



**PLAINVIEW CITY COUNCIL
WORK SESSION
AGENDA**

Tuesday, September 24, 2019 at 6:00 p.m.

- 1. CALL TO ORDER**
- 2. APPROVAL OF AGENDA**
- 3. DISCUSSION**
 - A. Infrastructure Management Plan
 - B. City-Wide Garbage Hauler
- 4. COUNCIL & STAFF UPDATES**
- 5. ADJOURN**

PLAINVIEW

CITY COUNCIL ACTION



Executive Summary

City Council Work Session: September 24, 2019

AGENDA ITEM: Infrastructure Management Plan	AGENDA SECTION: Discussion
PREPARED BY: Derek Olinger, Bolton & Menk Brian Malm, Bolton & Menk	AGENDA NO. 3.A.
ATTACHMENTS: Infrastructure Management Plan	APPROVED BY: cgh
RECOMMENDED ACTION: Presentation/Discussion	

SUMMARY

Bolton & Menk staff will present the Infrastructure Management Plan, which assesses the conditions and makes recommendations for the management of the City's streets, and water and sewer lines.

Infrastructure Management Plan

City of Plainview, MN

July 2019

Submitted by:

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Certification

2019 Infrastructure Management Plan

City of Plainview, Minnesota

June 2019

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

By: _____

Derek Dlinger, P.E.

License No. 54287

Date: _____

DRAFT
7-3-19

Table of Contents

I.	INTRODUCTION.....	2
A.	Purpose.....	2
B.	Method & Scope	2
II.	PAVEMENT MANAGEMENT	2
A.	Introduction & Approach.....	2
B.	Street Life Cycle	3
C.	Findings.....	5
III.	UTILITY MANAGEMENT	7
A.	Introduction & Approach.....	7
B.	Watermain.....	7
C.	Sanitary Sewer	7
IV.	EXECUTION.....	8
A.	Seal Coat & Crack Fill Program	8
B.	Overlay & Patching Program	9
C.	Reconstruction Program.....	9
V.	CONCLUSION & RECOMMENDATIONS	10

Figures

Figure 1: Typical Pavement Lifecycle No Seal Coat, Crack Fill or Overlay.....	3
Figure 2: Typical Pavement Lifecycle w/ Seal Coating & Crack Filling	4
Figure 3: Typical Pavement Lifecycle w/ Seal Coating, Crack Filling and Overlays	4

Tables

Table 1 – Pavement Life Cycle Cost Analysis	5
Table 2 – Pavement Conditional Ratings Description	6
Table 3 – Pavement Conditional Ratings Summary	6
Table 4 – Infrastructure Management Programs	8

Appendix

Appendix A: Pavement Management Terminology

Appendix B: Figures

Appendix C: Cost Estimates

I. INTRODUCTION

A. Purpose

The purpose of this report is to summarize the overall conditions of pavements and utilities within the City of Plainview. Once the existing conditions are understood, the need for maintenance and replacement costs can be better understood. This report will provide the information needed for budgeting and planning future projects.

B. Method & Scope

Traditionally, many cities approach infrastructure management from a reactive approach. As needs arise, a City will respond to the most immediate needs first. From a logical standpoint, this type of infrastructure management may seem efficient since only the most critical elements are being replaced.

This report describes an infrastructure management strategy that is more proactive than traditional methods. This approach recognizes that the street and utility systems within Plainview are interwoven. Proper timing for maintenance and replacement for all elements will ensure that the useful life of all infrastructure within a given corridor is maximized prior to replacement.

This report will discuss the existing conditions, maintenance, and replacement procedures for public streets, water distribution system piping, and sanitary collection system piping within the Plainview city limits.

The following sections first include discussion on pavement management, followed by utility (watermain and sanitary sewer) management. The report is concluded with a summary of how to use this information for future infrastructure maintenance and replacement planning.

II. PAVEMENT MANAGEMENT

A. Introduction & Approach

The timing of maintenance and rehabilitation of bituminous pavements can greatly influence their effectiveness, costs, and overall pavement life. In general, once a pavement needs treatment, the sooner maintenance or rehabilitation activity is undertaken, the more cost-effective it will be. Plainview maintains over 16 ½ miles of bituminous paved streets which represent a significant capital investment that needs to be well managed.

During the summer of 2018, Bolton & Menk, Inc. staff conducted a visual condition survey of City streets. Alleys were not included in this survey. This process was undertaken to determine the current condition of these assets and rate their condition relative to each other. The City can use this baseline data for determining the appropriate timing of cost effective road treatments.

The visual conditions were evaluated using the general guidelines of the Pavement Surface Evaluation and Rating (PASER) system, quantifying several different types of pavement distress. This rating system assigns a numerical rating to each street within the community. The City can use this data to prioritize needs and assign the proper level of maintenance for each street.

Total reconstruction of a street is a very costly procedure. Research shows that periodic maintenance of streets in good condition can extend their service life at a reduced cost. Maintenance of streets after reconstruction is more cost effective than undergoing multiple reconstructions without maintenance.

B. Street Life Cycle

The condition of a street pavement is affected by a number of factors, including:

- Street section (bituminous and gravel base thickness)
- Traffic characteristics and loading
- Subgrade soil (sand, clay, silt)
- Drainage (street profile, cross section, storm sewer)
- Age
- Maintenance program (crack fill/seal coating, patching)

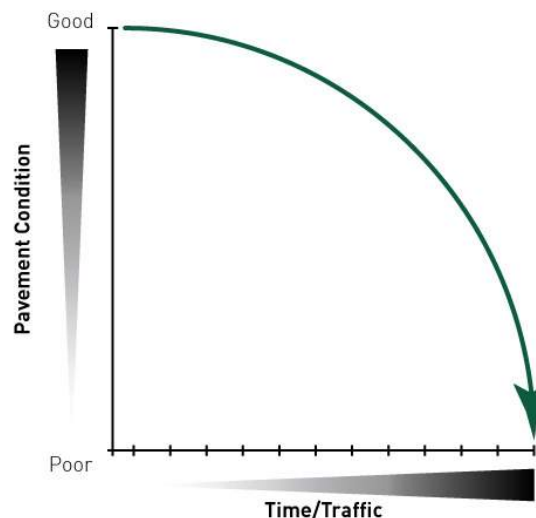
Each of the above listed items contributes to the overall condition and lifecycle of a public street. It is not uncommon for streets in the same area and constructed at the same time, to vary in condition.

In many cases, the approach utilized by cities includes rehabilitation and reconstruction to address the poorest condition road segments first with less attention paid to preventative maintenance. This approach is common when budgets do not allow funding for roadway maintenance. The approach advocated by pavement experts recommends that more attention be placed on preventative maintenance and preserving the pavement condition to extend the useful life of the road segment.

After the initial construction, bituminous pavements require periodic maintenance and rehabilitation to maximize the life of the pavement. In general, bituminous pavements perform well, deteriorating slowly during the first 15 to 20 years of the street lifecycle. Following this period, pavements tend to deteriorate more rapidly. Proactive maintenance such as repairing cracks and seal coating in the earlier stages of a street lifecycle is recommended as a cost-effective pavement maintenance practice. As the pavement condition deteriorates and the pavement surface becomes exceedingly deteriorated, seal coat and crack fill applications are no longer recommended as the most cost-effective maintenance. During this time, more extensive pavement rehabilitation such as a mill and overlay is required. Without these more extensive pavement rehabilitation measures, the pavement condition will continue to decline to the point where further maintenance and rehabilitation is not effective and complete reconstruction of the pavement is required.

Figure 1 illustrates how the typical street condition will deteriorate with little to no maintenance or rehabilitation.

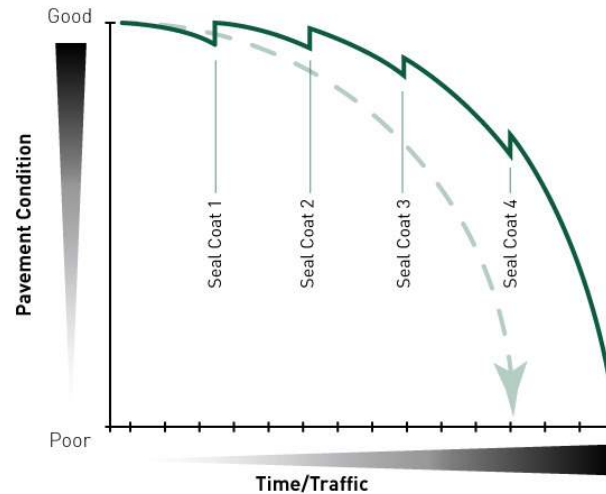
Figure 1: Typical Pavement Lifecycle No Seal Coat, Crack Fill or Overlay



The first and most cost-effective approach to extending the life of pavement is through seal

coating and crack filling. This type of maintenance slows the oxidation and associated weakening of bituminous surfaces and prevents the migration of surface water into the underlying soils. Collectively, seal coating and crack filling will increase the life of pavements moderately, if completed on a regular 6- to 8-year schedule. Figure 2 illustrates a comparative life cycle for pavements with regular seal coating and crack filling programs.

Figure 2: Typical Pavement Lifecycle w/ Seal Coating & Crack Filling



Eventually, pavements will deteriorate to a level where maintenance costs increase and the benefits of the sealing coating and crack filling decrease. In these cases, the next level of pavement management will include bituminous overlays and patching.

With the proper combination of crack filling, seal coating and periodic overlays, a pavement can be serviceable for 50 years or more. Figure 3 shows how the pavement lifecycle can be maximized using the proper combination of maintenance and rehabilitation.

Figure 3: Typical Pavement Lifecycle w/ Seal Coating, Crack Filling and Overlays

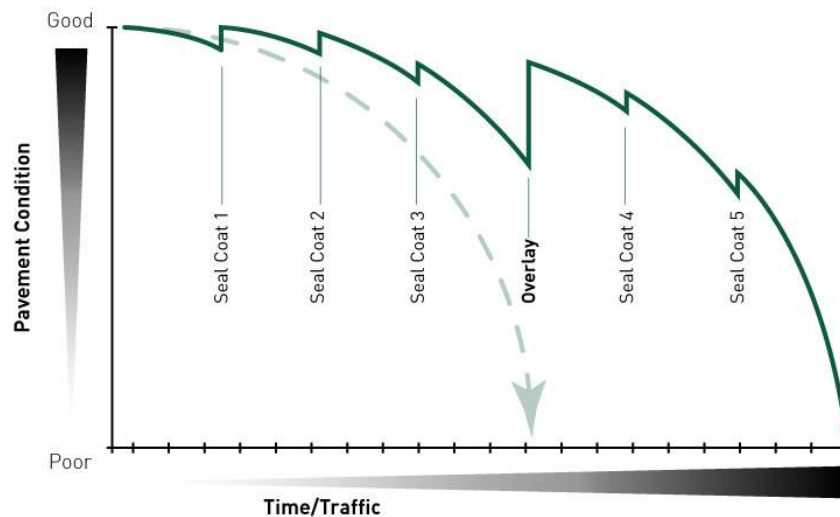


Table 1 provides an example cost analysis for comparing the costs of pavement management with and without an active maintenance program. Anticipated costs and general pavement conditions are provided over a 50-year period.

Table 1 – Pavement Life Cycle Cost Analysis			
Item	Year	Approx. Cost Per Foot of Street	
		With Maintenance	Without Maintenance
Initial Construction	0	\$250.00	\$250.00
Crack Fill & Chip Seal	7	\$11.00	
Crack Fill & Chip Seal	14	\$11.00	
Mill & Overlay	20	\$92.00	
Crack Seal	22	\$1.75	
Reconstruction	25		\$220.00
Chip Seal	27	\$9.25	
Crack Fill & Chip Seal	35	\$11.00	
Mill & Overlay	40	\$92.00	
Crack Fill	42	\$1.75	
Chip Seal	47	\$9.25	
Salvage Value Adjustment	50	\$170.00	\$250.00
Life Cycle Cost per Foot		\$659.00	\$720.00
Difference		-\$61.00	-

	Good Pavement Condition
	Fair Pavement Condition
	Poor Pavement Condition

*Costs indicated above are based on typical costs for the area in 2019 dollars. Unit pricing per foot is based on an average 36-foot wide residential street.

As indicated above, the overall life cycle costs for managing pavements with an active maintenance program results in a net savings in comparison to management without maintenance. It should also be noted that over the life of both scenarios presented above, driving surface conditions are drastically improved when streets are regularly addressed with preventative maintenance.

The actual serviceable life of any pavement is highly dependent on several factors and will vary from the scenarios presented in Table 1. Furthermore, the point at which a pavement has “failed” is subjective and will vary depending on the expectations of street users and City officials.

Over the past years, an active preventative maintenance program has been in place in Plainview; however, the timing and overall scale of the program does not meet the overall need. As a result, premature weathering of newer pavements is becoming evident. The following sections describe the findings of our field pavement survey.

C. Findings

The bituminous streets in Plainview were evaluated by visually observing the condition of the pavement surface. The pavement was rated using a numerical condition rating system for several types of pavement distress. The rating scale ranged from 10 for a newly surfaced street to 1 for a failed surface. Gravel streets and alleys were not included in this evaluation.

The pavement condition ratings are illustrated in *Appendix B-1*.

Table 2, below, shows a summary of typical recommended maintenance and rehabilitation options based on the current pavement condition rating.

Table 2 – Pavement Conditional Ratings Description		
Conditional Rating	Condition Description	Typical Recommended Maintenance Activity
7 – 10	Excellent to Good	Crack Fill & Seal Coat Program (every 6-8 years)
5 – 6	Good to Fair	Mill & Overlay, Patching as needed
1 – 4	Fair to Very Poor	Full Depth Reconstruction

Table 3, below, provides a summary of the overall pavement condition throughout the city.

Table 3 – Pavement Conditional Ratings Summary		
Conditional Rating	Total Street Length (Miles)	Percentage of Total Miles
7 – 10	9.1	54%
5 – 6	7.1	43%
1 – 4	0.5	3%
Total	16.7	100%

As presented in Table 3, the City has a relatively high proportion (54%) of streets in excellent to good condition (Rating 7 – 10). As discussed previously, the condition of these streets into the future is highly dependent on the City’s ability to provide timely maintenance.

A similar percentage (43%) of streets are designated as fair to good condition (Rating 5 – 6). These streets are beginning to deteriorate more rapidly. Preventative maintenance (such as seal coating and crack filling) within these streets will likely be costly and will not adequately address the needs of the street section. When considering options for pavement management alone, these streets are recommended for bituminous overlays with full depth patching, as needed.

The small remainder of streets with a fair to poor rating have reached a level of deterioration where neither seal coating nor overlays would be appropriate methods of rehabilitation. These streets are generally addressed through a full depth replacement of the pavement surface and aggregate base.

When prioritizing pavement management projects, it is important to first consider the streets in good conditions and continue with a regularly scheduled maintenance program. Once a seal coat and crack fill program is properly funded and in place, a regular overlay and patching program can be funded. For most cities using this approach, these programs exhaust the street maintenance cash budget. As a result, the costlier reconstructions of heavily deteriorated streets are given a minimal amount of attention until a project can be financed for funded with other alternative sources.

Prior to executing an effective pavement management plan, understanding the needs of underground public utility mains is crucial. In many cases, the needs of utilities will drastically change future pavement maintenance activities. The following section contains discussion on utility management, followed by recommendations for combining pavement and utility management into an effective infrastructure management program.

III. UTILITY MANAGEMENT

A. Introduction & Approach

The following contains a brief review of the City of Plainview's current sanitary collection system and water distribution pipe networks. The report does not address the condition of water storage tanks, wells, or treatment systems.

Over the past year, Bolton & Menk has been reviewing record drawing information for the sanitary and watermain pipe networks throughout the community. Information collected from these documents is summarized in this report. The following sections discuss the condition and needs of the water distribution and sanitary sewer pipe networks.

B. Watermain

The water distribution system within the City of Plainview consists of pipe diameters between 4 inches and 12 inches in diameter. Pipe materials consist of mostly cast iron, ductile iron pipe. Generally, pipe installed prior to the 1970s is smaller diameter (4 inch to 6 inch). During the 1970s, most municipal water systems started using ductile iron pipe. To date, only ductile iron watermain has been permitted for use in new developments within Plainview.

Cast iron pipe within the City's water system is over 50 years old. Cast iron of this age tends to lose strength due to corrosion of pipe walls over time. Pipe which is severely corroded is susceptible to watermain breaks resulting in unplanned, costly repairs. In less severe cases, corrosion of the pipe can cause pin holes in pipe walls, leading to water loss within the system.

