Board of Public Works

335 South Broadway
De Pere, WI 54115
https://www.deperewi.gov/

Regular Meeting

Agenda

Monday, January 11, 2021 **6:00 PM**

Pursuant to Wisconsin Statutes 19.84, Notice is hereby given to the public that a meeting of the **Board of Public Works** of the City of De Pere will be held on **January 11, 2021** at **6:00 PM.**

Due to the current public health emergency, the meeting will be held electronically and the public may attend this meeting electronically or telephonically by accessing either:

Please join my meeting from your computer, tablet or smartphone.
https://www.gotomeet.me/DePere

You can also dial in using your phone.
United States (Toll Free): 1 866 899 4679
United States: +1 (312) 757-3117

Access Code: 154-883-285

THIS MEETING WILL NOT BE HELD IN PERSON.

This meeting may also be rebroadcast on Spectrum Cable Channel 4 and AT&T U-verse Channel 99 throughout the week and available on demand at http://deperecitywi.iqm2.com/.

I. Call to Order

1. Roll Call

II. Items

1. Approval of the Board of Public Works December 7, 2020 Meeting Minutes
2. Discuss 2019 Inflow and Infiltration Study and Clear Water Mitigation Plan
3. Consideration and possible action on Quote for 2021 Consulting Services*
4. Consideration and possible action on quote for a steam relocation on Parcel WD-D0077 adjacent to Fortune Avenue in the West Business Park.*
5. Discuss Ald. Carpenter's Request for Review of Polycart Storage Enforcement
6. Consideration and possible action on using Toter polycarts for garbage and recycling collection
7. Consideration and possible action on Quotes for 2021 Materials Testing and Soil Borings*
8. Consideration and possible action on Extension of Agreement for Spur Line Maintenance*
9. Consider and Possible Action for Engineering Technical Services Regarding Installation of T-Mobile's Wireless Antennae Facilities on Merrill Water Tower*
10. Consideration and possible action to Reconstruct Erie Street
11. Consider and Possible Action for S. Webster Entrance Sign Replacement*

12. Consideration and possible action on Ald. Hansen's Request for Responsible Bidder's Ordinance*

III. Future Agenda Items

IV. Adjournment

***Items with an asterisk require City Council approval.**

Any person wishing to attend this meeting who, because of disability, requires special accommodations should contact the Clerk-Treasurer's office at 339-4050 by Noon, Monday, January 11, 2021 so that arrangements can be made.

Agenda Sent To:
MAYOR
ALDERPERSONS
DEPARTMENT HEADS

RUEKERT-MIELKE, INC
HOLUBAR CONSTRUCTION COMPANY
ROBERT E. LEE & ASSOCIATES, INC

DE PERE CHAMBER OF COMMERCE
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KRESS FAMILY LIBRARY
BAY AREA TESTING & CONSULTING, INC
ECS MIDWEST, LLC

Notice is hereby given that a majority of the members of the Common Council of the City of De Pere may attend this meeting to gather information about a subject (s) over which they have decision-making responsibility.

City of De Pere, Wisconsin

Request For Board of Public Works Action

MEETING DATE:	**January 11, 2021**
DEPARTMENT:	**Board of Public Works**
FROM:	**Betty Sellenheim**
SUBJECT:	**Approval of the Board of Public Works December 7, 2020 Meeting Minutes**

ATTACHMENTS:

- 2020 1207 BOPW Draft Minutes (PDF)

Board of Public Works

335 South Broadway
De Pere, WI 54115
https://www.deperewi.gov/

Regular Meeting

Draft Minutes

Monday, December 7, 2020 **7:30 PM**

I. Call to Order

The meeting was called to order at 7:30 PM by Mayor James Boyd

Attendee Name	Title	Status	Arrived
James Boyd	Mayor	Remote	
Dan Carpenter	Alderperson	Remote	
Jonathon Hansen	Alderperson	Remote	
Shana Defnet Ledvina	Alderperson	Remote	
Dean Raasch	Alderperson	Remote	

Others present:
Scott Thoresen, Director of Public Works (remote)
Eric Rakers, City Engineer (remote)
Betty Sellenheim, Recording Secretary (remote)
Sarah Deutsch, resident (remote)

II. Items

1. Approval of the November 9, 2020 Board of Public Works Meeting Minutes

Alderperson Raasch moved to approve the November 9, 2020 Board of Public Works meeting minutes, seconded by Alderperson Ledvina.

Alderperson Hansen requested verification from staff regarding Item #3 and requested Item #6 be clarified to include the request was for an RRFB at Chicago and Crestview.

Upon vote, the motion passed unanimously

RESULT:	**ADOPTED [UNANIMOUS]**
MOVER:	Dean Raasch, Alderperson
SECONDER:	Shana Defnet Ledvina, Alderperson
AYES:	Boyd, Carpenter, Hansen, Defnet Ledvina, Raasch

2. Consideration and possible action to Restrict Parking on the West Side of Huron Street*

Eric Rakers, City Engineer, provided background information from previous discussions at Parking & Traffic Team and Board of Public Works. Mr. Rakers explained that staff had received two requests to restrict parking on Huron Street from George Street to Ridgeway. Mr. Rakers stated in preparation for the meeting, a survey was sent to the property owners along Huron Street and residents were invited to attend the Board of Public Works meeting if they wished. Mr. Rakers stated that 16 responses from the survey were in favor of the parking restrictions and 4 were opposed.

Alderperson Raasch moved to approve restricting parking on the west side of Huron Street between 120' north of George Street and Ridgeway, seconded by Mayor Boyd.

Alderperson Carpenter asked if staff had reached out to the residents that were opposed to verify the merit of their concerns. Eric Rakers, City Engineer, stated he did not and all

residents were notified of tonight's meeting if they had wished to speak or provide additional information. Mayor Boyd asked if three hour parking was in place on Huron Street. Mr. Rakers stated there was not. Alderperson Hansen asked if the street width was changed with reconstruction. Mr. Rakers stated it was not and the street had been 24 feet wide before reconstruction.

Upon vote, the motion passed unanimously.

RESULT:	**ADOPTED [UNANIMOUS]**
MOVER:	Dean Raasch, Alderperson
SECONDER:	James Boyd, Mayor
AYES:	Boyd, Carpenter, Hansen, Defnet Ledvina, Raasch

3. Discuss Feasibility Study for Joint Compost Facility With The Village of Allouez

Scott Thoresen, Director of Public Works, explained the history of the feasibility study and combining compost facilities with Village of Allouez. Mr. Thoresen explained Robert E. Lee has been hired to perform the study and if it is determined feasible, Robert E. Lee will provide construction cost estimate to create a combined compost facility. If approved, City of De Pere and Town of Ledgeview would be responsible for 100% of the construction cost to expand the Town of Allouez site. If everything moves forward, staff believes the site could be open in 2022.

Alderperson Carpenter asked if residents will still be able to cut firewood as they can at the current site. Mr. Thoresen stated that potentially will not be an option at the Allouez site.

Discussion only. No action necessary.

4. Consideration and Possible Action Regarding Alderperson Raasch's request for CN Railroad Tracks on Grant Between Fifth & Sixth Street*

Alderperson Raasch explained a request received from a resident regarding the speed and signaling of trains traveling through De Pere and specifically on Grant between Fifth and Sixth Streets. In conversations with public works staff and police, it is understood the actions of the railroad going through the intersection of concern are well within the normal practices and protocols. Alderperson Raasch explained if any changes were to be discussed, Canadian National would need to be included as staff is unable to make these changes without them. Scott Thoresen, Director of Public Works, explained history of changes made with the railroad within city limits including whistle bans.

Discussion only. No action necessary.

5. Consideration and possible action on Brown County Agreement EE-18*

Eric Rakers, City Engineer, explained the Brown County Agreement included in the packet for traffic signal installation on Grant at Allard in relation to the West De Pere High School expansion and traffic study. Mr. Rakers explained the signals would be funded by the school district and maintained by Brown County after construction.

Alderperson Raasch asked about other changes along Grant, specifically west of Hwy 41. Mr. Rakers stated those changes were no longer being discussed and were part of a grant proposal that was not funded. Mr. Rakers stated the changes that are coming from the

traffic impact analysis for the West De Pere High School included: closing Apollo at Grant, installing signals on Grant at Allard, and mid-block crossing. Alderperson Raasch explained concerns with entering Grant Street from Suburban due to lack of breaks in traffic. Mr. Rakers stated the school will be adding a parking lot off Helena Street which may reduce the number of people attempting to access the school from Grant Street.

Mayor Boyd moved to approve Brown County Agreement EE-18 for traffic signal installation on Grant at Allard, seconded by Alderperson Raasch. Upon vote, the motion passed unanimously.

RESULT:	**ADOPTED [UNANIMOUS]**
MOVER:	James Boyd, Mayor
SECONDER:	Dean Raasch, Alderperson
AYES:	Boyd, Carpenter, Hansen, Defnet Ledvina, Raasch

6. Consideration and possible action on proposal for Grant and Allard Street Intersection Modifications and Signal Design*

Eric Rakers, City Engineer, explained this item as a follow-up to the discussion regarding approval of Brown County Agreement EE-18 for traffic signal installation on Grant at Allard. Staff is requesting approval of OMNI Associates for consulting services for design and construction management of the signal installation and pedestrian crossing improvements near VFW Park. Mr. Rakers stated staff will be sending out notices to the residents in the area in the near future to alert them to the changes being proposed for construction in 2021.

Mayor Boyd moved to approve the proposal from OMNI Associates for consulting services, seconded by Alderperson Carpenter. Upon vote, the motion passed unanimously.

RESULT:	**ADOPTED [UNANIMOUS]**
MOVER:	James Boyd, Mayor
SECONDER:	Dan Carpenter, Alderperson
AYES:	Boyd, Carpenter, Hansen, Defnet Ledvina, Raasch

7. Discuss Ald. Carpenter's Request for Review of City Sidewalk

Scott Thoresen, Director of Public Works, explained the request from Alderperson Carpenter regarding parts of the City where sidewalk does not exist. Mr. Thoresen explained map was included in the packet that showed areas of the city without sidewalk. Mr. Thoresen stated he was unsure why certain sections did not have sidewalk installed but elected officials and board members can impact this construction based on the needs of the City.

Mayor Boyd questioned if sidewalks are installed with new subdivision construction. Mr. Thoresen stated he believed the most recent subdivisions have had sidewalks installed. Alderperson Carpenter explained his request to review the sidewalk installation policies was based on previous discussions to add yield signs for pedestrian safety. Alderperson Hansen questioned the removal of mature trees to install sidewalks in the area where the last yield signs were installed. Mr. Thoresen explained it would be a challenge to install sidewalks in that area and costly with tree removals and retaining wall installation. Alderperson Hansen questioned if Old Plank

Road would have the same issues. Mr. Thoresen stated that was a rustic road and the city would not be allowed to install sidewalks. Alderperson Hansen questioned if sidewalks were being mandated on newly constructed subdivisions with cul-de-sacs. Eric Rakers, City Engineer, stated that was the direction staff has been going and mandating sidewalks be installed once the parcel is developed. Pedestrian safety was further discussed.

Discussion only. No action necessary.

8. Discuss USPS Mailbox Located at 415 George Street

Scott Thoresen, Director of Public Works, explained the situation regarding USPS mailboxes located at 415 George Street and concerns with the placement. Mr. Thoresen explained the local post office is unable to move the boxes without regional/district approval. If approved, it could be relocated as early as spring 2021.

Alderperson Raasch expressed his gratitude to staff for the work that has been done regarding the relocation of the mailboxes. Mr. Thoresen stated he thinks they are looking to move the mailboxes to the library. Mayor Boyd asked if staff knew why the boxes were in their current location. Mr. Thoresen stated he thinks it dated back to the time of the bridge changes and George Street reconstruction and were placed across the street from the old post office building.

Discussion only. No action necessary.

9. Discuss Ald. Raasch's Request for Review of Speed Limit on CTH PP

Scott Thoresen, Director of Public Works, explained the request to review the speed limit on County Hwy PP from O'Keefe to Cook. Staff reached out to Brown County and were told it was to match Hwy 57 in that section and that it was the appropriate speed.

Alderperson Hansen stated he has tried reaching out to Wisconsin DOT about changing the speed to 35 mph in this section without much avail. Mr. Thoresen stated he was led to believe by Brown County that the state would need to change the speed since it is Hwy 57 and they have not made any indication they would make that change. Alderperson Raasch expressed his gratitude to staff for looking into the situation.

Discussion only. No action necessary.

III. Future Agenda Items

None

IV. Adjournment

Mayor Boyd moved to adjourn the meeting at 8:25 PM, seconded by Alderperson Carpenter. Upon vote, the motion passed unanimously.

***Items with an asterisk require City Council approval.**

Any person wishing to attend this meeting who, because of disability, requires special accommodations should contact the Clerk-Treasurer's office at 339-4050 by Noon, Monday December 7, 2020 so that arrangements can be made.

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OMNI ASSOCIATES
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TV, NEWSPAPERS & RADIO
KRESS FAMILY LIBRARY

Notice is hereby given that a majority of the members of the Common Council of the City of De Pere may attend this meeting to gather information about a subject (s) over which they have decision-making responsibility.

Respectfully submitted,
Betty Sellenheim

City of De Pere, Wisconsin

Request For Board of Public Works Action

MEETING DATE:	**January 11, 2021**
DEPARTMENT:	**Board of Public Works**
FROM:	**Eric Rakers**
SUBJECT:	**Discuss 2019 Inflow and Infiltration Study and Clear Water Mitigation Plan**

ATTACHMENTS:

- 2021 0111 CI_BOPW_Inflow&Infiltration (PDF)
- 2019_Inflow&Infiltration_Basins (PDF)
- 2019_I&I_Study&Clear_Water_Mitigation_Plan (PDF)

CITY OF DE PERE
MEMO

To: Honorable Mayor Boyd
Members of the Board of Public Works
From: Eric P. Rakers, P.E., City Engineer
Date: January 11, 2021

RE: Discuss 2019 Inflow and Infiltration Study and Clear Water Mitigation Plan

In 2019, The City hired Ruekert and Mielke, Inc. to complete field monitoring and provide an Inflow and Infiltration Mitigation Report to outline the City's future steps towards reducing inflow and infiltration into our sanitary sewer collection system. Inflow is water that enters the sanitary sewer system only during or immediately after rainfall from direct connections. Points of entry may include connections with roof and area drains, storm drain connections, and holes in manhole covers. Infiltration is the water that enters the sanitary sewer system from the surrounding soil. Common points of entry include broken pipes and defective joints in pipes or manhole walls. A cross between infiltration and inflow is the connection of foundation drains to sanitary laterals. The highest inflow occurs as a result of storm events or snow melt that contribute to excessive sanitary sewer flows. The highest infiltration flows are observed following storm events as water seeps into the system through its defects. The identification and reduction of inflow and infiltration is important as it:

- Reduces treatment costs,
- Eliminates sanitary sewer system overflows,
- Corrects structural defects and extends the service life of the sanitary sewer system,
- Analyzes the sewer capacity for existing and future service, and
- Increases the hydraulic capacity of sanitary sewers.

There are two topics that will be discussed as part of this item:

1. The results of the field monitoring completed as part of the inflow and infiltration study.
2. Steps moving forward to reduce inflow and infiltration.

Background

The City of De Pere operates and maintains a sanitary sewer system which includes over 100 miles of gravity sewers and one lift station, serving development on both sides of the Fox River. The wastewater from the City's collection system discharges into the Green Bay Metropolitan Sewerage District (GBMSD) wastewater treatment facility located in West De Pere. The City of De Pere pays GBMSD for wastewater treatment based on five different parameters, one of which is the volume of flow. The City pays GBMSD to treat inflow and infiltration (I&I) from clear water into the sanitary sewer system.

In addition to wastewater treatment, GBMSD operates interceptor sewers throughout the City that collect wastewater from De Pere and other municipalities and transports to the wastewater treatment plant. As interceptors are replaced, GBMSD pays for the interceptor repair for a pipe the same size. Municipalities contributing flow are required to pay for pipe size increases related to growth and I&I. Based on studies GBMSD has conducted, they are finding that interceptors are undersized due to the amount of I&I. GBMSD's Charles Street Interceptor was upgraded in 2018. The City paid for pipe size increases in the Charles Street Interceptor due to I&I.

The original collection system was constructed over 100 years ago and was designed to collect both wastewater and storm runoff (called a combined sewer). While major efforts have been made to eliminate connections that allow for the entry of storm water into the collection system, the City still experiences significant increases in flow following major rainfall. Since 2007, the City has been lining or relaying approximately 10,000 linear feet of sewer a year, relaying laterals to the property line, repairing manholes and sealing leaks in pipes. Even with those upgrades, flow monitors installed by GBMSD have recorded peak factors as high as 20 (flows 20 times greater than average flows) following rainfall events. Staff believes a significant portion of the I&I is coming from private laterals and property.

Inflow and Infiltration Study

Wastewater monitoring was performed at 18 sites in the De Pere wastewater collection system. Sites were monitored to confirm and further pinpoint areas that were previously identified to have excessive inflow and infiltration amounts. The 18 flow monitoring sites were further broken into four sanitary sewer basins:

1. Front Street Annex (Basin E-1) – This basin lies in the northwest portion of the east side of De Pere. It generally includes the area south of Ridgeway Boulevard and north of George Street. It extends to Webster Avenue to the east and the Fox River to the west. This area includes a portion of the central commercial district, some of the older development within the City. This basin was previously identified as having excessive inflow levels.
2. Front Street (Basin E-2) – This basin lies just south of the Front Street annex basin along the Fox River. It generally includes the area south of Charles Street, north of Cook Street and west of Nob Hill Lane. As with the Front Street Annex Basin, some of the area was developed when different plumbing codes were used that were more tolerant of discharging storm water into the wastewater system. This basin was previously identified as having excessive inflow levels.
3. Aldrin (Basin W-4) – The Aldrin Basin is located in the central part of the west side of De Pere. The area included extends from Grant Street south to Westwood Drive and east from St. Mary's Street to near Seventh Street. The development is primarily residential in nature. This basin was previously identified as having excessive inflow levels.
4. St Mary's (Basin W-5) – The St. Mary's Basin lies south of the Aldrin Basin and north of Scheuring Road. It extends from USH 41 east to the Fox River. The development is primarily residential in nature. This basin was previously identified as having high infiltration levels.

A map of these basins is included with this discussion item for consideration. (2019_Inflow&Infiltration_Basins.pdf)

Over the course of the field monitoring, flow metering data from the above listed basins were compared to precipitation data taken from local rain gauges. Using average flows passing the meter, inflow and infiltration can then be identified as higher "peak flows" passing by the meter during or after a rainfall event. When the peak flow is occurring during the rainfall event, the basin is then determined to have high inflow, as water is being directly discharged into the sanitary sewer from its collection sources. When the peak flow is occurring after the rainfall event, the basin is then determined to have high infiltration as it takes longer for the surrounding soils to become saturated where water can seep through the defects in the pipes or structures.

The flow monitoring results for each basin area as follows:

Front Street Annex (Basin E-1)

The basin is 533.2 acres in size and has an average flow of 307.5 gallons per minute (gpm) entering the Green Bay Metropolitan Sewerage District's interceptor running along the Fox River (207.5 gpm under dry conditions). As a whole, this basin has a weighted average peak factor of 3.5 attributed to infiltration and a 5.1 attributed to inflow (during a rainfall event, the system saw 5.1 times the average flow under dry conditions).

This basin was monitored at nine different locations creating nine sub-basins. Further breaking this system down into smaller sub-basins, the peak flow factor attributed to infiltration reached as high as 10.6 on Williams Street (35 acres). The peak flow factor attributed to inflow was as high as 23.8 between Fulton Street and Ridgeway. The sewer system saw nearly 24 times more water during a rainfall event than it would under normal, dry conditions.

Front Street (Basin E-2)

This basin is 253 acres in size and has an average flow of 177.2 gpm entering the Green Bay Metropolitan Sewerage District's interceptor running along the Fox River (118 gpm under dry conditions). As a whole, this basin has a weighted average peak factor of 6.3 attributed to infiltration and a 9.5 attributed to inflow. This basin was only monitored at two locations.

Aldrin (Basin W-4)

This basin is 159.1 acres in size and has an average flow of 99.1 gpm entering the Green Bay Metropolitan Sewerage District's interceptor running along Suburban Drive (82.8 gpm under dry conditions). As a whole, this basin has a weighted average peak factor of 4.6 attributed to infiltration and 5.5 attributed to inflow.

This basin was monitored at six locations creating six sub-basins. Further breaking this system down into smaller sub-basins, the peak flow attributed to infiltration reached as high as 14.7 on Trailwood Drive east of Suburban Drive (1.7 acres). The peak flow factor attributed to inflow was as high was 16.7 in this same sub-basin.

St. Mary's (Basin W-5)

This basin only had one flow monitoring location on Suburban Drive as the sanitary sewer discharged north into the City owned Grant Street sanitary sewer. This basin is 405.8 acres in size and has an average flow of 106.4 gpm (73.6 gpm under dry conditions). The peak flow factor attributed to infiltration was 7.6 and the peak flow factor attributed to inflow was 10.9.

It is important to note that smaller basins normally see higher peaking factors as they react harsher to spikes in inflow and infiltration. Larger basins do not react as significantly due to the higher average flows.

Steps Moving Forward

The next step for the City's inflow and infiltration mitigation plan would be to set up a sanitary sewer evaluation survey (SSES). The goal of SSES programs is to prioritize drainage districts for rehabilitation in the efforts of eliminating inflow and infiltration. SSES program examples include:

- **Additional flow monitoring** to provide measured system responses to rain and quantify the amount of inflow and infiltration occurring in the targeted basin.
- **Mainline and lateral televising** to visually inspect our systems structural condition. The City already televises our sewer system mains on a 3-5 year rotation. Lateral televising currently only occurs for isolated instances.
- **Manhole inspection** to visually inspect our systems structural condition. The City actively inspects manholes in conjunction with our capital improvement program or on a complaint basis.
- **Smoke Testing:** Smoke testing is a relatively inexpensive and quick SSES method of locating inflow and infiltration sources in the sanitary sewer system. A smoke candle is lit inside an isolated sewer system and an air blower is used to blow the smoke through the system. A team of observers walk along streets, around front and back yards, and around sewered buildings to identify smoke leaks. Roof top leaks can be further identified through the use of a drone. Anywhere the smoke is visibly escaping the sewer system is documented as a source of inflow and infiltration. Sanitary lateral cleanouts, building lateral leaks through the ground, area drains, sump pumps, and downspouts are sources of inflow and infiltration easily identified by smoke testing and contribute significant flows into the sanitary sewer system.
- **Building and sump pump inspections** to locate illegal cross connections. The program will locate the foundation drain and sump pump discharge connections to the sanitary sewer system.

With additional prioritization, the City can better target its rehabilitation programs to identify and address sources of inflow and infiltration. Currently, the City is completing approximately 10,000 linear feet of sewer relay or lining a year. Additional tools such as sanitary sewer lateral lining or relay from the sewer main to the house on private property can be completed to further eliminate sources of inflow and infiltration. Sanitary lateral pipe bursting has become popular in the Fox Cities area with three contractors actively performing the work. The new lateral line can be pulled through the existing line "bursting" it as it is pulled. To do this the contractor accesses the lateral via an access hole in the basement or outside at the foundation to pull a new sanitary sewer lateral from the main out in the road to the building structure.

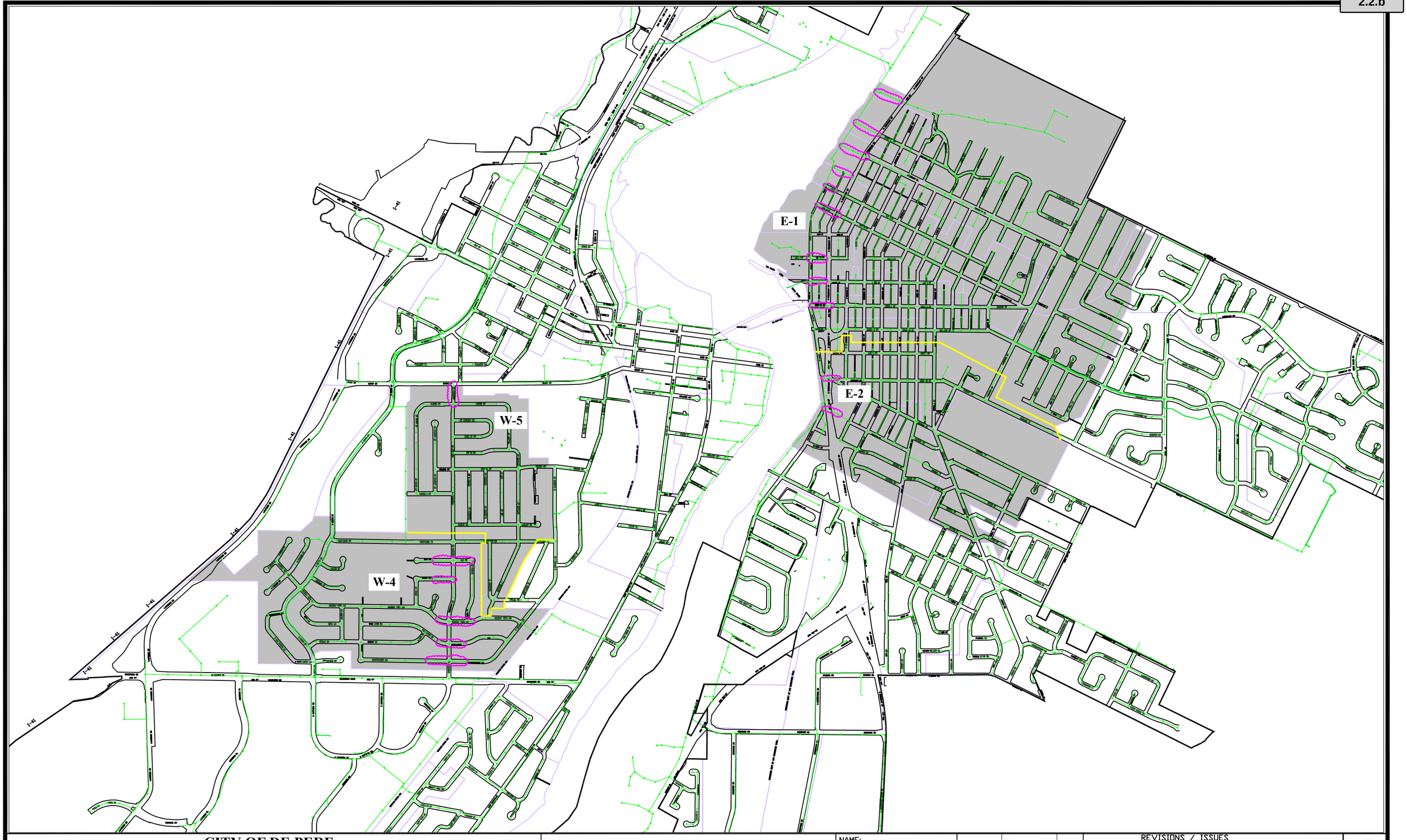
Summary

The City hired Ruekert and Mielke to complete field, flow monitoring and identify additional measures to employ under the City's sanitary sewer evaluation survey (SSES) to reduce inflow and infiltration. The flow monitoring confirmed high inflow and infiltration areas and further magnified sub-basins to target under future rehabilitation programs.

Staff plans to outline policies for additional SSES and rehabilitation programs such as smoke testing and full-length sanitary lateral relay to private property in order to reduce inflow and infiltration for Board of Public Works consideration and approval in the future.

Attachments

2019_Inflow&Infiltration_Basins (PDF)
2019_I&I_Study&Clear_Water_Mitigation_Plan (PDF)



CITY OF DE PERE
ENGINEERING DIVISION 925 S. SIXTH ST DE PERE WI 54115
OFFICE 920-339-4061 FAX 920-339-4071

CITY OF DE PERE
FLOW MANITORING BASINS

NAME:

PROJECT #

	BY	DATE
SURVEYED	NA	NA
DRAWN	BK	09-2019
DESIGNED		

REVISIONS / ISSUES			
NO.	DATE	BY	REMARKS

PAGE NO.

I / I Study and Clear Water Mitigation Plan

DE PERE

RUNS DEEPER

Infiltration / Inflow Study and Clear Water Mitigation Plan

July 2020

PREPARED FOR:
City of De Pere
925 S. Sixth Street
De Pere, WI 54115

PREPARED BY:
Ruekert & Mielke, Inc.
1400 Lombardi Avenue
Suite 101S
Green Bay, WI 54304

Ruekert • Mielke

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INFILTRATION / INFLOW STUDY AND CLEAR WATER MITIGATION PLAN

GENERAL INFORMATION

The City of De Pere operates and maintains a gravity fed, sanitary sewer system which includes well over 100 miles of sewers, and one lift station, serving development on both sides of the Fox River. The wastewater from the City's collection system discharges into the Green Bay Metropolitan Sewerage District (GBMSD) wastewater treatment facility located in West De Pere. The GMBSD wastewater treatment facility was purchased from the City on January 1, 2008. The solids generated at the De Pere plant are piped to the Green Bay facility for processing.

The original collection system was constructed over 100 years ago and was designed to collect both wastewater and storm runoff. While major efforts have been made to eliminate connections that allow for the entry of storm water into the collection system, the City still experiences significant increases in flow following major rainfall. Since 2007, the City has been lining or relaying approximately 10,000 linear feet of sewer a year, relaying laterals to the property line, repairing manholes and sealing leaks in pipes. Flow monitors installed by GBMSD have recorded peak factors as high as 20 following rainfall events.

SCOPE OF PROJECT

The purpose of the 2019 Infiltration and Inflow (I/I) Study and Clean Water Mitigation Plan is to complete the following work items. Infiltration is the water that enters the sanitary sewer system from the surrounding soil. Common points of entry include broken pipe and defective joints in pipe and manhole walls. Inflow is water that enters the sanitary sewer system only during or immediately after rainfall from direct connections. Points of entry may include connections with roof and area drains, storm drain connections, and holes in manhole covers.

1) Review data from previous studies.
2) Conduct Field monitoring to determine I/I and provide flow and rainfall data in a Microsoft Excel spreadsheet format.
3) Evaluate current program sewer relay and lining program and recommend modifications to existing programs and additional methods appropriate to use.
4) Identify additional programs for private lateral evaluation and rehabilitation. Provide recommendation for program implementation. Describe how other communities promote successful completion of I/I reduction on private property.
5) Provide recommendations for additional sewer system evaluation survey (SSES) programs in high I/I areas.
6) Provide schedule and costs for SSES activities.
7) Prepare an I/I mitigation report to outline the City's future steps towards reducing I/I.

IMPORTANCE OF SEWER SYSTEM MANAGEMENT PROGRAMS

The goals of Sewer Management Programs are:

- Reduce I/I
- Eliminate sewer system overflows
- Correct structural defects – extend service life of sanitary sewer system
- Analyze sewer capacity for existing and future service
- Increase hydraulic capacity of sanitary sewers

Although the reduction of I/I is the primary concern on this project, meeting the other goals strengthens the buy-in to the sewer management programs by all shareholders: City, sewer users, developers, and regulatory agencies.

The City of De Pere has a significant investment in the sanitary sewer system. Increasing sewer capacity without reconstruction can be very cost-effective. I/I reduction will clearly increase capacity while at the same time reduce sewer surcharges because of excessive clearwater flow. Rehabilitation programs are prioritized and sewer system extension programs will not be hampered by sewer system overflows. There are also sewer system modifications such as maintenance-cleaning, and manhole flowline modifications that can have major impacts on capacity.

I/I reduction is necessary, not only to prevent surcharging of sewers with excessive clearwater flows that cause backup of wastewater into property basements and sewer system overflows, but also to reduce the capital and operating costs for conveying and treating the excessive wastewater flows. The City of De Pere and GBMSD have to provide costly collector and interceptor sewers improvements to convey the peak flows to the wastewater treatment facilities and the GBMSD has to make hydraulic capacity improvements at the wastewater treatment facilities and has higher operating costs for the treatment of the excessive flows. If I/I is excessive, the City of DePere sewer customers can experience basement backups and will receive high sewer billings for capital costs for facilities and operating costs for treatment.

An SSES is the critical first step in a sanitary sewer evaluation and management program that includes project management and coordination of flow monitoring, sewer system evaluation, field survey, system mapping, hydraulic modeling and analysis, best management practices, cleaning, and long-term maintenance management programs.

The sewer use ordinance must contain provisions for operation and maintenance and access for all publicly and privately owned and operated sanitary sewer collection and transmission system to effectively complete SSES programs.

INFILTRATION AND INFLOW STUDY

Wastewater monitoring was performed at 18 sites in the De Pere Wastewater Collection System to complete an I/I study of areas that were previously studied and shown to have excessive I/I amounts. The locations of the monitoring sites are shown in Figures 1 through 4. The intent of the I/I study is to combine the current 2020 flow results with past reports. This flow data will be used to outline the City's future steps to reduce I/I. The Clean Water Mitigation Plan will be the deliverable in the second phase of this project.

Ruekert & Mielke, Inc. (R/M) was retained to meter flows at 18 sites in De Pere Basins E-1, E-2, W-4, and W-5 in accordance with City of De Pere direction. The first phase of flow metering was performed at 9 sites in Basin E-1 in April of 2020. The second phase of flow metering was performed at 9 sites in Basins E-2, W-4, and W-5 in May of 2020.

Basin E-1 lies in the northwest portion of the east side of De Pere. The drainage area is approximately 694 acres. It generally includes the area south of Ridgeway Boulevard and north of George Street. It extends to Webster Avenue on the east and the Fox River on the west. This area includes a portion of the central commercial district, some of the older development within the City. Areas in this basin were developed when different plumbing codes were used that were more tolerant of discharging storm water to the wastewater system. This basin was previously identified as having excessive inflow levels.

FIG. 1 Location of Monitoring Sites

DE PERE

ENGINEERING DIVISION
925 S. SIXTH ST
DE PERE, WI 54115
OFFICE 920-339-4061
FAX 920-339-4071

FLOW MONITORING LOCATIONS

E-1

DATE:09/19
BY:BK
CHECKED:CKK

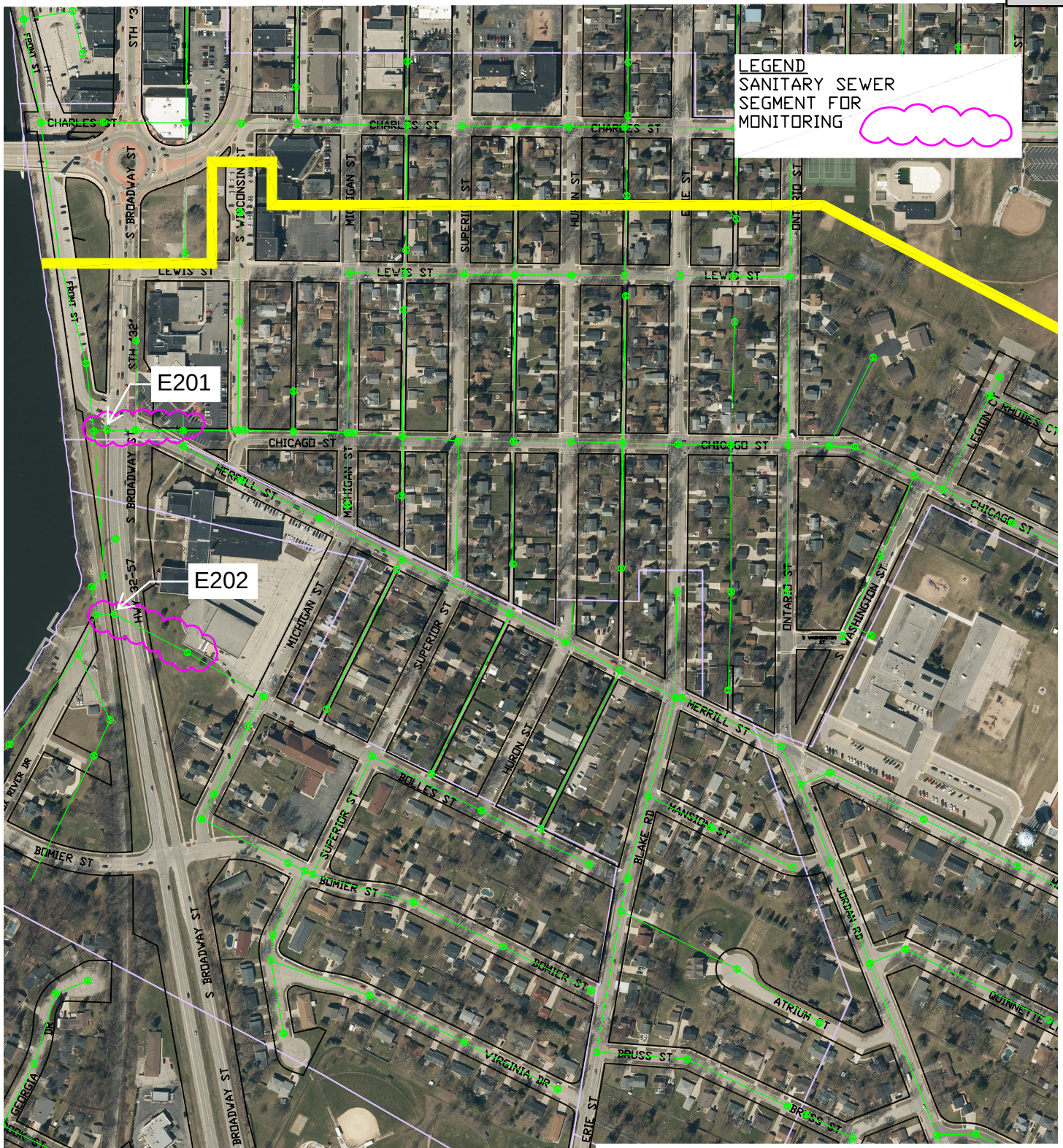


FIG. 2 Location of Monitoring Sites

DE PERE

ENGINEERING DIVISION
925 S. SIXTH ST
DE PERE, WI 54115
OFFICE 920-339-4061
FAX 920-339-4071

FLOW MONITORING LOCATIONS

E-2

DATE:09/19
BY:BK
CHECKED:CKK

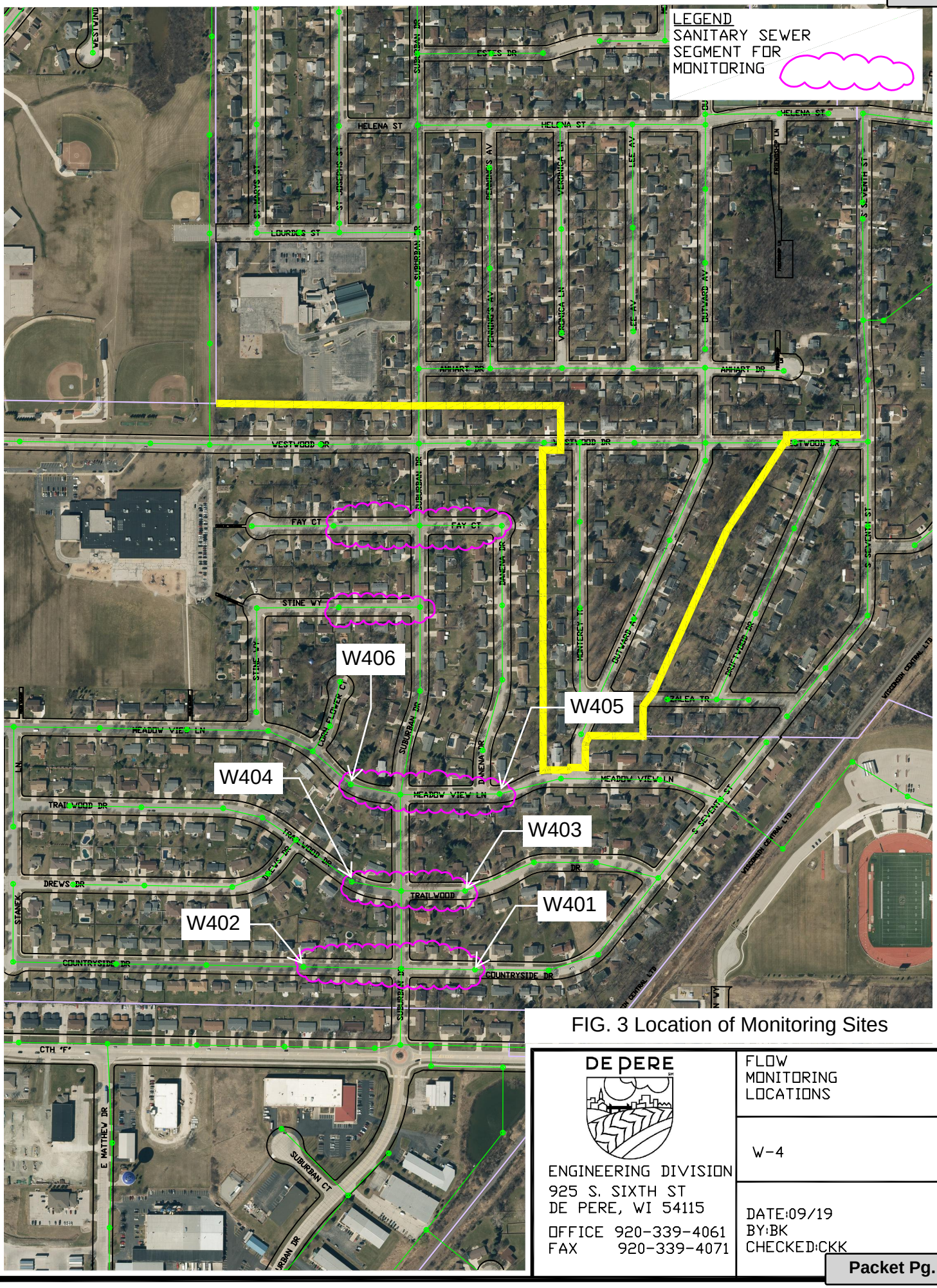


FIG. 3 Location of Monitoring Sites

DE PERE

ENGINEERING DIVISION
925 S. SIXTH ST
DE PERE, WI 54115
OFFICE 920-339-4061
FAX 920-339-4071

FLOW
MONITORING
LOCATIONS

W-4

DATE:09/19
BY:BK
CHECKED:CKK

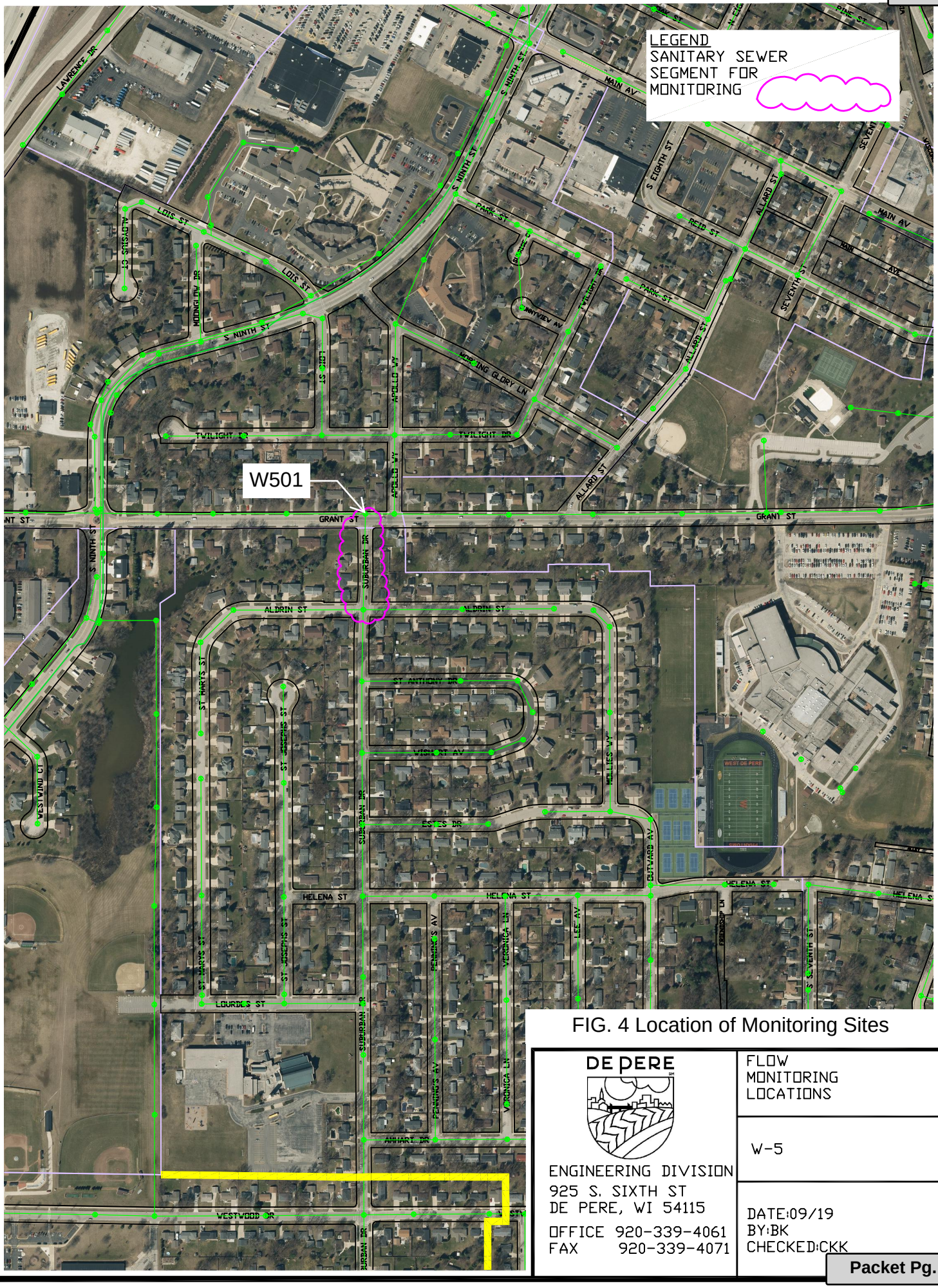


FIG. 4 Location of Monitoring Sites

DE PERE
ENGINEERING DIVISION
925 S. SIXTH ST
DE PERE, WI 54115
OFFICE 920-339-4061
FAX 920-339-4071

FLOW MONITORING LOCATIONS

W-5

DATE:09/19
BY:BK
CHECKED:CKK

Basin E-2 lies south of Basin E-1 along the Fox River. The drainage area is approximately 253 acres. It generally includes the area south of Charles Street, north of Cook Street and west of Nob Hill Lane. This area contains a mixture of commercial and residential development. Some of the area in Basin E-2 was developed when different plumbing codes were used that were more tolerant of discharging storm water to the wastewater system. This basin was previously identified as having excessive inflow levels.

Basin W-4 is located in the central part of the west side of De Pere. The drainage area is approximately 160 acres. The area included extends from Grant Street south to Westwood Drive and east from St. Mary's Street to near Seventh Street. The development is primarily residential in nature. This basin was previously identified as having excessive inflow levels.

Basin W-5 is located south of Basin W-4 and north of Scheuring Road. Basin W-5 extends from USH 41 east to the Fox River. The drainage area is approximately 246 acres. The development is primarily residential in nature. This basin was previously identified as having high infiltration levels.

The wastewater flow metering program was performed by installing and operating ISCO 2150 Area Velocity Flow Modules at sites selected by the City of De Pere and confirmed by R/M and Badger Laboratories (flow metering subconsultant). The 2150 Flow Module is a self-contained, field-interchangeable measurement and data storage system in an environmentally sealed enclosure. The 2150 Flow Module uses continuous wave doppler technology to measure mean velocity. The sensor transmits a continuous ultrasonic wave, then measures the frequency shift of returned echoes reflected by air bubbles or particles in the flow. ISCO Flow Link software analyzes the flow data for reporting and graphing.

R/M and Badger Labs installed nine ISCO 2150 flow meters in De Pere Basin E-1. A summary of the flow metering sites is presented in Table 1. The flow meter sites are highlighted on De Pere Engineering Division Sewer Maps which are contained in Appendix "A".

