2,548.48	
58	052922230119	2987 FRATTALONE LN	1	\$2,548.48	
59	052922230118	2983 FRATTALONE LN	1	\$2,548.48	
60	052922230117	2979 FRATTALONE LN	1	\$2,548.48	
61	052922230116	2975 FRATTALONE LN	1	\$2,548.48	
62	052922230115	2971 FRATTALONE LN	1	\$2,548.48	
63	052922230114	2970 FRATTALONE LN	1	\$2,548.48	
64	052922230141	2974 FRATTALONE LN	1	\$2,548.48	
65	052922230140	2978 FRATTALONE LN	1	\$2,548.48	
66	052922230139	2982 FRATTALONE LN	1	\$2,548.48	
67	052922230138	2986 FRATTALONE LN	1	\$2,548.48	
68	052922230137	2990 FRATTALONE LN	1	\$2,548.48	
69	052922230136	2994 FRATTALONE LN	1	\$2,548.48	
70	052922230081	2995 DAVID CIR	1	\$2,548.48	
71	052922230080	2991 DAVID CIR	1	\$2,548.48	
72	052922230079	2987 DAVID CIR	1	\$2,548.48	
73	052922230078	2983 DAVID CIR	1	\$2,548.48	
74	052922230077	2979 DAVID CIR	1	\$2,548.48	
75	052922230076	2975 DAVID CIR	1	\$2,548.48	
76	052922230075	2971 DAVID CIR	1	\$2,548.48	
77	052922230074	2970 DAVID CIR	1	\$2,548.48	
78	052922230073	2974 DAVID CIR	1	\$2,548.48	
79	052922230072	2978 DAVID CIR	1	\$2,548.48	
80	052922230071	2982 DAVID CIR	1	\$2,548.48	
81	052922230070	2986 DAVID CIR	1	\$2,548.48	
82	052922230069	2990 DAVID CIR	1	\$2,548.48	
83	052922230068	2994 DAVID CIR	1	\$2,548.48	
84	052922230067	2995 PITRINA WAY	1	\$2,548.48	
85	052922230066	2991 PITRINA WAY	1	\$2,548.48	
86	052922230065	2987 PITRINA WAY	1	\$2,548.48	
87	052922230064	2983 PITRINA WAY	1	\$2,548.48	
88	052922230063	2979 PITRINA WAY	1	\$2,548.48	
89	052922230062	2975 PITRINA WAY	1	\$2,548.48	
90	052922230061	2971 PITRINA WAY	1	\$2,548.48	