The City of Plainview should begin the process of replacing small diameter and/or cast iron pipe within the existing water distribution system. Over time, the replacement of this pipe with new 8 inch or larger PVC or ductile iron pipe will reduce the occurrence of watermain breaks, decrease water loss, and provide increased hydraulic conductivity.

In many cases the replacement of watermain is most cost effective if completed with regularly scheduled street reconstruction projects. During these projects, the overlying pavement surface is already being replaced, which provides the opportunity to excavate and replace with new piping. This is also a good opportunity to replace water service lines and curb stops within the public right-of-way. Replacement of service lines during reconstructions allows the City to ensure that piping is buried to adequate depth for frost protection and curb stops are functional.

The layout of the existing water distribution system is illustrated in *Appendix B-2*.

In addition to small diameter pipe and cast-iron pipe replacement, the City should also consider implementing a regular hydrant flushing and valve exercising program. Annual hydrant flushing will improve water quality throughout the system by removing sediment from the system. Most cities, flush hydrants 1-2 times per year. Exercising (opening and closing) valves every 1-2 years also extends the useable life and allows the City to better understand which valves are operable and inoperable for emergency situations.

C. Sanitary Sewer

The existing sanitary sewer collection system within Plainview consists of 8-inch through 24-inch diameter mainline pipe. Pipe materials installed prior to the 1970s consist of vitrified clay pipe (VCP). VCP sanitary sewer typically consists of short (3- to 5-foot) segments of pipe with cement mortar joints. Typically, VCP sanitary sewer is susceptible to increased groundwater infiltration into system, resulting in increased wastewater treatment costs and increased potential for wastewater backups and emergency overflows during heavy rainfall events. In areas with VCP sanitary main, it is common to find concrete block or brick manhole structures in use. These structures are also susceptible to groundwater infiltration.

The City of Plainview will benefit from implementing a sanitary sewer rehabilitation and replacement plan. From a high-level planning standpoint, target areas of the system should generally include those with clay pipe sanitary main.

The layout of the existing sanitary collection system is illustrated in *Appendix B-3*.

Over time, additional information on key problem areas can be added to the details of this report. In years past, Plainview had a regular sanitary sewer cleaning and televising program. Information gathered from televising of mains can be used to further prioritize future improvements to the sanitary sewer system.

Moving forward, the City should consider restarting the televising and cleaning program. This form of inspection allows the City to prioritize sanitary sewer replacements in the future. More importantly, critical failures within the collection system can often be identified and addressed prior to the occurrence of backups. In most cases, Cities with televising and cleaning programs use a 5- to 10-year cycle for all sanitary mains within the City.

Sanitary sewer can be replaced or rehabilitated using a number of different methods. In the most basic forms, these methods include either open excavation replacement or lining methods. If sanitary sewer replacement is planned with other street improvements, open excavation, removal of old piping and replacement with new pipe is the most cost-effective means implementing improvements. In most cases, sanitary services are in similar or worse condition than the main located below the street. For this reason, replacement of sanitary service lines within the public right-of-way should also be planned with sanitary improvement projects.

IV. EXECUTION

As discussed in the pavement management and utility management sections of this report, the infrastructure needs can be broken down into a few separate categories, as summarized in the table below.

Table 4 – Infrastructure Management Programs		
Improvement Type	Infrastructure Type	Goal
Seal Coat/Crack Fill	Pavement	Preserve condition of existing surface
Overlay & Patching	Pavement	Rehabilitate the existing surface
Full Reconstruction	Pavement	Replace the existing surface
	Watermain	Replace small diameter and/or cast-iron pipe
	Sanitary Sewer	Replace clay (VCP) pipe

As provided above, infrastructure management within Plainview can be divided into 3 separate programs including: Preventative Maintenance (Seal Coat & Crack Fill), Bituminous Overlay/Patching, and Full Reconstructions. Additional details for each program are included below.

A. Seal Coat & Crack Fill Program

Regular seal coating and crack filling should be completed for all streets in good or better condition (Rating ≥ 7). As previously discussed, these streets currently make up the majority of streets maintained by the City (54%). These streets will only remain in their current condition with regular maintenance.

Streets to be considered for future seal coating and crack filling are illustrated in **Appendix B-4**. Planning level cost estimates for all streets in the seal coat and crack fill program are included in **Appendix C-1**. It is recommended that the City budget approximately \$70,000 annually for the seal coat and crack seal program. This budget is based on the current street conditions and an average useful life of 7 years between seal coat and crack fill applications.

Please note that many of the streets in the seal coat and crack fill program may require replacement of utilities in the future. Ideally, the City could address those utility needs as soon as possible. For the purposes of this report, it was assumed that utility replacement below good condition streets could be delayed until a future date when the pavement has deteriorated to a level that warrants reconstruction. This type of planning is intended to maximize the value of reconstruction projects.

In the interim, it is recommended that the City continue to maintain these streets as they would any other street in good condition.

B. Overlay & Patching Program

Approximately 43% of the existing streets have a current conditional rating which warrant bituminous overlays and partial pavement patching. These streets have the following in common:

- Pavement Conditional Rating of 5 or 6
- No public utilities below street or utilities below street in satisfactory condition

Please note that streets to be considered for a mill and overlay do not include those with known utility replacement needs below the pavement surface. Streets recommended for a bituminous overlay are illustrated in **Appendix B-4**. Planning level cost estimates are included in **Appendix C-2**. Currently, there is approximately \$1.2 million worth of mill and overlay projects recommended. The City may implement these improvements in phases; however, failure to address these streets within the next 5 to 10 years will likely result in deterioration of the pavement, requiring more robust repairs (such as a full reconstruction).

Although completing a mill and overlay project over older utilities is not typically recommended, there may be cases in the future where a street is deteriorating rapidly while funds are insufficient for utility replacement. In these cases, the City will be taking a risk that the utility in question may fail shortly after the street improvements are completed. This is sometimes unavoidable; however, as a general rule, this type of planning should be avoided.

C. Reconstruction Program

Street and utility reconstruction projects are expensive and invasive. When planning for these projects, it is important that adequate funds are available. Proper timing of these projects will also ensure that a high degree of value with each project.

As the City has recently discussed with their financial advisor, a capital improvement plan can be prepared to understand the size of each project and the frequency at which reconstruction projects can be competed. Once this is understood, the City can move forward with selecting an actual project.

The Street Reconstruction Map is illustrated in **Appendix B-5**. These areas are characterized based on the need for a reconstruction. These categories include the following:

- *Reconstruction based on street and utility condition*
 - Street requires overlay, patching or reconstruction
 - Sanitary and/or watermain requires replacement
- *Reconstruction based on unsatisfactory utility condition only*
 - Street in good condition, no current need for reconstruction/rehabilitation
 - Sanitary and/or watermain requires replacement

- *Reconstruction based on unsatisfactory street condition only*
 - Street requires reconstruction
 - Sanitary and/or watermain in satisfactory condition or does not exist

Complete excavation and replacement of a pavement surface provides an opportunity for more cost effective underground utility replacement. Streets requiring a reconstruction based on poor conditions of both street and utility conditions will provide the most value to the City. In comparison, streets with unsatisfactory utility conditions only may be delayed, utilizing the remaining overlying pavement life while other improvements are completed.

A complete list of all streets currently recommended for reconstruction is provided in **Appendix C-3**. Once reconstruction projects are added to the 5-year capital improvement plan, this list can be used to select individual projects, while understanding approximate total project costs.

Based on the reconstruction cost estimates provided, over \$44 million of reconstruction projects have a pavement, sanitary sewer, and/or watermain need to address in the future. Of this, approximately \$23 million are higher priority projects with both pavement and utility needs. Although these costs are high and will not be entirely addressed within a standard capital improvement planning period of 5 to 10 years, it is important to note that the City will benefit from beginning to address these needs. Over time, improving these streets will result in less costly maintenance requirements and an overall increase to the quality of the street and utility systems.

The timing and size of each improvement project can be determined by the City's financial advisor when preparing the Capital Improvement Plan. For the sake of discussion, most cities the size of Plainview implement street and utility improvement projects between \$1 million and \$4 million. Projects smaller than \$1 million can sometimes result in increased cost per foot of street, due to some of the fixed costs (i.e. mobilization, portions of design costs, etc.) associated with any project.

Although street improvement projects are most typically financed through the sale of bonds, other outside funding sources do arise from time to time. In some cases, these funding opportunities offer grants. The information contained in this report will allow the City to respond to funding/grant opportunities quickly.

V. CONCLUSION & RECOMMENDATIONS

This report is intended to be used for high level pavement and utility management. The recommendations below summarize the key takeaways from this report.

- Implement an on-going **Seal Coat and Crack Fill Program** using cost estimates and street conditional ratings from this report.
 - Applies to street rating of 7 or more.
 - Preventative maintenance budgeting can be placed on a 7-year average rotation.
- Implement an on-going **Bituminous Overlay (and Patching) Program** using cost estimates and street conditional ratings from this report.
 - Applies to street rating of 5 or 6.
 - Complete recommended overlay projects within the next 5-10 years.
- Develop a **Street and Utility Capital Improvement Plan** for budgeting reconstruction projects.
 - Once Capital Improvement Plan is developed, prioritize streets with both pavement and utility needs for individual project selection.

- Budgeting for pavement management can be optimized by **aggressively targeting preservation improvements (Seal Coat and Crack Fill) first.**
- Implement Utility management programs such as hydrant flushing, valve exercising and sanitary sewer televising and cleaning.
- Information from **this report should be updated at least every five years,** or with every regularly scheduled reconstruction project, as part of the project selection process.

Appendix A: Pavement Management Terminology

Pavement Management Terminology

Crack Fill – A crack fill repair consists of routing cracks to create a reservoir that is filled with a hot sealant. This procedure reduces the amount of moisture and debris entering the pavement sub-grade through surface cracks. This protection provides for a more stable roadway base and can reduce pavement breakup and potholes due to the effects of freeze/thaw cycles. The City has used crack filling in the past to address pavement cracking. Crack filling is effective for a few years and then must be repeated. It is, however, a very effective way for lengthening the pavement life.

Seal Coat – A seal coat consists of an application of bituminous material on the roadway followed by a coating of fine aggregate. The aggregate (or “chip”) is typically left on the roadway for a period of time to allow for traffic to drive on it, before a road sweeper is used to remove any excess and loose aggregate. This treatment method is used to minimize the infiltration of water through the surface, reduce surface oxidation, and potentially improve skid resistance/surface roughness of the pavement. This treatment provides for an extension of the pavement surface life by minimizing the effects of the sun and weather on the existing bituminous material and re-establishing a wearing surface with a desired level of friction. This approach will not prevent ultimate pavement failure due to age or poor sub-grade conditions. The life expectancy of a seal coat is approximately 6 to 8 years. It is also recommended to seal coat new pavements within 6 to 8 years of initial construction.

Patching – Provides for the correction of localized pavement deterioration and is generally done to “buy time” until a rehabilitation or reconstruction procedure can be done. Street patching is generally cost effective on small sections of roadway that have experienced pavement failure due to a soft base material or other contributing conditions. A roadway’s need for patching generally increases each year and therefore the annual costs of street patching exceed the cost of major maintenance procedures at some point. Patching also provides for a smoother driving surface and extends the life of the pavement. From past practice, we understand the City has used patching most commonly to repair failed areas.

Edge Mill and Overlay, Mill and Overlay or Simple Overlay – A mill and overlay includes the milling (grinding and removal) of the upper 1.5 to 3 inches of pavement and placement of a new layer of asphalt pavement to maintain or increase from pre-existing thicknesses. In urban sections (streets with curb & gutter), edge milling is done adjacent to the curb and gutter to maintain the current surface elevations and then a pavement overlay is placed. In some situations, the City may want to consider a mill and inlay approach which would result in the removal, by milling, of a thin layer of pavement in the driving lanes and replacement of the bituminous layer.

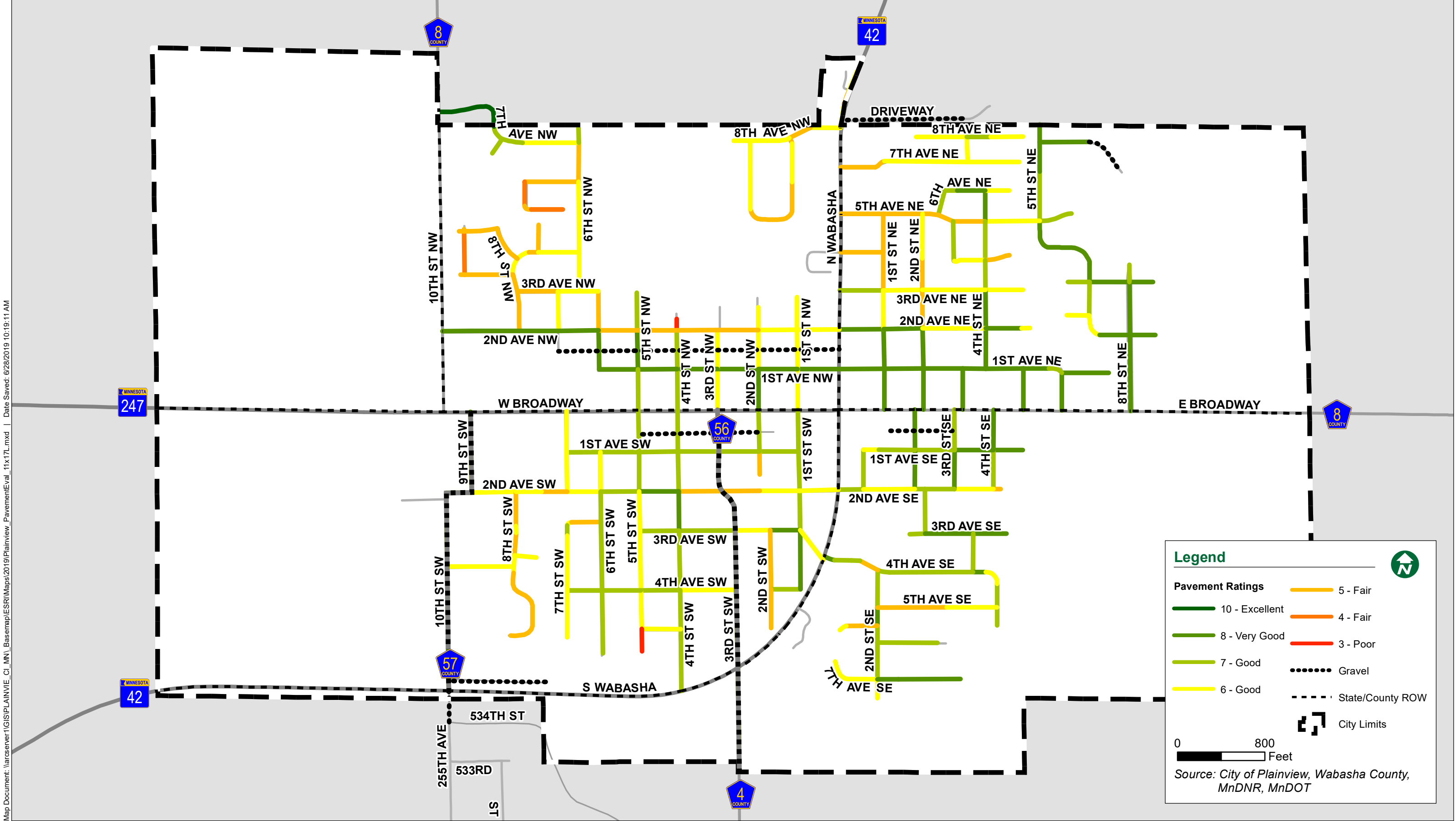
Mill and overlay treatment can extend the life of the roadway by adding additional bituminous material to the surface, reestablishing the cross slope of the road to promote drainage and create a smooth driving surface. A mill and overlay does not address existing pavement cracking in the underlying pavement. Generally, these cracks will propagate through (reflective cracking) the new overlay pavement appearing in the new surface in as soon as 6 months but more typically within 1 to 3 years, at which point crack sealing would be necessary. The life expectancy of a mill and overlay can range from approximately 10 to 20 years, before the pavement has reached the original deficient condition. The life expectancy depends on existing pavement structure, traffic and other factors.

