2019 Proctor Street & Utility Capital Improvement Plan

Proctor, MN

PROCT 152749 | December 3, 2020

SEH

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December 3, 2020

RE: 2019 Proctor Street & Utility Capital Improvement Plan
Proctor, MN
SEH No. PROCT 152749 8.00

Ms. Jessica Rich
City Administrator
City of Proctor
100 Pionk Drive
Proctor, MN, 55810

Dear Ms. Rich:

Enclosed please find the 2019 Street and Utility Capital Improvement Plan for the City of Proctor. Over the last several months we have reviewed the existing streets and public utility systems in Proctor. Additionally, we have worked with the City Council and staff to determine the priorities of the needed improvements. This plan will assist the City in the planning of future infrastructure improvements. The plan includes the following details:

- Street inventory and condition review
- Sanitary sewer and water main inventory and condition review
- Recommended project areas
- Preliminary estimated project costs

This report can be used to help plan infrastructure improvements, as well as a tool to communicate plans to residents. We suggest at least an annual review of the report to ensure it remains current with the City needs and finances.

Sincerely,

Tyler Yngsdal, PE
Professional Engineer
(Lic. MN)

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2019 Proctor Street & Utility Capital Improvement Plan

Proctor, MN

SEH No. PROCT 152749

December 3, 2020

I hereby certify that this report was prepared by me or under my direct supervision, and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

Tyler Yngsdal, PE (Lic. MN)

Date: November 30, 2020 License No.: 56095

Reviewed By: Matt Bolf, PE (Lic. MN, WI) Date: November 30, 2020

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Contents

2019 Proctor Street & Utility Capital Improvement Plan

Prepared for City of Proctor

1 Introduction and Background

On September 9, 2019 Short Elliott Hendrickson Inc. (SEH®) was authorized by the City of Proctor to develop a Capital Improvement Plan (CIP) to identify and prioritize utility and street improvements. This report has been prepared to provide the Proctor City Council with a general overview of the condition of the City's existing street and utility infrastructure and provide a basis of identifying and prioritizing projects. The approach taken has been to analyze and rank the local street system, the public water main system, and the public sanitary sewer collection system, as these are the major components needing replacement or rehabilitation. The storm sewer system within city limits was not included in the report due to the lack of existing information on the condition, age, and material of the storm sewer system. Also, infrastructure including pumps, water tower, lift stations, future roadways, future developments, etc. was not included with this report.

SEH has met with City staff and reviewed existing maps, plans, and reports to best determine the condition of subsurface utilities. In addition, along with City staff, we have physically reviewed and inventoried all the City owned roadways within the city limits and documented the surface conditions. This information has been used to prioritize public improvement projects for roadways and utilities within the city as a guide for decision making. The identified project areas may also be used to assist in securing project funding at the regional and state levels.

As the City proceeds into future years and implementation of the CIP, the types of improvements and their scheduling should be reviewed as priorities change.

2 Roadway System & Assessment

The City of Proctor currently owns and maintains approximately 14.5 miles of roadways located within city limits. These roadway segments consist of a wide variety of street widths and are either bituminous surfaced or gravel surfaced. To establish a priority level for maintenance and rehabilitation, a rating was assigned to all City streets. City streets were rated based on the following criteria:

- **Surface condition (based solely on pavement condition)** – Visual overview of street surface condition and any known City maintenance issues (i.e. cracks, potholes, deformation, dips, and other surface defects).
- **Roadway drainage condition** – Visual overview and City knowledge of existing drainage issues (i.e. low spots, puddles, and erosion).

- **Occupancy level** – Based on number of residential homes along a street segment.
- **Traffic loading** – Based on the volume of traffic accessing a segment of roadway.
- **Additional rating** – For roadways with gravel surfaces and/or based on City knowledge of any additional existing issues/deficiencies/importance with a given segment of roadway.

A breakdown of each street rating criterion can be seen in Figure 2.1 of this report. Ratings of 1-3 were used for each category being rated, with a rating of 1 meaning good condition or low levels of occupancy and usage, and a rating of 3 meaning poor condition or high levels of occupancy and usage. The additional rating column allowed for any number of additional point ratings for a segment of roadway, provided by the City, pertaining to the comments column.

Once each of the five street rating criteria were determined for a given street segment, the five ratings were summed to come up with the overall street assessment priority rating. This rating varied from 4 to 14, 4 being a low priority and 14 being a high priority. A summary of the street inventory and ratings can be seen in the Street Assessment Chart (Figure 2.2). Once the overall street assessment priority rating was determined, the street segments were categorized as either poor condition, fair condition, or good condition as described below:

- **Good Condition** – Roadway segments with an overall rating between 4 and 6.
- **Fair Condition** – Roadway segments with an overall rating between 7 and 9.
- **Poor Condition** – Roadway segments with an overall rating of 10 and above.

A visual map of the street assessment ratings is shown in Figure 2.3 of this report.

This report and CIP specifically do not include city alleys or future road developments. It may be beneficial for the city to consider alley improvements and future road developments as potential projects are being looked at in more detail.

3 Sanitary Sewer Collection System

Based on existing mapping, record drawings, previous CIP data, and City staff knowledge, an inventory of the existing sanitary sewer collection system has been developed for this CIP. In total, the City owns and maintains nearly 95,000 lineal feet of sanitary sewer mains 3,600 lineal feet of sanitary sewer force mains. These sanitary sewer mains are composed of a variety of materials, from old vitrified clay pipes (VCP) to newer polyvinyl chloride (PVC) pipes. To establish a priority level for maintenance and rehabilitation, a rating was assigned to all City owned sanitary gravity mains and force mains. The sanitary segments were evaluated and rated based on the following criteria:

- **Pipe Material (based on record information provided by the City)** – Older pipes made of clay and cast iron often crack and have a shorter useful life expectancy as compared to newer PVC pipes.
- **Pipe Size (based on record information provided by the City)** – Rated for a minimum pipe size of 8” diameter or larger for sewer mains per the 2014 edition of Recommended Standards for Wastewater Facilities by the Great Lakes – Upper Mississippi River Board of State and Provincial Public Health and Environmental Managers. Sanitary force mains were not rated for size, all existing force main sizes were assumed to be sufficient.

- **Pipe Age (based on record information provided by the City)** – Pipes were categorized into three groups, newer (1990 and newer), aging (1980's), and older (older than 1980), with each category receiving a different rating.
- **Additional Ratings** – Additional ratings were given to pipe segments based on importance to the City's sanitary system (i.e. trunk mains) along with other City knowledge of deficiencies within the system (i.e. clogged pipes).

A breakdown of each sanitary rating criterion can be seen in Figure 3.1 of this report. Ratings of 0-3 were used for each category being rated, with a rating of 0 meaning newer pipes with adequate size and material, and a rating of 3 meaning older undersized pipes. Higher rating point totals equal the highest deficiency, oldest pipes, and highest need for improvements.

Once each of the four sanitary rating criteria were determined for a given segment of main, the four ratings were summed to come up with the overall sanitary segment assessment priority rating. This rating varied from 1 to 5, 1 being a low priority and 5 being a high priority. A summary of the sanitary inventory and ratings can be seen in the Sanitary Sewer Assessment Chart (Figure 3.2). Note that certain sections of roadway contained both a sanitary sewer gravity main as well as a sanitary sewer force main, in this case the two segments were kept separate to avoid skewing the prioritization results.

A visual map of the sanitary sewer system with information pertaining to the categories described above is shown in Figure 3.3 of this report.

Lift stations and water treatment facilities were specifically not included with this report.

4 Water Main Supply System

Based on existing mapping, record drawings, previous CIP data, and City staff knowledge, an inventory of the existing water main supply system has been developed for this CIP. The Proctor Utilities Commission (PUC) currently owns and maintains just over 100,000 lineal feet of water mains. These water mains are composed of a variety of materials, from old cast iron pipes to newer plastic pipe materials. To establish a priority level for maintenance and rehabilitation, a rating was assigned to all PUC owned water mains. The water main segments were evaluated and rated based on the following criteria:

- **Pipe Material (based on record information provided by the City and PUC)** – Older cast iron pipes often crack and have a shorter useful life expectancy than other pipe materials used for water mains. Pipes made of cast iron were rated poorer that all other water main pipe materials.
- **Pipe Size (based on record information provided by the City)** – Rated for a minimum pipe size of 6" diameter or larger for water mains with fire flow capacity per the 2018 edition of Recommended Standards for Water Works by the Great Lakes – Upper Mississippi River Board of State and Provincial Public Health and Environmental Managers. Pipes that are less than 6" in diameter were rated poorer than larger pipe sizes.
- **Pressure / Flow Rating** – An additional rating point was given to segments of water main that were identified as having insufficient fire flows in the City's recent water modeling efforts.

- **Pipe Age (based on record information provided by the City)** – Pipes were categorized into three groups, newer, aging, and older, with each category receiving a different rating.
- **Additional Ratings** – Additional ratings were given to pipe segments based on importance to the City's water supply system (i.e. trunk mains) along with other city knowledge of deficiencies within the system (i.e. reoccurring frozen pipes).

A breakdown of each water rating criterion can be seen in Figure 4.1 of this report. Ratings of 0-3 were used for each category being rated, with a rating of 0 meaning newer pipes of adequate size and material, and a rating of 3 meaning older pipes. Higher rating point totals equal the highest deficiency, oldest pipes, and highest need for improvements.

Once each of the five water main rating criteria were determined for a given segment of main, the five ratings were summed to come up with the overall water main segment assessment priority rating. This rating varied from 1 to 6, 1 being a low priority and 6 being a high priority. A summary of the water main inventory and ratings can be seen in the Water Main Assessment Chart (Figure 4.2).

A visual map of the water supply system with information pertaining to the categories described above is shown in Figure 4.3 of this report.

Wells, pumps, booster stations, and the water tower were specifically not included with this report.

5 Project Selection

5.1 Process

As part of this CIP, the City requested a prioritized list of projects based on the condition of the existing infrastructure. Utilizing efforts outlined in sections 2-4 of this report, SEH has helped the City develop a comprehensive list of project priorities which the City can use to plan and capture funding for future projects. A detailed list of project locations can be found in Figure 5.1 of this report. Figure 5.1 helps to summarize and prioritize the individual infrastructure item ratings for streets, sanitary sewer, and water supply throughout the city. The prioritization found in Figure 5.1 was developed using the total summed point rating given to each infrastructure item from sections 2-4 (street, sanitary, water), then summing them together to get the combined total point rating for a given segment. These combined total point ratings were then sorted from highest to lowest to create the priority list seen in Figure 5.1, highest being the highest priority. This method of prioritization provides a non-biased approach that effectively considers at all components of infrastructure.

As the City uses the CIP for future project opportunities and funding opportunities, they should consider combining multiple street and utility segments for a better overall improvement for a given area within the community. If funding provides, lumping multiple smaller projects into a larger combined project may benefit the City and may provide lower contractor unit prices. Considerations for grouping and combining projects should be looked at during the planning stages of a project.

5.2 Cost Basis or Potential Improvements

To provide the City with a planning level construction cost estimate, we created average per lineal foot costs for the replacement of streets, sewer mains, water mains, and assumed storm sewer mains. These average costs are based on recent reconstruction projects in Proctor and nearby communities. Each street segment is assumed to be reconstructed following an urban street with sidewalk typical section as seen in Figure 5.2.1 of this report. This typical section is from the City's ordinance for street reconstruction. This typical section includes a 28-foot-wide urban bituminous street with curb and gutter, sidewalk, drain tile, boulevard restoration, as well as utilities including an 8" Ductile Iron water main and an 8" PVC sanitary sewer. The average prices used for this report can be found in Figure 5.2.2.

Based on the findings of this report, the following five (5) projects have been determined to be the highest priority projects for the City of Proctor to complete. The five project locations can be seen in Figure 5.2.3 of this report.