Table 1 Summary of De Pere Basin E-1 Flow Metering Sites

Metering Site No.	Manhole No.	Location	Manhole Depth, ft.	Sewer Dia., inches	Sensor Location
E101	1684	George St., West of N. Broadway St.	12.6	12	Downstream
E102	1741	James St. & Front St.	4.8	12	Upstream
E103	NEI 17 (a)	William St. & Front St.	5.3	12	Upstream
E104	1759	Franklin St., West of N. Broadway St.	7.4	15	Upstream
E105	1795	Fulton St., West of N. Broadway St.	13.2	12	Downstream
E106	18-W8KY67	West of N. Broadway St.	11.2	6	Upstream
E107	1941	Ridgeway St. & N. Broadway St.	9.4	10	Upstream
E108	1923	Randall Ave., East of N. Broadway St.	12.8	10	Downstream
E109	- -	West of N. Broadway St.	<10.0	18	Upstream

(a) Required to use GBMSD manhole because upstream manholes have unsuitable flow channels to mount sensor.

R/M and Badger Labs installed nine ISCO 2150 flow meters in De Pere Basins E-2, W-4, and W-5. A summary of the flow metering sites is presented in Table 2. The flow meter sites are highlighted on De Pere Engineering Division Sewer Maps which are contained in Appendix "A".

Table 2 Summary of De Pere Basins E-2, W-4, and W-5 Flow Metering Sites

Metering Site No.	Manhole No.	Location	Manhole Depth, ft.	Sewer Dia., inches	Sensor Location
E201	1295	S. Broadway St.	13.7	12	Upstream
E202	325	S. Broadway St.	15.2	12	Upstream
W401	835	Countryside Dr., East of Suburban Dr.	10.2	8	Upstream
W402	836	Countryside Dr., West of Suburban Dr.	9.0	8	Upstream
W403	857	Trailwood Dr., East of Suburban Dr.	14.2	8	Upstream
W404	856	Trailwood Dr., West of Suburban Dr.	9.2	8	Upstream
W405	862	Meadow View Ln., East of Suburban Dr.	16.8	10	Upstream
W406	863	Meadow View Ln., West of Suburban Dr.	15.8	8	Upstream
W501	1155	Grant St. & Suburban Dr.	24.5	15	Upstream

The flow metering data was related to precipitation data obtained from two rainfall gauges owned and operated by GBMSD in the vicinity of the De Pere monitoring sites. Rain Gauge MS-03 is located east of the Fox River and is the closest to De Pere Basins E-1 and E-2. Rain Gauge MS-10 is located west of the Fox River and is closest to De Pere Basins W-4 and W-5. The locations of the rain gauges are shown in Figure 5.

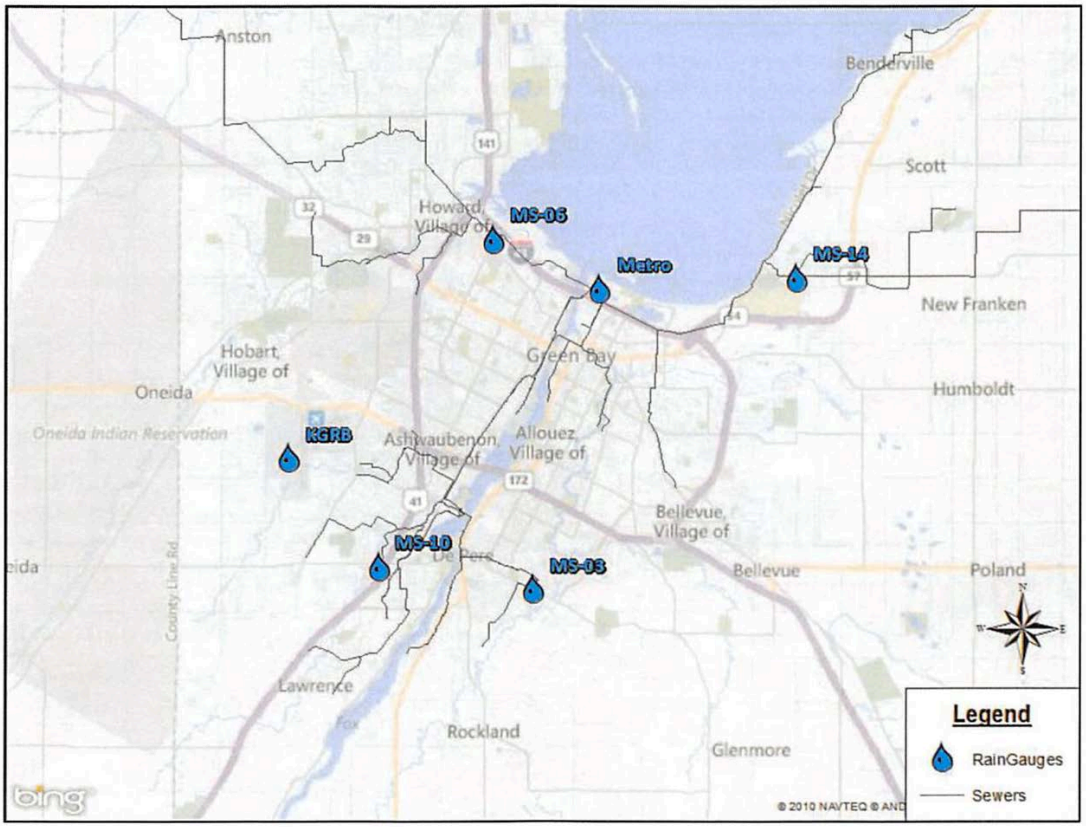


Figure 5 Rain Gauge Locations
SOURCE: Donohue & Associate, Inc. "Interceptor System Master Plan, GBMSD Project #14-029" April 30. 2018

A summary of the rainfall data during the wastewater flow metering program is presented in Table 3. During the period of March 25, 2020 to June 10, 2020 (78 days), Rain Gauge MS-03 received rainfalls on 30 days and Rain Gauge MS-10 received rainfalls on 35 days. The flows recorded at the metering sites contained significant infiltration from the excessive number of rainfall events in March through June of 2020. Rainfalls at Rain Gauge MS-03 ranged from 0.1 to 1.85 inches per day. The rainfall of 1.85 inches on May 28, 2020 was a 2-year return frequenting storm (1.05 inches/hour). All other rainfalls were less than 2-year return frequency. Rainfalls at Rain Gauge MS-10 ranged from 0.01 to 1.22 inches per day. All of the rainfalls were less than 2-year return frequency.

Table 3 Summary of Precipitation, 2020

Day	March		April		May		June	
	MS-03	MS-10	MS-03	MS-10	MS-03	MS-10	MS-03	MS-10
1			0.00	0.00	0.00	0.00	0.11	0.11
2			0.00	0.00	0.00	0.00	0.13	0.12
3			0.01	0.01	0.00	0.00	0.00	0.00
4			0.05	0.06	0.00	0.00	0.00	0.00
5			0.00	0.00	0.00	0.00	0.26	0.39
6			0.00	0.00	0.00	0.00	0.00	0.00
7			0.64	0.00	0.00	0.00	0.00	0.02
8			0.00	0.00	0.00	0.00	0.00	0.02
9			0.03	0.01	0.00	0.00	0.36	0.37
10			0.00	0.00	0.03	0.00	0.06	0.08
11			0.00	0.00	0.00	0.00		
12			0.60	0.55	0.00	0.00		
13			0.06	0.03	0.00	0.00		
14			0.00	0.00	0.18	0.14		
15			0.00	0.00	0.00	0.00		
16			0.00	0.00	0.00	0.00		
17			0.00	0.00	1.27	1.22		
18			0.02	0.03	1.24	0.41		
19			0.01	0.01	0.02	0.01		
20			0.18	0.16	0.00	0.03		
21			0.00	0.00	0.00	0.09		
22			0.00	0.00	0.00	0.04		
23			0.00	0.00	0.05	0.03		
24			0.00	0.00	0.20	0.03		
25	0.53	0.42	0.00	0.00	0.00	0.05		
26	0.05	0.00	0.00	0.00	0.00	0.02		
27	0.00	0.00	0.20	0.20	0.00	0.01		
28	1.34	0.76	0.03	0.04	1.85	0.27		
29	0.28	0.29	0.53	0.24	0.00	0.01		
30	0.00	0.00	0.22	0.10	0.00	0.00		
31	0.00	0.00	- -	- -	0.00	0.00		

The flow reports and graphs for Metering Sites E101 through E109 are enclosed in Appendix “B”. A summary of the flow metering results for Metering Sites E101 through E109 are presented in Tables 4 and 5. During the program that extended from March 30, 2020 through May 1, 2020, there were rainfalls of 0.60 inches on April 12, 2020 and 0.53 inches on April 29, 2020.

The time period metered, total flow, average flow, and dry weather flow for each site are presented in Table 4. The dry weather period during the metering at Site E101 through E109 was April 21-26, 2020. The peak flow, rainfall data, and ratios of peak flow to average flow and peak flow to dry weather flow for Sites E101 through E109 are presented in Table 5. The ratio of peak flow to average flow ranged 2.2:1.0 at Site E101 to 10.6:1.0 at Site E103. The ratio of peak flow to dry weather flow ranged from 2.7:1.0 at Site E101 to 23.8:1.0 at Site E106.

The peak flow to average flow factors and the peak flow to dry weather flow factors shown in Table 5 can be used to determine sources of I/I in the wastewater collection system drainage districts. The high peak flow to average flow factors at Metering Sites No. E103, E104, E105, E106, and E108 indicate significant infiltration, rainfall-induced infiltration (RII), and inflow in the areas metered. RII is the additional infiltration that enters the wastewater collection system during, and for several days after, a period of rainfall. Rainfall often percolates into sewer ditches, especially ditches with granular backfill, and establishes a perched water table. This water infiltrates into faulty sewers and manholes. The high peak flow to dry weather flow factors at Metering Sites E103, E104, E105, E106, and E108 indicate significant inflow in the areas metered. The drainage area for Metering Site E106 had the most significant inflow.

Table 4 Summary of E-1 Area Metering Site Data

Metering Site No.	Period Metered	Total Flow, gal	Average Flow, gpm	Dry Weather Flow, gpm (a)
E101	03/31/20 – 04/27/20	2,835,080	70.3	56.3
E102	03/30/20 – 04/27/20	614,693	14.7	9.2
E103	03/30/20 – 04/27/20	138,939	3.3	3.1
E104	03/30/20 – 05/01/20	1,221,433	25.7	14.2 (b)
E105	03/30/20 – 04/30/20	2,058,593	44.7	23.3
E106	03/30/20 – 04/30/20	225,490	4.9	2.1
E107	03/31/20 – 04/30/20	372,748	8.4	6.2
E108	03/31/20 – 04/27/20	245,162	6.1	3.0
E109	03/30/20 – 04/30/20	5,963,435	129.4	90.1

(a) Dry weather flow for the period of April 21-26, 2020
(b) Dry weather flow for period of April 15-19, 2020

Table 5 Summary of Peak Flow at E-1 Area Metering Sites

Metering Site No.	Drainage Area, Acres	Peak Flow, gpm	Date	Rainfall, inches	Peak Flow: Average Flow Factor	Peak Flow: Dry Weather Flow Factor
E101	35.9	153	04/11/20	0.60	2.2	2.7
E102	18.4	54	04/11/20	0.60	3.7	5.9
E103	29.1	35	04/03/20	0.01	10.6	11.3
E104	49.5	133	04/30/20	0.75 (04/29-30/20)	5.2	9.4
E105	69.7	259	03/29/20	0.75 (04/29-30/20)	5.8	11.1
E106	5.5	50	03/29/20 & 03/30/20	0.75 (04/29-30/20)	10.2	23.8
E107	24.2	31	04/03/20	0.01	3.7	5.0
E108	26.8	36	03/30/20	1.62 (03/28-29/20)	5.9	12.0
E109	274.1	316	03/31/20	1.62 (03/28-29/20)	2.4	3.5

The flow responses for Sites E101 (153 gpm) and E102 (54 gpm) were significant during the 0.60-inch rainfall event on April 11, 2020 as shown in the tables and graphs in Appendix "B". The flow responses for Sites E104 (133 gpm), E105 (259 gpm), and E106 (50 gpm) were significant during the 0.75-inch rainfall event on April 29-30, 2020. The flow responses for Site E108 (36 gpm) was significant during the 1.62-inch rainfall event on March 28-29, 2020.

The flow response for Site E103 was not significant for any of the major rainfall events during the program. The peak flow of I/I in the area metered is likely rainfall-induced infiltration (RII) from rainfalls in late March and infiltration from the high ground water conditions during the spring months.

The flow response for Site E107 (29 gpm) for the 0.60-inch rainfall event on April 11, 2020 was slightly less than the peak flow of 31 gpm on April 3, 2020. The high flows at Site E107 also appear to be due to RII and infiltration from the high groundwater conditions.

The flow response for Site E109 (316 gpm) was the greatest on March 31, 2020 which was two days after the 1.62-inch rainfall event on March 28-29, 2020. There are responses at Site E109 from rainfall events, however, there are many flow events at this site that are due to RII.

The flow metering program confirmed the high I/I results that Robert E. Lee & Associates, Inc. presented in the 2004 I/I study. The program this spring provided more information on the source of the I/I – inflow versus RII. During the program, the total peak flow for the nine metering sites exceeded total dry weather flow (207.5 gpm) by 860 gallons per minute (gpm).

The flow reports and graphs for Metering Sites E201, E202, W401 through W406, and W501 are enclosed in Appendix "B". A summary of the flow metering results for Sites E201, E202, W401 through W406, and W501 are presented in Tables 6 and 7. During the program that extended from April 28, 2020 through May 29, 2020, there were significant rainfall events of 0.53 inches on April 29, 2020; 1.27 inches on May 17, 2020; 1.24 inches on May 18, 2020; and 1.85 inches on May 28, 2020.

The time period metered, total flow, average flow, and dry weather flow for each metering site are presented in Table 6. The dry weather period during the metering at these nine sites was May 4-10, 2020. The peak flow, rainfall data, and ratios of peak flow to average flow and peak flow to dry weather flow for the metering sites are presented in Table 7. The ratio of peak flow to average flow ranged from 3.3:1.0 at Site W405 to 14.7:1.0 at Site W403. The ratio of peak flow to dry weather flow ranged from 4.3:1.0 at Site W405 to 16.7:1.0 at Site W403.

The flow metering showed that peak flows from inflow into the system were caused by rainfall events at all Metering Sites except Sites E202, W402, and W403. The flow metering shows that Metering Sites E202 W402, and W403 have peak flows resulting from infiltration into the system. The other six Metering Sites have peak flows resulting from inflow into the system and to infiltration at a lesser level.

Table 6 Summary of E-2, W-4, and W-5 Areas Metering Site Data

Metering Site No.	Period Metered	Total Flow, gal	Average Flow, gpm	Dry Weather Flow, gpm (a)
E201	04/29/20 – 05/26/20	6,153,781	152.6	100.8
E202	04/28/20 – 05/25/20	992,259	24.6	17.2
W401	04/28/20 – 05/26/20	144,887	3.5	3.3
W402	04/28/20 – 05/26/20	164,483	3.9	5.4
W403	04/28/20 – 05/26/20	69,857	1.7	1.5
W404	04/28/20 – 05/26/20	450,199	10.8	6.9
W405	04/28/20 – 05/26/20	706,629	16.9	13.1
W406	04/28/20 – 05/26/20	2,600,069	62.3	52.6
W501	04/29/20 – 05/29/20	4,750,792	106.4	73.6

(a) Dry weather flow for the period of May 4-10, 2020

Table 7 Summary of Peak Flows at E-2, W-4, and W-5 Area Metering Sites

Metering Site No.	Drainage Area, Acres	Peak Flow, gpm	Date	Rainfall, inches	Peak Flow: Average Flow	Peak Flow: Dry Weather Flow
E201	74.2	949	05/17/20	1.27	6.2	9.4
E202	178.8	174	05/13/20	0	7.1	10.1
W401	5.5	21	05/17/20	1.27	6.0	6.4
W402	13.7	44	05/23/20	0.05	11.3	8.2
W403	11.2	25	04/28/20	0.03	14.7	16.7
W404	15.6	74	05/17/20	1.27	6.8	10.7
W405	16.5	56	05/17/20	1.27	3.3	4.3
W406	96.6	238	05/17/20	1.27	3.8	4.5
W501	405.8	804	05/17/20	1.27	7.6	10.9

The flow responses for Sites E201, W401, W404, W405, W406, and W501 were significant during the 1.27-inch rainfall event on May 17, 2020. The flow responses for Sites E202, W402, and W403 were not significant for any of the major rainfall events during the program. The peak flows in the areas metered are likely from diurnal flow variations and infiltration from the high ground water conditions during the spring months.

The flow metering program confirmed the high I/I results that Robert E. Lee and Associates, Inc. presented in the 2004 I/I study. The response to the rainfalls during the program were higher for these two east sites and seven west sites because of higher rainfall amounts. During the program the total peak flow for the nine metering sites exceeded total dry weather flow (274.4 gpm) by 2,111 gpm.

It is expected that the relationship between the peak flow and average flow for the drainage districts metered corresponds closely to the relationship for other communities. The relationship for other communities in eastern Wisconsin is shown in Figure 6. The relationship shown in Figure 6 is used to prioritize drainage districts for sewer system evaluation survey (SSES) programs and sewer system rehabilitation. Smaller drainage districts normally have a higher ratio of peak to average flow than larger drainage districts. Smaller drainage districts may have higher peak to average ratios than large drainage districts, but may not have as significant of I/I flows. Therefore, it is important to analyze flow metering data appropriately so that dollars spent on studies and construction are cost effectively used. If the ratio of peak flow to average flow is higher than the curve value, the area should be studied further to determine rehabilitation needs.

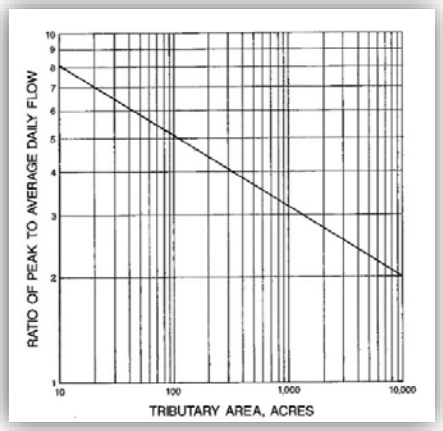


Figure 6 Design Ratio of Peak to Average Daily Flow
SOURCE: Kaempfer & Associate, Inc. "Wastewater Management Facilities Plan for City of Appleton, Wisconsin", 1989.

Based on the relationship shown in Figure 6, the drainage areas upstream of Metering Sites E103, E106, E201, E202, W402, W403, W404, and W501 definitely need to be investigated further to identify I/I sources. The drainage area upstream of Metering Sites E104, E105, E108, and E401 appear to have lower I/I but should also be included in additional I/I identification studies.

RECOMMENDED SSES PROGRAMS

The relationship between peak flow and average daily flow for the 18 metering sites is used to identify SSES needed as the second step in the I/I mitigation plan. It is recommended that the drainage areas that discharge to the metered sites have the following SSES program shown in Table 8 completed to identify sewer rehabilitation and I/I corrections needed. The City has completed significant sewer televising and manhole inspections, however, if rehabilitation work was not completed from previous SSES inspections and the SSES work is greater than 10 years old, the facilities should be retelevised and reinspected. A description of the SSES programs is presented in the next section.

Table 8 Recommended SSES Programs

Metering Site Drainage Areas	Manhole Inspections	Sewer Televising	Lateral Televising (a)	Smoke Testing	Sump Pump Inspections
E101			√	(b)	√
E102			√	(b)	√
E103	√	√	√	√	√
E104	√	√	√	√	√
E105	√	√	√	√	√
E106	√	√	√	√	√
E107			√	(b)	√
E108	√	√	√	√	√
E109			√	(b)	√
E201	√	√	√	√	√
E202	√	√	√	√	√
W401	√	√	√	√	√
W402	√	√	√	√	√
W403	√	√	√	√	√
W404	√	√	√	√	√
W405			√	(b)	√
W406			√	(b)	√
W501	√	√	√	√	√

(a) Perform program in areas planned for major street work and where laterals were flowing in previous sewer televising work
(b) Perform program in area if it is not difficult to prevent smoke dispersion to unnotified areas from the areas identified for smoke testing

The metered drainage areas that should be placed at the highest priority are E103, E106, E108, E202, W402, W403, E404, and W501.

SSES PROGRAMS

The goal of SSES programs is to prioritize drainage districts for rehabilitation. The SSES programs include:

- Flow Monitoring
- Mainline and Lateral Televising
- Manhole Inspection
- Smoke Testing
- Building and Sump Pump Inspections
- Dye Water Testing

The City has used flow monitoring, manhole inspection, and sewer televising in the past as their SSES programs. The SSES programs should be adjusted as described below and additional SSES programs should be used to address private I/I.

Flow Monitoring

The goals of flow monitoring are to provide measured system responses to rain, quantify amount of I/I, identify drainage districts with high clear water flows leading to other appropriate SSES programs, quantify success of rehabilitation, and provide critical information for overflow abatement projects. The keys to successful flow monitoring is scheduling to obtain adequate wet weather information, relating flows to a rainfall intensity/duration graph for a study area, and carefully selecting manholes for appropriate flow meter placement.

The flow monitoring program, developed by the City in 2019 and implemented by R/M in April and May of 2020, was successful at collecting flow data to identify drainage districts requiring additional SSES programs. The flow monitoring programs were short (approximately 1 month) but were able to collect clear water data for significant rainfall events. This flow monitoring approach is cost-effective at serving the City now and in the future.

Flow from drainage districts served by sewage lift stations can be evaluated very cost-effectively by using lift station pump run times in place of installing portable flow meters. The pump run time and actual capacity of the pumps are used to calculate flows. Pump drawdown testing needs to be performed in order to confirm actual capacity. A copy of a commonly used drawdown test sheet is attached in Appendix “C”.

Manhole Inspection

The goals of manhole inspection is to identify I/I sources and structural condition. As in sewer televising, manhole inspection should be completed one to two years prior to street work so the City has time to evaluate, select, and perform rehabilitation work in an acceptable implementation sequence and schedule. This methodology is modified and adjusted if the City prefers to perform the sewer rehabilitation work in phases.

Figure 7 contains examples of manhole defects. Defects commonly found include:

- Poor connection between cast/adjustment rings/cone
- Defective pipe connections
- Cracks
- Open joints

- Deposits/stains
- Base in poor condition
- Open lift holes (barrel and cone sections)

Defects having the highest I/I rates have commonly been defective pipe connections, bases in poor condition, and defective/open barrel joints.

Manhole inspection should be performed by properly trained staff or qualified contractors/consultants. A commonly used form for manhole inspection in enclosed in Appendix "C". This form has proven over 20 SSES programs to provide a thorough and accurate record to complete successful SSES/sewer rehabilitation programs.

It is recommended that a spreadsheet be developed to summarize the defects at each manhole and estimate the I/I at each manhole. This will make it possible to prioritize correction of defects. A summary of infiltration rates that have been used at municipalities in Wisconsin is presented in Table 9. A summary of annual conveyance and treatment costs for I/I and the rehabilitation costs can then be determined to demonstrate cost-effectiveness of the manhole rehabilitation.

Table 9 Summary of Sanitary Manhole Infiltration Rates

Defect	Average Infiltration, gpm (a)
Deposits/Stains	0.02/manhole
Wet Walls	0.05/manhole
Cracks/Pieces Missing	0.05/manhole
Poor Connection b/w Casting/Adj. Rings/Cone	0.02/connection
Base in Poor Condition	0.02/base
Leak – One Drip per Second	0.01/drip

(a) Peak rates if needed in analysis should be a rate of 5 times average value

The inflow rates through vented lids can range from 1-20 gallons per minute depending on the number of vent holes and casting submergence at the manhole. Neenah Foundry Company performed lab testing in 1983. They observed that a lid submerged 1 inch has inflow rates ranging from 2.4 gpm for each ¾-inch hole to 15.6 gpm for each 2-inch hole.

Mainline and Lateral Sewer Televising

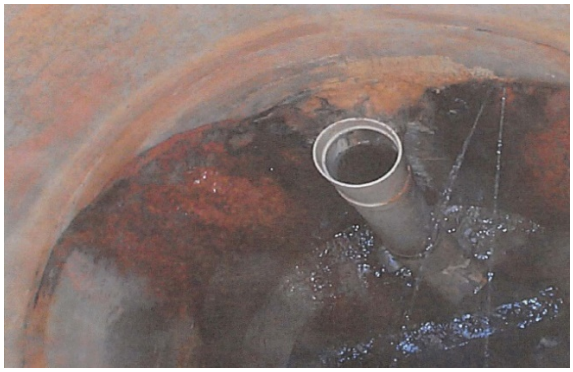
The goals of sewer televising is to identify I/I sources and structural condition. It is preferable to complete this program one to two years prior to street work so the City has time to evaluate, select, and perform rehabilitation work in an implementable sequence and schedule. This methodology is modified and adjusted if the City prefers to perform the sewer rehabilitation work in phases.

Figures 8 and 9 contain examples of sewer defects. Defects commonly found include:

- Cracks and fractured pipe
- Defective joints (offset/open)
- Deposits at joints or holes
- Root intrusion
- Defective service connection

Cracked Joints

Deteriorated Manhole Wall



Joint Leaks and Deposits

Offset Manhole Casting Connection

Offset Joint at Manhole

Offset Joint with Root Intrusion

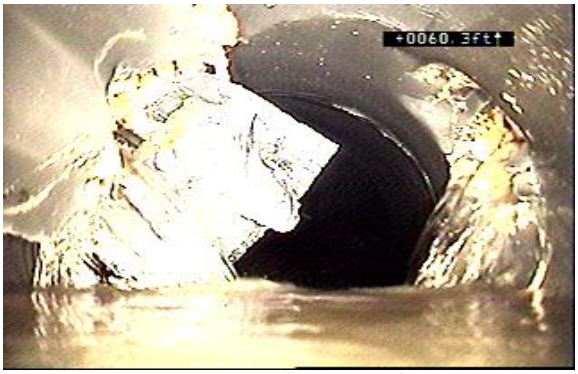
Figure 7 Manhole Defects

Deposits in Sewer Pipe

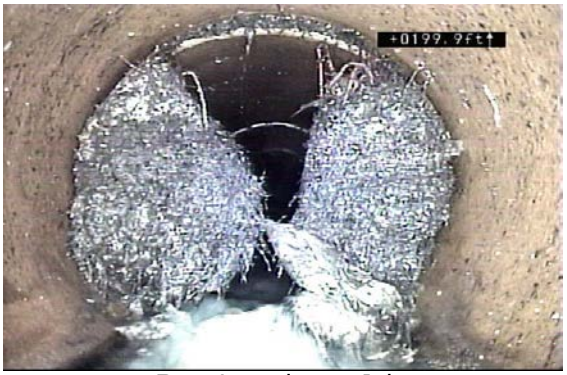
Fractured Sewer Pipe

Lateral Connection Leak

Offset Sewer Joint



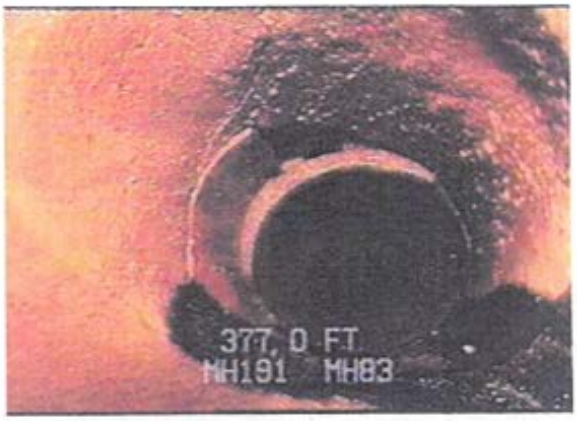
Poor Lateral Connection



Root Intrusion at Joint

Figure 8 Sewer Defects

Carver Ln. MH 596-597 Broken pipe
with root intrusion

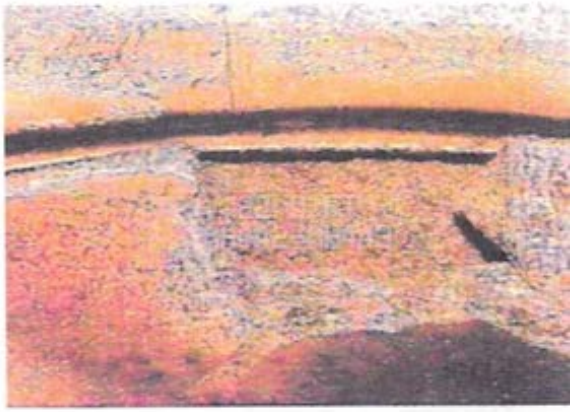


Center St. MH 191-83 Broken pipe
at lateral connection, pieces missing

Chute St. MH 104-201 Broken pipe
at lateral connection, pieces missing

Chute St. MH 93-100 Broken pipe
with root intrusion, pieces missing

Depere St. MH 453-452 Broken pipe
with pieces missing, exposed soils



Fifth St. MH 442-443 Broken pipe
with pieces missing

Figure 9 Sewer Defects

The sewer televising should be performed and reported in accordance with the National Association of Sewer Service Companies (NAASCO) Pipeline Assessment and Certification Program (PCAP) guidelines and NAASCO Lateral Assessment and Certification Program (LACP) guidelines. Only NAASCO certified sewer televising companies should be allowed to televise the mainline or lateral sewers.

The televising of lateral sewers can be performed from the mainline sewer or from the cleanout in the basement of the sewered property. Televising from the mainline sewer has normally provided R/M good results from the mainline sewer to the cleanout and in some cases to floor drains. Televising from the cleanout to the mainline has been performed successfully but the work requires private property owner approval to enter the building and access the cleanout, and the work exposes the City to much greater liability to potential cleanout damage or stuck camera on a joint near the house requiring dig-up and retrieve.

Areas identified with significant infiltration or rainfall-induced infiltration should be totally televised one to two years prior to any street work so a program for mainline and lateral sewer rehabilitation can be developed.

It is recommended that the City take an additional step in analyzing the mainline and lateral sewer I/I sources when the reports are delivered by the sewer televising contractor. Infiltration rates should be calculated for each mainline sewer segment and each lateral so it is possible to prioritize correction of defects. A spreadsheet should be used to develop a summary of the average infiltration rate for each mainline sewer segment and each lateral. Table 10 contains a summary of sanitary sewer infiltration rates have been used at municipalities in Wisconsin. A summary of annual conveyance and treatment costs and rehab costs can then be determined to demonstrate cost-effectiveness of mainline and lateral sewer rehabilitation.

Table 10 Summary of Sanitary Sewer Infiltration Rates

Defect	Average Infiltration, gpm (a)
Active Infiltration	Rate of Infiltration Reported x 2
Defective Joints	0.01/joint
Cracks and Fractures	0.05/defect
Deposits	0.005/deposit
Root Intrusion	0.05/intrusion
Taps	0.05/tap
Cracked Lateral Connection	0.05/connection
Drip	0.01/drip

(a) Peak rates if needed in analysis should be at a rate of 5 times average value

Smoke Testing

Smoke testing is used to locate I/I sources in the wastewater collection system. Figure 10 contains examples of smoke testing defects. The following inflow sources have been identified in smoke testing programs:

- Storm sewer cross connections to the sanitary sewer
- Open pick hole lids on manhole castings
- Roof leader cross connections

- Foundation drains cross connection
- Yard drains and roof drains cross connection
- Uncapped sanitary lateral cleanouts
- Abandoned building sewers
- Abandoned septic tanks

The following infiltration sources have been identified in smoke testing programs:

- Defective casting to manhole structure connection
- Cracked mainline and lateral sewers
- Defective sanitary lateral cleanouts

Smoke testing is a relatively inexpensive and quick SSES method of locating I/I sources in the sanitary sewer system. The program provides a more complete identification of I/I sources than dye testing because there are some defects such as improperly capped abandoned laterals that cannot be dye tested.

Smoke testing requires the most planning of all SSES programs. Approximately 80% of smoke testing occurs on private property, so it is necessary to provide proper noticing.

The following tasks need to be completed prior to the fieldwork:

- Set proposed test dates
- Establish media notification dates (newspaper & radio)
- Prepare and approve final language for notices
    - Letter to residents/property owners and door hangers (See Appendix “D”)
- Prepare and review smoke testing sequence map – City staff/Engineer
- Verify need for sewer plugs to isolate test areas. If needed, verify quality/type/size sewer plugs that are needed.
- Develop checklist of safety equipment needed – PPE/air quality/rescue
- Identify if there are any high roof areas that should be surveyed with a drone. Arrange drone service if needed during test.
- Identify if there are any confined spaces so it is possible to arrange presence by City staff during the fieldwork in the area.
- Mail notices and distribute door hangers.
- Notify emergency services (EMS, Fire Department, Police Department)
- Develop a site set-up map identifying manholes in the study area to release smoke.
- Train observers. The smoke testing program crew has normally consisted of a blower operator, field manager and 8 observers. Communities have significantly reduced labor costs by using their staff as observers.

Roof Drain Cross Connection

Roof Drain Cross Connection

Storm Sewer Cross Connection

Roof Leader

Defective Cleanout

Area Drain Cross Connection

Defective Cleanout

Defective Sanitary Sewer Joints

Figure 10 Smoke Testing Defects

Smoke testing is a legitimate program to perform and provides excellent results at low cost. Attached in Appendix "D" are copies of notices used in the City of Antigo and the City of Peshtigo for the smoke testing program. The City Sewer Use Ordinance prohibits sewer users from discharging clearwater to the sanitary sewer system. The results of the smoke testing program are used to identify defects ad cross connections in the sanitary sewer system which the City can correct, and defects and cross connections on private property which the property owner will be instructed in a letter to correct.

Following are the steps taken in the field at each set-up (approximately 15-20 minutes/set-up) to perform a smoke testing program:

- Isolate smoke area with sewer plugs if necessary to prevent smoke travel to unnotified areas.
- Give directions to smoke observers on areas for them to cover.
- Position air blower over open manhole, light smoke candle and place in air intake tray. Smoke will be released into sewer system.
- Observers walk along street, around front and back yards, and around sewered buildings to identify smoke leaks.
- Observers record their inspections on forms for each set-up and photograph cross connections, defects, and smoke leaks. GPS coordinates of observed I/I sources have been taken by City staffs on some projects.
- Roofs of tall buildings are difficult to inspect from the ground. If tall buildings are present, the area should be flown with a drone or some kind of access needs to be provided (observer on tall building/personnel lift).

It is important that the smoke testing crew is provided training, is equipped to communicate with all field staff, and have proper identification to show private property owners/tenants.

Smoke testing identifies the following which provides benefits to the residents. The benefits include:

- Identifies location of sewer gases entering properties.
- Dry traps in unused toilets, sinks, and drinking fountains.
- Deteriorated floor drains.
- Washing machine connections to sanitary laterals with no P trap.
- Deteriorated toilet wax ring.

The sources of I/I by smoke testing can contribute significant flows to the sanitary sewer system. A summary of flow rates developed for the City of Tulsa is presented in Table 11.

Table 11 Flow Rate of Inflow Sources (a)

Defect/Source	Flow Rate (b)
Cleanouts	1.5 gpm
Building Laterals	2.1 gpm
Area Drains (c)	9.1 gpm
Sump Pumps	2.3 gpm
Downspouts	14.5 gpm

(a) City of Tulsa information from "Control of Infiltration and Inflow" WEF, 1999
(b) Based on a 1-year 60-minute storm intensity
(c) Includes patio and driveway drains, etc.

It is expected that the City would correct sanitary sewer defects/cross connections identified within the public right-of-way or within utility easements. Property owners with illegal cross connections or private system defects are issued a notice of violation. The City staff inspects the property to verify corrections have been made upon notification by property owner that work is completed.

Sump Pump Inspection

The goal of a sump pump inspection is to locate illegal cross connections. The program will locate foundation drain and sump pump discharge connections to the sanitary sewer system. These I/I sources have been documented to discharge 5-20 gallons per minute of groundwater to sanitary sewer systems. The program also provides for investigations of other private property sewer violations such as cross connected roof leaders and yard drains to the sanitary sewer system, and broken or uncapped sanitary sewer lateral cleanouts.

The development of a comprehensive sump pump inspection program and diligent execution in the Town of Salem Utility District (Kenosha County), City of Menasha, and Village of Mishicot has been instrumental in reducing clear water flows. All of these communities have properly trained staff. These staffs have located foundation drain and sump pump cross connections that water meter reading staff, who are assigned cross connection inspections, have not found.

The City is empowered to require the property owner to correct cross connected foundation drains and sump pumps. The powers to enter and inspect properties are covered in a separate section of this report. R/M private property SSES programs have succeeded without legal challenges because we have approached the private I/I sources on a system-wide basis. We have phased the program but we do not isolate our inspection to particular users.

The following work is involved in performing sump pump inspection programs:

- Establish study area and inspection schedules.
- Mail notices to all sewered properties in study area. This will normally require about 3 mailings for receiving responses from the majority of properties.
- Complete inspection schedules – allow minimum of 30 minutes for inspection and travel per property.
- Perform inspections.
- Prepare monthly summaries of the results of the program to Board of Public Works.

Attached in Appendix “E” are copies of notice letters used in the City of Menasha.

Correction letters are issued to property owners with illegal connections. After the system is corrected, the City needs to provide a final compliance inspection. Attached in Appendix “E” are copies of correction letters used in the City of Menasha.

The City of Menasha inspectors found a number of illegal connections from foundation drains to floor drains in 1940-1960 vintage homes. In response to this widespread problem, and a problem that could be challenged as being grandfathered and performed by plumbers in the past, the City implemented a City-funded Sump Pump Grant Program. This program provides a grant to residential properties (single or duplex) to correct illegal cross connections. The goal is to provide a physical connection of foundation drains to a sump pump pit to provide discharge to the exterior of the structure. Property owners are required to obtain quotes from at least 2 plumbers to disconnect the foundation drain, cut a sump crock, and install a sump pump and discharge piping. The City reimburses the homeowner the entire cost if less than $500. If the entire cost is greater than $500, reimbursement is $500 + 50% of the balance to a maximum grant of $675. The City attempts to maintain an annual budget of approximately $50,000 to

provide funds for this program when needed. Some of the photographs of observed cross connections and the constructed corrections are presented in Appendix "F".

SANITARY SEWER SYSTEM REHABILITATION

This section addresses rehabilitation of mainline sanitary manholes and sewers. Recommendations to improve current De Pere rehabilitation programs are provided.

Rehabilitation of sanitary manholes may include grouting of defects, cementitious lining, concrete lining and replacement. The most viable and suitable method to rehabilitate manholes that are in good structural condition, but have defects that are sources of I/I, is grouting. Properly placed grout is very successful in eliminating I/I at sewer connections, manhole benches, and manhole joints. Cementitious lining is costly ($200-$300/vf), does not provide structural strength compared to other methods, and is not resistant to freeze/thaw cracking. Concrete lining is slightly more costly than cementitious lining and corrects both I/I defects and structural deficiencies. Manhole lining can be completed much more easily in busy streets and requires minimal site restoration compared to reconstruction. The one problem in using concrete lining is the reduced diameter of the structure in some cases which may make it difficult for future access for such work as televising, grouting sewer mains and spot lining. Manhole replacement is the most costly but may be necessary if the manhole is in poor structural condition and is located on large sanitary sewers. Concrete lining may be possible if the structure diameter can be maintained and not reduced.

The concrete lining (monoform) manhole rehabilitation system uses a poured-in-place concrete to create a brand new, leak-free structure inside an existing manhole. This manhole rehabilitation system replaces the total removal and construction of new manholes. This system significantly reduces surface restoration and greatly reduces traffic disruption when performed on streets. The system has worked very successfully in rehabilitation of brick manholes in the City of Menasha and deteriorating block manholes in the City of Oconto Falls.

The monoform manhole rehabilitation system construction involves the following steps:

- Set-up traffic control devices
- Cut a 44-inch square in pavement around manhole
- Remove asphalt, compacted soil, and manhole casting
- Set-up confined space equipment for entering manhole
- Demolish and remove chimney and riser material to diameter needed for placing plastic form (sonotube)
- Set plastic form in manhole
- Pour 2-Bay, 5,000 psi concrete in annular space around sonotube
- Cure concrete
- Remove sonotube forms
- Repair and form manhole bench
- Install manhole adjustment rings, chimney seal, and frame
- Backfill area around frame in preparation for paving
- Surface patch with 9 Bay 7,000 psi concrete

This method of manhole rehabilitation has been used successfully to upgrade structurally deteriorated manholes, and provide the required strength not provided by surface sealing/coating and grouting. The manhole chimney area does not crack due to frost heave compared to concrete lining such as Strong Seal and Permacast. The system has provided long-term service and has effectively eliminated I/I. This method can be a very cost-effective solution to manhole rehabilitation. In the August 2005 manhole replacement project in the City of Oconto Falls, concrete lining and manhole replacement bids were obtained. The concrete lining of 61 manholes in place of conventional manhole replacement saved the City $273,148.

Sanitary sewer rehabilitation methods have included grouting, lining, spot lining, spot replacement, and total replacement. Sewer mains in good structural condition can be grouted to reduce infiltration. Contractors in some communities have declined to grant vitrified clay pipe (VCP) lateral connections out of concern there could be total connection failure from the pressure applied. The service life of grouting is dependent on a number of factors, but is not expected to be as long as the other methods. All defects and joints need to be grouted to make the program as effective as possible.

A significant amount of CIPP lining has been performed in the City of De Pere. This method of sewer rehabilitation is very effective in eliminating mainline defects and I/I; and can increase hydraulic capacity with the lower friction coefficient. The three major problems with CIPP lining are:

1) Uneven pipe grade is not corrected. Sewers will still have sags that require more cleaning effort and hydraulic capacity can be impacted.
2) Major structural defects such as collapsed pipe cannot be easily lined.
3) Infiltration at lateral connections is not corrected and may increase from transfer in pipe trench from corrected sites. CIPP lining along with lateral lining greatly increases I/I removal effectiveness.

The City should continue to use CIPP lining and require the contractor to perform the following items sometimes overlooked:

- Properly prepare sewer for lining. Remove roots, grind deposits down to ½ inch, and grind protruding laterals to ½ inch.
- CIPP liners need to be cooled down after curing to less than 100°F prior to cutting off ends in manholes and reinstating lateral connections. Liner will shrink and draw away from manholes and laterals.
- CIPP liners in 8-inch to 24-inch diameter sanitary sewers are typically installed by air inversion and steam curing. Hot water inversion and curing is typically used for lining sanitary sewers greater than 24-inch diameter. It is important to eliminate active infiltration, if significant, prior to lining to remove heat sink and prevent liner lifts. If infiltration is not reduced, it is advisable to use hot water inversion and curing. It is preferred to install by inverting liner rather than pulling the liner in because inversion tends to clear the sewer pipe of water. CIPP liners in sanitary sewers greater than 15 feet deep, and sewers with significant structural defects, should be installed by hot water inversion and curing. It is necessary to maintain pressures in the liner greater than groundwater pressure. This condition can be provided using hot water curing. The hot water curing of poor condition pipe prevents pipe collapse that has happened with the steam curing process. Hot water inversion and curing costs 10 to 15 percent more than air inversion and steam curing.
- If laterals are known to discharge large volumes of I/I, contact sewer users so they can prepare for I/I possibly backing into their basement. (Basement back-up occurred in the City of Menasha during lining operations.)

Sewers that are lined should be televised to verify the liner was properly installed and there are no defects. CIPP defects have included:

- Bulges (lifts)
- Sag in liner
- Unreported contractor damage
- Pinhole leaks
- Wrinkles
- Bad or missed service reinstatement
- Infiltration spotting

Spot lining and spot replacement may be the most appropriate methods for sewer rehabilitation if there are a small number of defective areas. It is not normally cost-effective to spot repair if there are greater than 3 defective areas on a sewer segment. The calculations to determine the most cost effective solution is easily performed by lining and replacement contractors and City staff.

SANITARY LATERAL REHABILITATION

Municipalities have historically taken the first step of replacing, grouting, or lining the mainline public sewers. The approach has been marginally effective in reducing I/I because the groundwater tends to migrate up the stone trench of the laterals and enters defects in the lateral such as cracks and open joints or the lateral connections to the mainline sewer. Municipalities have recognized the need to rehabilitate private laterals by open cut trench replacement, pipe bursting, or pipe lining to effectively reduce clearwater flows.

Trenchless technologies such as pipe bursting or pipe lining can be implemented with minimal disruption to property owners. Often only a 2'x2' excavation is needed to install a cleanout in a yard for lining and pipe bursting. The restoration of yards and yard improvements is greatly reduced. The private laterals are rehabilitated from the mainline to the foundation wall of the sewered building. Some municipalities have implemented private lateral pipe bursting programs to not only replace the sanitary lateral but also to replace lead or otherwise defective water services in the same operation.

Total lateral lining using T-Liner (LMK Enterprises, Inc.) is performed with equipment from the mainline sewer or from the cleanout in the yard or house. This system can be used to line 80-100 lineal feet of 4-inch or 6-inch diameter laterals. The condition of the lateral has to be documented prior to lining to ensure bends and offsets do not impact final product. Lateral lining requires a cleanout. The construction cost for sanitary lateral lining, based on May 2015 prices, is approximately $6,700 per lateral based on a 60 lineal foot lateral and a cost of $50/lineal foot for the lateral lining portion of the work. The largest advantage of lining over pipe bursting or open cut construction is the ability to rehabilitate the lateral without opening up the street at the mainline connection.

Sanitary lateral pipe bursting has become popular in the Fox Cities area with 3 contractors actively performing the work. The laterals can be pipe burst from an access hole in the basement or outside at the foundation (connection point). The following steps are taken for lateral pipe bursting:

- Basement floor where sewer leaves the house or an access hole outside the foundation wall is opened.
- Ground/pavement is broken either at the middle of the road (municipal job) or between the curb and the sidewalk (homeowner job).
- Sewer pipe is pulled from the hole.

- A new HDPE pipe is pulled from the access hole in the basement or outside the foundation. Pipe bursting uses the host pipe as a pilot hole. The process has the ability to upsize the pipe diameter. Access in the basement is preferred, but it requires basement windows to lay and pull the new HDPE continuous welded pipeline.
- After the pull (burst) is complete, the lateral pipeline is reconnected at the house and mainline. The yard is restored or basement hole is patched.

The construction cost for pipe bursting a 60-lineal foot 6-inch diameter sanitary lateral is estimated to be $4,000/lateral with reconnection at the foundation; and $5,100/lateral with reconnection in the basement. These costs do not include providing new water services.

Pipebursting allows municipalities and homeowners the opportunity to install a new water service at the same time the lateral is burst. The new water service is simply connected to a knuckle on the bursting head.

EMPOWERING COMPLIANCE WITH SEWER USE ORDINANCE PROVISIONS

I/I from laterals and illegal cross connections on private property are a significant portion of the total I/I in a sewer system. A survey of 316 municipalities nationwide found that 69% had problems with I/I from private property and almost half believed that 5-50% of their I/I originated on private property according to "Control of Infiltration and Inflow in Private Building Sewer Connections", Water Environment Federation, 1999. It is clear that the effectiveness of I/I removal efforts will be limited in many collection systems if private sources of I/I are not identified and removed.

Municipalities must have an excellent public education program and a well written sewer use ordinance to succeed in private source I/I reduction. A well-crafted, comprehensive ordinance that specifies the parameters, terms, and conditions of the private property I/I control programs can withstand challenges to municipal authority on this issue.

A community in Kansas prepared a thorough ordinance designed to remove private property I/I from the sanitary sewer system. A number of residents sued the County and the case went to the Kansas Supreme Court. The Supreme Court evaluated the ordinance and procedures and concluded they did not violate the Fourth Amendment and further noted:

- *the ordinance was reasonable and balanced public and private interests;*
- *it demonstrated that the municipality had a legitimate interest in preventing sewer back-ups;*
- *it did not discriminate (all properties had to be inspected);*
- *it was designed to eliminate as many prohibited connections and discharges as possible;*
- *the private-property I/I inspection procedures were detailed and seemed reasonable; and*
- *the inspections were limited to finding violations of the ordinance involving basement plumbing facilities and exterior storm water drainage facilities.*

It is important for municipalities to fully understand legal issues including access, liability, and public financing. The municipality needs to create appropriate sewer use ordinance language for private property I/I control programs. "A well-crafted, comprehensive ordinance that specifies parameters, terms, and conditions of the private-property I/I control program can withstand challenges to municipal authority on this issue." (Michael H. Simpson, "It Can Be Done – Some Legal Issues to Consider When Managing Infiltration and Inflow from Laterals", WE&T July 2005).

