

City of Afton

City of Afton
PO Box 219 • Afton, MN 55001

FEASIBILITY Report

April 11, 2014

Downtown Village Improvement Project

*City of Afton
Washington County, Minnesota*

WSB Project No. 1856-325



477 Temperance Street
St. Paul, MN 55101
Tel: (651) 286-8450 • Fax: (651) 286-8488
wsbeng.com

FEASIBILITY REPORT

DOWNTOWN VILLAGE IMPROVEMENT PROJECT

FOR THE
CITY OF AFTON, MINNESOTA

April 11, 2014

Prepared By:

WSB & Associates, Inc.
701 Xenia Avenue South, Suite 300
Minneapolis, MN 55416
763-541-4800
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engineering • planning • environmental • construction

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April 11, 2014

Honorable Mayor and City Council
City of Afton
3033 St Croix Trail S
Afton, MN 55001

Re: Feasibility Report
Afton Downtown Village Improvement Project
WSB Project No. 1856-325

Dear Honorable Mayor and City Council Members:

Transmitted herewith for your review is a Feasibility Report which addresses improvements associated with the Afton Downtown Village Improvement Project.

I am available at your convenience to discuss this report. Please do not hesitate to contact me at 651-286-8479 if you have any questions regarding this report.

Sincerely,

WSB & Associates, Inc.

A handwritten signature in black ink that reads 'Diane Hankee'.

Diane Hankee, PE
City Engineer

Enclosure

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.



Diane Hankee, PE

Date: April 11, 2014

Lic. No. 43338

Quality Control Review Completed By:



Todd Hubmer, PE

Date: April 11, 2014

Lic. No. 24043

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1 Executive Summary

Afton is a historic community located along the St. Croix River. The Downtown Village area of the City is prone to flooding. Major flooding occurred in Afton in 1965, 1969, 1993, 1997, and 2001. The repetitive flooding causes substantial damage resulting in a reoccurring cost to private property and various levels of government agencies. The 100-year floodplain runs through the east side of the Downtown Village impacting residential properties, businesses, reinvestment, and the preservation of historical parcels as well as ultimately affecting the financial viability of the community. A map illustrating the project location is shown in *Appendix A*.

The proposed project will consist of:

- Reconstruction and accreditation of the flood levee along the St. Croix River
- Reconstruction of Downtown Village roadways, stormwater treatment, and rate control
- Construction of sanitary collection, conveyance, and treatment facilities to reduce pollutant loadings to the St. Croix River and removal of existing subsurface sanitary treatment systems (SSTS)
- Improved pedestrian access and trail system

Funding for the project will be through the Minnesota Department of Natural Resources (DNR), the Minnesota Board of Water and Soil Resources (BWSR), Minnesota Public Facilities Authority (PFA), Washington County, City funds, and assessments to the benefitting properties.

State funding (DNR, PFA, BWSR)	\$ 5,412,000
Washington County Road Fund	\$ 6,000,000*
City Funds and Assessments	<u>\$ 3,574,000**</u>
The total project is estimated to be	\$14,986,000

*Estimated cost shown in the County's budget – design has yet to be completed

**Does not include City contribution to County Road 21 Project – City contribution to be determined once design is completed by the County

The cost opinion includes a 15% construction contingency and 25% for indirect costs. The project construction will be completed between 2014 and 2017. This project is feasible, necessary, and cost effective from an engineering standpoint and should be constructed as proposed herein.

2 INTRODUCTION

2.1 Authorization

On May 21, 2013, the Afton City Council authorized the preparation of an engineering feasibility report for the Downtown Village Improvement Project. This project is included in the City's Comprehensive Plan, the State Bonding Bill, and Washington County Capital Improvement Plan.

2.2 Scope

The Afton Downtown Village Improvement Project includes flood levee, sanitary sewer, roadway, and drainage improvements to mitigate reoccurring costs associated with deteriorating and failing infrastructure.

2.3 Data Available

Information and materials used in the preparation of this report include the following:

- Facility Plan (by Wenck and WSB for the City of Afton, March 2013)*
- Community Assessment Report (by Wenck for the City of Afton, September 2012)*
- Geotechnical Evaluation (AET for the City of Afton, August 2012)*
- Afton Comprehensive Plan (July 2011)
- CSAH 21 Stormwater Management Plan (by WSB for Washington County & City of Afton, June 2011)*
- Task Force Recommendations for Infrastructure Improvements (by WSB for the City of Afton, June 2010)*
- FEMA Levee Accreditation Inventory (by SEH for the City of Afton, October 10, 2008)*
- 2013 Routine Inspection Report for the Afton, Minnesota levee system (by Army Corps of Engineers, May 15, 2013)
- City of Afton Aerial Maps
- Washington County LIDAR Contour Information
- City of Afton Record Plans
- Private Utility Maps
- Field Observations of the Area
- Public Input and Participation

*These reports are related to the improvements proposed in this document and were completed as part of the public information process, were required in order to obtain various funding sources, or were necessary preliminary engineering investigations.

These reports are included by reference but are not included in the appendix to reduce redundancy of information due to the large document size. These documents are available upon request from City Hall.

3 Downtown Village Improvement Project

3.1 Roadway Improvements

3.1.1 Background Information

The Afton Downtown Village area is located at the intersection of St. Croix Trail South (CSAH 21) and Afton Boulevard South (CSAH 18). The Downtown Village is bordered on the north by the intersection of St. Croix Trail South (CSAH 21) and Stagecoach Trail South and on the south by intersection of St. Croix Trail South (CSAH 21) and River Road South. The streets included in the Downtown Village include: Afton Boulevard South (CSAH 18), Pike Avenue, Perrot Avenue, River Road, St. Croix Trail South (CSAH 21), Stagecoach Trail, 31st Street, 32nd Street, 33rd Street, Upper 34th Street, 34th Street, 35th Street, 36th Street, and 37th Street.

3.1.2 Existing Conditions

The existing local roadways vary from 14-foot-wide to 16-foot-wide within an 80 foot right-of-way. They are approximately 50 years of age and the pavement has reached its life span. The roadways are in poor condition and patched on a regular basis; some areas are beyond repair. The Downtown Village has an insufficient drainage system and lacks stormwater treatment and rate control, parking is not designated, and pedestrian access is not continuous. There are a number of pedestrian access issues that limit the flow and safety of pedestrian travel throughout the Downtown Village.

3.1.3 Proposed Improvements

The local roadways are proposed to be 20-foot-wide urban roadways (portions of 36th and 37th may remain rural). The proposed curb will be non-barrier to accommodate parking needs.

Parking areas at City Hall, along the City park, 33rd Street (east side of St. Croix Trail South (CSAH 21)), and at Steamboat Park will be improved to delineate stalls and accommodate surface water infiltration as possible. A trail is proposed to run north-south throughout the Downtown Village. The trail will extend from the existing trail at the north end of town near City Hall and connect with the on road trail on St. Croix Trail South (CSAH 21) at the south end of town.

3.1.4 St Croix Trail (CSAH 21)

Washington County is leading the design and construction of St. Croix Trail South (CSAH 21) project and coordinating with the residents and City projects. The existing width of St. Croix Trail South (CSAH 21) varies from 36-foot-wide to 48-foot-wide. This project is in the preliminary design phase, and the preliminary layouts show St. Croix Trail South (CSAH 21) as 34-foot-wide to 55-foot-wide urban roadway with concrete curb and gutter within an 80 foot right-of-way.

The County roadway improvements are beneficial to the Downtown Village area as they accommodate commercial business traffic, pedestrian flow, drainage improvements and aesthetics. The City's contribution of the St. Croix Trail South (CSAH 21) project will not be determined until preliminary design has been completed by the County.

3.2 Sanitary Waste Improvements

3.2.1 Background

The Afton Downtown Village area has small lots and is served by individual subsurface sewage treatment systems (SSTS) and drain fields. Due to small lots, many of the SSTS systems are located within public right-of-ways and in the flood levee. There are non-conformities to current regulations with approximately one third of the systems in the Downtown Village and this number will increase as systems expire. These systems fail to protect ground water and the SSTS units located within the floodplain come in contact with surface water when the St. Croix River floods. Wells used for drinking water become a risk and the replacement of these septic systems with a municipal sewer system would protect the private wells and eliminate the septic systems as possible sources of contamination.

3.2.2 Existing Conditions

The Downtown Village area is served either by individual SSTS or a 201 sanitary collection system. The 201 system is a local collection and treatment system that provides treatment for approximately thirteen homes along River Road. Many of these existing sanitary systems are located in the 100-year floodplain, and are highly susceptible to flood waters. Environmental impacts to groundwater and downstream surface waters result from septic systems or sewage infiltration during flooding and for prolonged periods following flood events.

3.2.3 Proposed Improvements

The sanitary sewer improvements consist of the removal and/or abandoning of the existing SSTS currently in use and the connection to a local collection and treatment system for the Downtown Village. The proposed system is a larger version of the City's 201 and commonly used in Washington County for sanitary treatment and requires little to no maintenance from the individual property owner for proper operation.

A conceptual layout of the proposed sanitary sewer system can be found in **Appendix A**. Additional information regarding the proposed system can found in the City's Facility Plan dated March 1, 2013 and Hydrogeological Report which are on the City's web site. The wastewater system layout shown in **Appendix A** has been updated from the March 1, 2013 Facility Plan, an updated Facility Plan will be forthcoming from Wenck and Associates, Inc.

The proposed sanitary sewer system will convey sewage to the north to a larger subsurface treatment site purchased by the City located at 2318 St. Croix Trail South, City of Afton. Refer to **Appendix A** for the location of the proposed treatment facility. The proposed collection system is comprised of a conventional 8-inch gravity sewer system and the treatment system with a Recirculating Gravel Filter (RGF) with anoxic denitrification filter and carbon source additive. This combined system will reduce total nitrogen to less than 10 mg/L.

This project is estimated to reduce nutrient loading to Lake St. Croix by: 200 lb./year of phosphorus and 2,800 lb./year of BOD (Biological Oxygen Demand).

3.3 Levee Improvements

3.3.1 Background

The flood levee was initially constructed in 1969 to protect approximately 25 acres of the City of Afton from the flood waters of Lake St. Croix. The levee is not accredited by FEMA which limits improvement costs to properties within the 100-year floodplain to 50 percent of their value. Flooding results in damage to private and public infrastructure such as structures, landscaping, pavements, utilities, and SSTS drainfields. The flooding also results in costly temporary flood preparation, response, and cleanup. Residential and business owners are burdened with high flood insurance premiums, reoccurring costs associated with flooding, and limits to improvements made on their properties.

The United States Army Corps of Engineers (USCOE) annually reviews the flood levee for compliance with their voluntary National Flood Insurance Program (NFIP). Their program reviews include a requirement that sanitary systems within the levee be compliant and permitted.

3.3.2 Existing Conditions

The existing levee was constructed of sand, and the flood water flows horizontally through the levee. The City then pumps the flood water back over top of the levee. When this occurs the septic drain fields in the levee are saturated and once the flood water reaches the 100-year elevation occupants are required to evacuate the area. The DNR, Minnesota Pollution Control Agency (MPCA)/Public Facility Authority (PFA), and Board of Water and Soil Conservation (BWSR) recognize the environment issues associated with this condition and are financially supporting the City.