5.3 Priority Project Areas

5.3.1 Project Area #1

2nd Street from 5th Avenue to 9th Avenue - $2,045,000

Estimated improvements for this area include:

- Reconstruction of 1850 lin. ft. of roadway
- Replace 1640 lin. ft. of sanitary sewer mains
- Replace 1722 lin. ft. of water mains
- Replace sanitary and water services to the Right-of-Way
- Drainage / storm sewer improvements

5.3.2 Project Area #2

Acacia Avenue from north of Cypress Drive to Bass Boulevard - $1,212,000

Estimated improvements for this area include:

- Reconstruction of 1070 lin. ft. of roadway
- Replace 995 lin. ft. of sanitary sewer mains
- Replace 1061 lin. ft. of water mains
- Replace sanitary and water services to the Right-of-Way
- Drainage / storm sewer improvements

5.3.3 Project Area #3

3rd Street from 8th Avenue to Ugstad Road - $1,324,000

Estimated improvements for this area include:

- Reconstruction of 1255 lin. ft. of roadway
- Replace 632 lin. ft. of sanitary sewer mains
- Replace 1267 lin. ft. of water mains
- Replace sanitary and water services to the Right-of-Way

- Drainage / storm sewer improvements

5.3.4 Project Area #4

1st Street from 1st Avenue to 2nd Avenue - $747,000

Estimated improvements for this area include:

- Reconstruction of 655 lin. ft. of roadway
- Replace 656 lin. ft. of sanitary sewer mains
- Replace 636 lin. ft. of water mains
- Replace sanitary and water services to the Right-of-Way
- Drainage / storm sewer improvements

5.3.5 Project Area #5

South 1st Avenue from Hwy 2 to Alice Street - $1,063,000

Estimated improvements for this area include:

- Reconstruction of 935 lin. ft. of roadway
- Replace 854 lin. ft. of sanitary sewer mains
- Replace 952 lin. ft. of water mains
- Replace sanitary and water services to the Right-of-Way
- Drainage / storm sewer improvements

6 Revenue Sources

The sources of revenue available to cities to finance infrastructure improvements are:

- Special Assessments to benefited properties
- Utility funds
- General Tax Levy (bonding)
- Property Taxes
- Grants

In cases where the City is eligible and the programs are funded, grants should be pursued. Special assessments and utility revenue are discussed below in more detail.

Special Assessments

Minnesota Statues Chapter 429 gives the council of a municipality the authority to make a wide variety of improvements, including street and utility construction or reconstruction, drainage improvements, parks, etc. It also gives the council the authority to assess benefitted properties for all or a portion of the cost of the improvements and specify the procedures to be followed.

The City of Proctor currently has a special assessment policy in place. The City has used this funding option to help fund recent projects of similar nature as the five priority project areas listed above (i.e. 6th Street and Almac Drive)

Utility Funds

Minnesota Statues Chapter 444 gives the council of municipality the authority to construct, reconstruct, repair, improve, and maintain water systems, sanitary sewer systems, and storm sewer systems. To cover these costs, the City may issue general obligation bonds which can be paid back through taxes, special assessments, or utility revenues.

A utility rate study was completed in 2016 and approved by the city council. This utility rate study should be reviewed to ensure that the capacity of the utility rates is sufficient to assist in funding of proposed projects.

7 Recommendations and Considerations

1. Make CIP available for public comment before the City formally adopts.
2. Review and adjust current utility rates.
3. Adopt this CIP as a technical and capital investment guide for planning, prioritizing, and budgeting street and utility improvement projects.
4. Annually review the report and placement of projects for a given year based on infrastructure changes and funding availability.
5. Initiate any improvement with feasibility study to review in more detail technical items, estimated costs, and funding.

Figures

Street Assessment Rating Key

	Surface Condition
1	Good (like new or minor visible wearing)
2	Fair (shows age with some defects)
3	Poor (major defects)

	Roadway Drainage Condition
1	Good (functioning urban or rural section with minor/no issues)
2	Fair (partially functioning urban or rural section)
3	Poor (non-functioning urban or rural section)

	Occupancy
1	Low Residential
2	Medium Residential
3	High Residential

	Traffic Loading
1	Low Usage
2	Medium Usage
3	High Usage

	Additional Ratings
0	None
1	Gravel surface
1 - 2	Miscellaneous issues

Figure 2.1

Proctor Street & Utility CIP

Street Assessment Chart

Roadway Name & Limits	Length (feet)	Average Width (feet)	Road Material	Rural/Urban Section	Surface Condition (1-3 Rating)	Roadway Drainage Condition (1-3 Rating)	Occupancy (1-3 Rating)	Traffic Loading (1-3 Rating)	Additional Ratings	Priority Rating (Sum of Ratings)	Comments
Westgate Boulevard - *Ugstad Rd. to Boundary Ave.*	5760	32	Bituminous	Urban	2	1	1	2		6	Cracks, Serves Nuss Trucking/gas station/hotel, new section from Cloquet waterline replacement, Road includes a bridge over the railroad tracks
Westgate Spur - *Westgate Blvd. to north dead end*	330	32	Bituminous	Urban	1	1	1	1		4	Spur lies east of bridge on Westgate Blvd. and runs off the north side
Waterview Drive - *Boundary Ave. to west dead end*	730	32	Bituminous	Urban	1	1	1	1		4	Serves townhomes
Kirkus Street - *Ugstad Rd. to Boundary Ave.*	5280	40	Bituminous	Urban	1	1	1	2		5	Serves hockey arena
Alice Street - *Boundary Ave. to S. 2nd Ave.*	1290	22	Bituminous	Rural	3	3	2	1		9	Cracks/dips/potholes/ponding
Anchor Street - *S. 2nd Ave. to S. 1st Ave.*	650	24	Bituminous	Rural	3	3	2	1		9	Cracks/dips/potholes/patches, drainage runs down the edge of the roadway
Grove Street - *Boundary Ave. to S. 1st ave.*	650	24	Bituminous	Rural	3	2	1	2		8	Cracks/dips, Serves church
Grove Street - *S. 1st Ave. to west dead end*	415	24	Bituminous	Rural	1	2	1	1		5	Roadway was resurfaced in the last 10+/- years
Oak Street - *Boundary Ave. to S. 2nd Ave.*	1310	28	Bituminous	Urban	2	1	3	1		7	Cracks/dips/ponding
1st Street - *Boundary Ave. to 1st Ave.*	660	28	Bituminous	Urban	1	1	3	1		6	Cracks
1st Street - *1st Ave.to 2nd Ave.*	655	25	Bituminous	Rural	3	3	3	1		10	Cracks/dips/patches, drainage runs along edge of roadway
1st Street - *2nd Ave. to Hwy 2*	430	24	Bituminous	Rural	3	2	2	1	1	9	Cracks/dips/patches, Additional rating for steep approach to Hwy 2
3rd Street - *Boundary Ave. to Hwy 2*	1780	36	Bituminous	Urban	3	2	3	1	1	10	Cracks/dips/patches, Additional rating for abandon storm main under the roadway and large interceptor storm main under the roadway
4th Street - *Boundary Ave. to 2nd Ave.*	1315	38	Bituminous	Urban	1	1	3	1		6	Newer roadway
4th Street - *2nd Ave. to 3rd Ave.*	520	36	Bituminous	Urban	3	2	1	1		7	Cracks/dips/ponding
6th Street - *Boundary Ave. to Hwy 2*	2550	28	Bituminous	Urban	1	1	3	1		6	Reconstructed in 2018/2019
8th Street - *2nd Ave. to 3rd Ave.*	490	24	Bituminous	Rural	1	1	1	1		4	
9th Street - *4th Ave. to east dead end*	625	20	Gravel	Rural	2	2	1	1	1	7	Potholes, drainage along edges of roadway, Additional rating for gravel surface
9th Street - *Boundary Ave. to 2nd Ave.*	1320	24	Bituminous	Rural	2	1	1	2		6	Cracks/dips
10th Street - *3rd Ave. to west dead end*	240	14	Gravel	Rural	2	2	1	1	1	7	Additional rating for gravel surface
11th Street - *2nd Ave. to 3rd Ave.*	510	32	Bituminous	Rural	3	2	2	1		8	Cracks/dips, drainage along edges of roadway, serves apartments with parking
11th Street - *3rd Ave. to west dead end*	130	24	Gravel	Rural	2	2	1	1	1	7	Additional rating for gravel surface
12th Street - *3rd Ave. to west dead end*	250	24	Gravel	Rural	2	2	1	1	1	7	Drainage along edges of roadway, Additional rating for gravel surface
12th Street - *2nd Ave. to 3rd Ave.*	515	28	Bituminous	Urban	1	1	3	1		6	Curb and gutter on 3/4 of the roadway
13th Street - *2nd Ave. to 3rd Ave.*	520	28	Bituminous	Urban	1	1	2	1		5	
14th Street - *3rd Ave. to west dead end*	275	12	Gravel	Rural	2	1	1	1	1	6	Additional rating for gravel surface
14th Street - *2nd Ave. to west dead end stub*	105	28	Gravel	Rural	2	1	1	1	1	6	Serves only 2 homes, Additional rating for gravel surface
15th Street - *2nd Ave. to west dead end*	225	20	Bituminous	Rural	2	1	1	1		5	Serves only 1 home
Birch Avenue - *St. Louis River Rd. to Venice St.*	1135	16	Gravel	Rural	1	1	2	1	1	6	Additional rating for gravel surface

Figure 2.2

Proctor Street & Utility CIP

Street Assessment Chart

Roadway Name & Limits	Length (feet)	Average Width (feet)	Road Material	Rural/Urban Section	Surface Condition (1-3 Rating)	Roadway Drainage Condition (1-3 Rating)	Occupancy (1-3 Rating)	Traffic Loading (1-3 Rating)	Additional Ratings	Priority Rating (Sum of Ratings)	Comments
Venice Street - *Birch Ave. to west dead end*	670	18	Gravel	Rural	3	3	1	1	2	10	Erosion along edges of roadway due to poor drainage, Additional rating for gravel surface and high maintenance
Venice Street - *Birch Ave. to Johnson Rd.*	650	20	Gravel	Rural	2	2	1	1	1	7	Additional rating for gravel surface
Johnson Road - *Venice St. to Youngdahl Rd.*	600	22	Gravel	Rural	2	2	1	1	1	7	Potholes, Additional rating for gravel surface
Johnson Road - *Venice St. to Lavaque Rd.*	225	30	Bituminous	Urban	1	1	1	1		4	
Pine Avenue - *St. Louis River Rd. to Lavaque Rd.*	1940	18	Gravel	Rural	2	2	2	1	1	8	Drainage along edges of roadway, Additional rating for gravel surface
Coachlight Circle - *St. Louis River Rd. to south Cul-De-Sac*	380	28	Bituminous	Urban	1	1	3	1		6	
Hearthside Lane - *St. Louis River Rd. to Birchwood Dr.*	530	18	Bituminous	Rural	1	1	2	1		5	
Birchwood Drive - *North turnaround to Cypress Dr.*	1030	22	Bituminous	Rural	1	2	3	1		7	Culvert freezing issue, ponding, poor drainage
Cypress Drive - *Birchwood Dr. to Acacia Ave.*	500	27	Bituminous	Urban	2	1	2	1	1	7	Cracks, additional rating for bituminous curb
N. Acacia Avenue - *North of Cypress Dr. to north Cul-De-Sac*	320	28	Bituminous	Urban	2	1	1	1		5	
Acacia Avenue - *North of Cypress Dr. to Bass Blvd.*	1070	27	Bituminous	Urban	3	3	3	1	1	11	Cracks/dips/ponding, poor drainage, additional rating for bituminous curb
Bass Boulevard - *9th St. to Cypress Dr.*	1125	27	Bituminous	Urban	2	2	3	1	1	9	Additional rating for bituminous curb, portions of storm sewer and roadway replaced with 2019 projects
Boundary Avenue - *9th St. to north dead end (fairgrounds)*	370	28	Bituminous	Rural	1	2	1	2		6	
Boundary Avenue (West side only) - *5th St. to 9th St.*	1320	16	Bituminous	Rural	1	1	1	2		5	East side owned by City of Duluth
1st Avenue - *9th St. to 6th St.*	990	22	Bituminous	Rural	2	2	2	1	1	8	Cracks/dips/patches, Additional rating for interceptor storm sewer from 9th to 3rd
1st Avenue - *6th St. to 2nd St.*	1440	24	Bituminous	Rural	3	3	2	1	1	10	Cracks/dips/potholes, poor drainage with water along edges of roadway, Additional rating for interceptor storm sewer from 9th to 3rd
1st Avenue - *2nd St. to Hwy 2*	1530	22	Bituminous	Rural	3	3	3	1		10	Cracks/dips/potholes, poor drainage
S. 1st Avenue - *Hwy 2 to Alice St.*	935	23	Bituminous	Rural	3	3	3	1		10	Cracks/dips/patches, poor drainage
S. 2nd Avenue - *Hwy 2 to Alice St.*	1530	24	Bituminous	Rural	3	3	3	1		10	Cracks/dips/potholes/patches, poor drainage
Amund Drive - *Loop from S. 2nd Ave.*	760	24	Bituminous	Rural	3	3	2	1		9	Cracks/dips, ponding
3rd Avenue - *Hwy 2 to Moose Lodge*	210	50	Bituminous	Urban	2	2	1	3		8	Patches, recent catch basin improvements
3rd Avenue - *Moose Lodge to 5th St.*	220	44	Bituminous	Urban	1	1	1	3		6	Recently completed with 5th Street county project
3rd Avenue - *5th St. to 13th St.*	2580	27	Bituminous	Urban	1	1	2	2		6	
3rd Avenue - *13th St. to St. Louis River Rd.*	1380	18	Bituminous	Rural	1	2	2	1		6	
4th Avenue - *9th St. to south dead end*	200	18	Gravel	Rural	2	2	1	1	1	7	Additional rating for gravel surface
4th Avenue - *7th St. to 6th St.*	350	20	Bituminous	Rural	3	2	1	1		7	Cracks/dips, poor drainage
4th Avenue - *6th St. to south dead end*	190	24	Bituminous	Rural	1	1	1	1		4	Recently reconstructed with 6th Street project
Pionk Drive - *South side of street dept. shop to box culvert*	250	36	Gravel	Rural	2	3	1	3	1	10	Poor drainage, traffic from school buses and football stadium, Additional rating for gravel surface
Pionk Drive - *Box culvert to south end of City Hall parking lot*	260	28	Bituminous	Urban	2	2	1	3		8	A few poor draining areas