Full Reconstruction – A street reconstruction includes the complete removal of existing layers of asphalt and aggregate base and replacement with new base and pavement. In many cases, a portion of the existing subgrade soils are removed and replaced with a structural sand/rock layer (subgrade correction), and portions or all of the curb and gutter may be replaced in urban sections. This option requires the largest investment and is typically applied in areas where pavements are showing significant areas of major distress or the underlying municipal utility conditions warrant replacement. However, this option provides a period of 20-30 years before major rehabilitation is required.

Appendix B: Figures



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Legend

Pavement Ratings

10 - Excellent	5 - Fair
8 - Very Good	4 - Fair
7 - Good	3 - Poor
6 - Good	

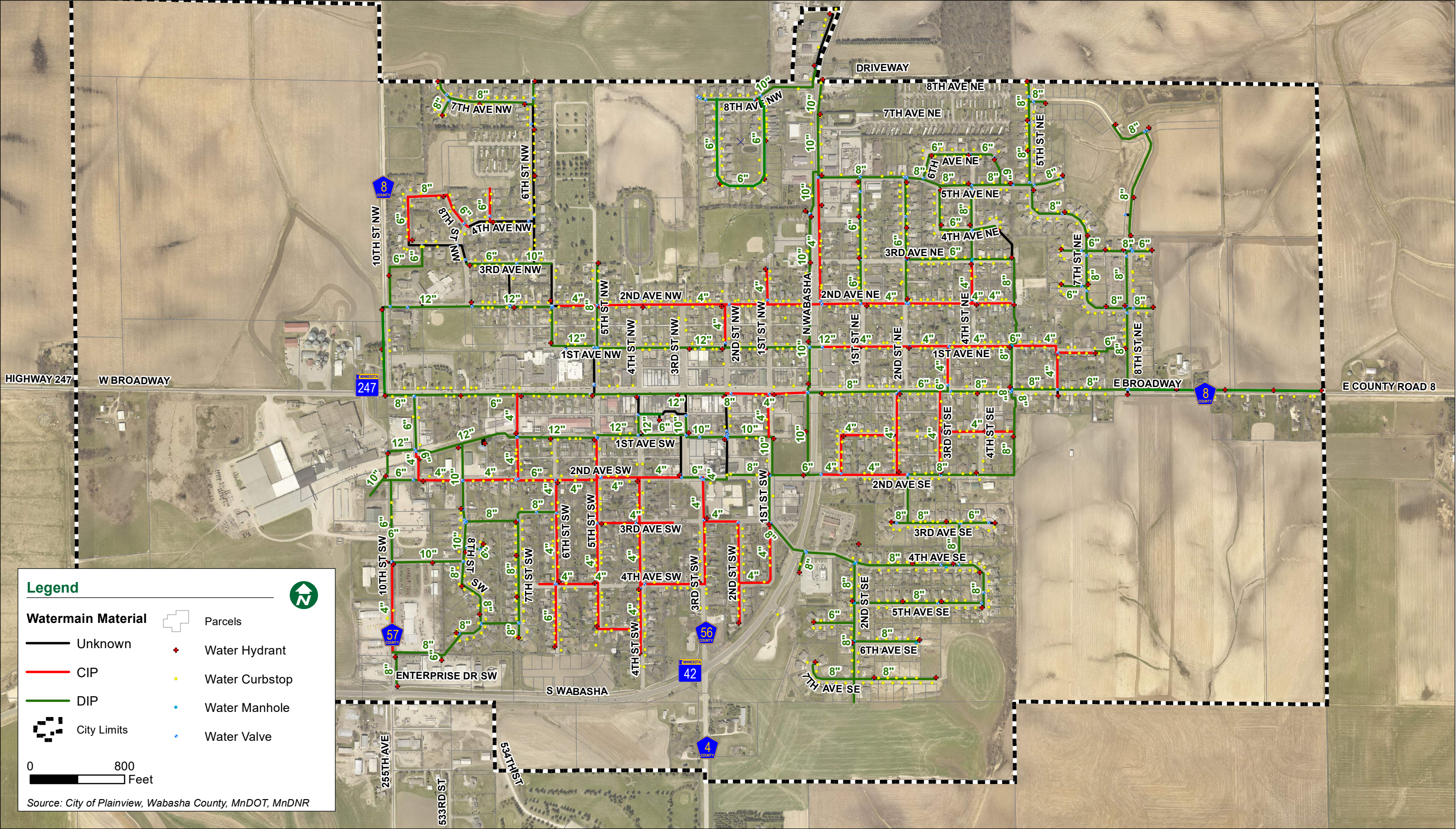
..... Gravel

- - - - - State/County ROW

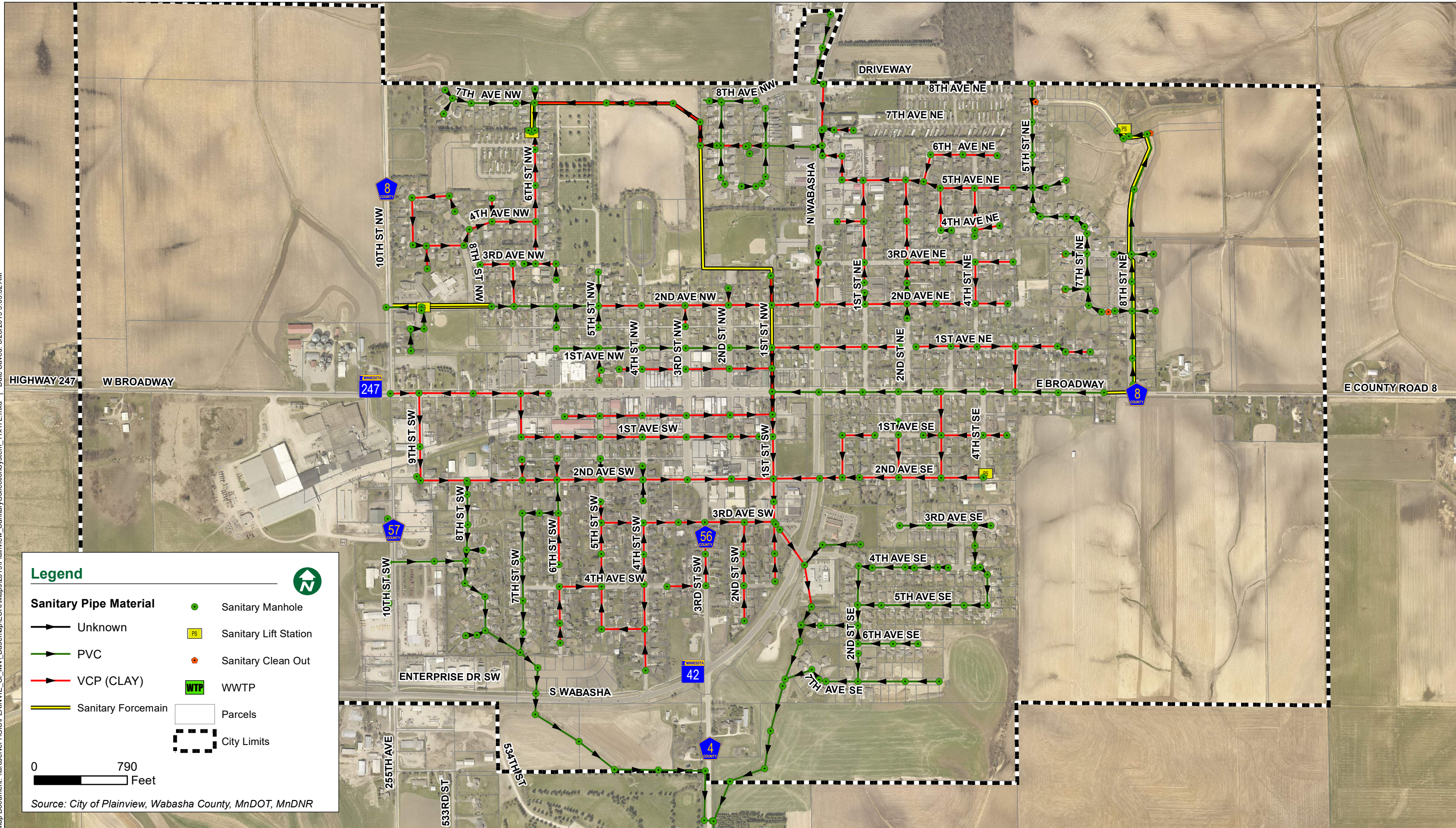
City Limits

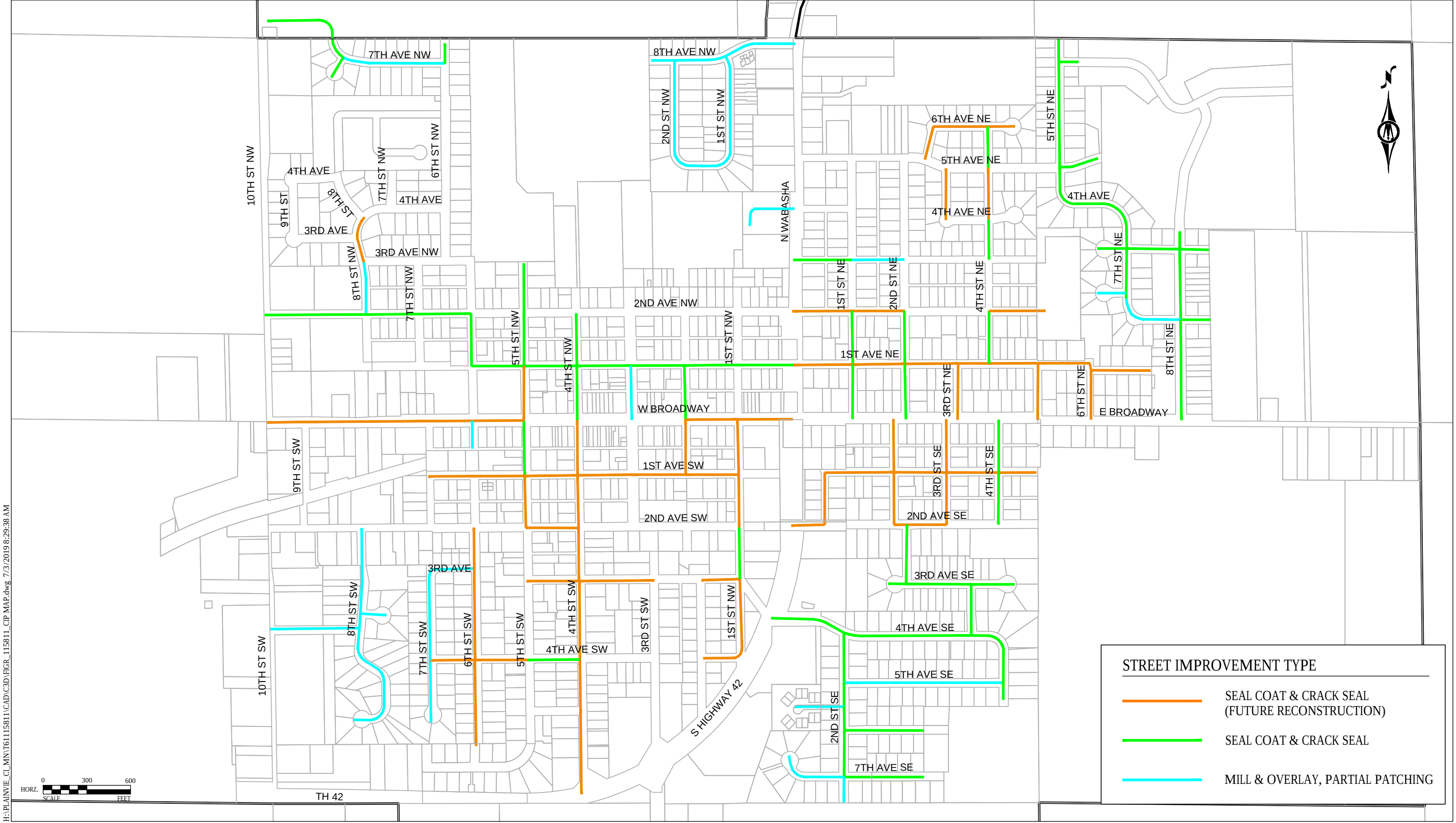
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Source: City of Plainview, Wabasha County, MnDNR, MnDOT



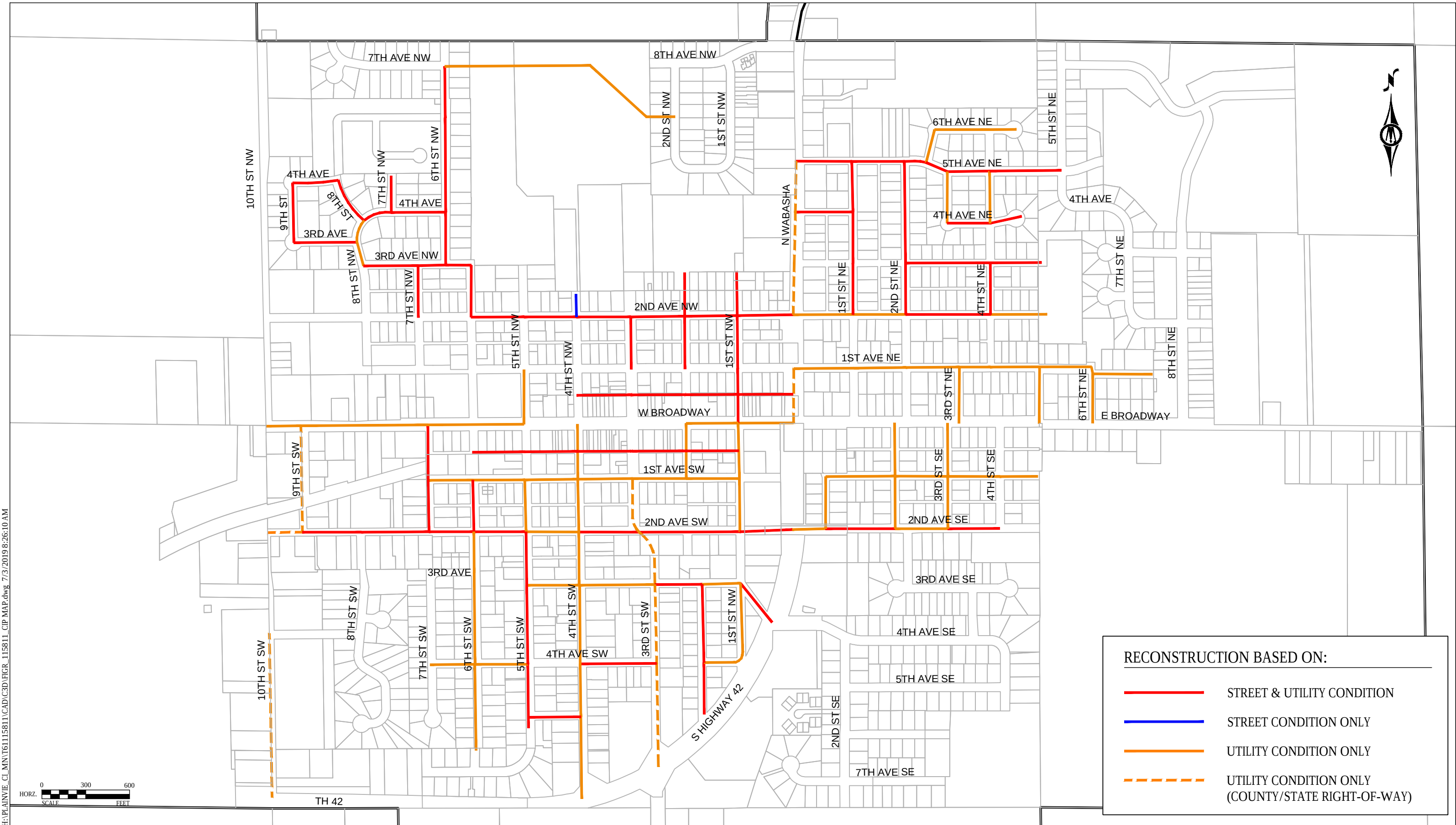
Map Document: \\arcserver1\GIS\PLAINVIEW_CI_MN\Basemap\ESRI\Maps\2019\Plainview_SanitaryCollectionSystem_11x17L.mxd | Date Saved: 6/28/2019 9:09:32 AM





STREET IMPROVEMENT TYPE

Orange line	SEAL COAT & CRACK SEAL (FUTURE RECONSTRUCTION)
Green line	SEAL COAT & CRACK SEAL
Cyan line	MILL & OVERLAY, PARTIAL PATCHING