Lake St. Croix has an approved Total Maximum Daily Load (TMDL) implementation plan. Lake St. Croix is impaired for phosphorous and other nutrients.

3.3.3 *Proposed Improvements*

The proposed Levee improvements include reconstructing the levee to achieve FEMA accreditation. By achieving accreditation, the flood insurance rating for many structures in the Downtown Village protected by the levee can improve from a high-risk to a low-risk or preferred rating depending on the insurer or Mortgage Company. More importantly, property owners will not be restricted to 50 percent of property value when improving their property if the structure is rated as high risk.

The base flood elevation in this area is 692.0 (NGVD 1929). In order to achieve FEMA accreditation, the levee needs to protect the City from the 100-year flood event, plus three feet of freeboard with an additional one foot within 100 feet of structures or wherever flow is restricted. An additional half foot at the upstream end of the levee is also required. This results in levee elevations between 695 and 696, depending on location.

The proposed improvements to the levee include the installation of a seepage system on the landward side of the levee and a permanent lift station. The levee will also be brought up to the required elevations to meet the flood protection standards and stop logs will be installed at levee penetrations. Refer to **Appendix A** for a typical cross-section of the proposed levee and seepage system. For more information on the proposed levee system refer to the Report of Geotechnical Evaluation completed by AET on August 7, 2012.

The City recently purchased three properties to reduce the project cost by shortening the levee and removing Kelle's Creek from the landward side of the levee. Kelle's Creek will be independent of the levee and discharge directly to Lake St. Croix, just south of the proposed levee. Refer to **Appendix A** for the existing and proposed levee alignments as well as the location of the three properties that were purchased.

3.4 **Drainage Improvements**

3.4.1 *Background*

The drainage area leading to the Downtown Village area is approximately 2,380 acres. Refer to Drainage Area map in **Appendix A** for the subwatershed delineation. There are four Washington County roadways that lead to the Downtown Village and outlet water at various locations within the Downtown Village. The direction of flow is west from areas above the St. Croix bluff line to the east through the Downtown Village and into Lake St. Croix.

3.4.2 *Existing Conditions*

The existing drainage system consists of a ditch and culvert system that does not have the collection, conveyance and storage capabilities required for the Downtown Village area. Due to lack of system capacity, there is a significant amount of flooding throughout the Downtown Village and water frequently pools west of the existing levee during large

rainfall events. The lack of an adequate drainage system also results in erosion and sedimentation issues. The Downtown Village is located between the bluffs and Lake St. Croix and experiences significant erosion and sedimentation during large rainfall events.

Flooding and groundwater within the Downtown Village has the potential to inundate individual septic systems which may contaminate ground and surface waters. In addition, there are currently no Best Management Practices (BMPs) or treatment devices present to provide volume control or treatment of stormwater runoff prior to discharge into Lake St. Croix.

3.4.3 Proposed Improvements

Construction of a stormwater collection and conveyance system will be necessary to direct stormwater to BMPs and ultimately to Lake St. Croix. This system will reduce flooding and improve drainage conditions throughout the Downtown Village.

The City is working with Washington County on their St. Croix Trail South (CSAH 21) drainage design to address stormwater from the watershed. The proposed improvements include a trunk storm sewer line within St. Croix Trail South (CSAH 21) with leads to catch water. The local system will be directed to infiltration features and a collection system prior to connecting to the trunk system in CSAH 21.

There are three ponding locations proposed with the St. Croix Trail South (CSAH 21) project. The first is in the middle of the Downtown Village behind the levee, the second is at the north end of the Downtown Village, and the third is at the south of Kelle's Creek near the Steamboat Park area (where City purchased three properties). The exact location will be determined as the design progresses.

3.5 Public Involvement Summary

Since 2010, the City has held a series of public meetings for the various components of the project. Initially a public task force was formed and any property owners, outside of and within the Downtown Village were included. The goal of the task force was to identify the issues and needs within the Downtown Village and suggest recommended solutions. A task force summary is located on the City's web site. The City Council then directed staff to seek grant funding to address these issues. Proposed improvement cost estimates based on task force recommendations were prepared and grants were applied for. Through 2011 and 2012, the City held a series of public meetings as grant funding was secured to address local funding for the project. A summary of the grant funding is located in the funding section and public notices of the meetings are on record at the City.

In 2013, the City held public hearings and neighborhood meetings regarding the proposed Facility Plan. Also in 2013, Washington County started the public process for St. Croix Trail South (CSAH 21). In 2014, there was discussion regarding improvement projects affecting the whole Downtown Village in general, and discussion regarding proposed sanitary sewer system. Following submittal of this report, the City will continue to hold

public hearings and neighborhood meetings related to the proposed improvements and assessments.

Dates of public meetings:

- | | |
|----------------------|----------------------|
| 1. January 19, 2010 | 8. June 21, 2011 |
| 2. January 27, 2010 | 9. December 18, 2012 |
| 3. February 17, 2010 | 10. May 6, 2013 |
| 4. March 17, 2010 | 11. May 22, 2013 |
| 5. April 21, 2010 | 12. May 30, 2013 |
| 6. May 27, 2010 | 13. July 2, 2013 |
| 7. June 23, 2010 | |

3.6 Permits and Approvals

The anticipated required permits and approvals and the respective regulatory agencies are listed below:

Roadway

- Washington County – Right of Way Permit
- MPCA (NPDES) – Erosion/Stormwater Permit
- Valley Brach Watershed District – Permit

Sanitary Sewer

- MPCA - State Disposal System Permit
- MPCA – Sewer Extension Permit
- Washington County – Right of Way Permit

Levee

- USCOE – Levee Design Coordination and Approval
- DNR – Kelle’s Creek/Lake St. Croix
- FEMA – Accreditation
- WCA – Approval

3.7 Right-of-Way

Right-of-way needs will be evaluated during final design. It is anticipated that some temporary construction easements will be required. Easement acquisition for the flood levee is anticipated.

4 FINANCING

4.1 Opinion of Cost

A detailed opinion of probable cost is included in *Appendix B* of this report. The opinion of probable cost is based on projected construction costs for 2014 through 2017, and includes a 15% construction contingency and 25% indirect costs. The indirect costs include engineering, legal, and administrative costs associated with the project. The project costs are summarized as follows:

Table 1 – Downtown Village Improvement Project Summary of Cost	
	Total
Schedule A – Roadway and Drainage Improvements	\$1,875,000
Schedule B – Sanitary Sewer Improvements	\$3,415,000
Schedule C – Sanitary Sewer Septic Removals	\$199,000
Schedule D – Levee Improvements	\$3,497,000
TOTAL	\$8,986,000*

*Does not include \$6 Million for CR 21 Improvements

4.2 Funding

The proposed improvement costs are estimated to be \$14,986,000. Funding for the project will be through the DNR, Minnesota BWSR, Minnesota PFA, Washington County, City funds, and assessments to the benefitting properties.

State funding and grants allocated to the project are:

DNR Flood Hazard Mitigation Grant (estimated project cost \$5.2 million)

The City of Afton has a grant agreement in place with the Minnesota DNR for Flood Hazard Mitigation funds. This grant requires a 50% local match (City, County, or Watershed) and is capped at \$2 million (maximum local contribution), thus the City's share will not be greater than \$2 million. The DNR's share is the remainder of the cost to complete the levee project (approximately \$3.2 million). The grant program includes the removal of the septic systems from the levee and necessary sanitary sewer construction work to replace these systems.

BWSR SSTS Clean Water Fund Grant (\$260 thousand)

The City of Afton has a grant agreement in place with the BWSR within the SSTS portion of the Clean Water Fund. This funding is for the removal of non-compliant SSTS (either commercial or residential) and has a low income requirement for the residential systems. This grant requires a 25% cost share.

PFA Wastewater Infrastructure Funding (estimated project cost \$4 million)

The City of Afton has a grant agreement in place with the PFA administered through the MPCA. This funding has been allocated to remove phosphorus loading on riparian lots along the nutrient impaired St. Croix River. It is a 50% match program that is capped out at \$1.985 million maximum contribution from the PFA.

PFA Low Interest Loan (\$1 million)

In addition to the funding provided by the PFA, the City is also in the process of applying for a low interest loan that would help the City finance its portion of the improvements at a lower interest rate.

The levee project impacts existing septic systems thus approximately \$1 million of DNR funds (amount is generated based on sanitary flows for systems located within the levee) are allocated to the sanitary improvements.

The project funding table shows the funding sources and project costs. The numbers shown in this table include a 15% contingency and 25% indirect costs. Additional PFA/VBWD grants would allow for the installation of additional stormwater management BMPs.

		State Funds / Grants			Local Funds	Washington	Total
		DNR	BWSR	PFA		County (CSAH 21)	
Street and Drainage	City of Afton	\$110,000	\$60,000	\$545,000	\$1,159,000		\$1,874,000
	Washington Co.				TBD	\$6,000,000	\$6,000,000
Levee		\$1,749,000			\$1,749,000		\$3,498,000
Sanitary		\$725,000	\$199,000	\$1,699,000	\$991,000		\$3,614,000
Adjustment PFA*				-\$259,000	\$259,000		
Adjustment DNR**		\$584,000			-\$584,000		
Total		\$3,168,000	\$259,000	\$1,985,000	\$3,574,000	\$6,000,000	\$14,986,000

*PFA grant agreement outlines maximum allowable contribution from the PFA toward sanitary related improvements of \$1,985,000.

**DNR grant agreement outlines maximum allowable contribution from the City toward levee related improvements of \$2,000,000.

Potential local funding sources for this project include:

Assessments to Benefited Properties	\$2.16 Million
CIP Fund	\$1.0 Million
General Fund	\$1.0 Million
Total Potential Local Funds	\$4.16 Million

4.3 Proposed Assessments

The **preliminary assessment roll** is included in **Appendix C** of this report, along with an Assessment Map identifying the benefitting properties. A benefit analysis was completed for the project. It was completed by an appraiser who specializes in assessing benefits for municipal projects. Final assessments will be determined by the Council based on project costs at a future date.

In addition to the required public hearing and assessment hearing, the City will hold community meetings to review the feasibility report.