Figure 2.2

Proctor Street & Utility CIP

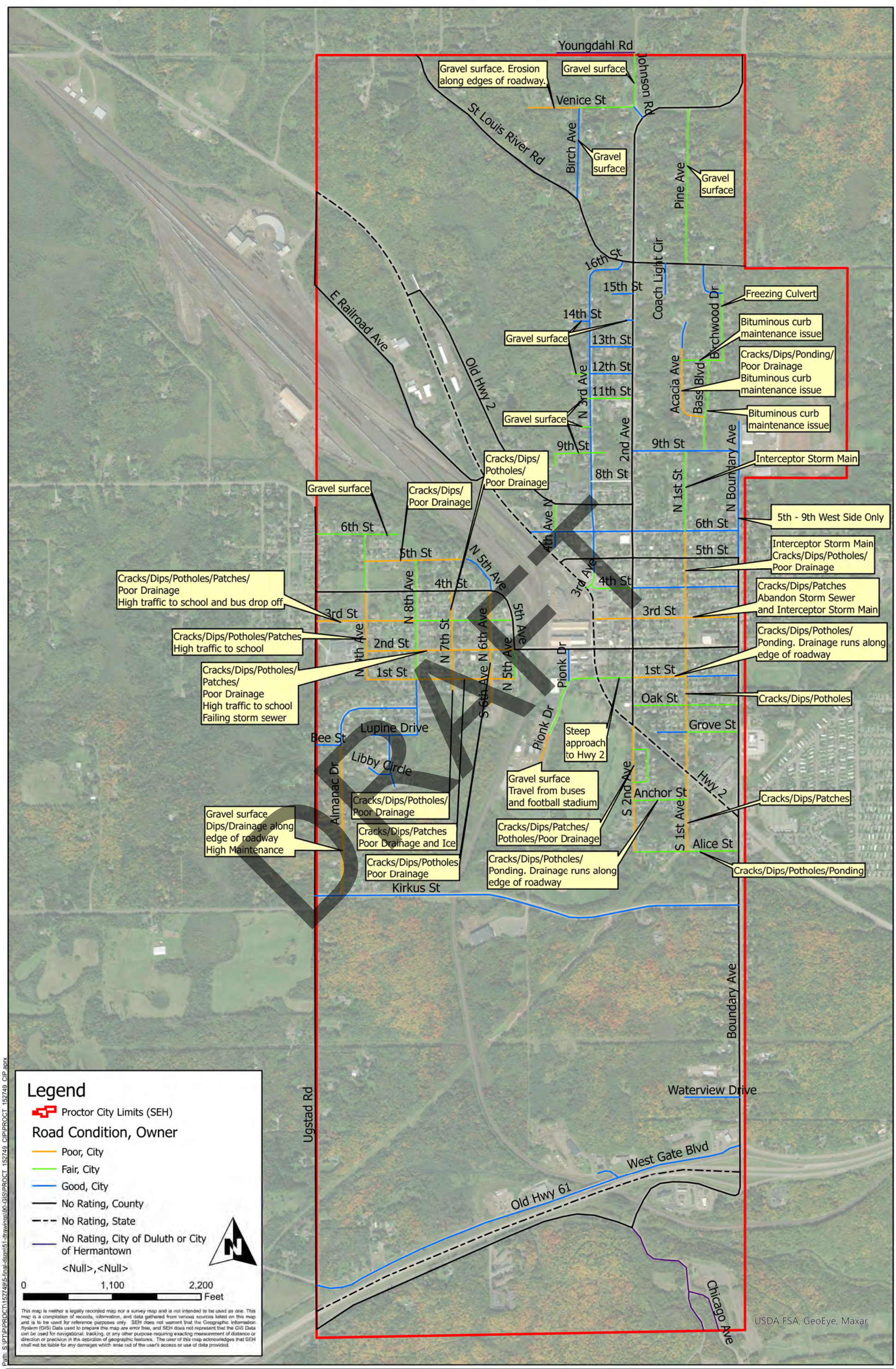
Street Assessment Chart

Roadway Name & Limits	Length (feet)	Average Width (feet)	Road Material	Rural/Urban Section	Surface Condition (1-3 Rating)	Roadway Drainage Condition (1-3 Rating)	Occupancy (1-3 Rating)	Traffic Loading (1-3 Rating)	Additional Ratings	Priority Rating (Sum of Ratings)	Comments
Pionk Drive - *South end of City Hall parking lot to north City Hall lot*	480	20	Bituminous	Rural	2	2	1	3		8	
Pionk Drive - *North City Hall parking lot to 2nd St.*	355	28	Bituminous	Urban	1	1	1	3		6	City Hall traffic and building supply
1st Street - *Pionk Dr. to Hwy 2*	350	26	Bituminous	Urban	2	1	1	3		7	Cracks/patches, curb and gutter on one side of the street
2nd Street - *5th Ave. to 9th Ave.*	1850	34	Bituminous	Urban	3	3	3	3	2	14	Cracks/dips/potholes/patches, poor drainage, bit is breaking up overtop the old concrete, Additional ratings for high traffic to school and failing storm sewer and poor sidewalks to school
1st Street - *9th Ave. to 7th Ave.*	1095	22	Bituminous	Rural	3	3	3	1		10	Cracks/dips, poor drainage, storm sewer runs underneath garage
1st Street - *7th Ave. to 5th Ave.*	790	24	Bituminous	Rural	3	3	3	1	1	11	Cracks/dips/patches, Additional rating for poor drainage at intersection with 5th avenue which causes ice build up
Habitat Lane - *1st Ave. to 2nd Ave.*	360	16	Bituminous	Rural	2	2	2	1		7	
3rd Street - *5th Ave. to 8th Ave.*	1190	24	Bituminous	Rural	3	3	2	1		9	Cracks/dips, poor drainage
3rd Street - *8th Ave. to Ugstad Rd.*	1255	28	Bituminous	Rural	3	3	2	3	2	13	Cracks/dips/patches/potholes, poor drainage, Additional ratings for high traffic area to school and bus dropoff and major drainage issues and ice build up
6th Street - *Ugstad Rd. to 9th Ave.*	615	24	Bituminous	Rural	2	1	3	1		7	Patches
6th Street - *9th Ave. to east dead end*	290	18	Gravel	Rural	2	2	2	1	1	8	Additional rating for gravel surface
5th Street - *9th Ave. to 6th Ave.*	1280	24	Bituminous	Rural	3	3	3	1		10	Cracks/dips, poor drainage with water on the roadway
6th Avenue - *4th St. to south of 1st St.*	1290	24	Bituminous	Rural	3	3	3	2		11	Cracks/dips/potholes/patches, traffic to the church
6th Avenue - *5th St. to 4th St.*	460	20	Bituminous	Rural	1	2	1	1		5	
7th Avenue - *South of 1st St. to 2nd St.*	560	22	Bituminous	Rural	3	3	3	2	1	12	Cracks/dips/potholes, connects to back of church, Additional rating for poor drainage
7th Avenue - *2nd St. to 4th St.*	740	22	Bituminous	Rural	3	3	3	2	1	12	Cracks/dips/potholes, bus route, Additional rating for poor drainage
8th Avenue - *1st St. to 4th St.*	1100	20	Bituminous	Rural	2	3	2	1		8	
8th Avenue - *5th St. to 4th St.*	380	22	Bituminous	Rural	1	3	2	1		7	Recently overlaid
8th Avenue - *1st St. to Lupine Dr.*	670	26	Bituminous	Urban	1	1	2	2		6	Reconstructed with Almac project
Lupine Drive - *8th Ave. to Cul-De-Sac*	625	27	Bituminous	Urban	1	1	2	1		5	
Kingsbury Drive - *Lupine Dr. to south dead end*	645	27	Bituminous	Urban	1	1	2	1		5	
Libby Circle - *Kingsbury Dr. to Cul-De-Sac*	370	27	Bituminous	Urban	1	1	2	1		5	
Almac Drive - *8th Ave. to Bee St.*	1350	28	Bituminous	Urban	1	1	3	2		7	Reconstructed 2018/2019
Almac Drive - *8th Ave. to east dead end*	230	28	Bituminous	Urban	1	1	2	1		5	Serves townhomes
Alamc Drive - *Bee St. to Kirkus St.*	1870	20	Gravel	Rural	3	3	3	2	2	13	Dips, drainage along edges of roadway that wash out, Additional ratings for gravel surface and high maintenance
Bee Street - *Ugstad Rd. to Almac Dr.*	265	24	Bituminous	Rural	1	1	1	1		4	Reconstructed 2018/2019
9th Avenue - *4th St. to 1st St.*	1070	24	Bituminous	Rural	3	3	2	3	1	12	Cracks/dips/potholes/patches, Additional rating for high traffic in front of school
9th Avenue - *6th St. to 4th St.*	700	24	Bituminous	Rural	3	3	2	1		9	Cracks/dips/potholes

*Street widths and lengths determined from aerial measurements

*Urban roadways have existing curb and gutter

Figure 2.2



Project Number: PROCT 152749
Print Date: 10/6/2020

Map by: rek
Projection: St. Louis County Transverse Mercator (Feet)
Source: City of Proctor, SEH

PROCTOR CIP
Proctor, Minnesota

FIGURE 2.3
Street Condition Map

Sanitary Assessment Rating Key

	Pipe Material
0	Pipe materials other than clay or cast iron
1	Clay or cast iron
	Pipe Size (Diameter)
0	Pipes 8 inches in diameter or larger
1	Pipes 6 inches in diameter or smaller
	Pipe Age
1	Newer pipes (non-clay pipes installed after 1990)
2	Aging pipes (non-clay pipes installed between 1980 and 1990)
3	Older pipes (installed prior to 1980)
	Additional Ratings
0	No additional rating
1	Additional rating based on importance or known issues with pipe segment