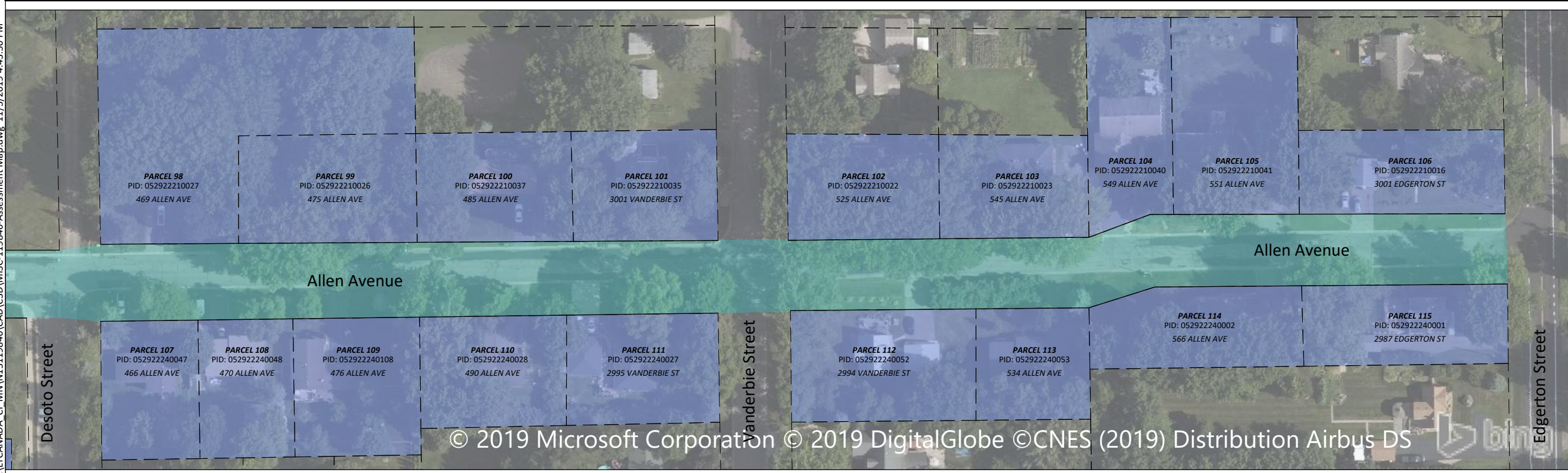
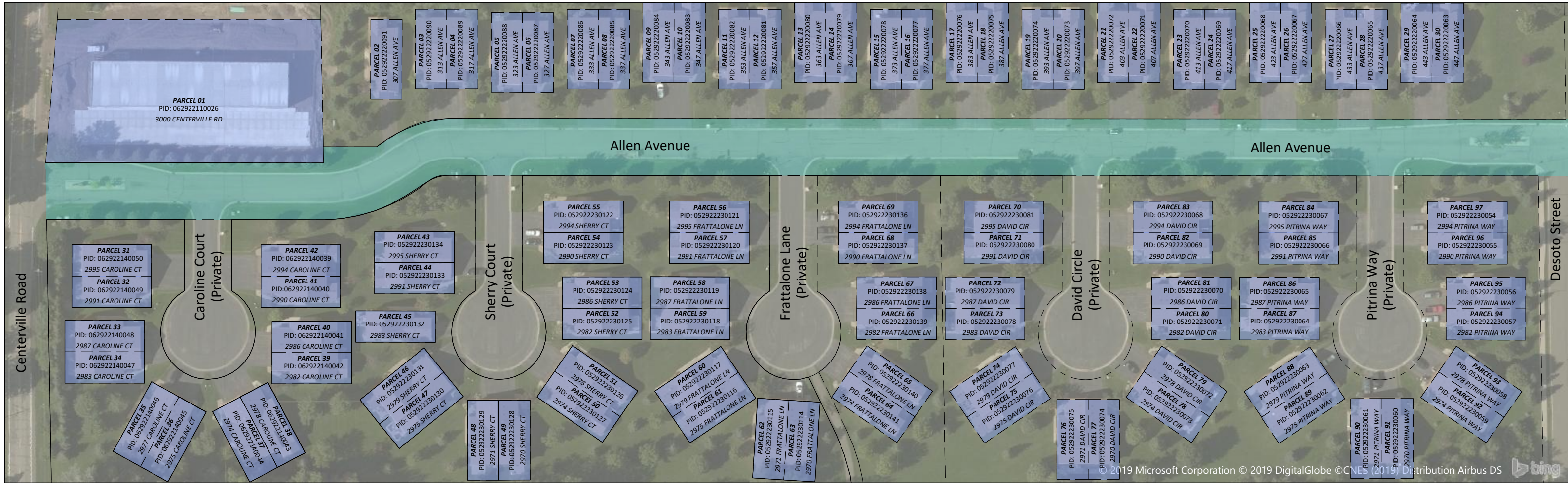
PRELIMINARY ASSESSMENT ROLL

- ALLEN AVENUE -

91	052922230060	2970 PITRINA WAY	1	\$2,548.48	
92	052922230059	2974 PITRINA WAY	1	\$2,548.48	
93	052922230058	2978 PITRINA WAY	1	\$2,548.48	
94	052922230057	2982 PITRINA WAY	1	\$2,548.48	
95	052922230056	2986 PITRINA WAY	1	\$2,548.48	
96	052922230055	2990 PITRINA WAY	1	\$2,548.48	
97	052922230054	2994 PITRINA WAY	1	\$2,548.48	
98	052922210027	469 ALLEN AVE	1	\$2,548.48	
99	052922210026	475 ALLEN AVE	1	\$2,548.48	
100	052922210037	485 ALLEN AVE	1	\$2,548.48	
101	052922210035	3001 VANDERBIE ST	0.2	\$509.70	(2)
102	052922210022	525 ALLEN AVE	1	\$2,548.48	
103	052922210023	545 ALLEN AVE	1	\$2,548.48	
104	052922210040	549 ALLEN AVE	1	\$2,548.48	
105	052922210041	551 ALLEN AVE	1	\$2,548.48	
106	052922210016	3001 EDGERTON ST	1	\$2,548.48	
107	052922240047	466 ALLEN AVE	1	\$2,548.48	
108	052922240048	470 ALLEN AVE	1	\$2,548.48	
109	052922240108	476 ALLEN AVE	1	\$2,548.48	
110	052922240028	490 ALLEN AVE	1	\$2,548.48	
111	052922240027	2995 VANDERBIE ST	1	\$2,548.48	
112	052922240052	2994 VANDERBIE ST	1	\$2,548.48	
113	052922240053	534 ALLEN AVE	1	\$2,548.48	
114	052922240002	566 ALLEN AVE	1	\$2,548.48	
115	052922240001	2987 EDGERTON ST	0.2	\$509.70	(2)