The City of Menasha has added 2 significant sections to their Sewer Use Ordinance related to private property I/I mitigation. The Sewer Use Ordinance had provisions prior to 2004 for inspections on private property to identify sources of I/I. However, some property owners did not respond to requests for

performing such work as sump pump inspections. The City Council passed Ordinance 0-7-04 on June 9, 2004. This ordinance allows the City to impose a sewer user surcharge to any sewer user who does not allow authorized City representatives to inspect their property. Surcharges are $50/month for residential properties with 2 or less dwelling units; $300/month for commercial properties less than 2,000 square feet and residential properties with 3 or 4 dwellings; $1,000/month for commercial properties 2,000 square feet or greater and residential properties greater than four dwelling units; and an amount determined by the DPW for industrial properties. Details of Ordinance 0-7-04 are contained in the ordinance, which is attached in Appendix "G".

The other Sewer Use Ordinance addition in the City of Menasha relates to correction of defects in building sewers and connections to mitigate I/I and provide reliable sewer service to customers. The general procedure would include televising sanitary laterals prior to a paving project and requiring the property owner to fix the lateral prior to paving. The lateral defects that are considered major and need correction are ¼ inch or wider cracks, joints offset greater than ½ inch, locations ground is exposed (missing pipe), infiltration greater than 1 gpm, holes in lateral pipe, severe sags in pipe (greater than ½ of pipe is full of water), and excessive roots within the sanitary lateral. A copy of sanitary lateral condition and I/I correction ordinance Section 9-3-16 is attached in Appendix "G".

The City of De Pere must optimize the possibility of success in reduction of private property I/I by adopting a comprehensive sewer use ordinance. The ordinance should address the following items:

1) Rationale/justification for the program
2) Legislative authority and severability
3) Scope and application of the ordinance
4) Prohibited acts and connections
5) Responsibility for compliance
6) Rights of the municipality
7) Available financial assistance and procedures for obtaining financing
8) Appeal rights

A properly completed ordinance should allow the City to have support from courts. It is very likely that a court will find that a private property I/I control program promotes public health by protecting water supply, reducing sewer system overflow, reducing basement backups, and other benefits.

EXECUTION OF SEWER MANAGEMENT PROGRAMS

The execution of sewer management programs in the City of Franklin and City of Menasha provide excellent case studies of I/I mitigation.

City of Franklin I/I Prevention and Mitigation

The City of Franklin noticed a flow increase through their sanitary sewer system. Regular flow monitoring showed normal fluctuations in the system and allowed the City to quickly spot issues with I/I before they got out of hand. To locate the cause of this increase, the City worked with R/M to dye-water flood the sanitary laterals and identify I/I sources. This program ultimately led to a full rehabilitation of a neighborhood sanitary sewer system. The City was able to complete the rehabilitation work utilizing trenchless lining technology which reduced the disruption to property owners.

The resulting improvements were so successful in removing the groundwater from the sanitary system that the City has had to embark on a ditching and drainage improvement project.

City of Menasha Sanitary Sewer Management Program

The City of Menasha started an extensive sanitary sewer evaluation survey (SSES) and sewer rehabilitation program in 2002 to reduce infiltration and inflow (I/I) by correcting defects and structural deficiencies. The program, over the past 15 years, was performed throughout the entire collection system in four phases to make the program more manageable, prioritize drainage districts having the highest I/I, reduce manpower requirements, and spread out capital cost requirements. The SSES programs included manhole inspection programs, smoke testing programs, sewer televising programs, sanitary lateral televising programs, sump pump inspection programs, and dye testing programs. The sewer rehabilitation programs included manhole rehabilitation or replacement, CIPP spot lining, pressure inject grouting joints and cracks, lateral connection grouting, CIPP total lining, and sanitary sewer replacement.

A key element in the Menasha sewer management programs was utilization of the Menasha Engineering and Public Works staff to minimize project costs. The staff was trained to perform numerous elements of the planning, design, and construction work.

The sewer management programs were successful in reducing I/I and extending the service life of the sanitary sewer system which is a major objective of the Capacity, Management, Operation, and Maintenance (CMOM) program. Extensive evaluations were performed to identify appropriate SSES programs and rehabilitation programs. The programs involved selecting procedures, equipment, materials, and construction methods to meet goals and expectations for I/I removal, structural defect correction needs and general asset management. This project approach proved successful in completing the City's sewer management programs in a cost-effective manner. Interceptor sewer capacity issues and sewer system overflows were addressed by performing cost-effective I/I reduction programs; manhole improvements; and identifying the critical hydraulic profile of the sewer system. The sewer management programs encountered challenging site conditions and sanitary sewer construction characteristics which were handled using unique project methods and procedures. Defective laterals were handled using various construction methods. The City implemented a private property I/I correction procedure through their sewer use ordinance that addressed significant I/I from illegally connected sump pumps and foundation drains. This program provided opportunities for public education and participation for a common goal of controlling sewer rates. The City of Menasha pays the Neenah-Menasha Sewerage Commission (NMSC) for all flow that is discharged to the WWTP so the reduction of I/I can be readily seen in reduced billings to Menasha.

The City of Menasha implemented solutions to the collection system management work that were long-term providing effective structural improvements and I/I reduction; were cost-effective; and environmentally friendly.

CONCLUSIONS AND RECOMMENDATIONS

This report has outlined the drainage districts in Basins E-1, E-2, W-4, and W-5 that have excessive I/I. The City of De Pere has performed sewer system rehabilitation work in the past in an effort to curb high flows. We recommend that the City continue with SSES and rehabilitation efforts incorporating the following items that have been described in detail in the report:

1) Update Sewer Use Ordinance to empower City to perform inspections and require correction of I/I sources on private property.
2) Implement a public education program on the City's SSES and rehabilitation programs highlighting continuing to strive for excellent service and reasonable user rates.
3) Evaluate sewer user assistance programs for correction of I/I defects on private property. This item includes sump pump installations and sanitary lateral repairs or replacement.
4) Continue to televise sanitary laterals and prioritize areas for rehabilitation.

5) Line or pipeburst private sanitary laterals from the mainline sewer to the foundation wall or cleanout in the structure to optimize I/I mitigation efforts.

6) Modify the procedures in prioritizing sanitary sewers, sanitary laterals, and sanitary manholes for rehabilitation. Estimate I/I and perform a cost-effective evaluation.

7) Continue to address the critical components of successful rehabilitation – material selected, application technology, and application. You have to have a combination of all 3 components for the project to be successful.

8) Consider phasing the SSES and rehabilitation programs like other communities.

9) Prepare annual report on the City's I/I mitigation program, file with collection system records, and include information in the annual Capacity Management Operation and Maintenance (CMOM) report submitted to the Wisconsin Department of Natural Resources (WDNR).

10) Keep the public up-to-date on sequence and schedule of projects. Everyone is a stakeholder in this process.

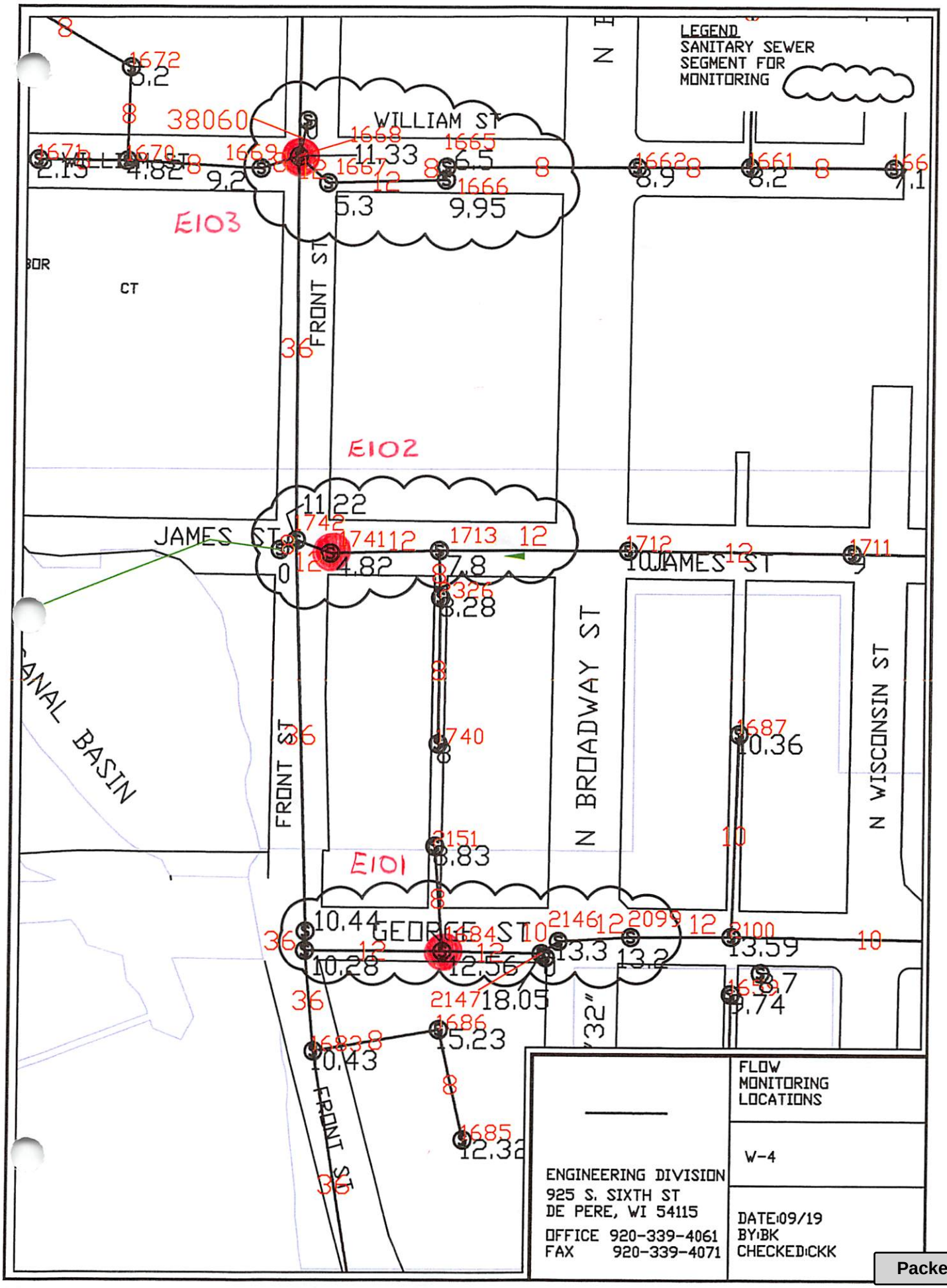
I/I reduction is difficult to accomplish, but the right approach will help the City win the battle as well as create solutions that are sustainable for the long haul. Solutions to collection system management work are long-term, effective structural improvements and I/I reduction, cost-effective, and environmentally friendly. Remember to address wastewater systems as a whole interconnected framework – not as individual components. To totally address I/I mitigation, it is important to perform thorough system-wide programs.

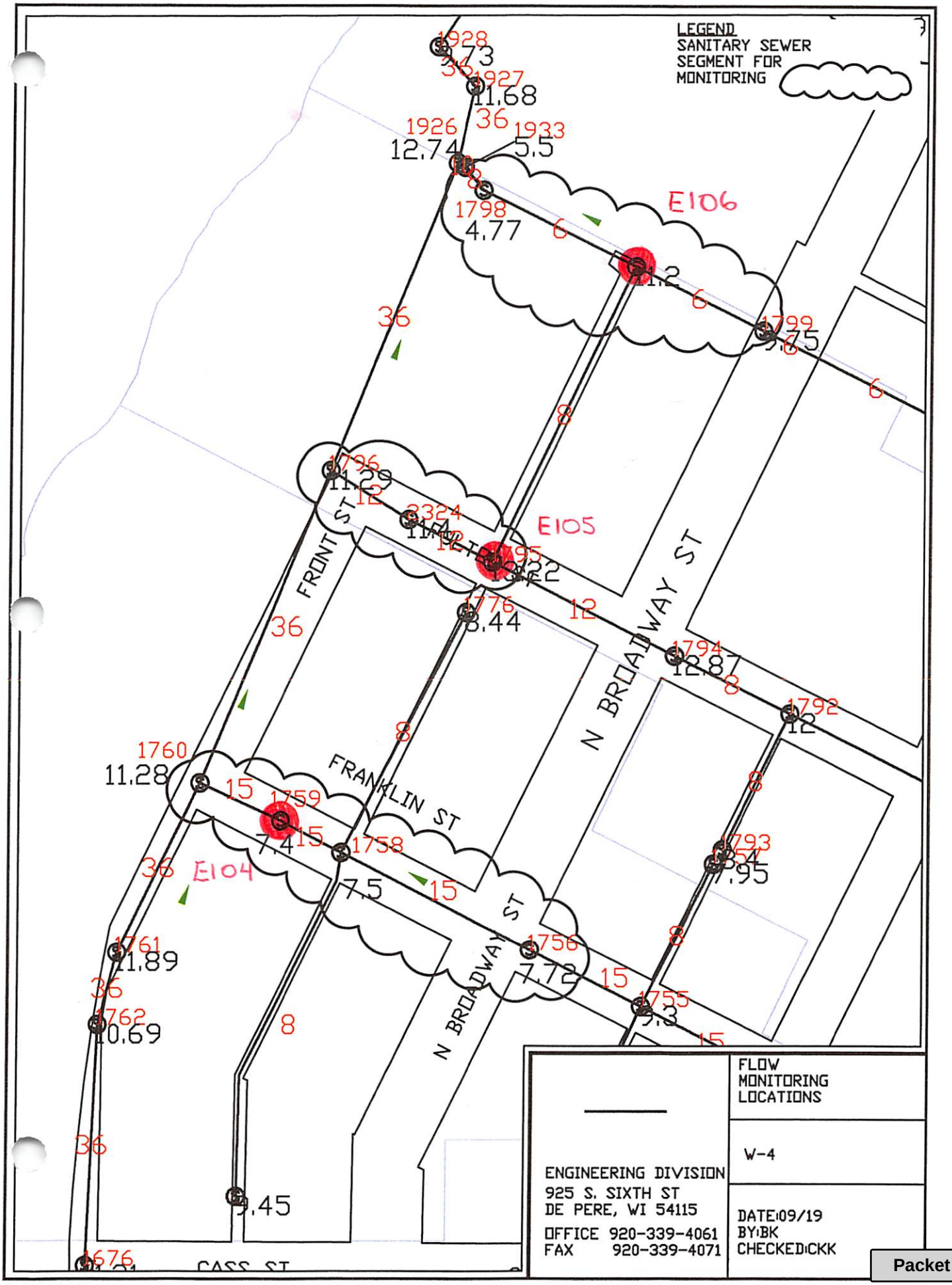
LIST OF APPENDICES

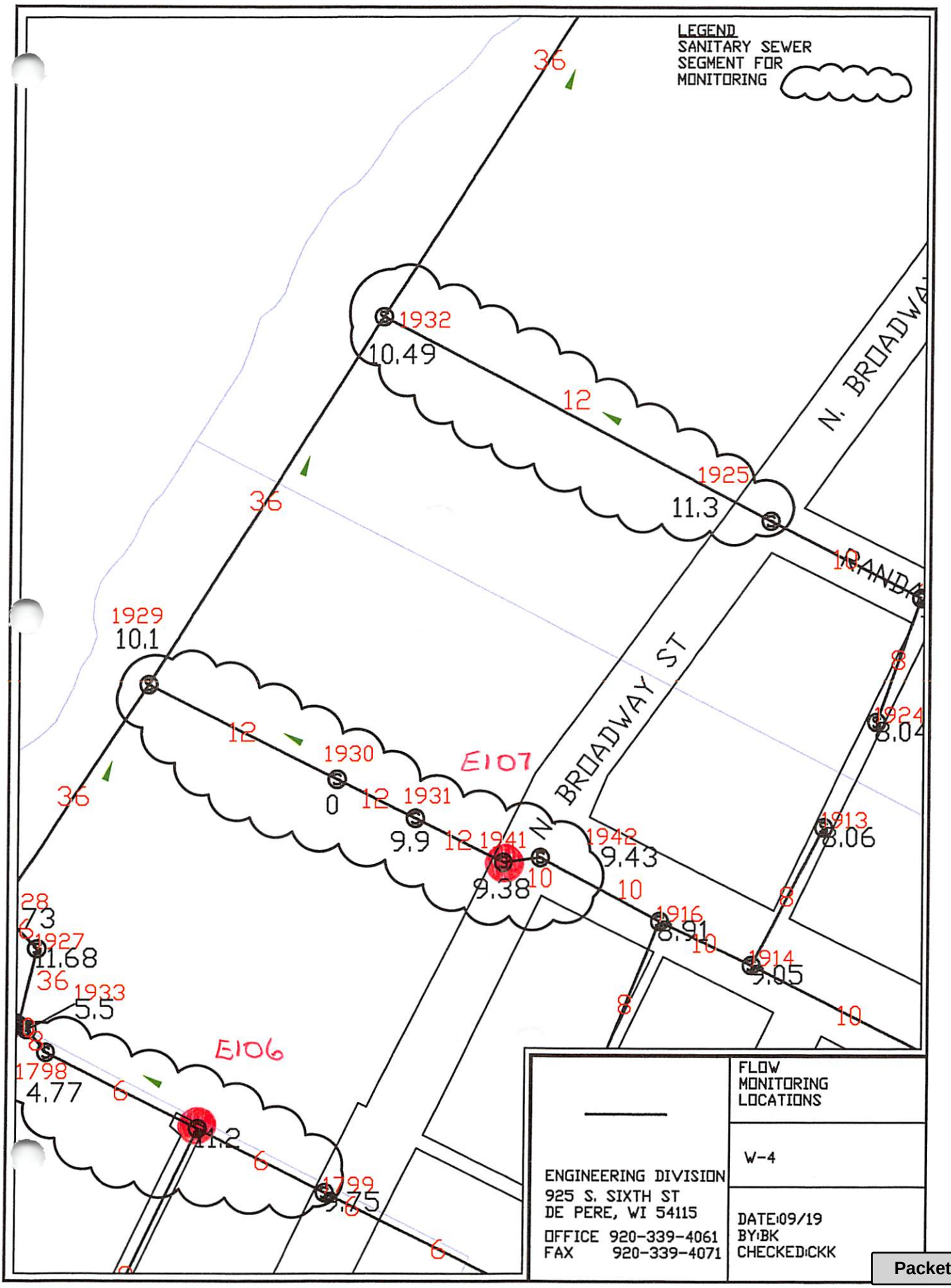
- Appendix “A”: Flow Metering Site Maps
- Appendix “B”: Flow Reports and Graphs
- Appendix “C”: SSES Programs Supplemental Information
- Appendix “D”: Example Smoke Testing Program Notices
- Appendix “E”: Example Sump Pump Inspection Notice Letters
- Appendix “F”: Photographs of Foundation Drain Cross Connection Corrections
- Appendix “G”: Private Property Ordinance Provisions

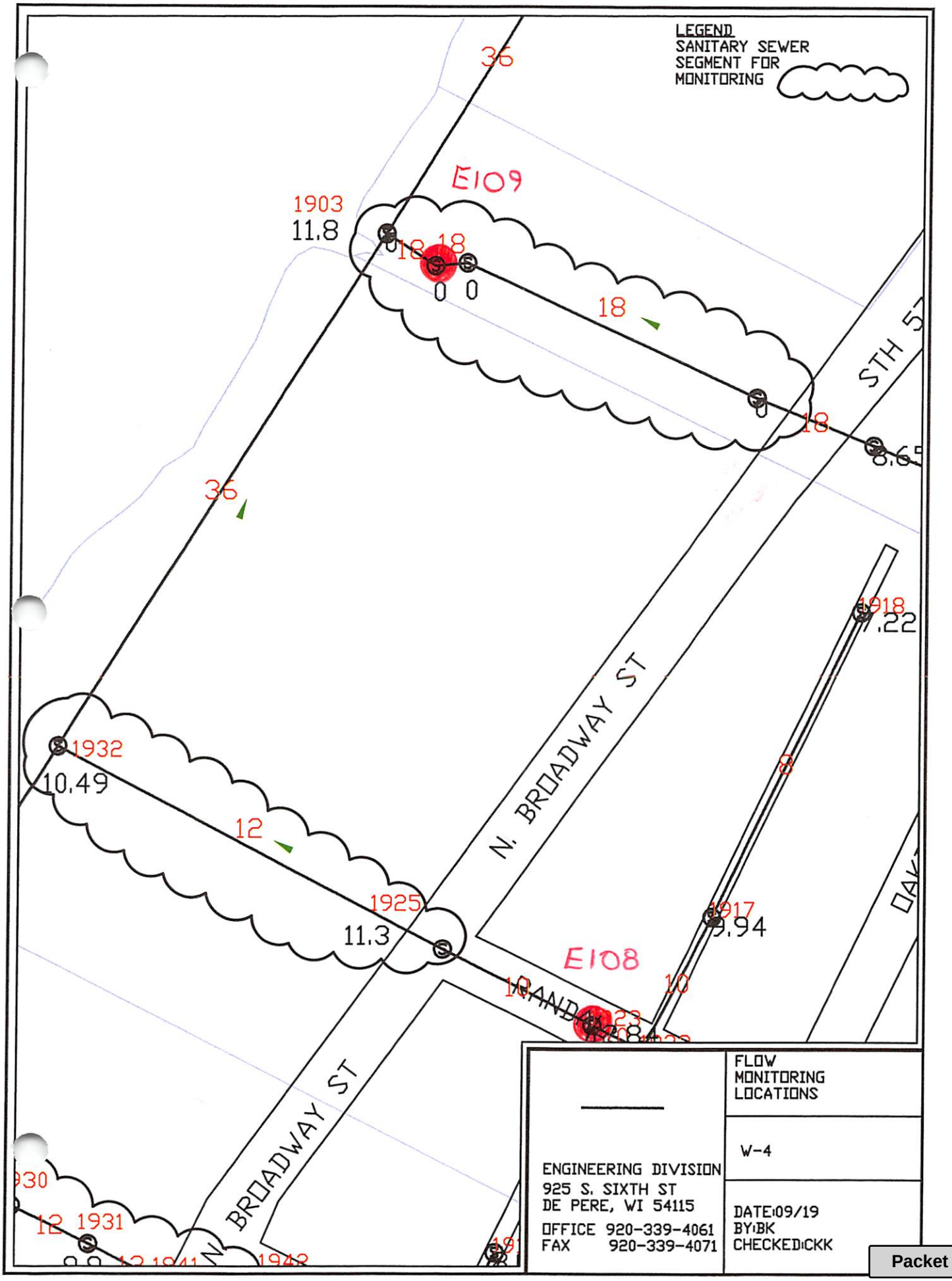
Appendix “A”

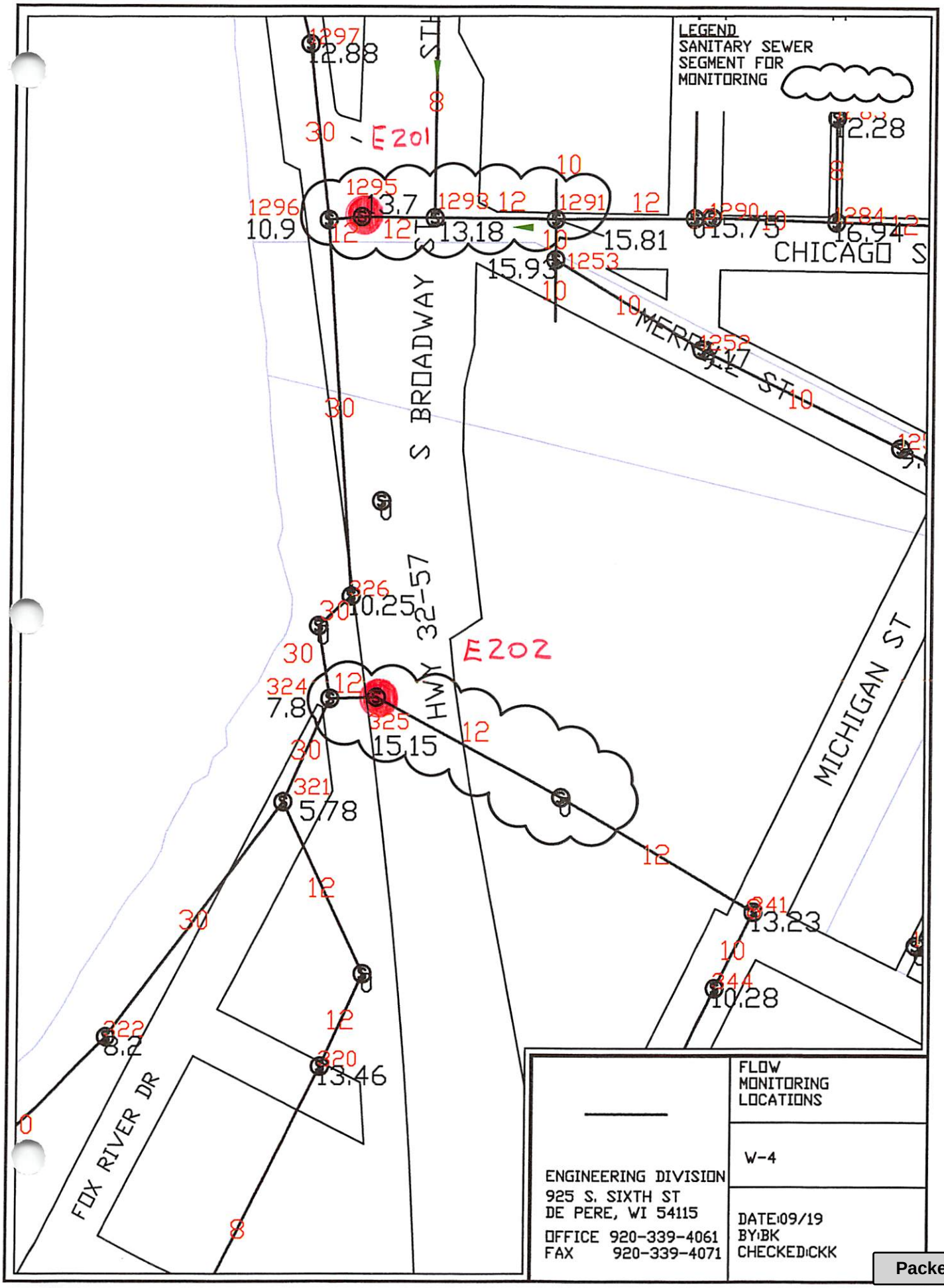
Flow Metering Site Maps

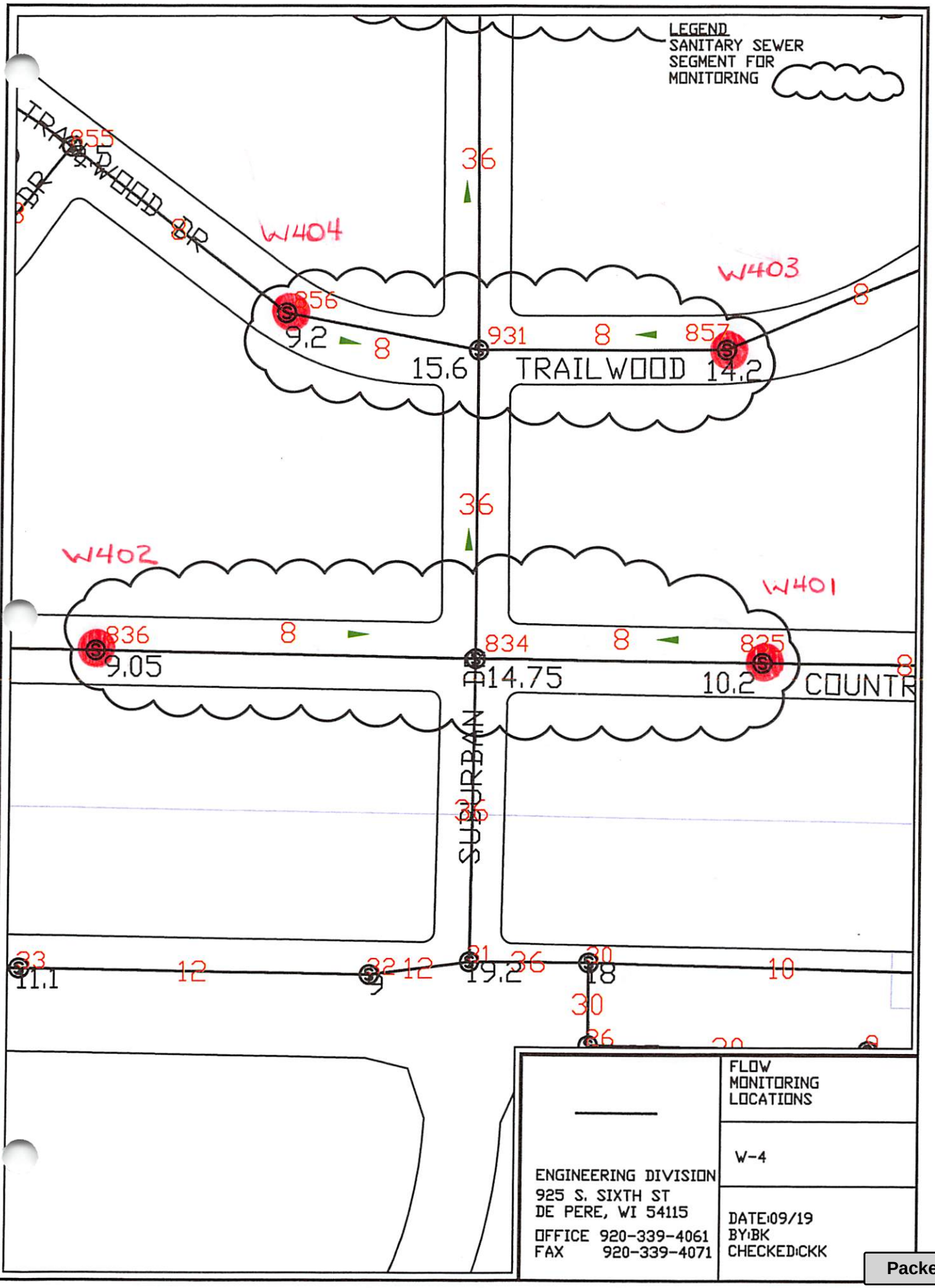

LEGEND
SANITARY SEWER SEGMENT FOR MONITORING
WILLIAM ST
JAMES ST
GEORGE ST
FRONT ST
N BROADWAY ST
N WISCONSIN ST
CANAL BASIN
E103
E102
E101
38060
11.33
11.22
10.44
18.05
15.23
ENGINEERING DIVISION
925 S. SIXTH ST
DE PERE, WI 54115
OFFICE 920-339-4061
FAX 920-339-4071
FLOW MONITORING LOCATIONS
W-4
DATE:09/19
BY:BK
CHECKED:CKK

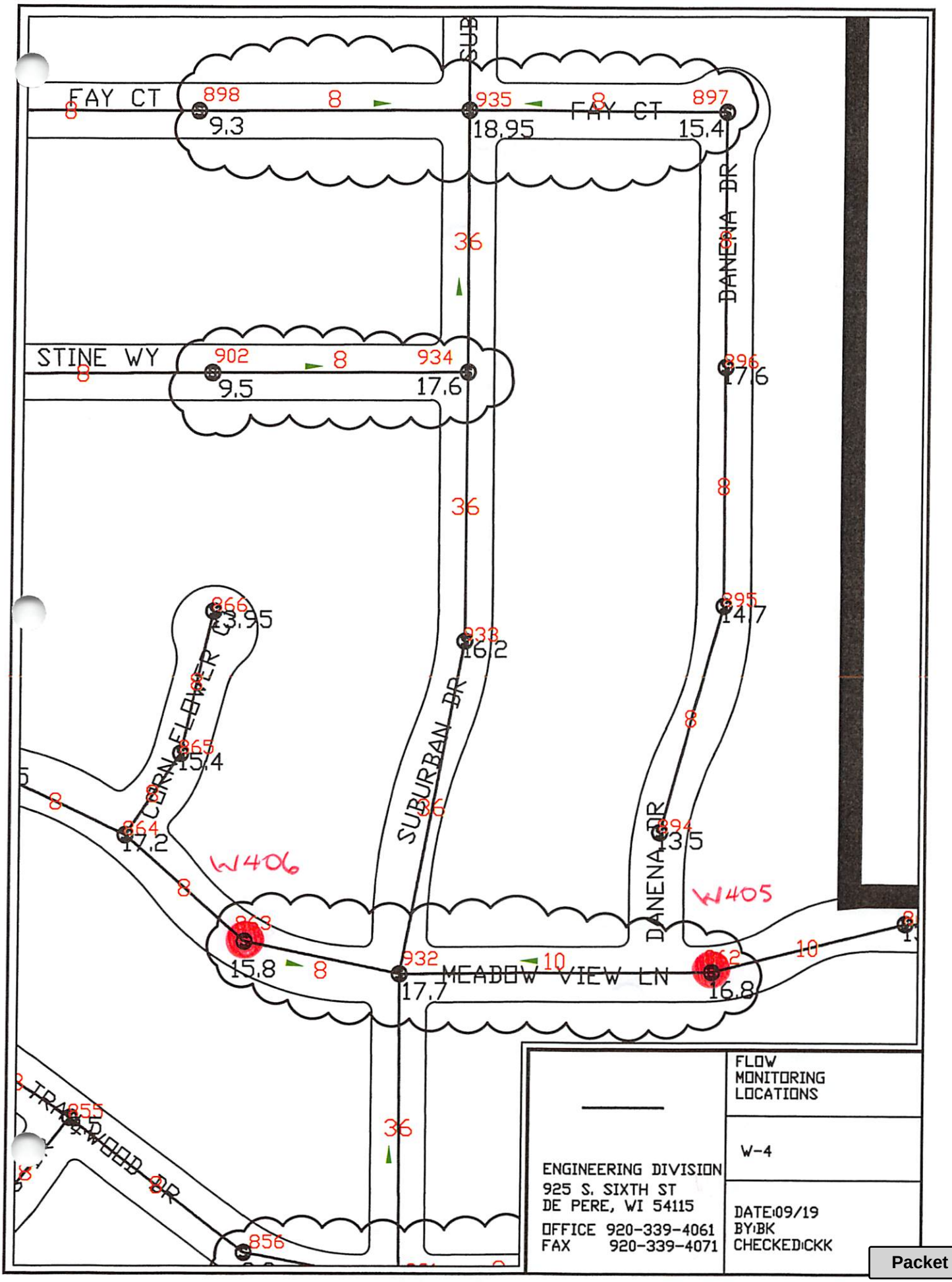

LEGEND
SANITARY SEWER SEGMENT FOR MONITORING
E106
E105
E104
FRONT ST
N BROADWAY ST
FRANKLIN ST
CASS ST
1928
1927
11.68
1926
12.74
1933
5.5
1798
4.77
1799
1796
1324
1795
1776
8.44
1794
12.87
1792
1760
11.28
1759
1758
7.5
1793
1761
11.89
1762
10.69
1756
7.72
1755
1676
9.45
ENGINEERING DIVISION
925 S. SIXTH ST
DE PERE, WI 54115
OFFICE 920-339-4061
FAX 920-339-4071
FLOW MONITORING LOCATIONS
W-4
DATE:09/19
BY:BK
CHECKED:CKK

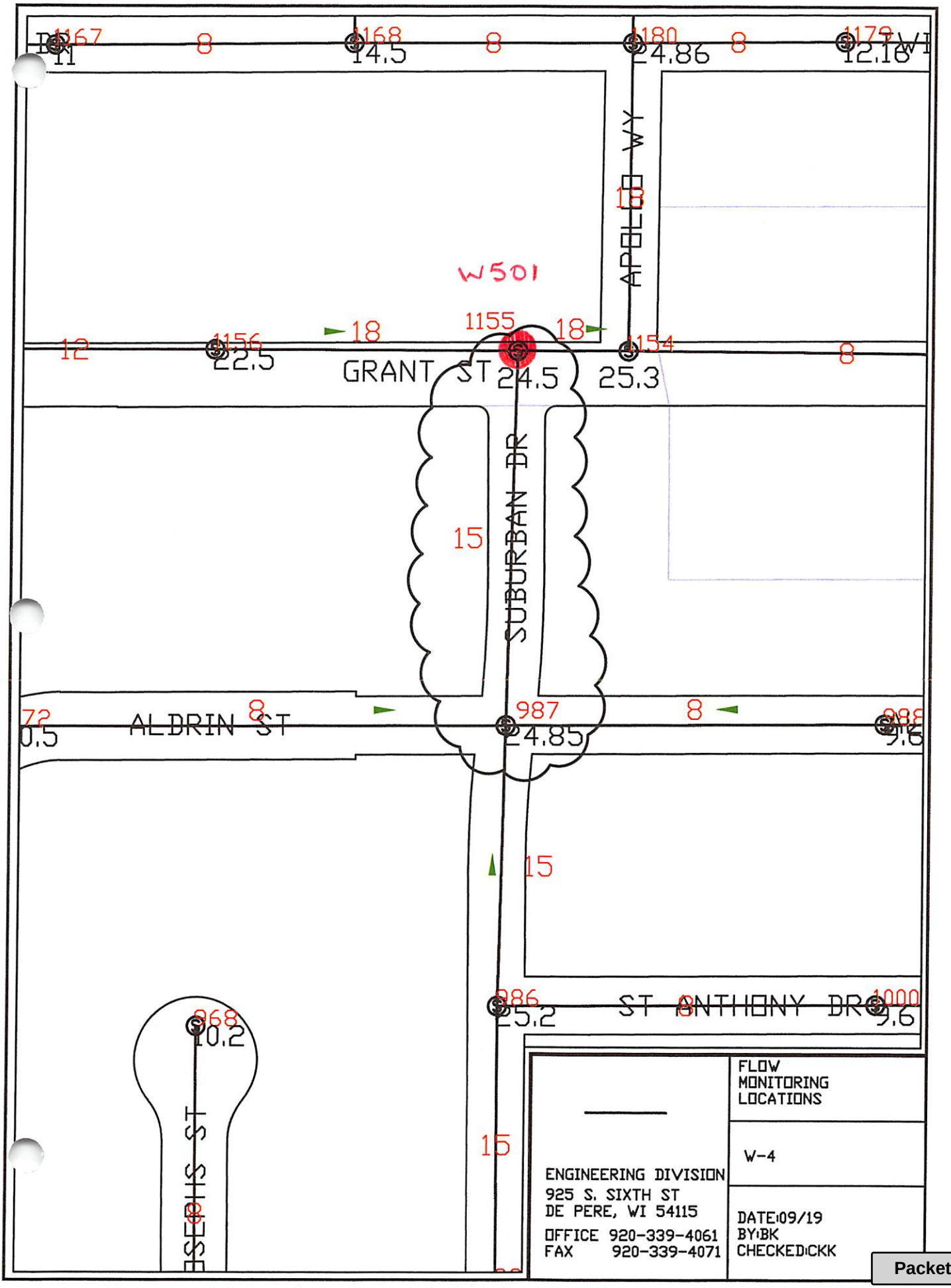

LEGEND
SANITARY SEWER SEGMENT FOR MONITORING
N. BROADWAY ST
1932
10.49
1925
11.3
1929
10.1
1930
0
1931
9.9
1941
9.38
1942
9.43
1916
8.91
1914
9.05
1924
8.04
1913
8.06
1927
11.68
1933
5.5
1798
4.77
1799
9.75
E107
E106
36
12
10
8
6
28
73
ENGINEERING DIVISION
925 S. SIXTH ST
DE PERE, WI 54115
OFFICE 920-339-4061
FAX 920-339-4071
FLOW MONITORING LOCATIONS
W-4
DATE:09/19
BY:BK
CHECKED:CKK


LEGEND
SANITARY SEWER
SEGMENT FOR
MONITORING
E109
1903
11.8
18
18
18
36
36
STH 57
1918
.22
N. BROADWAY ST
8
1932
10.49
12
1925
11.3
1917
9.94
E108
10
GRAND
N. BROADWAY ST
930
12
1931
1948
ENGINEERING DIVISION
925 S. SIXTH ST
DE PERE, WI 54115
OFFICE 920-339-4061
FAX 920-339-4071
FLOW
MONITORING
LOCATIONS
W-4
DATE:09/19
BY:BK
CHECKED:CKK


LEGEND
SANITARY SEWER SEGMENT FOR MONITORING
E201
E202
S BROADWAY
STH 32-57
HWY
MERRILL ST
CHICAGO S
MICHIGAN ST
FOX RIVER DR
1297
12.88
1295
13.7
1296
10.9
1293
13.18
1291
15.81
1290
15.75
1284
16.94
1253
15.93
1252
326
10.25
324
7.8
325
15.15
321
5.78
322
8.2
320
13.46
341
13.23
344
10.28
12.28
FLOW MONITORING LOCATIONS
W-4
ENGINEERING DIVISION
925 S. SIXTH ST
DE PERE, WI 54115
OFFICE 920-339-4061
FAX 920-339-4071
DATE:09/19
BY:BK
CHECKED:CKK


LEGEND
SANITARY SEWER SEGMENT FOR MONITORING
TRAILWOOD DR
855
856
9.2
931
857
15.6
TRAILWOOD
14.2
W404
W403
W402
W401
836
9.05
834
14.75
825
10.2
COUNTR
SUBURBAN
11.1
19.2
18
ENGINEERING DIVISION
925 S. SIXTH ST
DE PERE, WI 54115
OFFICE 920-339-4061
FAX 920-339-4071
FLOW MONITORING LOCATIONS
W-4
DATE:09/19
BY:BK
CHECKED:CKK


FAY CT
898
9.3
8
935
18.95
8
FAY CT
897
15.4
SUB
DANENA DR
36
STINE WY
902
9.5
8
934
17.6
896
17.6
8
36
866
13.95
933
16.2
895
14.7
CORAL FLOWER CT
865
15.4
SUBURBAN DR
8
864
17.2
W406
DANENA DR
894
13.5
W405
863
15.8
8
932
17.7
MEADOW VIEW LN
10
862
16.8
10
TRAILWOOD DR
855
36
856
FLOW MONITORING LOCATIONS
W-4
ENGINEERING DIVISION
925 S. SIXTH ST
DE PERE, WI 54115
OFFICE 920-339-4061
FAX 920-339-4071
DATE:09/19
BY:BK
CHECKED:CKK


1167
8
1168
14.5
8
1180
24.86
8
1179
12.16
APOLLO WY
W501
1155
18
18
12
1156
22.5
GRANT ST
24.5
1154
25.3
8
SUBURBAN DR
15
72
0.5
8
ALDRIN ST
987
24.85
8
9.6
15
986
25.2
ST ANTHONY DR
1000
9.6
968
10.2
ESSEX ST
15
ENGINEERING DIVISION
925 S. SIXTH ST
DE PERE, WI 54115
OFFICE 920-339-4061
FAX 920-339-4071
FLOW MONITORING LOCATIONS
W-4
DATE:09/19
BY:BK
CHECKED:KK

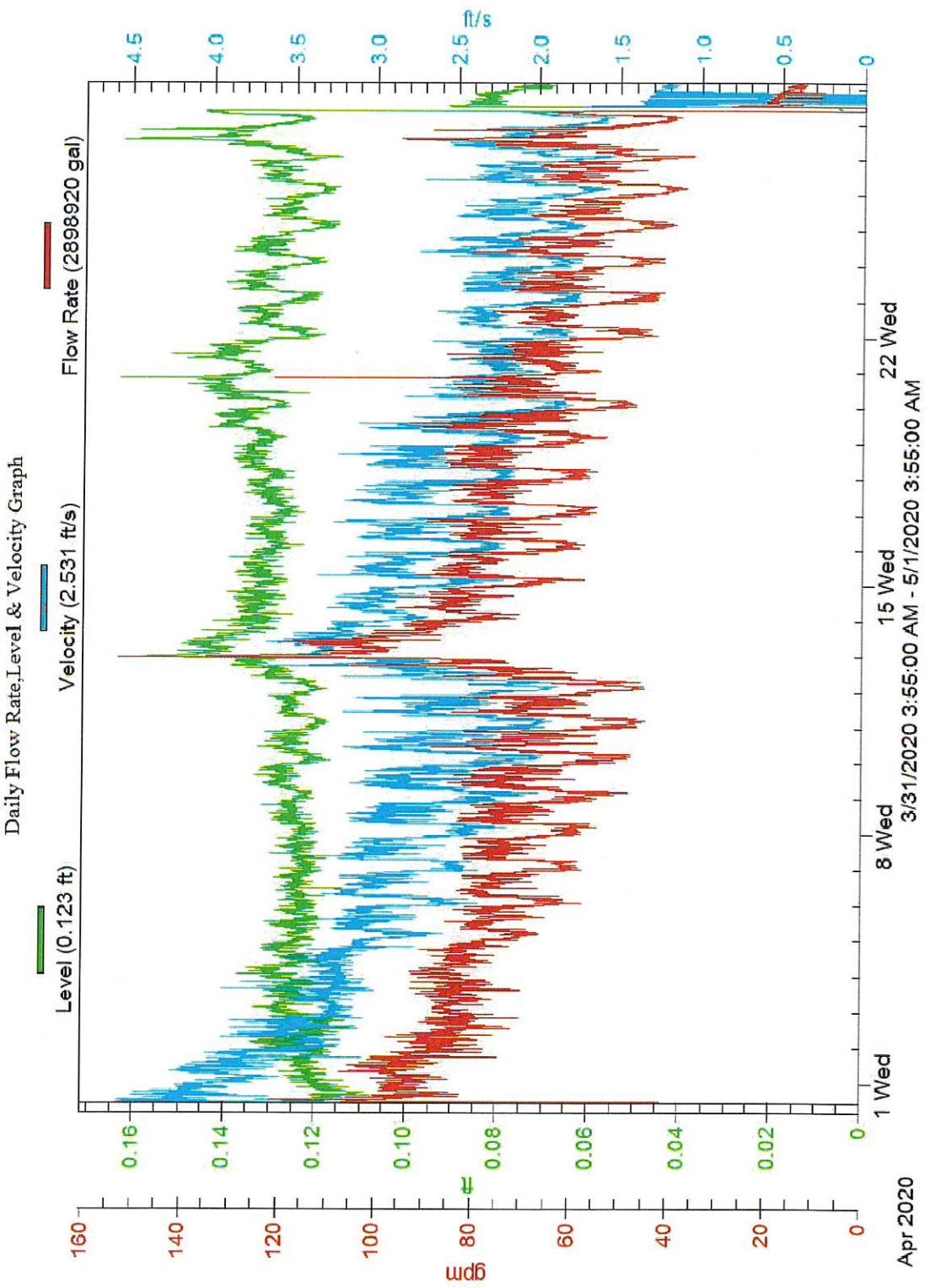
Appendix “B”