Figure 3.1

Proctor Street & Utility CIP

Sanitary Sewer Assessment Chart

Roadway Name & Limits	Length (feet)	Forcemain or Gravity (F or G)	Within Road Corridor (Yes, No, Partial)	Pipe Material	Clay Pipe Material (1 = clay pipe)	Undersized Pipe per TSS (1 = 6" or smaller diameter)	Pipe Age (1-3 Rating)	Additional Ratings	Priority Rating (Sum of Ratings)	Comments
Westgate Boulevard - *Ugstad Rd. to Boundary Ave.*	3695	G	Yes	PVC, Clay	1		3		4	Approximately 1150 LF clay main east of the railroad tracks and 2545 LF newer PVC main west of railroad tracks (2013)
Westgate Boulevard - *Around Nuss Trucking to Lift Station*	2240	G	No	Clay	1		3		4	Includes 152 LF newer PVC main connecting to the west portion (2005)
West Skyline Parkway - *In front of McDonalds & under Interstate 35*	1280	G	Yes	Clay	1		3		4	Additional rating for crossing the interstate, portion under I-35 is clay
Village Drive - *South of Interstate 35*	1206	G	Yes	PVC, Clay	1		3		4	670 LF PVC along Village Drive (1970) and 536 LF Clay crosses I-35 and Westgate Blvd., additional rating for crossing the interstate
Waterview Drive - *Boundary Ave. to west dead end*	714	G	Yes	PVC			1		1	(2003)
Kirkus Street - *Ugstad Rd. to Boundary Ave.*	4467	G	Yes	PVC			1		1	1670 LF from MNP easement east to Boundary Ave, 2634 LF from Pionk Drive west to Almac Drive, 163 LF of two crossings west of railroad (2013)
Metering Station to Football Field	4075	G	No	Clay	1		3	1	5	Main interceptor pipe, runs underneath kingsbury creek, crosses golf course, crosses multiple city streets, crosses Boundary Ave, runs parallel to US Hwy 2
Anchor Street - *S. 2nd Ave. to S. 1st Ave.*	640	G	Yes	Clay	1		3		4	
Grove Street - *Boundary Ave. to S. 1st ave.*	298	G	No	PVC			1		1	(2004 & 2006)
Grove Street - *S. 1st Ave. to west dead end*	370	G	Yes	Clay	1	1	3		5	6" clay pipe
Oak Street - *Boundary Ave. to S. 2nd Ave.*	1315	G	Yes	PVC			1		1	(1995)
1st Street - *Boundary Ave. to 1st Ave.*	662	G	Yes	PVC			1		1	(2001)
1st Street - *1st Ave.to 2nd Ave.*	656	G	Yes	Clay	1		3		4	
1st Street - *2nd Ave. to Hwy 2*	458	G	Yes	Clay	1		3		4	Portion under US Hwy 2
2nd Street - *Boundary Avenue to Railroad crossing*	2215	G	Yes	PVC			1		1	County road corridor, crosses under US Hwy 2 (1992)
3rd Street - *Boundary Ave. to Hwy 2*	1786	G	Yes	Clay	1		3		4	Portion under US Hwy 2
4th Street - *Boundary Ave. to 2nd Ave.*	1318	G	Yes	PVC			1		1	(2006)
4th Street - *2nd Ave. to 3rd Ave.*	494	G	Yes	Clay	1		3		4	
5th Street - *Boundary Ave. to Hwy 2*	2310	G	Yes	PVC			2		2	County road corridor, crosses under US Hwy 2 (older PVC 1985)
6th Street - *Boundary Ave. to Hwy 2*	2384	G	Yes	PVC			1		1	(2018)
7th Street - *2nd Ave. to 4th Ave.*	1094	G	Yes	Clay	1	1	3		5	County road corridor, 6" Clay pipe
8th Street - *2nd Ave. to 3rd Ave.*	462	G	Yes	PVC			1		1	(2005)
8th Street - *3rd Ave. to the west and north along old Hwy 2*	1231	G	Partial	PVC, Plastic Lined			1		1	Behind Hillside Gardens and along old Hwy 2, 3rd Ave. to 4th Ave. manholes were lined
9th Street - *4th Ave. to east dead end*	198	G	Yes	PVC			1		1	(1992)
9th Street - *Boundary Ave. to 2nd Ave.*	1178	G	Partial	PVC, Clay	1		3		4	405 LF PVC (1982) between 1st Ave and 2nd Ave, 773 LF Clay from 1st Ave to Fairgrounds
10th Street - *3rd Ave. to west dead end*	202	G	Yes	PVC			1		1	(2003)
12th Street - *2nd Ave. to 3rd Ave.*	488	G	Yes	Clay	1		3		4	
13th Street - *2nd Ave. to 3rd Ave.*	316	G	Yes	PVC			1		1	(2003)
14th Street - *3rd Ave. to west dead end*	310	F	Yes	Plastic			1		1	(2003)

Figure 3.2

Proctor Street & Utility CIP

Sanitary Sewer Assessment Chart

Roadway Name & Limits	Length (feet)	Forcemain or Gravity (F or G)	Within Road Corridor (Yes, No, Partial)	Pipe Material	Clay Pipe Material (1 = clay pipe)	Undersized Pipe per TSS (1 = 6" or smaller diameter)	Pipe Age (1-3 Rating)	Additional Ratings	Priority Rating (Sum of Ratings)	Comments
14th Street - *2nd Ave. to west dead end stub*	89	G	Yes	PVC			1		1	(2003)
16th Street - *South of St. Louis River rd and ties to 2nd Ave*	216	G	Yes	PVC			1		1	
Coachlight Circle - *St. Louis River Rd. to south Cul-De-Sac*	837	G	Partial	PVC			1		1	Includes 423 LF between homes to Acacia Ave. cul-de-sac (2003 & 2006)
Hearthside Lane - *St. Louis River Rd. to Birchwood Dr.*	586	G	Yes	PVC			1		1	(2003)
Birchwood Drive - *North turnaround to Cypress Dr.*	992	G	Yes	PVC			2		2	Older PVC (1980)
Cypress Drive - *Birchwood Dr. to Acacia Ave.*	352	G	Partial	PVC , Clay	1		3		4	195 LF older PVC (1978, 157 LF Clay
N. Acacia Avenue - *North of Cypress Dr. to north Cul-De-Sac*	384	G	Yes	PVC			1		1	(2003)
Acacia Avenue - *North of Cypress Dr. to Bass Blvd.*	995	G	Yes	Clay	1		3		4	
Bass Boulevard - *9th St. to Cypress Dr.*	1161	G	Partial	Clay	1		3		4	
Boundary Avenue (West side only) - *5th St. to 9th St.*	324	G	Yes	PVC, Clay	1		3		4	324 LF PVC from 5th to 6th (2018), north of 6th street is owned by City of Duluth
Boundary Avenue - *5th St. to Oak St.*	1461	G	Yes	Clay	1		3		4	1078 LF from 3rd St. to Oak St. is Clay
Boundary Avenue - *Grove St. to north of Waterview Dr.*	3972	G	Yes	PVC			1		1	3580 LF along west half of Boundary Ave. from Grove st. south to 820 feet north of Waterview Dr., Includes 347 LF from Grove to Boundary behind homes, includes 45 LF connection from Essentia Health, Crosses underneath US Hwy 2 (1996 & 2006)
Boundary Avenue - *north of Waterview Drive to Westgate Blvd.*	1435	G	Yes	PVC			1		1	1168 LF along the west side of Boundary, includes 267 LF of cross connectors from the east side of Boundary (1996)
1st Avenue - *9th St. to 6th St.*	968	G	Yes	CIPP, Clay	1		3		4	(2020) CIPP Lined from manhole N5-N6
1st Avenue - *6th St. to 2nd St.*	703	G	Yes	Clay	1		3		4	Sewer runs from 6th Street to 4th Street
1st Avenue - *2nd St. to Hwy 2*	532	G	Yes	Clay	1		3		4	Includes portion crossing under US Hwy 2, Sewer from Grove street to south side of US Hwy 2
S. 1st Avenue - *Hwy 2 to Alice St.*	854	G	Yes	Clay	1		3		4	
S. 2nd Avenue - *Hwy 2 to Alice St.*	612	G	Partial	PVC, Clay	1		3		4	Includes 190 LF Clay connection between Amunds and Anchor, Includes 422 LF PVC (2003) connection under driveways behind the golf course and connecting before Alice St.
Amund Drive - *Loop from S. 2nd Ave.*	614	G	Yes	Clay	1		3		4	
2nd Avenue - *Hwy 2 to 5th St.*	1454	G	Yes	Clay	1	1	3		5	714 LF Oak to 2nd St., 174 LF 6" clay 2nd St. alley to 3rd St., 566 LF 3rd St. alley to 5th St. 6" clay
2nd Avenue - *6th St. to Johnson Rd.*	5228	G	Yes	PVC			1		1	Include 96 LF connection from east side of 2nd Ave at 7th St. intersection (1999)
US Hwy 2 - *1st St. to 4th St.*	1220	G	Yes	PVC			1		1	(2001)
3rd Avenue - *Hwy 2 to Moose Lodge*	172	G	Yes	Clay	1		3		4	From 4th street north to the Moose Lodge entrance
3rd Avenue - *Moose Lodge to 5th St.*	174	G	Yes	Clay	1		3		4	
3rd Avenue - *5th St. to 13th St.*	2307	G	Yes	PVC, Clay	1		3		4	350 LF 8" PVC (2008) 5th Street to 6th Street, 1225 LF olcer PVC from 9th street to 14th street) 330 LF Clay from 8th St. to 9th St., 290 LF Clay from 5th St. to 6th St.
3rd Avenue - *13th St. to St. Louis River Rd.*	333	G	Yes	PVC			2		2	older PVC
4th Avenue - *9th St. to south dead end*	286	G	Partial	Clay	1		3		4	Runs south to dead end in wooded area
From 2nd Street to behind City Hall	532	G	No	PVC			1		1	east of railroad (1992)
From behind City Hall to Interceptor behind Baseball Field	1560	G	Partial	Clay	1		3	1	5	Collects the west half of town and connects with line from south side of town