5 PROJECT SCHEDULE

The proposed schedule for this improvement is as follows:

<u>Task</u>	<u>Completion Date</u>
Accept Feasibility/Authorize Plans and Specs	April 15, 2013
Public Information Meeting.....	May 13, 2014

Sanitary Improvements:

Approve Plans and Specs Authorize Ad for Bid	May 20, 2014
Receive Bids/Order Preparation of Assessments.....	June 16, 2014
Public Information Meeting.....	July, 2014
Hold Public Hearing/Hold Assessment Hearing/Order Project & Award Contract	August, 2014
Begin Construction of the Sanitary Treatment Site	September, 2014
Begin Construction of the Sanitary Collection System	September, 2015
Completion of Sanitary Collection System.....	December 31, 2015

Roadways, Levee, and Drainage Improvements:

Bidding (to be coordinated with Washington County)	2015/2016
Construction.....	May - November, 2016
Final Completion of Construction	June, 2017

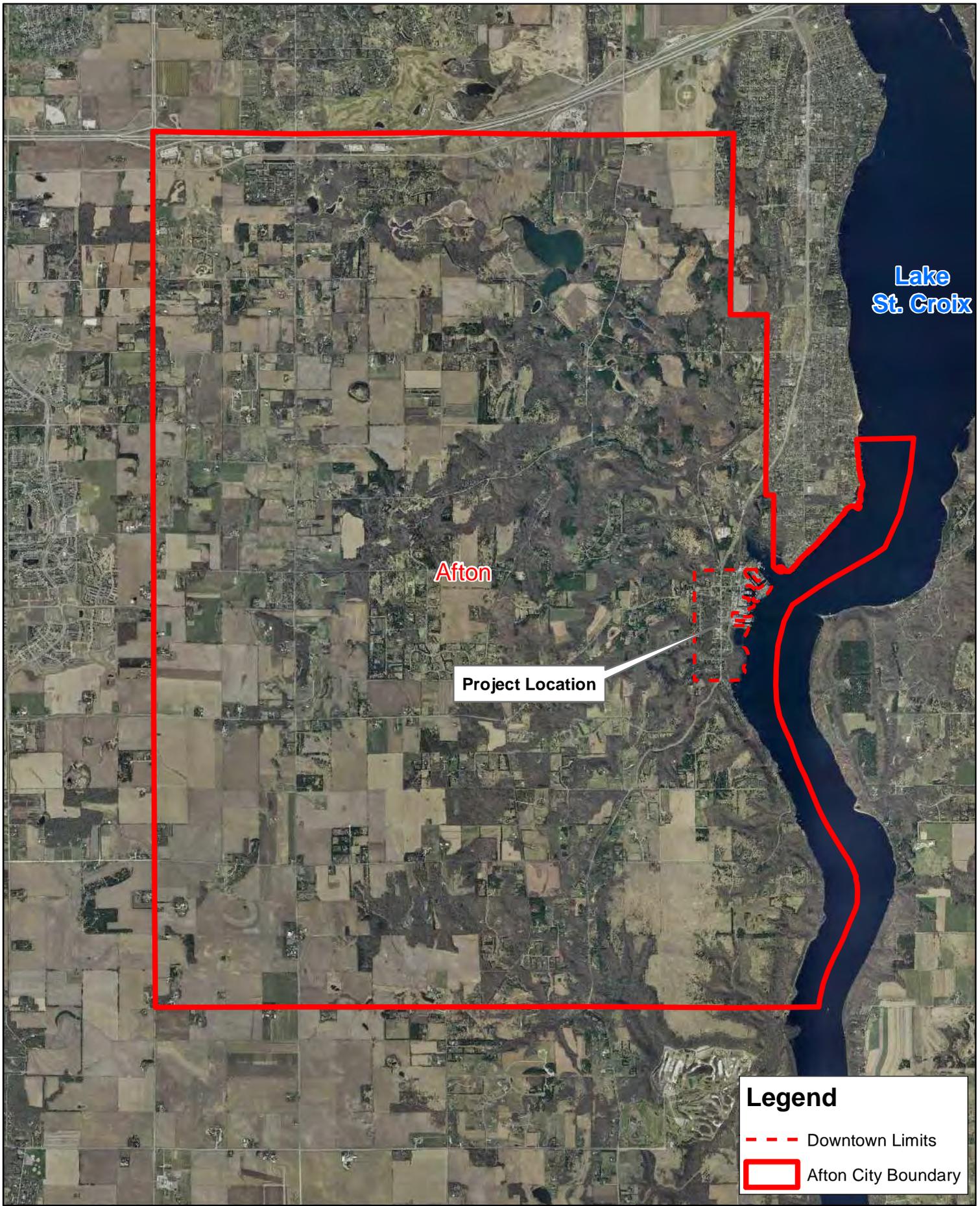
6 FEASIBILITY AND RECOMMENDATION

The Downtown Village Improvement Project includes flood levee, sanitary sewer, roadway, drainage improvements, and appurtenant work. The total cost of the project is estimated at \$14,986,000.

Based on our analysis and data presented, the proposed project is feasible, necessary, and cost effective from an engineering standpoint. We recommend reconstruction/construction of the proposed improvements as detailed in this report and as determined financially feasible by the City Council.

APPENDIX A

FIGURES



Lake St. Croix

Afton

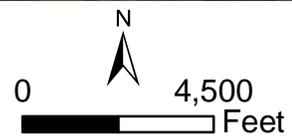
Project Location

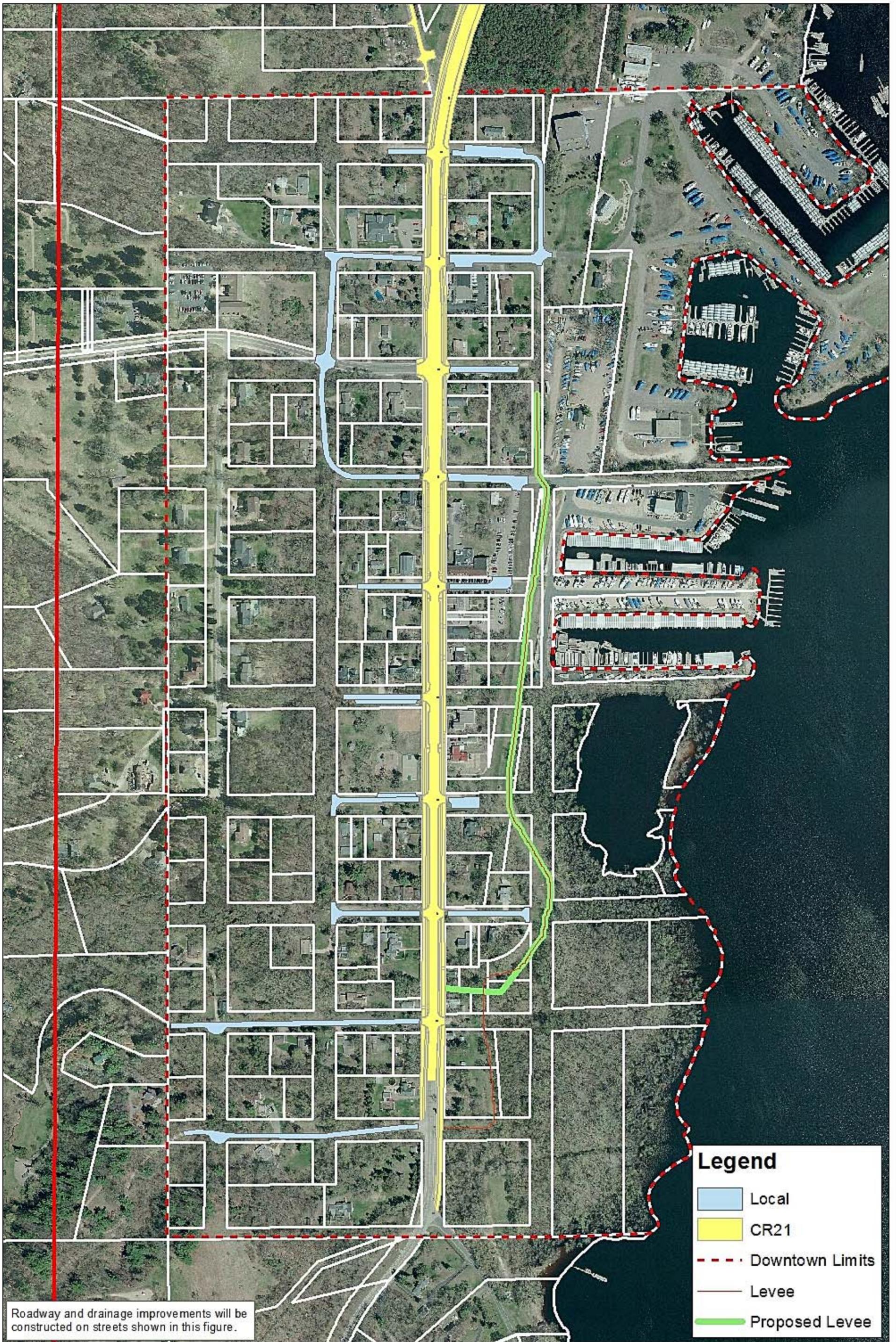
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- - - Downtown Limits
- ▭ Afton City Boundary



**City of Afton
Old Village Improvement Project
Project Location Map**





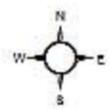
Roadway and drainage improvements will be constructed on streets shown in this figure.

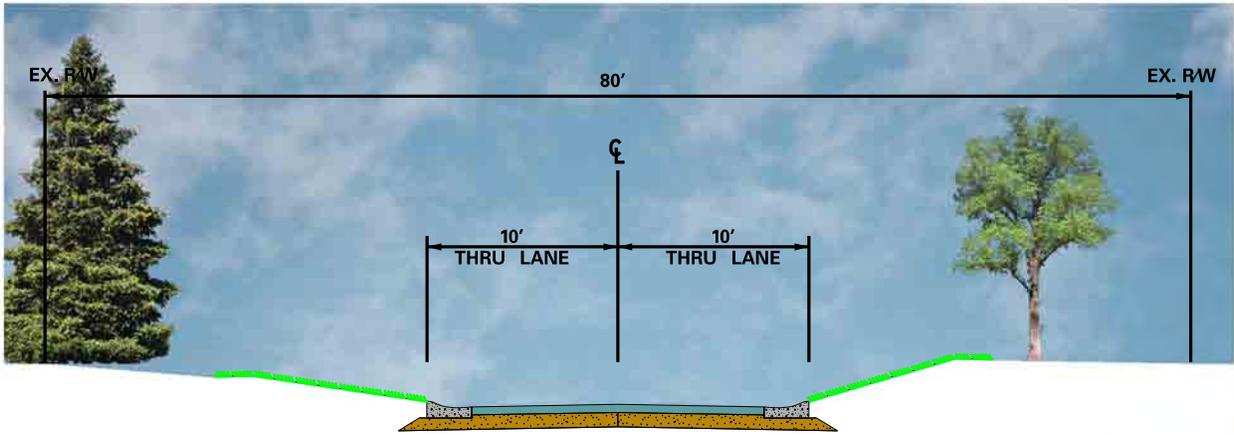
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- Local
- CR21
- Downtown Limits
- Levee
- Proposed Levee