Flow Reports and Graphs

.E101
Table Min/Max/Avg

Date/Time	Minimum Min (gpm)	Time of Minimum Min (gpm)	Maximum Max (gpm)	Time of Maximum Max (gpm)	Average Avg (gpm)	Total (gal)
3/30/2020 9:00:00 AM	5	9:00:00 AM	5	9:00:00 AM	5	6820
3/31/2020 9:00:00 AM	5	10:15:00 AM	121	1:00:00 PM	88	127280
4/1/2020 9:00:00 AM	74	5:45:00 PM	105	12:00:00 PM	90	129946
4/2/2020 9:00:00 AM	70	8:15:00 PM	92	10:15:00 AM	83	119329
4/3/2020 9:00:00 AM	70	2:45:00 PM	93	3:30:00 AM	84	120657
4/4/2020 9:00:00 AM	66	5:00:00 AM	90	6:15:00 PM	78	112280
4/5/2020 9:00:00 AM	57	1:15:00 AM	85	1:00:00 PM	73	105290
4/6/2020 9:00:00 AM	57	12:00:00 AM	83	10:00:00 AM	71	101814
4/7/2020 9:00:00 AM	54	5:00:00 AM	83	8:15:00 AM	69	99512
4/8/2020 9:00:00 AM	48	3:45:00 AM	83	11:00:00 AM	68	97639
4/9/2020 9:00:00 AM	47	4:30:00 AM	85	11:00:00 AM	66	94381
4/10/2020 9:00:00 AM	45	4:30:00 AM	88	11:15:00 AM	62	89444
4/11/2020 9:00:00 AM	45	2:00:00 AM	84	10:45:00 AM	61	87947
4/12/2020 9:00:00 AM	59	1:15:00 PM	153	11:15:00 PM	91	131440
4/13/2020 9:00:00 AM	70	5:00:00 AM	119	9:45:00 AM	89	128396
4/14/2020 9:00:00 AM	57	4:00:00 AM	95	4:30:00 PM	79	113476
4/15/2020 9:00:00 AM	57	3:30:00 AM	89	8:00:00 PM	74	106564
4/16/2020 9:00:00 AM	55	1:15:00 AM	90	7:15:00 PM	71	101949
4/17/2020 9:00:00 AM	55	5:30:00 AM	85	4:30:00 PM	71	101610
4/18/2020 9:00:00 AM	53	5:00:00 AM	88	5:15:00 PM	71	101669
4/19/2020 9:00:00 AM	47	2:45:00 AM	93	2:00:00 PM	65	94284
4/20/2020 9:00:00 AM	54	12:45:00 AM	121	8:15:00 PM	69	99106
4/21/2020 9:00:00 AM	43	1:15:00 AM	86	12:45:00 PM	61	87577
4/22/2020 9:00:00 AM	41	5:45:00 AM	76	5:15:00 PM	59	84359
4/23/2020 9:00:00 AM	41	2:15:00 AM	75	1:00:00 PM	57	81928
4/24/2020 9:00:00 AM	39	4:15:00 AM	81	10:15:00 AM	56	80034
4/25/2020 9:00:00 AM	37	4:45:00 AM	69	10:30:00 AM	52	74252
4/26/2020 9:00:00 AM	35	2:30:00 AM	71	10:15:00 AM	54	77882
4/27/2020 9:00:00 AM	38	4:00:00 AM	95	2:00:00 PM	59	85038
4/28/2020 9:00:00 AM	0	12:00:00 PM	28	12:30:00 PM	14	20021
4/29/2020 9:00:00 AM	10	9:15:00 AM	35	12:45:00 PM	18	25266
4/30/2020 9:00:00 AM	13	4:30:00 AM	37	7:00:00 AM	17	24865

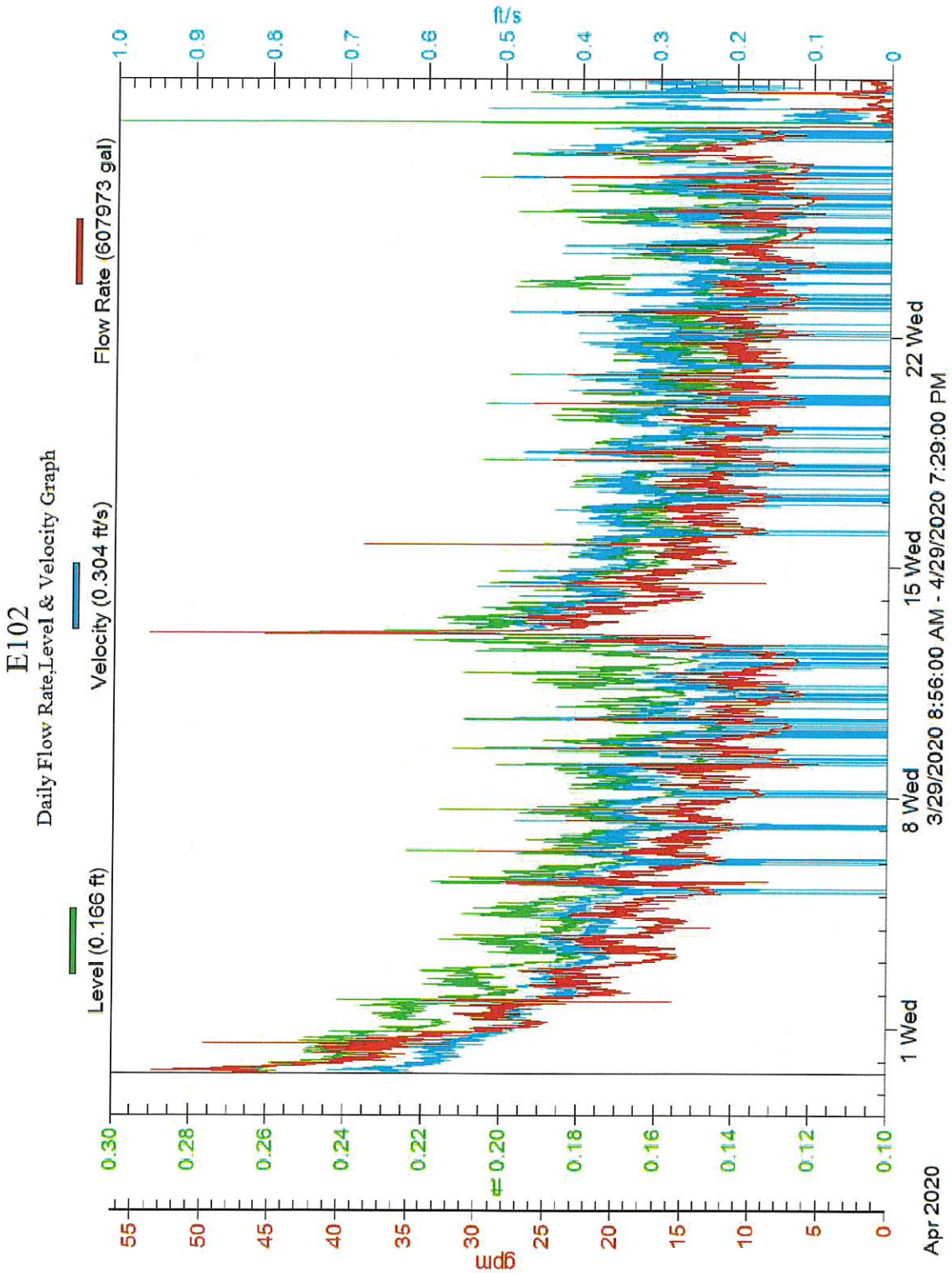
	Minimum Min 0 (gpm)	Time of Minimum Min 4/28/2020 12:00:00 PM	Maximum Max 153 (gpm)	Time of Maximum Max 4/12/2020 11:15:00 PM	Average Avg 63 (gpm) Total 2912050 gal	Average Total 91002 (gal) Total 2912053 gal


E101
Daily Flow Rate,Level & Velocity Graph
Level (0.123 ft)
Velocity (2.531 ft/s)
Flow Rate (2898920 gal)
gpm
ft
ft/s
160
140
120
100
80
60
40
20
0
0.16
0.14
0.12
0.10
0.08
0.06
0.04
0.02
0
4.5
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0
1 Wed
8 Wed
15 Wed
22 Wed
Apr 2020
3/31/2020 3:55:00 AM - 5/1/2020 3:55:00 AM

E102
Table Min/Max/Avg

Date/Time	Minimum Min (gpm)	Time of Minimum Min (gpm)	Maximum Max (gpm)	Time of Maximum Max (gpm)	Average Avg (gpm)	Total (gal)
3/29/2020 9:00:00 AM	24	9:00:00 AM	24	9:00:00 AM	24	34407
3/30/2020 9:00:00 AM	12	3:30:00 PM	53	6:15:00 PM	37	52934
3/31/2020 9:00:00 AM	25	5:15:00 AM	50	12:45:00 PM	32	45721
4/1/2020 9:00:00 AM	16	8:15:00 PM	34	8:30:00 PM	25	36111
4/2/2020 9:00:00 AM	15	4:45:00 AM	27	6:15:00 PM	20	29381
4/3/2020 9:00:00 AM	13	1:45:00 AM	25	4:45:00 PM	18	26211
4/4/2020 9:00:00 AM	12	2:00:00 AM	23	10:30:00 AM	17	24223
4/5/2020 9:00:00 AM	9	10:30:00 AM	28	10:45:00 AM	16	23747
4/6/2020 9:00:00 AM	11	5:00:00 AM	30	9:30:00 AM	14	20546
4/7/2020 9:00:00 AM	9	2:45:00 AM	26	3:30:00 PM	13	18644
4/8/2020 9:00:00 AM	5	12:30:00 AM	22	12:00:00 AM	12	17025
4/9/2020 9:00:00 AM	7	5:15:00 AM	26	12:00:00 PM	11	15158
4/10/2020 9:00:00 AM	6	4:15:00 AM	23	9:15:00 AM	10	14803
4/11/2020 9:00:00 AM	6	4:00:00 AM	17	7:15:00 PM	10	13818
4/12/2020 9:00:00 AM	8	3:30:00 PM	54	12:00:00 AM	20	28880
4/13/2020 9:00:00 AM	13	5:30:00 AM	28	11:15:00 AM	19	27187
4/14/2020 9:00:00 AM	9	12:30:00 PM	28	10:15:00 AM	16	22769
4/15/2020 9:00:00 AM	9	1:30:00 AM	38	5:00:00 PM	13	19185
4/16/2020 9:00:00 AM	8	4:30:00 AM	19	6:00:00 PM	12	17494
4/17/2020 9:00:00 AM	7	3:15:00 AM	25	6:30:00 AM	12	16650
4/18/2020 9:00:00 AM	7	4:15:00 AM	23	11:45:00 AM	11	16434
4/19/2020 9:00:00 AM	6	9:15:00 PM	26	11:45:00 PM	11	16091
4/20/2020 9:00:00 AM	7	6:15:00 AM	24	8:15:00 PM	11	15660
4/21/2020 9:00:00 AM	6	3:00:00 AM	16	7:45:00 PM	10	14546
4/22/2020 9:00:00 AM	6	5:00:00 AM	23	6:30:00 PM	10	14331
4/23/2020 9:00:00 AM	5	3:45:00 AM	14	5:15:00 PM	9	12922
4/24/2020 9:00:00 AM	5	7:30:00 AM	18	1:00:00 PM	8	12186
4/25/2020 9:00:00 AM	5	6:30:00 PM	18	7:30:00 PM	9	12497
4/26/2020 9:00:00 AM	5	7:45:00 PM	26	8:15:00 PM	9	12913
4/27/2020 9:00:00 AM	6	3:30:00 AM	23	2:15:00 PM	12	16627
4/28/2020 9:00:00 AM	0	12:45:00 PM	13	9:15:00 AM	1	1228

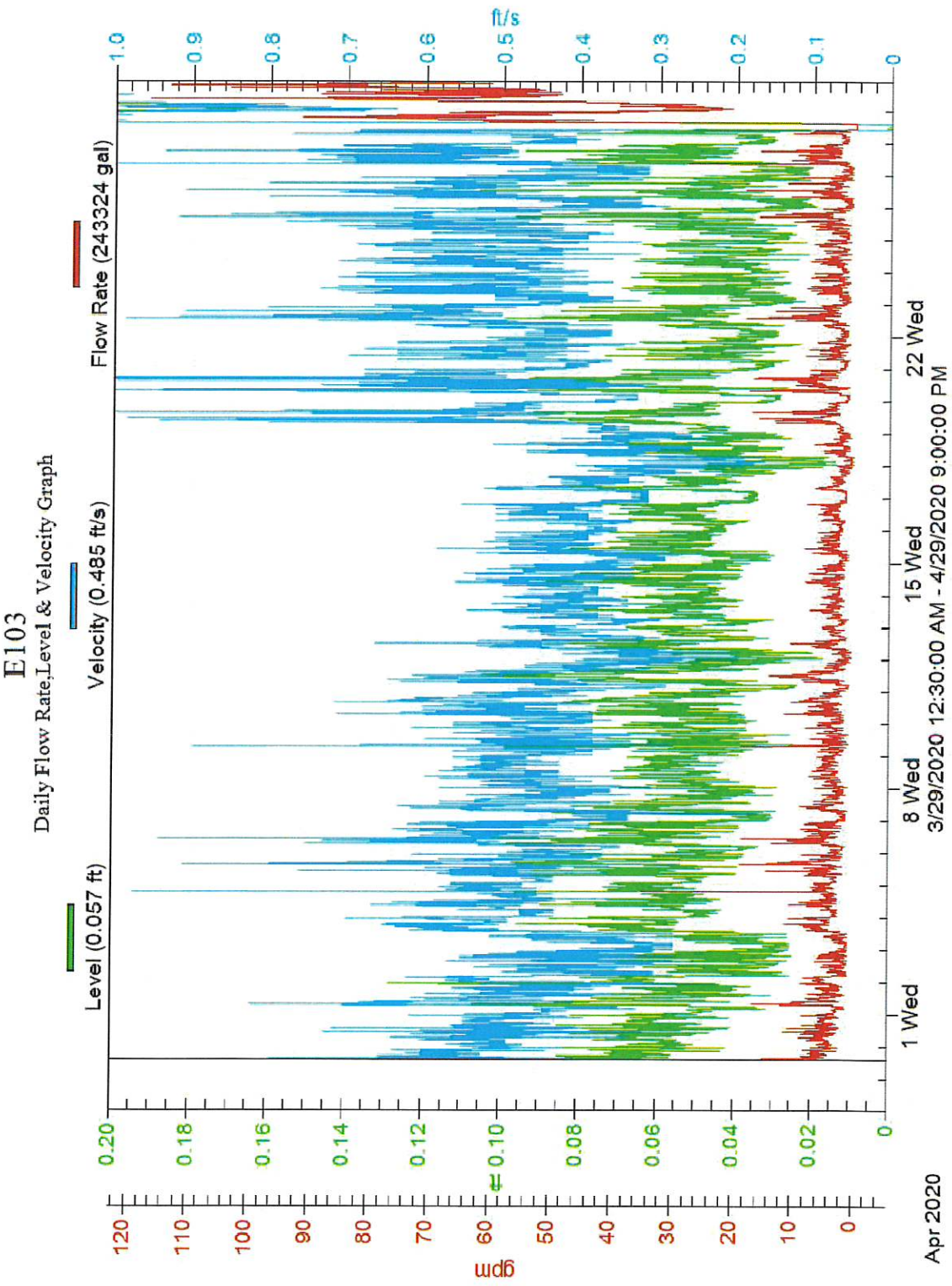
Minimum Min 0 (gpm)	Time of Minimum Min 4/28/2020 12:45:00 PM	Maximum Max 54 (gpm)	Time of Maximum Max 4/13/2020 12:00:00 AM	Average Avg 15 (gpm)	Average Total 20978 (gal)
				Total 650328 gal	Total 650328 gal


E102
Daily Flow Rate,Level & Velocity Graph
Level (0.166 ft)
Velocity (0.304 ft/s)
Flow Rate (607973 gal)
ft/s
gpm
ft
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
55
50
45
40
35
30
25
20
15
10
5
0
0.30
0.28
0.26
0.24
0.22
0.20
0.18
0.16
0.14
0.12
0.10
1 Wed
8 Wed
15 Wed
22 Wed
Apr 2020
3/29/2020 8:56:00 AM - 4/29/2020 7:29:00 PM

E103
Table Min/Max/Avg

Date/Time	Minimum Min (gpm)	Time of Minimum Min (gpm)	Maximum Max (gpm)	Time of Maximum Max (gpm)	Average Avg (gpm)	Total (gal)
3/29/2020 9:00:00 AM	0	9:00:00 AM	0	9:00:00 AM	0	-1
3/30/2020 9:00:00 AM	0	2:45:00 PM	15	3:15:00 PM	4	5428
3/31/2020 9:00:00 AM	1	4:15:00 AM	17	7:30:00 AM	4	6455
4/1/2020 9:00:00 AM	1	5:00:00 AM	8	10:45:00 PM	4	5376
4/2/2020 9:00:00 AM	1	7:15:00 PM	6	3:15:00 PM	2	2688
4/3/2020 9:00:00 AM	1	9:30:00 AM	11	7:45:00 PM	4	5774
4/4/2020 9:00:00 AM	2	8:30:00 AM	35	7:45:00 PM	4	6400
4/5/2020 9:00:00 AM	1	4:45:00 AM	18	3:30:00 PM	4	6396
4/6/2020 9:00:00 AM	1	7:15:00 AM	18	10:00:00 AM	4	5172
4/7/2020 9:00:00 AM	1	12:45:00 AM	9	9:45:00 AM	3	4716
4/8/2020 9:00:00 AM	1	8:45:00 AM	18	7:45:00 AM	4	5228
4/9/2020 9:00:00 AM	1	3:45:00 PM	11	7:45:00 AM	3	4403
4/10/2020 9:00:00 AM	1	4:30:00 AM	10	4:00:00 PM	4	5112
4/11/2020 9:00:00 AM	0	12:30:00 AM	14	11:45:00 AM	3	4489
4/12/2020 9:00:00 AM	1	5:45:00 AM	10	11:30:00 AM	3	4189
4/13/2020 9:00:00 AM	1	8:30:00 PM	7	12:30:00 PM	3	4256
4/14/2020 9:00:00 AM	1	5:45:00 AM	8	10:15:00 AM	3	4255
4/15/2020 9:00:00 AM	1	7:15:00 AM	8	10:45:00 AM	3	4213
4/16/2020 9:00:00 AM	1	11:15:00 PM	7	7:00:00 PM	3	3972
4/17/2020 9:00:00 AM	0	1:00:00 AM	4	3:45:00 PM	2	2229
4/18/2020 9:00:00 AM	1	8:45:00 PM	13	8:15:00 AM	2	3352
4/19/2020 9:00:00 AM	1	4:30:00 AM	17	7:45:00 AM	4	6094
4/20/2020 9:00:00 AM	1	6:15:00 AM	17	4:45:00 PM	4	6032
4/21/2020 9:00:00 AM	1	6:00:00 PM	8	9:45:00 AM	3	3893
4/22/2020 9:00:00 AM	1	2:30:00 AM	18	2:00:00 PM	4	5446
4/23/2020 9:00:00 AM	1	4:30:00 PM	8	12:00:00 PM	3	4265
4/24/2020 9:00:00 AM	1	2:00:00 PM	7	9:15:00 AM	3	3825
4/25/2020 9:00:00 AM	0	1:15:00 AM	16	5:15:00 PM	3	4819
4/26/2020 9:00:00 AM	1	6:00:00 AM	28	8:45:00 AM	3	4456
4/27/2020 9:00:00 AM	1	9:00:00 AM	16	6:15:00 PM	4	6006
4/28/2020 9:00:00 AM	0	3:00:00 PM	117	9:00:00 AM	38	54157

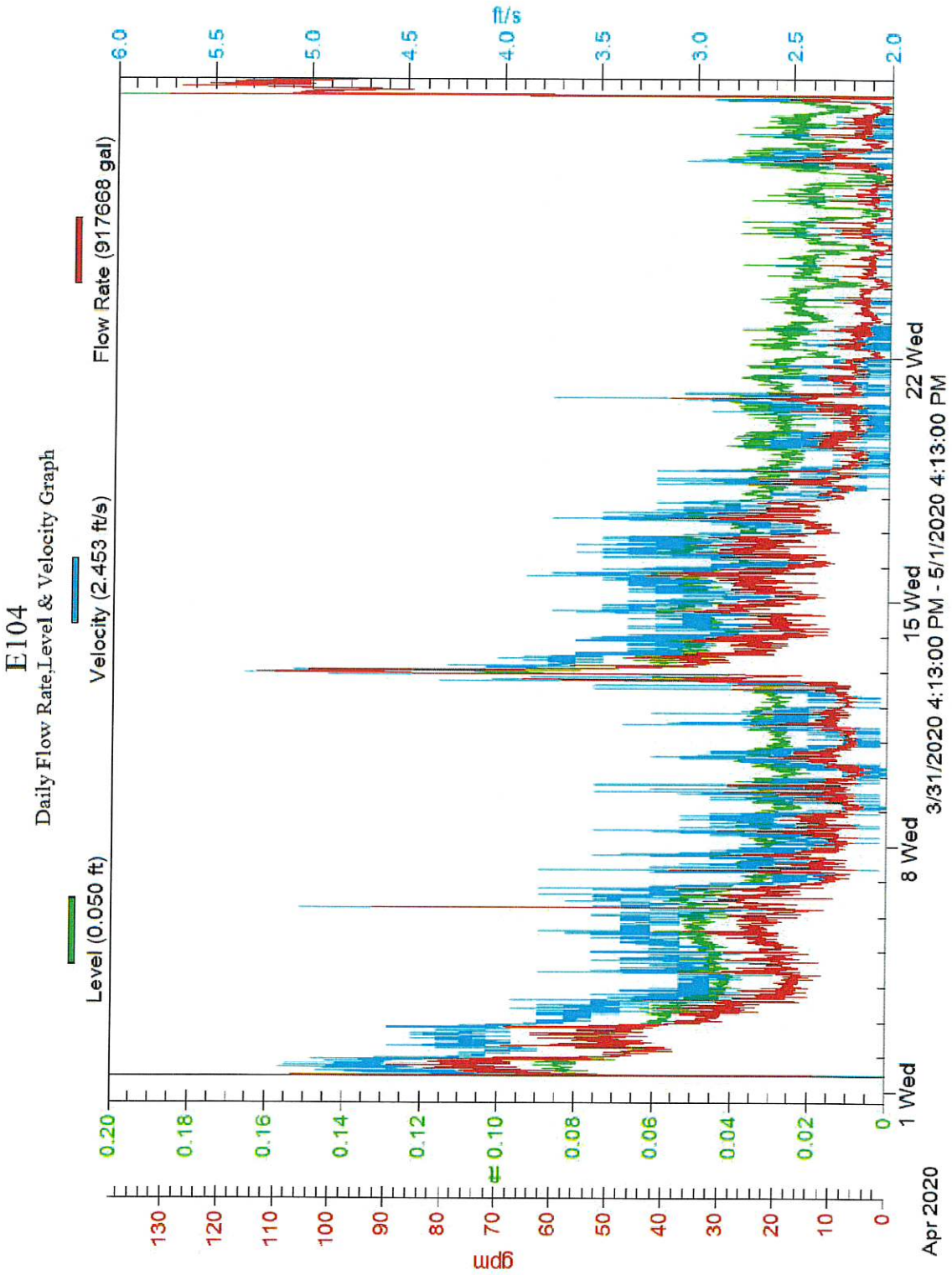
Minimum	Time of	Maximum	Time of	Average	Average
Min 0 (gpm)	Minimum Min 3/30/2020 2:45:00 PM	Max 117 (gpm)	Maximum Max 4/29/2020 9:00:00 AM	Avg 4 (gpm) Total 193096 gal	Total 6229 (gal) Total 193096 gal


E103
Daily Flow Rate,Level & Velocity Graph
Level (0.057 ft)
Velocity (0.485 ft/s)
Flow Rate (243324 gal)
ft/s
gpm
1 Wed
8 Wed
15 Wed
22 Wed
Apr 2020
3/29/2020 12:30:00 AM - 4/29/2020 9:00:00 PM

E104
Table Min/Max/Avg

Date/Time	Minimum Min (gpm)	Time of Minimum Min (gpm)	Maximum Max (gpm)	Time of Maximum Max (gpm)	Average Avg (gpm)	Total (gal)
3/30/2020 9:00:00 AM	74	9:00:00 AM	74	9:00:00 AM	74	106175
3/31/2020 9:00:00 AM	74	9:00:00 AM	74	9:00:00 AM	74	106175
4/1/2020 9:00:00 AM	13	11:30:00 AM	109	11:00:00 AM	61	87860
4/2/2020 9:00:00 AM	23	7:00:00 AM	69	8:30:00 PM	42	60930
4/3/2020 9:00:00 AM	11	7:30:00 AM	43	3:30:00 PM	21	30156
4/4/2020 9:00:00 AM	12	4:30:00 PM	37	10:00:00 AM	20	29060
4/5/2020 9:00:00 AM	11	4:45:00 AM	92	6:15:00 AM	23	33085
4/6/2020 9:00:00 AM	5	9:00:00 AM	39	8:00:00 AM	18	25404
4/7/2020 9:00:00 AM	5	7:15:00 AM	29	6:30:00 PM	12	16911
4/8/2020 9:00:00 AM	4	3:00:00 AM	30	10:45:00 AM	10	14448
4/9/2020 9:00:00 AM	3	6:00:00 AM	29	1:30:00 PM	8	12230
4/10/2020 9:00:00 AM	5	9:00:00 PM	21	2:15:00 PM	9	13106
4/11/2020 9:00:00 AM	5	6:30:00 AM	25	12:15:00 PM	9	13048
4/12/2020 9:00:00 AM	7	2:30:00 PM	114	12:15:00 AM	33	47099
4/13/2020 9:00:00 AM	10	6:00:00 AM	47	10:00:00 AM	23	33509
4/14/2020 9:00:00 AM	11	3:00:00 PM	39	6:00:00 PM	21	30497
4/15/2020 9:00:00 AM	10	3:00:00 AM	44	6:15:00 PM	21	29761
4/16/2020 9:00:00 AM	9	12:00:00 AM	35	3:45:00 PM	19	27460
4/17/2020 9:00:00 AM	5	6:30:00 AM	40	9:45:00 AM	15	21189
4/18/2020 9:00:00 AM	4	3:00:00 AM	25	9:15:00 AM	9	12453
4/19/2020 9:00:00 AM	3	2:00:00 AM	16	11:45:00 AM	8	11309
4/20/2020 9:00:00 AM	4	1:30:00 PM	39	8:00:00 PM	10	14302
4/21/2020 9:00:00 AM	1	1:15:00 AM	13	10:00:00 AM	6	8478
4/22/2020 9:00:00 AM	2	1:30:00 AM	13	7:30:00 PM	5	6788
4/23/2020 9:00:00 AM	0	3:00:00 AM	10	4:15:00 PM	4	5372
4/24/2020 9:00:00 AM	0	3:15:00 AM	13	3:45:00 PM	3	4135
4/25/2020 9:00:00 AM	0	6:15:00 AM	13	1:30:00 PM	3	4306
4/26/2020 9:00:00 AM	0	5:45:00 AM	11	12:30:00 PM	3	3710
4/27/2020 9:00:00 AM	1	4:45:00 AM	21	2:45:00 PM	7	9759
4/28/2020 9:00:00 AM	0	3:45:00 AM	16	8:30:00 AM	4	6274
4/29/2020 9:00:00 AM	0	11:45:00 AM	130	11:30:00 AM	91	130611
4/30/2020 9:00:00 AM	64	3:15:00 AM	133	6:45:00 PM	98	140449
5/1/2020 9:00:00 AM	64	4:15:00 AM	116	9:45:00 AM	87	125383

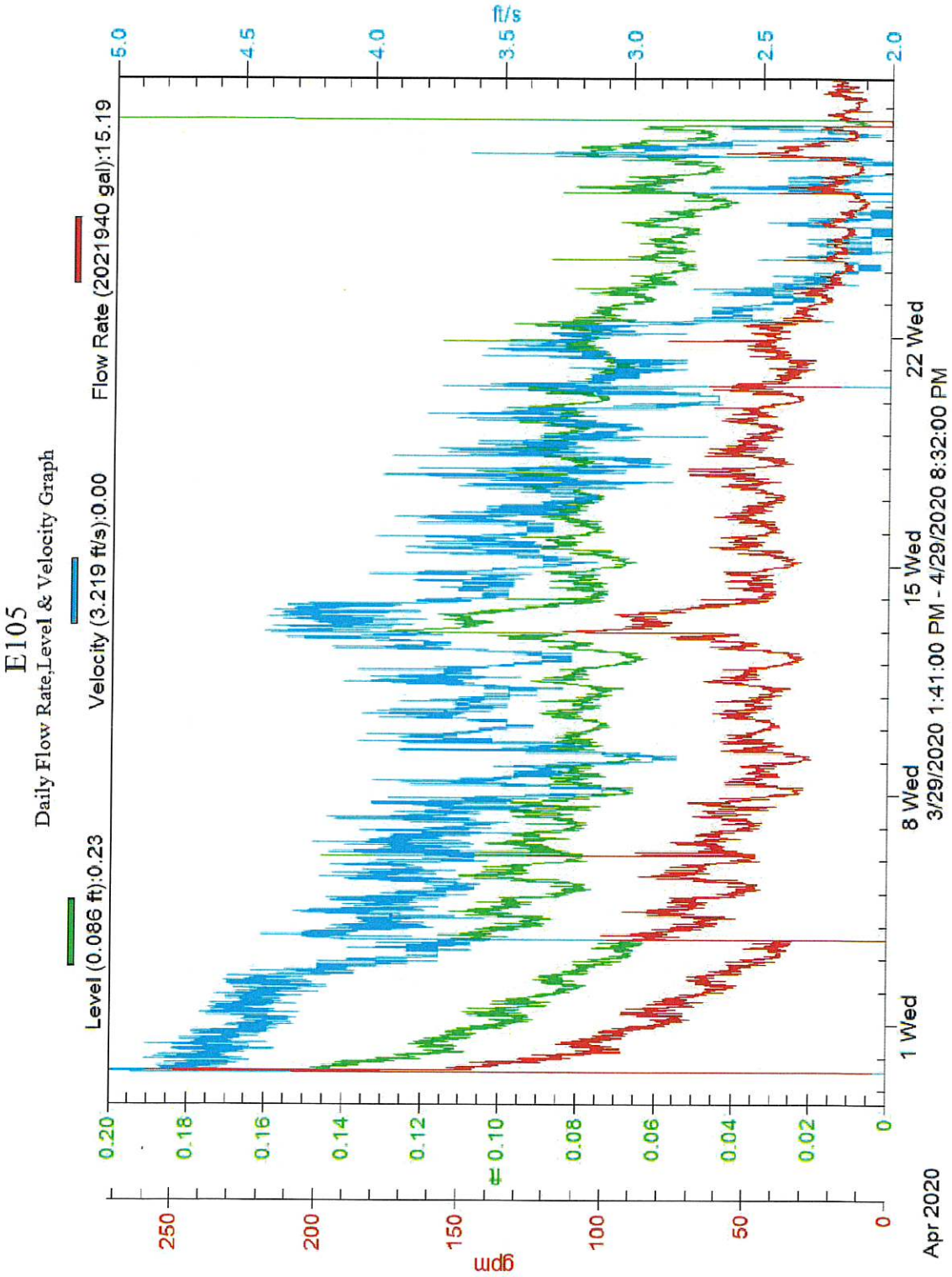
	Minimum Min 0 (gpm)	Time of Minimum Min 4/25/2020 3:15:00 AM	Maximum Max 133 (gpm)	Time of Maximum Max 4/30/2020 6:45:00 PM	Average Avg 26 (gpm)	Average Total 37013 (gal)
					Total 1221430 gal	Total 1221433 gal


E104
Daily Flow Rate,Level & Velocity Graph
Level (0.050 ft)
Velocity (2.453 ft/s)
Flow Rate (917668 gal)
ft/s
gpm
ft
1 Wed
8 Wed
15 Wed
22 Wed
Apr 2020
3/31/2020 4:13:00 PM - 5/1/2020 4:13:00 PM

E105
Table Min/Max/Avg

Date/Time	Minimum Min (gpm)	Time of Minimum Min (gpm)	Maximum Max (gpm)	Time of Maximum Max (gpm)	Average Avg (gpm)	Total (gal)
3/30/2020 9:00:00 AM	4	1:30:00 PM	259	3:00:00 PM	104	150350
3/31/2020 9:00:00 AM	69	4:45:00 AM	115	10:15:00 AM	90	129538
4/1/2020 9:00:00 AM	52	5:15:00 AM	91	11:45:00 AM	69	99304
4/2/2020 9:00:00 AM	35	6:30:00 AM	70	11:15:00 AM	49	70689
4/3/2020 9:00:00 AM	0	2:15:00 PM	100	5:45:00 PM	64	91654
4/4/2020 9:00:00 AM	44	3:45:00 AM	92	10:30:00 AM	62	89514
4/5/2020 9:00:00 AM	45	11:45:00 PM	126	4:00:00 AM	63	90265
4/6/2020 9:00:00 AM	44	4:00:00 AM	76	1:30:00 PM	57	82014
4/7/2020 9:00:00 AM	30	6:15:00 AM	70	6:15:00 PM	47	67161
4/8/2020 9:00:00 AM	27	2:30:00 AM	58	8:00:00 AM	41	59314
4/9/2020 9:00:00 AM	37	12:45:00 PM	59	3:30:00 PM	45	65365
4/10/2020 9:00:00 AM	34	6:15:00 AM	61	11:45:00 AM	46	66208
4/11/2020 9:00:00 AM	30	4:45:00 AM	65	11:45:00 AM	44	62939
4/12/2020 9:00:00 AM	41	9:45:00 AM	114	12:00:00 AM	70	100326
4/13/2020 9:00:00 AM	40	5:45:00 AM	96	12:15:00 PM	60	86181
4/14/2020 9:00:00 AM	31	2:45:00 AM	58	7:15:00 PM	42	60106
4/15/2020 9:00:00 AM	37	10:45:00 AM	63	1:30:00 PM	46	66800
4/16/2020 9:00:00 AM	37	3:45:00 AM	61	12:00:00 PM	45	64884
4/17/2020 9:00:00 AM	34	3:15:00 AM	71	9:30:00 PM	49	70102
4/18/2020 9:00:00 AM	37	5:30:00 AM	64	10:30:00 AM	47	68218
4/19/2020 9:00:00 AM	31	2:15:00 AM	62	8:45:00 AM	43	61258
4/20/2020 9:00:00 AM	17	11:45:00 AM	63	12:00:00 PM	37	53622
4/21/2020 9:00:00 AM	35	10:00:00 AM	78	8:30:00 PM	43	61374
4/22/2020 9:00:00 AM	20	3:15:00 AM	46	10:45:00 AM	28	40655
4/23/2020 9:00:00 AM	14	1:45:00 AM	38	8:00:00 AM	20	28180
4/24/2020 9:00:00 AM	13	3:45:00 AM	25	10:15:00 AM	17	25021
4/25/2020 9:00:00 AM	8	2:15:00 AM	27	12:00:00 PM	14	20499
4/26/2020 9:00:00 AM	10	3:30:00 AM	40	9:15:00 AM	18	25218
4/27/2020 9:00:00 AM	12	5:00:00 AM	58	2:15:00 PM	25	35993
4/28/2020 9:00:00 AM	0	10:30:00 AM	24	9:15:00 AM	12	17913
4/29/2020 9:00:00 AM	10	12:00:00 PM	24	10:00:00 AM	16	23129
4/30/2020 9:00:00 AM	11	4:30:00 PM	26	8:45:00 AM	17	24798

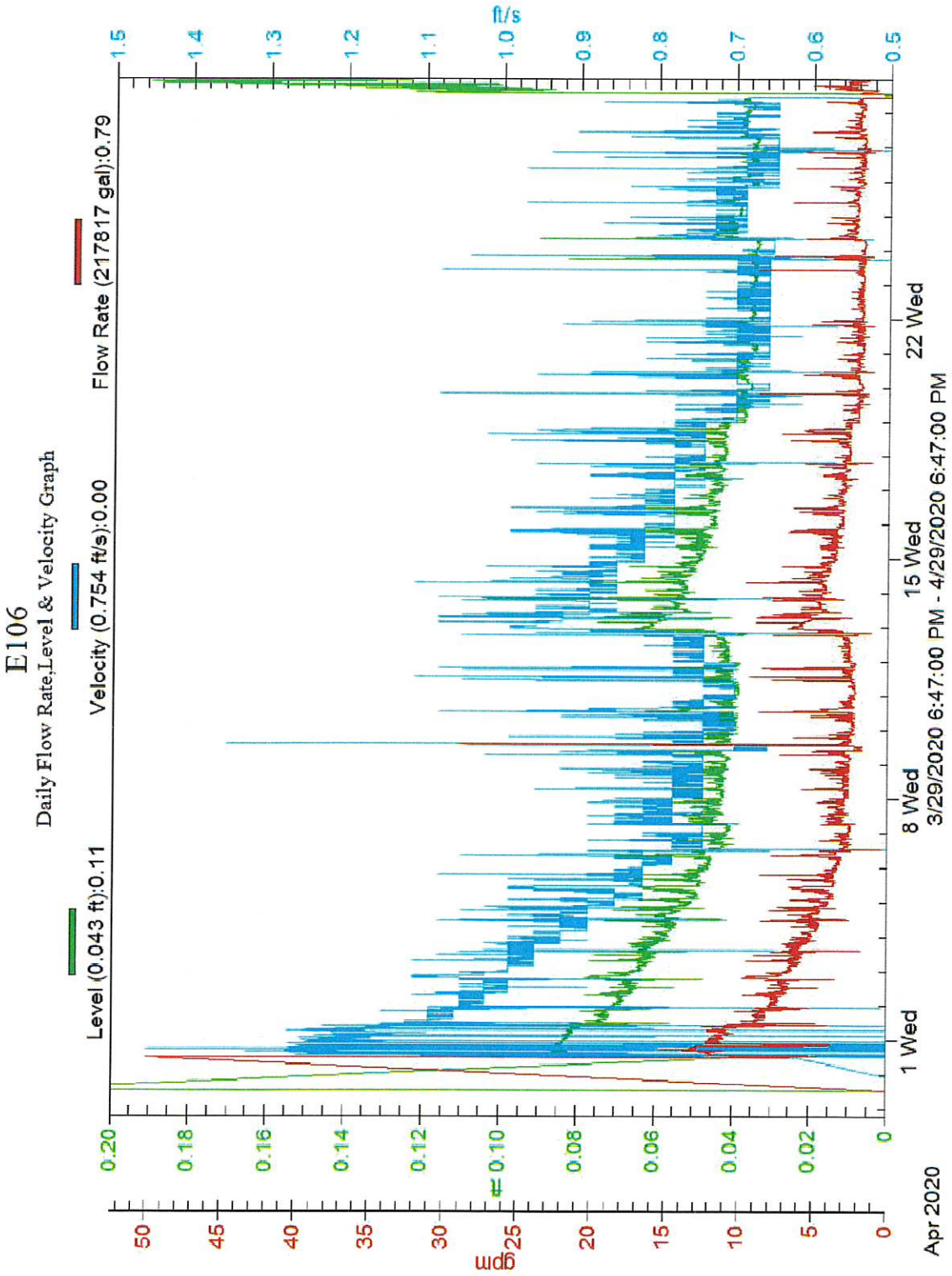
	Minimum Min 0 (gpm)	Time of Minimum Min 4/28/2020 10:30:00 AM	Maximum Max 259 (gpm)	Time of Maximum Max 3/30/2020 3:00:00 PM	Average Avg 45 (gpm) Total 2058590 gal	Average Total 64331 (gal) Total 2058593 gal


E105
Daily Flow Rate,Level & Velocity Graph
Level (0.086 ft):0.23
Velocity (3.219 ft/s):0.00
Flow Rate (2021940 gal):15.19
ft/s
5.0
4.5
4.0
3.5
3.0
2.5
2.0
gpm
250
200
150
100
50
0
ft
0.20
0.18
0.16
0.14
0.12
0.10
0.08
0.06
0.04
0.02
0
1 Wed
8 Wed
15 Wed
22 Wed
Apr 2020
3/29/2020 1:41:00 PM - 4/29/2020 8:32:00 PM

E106
Table Min/Max/Avg

Date/Time	Minimum Min (gpm)	Time of Minimum Min (gpm)	Maximum Max (gpm)	Time of Maximum Max (gpm)	Average Avg (gpm)	Total (gal)
3/30/2020 9:00:00 AM	0	1:00:00 PM	50	9:00:00 AM	42	59931
3/31/2020 9:00:00 AM	4	9:00:00 PM	50	11:45:00 AM	15	21993
4/1/2020 9:00:00 AM	4	10:15:00 AM	12	10:00:00 AM	8	11699
4/2/2020 9:00:00 AM	3	6:15:00 PM	10	7:15:00 PM	7	9937
4/3/2020 9:00:00 AM	2	2:15:00 PM	9	11:15:00 AM	6	8002
4/4/2020 9:00:00 AM	3	12:30:00 PM	9	11:15:00 AM	5	6732
4/5/2020 9:00:00 AM	3	6:00:00 AM	9	7:15:00 PM	4	5762
4/6/2020 9:00:00 AM	0	12:45:00 PM	8	9:15:00 AM	3	4270
4/7/2020 9:00:00 AM	3	5:45:00 AM	6	7:45:00 AM	3	4475
4/8/2020 9:00:00 AM	2	4:30:00 AM	7	7:30:00 AM	3	4228
4/9/2020 9:00:00 AM	2	10:00:00 AM	29	2:15:00 PM	3	4038
4/10/2020 9:00:00 AM	2	3:00:00 AM	9	1:15:00 PM	3	3909
4/11/2020 9:00:00 AM	2	10:45:00 PM	9	1:30:00 PM	3	4147
4/12/2020 9:00:00 AM	1	8:15:00 PM	9	3:30:00 AM	4	5989
4/13/2020 9:00:00 AM	3	7:45:00 PM	10	7:45:00 AM	5	6933
4/14/2020 9:00:00 AM	3	8:15:00 AM	7	6:30:00 PM	4	5951
4/15/2020 9:00:00 AM	3	10:15:00 PM	7	6:45:00 PM	4	5152
4/16/2020 9:00:00 AM	2	8:00:00 AM	6	11:15:00 AM	3	4560
4/17/2020 9:00:00 AM	1	7:15:00 PM	6	6:30:00 PM	3	4137
4/18/2020 9:00:00 AM	2	9:00:00 AM	7	4:00:00 PM	3	4087
4/19/2020 9:00:00 AM	1	12:30:00 PM	9	7:30:00 PM	2	3152
4/20/2020 9:00:00 AM	1	11:15:00 AM	4	10:45:00 AM	2	2974
4/21/2020 9:00:00 AM	1	7:15:00 PM	5	7:45:00 PM	2	2960
4/22/2020 9:00:00 AM	2	5:00:00 AM	3	2:45:00 PM	2	2767
4/23/2020 9:00:00 AM	1	7:15:00 PM	9	10:15:00 AM	2	3069
4/24/2020 9:00:00 AM	2	4:30:00 PM	4	6:45:00 PM	2	3460
4/25/2020 9:00:00 AM	2	9:00:00 AM	7	9:30:00 AM	2	3236
4/26/2020 9:00:00 AM	1	10:30:00 PM	6	9:15:00 AM	2	2861
4/27/2020 9:00:00 AM	2	9:15:00 AM	5	10:30:00 AM	2	3059
4/28/2020 9:00:00 AM	0	1:00:00 PM	11	6:45:00 AM	2	2761
4/29/2020 9:00:00 AM	1	2:45:00 AM	9	6:45:00 AM	2	2935
4/30/2020 9:00:00 AM	1	12:00:00 AM	13	12:30:00 PM	4	6328

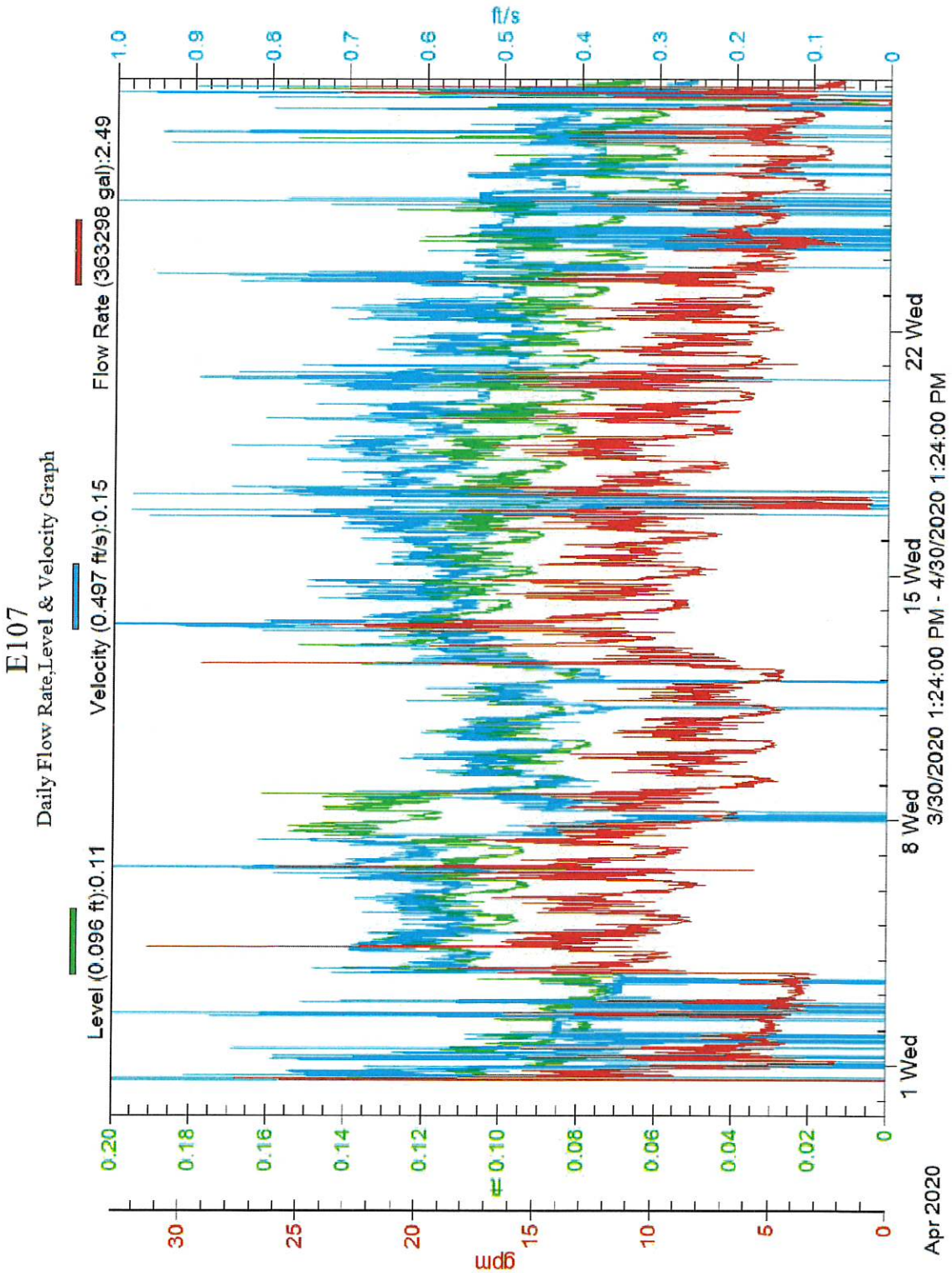
Minimum Min 0 (gpm)	Time of Minimum Min 3/30/2020 1:00:00 PM	Maximum Max 50 (gpm)	Time of Maximum Max 3/31/2020 9:00:00 AM	Average Avg 5 (gpm) Total 225490 gal	Average Total 7047 (gal) Total 225490 gal


E106
Daily Flow Rate,Level & Velocity Graph
Level (0.043 ft):0.11
Velocity (0.754 ft/s):0.00
Flow Rate (217817 gal):0.79
ft/s
gpm
ft
1 Wed
8 Wed
15 Wed
22 Wed
Apr 2020
3/29/2020 6:47:00 PM - 4/29/2020 6:47:00 PM