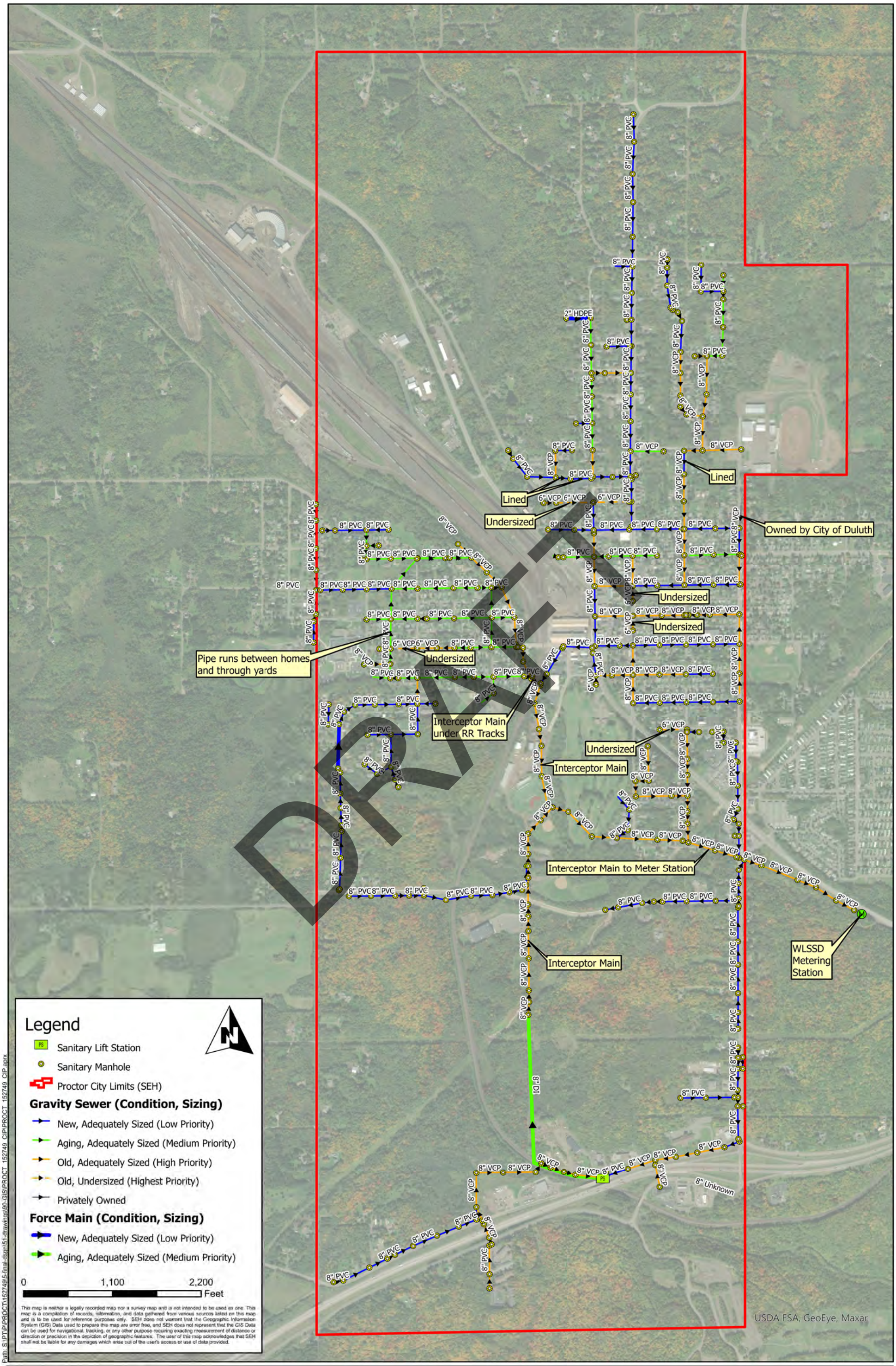
Figure 3.2

Proctor Street & Utility CIP

Sanitary Sewer Assessment Chart

Roadway Name & Limits	Length (feet)	Forcemain or Gravity (F or G)	Within Road Corridor (Yes, No, Partial)	Pipe Material	Clay Pipe Material (1 = clay pipe)	Undersized Pipe per TSS (1 = 6" or smaller diameter)	Pipe Age (1-3 Rating)	Additional Ratings	Priority Rating (Sum of Ratings)	Comments
Pionk Drive to behind Baseball Field	444	G	No	Clay	1		3		4	
Pionk Drive and Easement south of Kirkus	2232	G	Partial	Clay	1		3	1	5	Collects flow from Forcemain from south end of town and flow from Kirkus Street, crosses Kirkus St. and runs in easement through the woods, C-2 to C-10
Easement south of Kirkus	2752	F	No	Ductile			2		2	8" ductile force main from Westgate LS to MH C-10
2nd Street - *5th Ave. to 9th Ave.*	1640	G	Yes	PVC, Clay	1	1	3		5	930 LF 6" Clay from 9th St. to 7th St., 710 LF older PVC (1986) from 7th St. to 5th St.
1st Street - *9th Ave. to 7th Ave.*	1014	G	Yes	PVC			2		2	Older PVC (1986)
1st Street - *7th Ave. to 5th Ave.*	1048	G	Yes	PVC			2		2	Older PVC (1986)
2nd St. to 1st St. Under RR Tracks	538	G	No	Clay	1		3	1	5	Additional rating for crossing underneath RR Tracks. Connects to interceptor behind City Hall.
3rd Street - *5th Ave. to 8th Ave.*	1201	G	Yes	PVC			2		2	Older PVC (1986)
3rd Street - *8th Ave. to Ugstad Rd.*	632	G	Yes	Clay	1		2		3	Sealed in 1986, Sanitary only runs from 8th Ave. to 9th Ave.
4th Street - *5th Ave. to Ugstad Rd.*	2298	G	Yes	PVC			2		2	Midblock between 9th Ave. and 8th Ave. to 5th Ave older PVC (1986), Midblock between 9th Ave. and 8th Ave. to Ugstad newer PVC (1992)
5th Street - *9th Ave. to 6th Ave.*	2060	G	Yes	PVC			2		2	1381 LF Older PVC (1986) from just west of 9th Ave. to 6th Ave., Secondary main 679 LF from 8th Ave. to 6th Ave.
6th Street - *Ugstad Rd. to 9th Ave.*	545	G	Yes	PVC			1		1	(2003)
6th Street - *9th Ave. to east dead end*	275	G	Yes	PVC			1		1	(2003)
5th Avenue - *2nd St. to 6th St.*	1633	G	Yes	Clay	1		3		4	
6th Avenue - *4th St. to south of 1st St.*	1113	G	Yes	PVC			2		2	738 LF from 4th St. to 2nd St., 375 LF from 1st St. to the south older PVC (1986)
8th Avenue - *1st St. to Lupine Dr.*	696	G	Yes	PVC			3		3	365 LF 8" PVC (2005) Lupine to Almac, 350 LF clay from Almac to 1st Street
Lupine Drive - *8th Ave. to Cul-De-Sac*	622	G	Yes	PVC			1		1	(2005)
Kingsbury Drive - *Lupine Dr. to south dead end*	565	G	Yes	PVC			1		1	(2005)
Libby Circle - *Kingsbury Dr. to Cul-De-Sac*	377	G	Yes	PVC			1		1	(2005)
Almac Drive - *8th Ave. to Bee St.*	1482	G	Partial	PVC			1		1	382 LF runs in easement behind Ugstad Rd. homes (2018)
Almac Drive - *8th Ave. to east dead end*	222	G	Yes	PVC			1		1	(2005)
Alamc Drive - *Bee St. to Kirkus St.*	1617	G	Yes	PVC			1		1	(2005)
Alamc Drive - *South of Bee to North of Bee*	567	F	Yes	Plastic			1		1	(2005)
Easement - *1st St. to 5th St. between 8th Ave. and 9th Ave.*	1600	G	No	PVC			2	1	3	Runs between homes and possibly underneath homes, Runs adjacent to Kingsbury Creek Tributary older PVC (1986)
From School - *Between 1st St. & 2nd St. and 8th Ave. & 9th Ave.*	385	G	No	Clay	1		3		4	Runs from the school to manhole near alley between 1st St. and 2nd St. & 8th Ave and 9th Ave.
9th Avenue - *6th St. to 4th St.*	499	G	Yes	PVC			2		2	360 LF from 6th St. to 5th St., 139 LF from Alley between 5th & 6th to 9th Ave Main older PVC (1986)
Ugstad Road - *Track field parking lot to north of 6th St.*	1717	G	Yes	PVC			1		1	8" PVC Under county roadway (2011)

Figure 3.2



Project Number: PROCT 152749
Print Date: 12/1/2020

Map by: rek
Projection: St. Louis County Transverse Mercator (Feet)
Source: City of Proctor, SEH

PROCTOR CIP
Proctor, Minnesota

FIGURE 3.3
Sanitary Sewer Condition Map

Water Assessment Rating Key

Pipe Material	
0	Pipe materials other than cast iron
1	Cast iron
Pipe Size (Diameter)	
0	Pipes 6 inches in diameter or larger
1	Pipes 4 inches in diameter or smaller
Water Model Rating	
0	No additional rating based on water model results
1	Additional rating based on water model results
Pipe Age	
1	Newer pipes (non-cast iron pipes installed after 1990)
2	Aging pipes (non-cast iron pipes installed between 1980 and 1990)
3	Older pipes (installed prior to 1980)
Additional Ratings	
0	No additional rating
1	Additional rating based on importance or known issues with pipe segment

Figure 4.1

Proctor Street & Utility CIP

Water Main Assessment Chart

Roadway Name & Limits	Length (feet)	Within Road Corridor (Yes, No, Partial)	Pipe Material	Cast Iron Pipe Material (1 = cast iron pipe)	Pipe Diameter Size (inches)	Undersized Pipe per TSS (1 = undersized)	**Water Model Rating (1 = Improvement need from model results)	Pipe Age (1-3 Rating)	Additional Ratings	Priority Rating (Sum of Ratings)	Comments
Westgate Boulevard - *Ugstad Rd. to Boundary Ave.*	3521	Partial	HDPE, CI	1	8,12		1	3		5	East half 1448 LF 8" CI (1976), West half 2073 LF 12" HDPE
Westgate Spur - *Westgate Blvd. to north dead end*	495	Partial	CI*	1	8		1	3		5	
Westgate Boulevard - *Around Nuss Trucking to Lift Station*	2076	No	HDPE, DI		8,12		1	2		3	1464 LF 12" from junction with north interceptor south and west to Westgate Blvd., 612 LF 8" from Westgate Spur to Junction with north interceptor
West Skyline Parkway - *In front of McDonalds & under Interstate 35*	1352	Partial	CI*	1	8		1	3		5	
Village Drive - *South of Interstate 35*	1073	Yes	CI*	1	6,12		1	3		5	12" main under I-35 (1976), 6" main south to apartments
Waterview Drive - *Boundary Ave. to west dead end*	727	Yes	DI		8		1	1		2	(2006)
Kirkus Street - *Ugstad Rd. to Boundary Ave.*	5103	Yes	HDPE		12			1		1	
Alice Street - *Boundary Ave. to S. 2nd Ave.*	2120	Yes	CI	1	6			3		4	(1958)
Anchor Street - *S. 2nd Ave. to S. 1st Ave.*	663	Yes	CI	1	6		1	3		5	(1958)
Grove Street - *Boundary Ave. to S. 1st ave.*	634	Yes	PVC		8			1		1	(1996)
Grove Street - *S. 1st Ave. to west dead end*	364	Yes	CI	1	4	1	1	3		6	(1965)
Oak Street - *Boundary Ave. to S. 2nd Ave.*	1284	Yes	DI		6		1	1		2	(1995)
1st Street - *Boundary Ave. to 1st Ave.*	681	Yes	DI		8		1	1		2	(2001)
1st Street - *1st Ave.to 2nd Ave.*	636	Yes	CI*	1	6		1	3		5	
1st Street - *2nd Ave. to Hwy 2*	459	Yes	CI*	1	6		1	3		5	
2nd Street - *Boundary Avenue to Railroad crossing*	2311	Yes	DI		6,10			1		1	County road corridor, 6" from Boundary to 1st Ave., 10" from 1st Ave. to RR crossing (1992)
3rd Street - *Boundary Ave. to Hwy 2*	1781	Yes	CI*	1	6			3		4	
4th Street - *Boundary Ave. to 2nd Ave.*	1325	Yes	DI		8		1	1		2	(2006)
4th Street - *2nd Ave. to 3rd Ave.*	485	Yes	CI*	1	6			3		4	
5th Street - *Boundary Ave. to Hwy 2*	2231	Yes	DI		6,12			2	1	3	County road corridor, 6" from 3rd Ave. to Hwy 2, 12" from Boundary to 3rd Ave., main feed from water tower in duluth system (1985)
6th Street - *Boundary Ave. to Hwy 2*	2526	Yes	HDPE		8		1	1		2	(2018)
7th Street - *2nd Ave. to 4th Ave.*	946	Yes	CI*	1	6		1	3		5	County road corridor
8th Street - *2nd Ave. to 3rd Ave.*	494	Yes	CI	1	6			3		4	(1962)
8th Street - *1st Ave. to 2nd Ave.*	657	No	CI*	1	6			3		4	Runs through easement
9th Street - *4th Ave. to east dead end*	463	Yes	DI		6			2		2	(1989)
9th Street - *4th Ave. to west dead end*	942	Partial	CI*	1	6			3		4	Includes portion that wraps around assisted living center and along old hwy 2
9th Street - *Boundary Ave. to 2nd Ave.*	393	Yes	CI*	1	6			3		4	Water main only runs between Boundary Ave. and Bass Blvd.
10th Street - *3rd Ave. to west dead end*	185	No	CI*	1	6			3		4	Runs underneath driveways and boulevard
11th Street - *2nd Ave. to 3rd Ave.*	198	Yes	CI*	1	6			3		4	
12th Street - *2nd Ave. to 3rd Ave.*	527	Yes	CI	1	6			3		4	(1966)