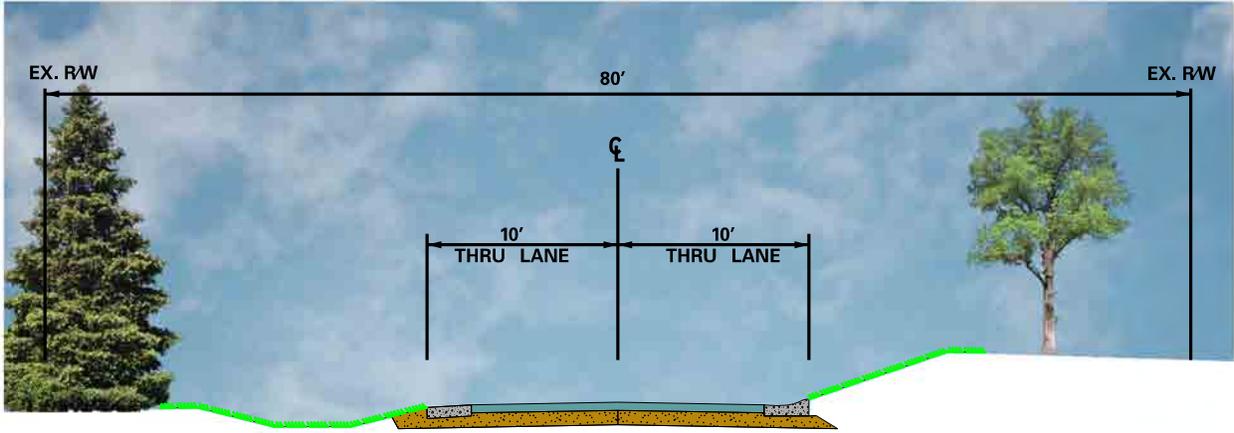


City of Afton
Old Village Improvement Project
Streets to be Reconstructed

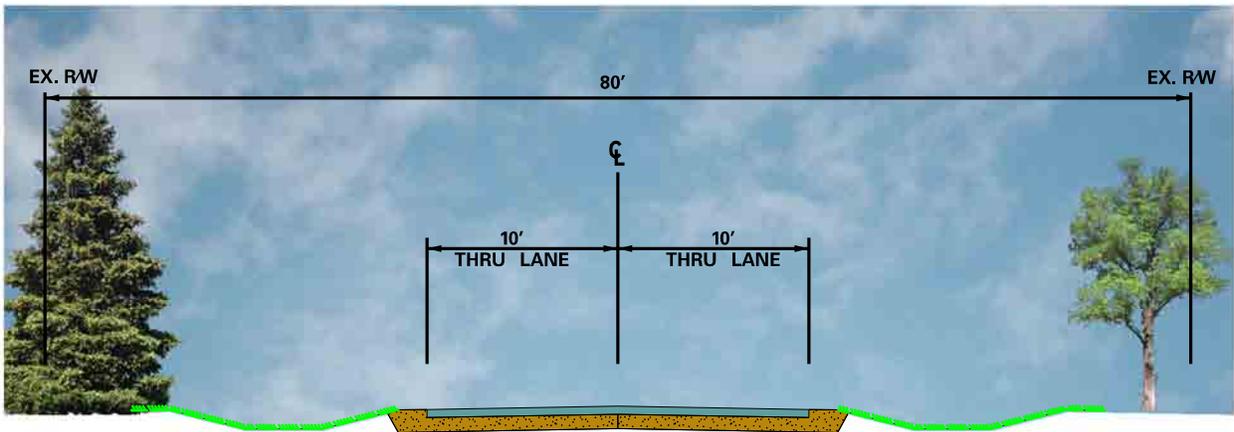




Option 1: Surmountable Curb and Gutter



Option 2: Ribbon Curb and Gutter



Option 3: No Curb and Gutter



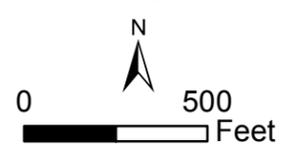
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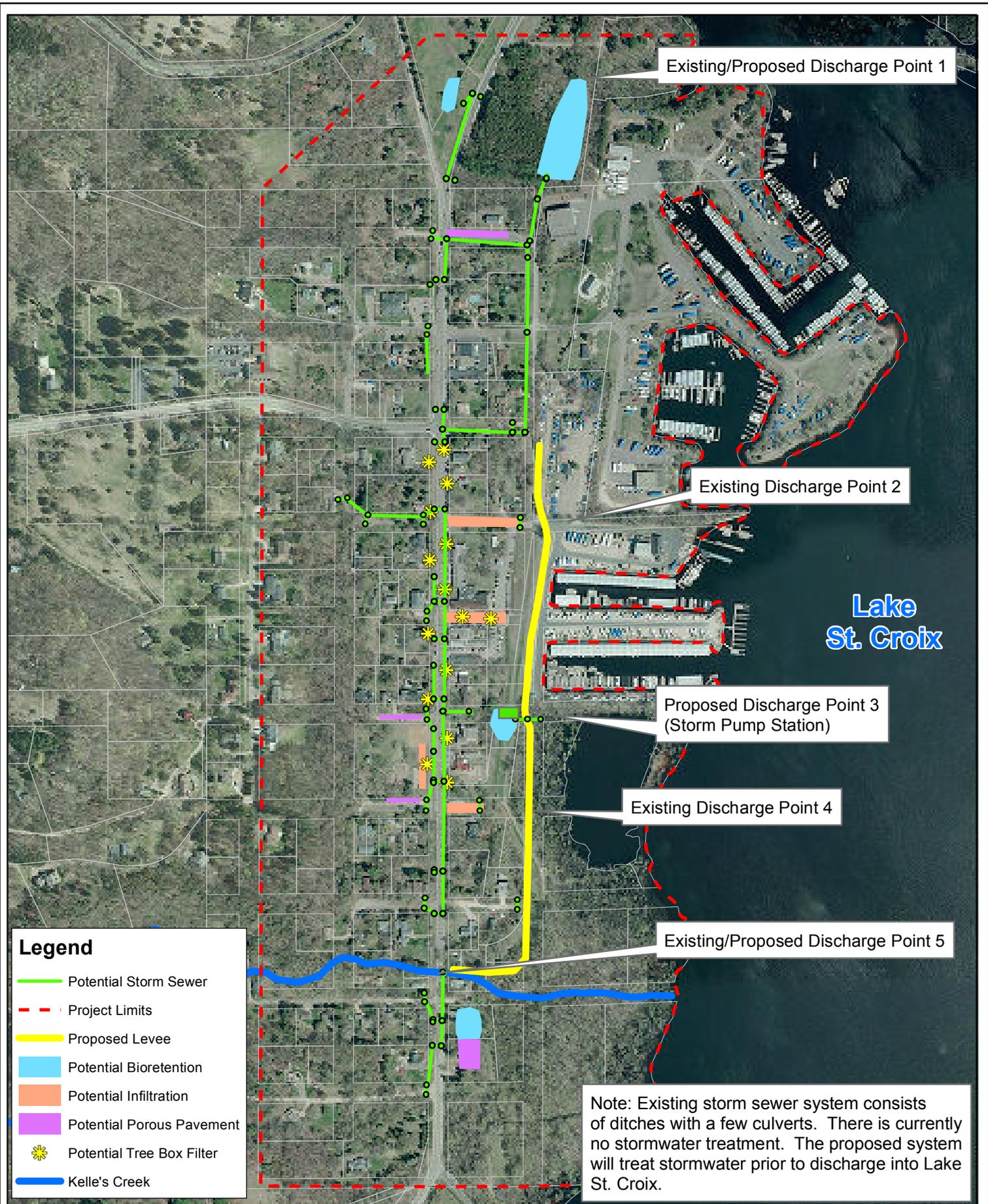
Sanitary Sewer

- Pump Station
- - > Force Main
- > Gravity Sewer



City of Afton
Old Village Improvement Project
Conceptual Sanitary Sewer Layout





Legend

- Potential Storm Sewer
- - - Project Limits
- Proposed Levee
- Potential Bioretention
- Potential Infiltration
- Potential Porous Pavement
- ★ Potential Tree Box Filter
- Kelle's Creek

Existing/Proposed Discharge Point 1

Existing Discharge Point 2

Proposed Discharge Point 3
(Storm Pump Station)

Existing Discharge Point 4

Existing/Proposed Discharge Point 5

Lake
St. Croix

Note: Existing storm sewer system consists of ditches with a few culverts. There is currently no stormwater treatment. The proposed system will treat stormwater prior to discharge into Lake St. Croix.