E107
Table Min/Max/Avg

Date/Time	Minimum Min (gpm)	Time of Minimum Min (gpm)	Maximum Max (gpm)	Time of Maximum Max (gpm)	Average Avg (gpm)	Total (gal)
3/30/2020 9:00:00 AM	0	9:00:00 AM	0	9:00:00 AM	0	1
3/31/2020 9:00:00 AM	0	1:45:00 PM	28	3:00:00 PM	8	11173
4/1/2020 9:00:00 AM	4	3:30:00 PM	15	11:15:00 AM	6	8329
4/2/2020 9:00:00 AM	2	5:30:00 PM	16	11:45:00 AM	5	7083
4/3/2020 9:00:00 AM	3	2:45:00 PM	31	8:45:00 AM	10	14252
4/4/2020 9:00:00 AM	8	2:45:00 AM	16	12:15:00 PM	11	16479
4/5/2020 9:00:00 AM	8	3:30:00 AM	19	7:45:00 AM	11	16391
4/6/2020 9:00:00 AM	6	1:45:00 PM	26	3:15:00 PM	12	16883
4/7/2020 9:00:00 AM	6	1:30:00 AM	18	10:30:00 AM	11	15123
4/8/2020 9:00:00 AM	5	2:00:00 AM	20	5:30:00 PM	8	12232
4/9/2020 9:00:00 AM	5	3:30:00 AM	13	9:30:00 PM	7	10788
4/10/2020 9:00:00 AM	4	3:30:00 AM	12	9:00:00 AM	7	10333
4/11/2020 9:00:00 AM	4	6:30:00 AM	13	9:15:00 AM	7	9809
4/12/2020 9:00:00 AM	6	9:15:00 AM	29	11:00:00 AM	11	16096
4/13/2020 9:00:00 AM	8	2:00:00 AM	25	1:30:00 PM	13	18404
4/14/2020 9:00:00 AM	7	3:30:00 AM	17	8:15:00 PM	11	15390
4/15/2020 9:00:00 AM	7	4:00:00 AM	17	7:45:00 AM	10	14752
4/16/2020 9:00:00 AM	1	3:30:00 AM	18	7:30:00 PM	9	13474
4/17/2020 9:00:00 AM	7	1:15:00 AM	18	11:45:00 AM	10	14309
4/18/2020 9:00:00 AM	7	1:30:00 AM	17	5:15:00 PM	10	14879
4/19/2020 9:00:00 AM	6	4:30:00 AM	19	11:15:00 AM	9	12828
4/20/2020 9:00:00 AM	4	12:45:00 AM	18	6:30:00 PM	9	12461
4/21/2020 9:00:00 AM	5	12:45:00 AM	14	9:45:00 AM	8	11023
4/22/2020 9:00:00 AM	5	3:15:00 AM	14	2:45:00 PM	7	10641
4/23/2020 9:00:00 AM	4	9:00:00 AM	20	9:30:00 AM	7	9513
4/24/2020 9:00:00 AM	2	11:00:00 AM	10	12:45:00 PM	5	7752
4/25/2020 9:00:00 AM	3	1:30:00 AM	15	4:15:00 PM	6	7932
4/26/2020 9:00:00 AM	2	1:00:00 AM	13	8:30:00 AM	4	6319
4/27/2020 9:00:00 AM	3	12:30:00 PM	14	11:45:00 AM	5	7536
4/28/2020 9:00:00 AM	0	11:15:00 AM	23	6:45:00 PM	5	7703
4/29/2020 9:00:00 AM	2	2:00:00 PM	26	11:15:00 AM	7	10329
4/30/2020 9:00:00 AM	2	12:15:00 PM	23	3:15:00 PM	9	12529

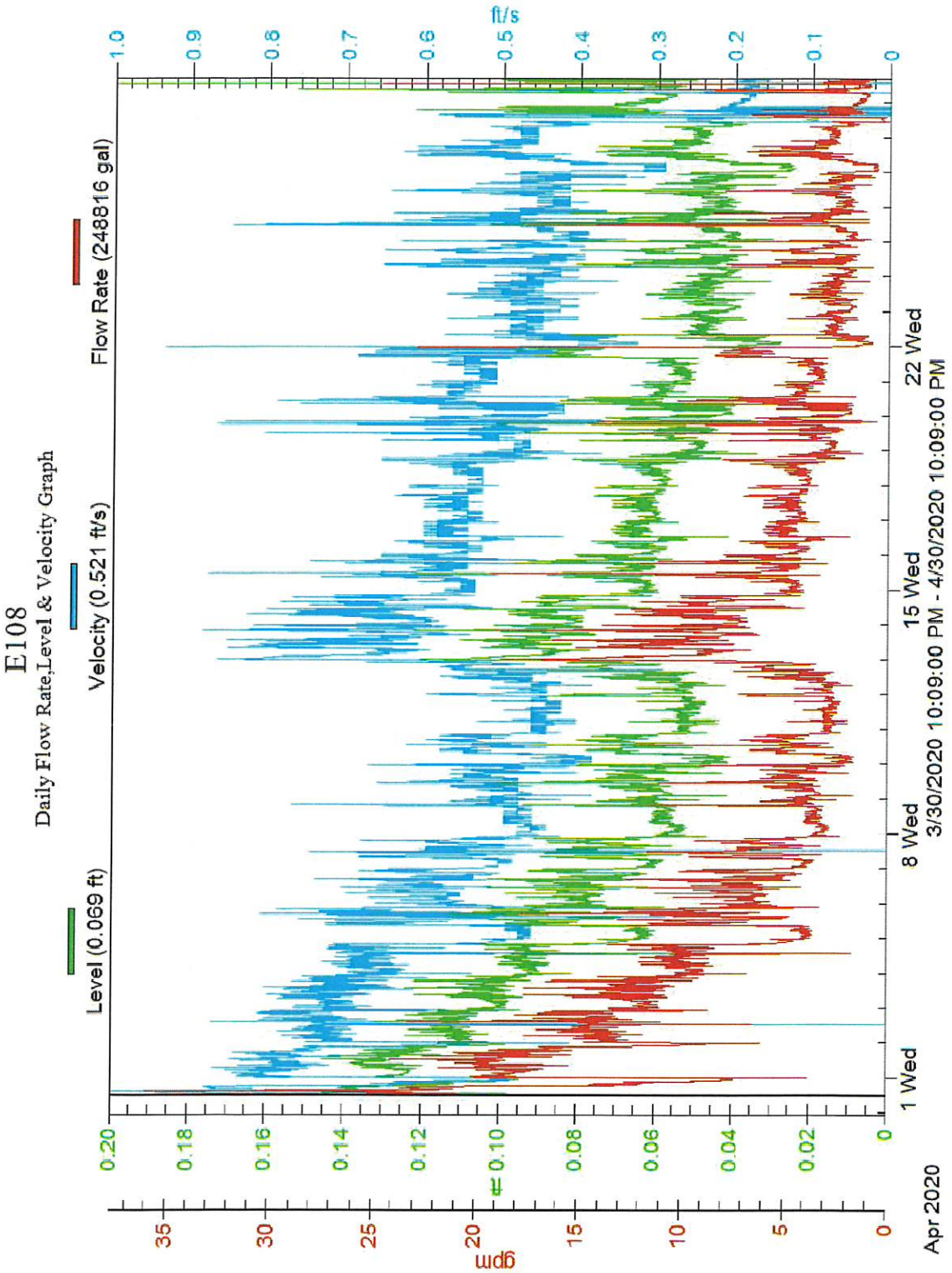
Minimum Min 0 (gpm)	Time of Minimum Min 4/28/2020 11:15:00 AM	Maximum Max 31 (gpm)	Time of Maximum Max 4/4/2020 8:45:00 AM	Average Avg 8 (gpm)	Average Total 11648 (gal)
				Total 372748 gal	Total 372748 gal


E107
Daily Flow Rate,Level & Velocity Graph
Level (0.096 ft):0.11
Velocity (0.497 ft/s):0.15
Flow Rate (363298 gal):2.49
ft/s
gpm
ft
1 Wed
8 Wed
15 Wed
22 Wed
Apr 2020
3/30/2020 1:24:00 PM - 4/30/2020 1:24:00 PM

E108
Table Min/Max/Avg

Date/Time	Minimum Min (gpm)	Time of Minimum Min (gpm)	Maximum Max (gpm)	Time of Maximum Max (gpm)	Average Avg (gpm)	Average Total (gal)
3/30/2020 9:00:00 AM	20	9:00:00 AM	20	9:00:00 AM	20	29242
3/31/2020 9:00:00 AM	4	11:45:00 PM	36	2:30:00 PM	18	26192
4/1/2020 9:00:00 AM	6	11:45:00 PM	24	12:15:00 PM	16	22874
4/2/2020 9:00:00 AM	6	1:00:00 PM	23	2:45:00 PM	13	19175
4/3/2020 9:00:00 AM	7	11:30:00 PM	18	1:45:00 PM	11	16065
4/4/2020 9:00:00 AM	2	1:30:00 PM	14	7:00:00 PM	7	9866
4/5/2020 9:00:00 AM	3	9:15:00 PM	18	5:00:00 PM	8	11539
4/6/2020 9:00:00 AM	4	5:30:00 AM	13	4:15:00 PM	6	8836
4/7/2020 9:00:00 AM	2	10:30:00 PM	12	11:00:00 AM	5	6810
4/8/2020 9:00:00 AM	2	2:00:00 AM	12	7:30:00 PM	4	5570
4/9/2020 9:00:00 AM	2	5:00:00 AM	11	11:00:00 AM	4	5675
4/10/2020 9:00:00 AM	2	6:00:00 AM	12	12:45:00 PM	4	5521
4/11/2020 9:00:00 AM	2	5:45:00 AM	7	12:15:00 AM	3	4505
4/12/2020 9:00:00 AM	3	3:15:00 PM	19	11:45:00 PM	8	10902
4/13/2020 9:00:00 AM	6	4:15:00 PM	19	8:00:00 PM	9	13597
4/14/2020 9:00:00 AM	4	11:45:00 AM	12	10:30:00 AM	7	9491
4/15/2020 9:00:00 AM	3	6:30:00 PM	19	10:45:00 AM	6	8231
4/16/2020 9:00:00 AM	2	12:30:00 PM	7	10:00:00 AM	5	6789
4/17/2020 9:00:00 AM	3	12:15:00 AM	7	5:00:00 PM	5	6629
4/18/2020 9:00:00 AM	1	10:15:00 PM	8	6:00:00 PM	4	5446
4/19/2020 9:00:00 AM	1	7:45:00 PM	15	6:15:00 PM	4	5194
4/20/2020 9:00:00 AM	2	1:30:00 PM	10	10:30:00 AM	4	5953
4/21/2020 9:00:00 AM	1	2:30:00 AM	23	11:30:00 PM	4	6146
4/22/2020 9:00:00 AM	2	6:00:00 PM	5	7:15:00 PM	3	3640
4/23/2020 9:00:00 AM	1	6:30:00 AM	8	8:45:00 AM	3	4179
4/24/2020 9:00:00 AM	1	1:15:00 AM	8	12:15:00 AM	3	3917
4/25/2020 9:00:00 AM	1	1:30:00 PM	18	11:15:00 AM	3	4548
4/26/2020 9:00:00 AM	1	2:30:00 AM	8	11:00:00 AM	2	3096
4/27/2020 9:00:00 AM	2	9:00:00 AM	7	2:45:00 PM	3	4776
4/28/2020 9:00:00 AM	0	11:00:00 AM	13	8:45:00 AM	2	3130
4/29/2020 9:00:00 AM	1	5:30:00 PM	25	1:00:00 PM	2	2540

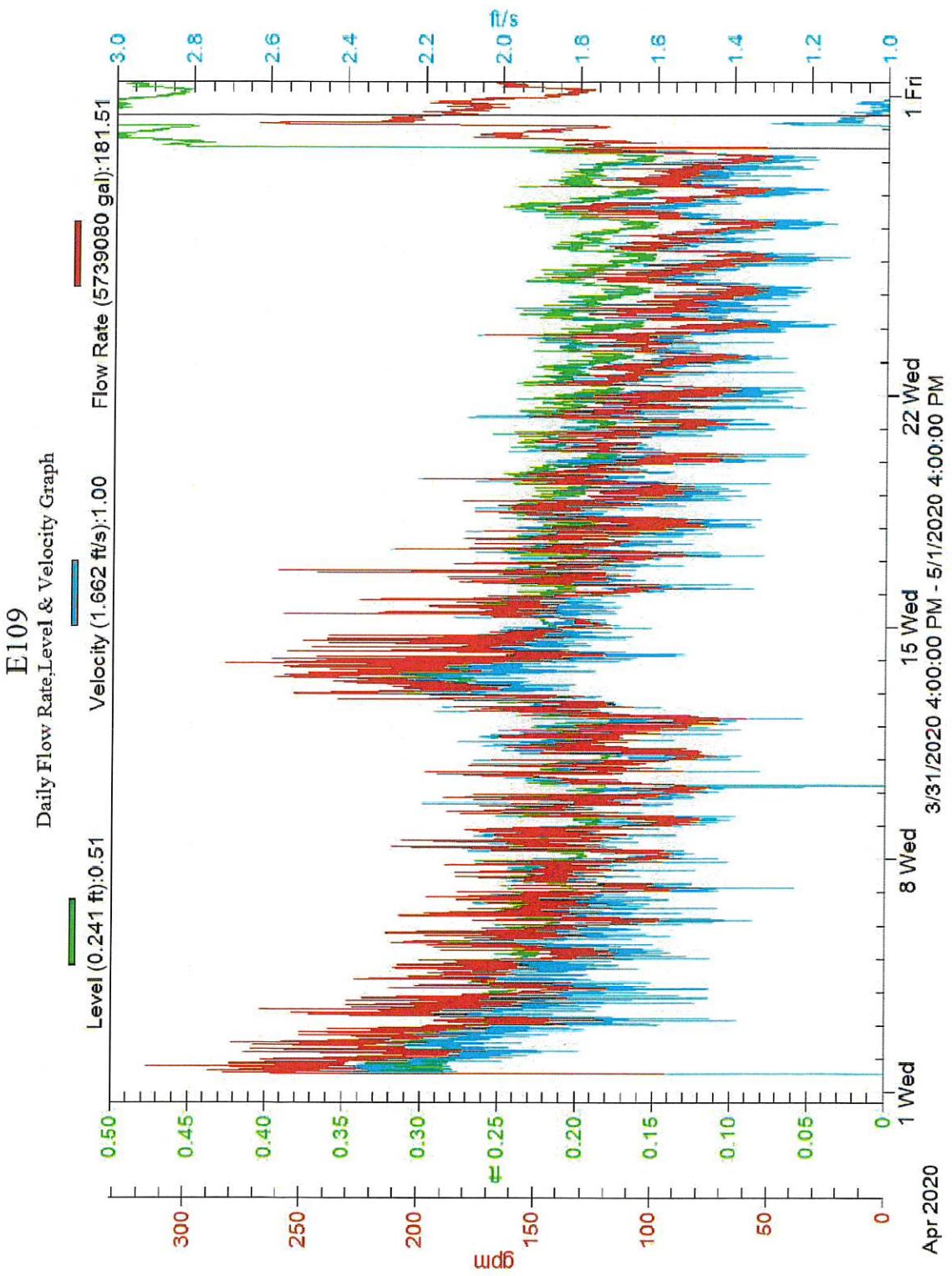
	Minimum Min 0 (gpm)	Time of Minimum Min 4/28/2020 11:00:00 AM	Maximum Max 36 (gpm)	Time of Maximum Max 3/31/2020 2:30:00 PM	Average Avg 6 (gpm) Total 280073 gal	Average Total 9035 (gal) Total 280073 gal


E108
Daily Flow Rate,Level & Velocity Graph
Level (0.069 ft)
Velocity (0.521 ft/s)
Flow Rate (248816 gal)
ft/s
gpm
1 Wed
8 Wed
15 Wed
22 Wed
Apr 2020
3/30/2020 10:09:00 PM - 4/30/2020 10:09:00 PM

E109
Table Min/Max/Avg

Date/Time	Minimum Min (gpm)	Time of Minimum Min (gpm)	Maximum Max (gpm)	Time of Maximum Max (gpm)	Average Avg (gpm)	Total (gal)
3/30/2020 9:00:00 AM	94	9:00:00 AM	94	9:00:00 AM	94	134812
3/31/2020 9:00:00 AM	94	9:00:00 AM	94	9:00:00 AM	94	134812
4/1/2020 9:00:00 AM	94	1:00:00 PM	316	6:45:00 PM	208	300132
4/2/2020 9:00:00 AM	120	4:15:00 AM	279	11:30:00 AM	198	285164
4/3/2020 9:00:00 AM	118	2:45:00 AM	267	11:15:00 AM	172	247810
4/4/2020 9:00:00 AM	114	4:45:00 AM	220	10:00:00 AM	162	233455
4/5/2020 9:00:00 AM	92	3:30:00 AM	214	7:00:00 PM	151	217042
4/6/2020 9:00:00 AM	78	3:30:00 AM	196	8:00:00 PM	138	198860
4/7/2020 9:00:00 AM	88	12:45:00 AM	211	8:15:00 AM	132	189936
4/8/2020 9:00:00 AM	78	4:30:00 AM	207	1:15:00 PM	127	183148
4/9/2020 9:00:00 AM	75	4:30:00 AM	189	8:15:00 PM	121	173983
4/10/2020 9:00:00 AM	72	2:30:00 AM	197	2:45:00 PM	118	170058
4/11/2020 9:00:00 AM	60	4:45:00 AM	166	5:00:00 PM	114	163706
4/12/2020 9:00:00 AM	108	2:30:00 PM	253	11:45:00 PM	171	246574
4/13/2020 9:00:00 AM	120	4:15:00 AM	283	9:45:00 PM	195	281462
4/14/2020 9:00:00 AM	117	11:15:00 PM	250	1:45:00 PM	154	222181
4/15/2020 9:00:00 AM	88	3:30:00 AM	258	9:30:00 AM	146	210939
4/16/2020 9:00:00 AM	79	3:30:00 AM	261	4:15:00 PM	136	195292
4/17/2020 9:00:00 AM	77	1:00:00 AM	181	3:30:00 PM	122	175210
4/18/2020 9:00:00 AM	79	2:15:00 AM	182	7:15:00 PM	122	175946
4/19/2020 9:00:00 AM	61	4:45:00 AM	198	11:15:00 AM	117	167994
4/20/2020 9:00:00 AM	68	3:00:00 AM	159	7:30:00 PM	113	162672
4/21/2020 9:00:00 AM	59	8:30:00 PM	151	9:15:00 AM	102	146591
4/22/2020 9:00:00 AM	62	3:45:00 AM	138	9:30:00 AM	100	143319
4/23/2020 9:00:00 AM	51	1:45:00 AM	173	7:45:00 PM	92	131777
4/24/2020 9:00:00 AM	51	5:15:00 AM	137	2:15:00 PM	83	119134
4/25/2020 9:00:00 AM	46	3:30:00 AM	144	12:30:00 PM	83	119426
4/26/2020 9:00:00 AM	48	5:00:00 AM	133	8:30:00 AM	82	118214
4/27/2020 9:00:00 AM	48	4:15:00 AM	149	6:45:00 AM	93	133457
4/28/2020 9:00:00 AM	50	4:00:00 AM	147	8:45:00 AM	83	120121
4/29/2020 9:00:00 AM	0	10:30:00 AM	270	4:30:00 AM	156	224184
4/30/2020 9:00:00 AM	126	5:00:00 AM	202	10:15:00 AM	164	236026

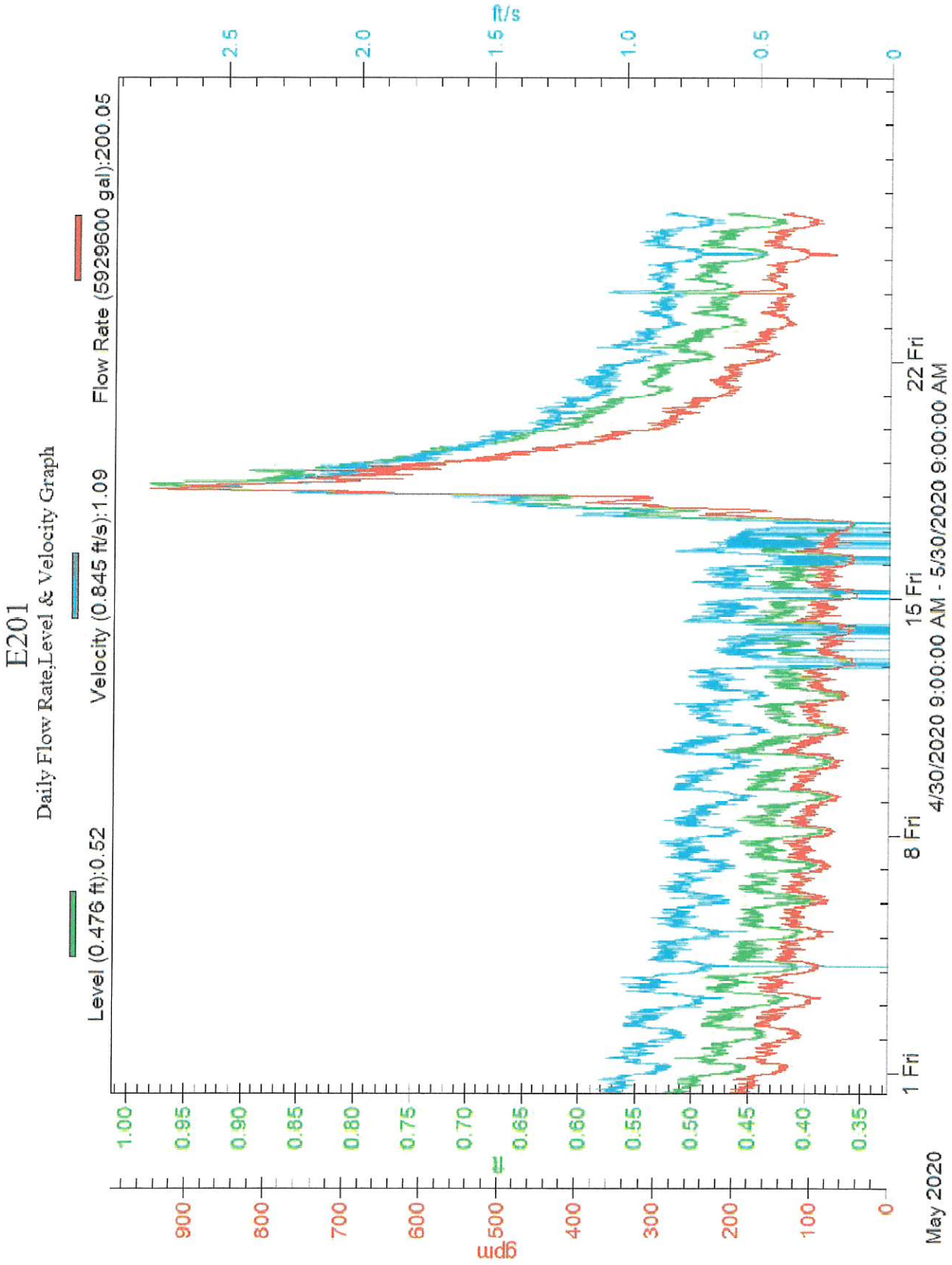
	Minimum Min 0 (gpm)	Time of Minimum Min 4/29/2020 10:30:00 AM	Maximum Max 316 (gpm)	Time of Maximum Max 4/1/2020 6:45:00 PM	Average Avg 129 (gpm) Total 5963430 gal	Average Total 186357 (gal) Total 5963435 gal


E109
Daily Flow Rate,Level & Velocity Graph
Level (0.241 ft):0.51
Velocity (1.662 ft/s):1.00
Flow Rate (5739080 gal):181.51
ft/s
gpm
ft
3.0
2.8
2.6
2.4
2.2
2.0
1.8
1.6
1.4
1.2
1.0
300
250
200
150
100
50
0
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0
1 Wed
8 Wed
15 Wed
22 Wed
1 Fri
Apr 2020
3/31/2020 4:00:00 PM - 5/1/2020 4:00:00 PM

E201
Table Min/Max/Avg

Date/Time	Minimum Min (gpm)	Time of Minimum Min (gpm)	Maximum Max (gpm)	Time of Maximum Max (gpm)	Average Avg (gpm)	Total (gal)
5/1/2020 9:00:00 AM	111	3:15:00 AM	193	10:15:00 AM	144	207246
5/2/2020 9:00:00 AM	86	5:00:00 AM	172	10:45:00 AM	132	189437
5/3/2020 9:00:00 AM	81	4:00:00 AM	172	7:45:00 PM	127	183575
5/4/2020 9:00:00 AM	71	4:00:00 AM	141	10:30:00 AM	114	164797
5/5/2020 9:00:00 AM	77	2:00:00 AM	139	1:15:00 PM	109	157113
5/6/2020 9:00:00 AM	74	3:00:00 AM	136	10:15:00 AM	104	149406
5/7/2020 9:00:00 AM	69	3:00:00 AM	135	8:00:00 PM	101	145132
5/8/2020 9:00:00 AM	61	3:45:00 AM	134	9:45:00 AM	92	132945
5/9/2020 9:00:00 AM	58	5:15:00 AM	125	9:15:00 AM	93	133945
5/10/2020 9:00:00 AM	53	1:15:00 AM	142	12:30:00 PM	92	132796
5/11/2020 9:00:00 AM	53	4:00:00 AM	118	9:00:00 PM	86	124370
5/12/2020 9:00:00 AM	43	2:30:00 AM	112	4:30:00 PM	77	110509
5/13/2020 9:00:00 AM	43	4:30:00 AM	121	7:15:00 AM	73	105558
5/14/2020 9:00:00 AM	41	3:30:00 AM	114	9:30:00 AM	75	108600
5/15/2020 9:00:00 AM	44	4:00:00 AM	108	12:00:00 PM	72	103419
5/16/2020 9:00:00 AM	49	5:45:00 AM	157	9:00:00 AM	74	106498
5/17/2020 9:00:00 AM	149	9:15:00 AM	949	5:30:00 AM	453	651700
5/18/2020 9:00:00 AM	448	8:45:00 AM	785	9:30:00 AM	605	871001
5/19/2020 9:00:00 AM	267	7:15:00 AM	459	9:45:00 AM	340	490162
5/20/2020 9:00:00 AM	192	5:45:00 AM	293	3:00:00 PM	237	341842
5/21/2020 9:00:00 AM	143	5:15:00 AM	232	11:15:00 AM	186	268540
5/22/2020 9:00:00 AM	122	2:30:00 AM	214	9:30:00 AM	155	223780
5/23/2020 9:00:00 AM	124	10:45:00 PM	206	12:45:00 AM	147	211234
5/24/2020 9:00:00 AM	70	4:00:00 AM	165	10:15:00 AM	133	191149
5/25/2020 9:00:00 AM	89	2:30:00 AM	163	10:00:00 AM	128	184948
5/26/2020 9:00:00 AM	126	9:15:00 AM	132	9:30:00 AM	129	3871

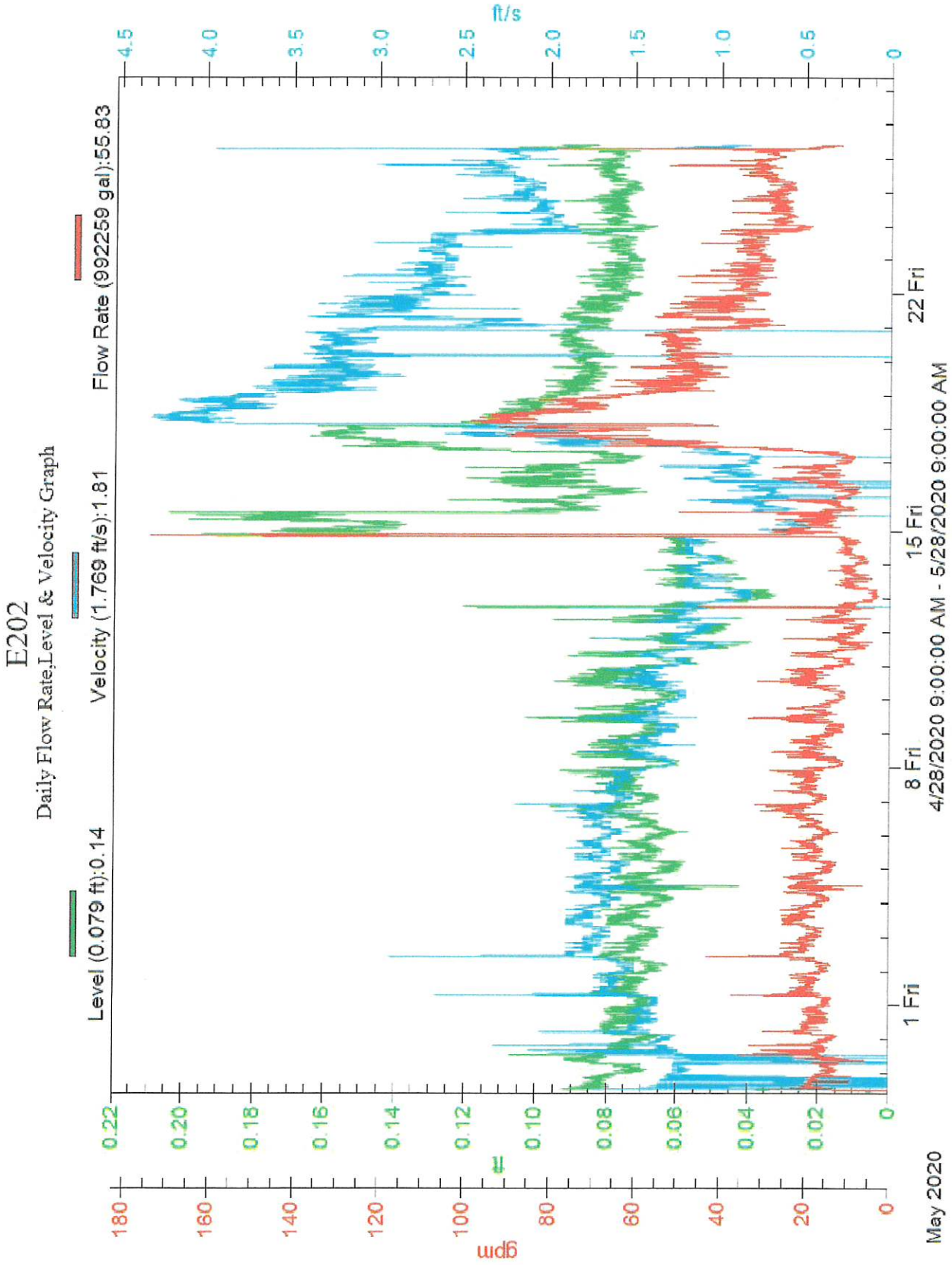
	Minimum Min 41 (gpm)	Time of Minimum Min 5/15/2020 3:30:00 AM	Maximum Max 949 (gpm)	Time of Maximum Max 5/18/2020 5:30:00 AM	Average Avg 157 (gpm) Total 5693570 gal	Average Total 218983 (gal) Total 5693571 gal


E201
Daily Flow Rate,Level & Velocity Graph
Level (0.476 ft):0.52
Velocity (0.845 ft/s):1.09
Flow Rate (5929600 gal):200.05
ft/s
gpm
ft
4/30/2020 9:00:00 AM - 5/30/2020 9:00:00 AM
1 Fri
8 Fri
15 Fri
22 Fri
May 2020

E202
Table Min/Max/Avg

Date/Time	Minimum Min (gpm)	Time of Minimum Min (gpm)	Maximum Max (gpm)	Time of Maximum Max (gpm)	Average Avg (gpm)	Total (gal)
5/1/2020 9:00:00 AM	14	4:00:00 AM	23	9:00:00 PM	18	26056
5/2/2020 9:00:00 AM	15	6:00:00 AM	43	10:30:00 AM	20	29189
5/3/2020 9:00:00 AM	14	3:15:00 AM	26	7:30:00 PM	19	27961
5/4/2020 9:00:00 AM	6	11:45:00 AM	25	6:15:00 PM	17	24855
5/5/2020 9:00:00 AM	12	2:00:00 AM	25	2:45:00 PM	17	25119
5/6/2020 9:00:00 AM	15	2:45:00 AM	32	9:00:00 PM	20	28389
5/7/2020 9:00:00 AM	11	4:45:00 AM	28	9:15:00 PM	17	24814
5/8/2020 9:00:00 AM	11	5:00:00 AM	28	10:45:00 AM	16	23386
5/9/2020 9:00:00 AM	10	5:30:00 AM	33	11:00:00 AM	16	22492
5/10/2020 9:00:00 AM	8	1:45:00 AM	31	1:00:00 PM	17	24131
5/11/2020 9:00:00 AM	4	4:45:00 PM	25	7:15:00 PM	10	14872
5/12/2020 9:00:00 AM	3	2:00:00 AM	45	5:30:00 PM	8	12078
5/13/2020 9:00:00 AM	4	2:00:00 PM	14	7:45:00 PM	9	12379
5/14/2020 9:00:00 AM	7	3:45:00 PM	174	8:45:00 PM	22	32239
5/15/2020 9:00:00 AM	7	3:15:00 AM	50	12:45:00 PM	14	19611
5/16/2020 9:00:00 AM	8	4:15:00 AM	28	1:00:00 PM	15	21429
5/17/2020 9:00:00 AM	23	9:45:00 AM	100	5:00:00 AM	68	97996
5/18/2020 9:00:00 AM	42	3:15:00 AM	94	9:45:00 AM	68	97245
5/19/2020 9:00:00 AM	38	5:30:00 AM	65	9:45:00 AM	48	69184
5/20/2020 9:00:00 AM	25	2:00:00 AM	58	6:15:00 PM	46	65558
5/21/2020 9:00:00 AM	29	12:30:00 AM	54	9:45:00 AM	38	54569
5/22/2020 9:00:00 AM	27	11:45:00 AM	50	12:30:00 PM	33	47516
5/23/2020 9:00:00 AM	19	11:30:00 PM	45	11:45:00 AM	29	41192
5/24/2020 9:00:00 AM	22	1:45:00 AM	38	9:15:00 AM	26	38127
5/25/2020 9:00:00 AM	12	8:45:00 AM	79	6:45:00 AM	29	41718

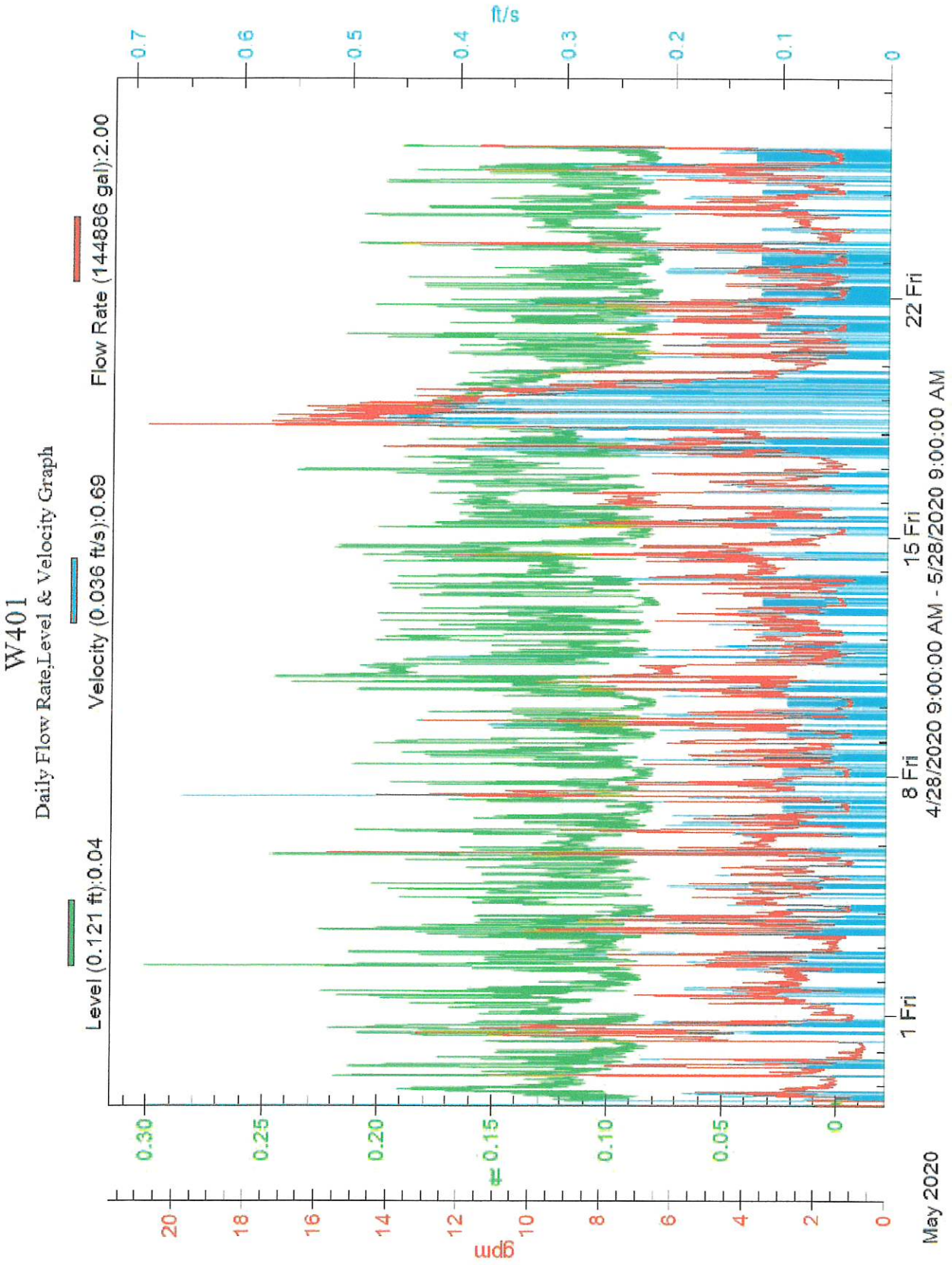
	Minimum Min 3 (gpm)	Time of Minimum Min 5/13/2020 2:00:00 AM	Maximum Max 174 (gpm)	Time of Maximum Max 5/14/2020 8:45:00 PM	Average Avg 26 (gpm) Total 922107 gal	Average Total 36884 (gal) Total 922107 gal


E202
Daily Flow Rate,Level & Velocity Graph
Level (0.079 ft):0.14
Velocity (1.769 ft/s):1.81
Flow Rate (992259 gal):55.83
ft/s
gpm
ft
4.5
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0
180
160
140
120
100
80
60
40
20
0
0.22
0.20
0.18
0.16
0.14
0.12
0.10
0.08
0.06
0.04
0.02
0
1 Fri
8 Fri
15 Fri
22 Fri
May 2020
4/28/2020 9:00:00 AM - 5/28/2020 9:00:00 AM

W401
Table Min/Max/Avg

Date/Time	Minimum Min (gpm)	Time of Minimum Min (gpm)	Maximum Max (gpm)	Time of Maximum Max (gpm)	Average Avg (gpm)	Total (gal)
5/1/2020 9:00:00 AM	1	5:45:00 PM	7	2:30:00 PM	3	4330
5/2/2020 9:00:00 AM	1	7:45:00 AM	8	7:30:00 PM	3	3885
5/3/2020 9:00:00 AM	1	2:15:00 AM	10	10:30:00 AM	3	4891
5/4/2020 9:00:00 AM	1	12:15:00 AM	6	9:00:00 PM	3	4013
5/5/2020 9:00:00 AM	1	12:00:00 PM	16	6:00:00 PM	3	4339
5/6/2020 9:00:00 AM	1	2:30:00 AM	9	10:15:00 AM	3	3850
5/7/2020 9:00:00 AM	1	5:30:00 AM	14	11:00:00 AM	4	5668
5/8/2020 9:00:00 AM	1	5:30:00 AM	6	11:45:00 PM	2	3560
5/9/2020 9:00:00 AM	1	4:15:00 AM	13	2:15:00 PM	3	4683
5/10/2020 9:00:00 AM	1	7:45:00 AM	10	6:00:00 PM	5	6897
5/11/2020 9:00:00 AM	1	2:15:00 PM	5	4:45:00 PM	2	3143
5/12/2020 9:00:00 AM	1	12:15:00 AM	7	12:45:00 PM	3	3699
5/13/2020 9:00:00 AM	1	6:00:00 PM	7	3:15:00 PM	3	4569
5/14/2020 9:00:00 AM	1	2:15:00 AM	12	10:45:00 AM	4	5122
5/15/2020 9:00:00 AM	1	8:30:00 AM	9	6:15:00 AM	5	7234
5/16/2020 9:00:00 AM	1	12:00:00 AM	7	8:15:00 PM	2	3548
5/17/2020 9:00:00 AM	2	9:30:00 PM	21	6:45:00 AM	7	10134
5/18/2020 9:00:00 AM	4	3:00:00 PM	17	12:45:00 PM	13	18085
5/19/2020 9:00:00 AM	2	4:30:00 AM	10	7:15:00 PM	4	5879
5/20/2020 9:00:00 AM	1	4:00:00 PM	8	9:15:00 PM	3	3994
5/21/2020 9:00:00 AM	1	6:45:00 AM	10	7:00:00 PM	3	4425
5/22/2020 9:00:00 AM	1	3:00:00 PM	5	8:30:00 PM	2	3040
5/23/2020 9:00:00 AM	1	11:15:00 PM	14	1:45:00 PM	3	3942
5/24/2020 9:00:00 AM	1	1:30:00 AM	8	3:15:00 PM	3	4342
5/25/2020 9:00:00 AM	1	2:00:00 AM	11	4:45:00 PM	3	4716
5/26/2020 9:00:00 AM	6	9:30:00 AM	12	9:45:00 AM	10	875

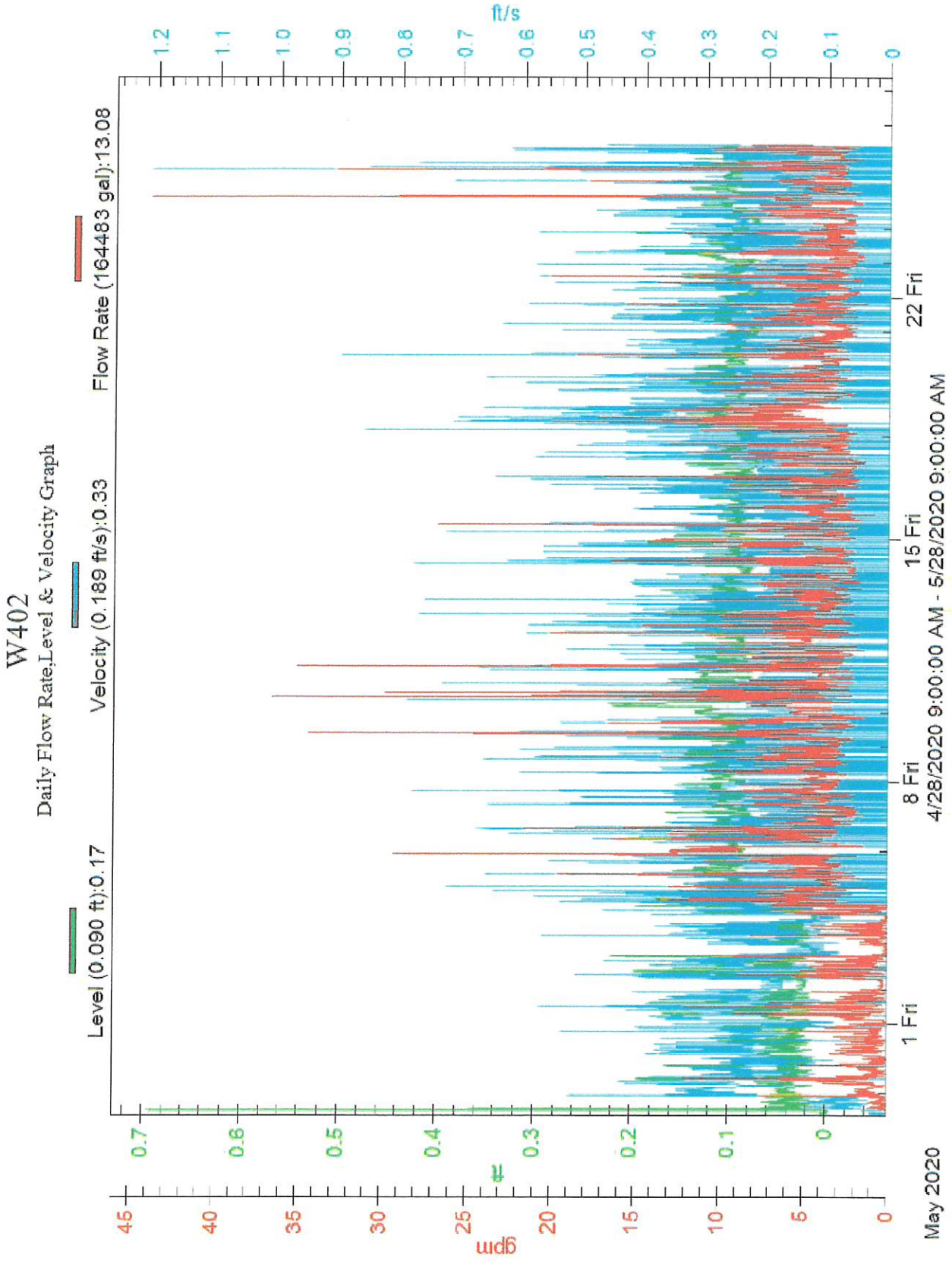
	Minimum Min 1 (gpm)	Time of Minimum Min 5/11/2020 2:15:00 PM	Maximum Max 21 (gpm)	Time of Maximum Max 5/18/2020 6:45:00 AM	Average Avg 4 (gpm) Total 132863 gal	Average Total 5110 (gal) Total 132863 gal


W401
Daily Flow Rate,Level & Velocity Graph
Level (0.121 ft):0.04
Velocity (0.036 ft/s):0.69
Flow Rate (144886 gal):2.00
ft/s
gpm
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
0.30
0.25
0.20
0.15
0.10
0.05
0
20
18
16
14
12
10
8
6
4
2
0
1 Fri
8 Fri
15 Fri
22 Fri
May 2020
4/28/2020 9:00:00 AM - 5/28/2020 9:00:00 AM

W402
Table Min/Max/Avg

Date/Time	Minimum Min (gpm)	Time of Minimum Min (gpm)	Maximum Max (gpm)	Time of Maximum Max (gpm)	Average Avg (gpm)	Total (gal)
5/1/2020 9:00:00 AM	0	4:45:00 PM	12	12:30:00 PM	1	1940
5/2/2020 9:00:00 AM	0	1:15:00 AM	10	11:15:00 PM	2	2214
5/3/2020 9:00:00 AM	0	12:00:00 AM	8	2:00:00 PM	1	1561
5/4/2020 9:00:00 AM	0	9:30:00 AM	19	8:30:00 AM	5	7279
5/5/2020 9:00:00 AM	1	3:15:00 AM	29	10:00:00 PM	6	8908
5/6/2020 9:00:00 AM	1	1:00:00 AM	22	4:00:00 PM	5	7059
5/7/2020 9:00:00 AM	2	2:30:00 PM	11	7:30:00 AM	5	6575
5/8/2020 9:00:00 AM	2	5:00:00 AM	13	5:15:00 PM	5	6838
5/9/2020 9:00:00 AM	1	8:30:00 PM	34	9:30:00 AM	6	8361
5/10/2020 9:00:00 AM	2	9:00:00 PM	37	11:15:00 AM	6	9203
5/11/2020 9:00:00 AM	1	7:00:00 PM	20	7:00:00 AM	5	7122
5/12/2020 9:00:00 AM	2	8:30:00 PM	14	12:15:00 PM	5	6737
5/13/2020 9:00:00 AM	2	1:45:00 PM	12	8:00:00 AM	4	5673
5/14/2020 9:00:00 AM	2	9:00:00 AM	16	9:45:00 AM	5	7544
5/15/2020 9:00:00 AM	1	5:30:00 PM	27	10:30:00 AM	4	6174
5/16/2020 9:00:00 AM	1	5:30:00 AM	17	7:15:00 PM	4	5606
5/17/2020 9:00:00 AM	2	11:45:00 AM	13	6:15:00 PM	5	6600
5/18/2020 9:00:00 AM	2	5:00:00 AM	20	10:30:00 AM	7	9731
5/19/2020 9:00:00 AM	2	2:15:00 PM	19	8:45:00 AM	5	6818
5/20/2020 9:00:00 AM	2	6:45:00 AM	10	6:00:00 AM	4	5830
5/21/2020 9:00:00 AM	1	8:00:00 PM	16	7:45:00 PM	4	5963
5/22/2020 9:00:00 AM	1	10:15:00 PM	20	3:15:00 PM	4	5759
5/23/2020 9:00:00 AM	2	12:15:00 PM	12	8:45:00 PM	4	5136
5/24/2020 9:00:00 AM	2	5:15:00 PM	44	10:15:00 PM	5	7147
5/25/2020 9:00:00 AM	2	12:45:00 AM	33	5:15:00 PM	5	7279
5/26/2020 9:00:00 AM	2	9:30:00 AM	8	10:00:00 AM	5	346