Figure 4.2

Proctor Street & Utility CIP

Water Main Assessment Chart

Roadway Name & Limits	Length (feet)	Within Road Corridor (Yes, No, Partial)	Pipe Material	Cast Iron Pipe Material (1 = cast iron pipe)	Pipe Diameter Size (inches)	Undersized Pipe per TSS (1 = undersized)	**Water Model Rating (1 = Improvement need from model results)	Pipe Age (1-3 Rating)	Additional Ratings	Priority Rating (Sum of Ratings)	Comments
13th Street - *2nd Ave. to 3rd Ave.*	345	Yes	CI*	1	6			3		4	
14th Street - *3rd Ave. to west dead end*	344	Yes	DI		8			1		1	(2003)
14th Street - *2nd Ave. to west dead end stub*	118	No	CI*	1	6			3		4	Runs underneath driveway
15th Street - *2nd Ave. to west dead end*	538	Partial	CI*	1	6			3		4	Extends west through woods to 3rd Ave.
16th Street - *South of St. Louis River rd and ties to 2nd Ave*	187	Yes	CI*	1	6			3		4	Along a portion of 16th Street before heading north
St. Louis River Rd. - *Hearthside Ln. to Birch Ave.*	1704	Yes	DI		6			3		3	County Road Corridor, 843 LF Hearthside to 2nd Ave, 861 LF 16th Street under St. Louis River Rd. to Birch Ave. (1977)
Birch Avenue - *St. Louis River Rd. to Venice St.*	1225	Yes	CI	1	6			3		4	(1969)
Venice Street - *Birch Ave. to west dead end*	645	Yes	DI		6			1		1	(2005)
Venice Street - *Birch Ave. to Johnson Rd.*	698	Yes	CI	1	6			3		4	(1969)
Johnson Road - *Venice St. to Lavaque Rd.*	163	Yes	CI*	1	8			3		4	
Pine Avenue - *St. Louis River Rd. to Lavaque Rd.*	1954	Yes	DI		6			3		3	(1978)
Lavaque Road - *Pine Ave. to the East*	367	Yes	CI*	1	8			3		4	
Coachlight Circle - *St. Louis River Rd. to south Cul-De-Sac*	405	Yes	DI		8			1		1	(2003)
Hearthside Lane - *St. Louis River Rd. to Birchwood Dr.*	601	Yes	CI	1	6			2		3	(1988)
Birchwood Drive - *North turnaround to Cypress Dr.*	1071	Yes	DI		6			2		2	(1988)
Cypress Drive - *Birchwood Dr. to Acacia Ave.*	487	Yes	CI	1	6		1	3		5	(1958)
N. Acacia Avenue - *North of Cypress Dr. to north Cul-De-Sac*	315	Yes	DI		8			1		1	(2003)
Acacia Avenue - *North of Cypress Dr. to Bass Blvd.*	1061	Yes	CI	1	6,8		1	3		5	Portion north of Cypress is 8", 6" is Cast Iron (1958)
Bass Boulevard - *9th St. to Cypress Dr.*	1100	Yes	CI	1	6		1	3		5	(1958)
Boundary Avenue - *9th St. to north dead end (fairgrounds)*	156	Yes	CI*	1	6			3		4	Main runs across Boundary Ave. from 9th to Fairgrounds
Boundary Avenue (West side only) - *5th St. to 9th St.*	993	Yes	CI*	1	6		1	3		5	Main runs from 6th to 9th
Boundary Avenue - *5th St. to Oak St.*	730	Yes	CI*	1	6			3		4	Main runs from 2nd to 4th
Boundary Avenue - *Grove St. to north of Waterview Dr.*	2832	Yes	PVC, CI	1	6,8		1	3		5	2381 LF 6" CI from Waterview to Kirkus, 451 LF 8" PVC from Grove St. to the south (1996)
Boundary Avenue - *north of Waterview Drive to Westgate Blvd.*	579	Yes	CI	1	6		1	3		5	
1st Avenue - *9th St. to 6th St.*	698	Yes	HDPE		8			1		1	Main runs from 6th to 8th
1st Avenue - *2nd St. to Hwy 2*	848	Yes	CI*	1	6			3		4	Main runs from Oak Street to Hwy 2
S. 1st Avenue - *Hwy 2 to Alice St.*	952	Yes	CI	1	6		1	3		5	
S. 1st Avenue - *Alice St. to Kirkus St.*	665	No	CI	1	6			3		4	(1958)
S. 2nd Avenue - *Hwy 2 to Alice St.*	862	Yes	CI*	1	6			3		4	Main runs from Alice St. to Amund Drive
Amund Drive - *Loop from S. 2nd Ave.*	605	Yes	CI	1	6		1	3		5	(1965)

Figure 4.2

Proctor Street & Utility CIP

Water Main Assessment Chart

Roadway Name & Limits	Length (feet)	Within Road Corridor (Yes, No, Partial)	Pipe Material	Cast Iron Pipe Material (1 = cast iron pipe)	Pipe Diameter Size (inches)	Undersized Pipe per TSS (1 = undersized)	**Water Model Rating (1 = Improvement need from model results)	Pipe Age (1-3 Rating)	Additional Ratings	Priority Rating (Sum of Ratings)	Comments
2nd Avenue - *Hwy 2 to 5th St.*	915	Yes	CI*	1	6			3		4	349 LF from Oak to 1st, 566 LF from south of 4th to 5th
2nd Avenue - *6th St. to Johnson Rd.*	4847	Yes	CI	1	6,8		1	3	1	6	Main line which feeds booster station and water tower, 3087 LF 6" CI from 7th to St. Louis River Rd.(1961, 1966, 1969), 1760 LF 8" (1969) from St. Louis River Rd. to Johnson Rd., could benefit from future looping connections between 6th St. & the booster station
US Hwy 2 - *1st St. to 4th St.*	1101	Yes	DI		8,10			1		1	Along Hwy 2, 8" from 1st to 2nd, 10" from 2nd to 4th (2002)
3rd Avenue - *Hwy 2 to Moose Lodge*	339	Yes	CI*	1	10,12			3		4	12" pipe under Hwy 2
3rd Avenue - *Moose Lodge to 5th St.*	197	Yes	CI*	1	10			3		4	
3rd Avenue - *5th St. to 13th St.*	2244	Yes	CI	1	6		1	3		5	644 LF from 5th to 7th, 1600 LF from 8th to 13th (1971, 1973), could benefit from future looping connections at the south end of 3rd Ave between 7th St. & 8th St.
3rd Avenue - *13th St. to St. Louis River Rd.*	1016	Yes	CI	1	6			3		4	13th to 16th
4th Avenue - *9th St. to south dead end*	149	Yes	DI		6			2		2	(1989)
From 2nd Street to behind City Hall	694	No	CI*	1	10			3		4	538 LF from 2nd to Main junction behind City Hall, 156 LF stub behind City Hall to Hydrant by police station
From behind City Hall to Interceptor behind Baseball Field	1541	Partial	DI		10			2	1	3	Main feed to south side of town (1987)
Pionk Drive to behind Baseball Field	412	No	DI		10			2	1	3	Main feed to south side of town (1987)
Pionk Drive and Easement south of Kirkus	2095	Partial	CI*	1	10			3	1	5	Main feed to south side of town, runs under Pionk Drive, crosses Kirkus, runs south in easement
Easement south of Kirkus	2061	No	CI*	1	12			3	1	5	Main feed to south side of town
1st Street - *Pionk Dr. to Hwy 2*	349	Yes	CI*	1	6			3		4	Runs along 1st street then turns south mid-block towards the golf course
2nd Street - *5th Ave. to 9th Ave.*	1722	Yes	CI, DI	1	6,8,10		1	3		5	10" from 5th to 6th, 8" from 6th to 8th, 6" from 8th to 9th (6" & 8" 1959), high residential corridor could benefit from future looping connections
1st Street - *9th Ave. to 7th Ave.*	948	Yes	CI*	1	6		1	3		5	
1st Street - *7th Ave. to 5th Ave.*	759	Yes	CI*	1	6			3		4	
2nd Street - *RR Tracks to 5th Ave.*	446	Yes	DI		10			1	1	2	Under RR Tracks (1992)
2nd St. to 1st St. Under RR Tracks	332	Partial	CI*	1	10			3	1	5	From the end of 1st Street under the RR tracks towards City Hall

Figure 4.2

Proctor Street & Utility CIP

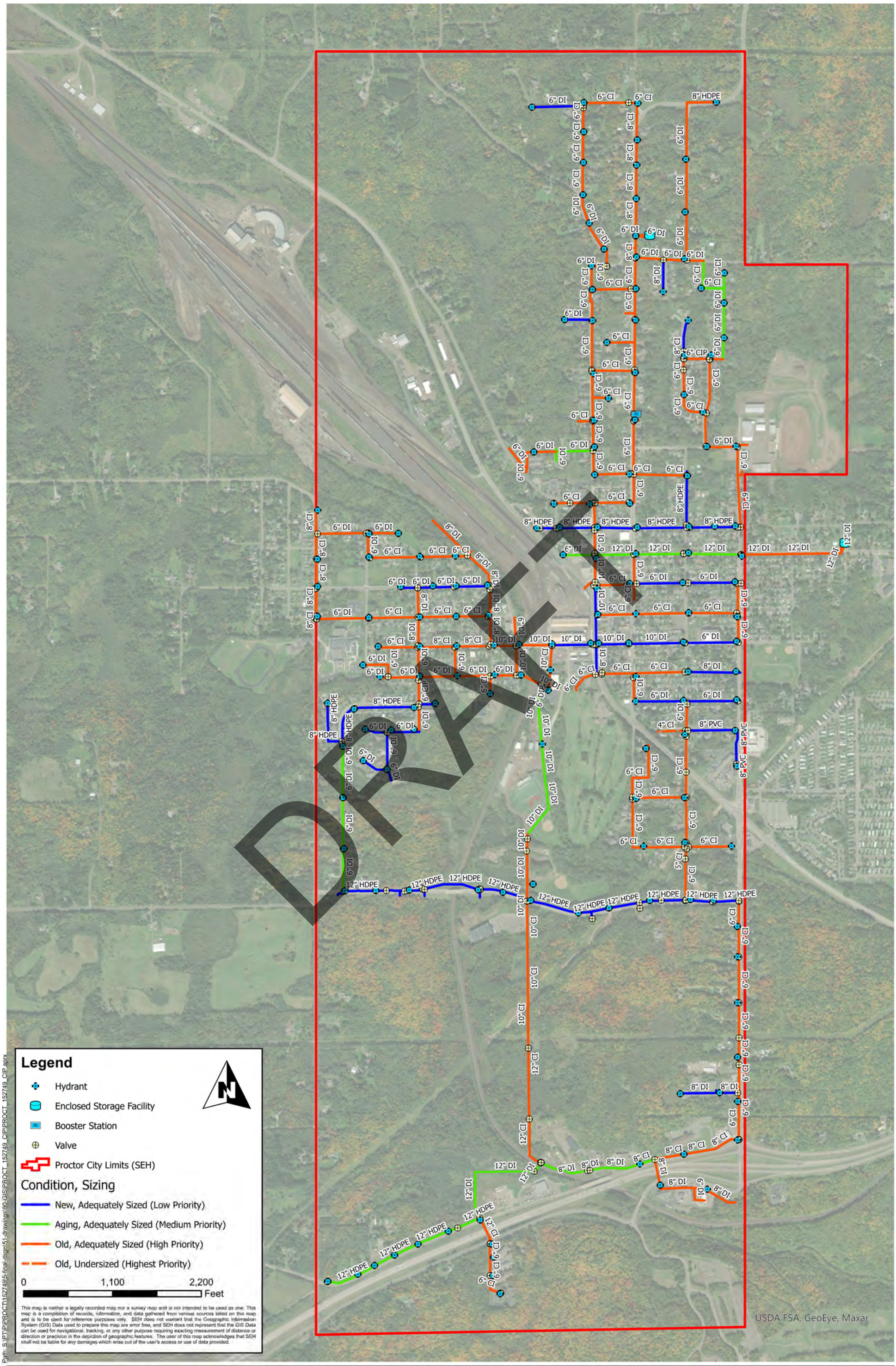
Water Main Assessment Chart

Roadway Name & Limits	Length (feet)	Within Road Corridor (Yes, No, Partial)	Pipe Material	Cast Iron Pipe Material (1 = cast iron pipe)	Pipe Diameter Size (inches)	Undersized Pipe per TSS (1 = undersized)	**Water Model Rating (1 = Improvement need from model results)	Pipe Age (1-3 Rating)	Additional Ratings	Priority Rating (Sum of Ratings)	Comments
Habitat Lane - *1st St. to 2nd St.*	365	Yes	CI*	1	10			3		4	
3rd Street - *5th Ave. to 8th Ave.*	887	Yes	CI*	1	6			3		4	Main runs from 6th to 8th
3rd Street - *8th Ave. to Ugstad Rd.*	1267	Yes	CI	1	6			3		4	(1966)
4th Street - *5th Ave. to Ugstad Rd.*	1106	Yes	DI		6			1		1	County road corridor (1992)
6th Street - *Ugstad Rd. to 9th Ave.*	648	Yes	CI*	1	6		1	3		5	
6th Street - *9th Ave. to east dead end*	376	Partial	CI*	1	6		1	3		5	
5th Avenue - *2nd St. to 6th St.*	944	Yes	CI*	1	6,8			3		4	612 LF 8" north of 5th street, 332 LF 6" north of 2nd street
5th Street - *9th Ave. to 6th Ave.*	1301	Yes	CI*	1	6			3		4	
6th Avenue - *4th St. to south of 1st St.*	981	Yes	CI*	1	6,8			3		4	741 LF 8" between 4th St. and 2nd St., 240 LF 6" south of 1st St.
6th Avenue - *5th St. to 4th St.*	493	Yes	CI*	1	8			3		4	
7th Avenue - *South of 1st St. to 2nd St.*	394	Yes	CI*	1	6			3		4	
8th Avenue - *1st St. to 4th St.*	1104	Yes	CI*	1	6,8			3		4	370 LF 6" from 1st to 2nd, 734 LF 8" from 2nd to 4th
8th Avenue - *1st St. to Lupine Dr.*	676	Yes	CI, DI	1	6		1	3		5	6" Cast Iron from Almac to 1st (1959)
Lupine Drive - *8th Ave. to Cul-De-Sac*	673	Yes	DI		6		1	1		2	
Kingsbury Drive - *Lupine Dr. to south dead end*	602	Yes	DI		6		1	1		2	
Libby Circle - *Kingsbury Dr. to Cul-De-Sac*	341	Yes	DI		6		1	1		2	
Almac Drive - *8th Ave. to Bee St.*	1272	Yes	HDPE		8		1	1		2	(2018)
Almac Drive - *8th Ave. to east dead end*	202	Yes	DI		6		1	1		2	(2004)
Alamc Drive - *Bee St. to Kirkus St.*	1858	Yes	DI		6			2		2	(1988)
Bee Street - *Ugstad Rd. to Almac Dr.*	176	Yes	HDPE		8			1		1	(2018) feeds ugstad utility easement
Easement - *Bee Street North*	473	No	HDPE		8		1	1		2	(2018)
Easement - *1st St. to 5th St. between 8th Ave. and 9th Ave.*	162	No	CI*	1	6		1	3		5	Main runs from 1st street north to the alley between 1st and 2nd
From School - *Between 1st St. & 2nd St. and 8th Ave. & 9th Ave.*	312	Yes	CI*	1	6		1	3		5	Runs in alley bewteen 1st and 2nd from 9th Ave.
9th Avenue - *6th St. to 4th St.*	344	Yes	CI*	1	6			3		4	Main runs from 5th to 6th
Ugstad Road - *Track field parking lot to north of 6th St.*	1315	Yes	CI*	1	8		1	3		5	