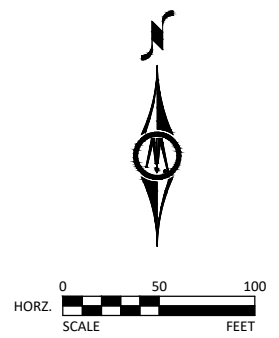
NOTES

- (1) Commerical Property, Assessed at 2x Rate
- (2) Corner Lot with Driveway on Road Not Improved, Assessed at 20% Rate



LEGEND

- IMPROVED STREET
- ASSESSABLE PROPERTIES



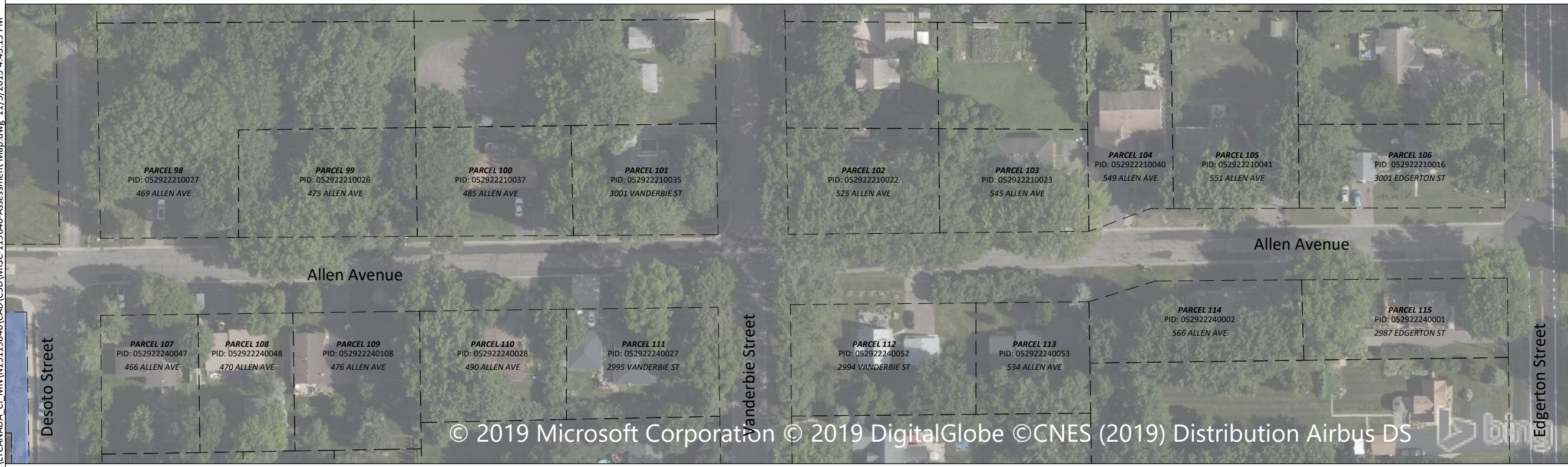
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PRELIMINARY ASSESSMENT ROLL

- CULDESACS -

Group	Street & Utility Cost	Assessable Cost (100%)	Total Units	Assessment Per Unit
2	\$439,670	\$439,670	-	-

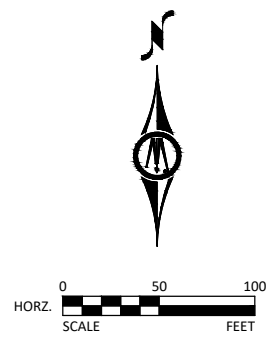
Parcel #	ParcelID	Site Address	Group 2 Units	Group 2 Assessment	Note
-	-	PITRINA HOMEOWNERS ASSOCIATION	-	\$439,670	



LEGEND

IMPROVED STREET(S)

ASSESSABLE ASSOCIATION



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