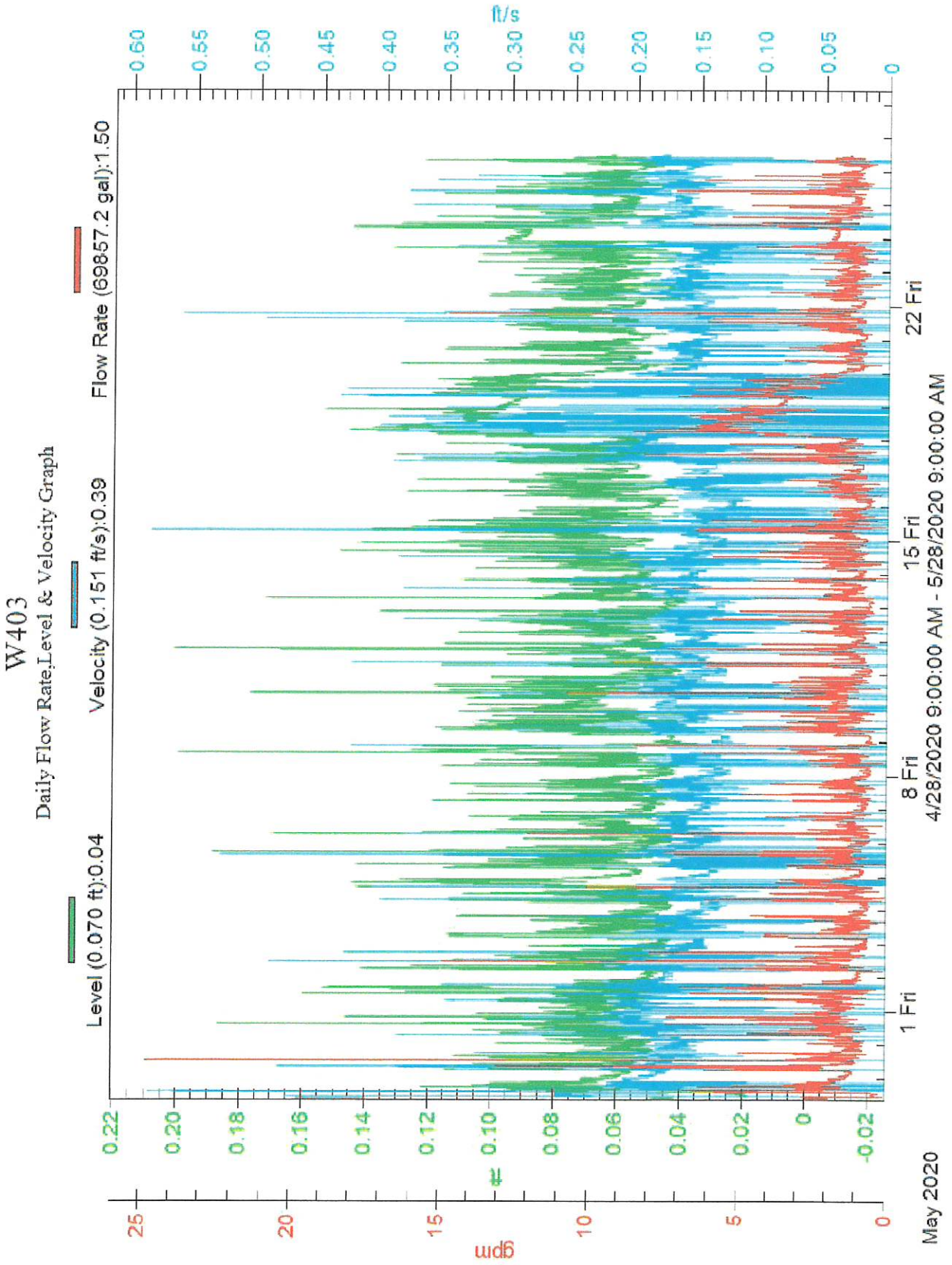
Minimum Min 0 (gpm)	Time of Minimum Min 5/4/2020 12:00:00 AM	Maximum Max 44 (gpm)	Time of Maximum Max 5/24/2020 10:15:00 PM	Average Avg 4 (gpm) Total 159403 gal	Average Total 6131 (gal) Total 159403 gal


W402
Daily Flow Rate,Level & Velocity Graph
Level (0.090 ft):0.17
Velocity (0.189 ft/s):0.33
Flow Rate (164483 gal):13.08
ft/s
gpm
ft
1 Fri
8 Fri
15 Fri
22 Fri
May 2020
4/28/2020 9:00:00 AM - 5/28/2020 9:00:00 AM

W403
Table Min/Max/Avg

Date/Time	Minimum Min (gpm)	Time of Minimum Min (gpm)	Maximum Max (gpm)	Time of Maximum Max (gpm)	Average Avg (gpm)	Average Total (gal)
5/1/2020 9:00:00 AM	0	5:30:00 AM	7	5:45:00 PM	2	2627
5/2/2020 9:00:00 AM	1	7:15:00 AM	15	12:00:00 PM	2	2489
5/3/2020 9:00:00 AM	0	4:00:00 PM	6	7:30:00 AM	1	1728
5/4/2020 9:00:00 AM	0	9:15:00 AM	10	4:15:00 PM	2	2360
5/5/2020 9:00:00 AM	0	9:30:00 AM	12	6:45:00 AM	2	2334
5/6/2020 9:00:00 AM	0	12:45:00 PM	4	7:00:00 PM	1	1642
5/7/2020 9:00:00 AM	0	3:15:00 PM	5	11:00:00 AM	1	1747
5/8/2020 9:00:00 AM	0	9:30:00 AM	8	9:45:00 PM	1	2135
5/9/2020 9:00:00 AM	0	8:45:00 PM	5	9:30:00 AM	2	2515
5/10/2020 9:00:00 AM	0	2:45:00 PM	11	11:15:00 AM	2	2402
5/11/2020 9:00:00 AM	0	8:45:00 PM	7	6:30:00 PM	1	1966
5/12/2020 9:00:00 AM	0	9:30:00 AM	6	3:45:00 PM	1	1843
5/13/2020 9:00:00 AM	0	9:00:00 PM	7	2:00:00 PM	1	2010
5/14/2020 9:00:00 AM	0	9:30:00 AM	6	7:00:00 AM	2	2417
5/15/2020 9:00:00 AM	0	9:30:00 AM	6	2:15:00 PM	1	1741
5/16/2020 9:00:00 AM	0	5:15:00 PM	5	9:00:00 AM	1	1967
5/17/2020 9:00:00 AM	0	10:30:00 AM	9	6:00:00 AM	3	3979
5/18/2020 9:00:00 AM	2	9:15:00 PM	7	7:15:00 AM	4	6477
5/19/2020 9:00:00 AM	0	6:00:00 AM	7	12:45:00 PM	2	3591
5/20/2020 9:00:00 AM	1	3:45:00 AM	3	6:15:00 PM	1	1877
5/21/2020 9:00:00 AM	0	5:45:00 AM	15	6:30:00 PM	2	2412
5/22/2020 9:00:00 AM	0	3:15:00 PM	4	9:30:00 AM	1	1873
5/23/2020 9:00:00 AM	0	10:15:00 AM	5	6:30:00 PM	2	2311
5/24/2020 9:00:00 AM	1	4:00:00 PM	7	10:45:00 AM	2	2568
5/25/2020 9:00:00 AM	0	5:30:00 AM	7	10:00:00 AM	2	2249
5/26/2020 9:00:00 AM	1	9:30:00 AM	2	9:45:00 AM	1	165

	Minimum Min 0 (gpm)	Time of Minimum Min 5/3/2020 4:00:00 PM	Maximum Max 15 (gpm)	Time of Maximum Max 5/2/2020 12:00:00 PM	Average Avg 2 (gpm) Total 61426.0 gal	Average Total 2363 (gal) Total 61426 gal


W403
Daily Flow Rate,Level & Velocity Graph
Level (0.070 ft):0.04
Velocity (0.151 ft/s):0.39
Flow Rate (69857.2 gal):1.50
ft/s
0.60
0.55
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0
ft
0.22
0.20
0.18
0.16
0.14
0.12
0.10
0.08
0.06
0.04
0.02
0
-0.02
gpm
25
20
15
10
5
0
1 Fri
8 Fri
15 Fri
22 Fri
May 2020
4/28/2020 9:00:00 AM - 5/28/2020 9:00:00 AM

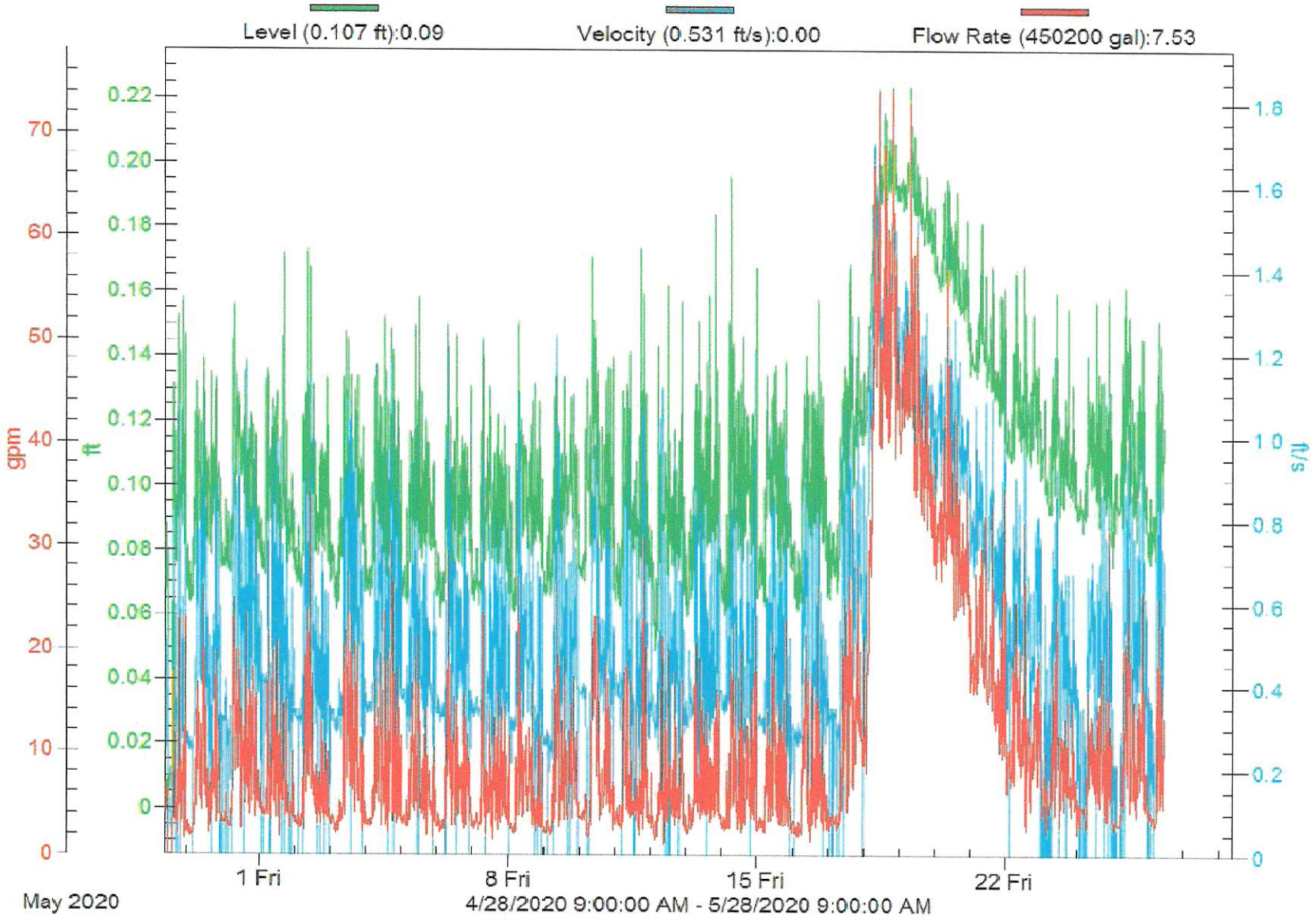
W404
Table Min/Max/Avg

Date/Time	Minimum Min (gpm)	Time of Minimum Min (gpm)	Maximum Max (gpm)	Time of Maximum Max (gpm)	Average Avg (gpm)	Total (gal)
5/1/2020 9:00:00 AM	2	1:30:00 PM	24	9:00:00 AM	7	10206
5/2/2020 9:00:00 AM	2	3:45:00 AM	35	10:15:00 AM	6	8745
5/3/2020 9:00:00 AM	2	10:00:00 PM	27	12:00:00 PM	9	12457
5/4/2020 9:00:00 AM	2	3:00:00 PM	31	5:45:00 PM	8	11427
5/5/2020 9:00:00 AM	2	9:30:00 PM	30	7:45:00 AM	7	9788
5/6/2020 9:00:00 AM	2	3:30:00 AM	24	6:30:00 AM	7	9768
5/7/2020 9:00:00 AM	1	1:45:00 PM	27	6:45:00 AM	6	9155
5/8/2020 9:00:00 AM	2	4:15:00 AM	26	9:00:00 AM	6	8552
5/9/2020 9:00:00 AM	2	6:00:00 AM	22	9:15:00 AM	7	9809
5/10/2020 9:00:00 AM	2	10:30:00 PM	23	10:15:00 AM	8	11506
5/11/2020 9:00:00 AM	1	9:00:00 AM	31	8:15:00 PM	6	8277
5/12/2020 9:00:00 AM	1	9:15:00 AM	21	6:45:00 AM	6	8468
5/13/2020 9:00:00 AM	2	2:30:00 AM	23	7:30:00 AM	7	9775
5/14/2020 9:00:00 AM	2	1:15:00 PM	23	10:30:00 PM	6	9235
5/15/2020 9:00:00 AM	2	3:15:00 AM	23	7:30:00 PM	7	9375
5/16/2020 9:00:00 AM	1	12:00:00 PM	26	4:45:00 PM	6	8527
5/17/2020 9:00:00 AM	4	1:00:00 PM	67	7:45:00 AM	21	30749
5/18/2020 9:00:00 AM	39	10:00:00 PM	74	8:15:00 PM	50	71717
5/19/2020 9:00:00 AM	27	4:30:00 AM	60	12:15:00 PM	37	52618
5/20/2020 9:00:00 AM	16	4:45:00 AM	43	1:15:00 PM	26	37399
5/21/2020 9:00:00 AM	6	1:00:00 AM	36	11:15:00 PM	15	21497
5/22/2020 9:00:00 AM	2	3:15:00 AM	32	12:45:00 PM	10	13933
5/23/2020 9:00:00 AM	2	12:15:00 AM	25	10:00:00 AM	7	10454
5/24/2020 9:00:00 AM	2	1:00:00 AM	31	9:45:00 PM	8	11302
5/25/2020 9:00:00 AM	3	4:15:00 AM	28	11:15:00 AM	10	13695
5/26/2020 9:00:00 AM	5	10:15:00 AM	15	10:00:00 AM	9	1205

	Minimum Min 1 (gpm)	Time of Minimum Min 5/12/2020 9:00:00 AM	Maximum Max 74 (gpm)	Time of Maximum Max 5/18/2020 8:15:00 PM	Average Avg 12 (gpm) Total 419638 gal	Average Total 16140 (gal) Total 419638 gal

W404

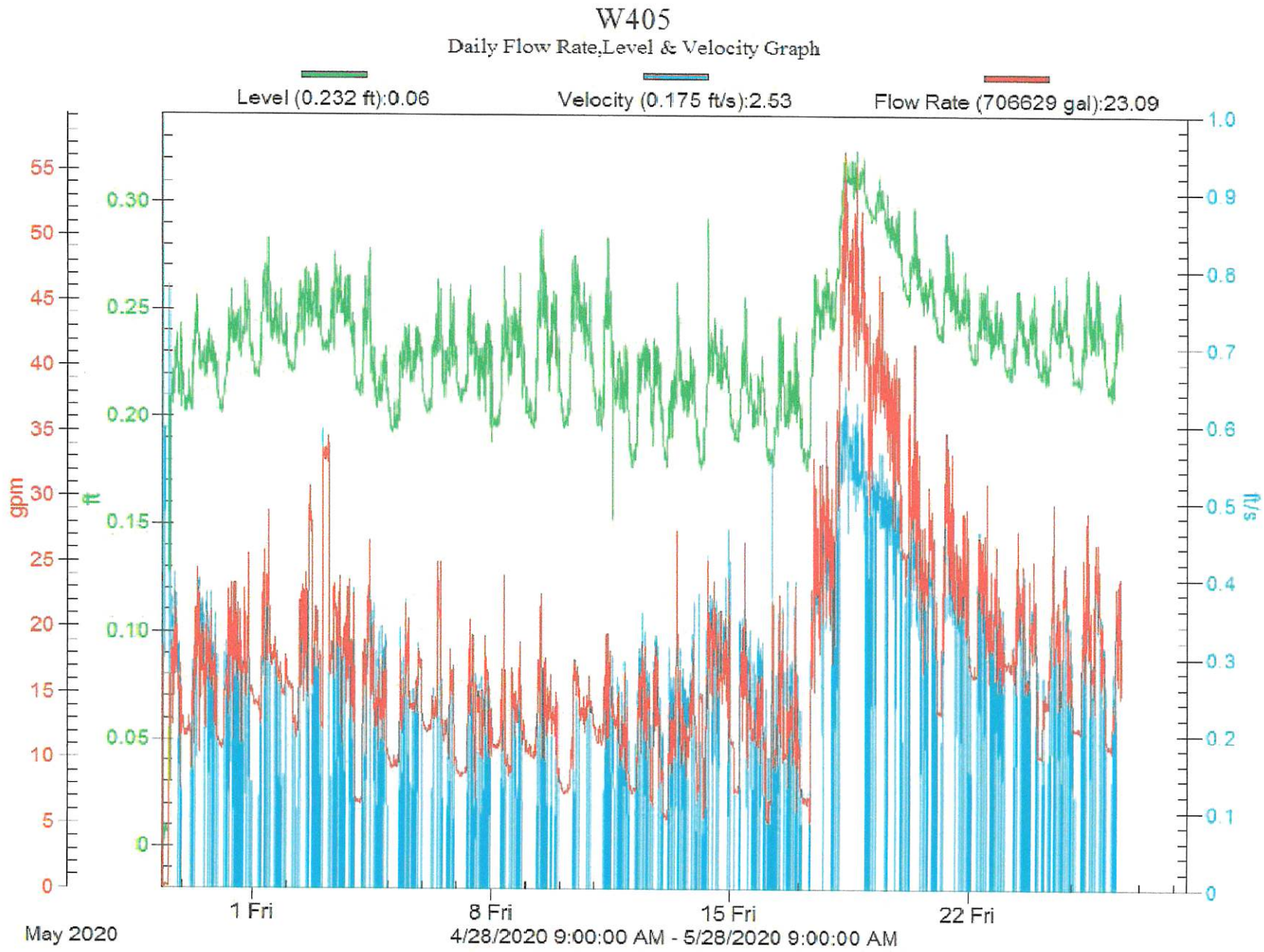
Daily Flow Rate,Level & Velocity Graph



W405
Table Min/Max/Avg

Date/Time	Minimum Min (gpm)	Time of Minimum Min (gpm)	Maximum Max (gpm)	Time of Maximum Max (gpm)	Average Avg (gpm)	Total (gal)
5/1/2020 9:00:00 AM	12	7:00:00 AM	29	11:15:00 AM	16	23472
5/2/2020 9:00:00 AM	12	1:30:00 AM	35	6:00:00 AM	22	32335
5/3/2020 9:00:00 AM	7	4:00:00 AM	24	1:15:00 PM	15	22128
5/4/2020 9:00:00 AM	9	2:00:00 AM	27	10:15:00 AM	14	19630
5/5/2020 9:00:00 AM	12	9:15:00 AM	22	11:45:00 AM	15	20962
5/6/2020 9:00:00 AM	9	2:45:00 AM	25	12:30:00 PM	13	18694
5/7/2020 9:00:00 AM	7	1:00:00 PM	19	11:00:00 AM	13	18783
5/8/2020 9:00:00 AM	9	12:15:00 PM	24	9:15:00 AM	12	17372
5/9/2020 9:00:00 AM	7	2:30:00 AM	23	11:15:00 AM	12	16741
5/10/2020 9:00:00 AM	9	9:45:00 AM	19	9:00:00 AM	13	19397
5/11/2020 9:00:00 AM	7	3:15:00 AM	20	9:15:00 AM	11	16474
5/12/2020 9:00:00 AM	5	3:30:00 AM	19	9:45:00 AM	11	15643
5/13/2020 9:00:00 AM	6	5:00:00 AM	27	10:15:00 AM	13	18698
5/14/2020 9:00:00 AM	7	5:00:00 AM	24	11:00:00 PM	15	22120
5/15/2020 9:00:00 AM	5	2:45:00 AM	27	10:15:00 AM	12	17482
5/16/2020 9:00:00 AM	5	7:30:00 AM	23	9:30:00 PM	11	16374
5/17/2020 9:00:00 AM	15	11:15:00 AM	54	7:45:00 AM	30	43186
5/18/2020 9:00:00 AM	29	1:45:00 AM	56	9:15:00 AM	43	62479
5/19/2020 9:00:00 AM	22	3:15:00 AM	46	10:30:00 AM	33	47454
5/20/2020 9:00:00 AM	13	4:30:00 AM	42	9:30:00 AM	24	34073
5/21/2020 9:00:00 AM	16	4:15:00 AM	33	12:00:00 PM	22	31766
5/22/2020 9:00:00 AM	15	8:15:00 AM	31	12:30:00 PM	19	27811
5/23/2020 9:00:00 AM	10	3:15:00 AM	27	10:15:00 AM	17	24718
5/24/2020 9:00:00 AM	12	6:00:00 AM	30	11:15:00 AM	17	24873
5/25/2020 9:00:00 AM	10	4:15:00 AM	29	11:15:00 AM	17	25199
5/26/2020 9:00:00 AM	15	10:30:00 AM	24	10:45:00 AM	19	2924

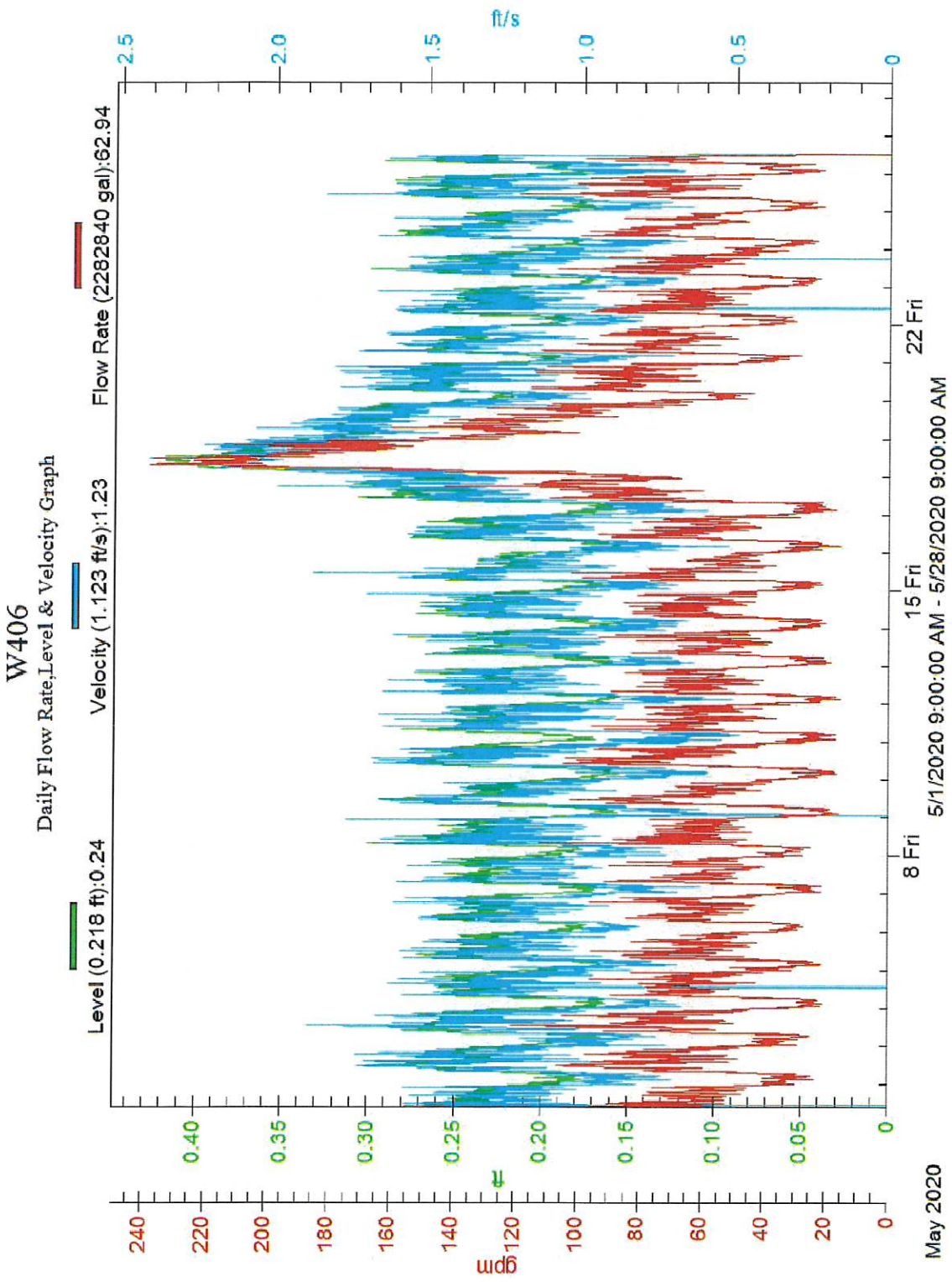
	Minimum Min 5 (gpm)	Time of Minimum Min 5/16/2020 2:45:00 AM	Maximum Max 56 (gpm)	Time of Maximum Max 5/18/2020 9:15:00 AM	Average Avg 18 (gpm) Total 640789 gal	Average Total 24646 (gal) Total 640789 gal


W405
Daily Flow Rate,Level & Velocity Graph
Level (0.232 ft):0.06
Velocity (0.175 ft/s):2.53
Flow Rate (706629 gal):23.09
gpm
ft
ft/s
May 2020
1 Fri
8 Fri
15 Fri
22 Fri
4/28/2020 9:00:00 AM - 5/28/2020 9:00:00 AM

W406
Table Min/Max/Avg

Date/Time	Minimum Min (gpm)	Time of Minimum Min (gpm)	Maximum Max (gpm)	Time of Maximum Max (gpm)	Average Avg (gpm)	Total (gal)
5/1/2020 9:00:00 AM	23	2:45:00 AM	96	9:45:00 AM	54	77269
5/2/2020 9:00:00 AM	25	6:15:00 AM	107	11:15:00 AM	60	86894
5/3/2020 9:00:00 AM	21	2:30:00 AM	121	12:45:00 PM	59	85130
5/4/2020 9:00:00 AM	21	3:15:00 AM	96	6:00:00 PM	54	77576
5/5/2020 9:00:00 AM	27	3:00:00 AM	95	11:15:00 AM	54	77227
5/6/2020 9:00:00 AM	21	4:45:00 AM	96	6:15:00 PM	52	74986
5/7/2020 9:00:00 AM	25	5:00:00 AM	112	8:15:00 AM	51	73936
5/8/2020 9:00:00 AM	15	2:45:00 AM	88	10:45:00 AM	50	72648
5/9/2020 9:00:00 AM	16	4:00:00 AM	102	11:15:00 AM	50	72144
5/10/2020 9:00:00 AM	17	4:30:00 AM	104	10:30:00 AM	56	81215
5/11/2020 9:00:00 AM	15	3:15:00 AM	95	10:15:00 AM	51	73783
5/12/2020 9:00:00 AM	18	2:30:00 AM	85	7:30:00 PM	51	73336
5/13/2020 9:00:00 AM	20	2:30:00 AM	93	6:15:00 PM	48	69301
5/14/2020 9:00:00 AM	21	3:45:00 AM	98	8:00:00 AM	54	77178
5/15/2020 9:00:00 AM	15	4:15:00 AM	102	10:45:00 AM	47	68098
5/16/2020 9:00:00 AM	17	3:00:00 AM	94	11:15:00 AM	50	71668
5/17/2020 9:00:00 AM	60	2:45:00 PM	238	7:45:00 AM	117	168314
5/18/2020 9:00:00 AM	100	4:15:00 AM	237	11:15:00 AM	164	236213
5/19/2020 9:00:00 AM	44	4:30:00 AM	144	9:45:00 AM	92	132145
5/20/2020 9:00:00 AM	28	4:45:00 AM	114	7:00:00 PM	72	103760
5/21/2020 9:00:00 AM	30	2:15:00 AM	101	11:45:00 AM	63	90319
5/22/2020 9:00:00 AM	22	5:00:00 AM	94	9:45:00 AM	55	79028
5/23/2020 9:00:00 AM	23	5:30:00 AM	107	11:45:00 AM	56	80631
5/24/2020 9:00:00 AM	21	2:45:00 AM	97	10:45:00 AM	55	79379
5/25/2020 9:00:00 AM	21	2:15:00 AM	119	11:15:00 AM	62	89071
5/26/2020 9:00:00 AM	60	9:15:00 AM	98	9:45:00 AM	70	101197

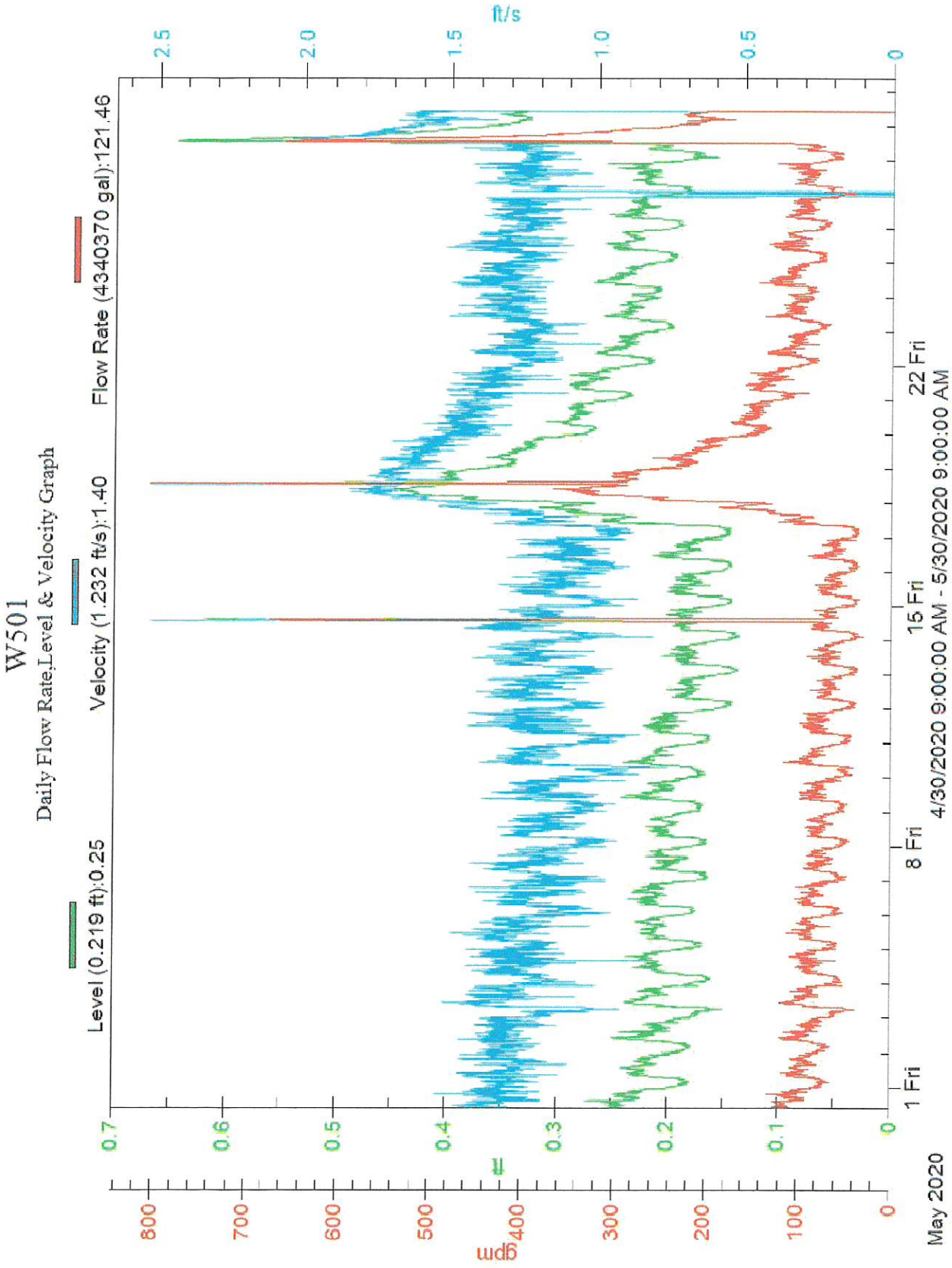
	Minimum Min 15 (gpm)	Time of Minimum Min 5/16/2020 4:15:00 AM	Maximum Max 238 (gpm)	Time of Maximum Max 5/18/2020 7:45:00 AM	Average Avg 63 (gpm) Total 2372440 gal	Average Total 91248 (gal) Total 2372445 gal


W406
Daily Flow Rate,Level & Velocity Graph
Level (0.218 ft):0.24
Velocity (1.123 ft/s):1.23
Flow Rate (2282840 gal):62.94
ft/s
ft
gpm
5/1/2020 9:00:00 AM - 5/28/2020 9:00:00 AM
8 Fri
15 Fri
22 Fri
May 2020

W501
Table Min/Max/Avg

Date/Time	Minimum Min (gpm)	Time of Minimum Min (gpm)	Maximum Max (gpm)	Time of Maximum Max (gpm)	Average Avg (gpm)	Total (gal)
5/1/2020 9:00:00 AM	64	4:15:00 AM	116	9:45:00 AM	87	125383
5/2/2020 9:00:00 AM	38	5:30:00 AM	118	10:30:00 AM	80	115091
5/3/2020 9:00:00 AM	50	11:00:00 PM	118	10:30:00 AM	81	117181
5/4/2020 9:00:00 AM	57	4:00:00 AM	108	7:15:00 PM	81	117245
5/5/2020 9:00:00 AM	50	1:15:00 AM	111	11:00:00 AM	80	114815
5/6/2020 9:00:00 AM	47	2:45:00 AM	102	11:15:00 AM	76	109459
5/7/2020 9:00:00 AM	45	4:00:00 AM	90	6:45:00 AM	69	99833
5/8/2020 9:00:00 AM	47	5:15:00 AM	94	9:00:00 AM	68	98577
5/9/2020 9:00:00 AM	40	7:00:00 AM	98	1:45:00 PM	69	99128
5/10/2020 9:00:00 AM	42	4:45:00 AM	115	11:00:00 AM	72	103241
5/11/2020 9:00:00 AM	38	4:30:00 AM	98	1:45:00 PM	68	97437
5/12/2020 9:00:00 AM	36	4:00:00 AM	86	1:15:00 PM	59	85327
5/13/2020 9:00:00 AM	29	2:30:00 AM	91	1:00:00 PM	60	86317
5/14/2020 9:00:00 AM	34	4:45:00 AM	674	2:00:00 PM	96	138190
5/15/2020 9:00:00 AM	34	4:00:00 AM	81	2:45:00 PM	55	79677
5/16/2020 9:00:00 AM	35	2:45:00 AM	89	10:45:00 AM	55	79184
5/17/2020 9:00:00 AM	82	9:45:00 AM	351	9:00:00 AM	184	264797
5/18/2020 9:00:00 AM	211	3:00:00 AM	804	1:45:00 PM	292	420279
5/19/2020 9:00:00 AM	131	4:00:00 AM	237	9:30:00 AM	179	258126
5/20/2020 9:00:00 AM	89	4:45:00 AM	165	10:00:00 AM	139	200186
5/21/2020 9:00:00 AM	79	4:00:00 AM	157	10:15:00 AM	116	167143
5/22/2020 9:00:00 AM	67	5:30:00 AM	135	9:45:00 AM	96	137959
5/23/2020 9:00:00 AM	80	4:15:00 AM	137	10:30:00 AM	100	144700
5/24/2020 9:00:00 AM	71	2:45:00 AM	146	10:15:00 AM	99	142788
5/25/2020 9:00:00 AM	66	4:15:00 AM	133	1:30:00 PM	97	139320
5/26/2020 9:00:00 AM	41	12:45:00 AM	113	9:45:00 AM	83	120165
5/27/2020 9:00:00 AM	54	4:15:00 AM	125	9:45:00 PM	83	119543
5/28/2020 9:00:00 AM	75	9:45:00 AM	660	1:00:00 PM	280	403453
5/29/2020 9:00:00 AM	195	10:15:00 AM	221	9:30:00 AM	205	295187

Minimum Min 29 (gpm)	Time of Minimum Min 5/14/2020 2:30:00 AM	Maximum Max 804 (gpm)	Time of Maximum Max 5/18/2020 1:45:00 PM	Average Avg 107 (gpm) Total 4479730 gal	Average Total 154474 (gal) Total 4479732 gal


W501
Daily Flow Rate,Level & Velocity Graph
Level (0.219 ft):0.25
Velocity (1.232 ft/s):1.40
Flow Rate (4340370 gal):121.46
ft/s
gpm
ft
2.5
2.0
1.5
1.0
0.5
0
800
700
600
500
400
300
200
100
0
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
1 Fri
8 Fri
15 Fri
22 Fri
May 2020
4/30/2020 9:00:00 AM - 5/30/2020 9:00:00 AM

Appendix “C”

SSES Programs Supplemental Information

Sewage Lift Station Pump Drawdown Test Form

Date: _____

Lift Station # _____ Location _____

Wet Well Diameter _____ Feet

Depth of Wet Well _____ Feet

Fillet Present _____ Yes _____ No

If Yes, Approximate Dimensions

Depth to Top of Fillet _____ Feet

Width of Fillet _____ Feet

Sketch if Necessary - Attach

Pump Drawdown Test

Pump No.	Run Time	Fill Time	Depth (Pump On)	Depth (Pump Off)

MANHOLE INSEPCTION FORM

Client: _____

Project: _____ Project No.: _____

Date: _____ Time: _____ Inspectors: _____

Manhole Data

Manhole No.: _____ Downstream Manhole No.: _____

Location: _____ Subject to Ponding: Yes ____ No ____

Located in Ditch or Depression: Yes ____ No ____ Surface Around Manhole: _____

Pickholes: Concealed _____ Open _____ No. Holes _____ Anti-Rock Cover: Yes ____ No ____

Cover Dia, In.: _____ Cover Thickness, In.: _____ Patent No.: _____ Bolted Down: Yes ____ No ____

Steps: Yes _____ No _____ Step Material: Plastic Coated Metal _____ Metal _____ Other _____

Component	Brick	Block	Precast	Poured-in-Place	Other
Base					
Riser					
Cone/Flat Top					
Adjustment Rings					

Diameter, In.: _____ Depth to Invert, ft.: _____

Adjustment Rings Height, In.: Material: Brick Concrete Metal Road Ring

Casting Height, in.: _____ Casting Offset, in.: _____ Adjustment Ring Offset, in.: _____

Manhole Seal: None _____ Internal _____ External _____

Manhole Configuration: Eccentric _____ Concentric _____

Surcharge Evidence: Yes _____ No _____ Height, ft. _____

Manhole Base: Channel Depth, in.: _____ Flat Bottom _____ Drop to Channel: Yes ____ No ____

Solids Accumulation: Yes _____ No _____ Depth, in.: _____ Location _____

Structural Condition

Component	Poor	Fair	Good	Comments
Base				
Riser				
Cone/Flat Top				
Adjustment Rings				
Casting				

Infiltration

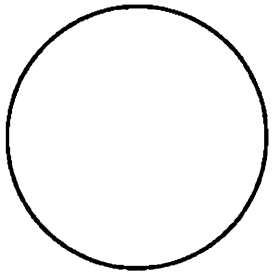
Evidence of Infiltration:

Component	Yes	No	Comments
Base			
Riser			
Cone/Flat Top			
Adjustment Rings			

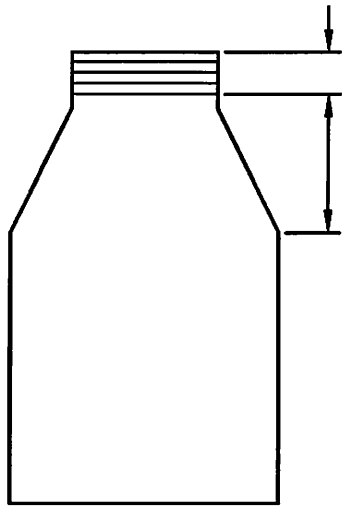
Leaks		Moist Walls		Deposits		Stains		Roots	
Severe	_____	Severe	_____	Severe	_____	Severe	_____	Severe	_____
Moderate	_____	Moderate	_____	Moderate	_____	Moderate	_____	Moderate	_____
Light	_____	Light	_____	Light	_____	Light	_____	Light	_____

Estimated infiltration rate, gpm: _____

PLAN

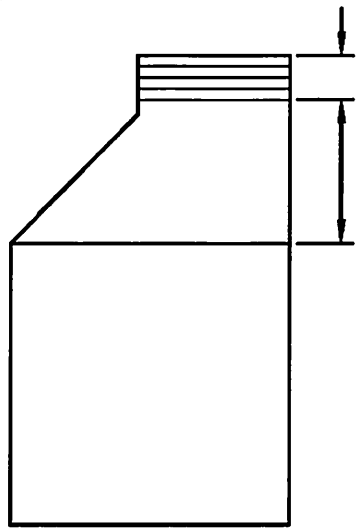


PROFILE



CONCENTRIC

PROFILE



ECCENTRIC

INFILTRATION RATE KEY

DEPOSITS/STAINS	0.02 gpm
WET WALLS	0.05 gpm
CRACKS/PIECES MISSING	0.05 gpm
POOR CONNECTION BETWEEN CASTING/ADJUSTMENT RINGS/CONE	0.02 gpm
BASE IN POOR CONDITION	0.02 gpm
ONE DRIP PER SECOND	0.01 gpm

Comments: _____

Appendix “D”

Example Smoke Testing Program Notices

Antigo
"Antigo Area on the go"

Mark A. Desotell, P.E.
Director of Administrative Services
(715) 623-3633 Ext. 155

Date:

Re: City of Antigo Smoke Testing of the Sanitary Sewer Collection System

Dear Resident:

During rain storms and periods of high groundwater conditions, the City of Antigo experiences increased volumes of flow into the sanitary sewer system. These increased flows of clear-water into the system eventually contribute to higher operating costs such as the increased sizing of mainline sewers and the final treatment costs at the wastewater plant. The high flows are primarily due to the infiltration and inflow (I & I) of surface water and ground water into the sewer system. Given the problems experienced with inflow & infiltration it is extremely important to take steps to eliminate clear-water that does not belong in the sanitary sewer system.

A Smoke Testing project will be conducted on the City of Antigo Wastewater Collection System within the identified study area to detect sources of inflow and infiltration. A prioritized list identifying the most cost-effective and potentially largest contributors to infiltration and inflow will be developed by the City's consultant. The purpose of the Smoke Testing Program is to identify and correct defects before they become major failures; address capacity issues (with main line and interceptor sewers) to handle existing and future growth; to reduce treatment costs at the City's wastewater treatment plant and to reduce infiltration and inflow to help alleviate future sewer overflow events.

The smoke testing program is scheduled to take place within the identified study area during the week of _____. We plan to test on _____ through _____. In case of inclement weather, the smoke testing process will resume the following day or days, whichever is necessary, until completed.

Each section of the sanitary sewer collection system will be examined for sources of clear water entry into the system. During the smoke testing process, smoke will be blown throughout the entire system within the study area via manhole structures. As the forced smoke travels through the system it will appear from such areas as roof drains, catch basins, and vent stacks connected to the system. In addition, smoke

DRAFT

may appear from cracks in the pavement above the sewer system, from turf areas, or around homes which have foundation drains connected to the system. Smoke may also appear in basements by means of: unused floor drains, disconnected plumbing fixtures, faulty plumbing fixtures, or any direct open connection to the sanitary service lateral. In an effort to reduce these possibilities, please take the following precautions:

- Pour a small bucket of water down all floor drains (typically found in your homes basement and in utility rooms of buildings built on a concrete slab, sinks, or other seldom used and unused plumbing fixtures
- Check for and fill all other plumbing traps with water to avoid the entry of smoke into the structure

Be advised that the smoke utilized in the testing process is a non-staining, non-toxic material and will dissipate rapidly, leaving no residual odor. Any and all smoke that may enter your structure will dissipate at a more rapid rate if a window or door is opened. Be advised that any person or persons, who suffer from heart and/or lung diseases, such as emphysema, should vacate the structure prior to the testing process. In addition all housebound persons and those who anticipate to be sleeping during the testing (i.e. shift workers) should make special arrangements for the anticipated testing days. Any confined pets should be moved from the premises if there is any possibility or likelihood of direct exposure to the smoke during the testing process. It takes only a short amount of time to test an average City block area. It is not necessary for anyone to be home during the testing process or testing period.

If for any reason, smoke should appear in your building during the testing process, please contact a member of the survey team that will be working in the area or call City Hall at 715-623-3633 for additional assistance.

The materials to be used in this smoke testing process have been analyzed by a team of experts in the fields of Industrial Hygiene, Toxicology, and Medicine. Their mutual report has concluded: "none of the smokes (tested) appear capable of causing even minor injury to people who may be exposed during controlled use."

Your understanding and cooperation during this testing process will be most appreciated. If you have any questions, please feel free to contact our Public Works staff at City Hall by dialing 715-623-3633 (Extension 154).

Sincerely,

Mark A. Desotell, P.E., Director of Administrative Services

DRAFT

NOTICE

Smoke Testing Sewers

The City of Peshtigo will be conducting smoke tests of sanitary sewers in your area on:

Insert Dates of Testing Here

The smoke testing program will assist us in locating defects and sources of infiltration and inflow in the sewer system. During the smoke testing process, smoke will be blown throughout the sanitary sewer system in the study area from sanitary manholes. You may see smoke coming from vent stacks on buildings or from holes in the ground. Don't be alarmed. The smoke is non-staining/non-toxic and does not create a fire hazard, and will dissipate in a few minutes.

Smoke may also appear in basements by means of unused floor drains, disconnected plumbing fixtures, faulty plumbing fixtures or any direct connection to your sanitary service lateral. In an effort to reduce these possibilities, please pour water into your basement floor drains, any unused sinks or toilets and other seldom used or unused plumbing fixtures and traps. This should seal the drain traps to avoid the entry of smoke into your home or building.

If smoke should enter your home or building during the smoke testing program, please note the location of the smoke and try to immediately inform one of our inspectors (who will be canvassing the area) or call the number at the bottom of this card to arrange a timely inspection. Any and all smoke that may enter your building will dissipate at a more rapid rate if windows and/or doors are opened.

Please notify us before we conduct the test if you have any of the following situations:

- A person who will is housebound and incapable of leaving the home during the test if smoke is encountered
- Any individuals with respiratory problems who will be in the home or building
- Elderly persons who are alone and might be alarmed/confused by the smoke
- Dogs, cats, birds or pets that will be confined in your home during the tests

If you have any of these situations, or have questions regarding the smoke testing program, call:

Mark A. Desotell, Director of Administrative Services
City of Antigo
(715) 623-3633

DRAFT

City of Antigo Smoke Testing of the Sanitary Sewer System

1) **Why are you doing the smoke testing?**
We are trying to identify the leaks in or the improper connections to the sanitary sewer system which can overload the sewer pipes and the treatment plant during wet weather events. Smoke testing also can identify faulty or unused plumbing sections in your home or building that could lead to larger problems for the owner..