City of Afton
Old Village Improvement Project
Stormwater Management Improvements

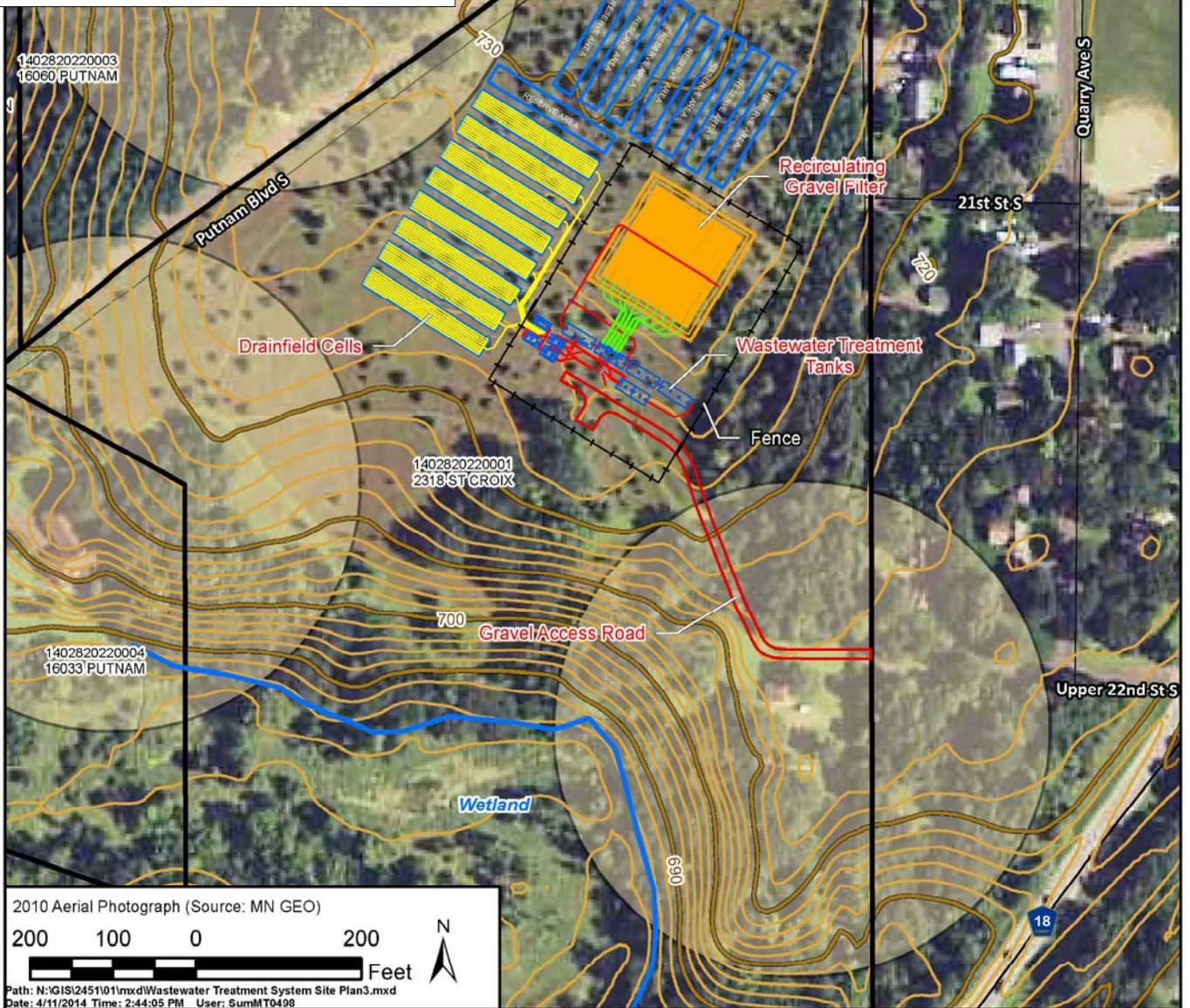




LOCATION MAP INSET nts

Legend

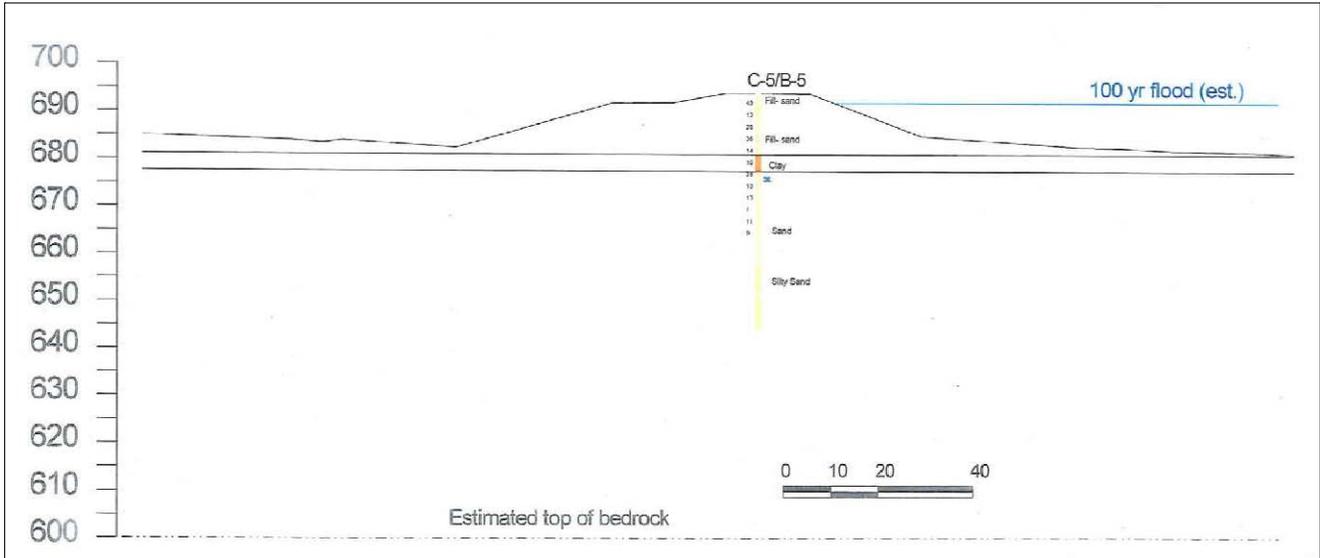
-  Afton Tax Parcels
-  300' Well Buffers
-  Approximate Wetland Boundary



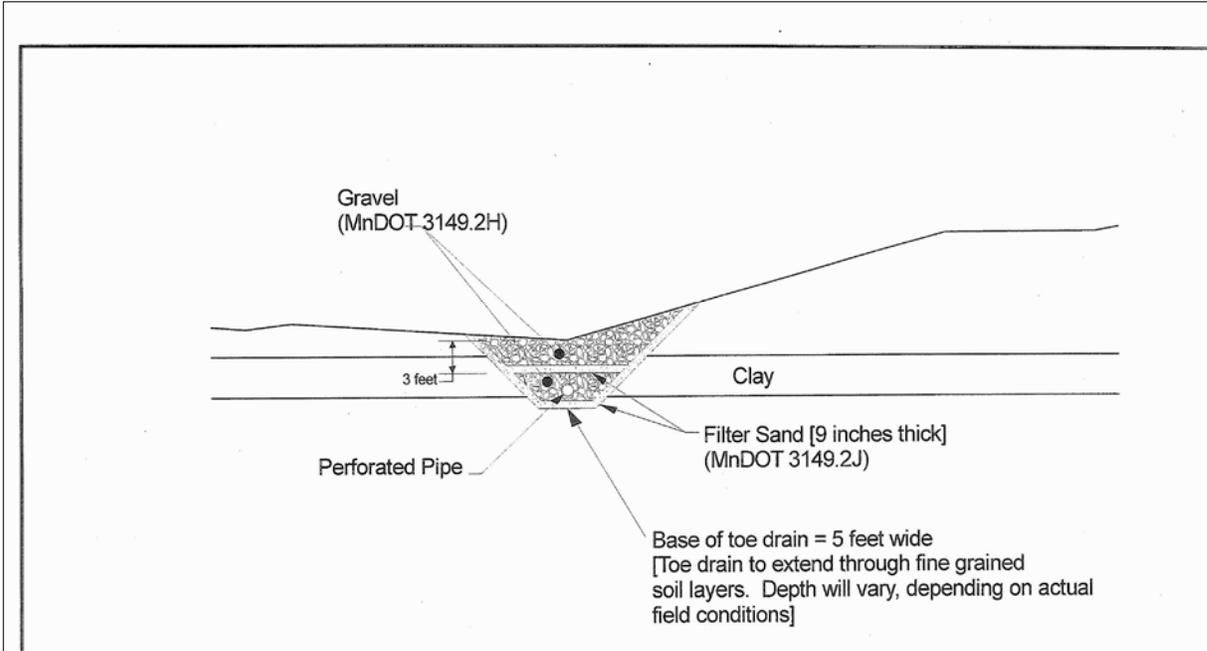
2010 Aerial Photograph (Source: MN GEO)

200 100 0 200 Feet

Path: N:\GIS\2451101\mxd\Wastewater Treatment System Site Plan3.mxd
 Date: 4/11/2014 Time: 2:44:05 PM User: SumMT0498



TYPICAL CROSS SECTION



TYPICAL CROSS SECTION WITH SEEPAGE SYSTEM

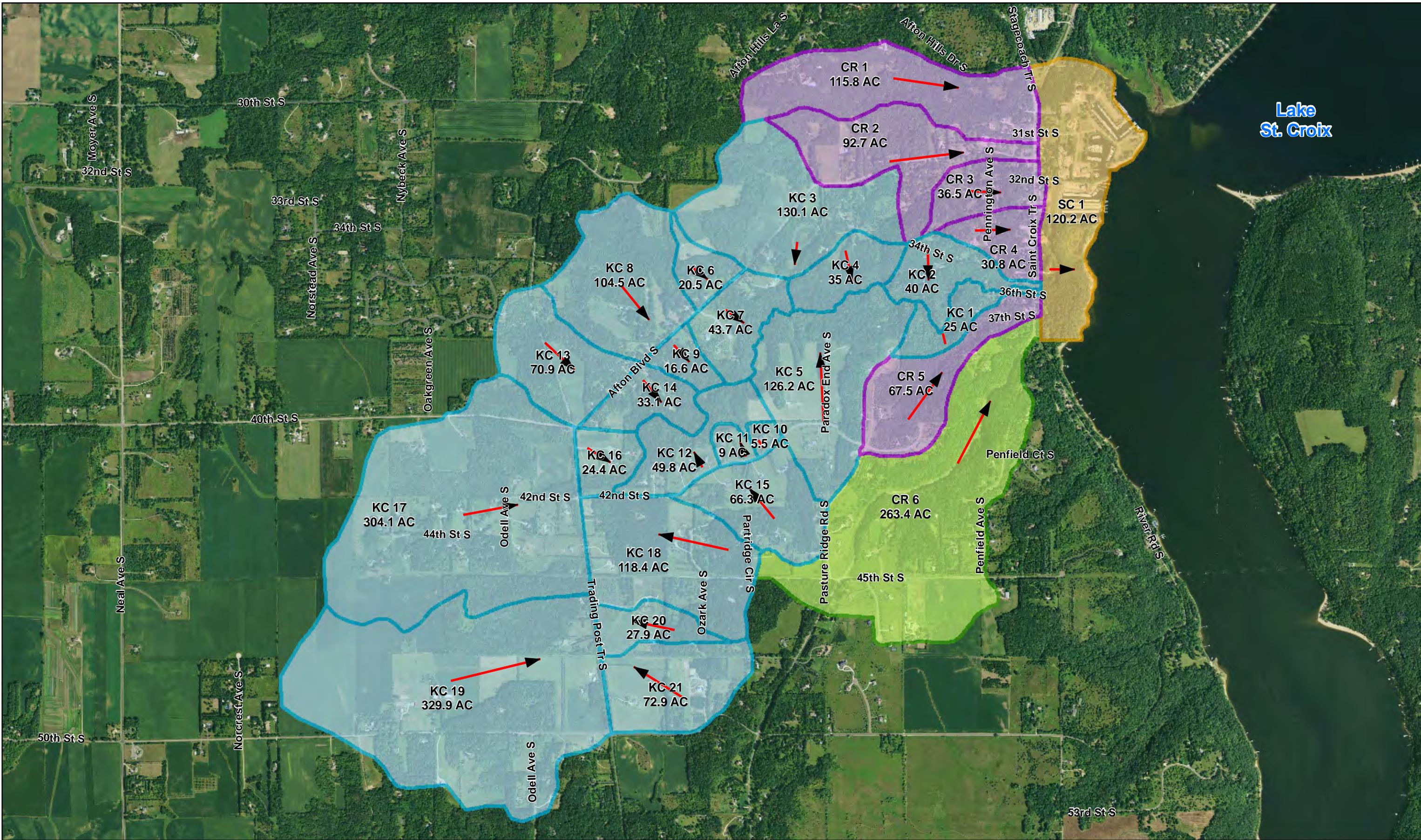
SCALE: NTS

CITY OF AFTON

PROPOSED LEVEE
TYPICAL CROSS SECTION

Date:
Apr. 2014

Sheet No.
1 of 1



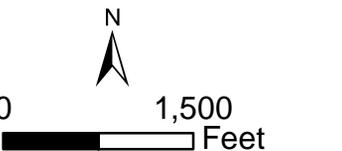
Lake
St. Croix

Legend

- ▶ Flow Direction
- Drainage Areas
- West Old Village
- East Old Village
- South Old Village
- Kelle's Creek