*Assumed cast Iron pipe material, If no date of install is on record the pipe is assumed to be pre 1980 install

**Rating based on water model fire flow rate results as compared to Insurance Services Office recommendations for fire flow rates

Figure 4.2



Project Number: PROCT 152749
Print Date: 12/1/2020

Map by: rek
Projection: St. Louis County Transverse Mercator (Feet)
Source: City of Proctor, SEH

PROCTOR CIP
Proctor, Minnesota

FIGURE 4.3
Water Main Condition Map

Utility and Street Overall Rating and Prioritization

Proctor Street & Utility CIP

Roadway Name & Limits	Street Assessment Rating	Sanitary Sewer Assessment Rating	Water Main Assessment Rating	Combined Total Rating
2nd Street - *5th Ave. to 9th Ave.*	14	5	5	24
Acacia Avenue - *North of Cypress Dr. to Bass Blvd.*	11	4	5	20
3rd Street - *8th Ave. to Ugstad Rd.*	13	3	4	20
1st Street - *1st Ave.to 2nd Ave.*	10	4	5	19
S. 1st Avenue - *Hwy 2 to Alice St.*	10	4	5	19
Anchor Street - *S. 2nd Ave. to S. 1st Ave.*	9	4	5	18
1st Street - *2nd Ave. to Hwy 2*	9	4	5	18
3rd Street - *Boundary Ave. to Hwy 2*	10	4	4	18
Bass Boulevard - *9th St. to Cypress Dr.*	9	4	5	18
1st Avenue - *2nd St. to Hwy 2*	10	4	4	18
S. 2nd Avenue - *Hwy 2 to Alice St.*	10	4	4	18
Amund Drive - *Loop from S. 2nd Ave.*	9	4	5	18
1st Street - *9th Ave. to 7th Ave.*	10	2	5	17
1st Street - *7th Ave. to 5th Ave.*	11	2	4	17
6th Avenue - *4th St. to south of 1st St.*	11	2	4	17
Grove Street - *S. 1st Ave. to west dead end*	5	5	6	16
Cypress Drive - *Birchwood Dr. to Acacia Ave.*	7	4	5	16
3rd Avenue - *Hwy 2 to Moose Lodge*	8	4	4	16
5th Street - *9th Ave. to 6th Ave.*	10	2	4	16
7th Avenue - *South of 1st St. to 2nd St.*	12	#N/A	4	16
Alamc Drive - *Bee St. to Kirkus St.*	13	1	2	16
Westgate Boulevard - *Ugstad Rd. to Boundary Ave.*	6	4	5	15
4th Street - *2nd Ave. to 3rd Ave.*	7	4	4	15
3rd Avenue - *5th St. to 13th St.*	6	4	5	15
3rd Street - *5th Ave. to 8th Ave.*	9	2	4	15
9th Avenue - *6th St. to 4th St.*	9	2	4	15
9th Street - *Boundary Ave. to 2nd Ave.*	6	4	4	14
12th Street - *2nd Ave. to 3rd Ave.*	6	4	4	14
Boundary Avenue (West side only) - *5th St. to 9th St.*	5	4	5	14
1st Avenue - *6th St. to 2nd St.*	10	4	#N/A	14
3rd Avenue - *Moose Lodge to 5th St.*	6	4	4	14
6th Street - *9th Ave. to east dead end*	8	1	5	14
8th Avenue - *1st St. to Lupine Dr.*	6	3	5	14
Alice Street - *Boundary Ave. to S. 2nd Ave.*	9	#N/A	4	13
1st Avenue - *9th St. to 6th St.*	8	4	1	13
4th Avenue - *9th St. to south dead end*	7	4	2	13
6th Street - *Ugstad Rd. to 9th Ave.*	7	1	5	13
10th Street - *3rd Ave. to west dead end*	7	1	4	12
11th Street - *2nd Ave. to 3rd Ave.*	8	#N/A	4	12
3rd Avenue - *13th St. to St. Louis River Rd.*	6	2	4	12
7th Avenue - *2nd St. to 4th St.*	12	#N/A	#N/A	12
8th Avenue - *1st St. to 4th St.*	8	#N/A	4	12
9th Avenue - *4th St. to 1st St.*	12	#N/A	#N/A	12
14th Street - *2nd Ave. to west dead end stub*	6	1	4	11
Venice Street - *Birch Ave. to west dead end*	10	#N/A	1	11
Venice Street - *Birch Ave. to Johnson Rd.*	7	#N/A	4	11
Pine Avenue - *St. Louis River Rd. to Lavaque Rd.*	8	#N/A	3	11
Birchwood Drive - *North turnaround to Cypress Dr.*	7	2	2	11
1st Street - *Pionk Dr. to Hwy 2*	7	#N/A	4	11
Grove Street - *Boundary Ave. to S. 1st ave.*	8	1	1	10
Oak Street - *Boundary Ave. to S. 2nd Ave.*	7	1	2	10
7th Street - *2nd Ave. to 4th Ave.*	#N/A	5	5	10
9th Street - *4th Ave. to east dead end*	7	1	2	10
13th Street - *2nd Ave. to 3rd Ave.*	5	1	4	10
Birch Avenue - *St. Louis River Rd. to Venice St.*	6	#N/A	4	10
Boundary Avenue - *9th St. to north dead end (fairgrounds)*	6	#N/A	4	10
Pionk Drive and Easement south of Kirkus	#N/A	5	5	10
Pionk Drive - *South side of street dept. shop to box culvert*	10	#N/A	#N/A	10
2nd St. to 1st St. Under RR Tracks	#N/A	5	5	10