Appendix C: Cost Estimates

APPENDIX C-1



INFRASTRUCTURE MANAGEMENT PLAN

SEAL COAT/CRACK FILL PROJECTS (by street segment)

CITY OF PLAINVIEW, MN

Street	From	To	Street Length	Street Width	Pavement Area	Seal Coat & Crack Fill Estimated Cost	Street Rating
			(Ft)	(Ft)	(Sq. Yd)	\$2.95 Per Sq. Yd	
East-West Streets							
7th Ave NW*	North terminus	Cul-de-sac	1000	40	4120	\$12,154.00	7
7th Ave NE	5th St NE	East terminus	125	36	460	\$1,357.00	9
6th Ave NE*	5th Ave NE	4th St NE	660	36	2420	\$7,139.00	7
6th Ave NE*	4th St NE	East terminus	240	36	880	\$2,596.00	7
5th Ave NE	5th St NE	East terminus	300	42	1300	\$3,835.00	7
4th Ave NE	5th Ave NE	3rd Ave NE	880	36	3230	\$9,528.50	7
3rd Ave NE	Wabasha St	1st St NE	385	36	1420	\$4,189.00	7
3rd Ave NE	West terminus	7th St NE	200	36	740	\$2,183.00	7
3rd Ave NE	7th St NE	8th St NE	360	36	1320	\$3,894.00	7
3rd Ave NE	8th St NE	East terminus	200	36	740	\$2,183.00	7
2nd Ave NW	10th St NW	8th St NW	690	36	2530	\$7,463.50	10
2nd Ave NW	8th St NW	7th St NW	370	36	1360	\$4,012.00	10
2nd Ave NW	7th St NW	6th St NW	375	36	1380	\$4,071.00	10
2nd Ave NE	Wabasha St	1st St NE	400	36	1470	\$4,336.50	7
2nd Ave NE	1st St NE	2nd St NE	350	36	1290	\$3,805.50	8
2nd Ave NE	4th St NE	Northeast terminus	440	36	1620	\$4,779.00	8
2nd Ave NE	8th St NE	East terminus	200	36	740	\$2,183.00	8
1st Ave NW	6th St NW	5th St NW	360	42	1560	\$4,602.00	7
1st Ave NW	5th St NW	4th St NW	355	42	1540	\$4,543.00	7
1st Ave NW	4th St NW	3rd St NW	385	42	1670	\$4,926.50	8
1st Ave NW	3rd St NW	2nd St NW	365	36	1340	\$3,953.00	7
1st Ave NW	2nd St NW	1st St NW	350	36	1290	\$3,805.50	7
1st Ave NW	1st St NW	Wabasha	385	36	1420	\$4,189.00	7
1st Ave NE	Wabasha	1st St NE	400	36	1470	\$4,336.50	8
1st Ave NE	1st St NE	2nd St NE	360	36	1320	\$3,894.00	7
1st Ave NE	2nd St NE	3rd St NE	375	36	1380	\$4,071.00	8
1st Ave NE	3rd St NE	4th St NE	215	36	790	\$2,330.50	7
1st Ave NE	4th St NE	5th St NE	330	36	1210	\$3,569.50	7
1st Ave NE	5th St NE	6th St NE	380	36	1400	\$4,130.00	7
1st Ave NE	6th St NE	East Terminus	415	36	1530	\$4,513.50	7
1st Ave SW	7th St SW	6th St SW	310	36	1140	\$3,363.00	7
1st Ave SW	6th St SW	5th St SW	355	36	1310	\$3,864.50	7
1st Ave SW	5th St SW	4th St SW	360	36	1320	\$3,894.00	7
1st Ave SW	4th St SW	3rd St SW	375	36	1380	\$4,071.00	7
1st Ave SW	3rd St SW	2nd St SW	375	36	1380	\$4,071.00	7
1st Ave SW	2nd St SW	1st St SW	350	36	1290	\$3,805.50	7
1st Ave SE	1st St SE	2nd St SE	500	36	1840	\$5,428.00	7
1st Ave SE	2nd St SE	3rd St SE	400	36	1470	\$4,336.50	7
1st Ave SE	3rd St SE	4th St SE	315	36	1160	\$3,422.00	7
1st Ave SE	4th St SE	East terminus	260	36	960	\$2,832.00	8
2nd Ave SW	5th St SW	4th St SW	365	36	1340	\$3,953.00	8
2nd Ave SE	Wabahsa St	1st St SE	225	36	830	\$2,448.50	7
2nd Ave SE	2nd St SE	3rd St SE	360	36	1320	\$3,894.00	7
3rd Ave SW	5th St SW	4th St SW	350	36	1290	\$3,805.50	7
3rd Ave SW	4th St SW	3rd St SW	520	36	1910	\$5,634.50	7
3rd Ave SW	2nd St SW	1st St SW	600	36	2200	\$6,490.00	7
3rd Ave SE*	2nd St SE	3rd St SE	590	36	2170	\$6,401.50	8
3rd Ave SE*	3rd St SE	East terminus	340	36	1250	\$3,687.50	8

APPENDIX C-1



INFRASTRUCTURE MANAGEMENT PLAN

SEAL COAT/CRACK FILL PROJECTS (by street segment)

CITY OF PLAINVIEW, MN

Street	From	To	Street Length	Street Width	Pavement Area	Seal Coat & Crack Fill Estimated Cost	Street Rating
			(Ft)	(Ft)	(Sq. Yd)	\$2.95 Per Sq. Yd	
4th Ave SW	7th St SW	6th St SW	310	36	1140	\$3,363.00	7
4th Ave SW	6th St SW	5th St SW	365	36	1340	\$3,953.00	7
4th Ave SW	5th St SW	4th St SW	355	36	1310	\$3,864.50	7
4th Ave SW	2nd St SW	1st St SW	250	36	920	\$2,714.00	7
4th Ave SE	Wabasha St	2nd St SE	500	36	1840	\$5,428.00	7
4th Ave SE	2nd St SE	3rd St SE	900	36	3300	\$9,735.00	7
4th Ave SE	3rd St SE	4th St SE	300	36	1100	\$3,245.00	7
6th Ave SE	2nd St SE	East terminus	550	35	1960	\$5,782.00	7
7th Ave SE	2nd St SE	East terminus	190	36	700	\$2,065.00	8
North-South Streets							
6th St SW	South terminus	4th Ave SW	565	36	2080	\$6,136.00	7
6th St SW	4th Ave SW	3rd Ave SW	640	36	2350	\$6,932.50	7
6th St SW	3rd Ave SW	2nd Ave SW	280	36	1030	\$3,038.50	7
6th St NW	1st Ave NW	2nd Ave NW	360	20	680	\$2,006.00	7
6th St NW	7th Ave NW	North terminus	135	36	500	\$1,475.00	7
5th St SW	2nd Ave SW	1st Ave SW	370	36	1360	\$4,012.00	7
5th St SW	1st Ave SW	W Broadway	370	36	1360	\$4,012.00	7
5th St NW	W Broadway	1st Ave NW	380	36	1400	\$4,130.00	7
5th St NW	1st Ave NW	2nd Ave NW	360	36	1320	\$3,894.00	7
5th St NW	2nd Ave NW	Cemetery	360	36	1320	\$3,894.00	7
4th St SW	Wabasha St	5th Ave SW	530	36	1950	\$5,752.50	7
4th St SW	5th Ave SW	4th Ave SW	355	36	1310	\$3,864.50	7
4th St SW	4th Ave SW	3rd Ave SW	550	36	2020	\$5,959.00	7
4th St SW	3rd Ave SW	2nd Ave SW	365	36	1340	\$3,953.00	8
4th St SW	2nd Ave SW	1st Ave SW	355	36	1310	\$3,864.50	7
4th St SW	1st Ave SW	W Broadway	375	42	1630	\$4,808.50	7
4th St NW	W Broadway	1st Ave NW	385	42	1670	\$4,926.50	7
4th St NW	1st Ave NW	2nd Ave NW	360	42	1560	\$4,602.00	7
2nd St NW	W Broadway	1st Ave NW	380	42	1650	\$4,867.50	7
1st St SW	4th Ave SW	3rd Ave SW	530	36	1950	\$5,752.50	8
1st St SW	3rd Ave SW	2nd Ave SW	355	42	1540	\$4,543.00	7
1st St SW	2nd Ave SW	1st Ave SW	370	42	1610	\$4,749.50	7
1st St SW	1st Ave SW	W Broadway	375	42	1630	\$4,808.50	7
1st St SE	2nd Ave SE	1st Ave SE	360	36	1320	\$3,894.00	7
1st St NE	E Broadway	1st Ave NE	365	36	1340	\$3,953.00	7
1st St NE	1st Ave NE	2nd Ave NE	370	36	1360	\$4,012.00	7
2nd St SE	7th Ave SE	6th Ave SE	320	36	1180	\$3,481.00	7
2nd St SE	6th Ave SE	Orchard Manor Dr SE	160	36	590	\$1,740.50	7
2nd St SE	Orchard Manor Dr SE	5th Ave SE	260	36	960	\$2,832.00	7
2nd St SE	5th Ave SE	4th Ave SE	345	36	1270	\$3,746.50	7
2nd St SE	3rd Ave SE	2nd Ave SE	400	36	1470	\$4,336.50	8
2nd St SE	2nd Ave SE	1st Ave SE	355	36	1310	\$3,864.50	8
2nd St SE	1st Ave SE	E Broadway	370	36	1360	\$4,012.00	7
2nd St NE	E Broadway	1st Ave NE	375	36	1380	\$4,071.00	8
2nd St NE	1st Ave NE	2nd Ave NE	365	36	1340	\$3,953.00	8
3rd St SE	4th Ave SE	3rd Ave SE	350	36	1290	\$3,805.50	7
3rd St SE	2nd Ave SE	1st Ave SE	360	36	1320	\$3,894.00	8
3rd St SE	1st Ave SE	E Broadway	370	36	1360	\$4,012.00	7
3rd St NE	E Broadway	1st Ave NE	380	36	1400	\$4,130.00	7
3rd St NE*	4th Ave NE	5th Ave NE	395	36	1450	\$4,277.50	7

APPENDIX C-1

 BOLTON & MENK INFRASTRUCTURE MANAGEMENT PLAN SEAL COAT/CRACK FILL PROJECTS (by street segment) CITY OF PLAINVIEW, MN							
Street	From	To	Street Length	Street Width	Pavement Area	Seal Coat & Crack Fill Estimated Cost	Street Rating
			(Ft)	(Ft)	(Sq. Yd)	\$2.95 Per Sq. Yd	
4th St SE	South Terminus	5th Ave SE	175	36	650	\$1,917.50	7
4th St SE	5th Ave SE	4th Ave SE	480	36	1760	\$5,192.00	7
4th St SE	2nd Ave SE	1st Ave SE	360	36	1320	\$3,894.00	7
4th St SE	1st Ave SE	E Broadway	270	36	990	\$2,920.50	7
4th St NE	1st Ave NE	2nd Ave NE	366	36	1350	\$3,982.50	8
4th St NE	3rd Ave NE	4th Ave NE	275	36	1010	\$2,979.50	7
4th St NE	4th Ave NE	5th Ave NE	355	36	1310	\$3,864.50	7
4th St NE	5th Ave NE	6th Ave NE	280	36	1030	\$3,038.50	7
5th St NE	E Broadway	1st Ave NE	380	36	1400	\$4,130.00	7
5th St NE	5th Ave NE	North terminus	880	36	3230	\$9,528.50	7
6th St NE	E Broadway	1st Ave NE	365	36	1340	\$3,953.00	7
7th St NE*	2nd Ave NE	3rd Ave NE	510	36	1870	\$5,516.50	7
8th St NE	E Broadway	2nd Ave NE	690	60	4370	\$12,891.50	8
8th St NE	2nd Ave NE	3rd Ave NE	490	60	3110	\$9,174.50	7
8th St NE	3rd Ave NE	North terminus	140	60	890	\$2,625.50	7
Total Estimated Cost Per 7-Year Life Cycle						\$489,729.50	
Annual Seal Coating Cost						\$70,000.00	

APPENDIX C-2



**BOLTON
& MENK**

INFRASTRUCTURE MANAGEMENT PLAN

MILL & OVERLAY PROJECTS (by street segment)

CITY OF PLAINVIEW, MN

Street	From	To	Street Length	Street Width	Pavement Area	Mill & Overlay, Partial Patch Estimated Cost	Street Rating
			(Ft)	(Ft)	(Sq. Yd)	\$29.00 Per Sq. Yd	
East-West Streets							
8th Ave NW	West terminus	2nd St NW	160	36	590	\$17,110.00	6
8th Ave NW	2nd St NW	1st St NW	350	36	1280	\$37,120.00	6
8th Ave NW	1st St NW	Wabasha St	485	36	1780	\$51,620.00	5
7th Ave NW	Cul-de-sac	6th St NW	1000	40	4110	\$119,190.00	6
4th Ave NW	Pool Parking Lot	Wabasha St	400	24	930	\$26,970.00	5
3rd Ave NE	1st St NE	2nd St NE	355	36	1300	\$37,700.00	6
2nd Ave NE	7th St NE	8th St NE	330	36	1210	\$35,090.00	6
3rd Ave SW	7th St SW	6th St SW	300	36	1100	\$31,900.00	5
4th Ave SW	10th St SW	8th St SW	605	36	2220	\$64,380.00	6
5th Ave SE	2nd St SE	4th St SE	1115	36	4090	\$118,610.00	5
Orchard Manor Dr SE	West cul-de-sac	2nd St SE	370	22	780	\$22,620.00	6
7th Ave SE	West cul-de-sac	2nd St SE	520	36	1910	\$55,390.00	6
North-South Streets							
8th St SW	South cul-de-sac	4th Ave SW	905	36	3320	\$96,280.00	5
8th St SW	4th Ave SW	2nd Ave SW	680	36	2490	\$72,210.00	5
8th St NW	2nd Ave NW	3rd Ave NW	350	36	1280	\$37,120.00	5
7th St SW	South cul-de-sac	4th Ave SW	455	36	1670	\$48,430.00	5
7th St SW	4th Ave SW	3rd Ave SW	625	36	2290	\$66,410.00	6
6th St SW	1st Ave SW	W Broadway	190	36	700	\$20,300.00	6
3rd St NW	W Broadway	1st Ave NW	370	42	1600	\$46,400.00	5
2nd St NW	1st St NW	8th Ave NW	875	36	3210	\$93,090.00	6
1st St NW	2nd St NW	8th Ave NW	900	36	3300	\$95,700.00	6
2nd St SE	South terminus	7th Ave SE	175	36	640	\$18,560.00	6
Total Estimated Mill & Overlay Costs						\$1,212,200.00	

Notes: 1) Refer to attached Street Maintenance Map for illustrations of referenced projects.

2) Costs presented above are in 2019 dollars including estimated design and construction.

3) Costs based on 2" mill & overlay with 15% of surface area requiring a full depth pavement patch, contingency and engineering.

4) Pricing for mill & overlay projects is highly dependent on bituminous prices.