2) **Will the smoke enter my house or building?**
If everything is functioning properly with your plumbing there should be no pathway for the smoke to enter your house or building; and the smoke should simply exit through your roof vent. The best way to ensure that smoke does not enter your house or building is to pour a small bucket of water down any basement floor drains and any other seldom used plumbing fixtures prior to the smoke testing.

3) **If smoke enters my house what color is it; how soon will it dissipate?**
The smoke is white to light gray and will dissipate in 15- 20 minutes unless there are no open windows or doors; in which case it could take a couple of hours.

4) **If I am in my home or building and smoke enters what affect will the smoke have on me?**
If you breathe it in, you may experience a temporary sore throat and/or a burning sensation in the nose or lungs. The sore throat should go away in less than a half a day. Testing has indicated this smoke is non-toxic and will not cause any long lasting health effects but is best for you to exit the house or building if smoke enters.

5) **What affect will the smoke have on pets?**
Pets may react similarly as humans to the smoke. Smaller pets may experience more serious effects if exposed to the smoke for longer durations. If possible, move your pets to another location for the testing period or arrange to have someone there to let them out if smoke enters your house. At a minimum, try to leave windows open if you cannot make other arrangements.

6) **How will I know who the survey team members are?**
They will wearing lime green or orange safety vests and carrying photo identification.

PLEASE CONTACT THE CITY HALL OFFICE AT (715) 623-3633 IF YOU HAVE SPECIAL NEEDS WE SHOULD BE AWARE OF (Including people who are ambulatory or utilize respirators and etc.)

DRAFT

NOTICE

Smoke Testing of Sanitary Sewers

The City of Antigo will be conducting smoke tests of sanitary sewers in your area on:

Tuesday, August 13 & Wednesday August 14, 2019

The smoke testing program will assist us in locating defects and sources of infiltration and inflow (I & I) in the sanitary sewer system. During the smoke testing process, smoke will be blown throughout in the study area from sanitary manholes. You may see smoke coming from plumbing vent stacks on buildings or from holes in the ground. Don't Be Alarmed. The smoke is non-staining/non-toxic, and does not create a fire hazard; it dissipates in a few minutes.

Smoke may also appear in basements by means of unused floor drains, disconnected plumbing fixtures, faulty plumbing fixtures, or any direct connection to the your sanitary service lateral. In an effort to reduce these possibilities, please pour a pitcher of water into your basement floor drains, any unused sinks or toilets and other seldom used and unused plumbing fixtures and traps. This should seal the drain traps to avoid the entry of smoke into your home or building.

If smoke should enter your home or building during the smoke testing program, please note the location of the smoke and try to immediately inform one of our inspectors (who will be canvassing the area) or call the number at the bottom of this card to arrange a timely inspection. Any and all smoke that may enter your building will dissipate at a more rapid rate if windows and/or doors are opened.

Please notify us before we conduct the test if you have any of the following situations:

- A person who is housebound and incapable of leaving the home during the test if smoke is encountered.
- Any individuals with respiratory problems who will be in the home or building.
- Elderly persons who are alone and might be alarmed or confused by the smoke.
- Dogs, cats, birds or pets that will be confined in your home during the tests.

If you have any of these situations, or have questions regarding the smoke testing program, call:

City of Antigo Public Works Office
715.623.3633
Extension 132

Antigo
Antigo Area on the go

City of Antigo
700 Edison Street
Office: 715-623-3

City of Peshtigo

Telephone 715-582-3041
Fax 715-582-4322

331 French Street • Suite A • Peshtigo, Wisconsin 54157

August 8, 2016

City of Peshtigo Smoke Testing of the Sanitary Sewer Collection System

During periods of rain and high groundwater conditions, the City of Peshtigo has experienced high flows in the sanitary sewer. The high flows in the sanitary sewer contribute to extra cost and expense in conveyance and treatment. The high flows in question are primarily due to the infiltration and inflow (I/I) of surface water and ground water into the sewer system. Given the problems experienced with I/I, it is extremely important to take steps to eliminate water that does not belong in the sanitary sewer system.

A Smoke Testing Program will be performed of the City of Peshtigo Wastewater Collection System in the drainage districts west of the Peshtigo River to identify sources of I/I that are cost-effective to eliminate. The purpose of the Smoke Testing Program is to identify and correct defects before they become major failures; address capacity issues with trunk and interceptor sewers to handle existing and future growth; reduce cost to the City for wastewater treatment; and reduce I/I to prevent future sewer overflow events.

The smoke testing program is scheduled to take place within your drainage district area the week of August 15, 2016. We plan to test on Monday, August 15, 2016 through Wednesday, August 17, 2016. In case of inclement weather, the smoke testing process will resume the following day or days, whichever is necessary, until complete.

Each section of the sanitary sewer collection system will be examined for sources of clear water entry into the system. During the smoke testing process, smoke will be blown throughout the entire sanitary system from sanitary manhole structures. As the forced smoke travels through the system it will appear from such areas as: roof drains, catch basins, and vent stacks connected to the system. In addition, smoke may appear from cracks in the pavement above the sewer system, from turf areas, or around homes which have foundation drains connected to the system. Smoke may also appear in basements by means of: unused floor drains, disconnected plumbing fixtures, faulty plumbing fixtures, or any direct open connection to the structure service lateral. In an effort to reduce these possibilities, please take the following precautions:

- Pour a bucket of water down all floor drains, in your basement normally, sinks, or other used and unused plumbing fixtures
- Check for and fill all other plumbing traps with water to avoid the entry of smoke into the structure

OVER

Be advised that the materials utilized in the smoke testing process are a non-staining, non-toxic material and will dissipate rapidly, leaving no residual odor. Any and all smoke that may enter your structure will dissipate at a more rapid rate if a window or door is opened. Be advised that any person or persons, who suffer from heart and/or lung diseases such as emphysema, should vacate the structure prior to the testing process. In addition, all housebound invalids, sleeping shift workers and confined pets, should be moved from the premises, if there is any possibility or likelihood of direct exposure to the smoke during the testing process. It takes only a short amount of time to test an average City block area. It is not necessary for anyone to be home during the testing process or testing period.

If for any reason, smoke should appear in your building during the testing process, please contact a member of the survey team working in the area.

The materials to be used in this smoke testing process have been analyzed by a team of experts in the fields of Industrial Hygiene, Toxicology, and Medicine. Their mutual report has concluded: "none of the smokes (tested) appear capable of causing even minor injury to people who may be exposed during controlled use."

Your understanding and cooperation during this testing process will be most appreciated.

If you have any questions, please feel free to contact me at (715) 582-3041.

Sincerely,

George A Cowell

George A. Cowell, P.E.
Director of Public Works

GC/JLB
Enclosure

NOTICE

Smoke Testing Sewers

The City of Peshtigo will be conducting smoke tests of sanitary sewers in your area on:

Monday, August 15, 2016 through Wednesday, August 17, 2016

The smoke testing program will assist us in locating defects and sources of infiltration and inflow in the sewer system. During the smoke testing process, smoke will be blown throughout the sanitary sewer system from sanitary manholes. You may see smoke coming from vent stacks on buildings or from holes in the ground. Don't be alarmed. The smoke is non-staining, non-toxic, does not create a fire hazard, and will dissipate in a few minutes.

Smoke may also appear in basements by means of unused floor drains, disconnected plumbing fixtures, faulty plumbing fixtures, or any direct connection to the structure service lateral. In an effort to reduce these possibilities, please pour water into your basement floor drains; any unused sinks or toilets; and other used and unused plumbing fixtures and traps. This will seal the drain traps to avoid the entry of smoke into your building.

If smoke should enter your building during the smoke testing program, please note the location of the smoke and inform one of our inspectors who will be canvassing the area or call the number at the bottom of this notice to arrange an inspection. Any and all smoke that may enter your building will dissipate at a more rapid rate if windows and/or doors are opened.

If you have any of these situations, or have questions regarding the smoke testing program, call:

George A. Cowell, Director of Public Works
City of Peshtigo
(715) 582-3041

Publish: August 3, 2016
August 10, 2016
Post: August 3, 2016

PESHTIGO TIMES
Wed., Aug. 3, 2016

NOTICE

Smoke Testing Sewers

The City of Peshtigo will be conducting smoke tests of sanitary sewers in your area on:

Monday, August 15, 2016 through Wednesday, August 17, 2016

The smoke testing program will assist us in locating defects and sources of infiltration and inflow in the sewer system. During the smoke testing process, smoke will be blown throughout the sanitary sewer system from sanitary manholes. You may see smoke coming from vent stacks on buildings or from holes in the ground. Don't be alarmed. The smoke is non-staining, non-toxic, does not create a fire hazard, and will dissipate in a few minutes.

Smoke may also appear in basements by means of unused floor drains, disconnected plumbing fixtures, faulty plumbing fixtures, or any direct connection to the structure service lateral. In an effort to reduce these possibilities, please pour water into your basement floor drains; any unused sinks or toilets; and other used and unused plumbing fixtures and traps. This will seal the drain traps to avoid the entry of smoke into your building.

If smoke should enter your building during the smoke testing program, please note the location of the smoke and inform one of our inspectors who will be canvassing the area or call the number at the bottom of this notice to arrange an inspection. Any and all smoke that may enter your building will dissipate at a more rapid rate if windows and/or doors are opened.

If you have any of these situations, or have questions regarding the smoke testing program, call:

George A. Cowell, Director of Public Works
City of Peshtigo
(715) 582-3041

C6-3,10
WNAXLP

NOTICE

Smoke Testing Sewers

The City of Peshtigo will be conducting smoke tests of sanitary sewers in your area on:

Monday, Aug. 15, 2016 through Wednesday, Aug. 17, 2016

The smoke testing program will assist us in locating defects and sources of infiltration and inflow in the sewer system. During the smoke testing process, smoke will be blown throughout the sanitary sewer system from sanitary manholes. You may see smoke coming from vent stacks on buildings or from holes in the ground. Don't be alarmed. The smoke is non-staining, non-toxic, does not create a fire hazard, and will dissipate in a few minutes.

Smoke may also appear in basements by means of unused floor drains, disconnected plumbing fixtures, faulty plumbing fixtures, or any direct connection to the structure service lateral. In an effort to reduce these possibilities, please pour water into your basement floor drains any unused sinks or toilets; and other used and unused plumbing fixtures and traps. This will seal the drain traps to avoid the entry of smoke into your building.

If smoke should enter your building during the smoke testing program, please note the location of the smoke and inform one of our inspectors who will be canvassing the area or call the number at the bottom of this card to arrange an inspection. Any and all smoke that may enter your building will dissipate at a more rapid rate if windows and/or doors are opened.

Please notify us before we conduct the test if you have any of the following situations:

- Dogs, cats, birds or pets that will be confined alone in the building during the test.
- A person who will be alone and is an invalid or sleeping during the test.
- Any individuals with respiratory problems who will be in the building.
- Elderly persons who will be alone and might be alarmed or confused if they see smoke.

If you have any of these situations, or have questions regarding the smoke testing program, call:

George A. Cowell, Director of Public Works
City of Peshtigo
(715) 582-3041

Appendix “E”

Example Sump Pump Inspection Notice Letters

City of Menasha • Department of Public Works

January 19, 2009

Suzanne T Schriber Trust

17475 Frances St - Apt. 207
Omaha, NE 68130

RE: 361 Winnebago Ct

To Whom It May Concern:

City of Menasha Sewer System Evaluation Survey (SSES), Phase No. 4, Segment 1
Foundation Drain and Sump Pump Inspections

During periods of rain and high groundwater conditions, the City of Menasha has experienced high flows in the sanitary sewer. These high flows contribute to extra cost for City residents in conveyance and treatment. The high flows in question are primarily due to the infiltration and inflow (I/I) of surface water and ground water into the sewer system. Given the problems experienced with I/I, it is extremely important to take steps to eliminate clear water that does not belong in the sanitary sewer system.

A Sewer System Evaluation Survey (SSES) will be performed by the City of Menasha on its wastewater collection system to identify sources of I/I that are cost-effective to eliminate. The purposes and goals of the SSES and sewer rehabilitation programs are to identify and correct defects before they become major failures; address capacity issues with trunk and interceptor sewers to handle existing and future growth; reduce cost to the City for wastewater treatment; conform to requests from the Neenah Menasha Sewerage Commission (NMSC) that the City be up-to-date on I/I reduction; minimize sewer rehabilitation costs by funding improvements with low interest loans from the Clean Water Fund Program; and scheduling sewer repair or replacement work prior to street paving.

The project approach is to perform SSES and sewer rehabilitation work in phases. Each phase will target a drainage district. This will make the program easier to manage and implement. Currently, we are targeting the drainage district in the south eastern portion of the City collection system.

Foundation Drain and Sump Pump Inspections will be performed in the area approximately bounded by the following City Streets or waterway:

Fox River (North); Park Street (West)
Nicolet Boulevard (South); and Lake Winnebago (East)

The purpose of this inspection program is to identify any buildings that may have foundation drains, sump pumps or other types of drainage systems improperly connected to the sanitary sewer system. Such connections are improper under both the state codes and City Sewer Use Ordinance.

State law does provide for an issuance of an inspection warrant, in the event the property owner refuses to cooperate with this inspection process.

The City feels it is very important to inspect all buildings to identify clear water sources. The City Council passed Ordinance 0-7-04 on June 9, 2004, which allows the City to impose a sewer user surcharge to any user who does not allow authorized City representatives to inspect their property. Surcharges will range from $50.00 per month for residential properties with two or less dwelling units to $1,000 per month for industrial properties and commercial properties 2000 square feet or greater. A grant program is available to residential properties (two or less dwelling units) to assist in the correction of illegal foundation drain cross-connections.

The goal of the City is to remove any source of clear water that may contribute to an infiltration/inflow problem. It is not the intent of the City to unnecessarily cause any legal problems for the owner of the properties in question. If a property owner cooperates with the City by voluntarily allowing an inspection of their property by City representatives, no municipal ordinance citations will be issued by the City for any faults discovered. **The property owner will be required to remove or eliminate the improper connections, but the City will make every effort to provide a reasonable time frame for the property owner to take the necessary steps.**

According to our records, your property receives sewer service within this drainage district. We would accordingly, like to schedule an inspection of your property as described above, at a time and date when a resident representative can meet with an inspector. The resident representative must be at least 18 years of age and familiar with the property history.

Prior to the inspection appointment, please identify and provide access to any and all floor drains on the lowest level of your residence.

All properties with improvements (buildings) need to be inspected; including those with or without sump pumps or basements. Any outbuildings (for example: boathouses) with plumbing also need to be inspected.

Inspections will be scheduled at 20-minute intervals, weekdays from 7:20 A.M. until 5:40 P.M. during the following weeks:

February 2 – 6, 2009 February 9 – 13, 2009

Please call to personally schedule your appointment. The number to call is (920) 967-3610. Our office hours are 8:00 A.M. to 4:00 P.M., Monday through Friday. We will make every effort to conduct the inspection at a time and date you request.

We thank you in advance for your help and cooperation. The inspection program is extremely important to the City of Menasha.

Sincerely,

Mark Radtke

Mark Radtke
Public Works Director

MR/TM/tjm

C: Mayor Merkes
Common Council (Communication)

City of Menasha • Department of Public Works

March 30, 2009

Bobby A Dunning
Karen M Dunning
309 Lopas St
Menasha, WI 54952

City of Menasha Sewer System Evaluation Survey (SSES), Phase No. 4, Segment 1
Foundation Drain and Sump Pump Inspections

To Whom It May Concern:

In January and February of 2009 you received a letter requesting that you contact our office and set up a Foundation Drain/Sump Pump Inspection. To date we have had no response from you.

Your property needs to be checked for correct storm and drain water disposal. The purpose of this inspection program is to identify any buildings that may have sump pumps, foundation drains or other types of drainage systems improperly connected to the sanitary sewer system. Such connections are improper under both the state codes and City Sewer Use Ordinance. It is imperative that your property be inspected as part of the overall inspection program.

All properties with improvements need to be inspected; including those with or without sump pumps and basements

It is extremely important to the City of Menasha to inspect all buildings to identify clear water sources. The City Council passed Ordinance 0-7-04 on June 7, 2004 (see attached) which allows the City to inspect your property. **If you do not contact our office and set up an appointment, the City will bill you the appropriate sewer surcharge as explained in the attached ordinance ($50.00 per month for residential properties) beginning May 1, 2009, and continuing until such time you contact us for an appointment.**

Please contact this office immediately at 967-3610 to schedule an inspection. Inspections may be scheduled for Monday through Friday, with the first appointment starting at 7:20 AM and the last appointment at 5:40 PM. We will try to accommodate inspections outside of these time slots if necessary. Inspections will take approximately fifteen minutes.

This will be your last opportunity to have your property inspected before being billed the appropriate sewer surcharge beginning May 1, 2009. Please contact me or Tim Montour at 967-3610 if you have any questions.

Sincerely,

Mark Radtke
Public Works Director

Enclosure

C: Mayor Merkes
Common Council (Communication)

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City of Menasha • Department of Public Works

July 9, 2009

Don De Vooght
13003 US Highway 151
Valders, WI 54245-9532

RE: 350 Willow Lane

City of Menasha Sewer System Evaluation Survey (SSES) - Phase No. 4, Segment 1 Foundation Drain and Sump Pump Inspections

In May of 2009 a letter was sent requesting that you contact our office to schedule an appointment to inspect your property. To date, we have had no response from you.

Your property needs to be checked for correct storm and drain water disposal. The purpose of this inspection program is to identify any buildings that may have sump pumps, foundation drains or other types of drainage systems improperly connected to the sanitary sewer system. Such connections are improper under both the state codes and City Sewer Use Ordinance. It is imperative that your property be inspected as part of the overall inspection program.

All properties with improvements need to be inspected; including those with or without sump pumps and basements

It is extremely important to the City of Menasha to inspect all buildings to identify clear water sources. The City Council passed Ordinance 0-7-04 on June 7, 2004 (see attached) which allows the City to impose a sewer user surcharge to any user who does not allow authorized City representatives to inspect their property.

Surcharges for residential properties with two or less dwelling units will start at $50 per month. You will be billed the sewer user surcharge if an inspection is not scheduled and completed. In the event the property owner refuses to cooperate with this inspection process, State law does provide for an issuance of an inspection warrant.

Please contact this office at 967-3610 to schedule an inspection. Inspections may be scheduled for Monday through Friday, with the first appointment starting at 7:20 AM and the last appointment at 5:40 PM. We will try to accommodate inspections outside of these time slots if necessary. Inspections will take approximately fifteen minutes. **Prior to your scheduled inspection, please have all floor drains on the lowest level identified and accessible.**

To avoid the $50 per month sewer surcharge, please arrange to have your property inspected.

Sincerely,

Mark Radtke
Public Works Director

Enclosure

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140 Main Street • Menasha, Wisconsin 54952-3190 • (920) 967-3610• Fax (920) 967-5272

City of Menasha • Department of Public Works

March 27, 2009

Mark D. Nelson
320 Park Street
Menasha, WI 54952

To Whom It May Concern:

City of Menasha Sewer System Evaluation Survey (SSES), Phase No. 4

A sump pump inspection was performed on your property. The purpose of the inspection was to identify any sump pump or foundation drain cross-connection that cause high flows in the City's sanitary sewer. The sump pump inspection program is one of five infiltration/inflow (I/I) programs performed in your area to identify and correct problems.

During the inspection it was observed that the existing sump pump discharges to the sanitary sewer on your property. In accordance with Sec. 9-3-16 (g) of the City Sewer Use Ordinance (see below), sump pumps discharging to the sanitary sewer system is prohibited. The discharge violation shall be corrected, in accordance with the ordinance, within 60 days from the date of this letter.

> *(g) No person shall make connection of roof down spouts, exterior foundation drains, areaway drains or other sources of surface runoff or groundwater to a building sewer or building drain which, in turn, is connected directly or indirectly to a sanitary sewer.*

The City Council passed Ordinance 0-7-04 on June 7, 2004, (see attached) which allows the City to impose a sewer surcharge to any user who does not allow authorized City representatives to inspect their property or a user who is violating Sec. 9-3-16(g) of The City Sewer Use Ordinance. Surcharges will range from $50.00 per month for residential properties with two or less dwelling units to $1,000 per month for industrial properties and commercial properties 2,000 square feet or greater. (You will be billed the sewer user surcharge starting 60 days from the date of this letter if the foundation drain cross connection is not corrected.) A grant program is available to residential properties (two or less dwelling units) for correction of illegal foundation drain cross-connections or sump pump discharge violations.

The City has approved a policy for partial reimbursement for these corrections. Should the cost be less than $500, the City will reimburse the entire amount. Should the cost exceed $500, the City will reimburse $500 plus 50% of the remaining balance to a maximum grant of $675. The Common Council recently revised the parameters of the grant program as follows: **Homeowners must obtain, and submit to the City, at least two written estimates from qualified contractors to correct the discharge violation.** The lower of the two estimates will be used by the City as the cost basis for establishing the grant amount; however, the homeowner may use any qualified contractor to perform the work.

To receive reimbursement for the discharge violation, you will be required to submit evidence of payment to the licensed plumber (itemized invoice marked paid) to the City. Please call our office at (920) 967-3610 to schedule an inspection of work, by City staff, to verify that the work completed is acceptable. The City will then start the reimbursement process.

If you cannot schedule the work to be completed in 60 days, please contact the Public Works Department in writing to request a time extension. Please be specific as to why you need of the time extension. Extensions will be granted on a case by case basis.

A list of licensed plumbers that are familiar with the elimination of foundation drain cross-connections and sump pump discharge violations in Menasha is presented in Table 1. This list in not intended to be a complete list of local licensed plumbers.

Table 1 Partial List of Licensed Plumbers

CONTRACTOR/PLUMBER NAME PHONE NUMBER	
Tim Rausch Plumbing, LLC (920) 830-9222	ABA Plumbing (920) 766-2716
LC Plumbing (920) 867-5051	Complete Plumbing (920) 720-5390
Kampo RJ Plumbing & Heating (920) 730-9600	Thomas N. Hardy Plumbing & Heating Co., Inc. (920) 733-8457
Trader Plumbing (920) 725-2400	A.G. Mechanical (920) 751-0884
Ogden Plumbing (920) 725-8985	Altergott Plumbing (920) 734-1192
Salm Plumbing (920) 734-8471	Jim's Plumbing (920) 757-5258
P. & S. Plumbing, Inc. (920) 734-3912	Welnitz Plumbing (920) 749-1091
Watters Plumbing Inc. (920) 733-8125	

Please contact me or Tim Montour if you have any questions or would like to meet with a member of our staff to discuss the problems observed during our inspection.

The correction of foundation drain cross-connections and sump pump discharge violations is extremely important to the City of Menasha and we thank you for your continued cooperation in this matter.

Sincerely,

Mark Radtke

Mark Radtke, P.E.
Director of Public Works

Enclosure

City of Menasha • Department of Public Works

May 19, 2008

Scott Yohanek
308 Grandview Avenue
Menasha, WI 54952

To Whom It May Concern:

City of Menasha Sewer System Evaluation Survey (SSES), Phase No. 3

A sump pump inspection was performed on your property. The purpose of the inspection was to identify any sump pump or foundation drain cross-connection that cause high flows in the City's sanitary sewer. The sump pump inspection program was one of five infiltration/inflow (I/I) programs performed in your area to identify and correct problems.

A foundation drain cross-connection to the floor drain was observed during our inspection of your property. In accordance with Sec. 9-3-16 (g) of the City Sewer Use Ordinance (see below), a foundation drain cross-connection to a floor drain which is connected to the sanitary sewer system is prohibited. The foundation drain cross-connection shall be corrected, in accordance with the ordinance, within 60 days from the date of this letter.

> *(g) No person shall make connection of roof down spouts, exterior foundation drains, areaway drains or other sources of surface runoff or groundwater to a building sewer or building drain which, in turn, is connected directly or indirectly to a sanitary sewer.*

The City Council passed Ordinance 0-7-04 on June 7, 2004, (see attached) which allows the City to impose a sewer surcharge to any user who does not allow authorized City representatives to inspect their property or a user who is violating Sec. 9-3-16(g) of The City Sewer Use Ordinance. Surcharges will range from $50.00 per month for residential properties with two or less dwelling units to $1,000 per month for industrial properties and commercial properties 2,000 square feet or greater. (You will be billed the sewer user surcharge starting 60 days from the date of this letter if the foundation drain cross connection is not corrected.) A grant program is available to residential properties (two or less dwelling units) for correction of illegal foundation drain cross-connections.

A licensed plumber can correct the cross-connection by installing a sump pump and piping the discharge out of the basement. It may be necessary in some cases to core drill a new connection from the foundation drain to the new sump pump pit. **The plumber shall expose and identify the cross connection prior to any work being done on the sump pump pit. Plumbing permits are required for installation of a new sump pump pit. These can be obtained from Independent Inspection, Ltd. at City Hall (920) 967-5123.** If a new sump pump pit is installed, it must have its own dedicated electrical circuit near the sump pump, as required by the National Electrical code. Extension cords will not be permitted. All plumbers who have done work previously in this program are aware of these requirements.

The City has approved a policy for partial reimbursement for these corrections. Should the cost be less than $500, the City will reimburse the entire amount. Should the cost exceed $500, the City will reimburse $500 plus 50% of the remaining balance to a maximum grant of $675. The Common Council recently revised the parameters of the grant program as follows: **Homeowners must obtain, and submit to the City, at least two written estimates from qualified contractors to correct the cross-connection.** The lower of the two estimates will be used by the City as the cost basis for establishing the grant amount; however, the homeowner may use any qualified contractor to perform the work.

To receive reimbursement for the foundation drain cross-connection, you will be required to submit evidence of payment to the licensed plumber (itemized invoice marked paid) to the City. Please call our office at (920) 967-5102 to schedule an inspection of work, by City staff, to verify that the work completed is acceptable. The City will then start the reimbursement process only after we have an acceptable final inspection of the elimination of the violation, two estimates from qualified contractors for the work to be done, a plumbing permit, a paid invoice and an acceptable electrical inspection (if applicable)

If you cannot schedule the work to be completed in 60 days, please contact the Public Works Department to request a time extension.

A list of licensed plumbers that have corrected foundation drain cross-connections in Menasha is presented in Table 1. This list in not intended to be a complete list of local licensed plumbers.

Table 1 Partial List of Licensed Plumbers

CONTRACTOR/PLUMBER NAME PHONE NUMBER	
Tim Rausch Plumbing, LLC (920) 830-9222	ABA Plumbing (920) 766-2716
LC Plumbing (920) 867-5051	Complete Plumbing (920) 720-5390
Kampo RJ Plumbing & Heating (920) 730-9600	Thomas N. Hardy Plumbing & Heating Co., Inc. (920) 733-8457
Trader Plumbing (920) 725-2400	A.G. Mechanical (920) 751-0884
Ogden Plumbing (920) 725-8985	Altergott Plumbing (920) 734-1192
Salm Plumbing (920) 788-7242	Jim's Plumbing (920) 757-5258
Sure-Dry (920) 967-9655	Welnitz Plumbing (920) 749-1091
Watters Plumbing Inc. (920) 733-8125	

Please contact me if you have any questions or would like to meet with a member of our staff to discuss the problems observed during our inspection.

The correction of foundation drain cross-connections is extremely important to the City of Menasha and we thank you for your continued cooperation in this matter.

Sincerely,

Mark Radtke

Mark Radtke, P.E.
Director of Public Works

Enclosure

City of Menasha • Department of Public Works

February 16, 2009

Judith A. Grist
341 Winnebago Avenue
Menasha, WI 54952

To Whom It May Concern:

City of Menasha Sewer System Evaluation Survey (SSES), Phase No. 4

A sump pump inspection was performed on your property. The purpose of the inspection was to identify any sump pump or foundation drain cross-connection that cause high flows in the City's sanitary sewer. The sump pump inspection program is one of five infiltration/inflow (I/I) programs performed in your area to identify and correct problems.

During the inspection it was observed that the existing track system discharges to two sanitary floor drains on your property. In accordance with Sec. 9-3-16 (g) of the City Sewer Use Ordinance (see below), groundwater/clearwater discharging to the sanitary sewer system is prohibited. The discharge violation shall be corrected, in accordance with the ordinance, within 60 days from the date of this letter.

> *(g) No person shall make connection of roof down spouts, exterior foundation drains, areaway drains or other sources of surface runoff or groundwater to a building sewer or building drain which, in turn, is connected directly or indirectly to a sanitary sewer.*

The City Council passed Ordinance 0-7-04 on June 7, 2004, (see attached) which allows the City to impose a sewer surcharge to any user who does not allow authorized City representatives to inspect their property or a user who is violating Sec. 9-3-16(g) of The City Sewer Use Ordinance. Surcharges will range from $50.00 per month for residential properties with two or less dwelling units to $1,000 per month for industrial properties and commercial properties 2,000 square feet or greater. (You will be billed the sewer user surcharge starting 60 days from the date of this letter if the groundwater/clearwater violation is not corrected.) A grant program is available to residential properties (two or less dwelling units) for correction of illegal foundation drain cross-connections or sump pump discharge violations.

The City has approved a policy for partial reimbursement for these corrections. Should the cost be less than $500, the City will reimburse the entire amount. Should the cost exceed $500, the City will reimburse $500 plus 50% of the remaining balance to a maximum grant of $675. The Common Council recently revised the parameters of the grant program as follows: **Homeowners must obtain, and submit to the City, at least two written estimates from qualified contractors to correct the discharge violation.** The lower of the two estimates will be used by the City as the cost basis for establishing the grant amount; however, the homeowner may use any qualified contractor to perform the work.

To receive reimbursement for the discharge violation, you will be required to submit evidence of payment to the licensed plumber (itemized invoice marked paid) to the City. Please call our office at (920) 967-3610 to schedule an inspection of work, by City staff, to verify that the work completed is acceptable. The City will then start the reimbursement process.

If you cannot schedule the work to be completed in 60 days, please contact the Public Works Department in writing to request a time extension. Please be specific as to why you need of the time extension. Extensions will be granted on a case by case basis.

A list of licensed plumbers that are familiar with the elimination of foundation drain cross-connections and sump pump discharge violations in Menasha is presented in Table 1. This list in not intended to be a complete list of local licensed plumbers.

Table 1 Partial List of Licensed Plumbers

CONTRACTOR/PLUMBER NAME PHONE NUMBER	
Tim Rausch Plumbing, LLC (920) 830-9222	ABA Plumbing (920) 766-2716
LC Plumbing (920) 867-5051	Complete Plumbing (920) 720-5390
Kampo RJ Plumbing & Heating (920) 730-9600	Thomas N. Hardy Plumbing & Heating Co., Inc. (920) 733-8457
Trader Plumbing (920) 725-2400	A.G. Mechanical (920) 751-0884
Ogden Plumbing (920) 725-8985	Altergott Plumbing (920) 734-1192
Salm Plumbing (920) 734-8471	Jim's Plumbing (920) 757-5258
Sure-Dry (920) 967-9655	Welnitz Plumbing (920) 749-1091
Watters Plumbing Inc. (920) 733-8125	P. & S. Plumbing, Inc. (920) 734-3912

Please contact me or Tim Montour if you have any questions or would like to meet with a member of our staff to discuss the problems observed during our inspection.

The correction of foundation drain cross-connections and sump pump discharge violations is extremely important to the City of Menasha and we thank you for your continued cooperation in this matter.

Sincerely,

Mark Radtke

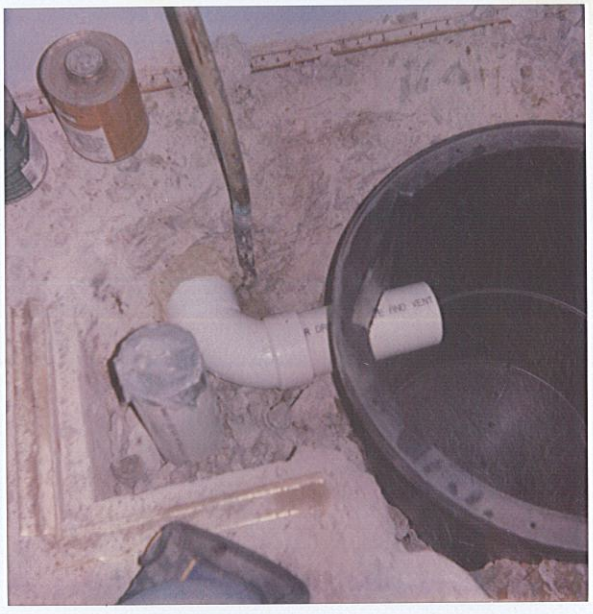
Mark Radtke, P.E.
Director of Public Works

Enclosure

S:\PUBLICWORKS\PUBLICWORKS\sses phase1 [illegible] to sanitary 341 winnebago(2-13-2009).doc

Appendix “F”

Photographs of Foundation Drain Cross Connection Corrections

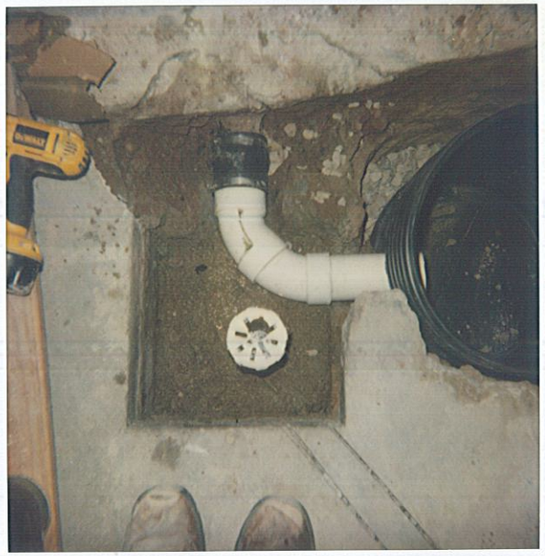


743 DePere St

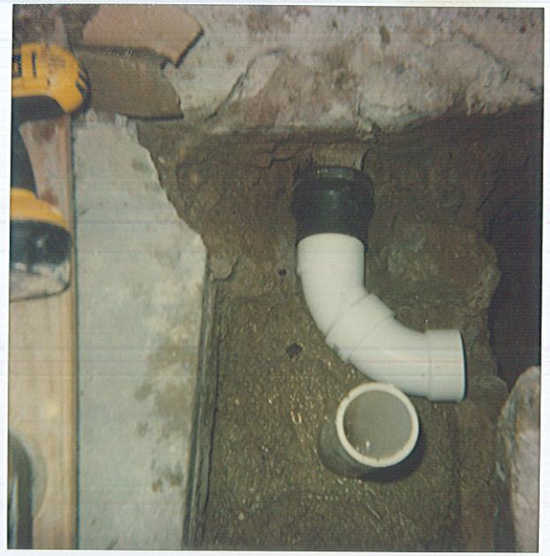
743 DePere St

208
Frederick

208 FREDERICK



305 Grandview



305 Grandview

305 Grandview

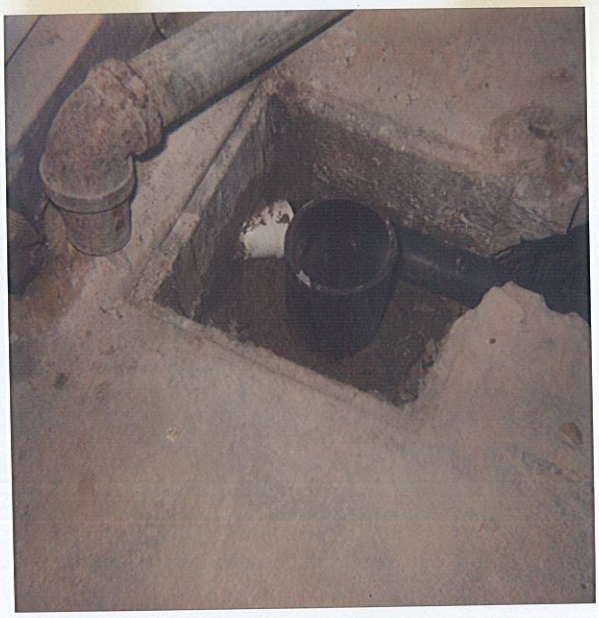
656
Lakecrest Dr.

656 LAKECREST

364

364

904 MARQUETTE ST.



904 MARQUETTE ST

Appendix “G”

Private Property Ordinance Provisions

ORDINANCE O - 7 - 04

AN ORDINANCE RELATING TO THE SEWER USER SURCHARGES

Introduced by Alderman Michalkiewicz

The Common Council of the City of Menasha does ordain as follows:

SECTION 1: Sec. 9 – 3 – 11 (i) is created to read as follows:

(i.) The City may impose a surcharge to the sewer bill to any sewer service user who violates any provision of this ordinance relating to:

a. Allowing authorized City representatives to enter on private property for the purpose of inspections to insure compliance with the terms of sec. 9 – 3.
b. Failing to remove, replace, or repair any improper connections to the sanitary sewer system.
c. Compliance with the scheduling of any testing procedure designed to implement the intent of sec. 9 - 3.

SECTION 2: Sec. 9 – 3 – 11 (j) is created to read as follows:

(j) The surcharge imposed pursuant to sec. 9 – 3 – 11 (i) shall be:

a. For residential properties of two or less dwelling units - $50/month.
b. For commercial properties less than 2000 square feet - $300/month.
c. For residential properties three or four dwelling - $300/month
d. For residential properties greater than four dwelling units - $1000/month.
e. For commercial properties 2000 square feet or greater - $1000/month.
f. For industrial sewer use properties – as determined by the Board of Public Works upon the recommendation of the Director of Public Works.
g. The Director of Public Works is empowered to determine the sewer user category.

SECTION 3: Sec. 9 – 3 – 11 (k) is created to read as follows:

(k)

a. The Director of Public Works shall notify the Finance Department to levy the surcharge when necessary.
b. The Director of Public Works or his/her designee shall notify the property owner and resident that such surcharge will be levied. At least one such notice shall be by registered mail, return receipt requested. A signed receipt and/or notice that delivery has been refused shall constitute notice sufficient to impose the surcharge.
c. Prior to imposing a surcharge for failure to remove, replace, or repair any improper connection, the Director of Public Works shall give the owner and /or resident at least 60 days for such removal, replacement or repair. Additional time may be granted at the discretion of the Director of Public Works.

SECTION 4: Sec. 9 – 3 – 11 (l) is created to read as follows:

(l) The provisions of sec. 9 – 3 – 11 (i) – (k) are in addition to any other enforcement provisions provided for in sec. 9 -3.

SECTION 5: This ordinance shall become effective upon its passage and publication as provided by law.

Passed and approved this 7th day of June 2004.

_____
Joseph F. Laux, Mayor

ATTEST:

_____
Deborah A. Galeazzi, Deputy City Clerk

Section 9-3-16 BUILDING SEWERS AND CONNECTIONS

(k) If the condition of a sanitary sewer lateral is found to have major defects during the City's normal sewer inspection process, the owner shall repair or cause to be repaired the sanitary sewer lateral within 30 days of written notification from the Department of Public Works. If the owner does not repair the damaged lateral, the City shall repair the lateral at the owner's expense. Major defects include, but are not limited to:

1. Cracks greater than ¼" wide.
2. Offset joints of greater than ½".
3. Any location where ground is exposed.
4. Excessive infiltration of greater than an estimated 1 gallon per minute.
5. Holes in the pipe.
6. Severe sags in the pipe where greater than ½ of the pipe is full of water.
7. Excessive Roots within the sanitary lateral.

City of De Pere, Wisconsin

Request For Board of Public Works Action

MEETING DATE:	**January 11, 2021**
DEPARTMENT:	**Board of Public Works**
FROM:	**Eric Rakers**
SUBJECT:	**Consideration and possible action on Quote for 2021 Consulting Services***

ATTACHMENTS:

- 2021 0111 CI_BOPW_Consulting_Services (PDF)
- 2020 1222 CE_REL_Consulting_Proposal (PDF)
- 2020 1222 CE_Cedar_Consulting_Proposal (PDF)
- 2020 1223 CE_RM_Consulting_Proposal (PDF)

CITY OF DE PERE
MEMO

To: Honorable Mayor Boyd
Members of the Board of Public Works
From: Eric P. Rakers, P.E., City Engineer
Date: January 11, 2021

RE: **Consideration and possible action on Quote for 2021 Consulting Services***

The Engineering Department received proposals for consulting services that will be completed in conjunction with the City's 2021 construction projects. Staff anticipates using consulting services to assist with the completion of storm water, wetland, and navigable waterway permits, shop drawing review, design review, wetland reviews and delineations, traffic impact analysis review, street lighting design, legal surveys, legal descriptions, easement preparation, or engineering issues that arise that exceed staff's availability or expertise. The total cost of work was estimated using 2020 final quantities and additional 2021 work.

Consultant	Estimate
Robert E. Lee & Associates, Inc.	$23,255.00
Cedar Corporation	$25,060.00
Ruekert & Mielke, Inc.	$26,100.00

Description	Robert E Lee	Cedar Corp	Ruekert & Mielke
Senior Engineer	$108 per hour	$120 per hour	$122 per hour
Engineer	$91 per hour	$95 per hour	$106 per hour
Registered Land Surveyor	$94 per hour	$100 per hour	$100 per hour
Senior Tech	$88 per hour	$92 per hour	$105 per hour
Tech	$77 per hour	$82 per hour	$78 per hour
Clerical	$55 per hour	$68 per hour	$68 per hour
Mileage	$0.56 per mile	$0.575 per mile	$0.58 per mile
Electrical/Mechanical Review		$125 per hour	

The actual amount for the proposal will vary based on the amount of consulting services required, which is dependent on what unanticipated work arises.

Funding will be from the various capital projects accounts and the engineering budget.

The staff recommendation is to accept the quote from Robert E. Lee & Associates, Inc. for Consulting Services to be used during the 2021 year.

Attachments:
2020 1222 CE_REL_Consulting_Proposal (PDF)
2020 1222 CE_Cedar_Consulting_Proposal (PDF)
2020 1223 CE_RM_Consulting_Proposal (PDF)

Robert E. Lee & Associates, Inc.
Engineering | Surveying | Environmental | Ecological
Hobart, WI | releeinc.com | 920-662-9641

December 22, 2020

Mr. Eric Rakers, P.E., City Engineer
CITY OF DE PERE
925 South Sixth Street
De Pere, WI 54115

RE: Proposal for 2021 Consulting Services

Dear Mr. Rakers:

Thank you for the opportunity to provide information regarding Robert E. Lee & Associates' (REL), and our associated rates for 2021 consulting services to be provided to the City of De Pere. We value the relationship we have developed with De Pere and look forward to continuing work with the City.

REL was established in 1956 and is a full-service consulting firm specializing in civil and environmental engineering, surveying, and natural resource services. Currently, REL has approximately 55 employees at our office located in the Village of Hobart. A major focus of our business is servicing the public sector, and we pride ourselves on the many lasting relationships we have developed with municipalities like the City of De Pere. Our mission is "Quality-First" with a dedication to long-term relationships created through listening to our client's needs and providing a high-quality and timely product.

We provide design and construction engineering services for many communities throughout the state. We regularly complete major construction projects, as well as assist in day-to-day activities based on a municipality's need. Staff assists with capital improvement planning, project estimating, reviewing site and storm water plans, permitting, providing survey, environmental and ecological assistance, and delivering technical support to staff each community. We work to create and maintain a personal partnership between our client and an REL project manager.

Our team for the City of De Pere will include many familiar faces. Jared Schmidt, P.E., V.P. will be the overall point of contact for REL. Depending on the project needs, Jared would facilitate REL staff to work with you. For surveying purposes, Troy Hewitt, P.L.S., would lead our survey efforts and provide survey oversight. REL's survey department completes topographic surveys, provides construction staking and creates documents such as plats, CSMs, easements, or any type of legal descriptions.

REL's civil engineering department is experienced in the design and development of facilities

including water distribution systems, sanitary and storm sewer systems, storm water management facilities, roadways, site development, permitting, bid documents, and construction administration and observation services. For storm water management, site design needs, and flood plain management, Aaron Breitenfeldt, P.E. and Brandon Robaidek, E.I.T. would complete the project for the City. Both are adept in engineering design and their specialty in designing storm water management facilities for projects large and small. Both are very familiar with state and local permits and their associated requirements and deadlines. Utility and street construction or reconstruction projects would likely be led by Ryan Trzinski, P.E. and/or Jennifer Liimatta, P.E. Brad Treml or Jordan Rynish would also be available to assist in any of the engineering design and permitting needs De Pere may have.

At any time during a project, non-engineering needs may arise. Robert E. Lee & Associates has unique expert personnel available to tackle these needs and provide comprehensive solutions. We have experts in environmental and ecological specialties available to assist our project managers. Bruce Meissner, P.G., V.P. is knowledgeable in hazardous materials issues and the WDNR databases available to help identify potentially contaminated sites. Our in-house ecological division, NES Ecological Services, includes a WDNR Professionally Assured Wetland Delineator (James Havel), ecologists, biologists, and specialists that are readily available to answer natural resource questions. By having an Assured Delineator on staff, ecological projects can progress through the approval process by eliminating the 60-day WDNR concurrence review timeline. Our NES group also specializes in design, implementation, and maintenance of the native communities constructed around storm water features.

Our more than 60 years of corporate experience coupled with our talented staff has helped promote an efficient project execution style. This project execution is reinforced through continuous communication, dedicated service, and our ability to listen to the needs of our clients and the community.

If you would like further company information or detailed staff resumes, we would be happy to provide them. Should you have any questions or need additional information, please feel free to contact our office. If the City would need additional technical support from individuals not categorized by the requested billing rate, REL would propose to conduct those efforts based on our attached standard 2021 labor rates. Thank you again for the opportunity to work with the City, and we look forward to working with you on your upcoming municipal needs.

Sincerely,

ROBERT E. LEE & ASSOCIATES, INC.

Jared G. Schmidt, P.E., V.P.
Civil/Municipal Engineering Manager

JGS/NJM

ENC.

CC: Chase Kuffel, P.E., Assistant City Engineer

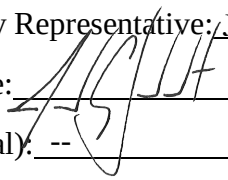
Proposed Fee Schedule

Company Name: Robert E. Lee & Associates, Inc.

Company Address: 1250 Centennial Centre Boulevard

Company Address: Hobart, WI 54155

Company Representative: Jared G. Schmidt, P.E., V.P., Civil/Municipal Engineering Manager

Signature: 

Fee (Total): --

Item	Fee	Unit
Senior Engineer	$108	Per Hour
Engineer	$91	Per Hour
Registered Land Surveyor	$94	Per Hour
Senior Technician	$88	Per Hour
Technician	$77	Per Hour
Clerical	$55	Per Hour
Mileage (2021 Federal Rates Apply)	$0.56	Per Mile

Robert E. Lee Associates, Inc.
Anticipated 2021 Rates

Staff Type	Rate
CAD TECHNICIAN I	$ 74.00
CAD TECHNICIAN II	$ 88.00
CIVIL ENGINEERING MANAGER	$ 167.00
CLERICAL I	$ 53.00
CLERICAL II	$ 62.00
CLERICAL MANAGER	$ 89.00
COMMUNITY PLANNER	$ 104.00
DESIGNER I	$ 111.00
DESIGNER II	$ 118.00
ENGINEER I	$ 99.00
ENGINEER II	$ 111.00
ENGINEER III	$ 135.00
ENGINEER IV	$ 151.00
ENGINEERING ASSISTANT	$ 61.00
ENGINEERING TECHNICIAN I	$ 79.00
ENGINEERING TECHNICIAN II	$ 93.00
ENGINEERING TECHNICIAN III	$ 118.00
ENVIRONMENTAL COMPLIANCE MANAGER	$ 146.00
ENVIRONMENTAL SCIENTIST I	$ 90.00
ENVIRONMENTAL SCIENTIST II	$ 103.00
ENVIRONMENTAL SCIENTIST III	$ 113.00
ENVIRONMENTAL TECHNICIAN ASSISTANT I	$ 48.00
ENVIRONMENTAL TECHNICIAN ASSISTANT II	$ 66.00
ENVIRONMENTAL TECHNICIAN I	$ 69.00
ENVIRONMENTAL TECHNICIAN II	$ 79.00
ENVIRONMENTAL TECHNICIAN III	$ 96.00
GEOLOGIST I	$ 87.00
GEOLOGIST II	$ 100.00
GEOLOGIST III	$ 112.00
GIS SPECIALIST I	$ 85.00
GIS TECHNICIAN	$ 68.00
LAND USE PLANNER I	$ 88.00
NATURAL RESOURCES SCIENTIST I	$ 67.00
NATURAL RESOURCES SCIENTIST II	$ 82.00
NATURAL RESOURCES SCIENTIST III	$ 97.00
NATURAL RESOURCES TECHNICIAN I	$ 40.00
NATURAL RESOURCES TECHNICIAN II	$ 45.00
NATURAL RESOURCES TECHNICIAN III	$ 65.00
NES DIVISION MANAGER	$ 122.00
PROJECT COORDINATOR	$ 81.00
SENIOR CONSULTANT	$ 157.00
SURVEY MANAGER	$ 127.00
SURVEYOR TECHNICIAN I	$ 71.00
SURVEYOR TECHNICIAN II	$ 82.00
SURVEYOR TECHNICIAN III	$ 94.00
SURVEYOR PROFESSIONAL I	$ 88.00
SURVEYOR PROFESSIONAL II	$ 96.00
SURVEYOR PROFESSIONAL III	$ 103.00
TRANSPORTATION MANAGER	$ 167.00
WATER & WASTEWATER FACILITIES OPERATOR	$ 92.00
WATER & WASTEWATER MANAGER	$ 167.00

Note: These rates are REL's anticipated standard 2021 billing rates.