**County Road 21
Stormwater Management Plan**

Figure 3: Drainage Area Map



APPENDIX B
OPINION OF PROBABLE COST

STATEMENT OF ESTIMATED QUANTITIES

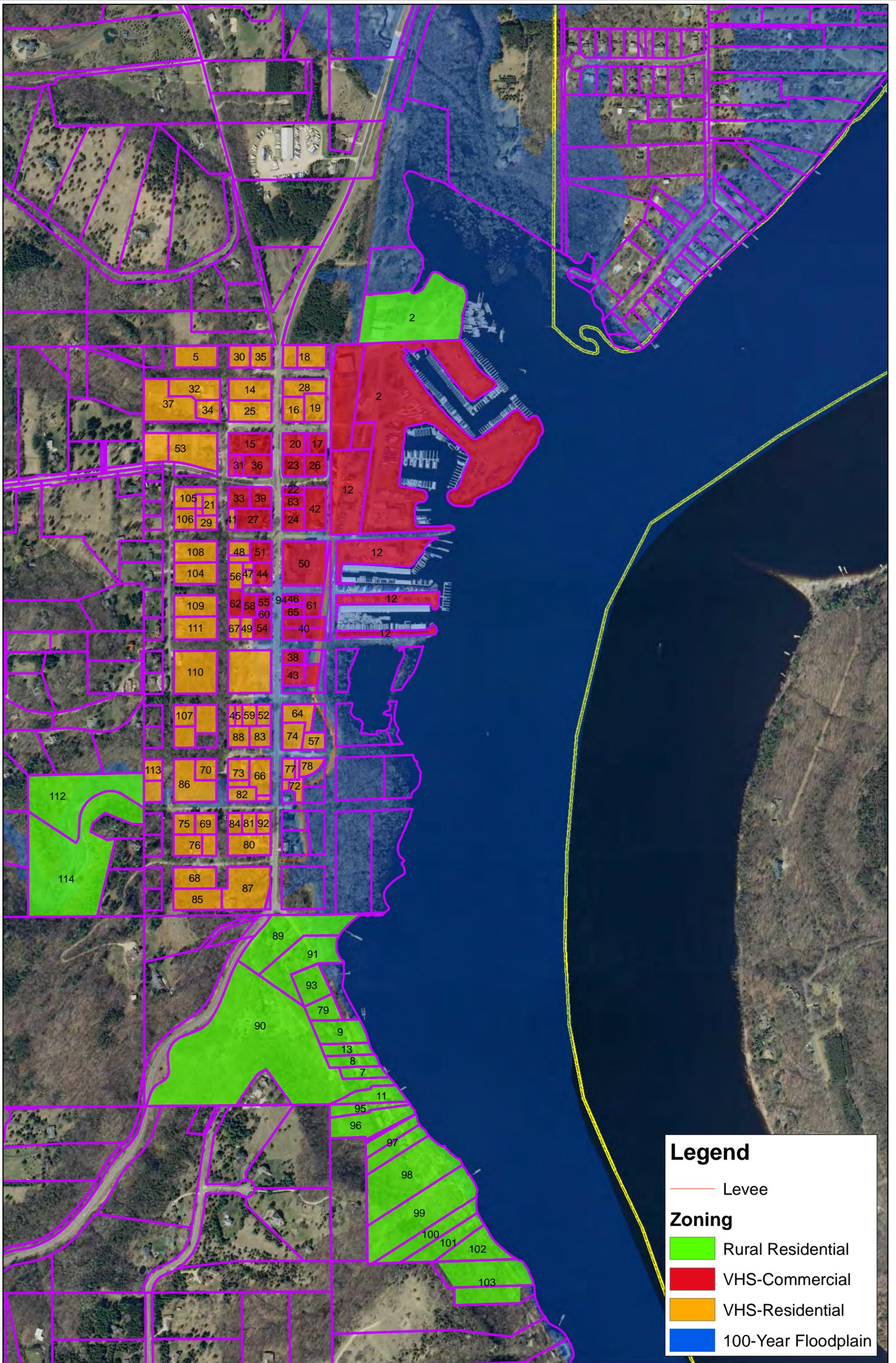
MN/DOT Specification No.	Description	Unit	Estimated Unit Price	Total Project	
				Estimated Quantity	Estimated Cost
SCHEDULE A - SURFACE & DRAINAGE IMPROVEMENTS					
2021.501	MOBILIZATION	LUMP SUM	\$109,870.00	1	\$109,870.00
2101.501	CLEARING	ACRE	\$5,000.00	0.29	\$1,450.00
2101.502	CLEARING	TREE	\$200.00	35	\$7,000.00
2101.506	GRUBBING	ACRE	\$5,000.00	0.29	\$1,450.00
2101.507	GRUBBING	TREE	\$200.00	35	\$7,000.00
2104.501	REMOVE CONCRETE CURB & GUTTER	LIN FT	\$5.00	90	\$450.00
2104.501	REMOVE & REPLACE STORM SEWER	LIN FT	\$100.00	360	\$36,000.00
2104.503	REMOVE BITUMINOUS TRAIL	SQ FT	\$3.00	200	\$600.00
2104.503	REMOVE CONCRETE WALK	SQ FT	\$5.00	200	\$1,000.00
2104.505	REMOVE BITUMINOUS DRIVEWAY PAVEMENT	SQ YD	\$3.00	260	\$780.00
2104.505	REMOVE BITUMINOUS PAVEMENT	SQ YD	\$3.00	12590	\$37,770.00
2104.505	REMOVE CONCRETE DRIVEWAY PAVEMENT	SQ YD	\$8.00	50	\$400.00
2104.509	REMOVE SIGN	EACH	\$50.00	14	\$700.00
2104.509	SALVAGE AND REINSTALL SIGN	EACH	\$50.00	15	\$750.00
2104.511	SAWING CONCRETE PAVEMENT (FULL DEPTH)	LIN FT	\$5.00	60	\$300.00
2104.513	SAWING BITUMINOUS PAVEMENT (FULL DEPTH)	LIN FT	\$3.00	5180	\$15,540.00
2104.601	SALVAGE AND REINSTALL LANDSCAPE STRUCTURES	LUMP SUM	\$8,000.00	1	\$8,000.00
2104.602	SALVAGE AND REINSTALL MAIL BOX	EACH	\$100.00	52	\$5,200.00
2104.618	SALVAGE AND REINSTALL BRICK PAVERS	SQ YD	\$25.00	50	\$1,250.00
2105.501	COMMON EXCAVATION (EV) (P)	CU YD	\$12.00	4650	\$55,800.00
2105.507	SUBGRADE EXCAVATION (EV)	CU YD	\$12.00	400	\$4,800.00
2105.522	SELECT GRANULAR BORROW (CV)	CU YD	\$12.00	400	\$4,800.00
2112.501	SUBGRADE PREPARATION	ROAD STA	\$200.00	104.2	\$20,840.00
2118.604	AGGREGATE SURFACING, CLASS 2 (4.0" THICK)	SQ YD	\$20.00	125	\$2,500.00
2123.610	STREET SWEEPER (WITH PICKUP BROOM)	hour	\$150.00	100	\$15,000.00
2130.501	WATER	MGAL	\$5.00	220	\$1,100.00
2211.501	AGGREGATE BASE CLASS 5	TON	\$12.00	6820	\$81,840.00
2331.604	FULL DEPTH RECLAMATION	SQ YD	\$3.00	9200	\$27,600.00
2357.502	BITUMINOUS MATERIAL FOR TACK COAT	GALLON	\$4.00	870	\$3,480.00
2360.501	BITUMINOUS PATCHING MATERIAL	TON	\$70.00	1720	\$120,400.00
2360.501	TYPE SP 9.5 WEARING COURSE MIX (2,B)	TON	\$70.00	1390	\$97,300.00
2360.502	TYPE SP 12.5 NON WEAR COURSE MIX (2,B)	TON	\$68.00	1860	\$126,480.00
2360.503	TYPE SP 9.5 WEARING COURSE MIX (2,B) (3.0" THICK)	SQ YD	\$40.00	260	\$10,400.00
2503.541	15" RC PIPE SEWER DESIGN 3006 CLASS V	LIN FT	\$34.00	600	\$20,400.00
2503.541	18" RC PIPE SEWER DESIGN 3006 CLASS V	LIN FT	\$36.00	830	\$29,880.00
2506.501	CONSTRUCT DRAINAGE STRUCTURE	EACH	\$2,200.00	30	\$66,000.00
2531.501	CONCRETE CURB & GUTTER DESIGN SURMOUNTABLE	LIN FT	\$15.00	12960	\$194,400.00
2531.507	5" CONCRETE DRIVEWAY PAVEMENT	SQ YD	\$55.00	50	\$2,750.00
2531.601	REMOVE & REPLACE CONCRETE CURB & GUTTER	LIN FT	\$25.00	1000	\$25,000.00
2540.602	MAIL BOX (TEMPORARY)	EACH	\$25.00	52	\$1,300.00
2554.602	PERMANENT BARRICADES (TYPE III)	EACH	\$400.00	2	\$800.00
2563.601	TRAFFIC CONTROL	LUMP SUM	\$15,000.00	1	\$15,000.00
2564.531	SIGN PANELS TYPE C	SQ FT	\$50.00	73	\$3,650.00
2564.602	SIGN PANELS TYPE D	EACH	\$250.00	3	\$750.00
2571.501	CONIFEROUS TREE 8' HT B&B	TREE	\$450.00	8	\$3,600.00
2571.502	DECIDUOUS TREE 2.5" CAL B&B	TREE	\$450.00	9	\$4,050.00