APPENDIX C-3

INFRASTRUCTURE MANAGEMENT PLAN

RECONSTRUCTION PROJECTS (by street segment)

CITY OF PLAINVIEW, MN

Street	From	To	Improvement Length (ft) & Cost										Estimated Total Project Cost	Reconstruction Based On:	
		Improvement	Street & Site Improvements				Utility Improvements							Utility Condition	Street Condition
			36' Street w/ Curb	40' Street w/Curb	18' Alley	Total Street Cost	Storm Sewer	Storm Sewer Cost	Sanitary Sewer	Sanitary Sewer Cost	Watermain Cost	Watermain Cost			
East-West Streets															
7th Ave NW	6th St NW	2nd St NW	0			\$0.00	0	\$0.00	1700	\$255,000.00	0	\$0.00	\$255,000.00		
6th Ave NE	5th Ave NE	4th St NE	660			\$310,200.00	660	\$85,800.00	600	\$90,000.00	520	\$78,000.00	\$564,000.00		
6th Ave NE	4th St NE	East terminus	240			\$112,800.00	240	\$31,200.00	200	\$30,000.00	250	\$37,500.00	\$211,500.00		
5th Ave NE	Wabasha St	1st St NE		375		\$183,750.00	375	\$48,750.00	187.5	\$28,125.00	375	\$56,250.00	\$316,875.00		
5th Ave NE	1st St NE	2nd St NE		350		\$171,500.00	350	\$45,500.00	350	\$52,500.00	350	\$52,500.00	\$322,000.00		
5th Ave NE	2nd St NE	3rd St NE		300		\$147,000.00	300	\$39,000.00	300	\$45,000.00	300	\$45,000.00	\$276,000.00		
5th Ave NE	3rd St NE	4th St NE		285		\$139,650.00	285	\$37,050.00	285	\$42,750.00	285	\$42,750.00	\$262,200.00		
5th Ave NE	4th St NE	5th St NE		500		\$245,000.00	500	\$65,000.00	500	\$75,000.00	600	\$90,000.00	\$475,000.00		
4th Ave NW	9th St NW	8th St NW	390			\$183,300.00	390	\$50,700.00	315	\$47,250.00	315	\$47,250.00	\$328,500.00		
4th Ave NW	8th St NW	6th St NW	550			\$258,500.00	550	\$71,500.00	550	\$82,500.00	550	\$82,500.00	\$495,000.00		
4th Ave NE	Wabasha	1st St NE	385			\$180,950.00	385	\$50,050.00	300	\$45,000.00	0	\$0.00	\$276,000.00		
4th Ave NE	3rd St NE	4th St NE	275			\$129,250.00	275	\$35,750.00	275	\$41,250.00	275	\$41,250.00	\$247,500.00		
4th Ave NE	4th St NE	East terminus	270			\$126,900.00	270	\$35,100.00	210	\$31,500.00	155	\$23,250.00	\$216,750.00		
3rd Ave NW	9th St NW	8th St NW	505			\$237,350.00	505	\$65,650.00	505	\$75,750.00	505	\$75,750.00	\$454,500.00		
3rd Ave NW	8th St NW	7th St NW	375			\$176,250.00	375	\$48,750.00	375	\$56,250.00	375	\$56,250.00	\$337,500.00		
3rd Ave NW	7th St NW	6th St NW	365			\$171,550.00	365	\$47,450.00	365	\$54,750.00	365	\$54,750.00	\$328,500.00		
3rd Ave NE	2nd St NE	4th St NE	575			\$270,250.00	575	\$74,750.00	575	\$86,250.00	575	\$86,250.00	\$517,500.00		
3rd Ave NE	4th St NE	East Terminus	340			\$159,800.00	340	\$44,200.00	340	\$51,000.00	340	\$51,000.00	\$306,000.00		
2nd Ave NW	6th St NW	5th St NW	360			\$169,200.00	360	\$46,800.00	360	\$54,000.00	360	\$54,000.00	\$324,000.00		
2nd Ave NW	5th St NW	4th St NW	350			\$164,500.00	350	\$45,500.00	350	\$52,500.00	350	\$52,500.00	\$315,000.00		
2nd Ave NW	4th St NW	3rd St NW	365			\$171,550.00	365	\$47,450.00	365	\$54,750.00	365	\$54,750.00	\$328,500.00		
2nd Ave NW	3rd St NW	2nd St NW	375			\$176,250.00	375	\$48,750.00	375	\$56,250.00	375	\$56,250.00	\$337,500.00		
2nd Ave NW	2nd St NW	1st St NW	360			\$169,200.00	360	\$46,800.00	360	\$54,000.00	360	\$54,000.00	\$324,000.00		
2nd Ave NW	1st St NW	Wabasha St	380			\$178,600.00	380	\$49,400.00	380	\$57,000.00	380	\$57,000.00	\$342,000.00		
2nd Ave NE	Wabasha St	1st St NE	400			\$188,000.00	400	\$52,000.00	400	\$60,000.00	400	\$60,000.00	\$360,000.00		
2nd Ave NE	1st St NE	2nd St NE	350			\$164,500.00	350	\$45,500.00	350	\$52,500.00	350	\$52,500.00	\$315,000.00		
2nd Ave NE	2nd St NE	4th St NE	580			\$272,600.00	580	\$75,400.00	580	\$87,000.00	580	\$87,000.00	\$522,000.00		
2nd Ave NE	4th St NE	Northeast terminus	440			\$206,800.00	440	\$57,200.00	440	\$66,000.00	440	\$66,000.00	\$396,000.00		
1st Ave NE	Wabasha St	1st St NE	400			\$188,000.00	400	\$52,000.00	400	\$60,000.00	400	\$60,000.00	\$360,000.00		
1st Ave NE	1st St NE	2nd St NE	360			\$169,200.00	360	\$46,800.00	360	\$54,000.00	360	\$54,000.00	\$324,000.00		
1st Ave NE	2nd St NE	3rd St NE	375			\$176,250.00	375	\$48,750.00	375	\$56,250.00	375	\$56,250.00	\$337,500.00		
1st Ave NE	3rd St NE	4th St NE	215			\$101,050.00	215	\$27,950.00	215	\$32,250.00	215	\$32,250.00	\$193,500.00		
1st Ave NE	4th St NE	5th St NE	330			\$155,100.00	330	\$42,900.00	330	\$49,500.00	330	\$49,500.00	\$297,000.00		
1st Ave NE	5th St NE	6th St NE	380			\$178,600.00	380	\$49,400.00	380	\$57,000.00	380	\$57,000.00	\$342,000.00		
1st Ave NE	6th St NE	East Terminus	415			\$195,050.00	415	\$53,950.00	415	\$62,250.00	415	\$62,250.00	\$373,500.00		
Alley	5th St NW	4th St NW	200			\$94,000.00	0	\$0.00	200	\$30,000.00	0	\$0.00	\$124,000.00		
Alley	4th St NW	3rd St NW	380			\$178,600.00	0	\$0.00	380	\$57,000.00	0	\$0.00	\$235,600.00		
Alley	3rd St NW	2nd St NW	360			\$169,200.00	0	\$0.00	360	\$54,000.00	0	\$0.00	\$223,200.00		
Alley	2nd St NW	1st St NW	360			\$169,200.00	0	\$0.00	360	\$54,000.00	0	\$0.00	\$223,200.00		
W Broadway	10th St NW	9th St SW	MNDOT			\$0.00	240	\$31,200.00	240	\$36,000.00	240	\$36,000.00	\$103,200.00		
W Broadway	9th St SW	7th St SW	MNDOT			\$0.00	860	\$111,800.00	860	\$129,000.00	860	\$129,000.00	\$369,800.00		
W Broadway	7th St SW	6th St SW	MNDOT			\$0.00	300	\$39,000.00	300	\$45,000.00	300	\$45,000.00	\$129,000.00		
W Broadway	6th St SW	5th St SW	MNDOT			\$0.00	370	\$48,100.00	0	\$0.00	370	\$55,500.00	\$103,600.00		
W Broadway	2nd St SW	1st St SW	MNDOT			\$0.00	360	\$46,800.00	0	\$0.00	360	\$54,000.00	\$100,800.00		
W Broadway	1st St SW	Wabasha St	MNDOT			\$0.00	380	\$49,400.00	380	\$57,000.00	380	\$57,000.00	\$163,400.00		

BOLTON & MENK INFRASTRUCTURE MANAGEMENT PLAN RECONSTRUCTION PROJECTS (by street segment) CITY OF PLAINVIEW, MN															
Street	From	To	Improvement Length (ft) & Cost										Estimated Total Project Cost	Reconstruction Based On:	
		Improvement	Street & Site Improvements				Utility Improvements							Utility Condition	Street Condition
			36' Street w/ Curb	40' Street w/Curb	18' Alley	Total Street Cost	Storm Sewer	Storm Sewer Cost	Sanitary Sewer	Sanitary Sewer Cost	Watermain Cost	Watermain Cost			
							Cost per Lineal Foot		\$470.00		\$490.00				
Alley	6th St SW	5th St SW			355	\$71,000.00	0	\$0.00	355	\$53,250.00	0	\$0.00	\$124,250.00		
Alley	5th St SW	4th St SW			360	\$72,000.00	0	\$0.00	360	\$54,000.00	0	\$0.00	\$126,000.00		
Alley	4th St SW	3rd St SW			375	\$75,000.00	0	\$0.00	375	\$56,250.00	0	\$0.00	\$131,250.00		
Alley	3rd St SW	2nd St SW			375	\$75,000.00	0	\$0.00	375	\$56,250.00	0	\$0.00	\$131,250.00		
Alley	2nd St SW	1st St SW			350	\$70,000.00	0	\$0.00	350	\$52,500.00	0	\$0.00	\$122,500.00		
1st Ave SW	7th St SW	6th St SW	310			\$145,700.00	310	\$40,300.00	310	\$46,500.00	310	\$46,500.00	\$279,000.00		
1st Ave SW	6th St SW	5th St SW	355			\$166,850.00	355	\$46,150.00	355	\$53,250.00	355	\$53,250.00	\$319,500.00		
1st Ave SW	5th St SW	4th St SW	360			\$169,200.00	360	\$46,800.00	360	\$54,000.00	360	\$54,000.00	\$324,000.00		
1st Ave SW	4th St SW	3rd St SW	375			\$176,250.00	375	\$48,750.00	375	\$56,250.00	375	\$56,250.00	\$337,500.00		
1st Ave SW	3rd St SW	2nd St SW	375			\$176,250.00	375	\$48,750.00	375	\$56,250.00	375	\$56,250.00	\$337,500.00		
1st Ave SW	2nd St SW	1st St SW	350			\$164,500.00	350	\$45,500.00	350	\$52,500.00	350	\$52,500.00	\$315,000.00		
1st Ave SE	1st St SE	2nd St SE	500			\$235,000.00	500	\$65,000.00	250	\$37,500.00	500	\$75,000.00	\$412,500.00		
1st Ave SE	2nd St SE	3rd St SE	400			\$188,000.00	400	\$52,000.00	200	\$30,000.00	200	\$30,000.00	\$300,000.00		
1st Ave SE	3rd St SE	4th St SE	315			\$148,050.00	315	\$40,950.00	315	\$47,250.00	315	\$47,250.00	\$283,500.00		
1st Ave SE	4th St SE	East terminus	260			\$122,200.00	260	\$33,800.00	260	\$39,000.00	260	\$39,000.00	\$234,000.00		
2nd Ave SW	10th St SW	9th St SW	230			\$108,100.00	230	\$29,900.00	0	\$0.00	230	\$34,500.00	\$172,500.00		
2nd Ave SW	9th St SW	8th St SW	400			\$188,000.00	400	\$52,000.00	400	\$60,000.00	400	\$60,000.00	\$360,000.00		
2nd Ave SW	8th St SW	7th St SW	450			\$211,500.00	450	\$58,500.00	450	\$67,500.00	450	\$67,500.00	\$405,000.00		
2nd Ave SW	7th St SW	6th St SW	315			\$148,050.00	315	\$40,950.00	315	\$47,250.00	315	\$47,250.00	\$283,500.00		
2nd Ave SW	6th St SW	5th St SW	365			\$171,550.00	365	\$47,450.00	365	\$54,750.00	365	\$54,750.00	\$328,500.00		
2nd Ave SW	5th St SW	4th St SW	715			\$336,050.00	715	\$92,950.00	715	\$107,250.00	715	\$107,250.00	\$643,500.00		
2nd Ave SW	4th St SW	3rd St SW	425			\$199,750.00	425	\$55,250.00	425	\$63,750.00	425	\$63,750.00	\$382,500.00		
2nd Ave SW	3rd St SW	2nd St SW	325			\$152,750.00	325	\$42,250.00	325	\$48,750.00	325	\$48,750.00	\$292,500.00		
2nd Ave SW	2nd St SW	1st St SW	345			\$162,150.00	345	\$44,850.00	345	\$51,750.00	345	\$51,750.00	\$310,500.00		
2nd Ave SW	1st St SW	Wabasha St	365			\$171,550.00	365	\$47,450.00	365	\$54,750.00	365	\$54,750.00	\$328,500.00		
2nd Ave SE	Wabasha St	1st St SE	225			\$105,750.00	225	\$29,250.00	225	\$33,750.00	225	\$33,750.00	\$202,500.00		
2nd Ave SE	1st St SE	2nd St SE	475			\$223,250.00	475	\$61,750.00	475	\$71,250.00	475	\$71,250.00	\$427,500.00		
2nd Ave SE	2nd St SE	3rd St SE	360			\$169,200.00	360	\$46,800.00	360	\$54,000.00	360	\$54,000.00	\$324,000.00		
2nd Ave SE	3rd St SE	4th St SE	345			\$162,150.00	345	\$44,850.00	345	\$51,750.00	345	\$51,750.00	\$310,500.00		
3rd Ave SW	5th St SW	4th St SW	350			\$164,500.00	350	\$45,500.00	350	\$52,500.00	350	\$52,500.00	\$315,000.00		
3rd Ave SW	4th St SW	3rd St SW	520			\$244,400.00	520	\$67,600.00	520	\$78,000.00	520	\$78,000.00	\$468,000.00		
3rd Ave SW	3rd St SW	2nd St SW	320			\$150,400.00	320	\$41,600.00	320	\$48,000.00	320	\$48,000.00	\$288,000.00		
3rd Ave SW	2nd St SW	1st St SW	280			\$131,600.00	280	\$36,400.00	280	\$42,000.00	0	\$0.00	\$210,000.00		
3rd Ave SW	1st St SW	Wabasha	330			\$155,100.00	330	\$42,900.00	330	\$49,500.00	330	\$49,500.00	\$297,000.00		
4th Ave SW	7th St SW	6th St SW	310			\$145,700.00	310	\$40,300.00	0	\$0.00	310	\$46,500.00	\$232,500.00		
4th Ave SW	6th St SW	5th St SW	365			\$171,550.00	365	\$47,450.00	365	\$54,750.00	365	\$54,750.00	\$328,500.00		
4th Ave SW	4th St SW	3rd St SW	525			\$246,750.00	525	\$68,250.00	525	\$78,750.00	525	\$78,750.00	\$472,500.00		
4th Ave SW	2nd St SW	1st St SW	250			\$117,500.00	250	\$32,500.00	0	\$0.00	250	\$37,500.00	\$187,500.00		
5th Ave SW	5th St SW	4th St SW	350			\$164,500.00	350	\$45,500.00	350	\$52,500.00	350	\$52,500.00	\$315,000.00		

BOLTON & MENK

APPENDIX C-3

INFRASTRUCTURE MANAGEMENT PLAN

RECONSTRUCTION PROJECTS (by street segment)