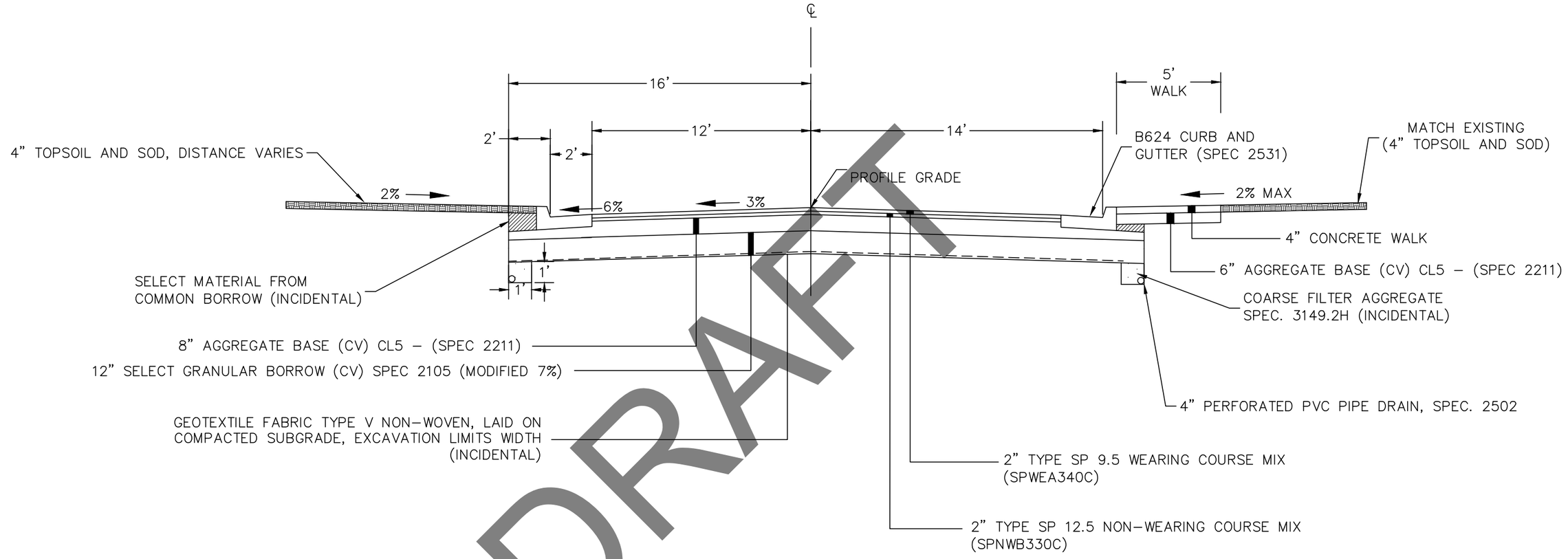
Figure 5.1

Utility and Street Overall Rating and Prioritization

Proctor Street & Utility CIP

Roadway Name & Limits	Street Assessment Rating	Sanitary Sewer Assessment Rating	Water Main Assessment Rating	Combined Total Rating
Almac Drive - *8th Ave. to Bee St.*	7	1	2	10
West Skyline Parkway - *In front of McDonalds & under Interstate 35*	#N/A	4	5	9
Village Drive - *South of Interstate 35*	#N/A	4	5	9
Westgate Spur - *Westgate Blvd. to north dead end*	4	#N/A	5	9
1st Street - *Boundary Ave. to 1st Ave.*	6	1	2	9
4th Street - *Boundary Ave. to 2nd Ave.*	6	1	2	9
6th Street - *Boundary Ave. to Hwy 2*	6	1	2	9
8th Street - *2nd Ave. to 3rd Ave.*	4	1	4	9
15th Street - *2nd Ave. to west dead end*	5	#N/A	4	9
Hearthside Lane - *St. Louis River Rd. to Birchwood Dr.*	5	1	3	9
2nd Avenue - *Hwy 2 to 5th St.*	#N/A	5	4	9
6th Avenue - *5th St. to 4th St.*	5	#N/A	4	9
From School - *Between 1st St. & 2nd St. and 8th Ave. & 9th Ave.*	#N/A	4	5	9
14th Street - *3rd Ave. to west dead end*	6	1	1	8
Johnson Road - *Venice St. to Lavaque Rd.*	4	#N/A	4	8
Coachlight Circle - *St. Louis River Rd. to south Cul-De-Sac*	6	1	1	8
Boundary Avenue - *5th St. to Oak St.*	#N/A	4	4	8
From behind City Hall to Interceptor behind Baseball Field	#N/A	5	3	8
Pionk Drive - *Box culvert to south end of City Hall parking lot*	8	#N/A	#N/A	8
Pionk Drive - *South end of City Hall parking lot to north City Hall lot*	8	#N/A	#N/A	8
5th Avenue - *2nd St. to 6th St.*	#N/A	4	4	8
Lupine Drive - *8th Ave. to Cul-De-Sac*	5	1	2	8
Kingsbury Drive - *Lupine Dr. to south dead end*	5	1	2	8
Libby Circle - *Kingsbury Dr. to Cul-De-Sac*	5	1	2	8
Almac Drive - *8th Ave. to east dead end*	5	1	2	8
Easement - *1st St. to 5th St. between 8th Ave. and 9th Ave.*	#N/A	3	5	8
Westgate Boulevard - *Around Nuss Trucking to Lift Station*	#N/A	4	3	7
Waterview Drive - *Boundary Ave. to west dead end*	4	1	2	7
Kirkus Street - *Ugstad Rd. to Boundary Ave.*	5	1	1	7
11th Street - *3rd Ave. to west dead end*	7	#N/A	#N/A	7
12th Street - *3rd Ave. to west dead end*	7	#N/A	#N/A	7
Johnson Road - *Venice St. to Youngdahl Rd.*	7	#N/A	#N/A	7
N. Acacia Avenue - *North of Cypress Dr. to north Cul-De-Sac*	5	1	1	7
2nd Avenue - *6th St. to Johnson Rd.*	#N/A	1	6	7
Pionk Drive to behind Baseball Field	#N/A	4	3	7
Easement south of Kirkus	#N/A	2	5	7
4th Avenue - *7th St. to 6th St.*	7	#N/A	#N/A	7
Habitat Lane - *1st Ave. to 2nd Ave.*	7	#N/A	#N/A	7
8th Avenue - *5th St. to 4th St.*	7	#N/A	#N/A	7
Boundary Avenue - *Grove St. to north of Waterview Dr.*	#N/A	1	5	6
Boundary Avenue - *north of Waterview Drive to Westgate Blvd.*	#N/A	1	5	6
Pionk Drive - *North City Hall parking lot to 2nd St.*	6	#N/A	#N/A	6
Ugstad Road - *Track field parking lot to north of 6th St.*	#N/A	1	5	6
Metering Station to Football Field	#N/A	5	#N/A	5
5th Street - *Boundary Ave. to Hwy 2*	#N/A	2	3	5
16th Street - *South of St. Louis River rd and ties to 2nd Ave*	#N/A	1	4	5
From 2nd Street to behind City Hall	#N/A	1	4	5
Bee Street - *Ugstad Rd. to Almac Dr.*	4	#N/A	1	5
8th Street - *1st Ave. to 2nd Ave.*	#N/A	#N/A	4	4
9th Street - *4th Ave. to west dead end*	#N/A	#N/A	4	4
Lavaque Road - *Pine Ave. to the East*	#N/A	#N/A	4	4
S. 1st Avenue - *Alice St. to Kirkus St.*	#N/A	#N/A	4	4
4th Avenue - *6th St. to south dead end*	4	#N/A	#N/A	4
St. Louis River Rd. - *Hearthside Ln. to Birch Ave.*	#N/A	#N/A	3	3
4th Street - *5th Ave. to Ugstad Rd.*	#N/A	2	1	3
2nd Street - *Boundary Avenue to Railroad crossing*	#N/A	1	1	2
US Hwy 2 - *1st St. to 4th St.*	#N/A	1	1	2
2nd Street - *RR Tracks to 5th Ave.*	#N/A	#N/A	2	2
Easement - *Bee Street North*	#N/A	#N/A	2	2
8th Street - *3rd Ave. to the west and north along old Hwy 2*	#N/A	1	#N/A	1
Alamc Drive - *South of Bee to North of Bee*	#N/A	1	#N/A	1

Figure 5.1



TYPICAL SECTION URBAN STREET WITH SIDEWALKS

SEH
PHONE: 218.279.3000
418 W SUPERIOR ST STE 200
DULUTH, MN 55802–1512
www.sehinc.com

FILE NO.
PROCT 152749

DATE:
11/30/2020

Capital Improvement Plan
Roadway Typical Section
Proctor, Minnesota

FIGURE
5.2.1

Project Name: **Proctor CIP**
SEH Project No: **PROCT 152749**
Date: **December 1, 2020**
Estimator: **Tyler Yngsdal - SEH**
Description: **Estimated Construction Cost Average Pricing**

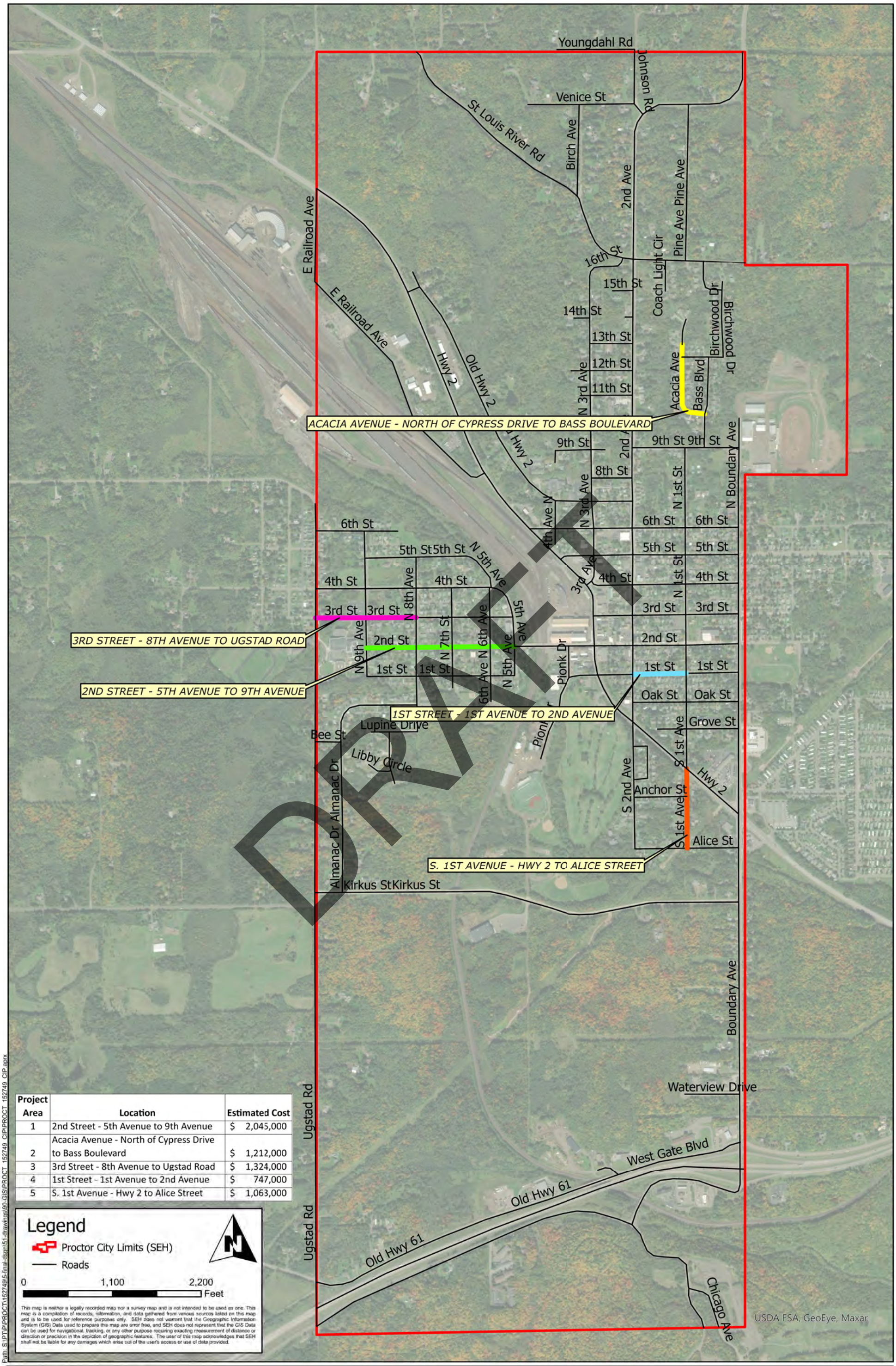
			Project Area 1 2nd Street - 5th Ave. to 9th Ave.		Project Area 2 Acacia Avenue - N. of Cypress Dr. to Bass Blvd.		Project Area 3 3rd Street - 8th Ave. to Ugstad Rd.		Project Area 4 1st Street - 1st Ave. to 2nd Ave.		Project Area 5 S. 1st Avenue - Hwy 2 to Alice St.	
CONSTRUCTION ITEM	**UNIT**	**UNIT PRICE**	QUANTITY	AMOUNT	QUANTITY	AMOUNT	QUANTITY	AMOUNT	QUANTITY	AMOUNT	QUANTITY	AMOUNT
ROADWAY	LIN FT	$ 370.00	1850	$ 684,500.00	1070	$ 395,900.00	1255	$ 464,350.00	655	$ 242,350.00	935	$ 345,950.00
SANITARY SEWER	LIN FT	$ 110.00	1640	$ 180,400.00	995	$ 109,450.00	632	$ 69,520.00	656	$ 72,160.00	854	$ 93,940.00
POTABLE WATER	LIN FT	$ 170.00	1722	$ 292,740.00	1061	$ 180,370.00	1267	$ 215,390.00	636	$ 108,120.00	952	$ 161,840.00
SUB TOTAL				**$ 1,157,640.00**		**$ 685,720.00**		**$ 749,260.00**		**$ 422,630.00**		**$ 601,730.00**
TRAFFIC CONTROL		1%		$ 11,576.40		$ 6,857.20		$ 7,492.60		$ 4,226.30		$ 6,017.30
MOBILIZATION		15%		$ 173,646.00		$ 102,858.00		$ 112,389.00		$ 63,394.50		$ 90,259.50
EROSION CONTROL		2%		$ 23,152.80		$ 13,714.40		$ 14,985.20		$ 8,452.60		$ 12,034.60
MISCELLANEOUS CONSTRUCTION		5%		$ 57,882.00		$ 34,286.00		$ 37,463.00		$ 21,131.50		$ 30,086.50
CONTINGENCIES		15%		$ 173,646.00		$ 102,858.00		$ 112,389.00		$ 63,394.50		$ 90,259.50
TOTAL CONSTRUCTION				**$ 1,597,543.20**		**$ 946,293.60**		**$ 1,033,978.80**		**$ 583,229.40**		**$ 830,387.40**
CIVIL DESIGN, CONSTRUCTION ADMIN, CONSTRUCTION STAKING		20%		$ 319,508.64		$ 189,258.72		$ 206,795.76		$ 116,645.88		$ 166,077.48
LEGAL, FISCAL, AND ADMINISTRATIVE		5%		$ 79,877.16		$ 47,314.68		$ 51,698.94		$ 29,161.47		$ 41,519.37
OTHER CONSULTANTS (ENVIRONMENTAL, GEOTECHNICAL, ETC.)		3%		$ 47,926.30		$ 28,388.81		$ 31,019.36		$ 17,496.88		$ 24,911.62
TOTAL PROJECT				**$ 2,044,855.30**		**$ 1,211,255.81**		**$ 1,323,492.86**		**$ 746,533.63**		**$ 1,062,895.87**

Assumptions:

1. Roadway includes, common excavation, bituminous paving, aggregate base, select granular, storm sewer, sidewalks, grading, turf establishment, and street removals
2. Sanitary sewer includes 8" mains, service laterals, manholes, sanitary removals
3. Potable water includes 8" mains, service laterals, hydrants, valves, and water removals
5. Road pricing based on the typical section from Fig. 5.2 of this report. Wider street typical sections not accounted for, adjustments for wider street segments should be reviewed during the feasibility study phase.
6. Cost per lineal foot based on recent construction projects within the Proctor area. Prices and costs are estimated at a high level and should be refined during the feasibility study phase of a project.

S:\PT\P\PROCT\152749\8-planning\87-rpt-stud\Charts\[PR152749_Fig5.2.2_Construction Cost Average Pricing.xlsx]Overall Summary

Figure 5.2.2



DRAFT

Project Area	Location	Estimated Cost
1	2nd Street - 5th Avenue to 9th Avenue	$ 2,045,000
2	Acacia Avenue - North of Cypress Drive to Bass Boulevard	$ 1,212,000
3	3rd Street - 8th Avenue to Ugstad Road	$ 1,324,000
4	1st Street - 1st Avenue to 2nd Avenue	$ 747,000
5	S. 1st Avenue - Hwy 2 to Alice Street	$ 1,063,000

Legend

Proctor City Limits (SEH)

Roads

0 1,100 2,200 Feet

Path: S:\PT\P\PROCT\152749\5-final-dsgn\51-drawings\90-GIS\PROCT_152749_CIP\PROCT_152749_CIP.aprx

Project Number: PROCT 152749
Print Date: 12/1/2020

Map by: rek
Projection: St. Louis County Transverse Mercator (Feet)
Source: City of Proctor, SEH

PROCTOR CIP
Proctor, Minnesota

FIGURE 5.2.3
Project Priority Location Map

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