STATEMENT OF ESTIMATED QUANTITIES					
MN/DOT Specification No.	Description	Unit	Estimated Unit Price	Total Project	
				Estimated Quantity	Estimated Cost
2573.502	SILT FENCE, TYPE MACHINE SLICED	LIN FT	\$2.00	18660	\$37,320.00
2573.530	STORM DRAIN INLET PROTECTION	EACH	\$150.00	20	\$3,000.00
2573.602	TEMPORARY ROCK CONSTRUCTION ENTRANCE	EACH	\$750.00	21	\$15,750.00
2573.603	BIOROLL	LIN FT	\$2.00	12960	\$25,920.00
2575.501	SEEDING (INCL TOPSOIL, FERT, DISC ANCHOR, MULCH)	ACRE	\$1,000.00	3.68	\$3,680.00
2575.502	SEED MIXTURE 260	POUND	\$3.00	420	\$1,260.00
2575.505	SODDING, TYPE LAWN (INCL. TOPSOIL & FERT)	SQ YD	\$3.00	13960	\$41,880.00
TOTAL SCHEDULE A - SURFACE IMPROVEMENTS				\$1,304,240.00	
SCHEDULE B - SANITARY SEWER IMPROVEMENTS					
2104.501	REMOVE SEWER PIPE (SANITARY)	LIN FT	\$10.00	40	\$400.00
2104.603	ABANDON LIFT STATION	LUMP SUM	\$1,000.00	1	\$1,000.00
2105.601	DEWATERING	LUMP SUM	\$10,000.00	1	\$10,000.00
2451.609	GRANULAR FOUNDATION AND/OR BEDDING	TON	\$50.00	190	\$9,500.00
2503.601	SANITARY SEWER BYPASS PUMPING	LUMP SUM	\$8,000.00	1	\$8,000.00
2503.602	CHIMNEY SEAL (EXTENERAL)	EACH	\$200.00	33	\$6,600.00
2503.602	CHIMNEY SEAL (EXTENERAL) (SPECIAL)	EACH	\$200.00	6	\$1,200.00
2503.602	AIR RELEIF MANHOLE	EACH	\$8,000.00	3	\$24,000.00
2503.603	8" PVC PIPE SEWER - SDR 35	LIN FT	\$31.00	7410	\$229,710.00
2503.603	8" PVC PIPE SEWER - SDR 26	LIN FT	\$35.00	2430	\$85,050.00
2503.603	TELEWISE SANITARY SEWER	LIN FT	\$2.00	9840	\$19,680.00
2503.603	16" STEEL CASING PIPE (JACKED)	LIN FT	\$400.00	150	\$60,000.00
2503.603	16" STEEL CASING PIPE	LIN FT	\$200.00	80	\$16,000.00
2503.603	6" HDPE FORCE MAIN	LIN FT	\$20.00	2300	\$46,000.00
2503.603	6" HDPE FORCE MAIN (DIRECTIONALLY DRILED)	LIN FT	\$25.00	5200	\$130,000.00
2504.604	4" POLYSTYRENE INSULATION	SQ YD	\$45.00	100	\$4,500.00
2506.516	CASTING ASSEMBLY	EACH	\$1,000.00	33	\$33,000.00
2506.516	CASTING ASSEMBLY (SPECIAL)	EACH	\$1,500.00	6	\$9,000.00
2506.601	LIFT STATION AND APPURTENANCES	LUMP SUM	\$150,000.00	1	\$150,000.00
2506.602	CLEANOUT MANHOLE	EACH	\$8,000.00	3	\$24,000.00
2506.603	CONST 48" DIA SAN SEWER MANHOLE	LIN FT	\$240.00	491	\$117,840.00
	TREATMENT SITE	LUMP SUM	\$1,390,000.00	1	\$1,390,000.00
TOTAL SCHEDULE B - SANITARY SEWER IMPROVEMENTS				\$2,375,480.00	
SCHEDULE C - SANITARY SEWER SEPTIC IMPROVEMENTS					
2104.601	REMOVE SEPTIC SYSTEM COMMERCIAL (3291 ST. CROIX TRAIL)	EACH	\$15,000.00	1	\$15,000.00
2104.601	REMOVE SEPTIC SYSTEM (3033 ST. CROIX TRAIL)	LUMP SUM	\$8,500.00	1	\$8,500.00
2104.601	REMOVE SEPTIC SYSTEM (3321 ST. CROIX TRAIL)	LUMP SUM	\$5,000.00	1	\$5,000.00
2104.601	REMOVE SEPTIC SYSTEM (3395 ST. CROIX TRAIL)	LUMP SUM	\$5,000.00	1	\$5,000.00
2104.601	REMOVE SEPTIC SYSTEM (3411 ST. CROIX TRAIL)	LUMP SUM	\$5,000.00	1	\$5,000.00
2104.601	REMOVE SEPTIC SYSTEM (3326 ST. CROIX TRAIL)	LUMP SUM	\$8,000.00	1	\$8,000.00
2104.602	REMOVE SEPTIC SYSTEM RESIDENTIAL	EACH	\$3,500.00	11	\$38,500.00
2502.602	4" PVC CLEAN-OUT	EACH	\$250.00	11	\$2,750.00
2502.602	6" PVC CLEAN-OUT	EACH	\$300.00	6	\$1,800.00
2503.602	RECONNECT SANITARY SEWER SERVICE	EACH	\$300.00	17	\$5,100.00
2503.602	8"X4" PVC WYE	EACH	\$250.00	11	\$2,750.00
2503.602	8"X6" PVC WYE	EACH	\$300.00	6	\$1,800.00
2503.603	4" PVC PIPE SEWER - SDR 26	LIN FT	\$22.00	1100	\$24,200.00
2503.603	6" PVC PIPE SEWER - SDR 26	LIN FT	\$25.00	600	\$15,000.00
TOTAL SCHEDULE C - SANITARY SEWER SEPTIC IMPROVEMENTS				\$138,400.00	
SCHEDULE D - LEVEE IMPROVEMENTS					
2021.501	MOBILIZATION	LUMP SUM	\$80,000.00	1	\$80,000.00
2104.601	REMOVALS	LUMP SUM	\$52,000.00	1	\$52,000.00
2104.601	EASEMENT ACQUISITION	LUMP SUM	\$310,000.00	1	\$310,000.00
2104.601	PROPERTY ACQUISITION	LUMP SUM	\$450,000.00	1	\$450,000.00
2104.602	CLOSURES	EACH	\$111,000.00	2	\$222,000.00
2105.501	COMMON EXCAVATION (P)	CU YD.	\$20.00	3650	\$73,000.00

STATEMENT OF ESTIMATED QUANTITIES

MN/DOT Specification No.	Description	Unit	Estimated Unit Price	Total Project	
				Estimated Quantity	Estimated Cost
2105.501	POND EXCAVATION (EV)	CU YD.	\$15.00	2200	\$33,000.00
2506.601	LIFT STATION AND APPURTENANCES	LUMP SUM	\$280,000.00	1	\$280,000.00
2506.601	SLUICE GATE	LUMP SUM	\$22,000.00	1	\$22,000.00
2506.601	GENERATOR AND APPURTENANCES	LUMP SUM	\$50,000.00	1	\$50,000.00
2506.602	FLOOD ELEVATION	LIN FT	\$175.00	2400	\$420,000.00
2506.603	SEEPAGE SYSTEM	LIN FT	\$85.00	2200	\$187,000.00
2564.531	BITUMINOUS TRAIL	SQ YD	\$40.00	2450	\$98,000.00
2575.505	SODDING, TYPE LAWN (INCL. TOPSOIL & FERT)	SQ YD	\$3.00	52000	\$156,000.00
TOTAL SCHEDULE D - LEVEE IMPROVEMENTS				\$2,433,000.00	
CONSTRUCTION TOTAL				\$6,251,120.00	
CONTINGENCY TOTAL (15%)				\$937,668.00	
SUBTOTAL TOTAL				\$7,188,788.00	
INDIRECT COST TOTAL (25%)				\$1,797,197.00	
GRAND TOTAL				\$8,985,985.00	

APPENDIX C
PRELIMINARY ASSESSMENT ROLE



Legend

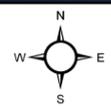
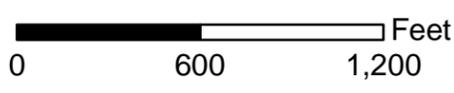
-  Levee

Zoning

-  Rural Residential
-  VHS-Commercial
-  VHS-Residential
-  100-Year Floodplain



Afton Assessment Map



Preliminary Assessment Roll

WSB Project: Afton Downtown Village Improvement Project
 Project Location: City of Afton
 WSB Project No.: 1856-325