CITY OF PLAINVIEW, MN

Street	From	To	Improvement Length (ft) & Cost										Estimated Total Project Cost	Reconstruction Based On:	
		Improvement	Street & Site Improvements				Utility Improvements							Utility Condition	Street Condition
			36' Street w/ Curb	40' Street w/Curb	18' Alley	Total Street Cost	Storm Sewer	Storm Sewer Cost	Sanitary Sewer	Sanitary Sewer Cost	Watermain Cost	Watermain Cost			
							\$130.00		\$150.00						
North-South Streets															
10th St SW	TH 42	4th Ave SW				COUNTY	0	\$0.00	200	\$30,000.00	1120	\$168,000.00	\$198,000.00		
9th St SW	2nd Ave SW	W Broadway				COUNTY	0	\$0.00	725	\$108,750.00	725	\$108,750.00	\$217,500.00		
9th St NW	3rd Ave NW	4th Ave NW	400			\$188,000.00	400	\$52,000.00	400	\$60,000.00	400	\$60,000.00	\$360,000.00		
8th St NW	3rd Ave NW	4th Ave NW	175			\$82,250.00	175	\$22,750.00	75	\$11,250.00	175	\$26,250.00	\$142,500.00		
8th St NW	4th Ave NW	4th Ave NW	160			\$75,200.00	160	\$20,800.00	80	\$12,000.00	160	\$24,000.00	\$132,000.00		
7th St SW	2nd Ave SW	1st Ave SW	360			\$169,200.00	360	\$46,800.00	180	\$27,000.00	360	\$54,000.00	\$297,000.00		
7th St SW	1st Ave SW	W Broadway	385			\$180,950.00	385	\$50,050.00	385	\$57,750.00	385	\$57,750.00	\$346,500.00		
7th St NW	2nd Ave SE	3rd Ave SE	350			\$164,500.00	350	\$45,500.00	350	\$52,500.00	350	\$52,500.00	\$315,000.00		
7th St NW	4th Ave NW	North Terminus	140			\$65,800.00	140	\$18,200.00	140	\$21,000.00	140	\$21,000.00	\$126,000.00		
6th St SW	South terminus	4th Ave SW	565			\$265,550.00	565	\$73,450.00	565	\$84,750.00	565	\$84,750.00	\$508,500.00		
6th St SW	4th Ave SW	3rd Ave SW	640			\$300,800.00	640	\$83,200.00	500	\$75,000.00	640	\$96,000.00	\$555,000.00		
6th St SW	3rd Ave SW	2nd Ave SW	280			\$131,600.00	280	\$36,400.00	280	\$42,000.00	280	\$42,000.00	\$252,000.00		
6th St SW	2nd Ave SW	1st Ave SW	365			\$171,550.00	365	\$47,450.00	182.5	\$27,375.00	0	\$0.00	\$246,375.00		
6th St SW	1st Ave SW	3rd Ave NW	350			\$164,500.00	350	\$45,500.00	350	\$52,500.00	350	\$52,500.00	\$315,000.00		
6th St NW	3rd Ave NW	4th Ave NW	370			\$173,900.00	370	\$48,100.00	370	\$55,500.00	370	\$55,500.00	\$333,000.00		
6th St NW	4th Ave NW	6th Ave NW	640			\$300,800.00	640	\$83,200.00	640	\$96,000.00	640	\$96,000.00	\$576,000.00		
6th St NW	6th Ave NW	7th Ave NW	355			\$166,850.00	355	\$46,150.00	355	\$53,250.00	355	\$53,250.00	\$319,500.00		
5th St SW	5th Ave SW	4th Ave SW	370			\$173,900.00	370	\$48,100.00	0	\$0.00	370	\$55,500.00	\$277,500.00		
5th St SW	4th Ave SW	3rd Ave SW	550			\$258,500.00	550	\$71,500.00	550	\$82,500.00	550	\$82,500.00	\$495,000.00		
5th St SW	3rd Ave SW	2nd Ave SW	360			\$169,200.00	360	\$46,800.00	180	\$27,000.00	360	\$54,000.00	\$297,000.00		
5th St SW	2nd Ave SW	1st Ave SW	370			\$173,900.00	370	\$48,100.00	275	\$41,250.00	550	\$82,500.00	\$345,750.00		
5th St NW	W Broadway	1st Ave NW	380			\$178,600.00	380	\$49,400.00	185	\$27,750.00	380	\$57,000.00	\$312,750.00		
4th St SW	Wabasha St	5th Ave SW	530			\$249,100.00	530	\$68,900.00	400	\$60,000.00	300	\$45,000.00	\$423,000.00		
4th St SW	5th Ave SW	4th Ave SW	355			\$166,850.00	355	\$46,150.00	355	\$53,250.00	355	\$53,250.00	\$319,500.00		
4th St SW	4th Ave SW	3rd Ave SW	550			\$258,500.00	550	\$71,500.00	550	\$82,500.00	550	\$82,500.00	\$495,000.00		
4th St SW	3rd Ave SW	2nd Ave SW	365			\$171,550.00	365	\$47,450.00	182.5	\$27,375.00	365	\$54,750.00	\$301,125.00		
4th St SW	2nd Ave SW	1st Ave SW	355			\$166,850.00	355	\$46,150.00	100	\$15,000.00	0	\$0.00	\$228,000.00		
4th St SW	1st Ave SW	W Broadway		375		\$183,750.00	375	\$48,750.00	0	\$0.00	375	\$56,250.00	\$288,750.00		
4th St SW	2nd Ave NW	North Terminus		140		\$68,600.00	140	\$18,200.00	0	\$0.00	0	\$0.00	\$86,800.00		
3rd St NW	4th Ave SW	3rd Ave SW				COUNTY	0	\$0.00	540	\$81,000.00	540	\$81,000.00	\$162,000.00		
3rd St NW	3rd Ave SW	2nd Ave SW				COUNTY	0	\$0.00	0	\$0.00	390	\$58,500.00	\$58,500.00		
3rd St NW	2nd Ave SW	1st Ave SW				COUNTY	0	\$0.00	0	\$0.00	385	\$57,750.00	\$57,750.00		
3rd St NW	1st Ave NW	2nd Ave NW				COUNTY	0	\$0.00	185	\$27,750.00	0	\$0.00	\$27,750.00		
2nd St SW	South terminus	4th Ave SW	355			\$166,850.00	355	\$46,150.00	355	\$53,250.00	355	\$53,250.00	\$319,500.00		
2nd St SW	4th Ave SW	3rd Ave SW	535			\$251,450.00	535	\$69,550.00	535	\$80,250.00	535	\$80,250.00	\$481,500.00		
2nd St SW	1st Ave SW	W Broadway		380		\$186,200.00	380	\$49,400.00	0	\$0.00	380	\$57,000.00	\$292,600.00		
2nd St NW	1st Ave NW	2nd Ave NW		365		\$178,850.00	365	\$47,450.00	0	\$0.00	365	\$54,750.00	\$281,050.00		
2nd St NW	2nd Ave NW	North terminu		285		\$139,650.00	285	\$37,050.00	100	\$15,000.00	0	\$0.00	\$191,700.00		

 INFRASTRUCTURE MANAGEMENT PLAN RECONSTRUCTION PROJECTS (by street segment) CITY OF PLAINVIEW, MN															
Street	From	To	Improvement Length (ft) & Cost										Estimated Total Project Cost	Reconstruction Based On:	
		Improvement	Street & Site Improvements				Utility Improvements							Utility Condition	Street Condition
			36' Street w/ Curb	40' Street w/Curb	18' Alley	Total Street Cost	Storm Sewer	Storm Sewer Cost	Sanitary Sewer	Sanitary Sewer Cost	Watermain Cost	Watermain Cost			
			Cost per Lineal Foot	\$470.00	\$490.00		\$200.00		\$130.00		\$150.00				
1st St SW	4th Ave SW	3rd Ave SW		530		\$259,700.00	530	\$68,900.00	530	\$79,500.00	0	\$0.00	\$408,100.00		
1st St SW	2nd Ave SW	1st Ave SW		370		\$181,300.00	370	\$48,100.00	355	\$53,250.00	355	\$53,250.00	\$335,900.00		
1st St SW	1st Ave SW	W Broadway		375		\$183,750.00	375	\$48,750.00	375	\$56,250.00	375	\$56,250.00	\$345,000.00		
1st St NW	W Broadway	1st Ave NW		385		\$188,650.00	385	\$50,050.00	385	\$57,750.00	0	\$0.00	\$296,450.00		
1st St NW	1st Ave NW	2nd Ave NW		355		\$173,950.00	355	\$46,150.00	385	\$57,750.00	0	\$0.00	\$277,850.00		
1st St NW	2nd Ave NW	North Terminus		300		\$147,000.00	300	\$39,000.00	355	\$53,250.00	0	\$0.00	\$239,250.00		
N Wabasha St	E Broadway	1st Ave NW				MNDOT	375	\$48,750.00	0	\$0.00	375	\$56,250.00	\$105,000.00		
N Wabasha St	2nd Ave NW	3rd Ave NW				MNDOT	355	\$46,150.00	355	\$53,250.00	355	\$53,250.00	\$152,650.00		
N Wabasha St	3rd Ave NW	4th Ave NW				MNDOT	350	\$45,500.00	0	\$0.00	350	\$52,500.00	\$98,000.00		
N Wabasha St	4th Ave NW	5th Ave NW				MNDOT	350	\$45,500.00	0	\$0.00	350	\$52,500.00	\$98,000.00		
1st St SE	2nd Ave SE	1st Ave SE	360			\$169,200.00	360	\$46,800.00	360	\$54,000.00	360	\$54,000.00	\$324,000.00		
1st St NE	2nd Ave NE	3rd Ave NE	350			\$164,500.00	350	\$45,500.00	350	\$52,500.00	350	\$52,500.00	\$315,000.00		
1st St NE	3rd Ave NE	4th Ave NE	350			\$164,500.00	350	\$45,500.00	350	\$52,500.00	350	\$52,500.00	\$315,000.00		
1st St NE	4th Ave NE	5th Ave NE	360			\$169,200.00	360	\$46,800.00	360	\$54,000.00	360	\$54,000.00	\$324,000.00		
2nd St SE	2nd Ave SE	1st Ave SE	355			\$166,850.00	355	\$46,150.00	355	\$53,250.00	355	\$53,250.00	\$319,500.00		
2nd St SE	1st Ave SE	E Broadway	370			\$173,900.00	370	\$48,100.00	150	\$22,500.00	370	\$55,500.00	\$300,000.00		
2nd St NE	2nd Ave NE	3rd Ave NE	350			\$164,500.00	350	\$45,500.00	350	\$52,500.00	350	\$52,500.00	\$315,000.00		
2nd St NE	3rd Ave NE	5th Ave NE	705			\$331,350.00	705	\$91,650.00	705	\$105,750.00	705	\$105,750.00	\$634,500.00		
3rd St SE	2nd Ave SE	1st Ave SE	360			\$169,200.00	360	\$46,800.00	360	\$54,000.00	360	\$54,000.00	\$324,000.00		
3rd St SE	1st Ave SE	E Broadway	370			\$173,900.00	370	\$48,100.00	370	\$55,500.00	370	\$55,500.00	\$333,000.00		
3rd St NE	E Broadway	1st Ave NE	380			\$178,600.00	380	\$49,400.00	0	\$0.00	380	\$57,000.00	\$285,000.00		
3rd St NE*	4th Ave NE	5th Ave NE	395			\$185,650.00	395	\$51,350.00	395	\$59,250.00	395	\$59,250.00	\$355,500.00		
4th St NE	2nd Ave NE	3rd Ave NE	355			\$166,850.00	355	\$46,150.00	355	\$53,250.00	355	\$53,250.00	\$319,500.00		
4th St NE	4th Ave NE	5th Ave NE	355			\$166,850.00	355	\$46,150.00	355	\$53,250.00	355	\$53,250.00	\$319,500.00		
5th St NE	E Broadway	1st Ave NE	380			\$178,600.00	380	\$49,400.00	380	\$57,000.00	380	\$57,000.00	\$342,000.00		
6th St NE	E Broadway	1st Ave NE	365			\$171,550.00	365	\$47,450.00	0	\$0.00	365	\$54,750.00	\$273,750.00		
Totals			41975	5670	1815	\$22,869,550.00		\$6,537,050.00		\$7,315,125.00		\$7,437,000.00	\$44,158,725.00		
High Priority Totals (5)			22180	3500	1815	\$12,502,600.00		\$3,169,400.00		\$3,837,750.00		\$3,332,250.00	\$22,842,000.00		

- Notes: 1) Refer to attached Project Area Maps for illustrations of referenced projects.
- 2) Street & Site costs include estimated pavement, aggregate base, curb & gutter, sidewalk (1 side), driveways, turf reestablishment, watermain, sanitary sewer and storm sewer
- 3) Utility costs include mainline pipe as well as service line replacement.
- 4) Costs presented above are in 2019 dollars, including estimated design and construction.
- 5) "High Priority" projects include those with both street and utility needs.

PLAINVIEW

CITY COUNCIL ACTION



Executive Summary

City Council Work Session: September 24, 2019

AGENDA ITEM: Explore Municipal Solid Waste Collector	AGENDA SECTION: Discussion
PREPARED BY: Clarissa Hadler, City Administrator	AGENDA NO. 3.X.
ATTACHMENTS: LMC Paper	APPROVED BY: cgh
RECOMMENDED ACTION: Discussion/Direction	

SUMMARY

Staff has examined very briefly the potential of moving toward a single supplier of municipal solid waste collection. Because this process can be lengthy and sometimes very political, I would like Council's feedback before expending too much time on the concept.

As we are discussing the exorbitant costs of infrastructure, it seems like a perfect time to assess a single hauler as an option. The main benefit of implementing a single provider is decreased wear on city streets.

The weight of a loaded garbage truck is estimated at 25 tons (16.5 tons empty) while a car averages around 1.5 tons and trucks at 3 tons. "Road damage is related to the fourth power of the relative loads. In other words, if one vehicle weighs 1,500 pounds per axle and another 3,000 pounds per axle, the road damage caused by the heavier vehicle is not twice as much, but 2 to the fourth power (2x2x2x2) or 16 times as much damage as the lighter vehicle." So the difference between a car and a garbage truck is anywhere from 15,000 (empty) to 77,000 (full) times more road damage. Bolton & Menk will be able to provide some input on this topic.

We currently have four licensed haulers in Plainview, with each company taking a trip down almost every street in town at least once per week. This is the equivalent of 60K – 308K cars.

One of the common arguments against single-hauler systems is that it creates a monopoly. This is not the case. It can create economies of scale and increase efficiency for the chosen hauler by providing the maximum number of clients and minimizing billing (which can be done by the City on the water bill). This, in theory, should bring costs down for the consumer. So while a single hauler gets the contract for that period, all vendors are able to bid regularly. Additionally, the City could choose to section off the City somehow and award portions of town to various haulers.

Again, consider this a "feeler" to determine if Council had the appetite for this as an option.



INFORMATION MEMO

City Solid Waste Management

Understand city authority and requirements to regulate the collection and disposal of solid waste and the roles of state and county oversight. Read about city licensing authority and permitted assessments and fees. Learn about open and organized systems of solid waste collection, including their advantages and disadvantages. Includes a flowchart showing the process for adopting organized collection and links to model ordinance and resolution.

RELEVANT LINKS:

[Minn. Stat. § 412.221, subd. 22 \(3\), Minn. Stat. § 410.33, *Troje v. City Council of City of Hastings*, 310 Minn. 183, 245 N.W.2d 596 \(1976\).](#)

[Minn. Stat. § 443.18, Minn. Stat. § 410.01.](#)

See [Minn. Stat. §§ 443.18-443.35](#) for more information about first class cities' authority and restrictions regarding solid waste management.

See Information Brief, [Minnesota Solid Waste History](#), Minnesota House of Representatives.

I. Authority, oversight, and definitions

A. Authority to regulate

All cities are authorized to provide for or regulate by ordinance the disposal of sewage, garbage, and other refuse. This broad grant of police power authorizes cities to regulate the collection and disposal of solid waste.

B. Authority to acquire, construct, and operate solid waste facilities—first class cities

Any first class city (Minneapolis, St. Paul, Duluth, or Rochester) is authorized:

- To acquire by purchase or condemnation lands on which to build plants for the destruction of garbage and other refuse.
- To purchase, build, operate, and maintain such plants for the destruction of garbage and other refuse.
- To provide for the collection of all such garbage or refuse and its delivery to destruction plants or other places.
- To pay and contract to pay for the same in such annual installments and at such a rate of interest on deferred payments as the city council determines.

Each of these actions must be authorized by at least a three-fourths vote of all members of the city council. First class cities have additional authority and restrictions regarding solid waste management.

C. State oversight

Before the 1970s, open burning and open dumping were the most common forms of solid waste management.

This material is provided as general information and is not a substitute for legal advice. Consult your attorney for advice concerning specific situations.

RELEVANT LINKS:

[Minn. Stat. § 115A.46.](#)
[MPCA Local Government Assistance Unit.](#)

See [Minn. Stat. ch. 115A.](#)

[Minn. Stat. § 115A.02.](#)

[Minn. Stat. § 115A.46.](#) [Minn. Stat. § 400.16.](#) [Minn. Stat. § 473.149.](#) [Minn. R. ch. 9215.](#)
The MPCA maintains a database of county contacts for solid waste and recycling. For more information about recycling in your county, visit [Recycle More Minnesota's](#) website.

[Minn. Stat. § 115A.46 subd. 5.](#)

[Minn. Stat. § 473.149.](#) See [Metropolitan Solid Waste Management Policy Plan 2016-2036.](#)

Beginning in the 1970s, the Minnesota Legislature adopted a variety of waste management regulations, and gave the Minnesota Pollution Control Agency (MPCA) regulatory oversight over the management of solid waste and recycling.

The MPCA develops and enforces the state's solid waste management regulations. It also is responsible for approving the solid waste plans that counties must adopt. The MPCA has a Local Government Assistance Unit that offers a variety of tools to help counties, cities, and townships develop and support systems that recover resources and manage waste.

The Minnesota Legislature adopted the Waste Management Act in 1980. It establishes the following descending order of priority for waste management:

- Waste reduction and reuse.
- Waste recycling.
- Composting of source-separated compostable materials, including, but not limited to, yard waste and food waste.
- Resource recovery through mixed municipal solid waste composting or incineration.
- Land disposal that produces no measurable methane gas or that involves the retrieval of methane gas as a fuel for the production of energy to be used on-site or for sale.
- Land disposal that produces measurable methane and that does not involve the retrieval of methane gas as a fuel for the production of energy to be used on-site or for sale.

D. County oversight

Minnesota counties have primary responsibility for solid waste management, including recycling. All counties are required to adopt a solid waste plan that must include waste reduction and recycling provisions, as well as provisions to minimize the amount of waste disposed of in landfills.

After the MPCA has approved a county's solid waste plan, a city located in that county may not enter into a binding agreement governing solid waste management activity or develop, or implement solid waste management activity (other than activity to reduce waste generation or reuse waste materials) that is inconsistent with the county's plan without the county's consent.

Metropolitan counties must develop solid waste management plans that are consistent with the most recent "metropolitan long-range policy plan."

RELEVANT LINKS:

[Minn. Stat. § 115A.03, subd. 21.](#)

[Minn. Stat. § 115A.03, subd. 31.](#) [Minn. Stat. § 116.06, subd. 22.](#)

[Minn. Stat. § 115A.951.](#)
[Minn. Stat. § 115A.96.](#) [Minn. Stat. § 115A.03, subd. 17a.](#)
[Minn. Stat. § 115A.9565.](#)
[Minn. Stat. § 115A.931.](#)
[Minn. Stat. § 115A.935.](#)
[Minn. Stat. § 115A.932.](#)
[Minn. Stat. § 115A.9155.](#)
[Minn. Stat. § 115A.9157.](#)

E. Definitions

1. Mixed municipal solid waste

Mixed municipal solid waste is defined as “garbage, refuse, and other solid waste from residential, commercial, industrial, and community activities that the generator of the waste aggregates for collection.” Mixed municipal solid waste does not include “auto hulks, street sweepings, ash, construction debris, mining waste, sludges, tree and agricultural wastes, tires, lead acid batteries, motor and vehicle fluids and filters, and other materials collected, processed, and disposed of as separate waste streams.”

2. Solid waste

Solid waste is defined as “garbage, refuse, sludge from a water supply treatment plant or air contaminant treatment facility, and other discarded waste materials and sludges, in solid, semisolid, liquid, or contained gaseous form, resulting from industrial, commercial, mining, and agricultural operations, and from community activities.” Solid waste does not include:

- Hazardous waste
- Animal waste used as fertilizer
- Earthen fill, boulders, rock
- Concrete diamond grinding and saw slurry associated with the construction, improvement, or repair of a road when deposited on the road project site in a manner that is in compliance with best management practices and rules of the agency
- Sewage sludge
- Solid or dissolved material in domestic sewage or other common pollutants in water resources, such as silt, dissolved or suspended solids in industrial wastewater effluents or discharges which are point sources subject to permits under section 402 of the Federal Water Pollution Control Act, as amended, dissolved materials in irrigation return flows
- Source, special nuclear, or by-product material as defined by the Atomic Energy Act of 1954, as amended

State law specifically prohibits certain items from being included in mixed municipal solid waste or in solid waste, including telephone directories, major appliances, electronic products containing a cathode-ray tube, yard waste, tires, motor and vehicle fluids and filters, mercury or mercury-containing devices or products from which the mercury has not been removed for reuse or recycling, fluorescent tubes, and certain batteries.

RELEVANT LINKS:

[Minn. Stat. § 115A.03, subd. 38.](#)

[Minn. Stat. § 115A.03, subd. 25a.](#)

[Minn. Stat. § 115A.03, subd. 32b.](#)

[Minn. Stat. § 115A.03, subd. 32a.](#) [Minn. Stat. § 115A.93.](#)

[Minn. Stat. § 115A.94.](#) See Section IV, *Solid waste and recycling collection*, for more information about organized collection.

3. Yard waste

Yard waste is defined as “garden wastes, leaves, lawn cuttings, weeds, shrub and tree waste, and prunings.”

4. Recyclable materials

Recyclable materials are defined as “materials that are separated from mixed municipal solid waste for the purpose of recycling or composting, including paper, glass, plastics, metals, automobile oil, batteries, source-separated compostable materials, and sole sourced waste streams that are managed through biodegradative processes.” Recyclable materials do not include refuse-derived fuel or other material that is destroyed by incineration.

5. Source-separated recyclable materials

Source-separated recyclable materials are defined as “recyclable materials, including commingled recyclable materials that are separated by the generator.”

6. Source-separated compostable materials

Source-separated compostable materials are defined as materials that:

- Are separated at the source by waste generators for the purpose of preparing them for use as compost.
- Are collected separately from mixed municipal solid waste, and are governed by the licensing provisions of section 115A.93.
- Are comprised of food wastes, fish and animal waste, plant materials, diapers, sanitary products, and paper that is not recyclable.
- Are delivered to a facility to undergo controlled microbial degradation to yield a humus-like product meeting the MPCA’s class I or class II, or equivalent, compost standards, and where process rejects do not exceed 15 percent by weight of the total material delivered to the facility.
- May be delivered to a transfer station, mixed municipal solid waste processing facility, or recycling facility only for the purposes of composting or transfer to a composting facility, unless the commissioner determines that no other person is willing to accept the materials.

7. Organized collection

Organized collection is defined as “a system for collecting solid waste in which a specified collector, or a member of an organization of collectors, is authorized to collect from a defined geographic service area or areas some or all of the solid waste that is released by generators for collection.”

RELEVANT LINKS:

[Minn. Stat. § 115A.94, subd. 5.](#) See Section IV, *Solid waste and recycling collection*, for more information about organized collection.

[Minn. Stat. § 115A.94, subd. 5.](#)

[Minn. Stat. § 473.811, subd. 5.](#) [Minn. Stat. § 473.121.](#)

[Minn. Stat. § 115A.941.](#)

8. Open collection

Open collection is generally defined as a system for collecting solid waste or recyclable materials where individual residents and businesses are free to contract with any collector licensed to do business in the city.

II. City regulation and licensing

A. Required regulation

There are three situations where cities are required to regulate solid waste collection.

1. County organized collection ordinance

Any county can adopt an ordinance requiring cities or towns within its boundaries to organize collection of solid waste. If a city does not comply with the county's organized collection ordinance, the county can organize collection itself.

A county's organized collection ordinance—in addition to requiring solid waste collection—may also require the separation and separate collection of recyclable materials, specify the material to be separated, and require cities to meet any performance standards for source separation contained in the county's solid waste plan.

2. Cities in the metropolitan area

Cities in the metropolitan area must adopt an ordinance regulating the collection of solid waste within its boundaries. The metropolitan area includes the counties of Anoka, Carver, Dakota (excluding the city of Northfield), Hennepin (excluding the cities of Hanover and Rockford), Ramsey, Scott (excluding the city of New Prague), and Washington. If a city is located in a metropolitan county that has adopted a collection ordinance, the city must adopt either the county ordinance by reference or a stricter ordinance. If a city is located in a metropolitan county that has adopted a recyclable-separation ordinance, the ordinance applies in all cities within the county that have failed to meet the local abatement performance standards stated in the most recent annual county report.

3. Cities with a population of 1,000 or more

Any city, regardless of where it is located, with a population of 1,000 or more must ensure that every residential household and business in the city has solid waste collection service.

RELEVANT LINKS:

[Minn. Stat. § 115A.941](#). See Section IV, *Solid waste and recycling collection*, for more information about organized collection.

[Minn. Stat. § 115A.941](#).

[Minn. Stat. § 115A.151](#).

[Minn. Stat. § 115A.93, subd. 1](#).

[Minn. Stat. § 115A.93, subd. 2](#), [Minn. Stat. § 115A.93, subd. 1\(a\)](#). *Troje v. City Council of City of Hastings*, 310 Minn. 183, 245 N.W.2d 596 (1976). The MPCA is currently working with Minnesota counties to receive a list of locally licensed collectors. For more information contact Peder Sandhei, Principal Planner, MPCA at 651-757-2688 or 800-657-3864.

[Minn. Stat. § 115A.93, subd. 3](#).

To comply with this requirement, cities are authorized to organize solid waste collection, provide collection by city employees, or require by ordinance that every household and business has a contract for collection services. An ordinance with such a requirement must also provide for enforcement. Cities must follow specific procedural requirements before adopting organized collection of solid waste.

A city with a population of 1,000 or more may exempt a residential household or business from the requirement to have solid waste collection service if the household or business ensures that an environmentally sound alternative is used.

B. Recycling required at city facilities

All statutory and home rule charter cities are required to ensure that facilities under their control, from which mixed municipal solid waste is collected, have containers for at least three recyclable materials, such as, but not limited to, paper, glass, plastic, and metal. Cities also must transfer all recyclable materials collected to a recycler.

C. Licensing

1. Solid waste collectors

State law prohibits any person from collecting mixed municipal solid waste for hire without a license from the jurisdiction where that waste is collected.

Cities are authorized to license solid waste collectors. If a city licenses solid waste collectors, it must submit a list of licensed collectors to the MPCA. County boards are required to adopt by resolution the licensing authority of any city that does not license solid waste collectors. If a city acts as a licensing authority, it may impose requirements that are consistent with the county's solid waste policies. In addition, state law establishes several requirements that must be imposed for any license issued to a solid waste collector.

First, a license must require collectors to impose charges for collection of mixed municipal solid waste that increase with the volume or weight of the waste collected. For example, a solid waste collector could charge fees that increase with the increasing volume of solid waste generated by customers. Garbage carts of different sizes, measured by their volume in gallons, could be issued to customers who can decide what size garbage cart best suits their disposal needs.

RELEVANT LINKS:

[Minn. Stat. § 115A.93, subd. 3.](#)

[Minn. Stat. § 115A.93, subd. 3\(d\).](#)

[Minn. Stat. § 115A.93, subd. 3.](#)

[Minn. Stat. § 115A.553, subd. 2. Minn. Stat. § 115A.93, subd. 1\(b\).](#)

[Minn. Stat. § 115A.46, subd. 5.](#)

[Orr v. City of Rochester, 193 Minn. 371, 258 N.W. 569 \(1935\).](#)

The commissioner of the MPCA may exempt a licensing authority from this requirement if the county in which the city is located has an approved solid waste plan that concludes that variable rate pricing is not appropriate for that jurisdiction because it is inconsistent with other incentives and mechanisms implemented that are more effective in attaining the goals of discouraging on-site disposal, littering, and illegal dumping. The commissioner may also exempt a collector from this requirement while revisions are being made to the county's solid waste plan if certain conditions are met. The exemption is only effective until the county solid waste plan is revised.

Second, a license that requires a pricing system based on volume instead of on weight shall determine a base unit size for an average small quantity household generator of waste and establish, or require the licensee to establish, a multiple unit pricing system that ensures that amounts of waste generated in excess of the base unit amount are priced higher than the base unit price.

Third, a license shall prohibit collectors from imposing a greater charge on residents who recycle than on residents who do not.

2. Recycling collectors

Counties can require either county or municipal licenses for the collection of recyclable materials. A person may not collect recyclable materials for hire unless that person is licensed locally or is registered with the MPCA. Each county must ensure that materials separated for recycling are taken to markets for sale or to recyclable material processing centers. No county may prevent a person that generates or collects solid waste from delivering recyclable materials to a recycling facility of the generator's or collector's choice.

If a city acts as a licensing authority, it may impose requirements that are consistent with the county's recycling policies. A city can also impose requirements that are in addition to or different from the county's policies if the city's requirements are designed to reduce waste generation or promote the reuse of waste materials.

3. License fees

State law does not address the amount that cities can charge for licenses for collection of solid waste or recyclable materials. Generally, a license fee must be reasonable. It should not be viewed as a source of revenue and should be in an amount that is close to the direct and indirect costs in issuing the license and in regulating the licensed activity.

RELEVANT LINKS:

Waste Systems Corp. v. County of Martin, 985 F.2d 1381 (8th Cir. 1993). *C & A Carbone, Inc. v. Town of Clarkstown, New York*, 511 U.S. 383 (1994). *Ben Ohrleins and Sons and Daughter, Inc. v. Hennepin County*, 115 F.3d 1372 (8th Cir. 1997).

City of Philadelphia v. New Jersey, 437 U.S. 617 (1978). *United Haulers Ass'n, Inc. v. Oneida-Herkimer Solid Waste Management Auth.*, 550 U.S. 330 (2007).

Minn. Stat. §§ 115A.83-115A.86.

Minn. Stat. § 115A.83. Minn. Stat. § 115A.03, subds. 27 and 28.

Minn. Stat. § 115A.94, subd. 3. Minn. Stat. § 115A.86.

D. Requiring use of specific waste facility

Some municipalities have adopted ordinances that regulate the flow of solid waste, for example, by designating where it must be taken for disposal. This is generally done as a tool to achieve solid waste management goals. Flow control ordinances may raise constitutional issues under the Commerce Clause of the United States Constitution if they interfere with the flow of interstate commerce.

Courts have recognized a distinction under the Commerce Clause that generally allows municipalities more authority to take actions affecting solid waste if they are acting as a “market participant” instead of as a government regulator. When a municipality is providing for or contracting for waste management services, it generally is thought to be acting as a market participant.

State law authorizes counties or sanitary districts to adopt a designation ordinance requiring that all solid waste generated within a specific geographic area must be delivered to a specific solid waste facility. A designation ordinance does not apply to the following materials:

- Materials separated from solid waste and recovered for reuse in their original form or for use in manufacturing processes.
- Materials that are processed at a resource recovery facility at the capacity in operation at the time that the designation plan is approved by the commissioner of the MPCA.
- Materials that are separated at a permitted transfer station located within the boundaries of the designating authority for the purpose of recycling the materials if either: (1) the transfer station was in operation on Jan. 1, 1991; or (2) the materials were not being separated for recycling at the designated facility at the time the transfer station began separation of the materials.
- Recyclable materials that are being recycled, and residuals from recycling if there is at least an 85 percent volume reduction in the solid waste processed at the recycling facility and the residuals are managed as separate waste streams.

If a city organizes collection by contract or as a municipal service, it may include a requirement that all or any portion of the solid waste be delivered to a waste facility identified by the city. This requirement would not apply to recyclable materials and materials that are processed at a resource recovery facility at the capacity in operation at the time the requirement is imposed. In a district or county where a resource recovery facility has been designated by ordinance, organized collection must conform to the designation ordinance’s requirements.

RELEVANT LINKS:

[Minn. Stat. § 473.813](#). [Minn. Stat. § 473.121](#). LMCIT staff can assist in reviewing city contracts, especially provisions related to insurance and liability. For more information, contact Chris Smith, Risk Management Attorney, at csmith@lmc.org or 651-281-1269.

[Minn. Stat. § 115A.93](#), subd. 5. [Minn. Stat. § 13.02](#), subds. 9, 12.

[Minn. Stat. § 443.015](#). See Adopting Assessments for Unpaid Charges for Garbage Collection and Disposal Services, LMC Model Resolution, and Providing for Assessment of Unpaid Charges for Garbage Collection and Disposal Services, LMC Model Ordinance.

[Minn. Stat. § 443.29](#).

[Minn. Stat. § 115A.921](#), subd. 1.

Cities in the metropolitan area have authority to directly negotiate and enter into contracts—for a term not to exceed 30 years—for the delivery of solid waste to a waste facility, and the processing of solid waste. Contracts made by direct negotiations shall be approved by resolution. Before a city in the metropolitan area enters into a contract for a period of more than five years, it must submit the proposed contract and a description of the proposed activities under the contract to the commissioner of the MPCA for review and approval.

E. Customer lists

Customer lists that solid waste collectors provide to cities are private data on individuals, or nonpublic data with regard to data not on individuals, under the Minnesota Government Data Practices Act.

III. City assessments and fees

A. Assessments for unpaid services

Any statutory city or city of the fourth class that provides, by contract or otherwise, for garbage collection and disposal may by ordinance require the owners of all property served to pay the proportionate cost of the service to their properties. The city council may annually levy an assessment equal to the unpaid cost as of Sept. 1 of each year against each lot or parcel of land. The assessment may include a penalty not to exceed 10 percent of the unpaid amount, and shall bear interest not exceeding 6 percent per year. Such assessments shall be certified to the county auditor and shall be collected and remitted to the city treasurer in the same manner as assessments for local improvements.

First class cities (Minneapolis, St. Paul, Duluth, and Rochester) have additional authority to collect unpaid charges for rubbish disposal in a civil action, or to assess them against the property receiving the service and collect them as other taxes are collected.