Date: 3/25/2014
 Revised: 4/17/2014
 Printed: 4/17/2014

MAP ID	PID	FEE OWNER	PROPERTY ADDRESS	ZONING	PROPOSED ASSESSMENT	Annual Cost over 20 yrs @ 5%
Village Properties - Commercial						
36	2202820110022	KALLSTROM ROBERT H	15894 AFTON BLVD S	VHS-C	\$13,500	\$1,083.27
39	2202820110027	HOFFMANN KEITH M & JUDITH M	15893 AFTON BLVD S	VHS-C	\$13,500	\$1,083.27
38	2202820140007	MULLE JESSICA	3411 ST CROIX TRL S	VHS-C	\$67,800	\$5,440.45
15	2202820110023	DICKINSON MARY J TRS	15895 31ST ST S	VHS-C	\$27,100	\$2,174.57
17	2202820110012	GIULIANI EMILIO	15953 31ST ST S	VHS-C	\$14,700	\$1,179.57
22	2202820110005	THOEMKE MICHAEL S & KATHRYN J	15909 AFTON BLVD S	VHS-C	\$14,871	\$1,193.29
23	2202820110009	BIAGINI SUE E	15904 AFTON BLVD S	VHS-C	\$15,300	\$1,227.71
24	2202820110006	MAAS GARY	3185 ST CROIX TRL S	VHS-C	\$13,600	\$1,091.30
26	2202820110010	DEKOVEN ARAM & CHANDRA JOOS	15954 AFTON BLVD S	VHS-C	\$15,300	\$1,227.71
33	2202820110026	BRASEL JEAN A & STEVE H	3175 PERROT AVE S	VHS-C	\$13,500	\$1,083.27
42	2202820110007	MAAS GARY	15990 32ND ST	VHS-C	\$17,300	\$1,388.20
51	2202820140028	GUINDON THOMAS L	3222 ST CROIX TRL S	VHS-C	\$25,900	\$2,078.28
55	2202820140035	AMOTH GEORGE M	3326 ST CROIX TRL S	VHS-C	\$28,300	\$2,270.87
27	2202820110028	DEMATTEO THOMAS D & DONNA M	3192 ST CROIX TRL S	VHS-C	\$15,000	\$1,203.64
44	2202820140029	BAGLIO WILLIAM J & LISA D	3290 ST CROIX TRL S	VHS-C	\$36,000	\$2,888.73
58	2202820140034	SNYDER DAVID K		VHS-C	\$1,400	\$112.34
62	2202820140064	PADDOCK BRUCE G		VHS-C	\$1,400	\$112.34
63	2202820110004	CITY OF AFTON	3165 ST CROIX TRL S	VHS-C	\$15,900	\$1,275.86
40	2202820140016	MYHERS RICHARD P & KIMBERLY K	3395 ST CROIX TRL S	VHS-C	\$40,800	\$3,273.90
54/60	2202820140037	MEACOCK RICHARD A & MARTIN STERN	3390 ST CROIX TRL S	VHS-C	\$41,800	\$3,354.14
46	2202820140013	LEVIATHAN DYNAMICS LLC	3321 ST CROIX TRL S	VHS-C	\$44,700	\$3,586.84
94	2202820140014	LIND BONNIE L	3329 ST CROIX TRL S	VHS-C	\$13,900	\$1,115.37
65	2202820140012	FEEHAN-SCHMIDT KATHLEEN & DAVID A SCHMIDT	3343 ST CROIX TRL	VHS-C	\$55,900	\$4,485.56
43	2202820140006	NICKERSON PAUL D & REBECCA	3419 ST CROIX TRL S	VHS-C	\$31,800	\$2,551.71
12	2302820230005	WINDMILL MARINA ASSOC INC	16065 32ND ST S	VHS-C	\$148,000	\$11,875.90
2	2302820220003	AFTON MARINA & YACHT CLUB INC	16065 32ND ST S	VHS-C	\$126,000	\$10,110.57
20	2202820110008	AFTON MARKET SQUARE INC	3121 ST CROIX TRL S	VHS-C	\$87,300	\$7,005.18
50/61	2202820140062	AFTON ST CROIX CO	3291 ST CROIX TRL S	VHS-C	\$263,099	\$21,111.74
TOTAL Village Properties - Commercial Assessments					\$1,203,670	
Village Properties - Residential						
31	2202820110025	DICKINSON DANIEL D	15876 AFTON BLVD S	VHS-R	\$1,200	\$96.29
16	2202820110014	ARMSTRONG CRAIG & DIANE	3085 ST CROIX TRL S	VHS-R	\$12,500	\$1,003.03
19	2202820110013	PETTIT BRUCE B & PATRICIA L	3070 PIKE AVE S	VHS-R	\$12,500	\$1,003.03
21	2202820110036	BLOMGREN BERYL A TRS	3160 PERROT AVE S	VHS-R	\$12,500	\$1,003.03
25	2202820110021	AFTON CARE ST CROIX LLC	15890 31ST ST	VHS-R	\$44,300	\$3,554.75
28	2202820110015	ZEIDEL ROBERT F & JULIE A	3055 ST CROIX TRL S	VHS-R	\$12,500	\$1,003.03
29	2202820110032	NELSON DEBORAH A	3190 PERROT AVE S	VHS-R	\$12,500	\$1,003.03
30	2202820110018	ST PAUL EVANG LUTHERAN CHURCH & ATTN TRUSTEES		VHS-R	\$12,500	\$1,003.03
32	2202820110049	HOLZ BRAD L & MICHELLE M	3080 PERROT AVE S	VHS-R	\$12,500	\$1,003.03
34	2202820110047	HARRINGTON PAUL C	3090 PERROT AVE S	VHS-R	\$12,500	\$1,003.03
35	2202820110019	O'HARA KEVIN P & LESLIE A	3032 ST CROIX TRL S	VHS-R	\$12,500	\$1,003.03
37	2202820110051	SKLUZACEK PAUL & JOAN	3100 PERROT AVE S	VHS-R	\$12,500	\$1,003.03
18	2202820110017	CITY OF AFTON	3033 ST CROIX TRL S	VHS-R	\$12,500	\$1,003.03
41	2202820110029	DEMATTEO DONNA M & THOMAS D	15872 32ND ST S	VHS-R	\$12,500	\$1,003.03
45	2202820140043	FREPPERT NANCY P	15859 UPPER 34TH ST S	VHS-R	\$12,500	\$1,003.03
47	2202820140030	CASTELL-MILLER CLAUDIA	15892 33RD ST S	VHS-R	\$12,500	\$1,003.03
48	2202820140026	NAUMAN DOROTHY M & RICHARD L	15871 ST CROIX TRL S	VHS-R	\$12,500	\$1,003.03
49	2202820140038	SULLIVAN KATHLEEN M	15888 34TH ST S	VHS-R	\$12,500	\$1,003.03
52	2202820140045	PALMQUIST WILLIAM & RACHEL KAUL	3466 ST CROIX TRL S	VHS-R	\$12,500	\$1,003.03
53	2202820110053	MEMORIAL EVANG CHURCH AFTON	15730 AFTON BLVD S	VHS-R	\$12,500	\$1,003.03
56	2202820140063	AMOTH GEORGE M	15800 33RD ST S	VHS-R	\$12,500	\$1,003.03
59	2202820140044	SUNDSTROM PAUL R & SVETLANA	15885 UPPER 34TH ST S	VHS-R	\$12,500	\$1,003.03
66	2202820410021	WEED KATHERINE G & GEORGE H JR	15895 35TH ST S	VHS-R	\$12,500	\$1,003.03
67	2202820140040	GJERDE MARK T & ELIZABETH B	15858 34TH ST S	VHS-R	\$12,500	\$1,003.03
68	2202820410032	RUNNING SCOTT & MICHELLE WAGNER	15825 37TH ST S	VHS-R	\$12,500	\$1,003.03
69	2202820410035	NIPPERT ANDREW T & ANGELA D	15847 36TH ST S	VHS-R	\$12,500	\$1,003.03
70	2202820410040	HALLQUIST FLOYD F & BARBARA	3520 PERROT AVE S	VHS-R	\$12,500	\$1,003.03
73	2202820410020	DICKIE ROBERT Q & PARSONS C M	15887 35TH ST S	VHS-R	\$12,500	\$1,003.03
75	2202820410034	STOEHR VALERIE J & CAROL IWATA		VHS-R	\$12,500	\$1,003.03
76	2202820410037	KRAHN KURT & KATHERINE W	15820 37TH ST S	VHS-R	\$12,500	\$1,003.03
80	2202820410030	BOLTON-IVERSON KATHY	3632 ST CROIX TRL S	VHS-R	\$12,500	\$1,003.03
81	2202820410027	FREITAG JEFFREY D	15889 36TH ST S	VHS-R	\$12,500	\$1,003.03
82	2202820410024	PUNG RICHARD S	15880 36TH ST S	VHS-R	\$12,500	\$1,003.03
83	2202820410018	WHALEN WILLIAM C & SANDI L ALEXANDER	3494 ST CROIX TRL S	VHS-R	\$12,500	\$1,003.03
84	2202820410028	JOHNSON KEVIN R	15875 36TH ST S	VHS-R	\$12,500	\$1,003.03
86	2202820410038	STOEHR VALERIE J & CAROL IWATA	15800 36TH ST S	VHS-R	\$12,500	\$1,003.03
87	2202820410031	WARMAN SUSAN LYNN	3710 ST CROIX TRL S	VHS-R	\$12,500	\$1,003.03
88	2202820410019	LARSON ROGER & JACKIE	15882 35TH ST S	VHS-R	\$12,500	\$1,003.03
113	2202820410044	FAYLER VAN R & JULIE A	3570 PENNINGTON AVE S	VHS-R	\$12,500	\$1,003.03
114	2202820420002	BINDER ERIN A & MARK W	15601 36TH ST S	RR	\$12,500	\$1,003.03
112	2202820420004	MCDOWELL ROBIN	15612 36TH ST S	RR	\$12,500	\$1,003.03
92	2202820410029	WESTOVER CRAIG J & TAMARA C	3602 ST CROIX TRL S	VHS-R	\$12,500	\$1,003.03
TOTAL Village Properties - Residential Assessments					\$545,500	

Preliminary Assessment Roll

WSB Project: Afton Downtown Village Improvement Project
 Project Location: City of Afton
 WSB Project No.: 1856-325

Date: 3/25/2014
 Revised: 4/17/2014
 Printed: 4/17/2014

MAP ID	PID	FEE OWNER	PROPERTY ADDRESS	ZONING	PROPOSED ASSESSMENT	Annual Cost over 20 yrs @ 5%
Village Properties Flood Zone - Residential						
57	2202820410017	THOMPSON JOHN S & DIANN BENIKE	15960 35TH ST S	VHS-R	\$13,900	\$1,115.37
64	2202820140004	FARRINGTON DAWN	15991 UPPER 34TH ST S	VHS-R	\$13,900	\$1,115.37
72	2202820410011	GEHRKE JAMES F & JUDITH M	3561 ST CROIX TRL S	VHS-R	\$13,900	\$1,115.37
74	2202820410016	ELAINE D KERSCHBAUM TRS	3491 ST CROIX TRL S	VHS-R	\$13,900	\$1,115.37
77	2202820410009	DICKINSON MARY J TRS	15945 35TH ST S	VHS-R	\$13,900	\$1,115.37
78	2202820410014	BALSIMO RICHARD A	15955 35TH ST S	VHS-R	\$13,900	\$1,115.37
TOTAL Village Properties Flood Zone - Residential Assessments					\$83,400	
River Road Properties						
7	2302820330005	SCHNEIDER HUBERT J & HELEN L	3968 RIVER RD S	RR	\$13,500	\$1,083.27
8	2302820330007	RAEDEKE RONALD A & SUSAN K LOOMIS	3936 RIVER RD S	RR	\$13,500	\$1,083.27
9	2302820330010	LANGSTRAAT WARREN L & MARY L	3904 RIVER RD S	RR	\$13,500	\$1,083.27
11	2302820330003	ORNER JOHN E & KATHLEEN Q	3988 RIVER RD S	RR	\$13,500	\$1,083.27
13	2302820330009	LANGSTRAAT KEVIN G & KIRSTEN J	3918 RIVER RD S	RR	\$13,500	\$1,083.27
79	2202820440012	ISENSEE ROBERTA G		RR	\$13,500	\$1,083.27
89	2202820440002	JOHNSON KENNETH L & LINDA L	3752 RIVER RD S	RR	\$13,500	\$1,083.27
90	2202820440017	NATIONSTAR MTG LLC	3787 ST CROIX TRL S	RR	\$13,500	\$1,083.27
91	2202820440004	ELAINE M & NICHOLAS A MACCIACCIO TRS	3786 RIVER RD S	RR	\$13,500	\$1,083.27
96	2602820220001	BULGER DONALD A JR & VICKI S	4004 RIVER RD S	RR	\$13,500	\$1,083.27
97	2602820220011	PERKINS MARY C	4042 RIVER RD S	RR	\$13,500	\$1,083.27
95	2602820220002	ORNER JOHN E & KATHLEEN Q		RR	\$13,500	\$1,083.27
99	2602820220005	TILTON LOUIS R & LINDA K	4201 RIVER RD S	RR	\$13,500	\$1,083.27
98	2602820220010	LEONARD A EVANOFF JR TRS	4102 RIVER RD S	RR	\$13,500	\$1,083.27
101	2602820220008	WOLTMAN HENRY L & VIRGINIA H	4220 RIVER RD S	RR	\$13,500	\$1,083.27
100	2602820220007	HOLZ BRAD L & MICHELLE M	4206 RIVER RD S	RR	\$13,500	\$1,083.27
103	2602820220013	MCLAURIN MARY D & JULIE MARCUS	4270 RIVER RD S	RR	\$13,500	\$1,083.27
102	2602820220012	WOODFILL JANEL L	4242 RIVER RD S	RR	\$13,500	\$1,083.27
TOTAL River Road Properties Assessments					\$243,000	
Pennington Avenue Properties						
104	2202820140053	BARRETT JEREMY S & BRIA H	3297 PENNINGTON AVE S	VHS-R	\$11,500	\$922.79
105	2202820110030	ANDERSON BARTON C & SUSAN R	3167 PENNINGTON AVE S	VHS-R	\$11,500	\$922.79
106	2202820110031	GATHJE GEORGE L	3193 PENNINGTON AVE S	VHS-R	\$11,500	\$922.79
107	2202820140046	ANDERSON TRAVIS C & SARAH M	3435 PENNINGTON AVE S	VHS-R	\$11,500	\$922.79
108	2202820140054	BINDER MARK W	3245 PENNINGTON AVE S	VHS-R	\$11,500	\$922.79
109	2202820140049	WINKLER MARK	3329 PENNINGTON AVE S	VHS-R	\$11,500	\$922.79
110	2202820140048	JOHNSON MARVIN S	3403 PENNINGTON AVE S	VHS-R	\$11,500	\$922.79
111	2202820140065	HAAR BURL W & KATHLEEN A KILMER	3369 PENNINGTON AVE S	VHS-R	\$11,500	\$922.79
TOTAL Pennington Avenue Properties Assessments					\$92,000	
TOTAL Afton Downtown Village Improvement Project Residential Assessments					\$963,900	
TOTAL Afton Downtown Village Improvement Project Commercial Assessments					\$1,203,670	
GRAND TOTAL Afton Downtown Village Improvement Project Assessments					\$2,167,570	