B. City fees

1. Operators of disposal facilities

A city may charge a fee that cannot exceed \$1 per cubic yard of waste, or its equivalent, on operators of facilities for the disposal of mixed municipal solid waste located in the city. The fees must be credited to the city's general fund. Revenue produced by 25 cents of the fee must be used only for purposes of landfill abatement or for mitigating and compensating for the local risks, costs, and other adverse effects of the facilities.

RELEVANT LINKS:

[Minn. Stat. § 115A.921, subd. 1.](#)

[Minn. Stat. § 115A.921, subd. 2.](#) [Minn. Stat. § 115A.03, subd. 7.](#)

[Minn. Stat. § 115A.921, subd. 2.](#)

[Minn. Stat. § 115A.929.](#)

[Minn. Stat. § 115A.03, subd. 36.](#)

[Minn. Stat. § 115A.919.](#)
[Minn. Stat. § 115A.921.](#)

Revenue produced by the balance of the fee may be used for any general fund purpose.

There is an exemption from this fee for waste residue from recycling facilities at which recyclable materials are separated or processed for the purpose of recycling, or from energy and resource-recovery facilities at which solid waste is processed for the purpose of extracting, reducing, converting to energy, or otherwise separating and preparing solid waste for reuse if there is at least an 85 percent weight reduction in the solid waste processed.

A city also may charge a fee not to exceed 50 cents per cubic yard of waste, or its equivalent, on operators of facilities for the disposal of construction debris located within the city. The revenue from the fees must be credited to the city or town general fund. Two-thirds of the revenue must be used only for purposes of landfill abatement or for purposes of mitigating and compensating for the local risks, costs, and other adverse effects resulting from the facilities.

There is an exemption from 25 percent of this fee if the facility has implemented a recycling program that the county has approved, and 25 percent if the facility contains a liner and leachate collection system the MPCA has approved. Two-thirds of the revenue from this fee must offset any financial assurances required by the city for a construction debris facility. The maximum revenue that may be collected for this type of fee must be determined by multiplying the total permitted capacity of a facility by 15 cents per cubic yard. Once the maximum revenue has been collected for a facility, the fees in this subdivision may no longer be imposed.

2. Accounting for fees

Cities that provide for solid waste management shall account for all revenue collected from waste management fees, together with interest earned on revenue from the fees, separately from other revenue collected by the city. Cities must report revenue collected from the fees and use of the revenue separately from other revenue and use of revenue in any required financial report or audit.

A city provides solid waste management and is subject to this requirement for a separate accounting and reporting if a city engages in any activities that are intended to affect or control the generation of waste, or engages in any activities that provide for or control the collection, processing, and disposal of waste. State law defines waste management fees as:

- All fees, charges, and surcharges collected under sections 115A.919, 115A.921, and 115A.923 of the Minnesota Statutes.

RELEVANT LINKS:

[Minn. Stat. § 115A.923.](#)
For more information about these fees see Section III. B., *City Fees*. [Minn. Stat. § 115A.929.](#)

[Minn. Stat. § 115A.945.](#)

[Analysis of Waste Collection Service Arrangements](#), Minnesota Pollution Control Agency, June 2009.

[Minn. Stat. § 115A.94, subds. 1, 3.](#) See Section IV. D., *Procedural requirements for adopting organized collection*, for more information.

[Minn. Stat. § 115A.94, subd. 3.](#)

- All tipping fees collected at waste management facilities owned or operated by the city.
- All city charges for waste collection and management services.
- Any other fees, charges, or surcharges imposed on waste for the purpose of waste management, whether collected directly from generators, indirectly through property taxes, or as part of utility or other charges for city-provided services.

Any city that provides or pays for the costs of collection or disposal of solid waste must, through a billing or other system, make the prorated share of those costs for each solid waste generator visible and obvious to the generator.

IV. Solid waste and recycling collection

A. Types of collection systems—open collection and organized collection

The two main types of collection systems for solid waste and recycling are commonly referred to as “open collection” and “organized collection.” A 2009 study authorized by the MPCA estimated that the number of cities with open solid waste collection was between 65 to 80 percent, and the number of cities with organized solid waste collection was between 20 to 35 percent. The same study indicated that the number of cities with open recycling was estimated to be between 40 to 60 percent, and the number of cities with organized recycling was estimated to be between 50 to 60 percent.

Open collection is generally defined as a collection system where individual residents and businesses are free to contract with any collector licensed to do business in the city.

Organized collection is defined as a “system for collecting solid waste in which a specified collector, or a member of an organization of collectors, is authorized to collect from a defined geographic service area or areas some or all of the solid waste that is released by generators for collection.” A city must comply with certain procedural requirements in the organized collection statute before adopting organized collection of solid waste.

A city may organize collection as a municipal service where city employees collect solid waste from a defined geographic service area or areas. In the alternative, cities may organize collection by using one or more private collectors or an organization of collectors. The agreement with the private collectors may be made through an ordinance, franchise, license, negotiated or bid contract, or by other means.

RELEVANT LINKS:

Minn. Stat. § 471.345. Minn. Stat. § 412.311. *Schwandt Sanitation of Paynesville v. City of Paynesville*, 423 N.W.2d 59 (Minn. Ct. App. 1988).

Minn. Stat. § 115A.94, subd. 3. Minn. Stat. § 115A.86.

Minn. Stat. § 115A.94, subd. 3.

Minn. Stat. § 115A.94, subds. 1, 3. Minn. Stat. § 115A.03, subds. 25a and 31. Minn. Stat. § 116.06, subd. 22.

Waste Recovery Coop. of Minn. v. Cnty. of Hennepin, 475 N.W.2d 892 (Minn. Ct. App. 1991).

The competitive bidding requirements in state law do not apply to contracts for solid waste collection because a contract for these services does not meet the definition of a “contract” that is subject to the Uniform Municipal Contracting Law.

Organized collection accomplished by contract or as a municipal service may include a requirement that all or any portion of the solid waste—except recyclable materials and materials that are processed at a resource-recovery facility at the capacity in operation at the time the requirement is imposed—be delivered to a waste facility identified by the city. In a district or county where a resource-recovery facility has been designated by ordinance, organized collection must conform to the ordinance’s requirements.

Cities are prohibited from establishing or administering organized collection in a way that impairs recycling. Further, cities must exempt recyclable materials from organized collection upon a showing by the person who generates the recyclables or a collector of recyclables that the materials are or will be separated from mixed municipal solid waste by the generator, separately collected, and delivered for reuse in their original form or for use in a manufacturing process.

It is not absolutely clear whether a city that decides to enter into an agreement for the collection of recyclable materials, including source-separated compostable materials, with one collector or an organization of collectors is required to comply with the procedural requirements in the organized collection statute. The answer likely depends on whether the definition of “solid waste” referenced in the organized collection statute should be interpreted to include recyclable materials.

The MPCA has taken the position (while advising cities that they should consult their city attorneys) that recyclable materials, including source-separated compostable materials, are not subject to the organized collection statute because they are not a part of solid waste or mixed municipal solid waste once they have been separated out for separate collection and recycling.

The Minnesota Court of Appeals, in a published opinion, considered a similar issue of whether telephone directories collected for recycling were subject to a county’s designation ordinance requiring mixed municipal solid waste to be disposed of at a county-designated facility. The court of appeals concluded that the telephone directories did not meet the definition of mixed municipal solid waste or of solid waste because they were being collected for recycling in a “separate waste stream” and were not being “discarded” as solid waste.

RELEVANT LINKS:

[Minn. Stat. § 115A.94, subd. 6.](#)

[Minn. Stat. § 115A.03, subd. 4.](#) [Minn. Stat. § 115A.94.](#)

[Analysis of Waste Collection Service Arrangements](#), Minnesota Pollution Control Agency, June 2009.

[Analysis of Waste Collection Service Arrangements](#), Minnesota Pollution Control Agency, June 2009.

If a city is considering entering into an agreement for the collection of recyclable materials with one collector or an organization of collectors, it should consult its city attorney to determine whether it must follow the procedural requirements in the organized collection statute.

B. Organized collection is generally optional

The organized collection statute provides that the authority to organize the collection of solid waste is optional and is in addition to authority governing solid waste collection granted by other law. The statute also provides that a city may exercise any authority granted by any other law, including a home rule charter, to govern collection of solid waste. A city would only be required to organize collection if the county in which it is located has by ordinance required cities within its jurisdiction to organize collection.

The Waste Management Act defines cities as “statutory and home rule charter cities authorized to plan under sections 462.351 to 462.364.” Therefore, both statutory and home rule charter cities may adopt organized collection using the procedures outlined in the organized collection statute.

C. Open collection versus organized collection: pros and cons

1. Open collection

There are several frequently cited advantages of open collection:

- Residents have more choice and are free to select a solid waste collector based on their preference.
- There is a direct relationship between the solid waste collector and its customers.
- There are minimal administrative costs for cities.
- Smaller solid waste collectors are better able to enter the market in an open collection system by servicing a portion of city residents.

In contrast, there are several frequently cited disadvantages of open collection:

- Open collection generally results in a more expensive monthly cost for residents.
- Multiple collectors means more truck traffic and the resulting negative side effects, including the potential for added street maintenance costs, and increased vehicle noise and emissions, fuel consumption, and vehicle accidents.

RELEVANT LINKS:

The Benefits of Organized Collection, Minnesota Pollution Control Agency, Feb. 2012. [Analysis of Waste Collection Service Arrangements](#), Minnesota Pollution Control Agency, June 2009.

[Analysis of Waste Collection Service Arrangements](#), Minnesota Pollution Control Agency, June 2009.

[Minn. Stat. § 115A.94, 2013 Minn. Laws ch. 45](#). See Appendix A, Organized Collection Flowchart.

[Minn. Stat. § 115A.03, subd. 4. Minn. Stat. § 115A.94.](#)

- There may be inconsistent charges for the same level of service in a city.
- Cities have reduced ability to manage solid waste collection.

2. Organized collection

There are several frequently cited advantages of organized collection:

- The price paid by households in an organized collection system is generally lower per month for similar service levels than in an open collection system due to increased efficiencies from serving every household or business in the community or on a particular route.
- Limiting the number of solid waste collectors allows cities to decrease the impacts of increased truck traffic, including the potential for added street maintenance costs, vehicle noise and emissions, fuel consumption, and vehicle accidents.
- Cities have greater ability to manage solid waste collection and can establish service requirements.
- Standardized service makes public education easier.
- Cities' ability to seek requests for proposals on a regular basis helps lower costs.

In contrast, there are several frequently cited disadvantages of organized collection:

- Households and businesses do not get to choose their collector.
- Cities have greater administrative involvement and costs.
- Small collectors have higher entry costs to get into the market and competitive opportunities are limited to contract openings.
- The statutory requirements for switching from open collection to organized collection are time consuming and can be difficult politically.

D. Procedural requirements for adopting organized collection

There are several procedural steps a city must take before it is authorized to adopt organized collection of solid waste. The Minnesota Legislature adopted significant changes to the organized collection statute in 2013 that were designed to simplify the process for adopting organized collection. Any city that has adopted organized collection as of May 1, 2013, is exempt from the new requirements.

The Waste Management Act defines cities as “statutory and home rule charter cities authorized to plan under sections 462.351 to 462.364.” Therefore, both statutory and home rule charter cities may adopt organized collection using the procedures outlined in the organized collection statute.

RELEVANT LINKS:

Minn. Stat. § 115A.94, subd. 4d. Minn. Stat. § 331A.03.

Minn. Stat. § 115A.94, subd. 4d.

Minn. Stat. § 115A.94, subd. 4d.

Minn. Stat. § 115A.94, subd. 4d.

Minn. Stat. § 115A.94, subd. 4d.

Minn. Stat. § 115A.94, subd. 4c.

LMCIT staff can assist in reviewing city contracts, especially provisions related to insurance and liability. For more information, contact Chris Smith, Risk Management Attorney, at csmith@lmc.org or 651-281-1269.

1. Notice to public and to licensed collectors

A city with more than one licensed collector must first give notice to the public and to all licensed collectors that it is considering adopting organized collection. State law does not specify how notice should be provided. The League recommends providing both published notice and individual mailed notice to each licensed collector.

2. 60-day negotiation period with licensed collectors

After the city provides notice of its intent to consider adopting organized collection, it must provide a 60-day negotiation period that is exclusive between the city and all collectors licensed to operate in the city.

A city is not required to reach an agreement with the licensed collectors during this period. The purpose of the negotiation period is to allow the licensed collectors an opportunity to develop a proposal in which they, as members of an organization of collectors, will collect solid waste from designated sections of the city.

The proposal must contain identified city priorities, including issues related to zone creation, traffic, safety, environmental performance, service provided, and price, and must reflect existing collectors maintaining their respective market share of business as determined by each hauler's average customer count during the six months before the beginning of the 60-day negotiation period.

If an existing collector opts to be excluded from the proposal, the city may allocate its customers proportionally based on market share to the participating collectors who choose to negotiate.

If an organized collection agreement is established as a result of the 60-day negotiation period, it must be in effect for a period of three to seven years. Upon execution of an agreement between the participating licensed collectors and the city, the city shall establish organized collection through appropriate local controls. The city does not need to establish an organized collections options committee if it reaches an agreement with the licensed haulers during the 60-day negotiation period; however, the city must first provide public notice and a public hearing before officially deciding to implement organized collection. Organized collection may begin no sooner than six months after the effective date of the city's decision to implement organized collection.

RELEVANT LINKS:

[Minn. Stat. § 115A.94 subd. 4a.](#) [Minn. Stat. ch. 13D.](#)

[Minn. Stat. § 115A.94, subd. 4b.](#)

[Minn. Stat. § 115A.94, subd. 4b.](#)

[Minn. Stat. § 115A.94, subd. 4b.](#)

[Minn. Stat. § 115A.94, subd. 4b.](#)

[Minn. Stat. § 115A.94, subd. 4b.](#)

[Minn. Stat. § 115A.94, subd. 4c.](#)

3. Organized collection options committee

If a city does not reach an agreement with its licensed collectors during the 60-day negotiation period, it can form by resolution an “organized collection options committee” to study various methods of organized collection and to issue a report.

The city council appoints the committee members. The committee is subject to the open meeting law and has several mandatory duties.

First, the committee shall determine which methods of organized collection to examine, which must include at least two methods: (1) a system in which a single collector collects solid waste from all sections of the city; and (2) a system in which multiple collectors, either singly or as members of an organization of collectors, collect solid waste from different sections of the city.

Second, the committee shall establish a list of criteria on which the organized collection methods selected for examination will be evaluated, which may include: costs to residential subscribers, miles driven by collection vehicles on city streets and alleys, initial and operating costs of implementing the organized collection system, providing incentives for waste reduction, impacts on solid waste collectors, and other physical, economic, fiscal, social, environmental, and aesthetic impacts.

Third, the committee shall collect information regarding the operation and efficacy of existing methods of organized collection in other cities and towns.

Fourth, the committee shall seek input from, at a minimum:

- The city council
- The city official responsible for solid waste issues
- Persons currently licensed to operate solid waste collection and recycling services in the city
- City residents who currently pay for residential solid waste collection services

Finally, the committee must issue a report on its research, findings, and any recommendations to the city council.

4. Public notice and public hearing

A city council shall consider the report and recommendations of the organized collection options committee. A city must provide public notice and hold at least one public hearing before deciding to implement organized collection.

RELEVANT LINKS:

[Minn. Stat. § 115A.94, subd. 4c.](#)
[Minn. Stat. § 115A.94, subd. 3.](#)

5. Implementation

A city can begin organized collection no sooner than six months after the effective date of the city's decision to implement organized collection. A city may organize collection as a municipal service where city employees collect solid waste from a defined geographic service area or areas. In the alternative, cities may organize collection by using one or more private solid waste collectors or an organization of collectors.

An agreement with private collectors may be made through an ordinance, franchise, license, negotiated or bidded contract, or by other means.

6. Anticompetitive conduct

A city that organizes collection is authorized to engage in anticompetitive conduct to the extent necessary to plan and implement its chosen organized collection system, and is immune from liability under state laws relating to antitrust, restraint of trade, and unfair practices, and other regulation of trade or commerce.

V. Conclusion

Cities have broad authority to regulate the collection and disposal of solid waste. Cities exercise this authority subject to state and county oversight. Cities should work closely with their city attorneys when exercising this authority by requiring licenses, imposing fees and assessments, entering into contracts, and adopting ordinances. Cities must comply with procedural requirements in the organized collection statute before they may adopt organized collection of solid waste.

Appendix A: Organized Collection Flowchart