Cedar corporation

engineering | architecture | environmental | surveying
landscape architecture | planning | economic development

1695 Bellevue Street
Green Bay, WI 54311
920-491-9081
800-472-7372
FAX 920-491-9020
www.cedarcorp.com

December 21, 2020

Eric Rakers, P.E., City Engineer
City of De Pere
925 South Sixth Street
De Pere, WI 54115-1199

c: erakers@mail.de-pere.org

RE: Proposal – 2021 Consulting Services

Dear Eric:

Cedar Corporation (Cedar) appreciates the opportunity to submit our proposal to assist the City of De Pere (City) with 2021 Consulting Services throughout the 2021 calendar year.

Cedar has been in business since 1975. Our professional engineers and technical staff have assisted numerous municipalities with the completion of various engineering tasks for permitting, shop drawing reviews, design, uncommon issues encountered by staff and legal surveys, descriptions and easement preparation, as well as electrical and mechanical reviews. *Cedar comprises the technical staff and resources to complete the City's projects during 2021.*

PROJECT UNDERSTANDING

Based on a review of the Request for Proposal (RFP) issued on December 11, 2020, we have the following project understanding. The City of De Pere would like assistance in completing various engineering tasks during the 2021 calendar year, pursuant to projects outlined in the 2021 Capital Improvement Program. We understand that project tasks will be requested on an "as-needed basis" according to anticipated workload levels of City staff.

SCOPE OF SERVICES

Based on our project understanding, as described above, and per the Scope of Services and City's Responsibilities provided in the RFP, we offer the following Scope of Services:

1. Completion and submittal of storm water, wetland, and navigable waterway permits, including correspondence with permitting authority on the City's behalf.
2. Shop drawing review (e.g., electrical, mechanical, etc.)
3. Review and recommendation for City design where required.
4. Analysis of uncommon issues encountered by Engineering Staff.
5. Wetland reviews and delineations.
6. Storm water management facility review, planning, and design.
7. Site plan and traffic impact analysis review.
8. Street lighting design and quantity take-off.
9. Structure review and inspection.
10. Legal surveys, descriptions, easement preparation, etc.

Site visits may be needed depending on issues encountered by Engineering Staff. The main method of correspondence and review will be completed via email and by phone with the Project Team.

INSURANCE

Cedar will provide a certificate of insurance per the RFP requirements at the time of contract execution.

FEE

Cedar proposes to complete the work scope as identified on the *Proposal Fee Schedule* in the RFP and attached to this proposal.

DELIVERY

Consulting services will be completed via phone and email with Engineering Staff. Permitting shall be delivered via email, in pdf format. Hard copies will not need to be provided.

Our deliverables will be provided in the following formats:

1. Construction plans and details will be in AutoCAD Civil 3D .dwg format.
   Electronic submittals will be in .pdf format.
   (The City will online bid the Project with the 11" x 17" pdf plan set.)
2. Technical specifications for bidding will be in Microsoft Word format.
3. Bid items, quantities, engineer's estimates will be in Microsoft Word and/or Excel format.

CONTRACT

The consultant agreement for professional services will be prepared by the City utilizing the agreement utilized on previous Cedar Project for review and execution by Cedar.

ADDITIONAL INFORMATION

The City will provide all information requested to assist consulting services and will pay for permitting fees associated with the project.

In closing, Cedar looks forward to the opportunity to provide services to the City of De Pere. Do not hesitate to call if you have questions or would require additional information regarding our proposal.

Sincerely,

CEDAR CORPORATION

Thad M. Majkowski, P.E.
Director

TMM/cap

cc: Chase Kuffel, P.E., Assistant City Engineer (ckuffel@mail.de-pere.org)

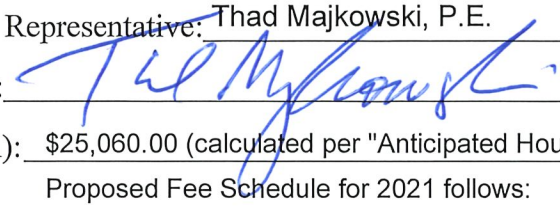
Proposed Fee Schedule

Company Name: Cedar Corporation

Company Address: 1695 Bellevue Street

Company Address: Green Bay, WI 54311

Company Representative: Thad Majkowski, P.E.

Signature: 

Fee (Total): $25,060.00 (calculated per "Anticipated Hours" listed in Table 1 of RFP).

Proposed Fee Schedule for 2021 follows:

Item	Fee (US$)	Unit
Senior Engineer	120.00	Per Hour
Engineer	95.00	Per Hour
Registered Land Surveyor	100.00	Per Hour
Senior Technician	92.00	Per Hour
Technician	82.00	Per Hour
Clerical	68.00	Per Hour
Mileage Per IRS guidelines:	0.575	Per Mile
Electrical / Mechanical Review	125.00	Per Hour

Ruekert • Mielke
1400 Lombardi Avenue, Suite 101S, Green Bay, WI 54304 920-876-6382

December 23, 2020

Mr. Eric Rakers, P.E.
City Engineer
City of De Pere
925 S. Sixth Street
De Pere, WI 54115

Re: 2021 Consulting Services Proposal

Dear Mr. Rakers,

Ruekert & Mielke, Inc. (R/M) thanks you for the opportunity to submit this proposal for 2021 Consulting Services. This letter presents our proposed scope of services and hourly fees based on your request for proposal provided on December 11, 2020.

Scope of Services

As the City of De Pere is designing and preparing bidding documents for projects pursuant to the 2021 capital improvement plan, it is requesting hourly rates for services that may include assistance for the design, permitting and/or administration of these projects. The projects include new street construction, street reconstruction, street milling and overlay, sanitary sewer improvements, water system improvements, storm sewer improvements, concrete replacement (curb & gutter, sidewalk, driveway, and street), concrete street construction and reconstruction, and new pond construction.

The scope of services listed below is included, but is not limited to:

1. Completion and submittal of storm water, wetland, and navigable waterway permits, including correspondence with permitting authority on the City's behalf.
2. Shop drawing review (e.g. electrical, mechanical, etc.)
3. Review and recommendation for City design, where required.
4. Analysis of uncommon issues encountered by Engineering Staff.
5. Wetland reviews and delineations.
6. Storm water management facility review, planning and design.
7. Site plan and traffic impact analysis review.
8. Street lighting design and quantity take-off.
9. Structure review and inspection.
10. Legal surveys, descriptions, easement preparation, etc.

Ruekert • Mielke

Fee

The fees for services provided as outlined in the RFP are included in the attached Proposed Fee Schedule.

Respectfully,

RUEKERT & MIELKE, INC.

Colin L. Meisel, P.E. (IA, IL, IN, KY, MI, MN, WI)
Team Leader
cmeisel@ruekert-mielke.com

Ryan T. Amtmann, P.E. (WI, IL)
Vice President
ramtmann@ruekert-mielke.com

CLM:cal
Enclosure
cc: File

Proposed Fee Schedule

Company Name: Ruekert & Mielke, Inc.

Company Address: 1400 Lombardi Avenue, Suite 101S

Company Address: Green Bay, WI 54304

Company Representative: Colin L. Meisel, P.E.

Signature:

Fee (Total): To Be Determined

Item	Fee	Unit
Senior Engineer	$122	Per Hour
Engineer	$106	Per Hour
Registered Land Surveyor	$100	Per Hour
Senior Technician	$105	Per Hour
Technician	$78	Per Hour
Clerical	$68	Per Hour
Mileage	$0.58	Per Mile

City of De Pere, Wisconsin

Request For Board of Public Works Action

MEETING DATE:	**January 11, 2021**
DEPARTMENT:	**Board of Public Works**
FROM:	**Daniel Lindstrom**
SUBJECT:	**Consideration and possible action on quote for a steam relocation on Parcel WD-D0077 adjacent to Fortune Avenue in the West Business Park.***

ATTACHMENTS:

- Fortune Stream Relocation Memo (PDF)
- Quote and Proposal - City of DePere Wetland Fill Stream Relocation for Stream adjacent to Fortune Ave (PDF)
- 00998 DePere_nav det_Fortune and Venture (PDF)

CITY OF DE PERE
MEMO

To: Honorable Mayor Boyd
Members of the Board of Public Works

From: Daniel Lindstrom, AICP Development Services Director

Date: January 11, 2021

RE: **Consideration and possible action on quote for a stream relocation on Parcel WD-D0077 adjacent to Fortune Avenue in the West Business Park.***

The Development Services Department routinely fields calls and questions regarding available parcels for manufacturing in the west business park. The City continually misses out on possible development when competing projects that need more than eight to ten acres. The largest parcel in the west business park is WD-D077 at approximately 26.6 acres; however, the parcel is bisected by a navigable waterway making the site challenging for any large development. The creek would provide a natural parcel divide to create two parcels, but that would create a shallow parcel to the north of the creek and a narrow fronted lot to the south of the creek. Therefore, City staff proposed to consult with Robert E. Lee & Associates, Inc. to assist with the permitting to relocate and improve the low quality creek further south.

The City of De Pere maintains an annual contract with an engineering consultant to preform smaller duties such as the completion of storm water, wetland, and navigable waterway permits, shop drawing review, design review, wetland reviews and delineations, traffic impact analysis review, street lighting design, legal surveys, legal descriptions, easement preparation, or engineering issues that arise that exceed staff's availability or expertise. These services are usually part of larger engineering projects. When the City requests a small, one-off, project we request a separate quote to outline the necessary scope of work. The scope would continue to utilize the schedule of rates from the annual scope of work. The scope of work is attached for review.

Robert E. Lee & Associates, Inc.
Engineering • Surveying • Environmental Services
1250 Centennial Centre Boulevard • Hobart, WI 54155 • 920-662-9641 • www.releeinc.com

December 2, 2020

Mr. Dan Lindstrom, AICP, Director of Development Services
CITY OF DE PERE
335 South Broadway
De Pere, WI 54115

RE: Engineering Services Proposal
West Industrial Park – Fortune Ave
City of De Pere, Brown County

Dear Mr. Lindstrom:

Thank you for the opportunity to provide this engineering services agreement for initial review and engineering efforts associated with the wetland fill in the West Industrial Park. These services are being provided as guidance to determine the viability of impacting wetlands on portions of Parcel WD-D0077, and completing a wetland fill or stream relocation for the onsite ecological features. The following is a scope of services associated with this phase of work. There has been discussion in the past about relocating the storm water feature onsite to better accommodate future development. Should relocation of this pond be desire, Robert E. Lee & Associates, Inc. (REL) can assist with the modeling and design of the relocated storm water feature, though that effort is not included within this proposal.

SURVEYING SERVICES

Topographic Survey

Detailed topographic survey should not be required for the initial step of this process, though survey information will be needed to complete a detailed stream realignment design, should the drainage way bisecting the property be deemed navigable. A cost for this service has been provided as needed to complete the ecological permitting on the site.

WETLAND FILL COORDINATION

REL will work with the City and private entities, as necessary, to identify the desired development plan for the project area. Then utilizing the existing wetland delineation conducted for the City of De Pere, REL will assist with the initial steps of the wetland fill process. If additional wetland work is required, that can be provided by REL staff. REL will work with local and state officials to determine the navigability of the drainage way on the property. Navigability will drive the permitting process at the site.

Initially, we will create base drawings to better understand the potential impact to wetlands relative to conceptual development plans, then facilitate a meeting with the City, Wisconsin Department of Natural Resources (WDNR), and Army Corps of Engineers (ACOE) staff. This initial scoping meeting will give the project team a better understanding of what options are available for the project area.

The following is a description of the general tasks to be completed, as part of the fill application process. It should be noted that the complexity of the fill process will be dictated on whether a general or individual fill permit is necessary, and if the drainage way is deemed navigable or not. If the fill exceeds 10,000 square feet or if the fill is being completed by another entity, not currently owning the property, then an individual fill permit is likely.

There are three main components/analyses required to complete a wetland permit application:
1. Wetland Boundary Determination.
2. Practicable Alternatives Analysis.
3. Wetland Functional Values Assessment.

Practicable Alternatives Analysis

The main component of most permit applications is the section discussing potential project alternatives. The regulating agencies want and need to know if the applicant has fully considered all possible options. Can the wetland impact be avoided? Can the impact be minimized to the greatest extent possible? These questions need to be answered thoroughly for the agencies to consider granting the wetland fill permit. There are different reasons for requesting a permit, such as logistics, safety concerns, economics, etc.

Wetland Functional Values Assessment

To determine the quality of wetland proposed to be impacted, an assessment of the functions provided by the wetland must be completed. Agency personnel take the quality and functions of the impacted wetland into consideration when making their decision regarding the permit.

It is understood that a functional values assessment would have been completed in association with the wetland delineation report. If an assessment has not been completed, REL can complete this work for an additional fee.

Preparation of Wetland Permit Application

Once the practicable alternatives analysis and functional values assessment has been completed, we will pull all the material together to complete the application and submit it to the ACOE and WDNR.

Wetland Mitigation

If an individual wetland fill permit is applicable, that comes with a requirement of wetland mitigation. Mitigation can be handled on-site, through the purchase of wetland credits from a wetland bank or purchase of credits through the fee in-lieu program the DNR has set up. Once the appropriate mitigation method is determined, REL can assist in that process. Typically, mitigation is purchased at a ratio ranging from 1.2:1 to 1.75:1 based on the quality of the existing wetland, and the type of mitigation selected. Wetland mitigation purchase cost is not included within REL's fee summary. If the wetland being filled is also associated with a navigable waterway, additional requirements may apply.

Waterway Relocation

If the drainage way through the property is deemed a waterway and is considered navigable, then permitting would also follow the individual permit process, though for stream relocation or stream enclosure. Waterway relocations are broken into categories based on length of relocation/enclosure. Typically, an impact to a waterway less than 200 feet in length is less complex to permit.

REL will work with the City and review agencies to determine navigability and then determine the best means of relocation/enclosure. A path forward will be selected based on likelihood of permissibility of potential alternatives.

The amount of engineering efforts associated with a enclosure versus a relocation can vary widely. If it is determined the waterway is navigable, REL will provide a cost to design the desired improvement as the preferred option becomes apparent. Our fee for the closure would be on a similar magnitude as an individual permit, with the stream relocation likely being higher.

SITE ENGINEERING

For this project, site engineering will include creating the necessary concept development plans to help illustrate the developability of the project area and illustrate the area of impact associated with the wetland fill portion of the project.

Additional mapping illustrating such things as alternate site selection, soils types, parcel mapping with contours, wetland indicators, and wetlands will also be applicable for the wetland fill component of the project.

Fee Summary –

Below are three possible options for filling of wetlands. One option will be selected based after preliminary review with the City and permit regulators.

1) Wetland General Permitting	$	3,500
2) Wetland Individual Permit	$	6,000
3) Stream Relocation Permitting	$	TBD

Additional Service (as needed)

Site Survey	$	1,550
Storm Water Modeling/Design	$	TBD

Any permit or review fees would be passed along to the City for payment as a reimbursable expense.

STORM WATER MANAGEMENT (AS NEEDED)

REL will coordinate with the City and private landowners to create preliminary calculations and sketches to determine the required size and general location of the potential new storm water pond. The pond would be sized to reclaim developable area where the existing storm water pond sits, as well as size the pond appropriately to capture runoff from potential new development on the vacant parcel where the wetland fill would take place to meet post construction storm water requirements.

Preliminary Storm Water Management work may include the following:

- Perform pre-development and post-development hydrologic calculations.
- Concept design Best Management Practices (BMPs) to meet the requirements for storm water quantity.
- Prepare summary memo that includes the general design criteria, site data, concept BMP mapping, and hydrologic and hydraulic calculations.

As part of this process, it may be applicable to conduct a wetland delineation on the parcel that contains the existing storm water pond. That need will be determined based on initial meetings with the WDNR.

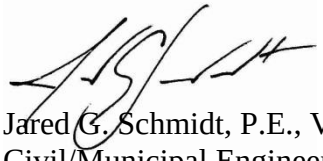
Once the project gets into detailed design, it will also be important to conduct soil borings in the location of the storm water feature to ensure proper compliance with local and state requirements for post construction storm water, including infiltration screening.

REL's fee for storm water design will be provided as the need for this service is further defined.

We appreciate the opportunity to work with the City on this project and are able to begin work on the project immediately upon receiving approval. Attached, and made part of this proposal, is a copy of our Standard Terms and Conditions, dated June 2006. If this proposal is acceptable, please sign in the location below, and return a copy for our files. Feel free to contact our office with any questions.

Sincerely,

ROBERT E. LEE & ASSOCIATES, INC.



Jared G. Schmidt, P.E., V.P.
Civil/Municipal Engineering Manager

JGS/JME

ENC.

ACCEPTED BY CITY OF DE PERE

_____ _____

Signature Date

ROBERT E. LEE & ASSOCIATES, INC.

STANDARD TERMS AND CONDITIONS

I. SCOPE

Robert E. Lee & Associates, Inc. agrees to perform the engineering, surveying, and/or environmental services described in the proposal or agreement in which these standard terms and conditions are referenced and to which they are attached. Unless modified in writing by the parties thereto, duties of Robert E. Lee & Associates, Inc. shall not be construed to exceed those services specifically set forth in the proposal or agreement to which these standard terms and conditions are attached.

II. COMPENSATION

Client agrees to pay for the services provided in accordance with the compensation provisions described in the proposal or agreement to which these standard terms and conditions are attached. Payment to Robert E. Lee & Associates, Inc. will be made within 30 days after the date of billing. For all amounts unpaid after 30 days from the invoice date, client agrees to pay Robert E. Lee & Associates, Inc. a finance charge of 1-1/2% per month.

For time and expense compensation, charges will consist of salary-related costs and nonsalary costs. Salary-related charges include, but are not limited to, the following:

1. Salaries paid employees for time spent working directly on the subject project.
2. Costs of employee fringe benefits attributable to the employee time spent working directly on subject project.
3. General and administrative overhead charges distributed on basis of employee time spent working directly on subject project.

Nonsalary costs cover items directly related to the project, other than those covered by salary-related costs. Such nonsalary costs shall be computed on the basis of actual purchase price for items and services obtained from commercial sources and outside consultants. Cost of items and services provided directly by Robert E. Lee & Associates, Inc. shall be in accordance with rate schedules based on normal charges of commercial sources. Nonsalary items and services include, but are not limited to, the following:

1. Services directly applicable to the project such as special legal and accounting expenses, computer rental and programming costs, special consultants, borings, environmental analyses, commercial printing and binding, and similar services that are not applicable to general overhead.
2. Identifiable reproduction services applicable to the project such as printing of drawings, photostating, multilithing, printing, and similar services.
3. Identifiable communication services such as long-distance telephone, telegraph, cable, express services, and postage other than for general correspondence.
4. Living and traveling expenses of employees when away from home office on business connected with the project.
5. Subcontracted services.

III. RESPONSIBILITY

Robert E. Lee & Associates, Inc. is employed to render a professional service only, and any payments made by the client are compensation solely for such services rendered and recommendations made in carrying out the work. Robert E. Lee & Associates, Inc. shall follow the practice of the civil engineering, surveying, and/or environmental services professions to make findings, opinions, factual presentations, and professional advice and recommendations.

In performing construction management services, Robert E. Lee & Associates, Inc. review of work prepared or performed by other individuals or firms employed by the client shall not relieve those individuals or firms of complete responsibility for the adequacy of their work.

It is understood that any resident engineering or construction observation provided by Robert E. Lee & Associates, Inc. is for the purpose of determining compliance with the technical provisions of the project specifications and does not constitute any form of guarantee or insurance with respect to the performance of a contractor. Robert E. Lee & Associates, Inc. does not assume responsibility for methods or appliances used by a contractor, for safety of construction work, or for compliance by contractors with laws and regulations.

It is understood and agreed by both parties that Engineer, in performing professional services for Owner with respect to hazardous substances, will make recommendations to Owner with respect thereto, but does not have the authority or responsibility to decide where disposal or treatment takes place, nor to designate how or by whom the hazardous substances are to be transported for disposal or treatment.

IV. INSURANCE AND LIMITS OF LIABILITY

Robert E. Lee & Associates, Inc. shall maintain during the life of the Agreement, the following minimum public liability and property damage insurance to cover claims for injuries, including accidental death, as well as from claims for property damages which may arise from the performance of work under the Agreement. The client agrees to limit the liability of Robert E. Lee & Associates, Inc. to the extent of Robert E. Lee & Associates, Inc. insurance or as otherwise stated below:

1. Comprehensive general liability insurance, including personal injury liability, blanket contractual liability, and broad form property damage liability. The combined single limit of liability for bodily injury and property damage shall be $1,000,000.

2. Automobile bodily injury and property damage liability insurance covering owned, nonowned, rented, and hired cars. The combined single limit of liability for bodily injury and property damage shall be $600,000.

3. Statutory workers compensation and employers' liability insurance as required by the state having jurisdiction.

4. Professional liability insurance covering damages resulting from errors and omissions of Robert E. Lee & Associates, Inc. The limit of liability shall be $50,000.

V. SUSPENSION OF WORK

The client may suspend, in writing, all or a portion of the work under the Agreement in the event unforeseen circumstances beyond the control of the client make normal progress in the performance of the work impossible. Robert E. Lee & Associates, Inc. may request that the work be suspended by notifying the client, in writing, of circumstances which are interfering with normal progress of the work. The time for completion of the work shall be extended by the number of days the work is suspended. In the event that the period of suspension exceeds 90 days, the terms of the Agreement are subject to renegotiation and both parties are granted the option to terminate work on the suspended portion of the project.

VI. TERMINATION OF WORK

Either party may terminate work in the event the other party fails to perform in accordance with the provisions of the Agreement. Termination of the Agreement is accomplished by 15 days prior written notice from the party initiating termination to the other. Notice of termination shall be delivered by certified mail with receipt for delivery returned to the sender.

In the event of termination, Robert E. Lee & Associates, Inc. shall perform such additional work as is necessary for the orderly filing of documents and closing of the project. The additional time for filing and closing shall not exceed 10 percent of the total time expended on the terminated portion of the project prior to the effective date of termination.

Robert E. Lee & Associates, Inc. shall be compensated for the terminated portion of the work on the basis of work actually performed prior to the effective date of termination plus the work required for filing and closing. Charges for the latter work are subject to the 10 percent limitation described in this Article.

VII. ASSIGNMENT

These terms and conditions and the Agreement to which they are attached are binding on the heirs, successors, and assigns of the parties hereto. The Agreement is not to be assigned by either the client or Robert E. Lee & Associates, Inc. without the prior written consent of the other.

VIII. INTEGRATION

These terms and conditions and the Agreement to which they are attached represent the entire understanding of the client and Robert E. Lee & Associates, Inc. as to those matters contained herein. No prior oral or written understanding shall be of any force or effect with respect to those matters covered hereunder. The Agreement may not be modified or altered except in writing signed by both parties.

IX. JURISDICTION

This Agreement shall be administered and interpreted under the laws of the state of Wisconsin. Jurisdiction of litigation arising from the Agreement shall be in the state of Wisconsin. If any part of the Agreement is found to be in conflict with applicable laws, such part shall be inoperative, null and void insofar as it is in conflict with said laws, but the remainder of the Agreement shall be in full force and effect.

X. DISPUTE RESOLUTION

In an effort to resolve any conflicts that arise during the design or construction of the project following the completion of the project, the Client and the Engineer agree that all disputes between them arising out of or relating to this Agreement shall be submitted to nonbinding mediation unless the parties mutually agree otherwise.

The Client shall make no claim for professional negligence, either directly or in a third party claim, against the Engineer unless the Client has first provided the Engineer with a written certification executed by an independent engineer currently practicing in the same discipline as the Engineer and licensed in the state of Wisconsin. This certification shall: a) specify each and every act or omission that the certifier contends is a violation of the standard of care expected of an Engineer performing professional services under similar circumstances; and b) state in complete detail the basis for the certifier's opinion that each such act or omission constitutes such a violation. This certificate shall be provided to the Engineer not less than thirty (30) calendar days prior to the presentation of any claim or the institution of any mediation or judicial proceeding.

In the event of any litigation arising from or related to the services provided under this Agreement, the prevailing party will be entitled to recovery of all reasonable costs incurred, including staff time, court costs, attorneys' fees and other related expenses.

All legal actions by either party against the other arising out of or in any way connected with the services to be performed hereunder shall be barred and under no circumstances shall any such claim be initiated by either party after two (2) years have passed from the date of completion of construction phase services, unless the Engineer's services shall be terminated earlier, in which case the date of termination of this Agreement shall be used.

June 2006

State of Wisconsin
DEPARTMENT OF NATURAL RESOURCES
Northeast Region Headquarters
2984 Shawano Avenue
Green Bay, WI 54313-6727

Scott Walker, Governor
Cathy Stepp, Secretary
Telephone 608-266-2621
Toll Free 1-888-936-7463
TTY Access via relay - 711

March 31, 2016 INF-NE-2016-5-00998

City of De Pere
Attn: Karen Heyrman
925 S. Sixth St
De Pere, WI 54115
[sent electronically]

RE: Request for Navigability Determination for Mud Creek, located in the City of De Pere, Brown County

Dear Ms. Heyrman:

I visited this site with you today. The waterway was inundated with water and the majority of the site along the waterway was flooded outside of the banks and far enough into the farm field to make access to the waterway channel impractical. The waterway at the outlet of the retention pond has a channel approximately 1.5ft in depth and 6ft wide which was full of water. While I did not have a small watercraft at the site visit, the waterway could have easily floated a small watercraft in the channel. A "desktop review" was completed and emailed to you on January 19, 2016 indicating the map documentation provides evidence the waterway likely meets the navigability determination. Today's field visit confirms what the map data demonstrates. In Wisconsin, the Supreme Court has defined a navigable waterway as one which has a defined bed and banks and carries enough water to float a canoe or other watercraft during the spring high water periods. Based on this definition and the conditions observed at your site, the stream on your property has been determined to be navigable/public.

Chapter 30, Wis. Stats., permits are needed for work in and near this waterway. Information on these regulations and application materials are available on the DNR web site at http://dnr.wi.gov/topic/Waterways/. Specifically, the City will need to obtain a Ch 30 culvert crossing permit for a new culvert crossing of the navigable waterway. You can find more information on culverts at the Department's website http://dnr.wi.gov/topic/Waterways/water_levels_crossings/culverts.html. When the City is ready to submit an application, please use the online application system "Water Permits" found at http://dnr.wi.gov/permits/water/. Click on "Waterway and wetland" (the hyperlink at the bottom of the webpage) and then scroll through the alphabetical listing to find "Culvert – with professionally engineered design". The link to the right is used to begin the General Permit (GP) application process.

If the culvert crossing is for a public City roadway, your DNR contact and permit review person is Jim Doperalski, Environmental Analysis & Review Specialist. If the culvert crossing is for a private roadway/development, then I will be your contact and permit review person. Certain activities may also require permits from Brown County and/or Army Corps of Engineers and you should contact those agencies before beginning any construction at this site.

If you have any questions about your permit, please call me at (920) 662-5466 or you can reach me by email at Crystal.VonHoldt@wisconsin.gov.

Sincerely,

Crystal von Holdt
Water Management Specialist

Email cc: Jessica Kempke, Project Manager, U.S. Army Corps of Engineers
Matt Heyroth, Brown County Zoning Administrator
Jim Doperalski, WDNR Env. Analysis & Review Specialist
Cara Kamke, WDNR Conservation Warden

City of De Pere, Wisconsin

Request For Board of Public Works Action

MEETING DATE:	**January 11, 2021**
DEPARTMENT:	**Public Works**
FROM:	**Scott Thoresen**
SUBJECT:	**Discuss Ald. Carpenter's Request for Review of Polycart Storage Enforcement**

Alderperson Carpenter has requested the BOPW review the polycart storage enforcement.

Staff is currently responding to specific properties not storing their polycarts on complaint basis. While at that address, staff will determine if the address is compliant or not based on the ordinance. Staff may inspect the remaining addresses on that specific block if time allows. The purpose of this is to minimize a resident from feeling the city is targeting them, as well as gaining voluntary compliance from residents/users. If the reported address or any others on the same block are found non-compliant per City ordinance, office staff will be notified to send a violation letter. The letter will be sent to the property owner. If the property is a rental, the first notice (letter) will be also sent to the tenant in addition to the owner. After 15 days, staff will recheck the addresses to see if they are in compliance. If not, a second violation letter will be sent to the property owner in an attempt to seek compliance. After another 15 day period, the address will be rechecked by staff. If not in compliance, a certified letter will be sent to the property owner. The letter will indicate failure to comply may result in an ordinance citation.
After the 15 day period has lapsed, the property will be re-inspected. If not in compliance a citation may be issued.

The above procedure was recently implemented. Prior to this, the changes to this practice included:

* Reducing the number of days between inspections and violation notices from 30 days to 15 days.

* Sending a violation notice to the resident as well as the property owner for the first violation notice.

* After receiving a complaint for a specific address, checking the remaining block for compliance in an attempt to gain voluntary compliance.

City of De Pere, Wisconsin

Request For Board of Public Works Action

MEETING DATE:	**January 11, 2021**
DEPARTMENT:	**Public Works**
FROM:	**Tony Fietzer**
SUBJECT:	**Consideration and possible action on using Toter polycarts for garbage and recycling collection**

ATTACHMENTS:

- BOPW-Toter (PDF)
- Toter (PDF)

CITY OF DE PERE
MEMO

To: Board of Public Works
From: Tony Fietzer, Street Superintendent
Date: January 11, 2021

RE: **Consideration and possible action on using Toter polycarts for garbage and recycling collection**

The City of De Pere currently utilizes two separate polycart garbage/recycling carts. For garbage collection we use Schaefer carts and for recycling we use Toter carts. These carts have been used in this manner for many years. Over the course of several years, we have noted that the Schaefer carts are more rigid with what appears to be a thicker plastic. The Toter carts have a more flexible plastic body. Over the course of the few years we noted that the Schaefer carts have had the sides of the carts crack making them unusable and needing to be replaced. During that same time we noted that the Toter lids were more apt to crack until they made modifications to the lid design.

Every year the City of De Pere purchases new carts and lids for replacements for new homes being built. We have noted that the shipping costs for these carts are extremely expensive, generally over $1500 a shipment. The carts cost $53.50 a cart for a Toter and $77 for Schaefer. The difference in carts is $23.50 per cart.

Currently our Schaefer carts are collected weekly (garbage) and our Toter carts are collected bi-weekly (recycling). I researched with neighboring communities with the same environmental/weather impacts to see if Toter carts were used for weekly collection and how they hold up. I received input from several communities who utilize Toter. The communities were Green Bay, Oshkosh, Little Chute and Greenville. These communities stated the Toter carts have held up well, quick turn around and less expensive than previously used carts or vendors. See attached for details. I contacted the Toter representative who stated the shipping cost for 100 carts would be the same as for 200, 300 or 400 carts. That cost would be $1508.00 for shipping.

I am requesting the City of De Pere order our garbage and recycling carts through Toter. The garbage carts would remain green and the recycling carts would remain blue. The green and blue carts would have the new City of De Pere logo emblem on the side. The consolidation to one vendor will eliminate a second shipping cost and in turn be able to purchase more carts in lieu of shipping fees. The carts would be identical to each other than color. These carts are also offered in the two sizes (64 and 96 gallon) we currently offer our residents.

Green Bay

When City of Green Bay started using tipper carts back in 2012, Rehrig-Pacific won the bid based on cost and design. We went to automated recycling first. Rehrig carts have generally performed well for us. By the time we got to automated trash collection in 2014, we experienced some cart and lid damage due to Rehrig's injection mold processed. Our research revealed that injection molded carts seem to be more susceptible to damage than Toter's roto-cast carts. Toter's roto cast process yields a less dense material and makes them more resilient to flexing. Also the public works committee liked the look of Toter carts better than others.

Ultimately Green bay moved to Toter carts exclusively

-Chris Pirlot, Operations Director, Green Bay DPW

Oshkosh

Oshkosh has used Toter for both bi-weekly recycling (11 yrs) and weekly garbage (8 yrs) collection. The only bodies that have been replaced are due to customer fault, the majority that has been fire damage. Minimal lid replacement as well. We currently have over 42500 garbage/recycling carts in use throughout the city. Over the years Toter has been great to deal with. Always ask for National contract pricing. Let me know if you have additional questions

-Kevin Uhen, Operations Manager, Oshkosh DPW

Little Chute

The Village of Little Chute has Schaefer carts for refuse collection and toter for recycling so the toters get dumped half as much. The Schaefer's do crack fairly easy, we have since started changing over to toters and have worked out well on the refuse collection side but we are only into it a few years with the toters they were priced a little better and the order turn around was much quicker.

Marty Jansen, Operations Manager, Little Chute DPW

Greenville

We have Toter for our recycling cans and have had very good luck with them. As for garbage we have a variety of cans as they are provided by Harter's and they seem to be less durable.

-Brian Rickert, Director of Public Works, Town of Greenville DPW

City of De Pere, Wisconsin

Request For Board of Public Works Action

MEETING DATE: **January 11, 2021**

DEPARTMENT: **Board of Public Works**

FROM: **Eric Rakers**

SUBJECT: **Consideration and possible action on Quotes for 2021 Materials Testing and Soil Borings***

ATTACHMENTS:

- 2021 0111 CI_BOPW_Materials_Testing (DOCX)
- 2021 CI_CALC_Materials_Testing_Comparison (PDF)
- 2020 1207 CE_Materials Testing_BATC (PDF)
- 2020 1207 CE_Materials Testing_PSI (PDF)
- 2020 1207 CE_Materials Testing_American Engineering Testing, Inc. (PDF)
- 2020 1207 CE_Materials Testing_ECS(PDF)

CITY OF DE PERE
MEMO

To: Honorable Mayor Boyd
Members of the Board of Public Works
From: Eric P. Rakers, P.E., City Engineer
Date: January 11, 2021

RE: **Consideration and possible action on Quotes for 2021 Materials Testing and Soil Borings***

The Engineering Department received proposals for materials testing that will be completed in conjunction with the City's 2021 construction projects. The total cost of this work was estimated using previous quantities as follows:

Materials Testing	Estimate
BATC	$36,070.00
PSI	$39,140.00
AET	$45,265.00
ECS	$47,116.00

Soil Boring	Estimate
ECS	$4,250.00
PSI	$5,592.50
AET	$6,300.00

The staff recommendation is to accept the quote from Bay Area Testing and Consulting, LLC (BATC) for the materials testing estimated at $36,070.00 and the quote from ECS Midwest, LLC. (ECS) for soil borings estimated at $4,250.00. Funds for this work are budgeted in the various capital projects accounts.

Attachments:

2021 CI_CALC_Materials_Testing_Comparison (PDF)
2020 1207 CE_Materials Testing_BATC_Proposal (PDF)
2020 1207 CE_Materials Testing_PSI_Proposal (PDF)
2020 1207 CE_Materials Testing_American Engineering Testing, Inc (PDF)
2020 1207 CE_Materials Testing_ECS_Proposal (PDF)

Item	Unit	2021 Est. Amount	BATC		PSI		AET		ECS	
			Unit Price	Total	Unit Price	Total	Unit Price	Total	Unit Price	Total
Engineering Services										
Project Manager	Per hour	10.00	$60.00	$600.00	$65.00	$650.00	$90.00	$900.00	$65.00	$650.00
Project Engineer	Per hour	15.00	$80.00	$1,200.00	$75.00	$1,125.00	$90.00	$1,350.00	$120.00	$1,800.00
Staff Engineer	Per hour	50.00	$60.00	$3,000.00	$65.00	$3,250.00	$90.00	$4,500.00	$95.00	$4,750.00
Field Technician										
Senior Technician	Per hour	50.00	$44.00	$2,200.00	$40.00	$2,000.00	$65.00	$3,250.00	$50.00	$2,500.00
Technician	Per hour	400.00	$35.00	$14,000.00	$35.00	$14,000.00	$45.00	$18,000.00	$45.00	$18,000.00
Clerical	Per hour	50.00	$30.00	$1,500.00	$25.00	$1,250.00	$35.00	$1,750.00	$35.00	$1,750.00
Mileage	Per mile	5000.00	$0.30	$1,500.00	$0.50	$2,500.00		$0.00	$0.65	$3,250.00
Laboratory Testing Services										
Standard Proctor	Per each	1.00	$105.00	$105.00	$125.00	$125.00	$115.00	$115.00	$132.00	$132.00
Modified Proctor	Per each	10.00	$115.00	$1,150.00	$145.00	$1,450.00	$140.00	$1,400.00	$150.00	$1,500.00
Concrete Compression Test (Cylinder by Company)	Per each	500.00	$12.00	$6,000.00	$14.00	$7,000.00	$15.00	$7,500.00	$13.00	$6,500.00
Concrete Compression Test (Cylinder by City)	Per each	10.00	$12.00	$120.00	$14.00	$140.00	$15.00	$150.00	$20.00	$200.00
Handling of Backup Cylinders	Per each	160.00	$5.00	$800.00	$14.00	$2,240.00	$15.00	$2,400.00	$9.00	$1,440.00
Aggregate Sieve Analysis	Per each	10.00	$60.00	$600.00	$50.00	$500.00	$90.00	$900.00	$70.00	$700.00
Atterberg Limits	Per each	1.00	$45.00	$45.00	$75.00	$75.00	$90.00	$90.00	$64.00	$64.00
Permeability, Granular Soils	Per each	1.00	$225.00	$225.00	$275.00	$275.00	$290.00	$290.00	$320.00	$320.00
Permeability, Cohesive Soils	Per each	1.00	$275.00	$275.00	$325.00	$325.00	$425.00	$425.00	$320.00	$320.00
Field Technician Services										
Sample Pickup	Per each	1.00	$50.00	$50.00	$35.00	$35.00	$45.00	$45.00	$15.00	$15.00
Nuclear Density Gauge	Per ½ day	100.00	$25.00	$2,500.00	$20.00	$2,000.00	$20.00	$2,000.00	$30.00	$3,000.00
Nuclear Density Gauge	Per day	5.00	$40.00	$200.00	$40.00	$200.00	$40.00	$200.00	$45.00	$225.00
MATERIAL TESTING TOTAL COST				**$36,070.00**		**$39,140.00**		**$45,265.00**		**$47,116.00**
Soil Boring		**2021 Est.**								
Mobilization	Per each	5.00			$500.00	$2,500.00	$500.00	$2,500.00	$250.00	$1,250.00
Soil Boring	VF	150.00			$13.95	$2,092.50	$18.00	$2,700.00	$12.00	$1,800.00
Report	Per each	1.00			$1,000.00	$1,000.00	$1,100.00	$1,100.00	$1,200.00	$1,200.00
						$5,592.50		**$6,300.00**		**$4,250.00**

Bay Area Testing & Consulting, LLC

PROJECT:

REQUEST FOR PROPOSAL
SOIL TESTING SERVICES
2021 CONSTRUCTION
CITY OF DE PERE, WISCONSIN

CLIENT:

MR. ERIC RAKERS, P.E.
CITY ENGINEER

DATE:

NOVEMBER 18, 2020

Bay Area Testing & Consulting, LLC

3125 Birch Road, Suite B
Suamico, WI 54173
Telephone: 920/660-5246
Fax: 920/544-9693

November 18, 2020

Mr. Eric Rakers, P.E.
City Engineer
City of De Pere
925 South Sixth Street
De Pere, WI 54115-1199

Request for Proposal
Soil Testing Services
2021 Construction
City of De Pere, Wisconsin

Mr. Rakers,

Bay Area Testing & Consulting, LLC (BATC) has prepared this Request for Proposal for the City of De Pere 2021 Soil Testing Services. The attached "Request for Proposal" includes the information that was requested in the Request for Proposal (RFP). BATC has submitted two (2) bound copies of this proposal for your use.

Respectfully,
Bay Area Testing & Consulting, LLC

Jacob P. Franzmeier, P.E.
Owner / Geotechnical Engineer

cc: Chase Kuffel, P.E., Assistant City Engineer

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2021 CONSTRUCTION
CITY OF DE PERE

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1.0 INTRODUCTION

1.1 Proposing Firm

Bay Area Testing & Consulting, LLC (BATC) would like to extend our expression of interest to the Request for Proposal for the City of De Pere Soil Testing Services for the 2021 Construction. BATC is located at 3125 Birch Road, Suite B, Suamico, Wisconsin. Mr. Jacob Franzmeier, P.E., is an owner and will be representing BATC for this contract. The office telephone number, which is also Jacob's mobile phone number, is 920-660-5246.

Bay Area Testing & Consulting, LLC
3125 Birch Road, Suite B
Suamico, WI 54173
Phone: 920-660-5246
Fax: 920-544-9693
Email: jake@bayareatesting.com

I, Jacob P. Franzmeier, am authorized to represent Bay Area Testing & Consulting, LLC.

Jacob P. Franzmeier, P.E.
Owner / Geotechnical Engineer

11/18/2020
Date

1.2 Statement of Qualifications

In December, 2010, BATC was established in Green Bay, Wisconsin, to provide independent construction materials testing for various private, commercial, and municipal projects, along with Wisconsin Department of Transportation (WisDOT) projects. BATC is currently on the WisDOT list of qualified laboratories for concrete, soil, aggregate, and asphalt testing. BATC also participates in the AASHTO Materials Reference Laboratory (AMRL) Proficiency Sample Program for Coarse Aggregate. Since our staff has a wide variety of experience on projects throughout the state, our extensive knowledge and experience in soil, concrete, and asphalt field and laboratory testing results in exceptional quality control.

Further, our company goal is to provide accurate, detailed, and repeatable quality control results in a timely manner. Since all of our staff members have both extensive field and laboratory experience, we maintain that our test results are done both precisely and promptly, no matter who performs the testing, saving our clients both time and money.

All of our staff members are certified at different levels based on their experience and capabilities. Further, as an organization, we currently have certified personnel through the American Concrete Institute, the Wisconsin Department of Transportation Highway Technician Certification Program, and Troxler Laboratories. The following list contains the certifications and qualifications BATC employees currently maintain:

- Wisconsin DOT Certified PCC Technician – Level II
- Wisconsin DOT Certified PCC Technician – Level I
- Wisconsin DOT Certified ATTS Technician
- Wisconsin DOT Certified Aggregate Technician – Level I
- Wisconsin DOT Certified Grading Technician
- Wisconsin DOT Certified Aggregate Sampling Technician
- Wisconsin DOT Certified Concrete Strength Tester
- Wisconsin DOT Certified Nuclear Density Technician
- Wisconsin DOT Certified Asphalt Technician – Level ITP
- ACI Concrete Field Technician – Level I
- Soil Moisture/Density Operator – Troxler Electronics Labs, Inc.

2.0 PROJECT SCOPE OF SERVICES

We understand the City of De Pere is pursuing a qualified consulting firm to complete material testing services on an "as-needed" basis for the 2021 construction season under a fixed fee, open-ended contract. Our understanding of the scope of services includes but is not limited to the following:

- Earthwork Testing
- Subgrade Compaction
- Trench Compaction
- Crushed Aggregate Base Course Testing (Material and Compaction)
- Asphaltic Concrete Pavement Testing (Samples and Compaction)
- Concrete Testing
- Soil Borings
- Field Observation Related to Soil and/or Construction Conditions

BATC understands that the City of De Pere would like a firm that can provide the above listed scope of services in a timely and professional manner in compliance with industry standards, by certified technicians and engineers under the direct supervision of a Professional Engineer, licensed in the State of Wisconsin. Most test results will be submitted to the City within 24 hours, unless a further detailed analysis is needed to provide a more cost effective solution to the problem. All reports will be submitted in PDF format and paper copies will be provided, if requested.

2.1 Overview of Construction Materials Testing

BATC will provide construction materials field testing for the 2021 City of De Pere contract. BATC will be responsible for the concrete testing, soil and aggregate laboratory testing, soil and asphalt density testing, and asphalt sampling, as well as construction inspections and observations upon the City's request. For this contract, BATC will utilize subcontract services for some of the specialty laboratory testing services, if needed.

Some of the laboratory services that can be provided are: washed and unwashed sieve analysis, standard and modified proctors, Atterberg Limits, hydrometer testing, double hydrometer testing, percent material finer than the #200 sieve testing, fractured face count of coarse aggregate, specific gravity of fine and coarse aggregates, L.A. Abrasion, freeze-thaw soundness, sodium sulfate soundness, lightweight particles, organic content, organic impurities testing, compressive strength of concrete, mortar, and grout, flexural and splitting tensile strength of concrete, asphalt extraction and gradation including asphalt content, and determination of theoretical maximum density of bituminous concrete.

Some of the field testing services that can be provided are: slump, air content, temperature, unit weight, and yield of plastic concrete; soil bearing capacity verification; proof-rolling observations of subgrade soils; nuclear density testing of soil, base aggregate, and asphalt; concrete and asphalt coring and analysis; rebar inspection; mortar and grout testing; and concrete batch plant inspections, if requested.

The list of laboratory and field testing services that BATC listed above is not a complete list of tests that could be performed. As demand increases for a particular testing procedure, and as our company continues to grow, BATC evaluates our services on a case by case basis and determines whether or not to expand our services to meet the demand of the requested testing procedure.

2.2 City of De Pere Materials Testing Scope of Services

Prior to the start of each project for the City, BATC would like to obtain any available project plans and specifications, if allowed by the City contracts. If available, these plans and specifications can be submitted to us electronically. We have found with working in municipalities over the years, it is convenient for the field technicians to have project plans in case a situation arises wherein a City of De Pere inspector is not able to be on-site. During the peak of the construction season, we request a 24 hour courtesy call prior to on-site testing but in reality, we can typically make it on-site within 4 hours of being notified, and more times than not, sooner than 4 hours. BATC takes pride in reliable and timely service to our clients.

2.2.1 Earthwork, Subgrade and Trench Compaction, and Crushed Aggregate Base Course Testing Services

BATC field staff will provide base aggregate and soil sampling and testing, as requested, on projects throughout the City of De Pere. We will either obtain samples on-site after the material is delivered to the construction site or stockpiled on-site, or we will obtain samples from the pit or quarry using proper sampling methods. Further, we will provide test results for sieve analyses and proctor tests on granular soils typically within 24 hours of obtaining samples. However, when cohesive soils will be utilized for backfilling utility trenches or used for pond liners, proctor test results will typically be available within 36 hours of obtaining the sample because of the additional preparation time needed for cohesive soils.

After the completion of the laboratory testing and approval of the source by the City of De Pere, BATC will provide nuclear density testing on sub-base and base course, trench backfill, and/or structural fill materials. BATC will immediately notify the City of De Pere inspector of all test results before leaving the jobsite. If the inspector cannot be found on-site or by telephone, the City Project Manager will be notified prior to the technician's departure from the jobsite. Test results for compaction testing will be sent to the City of De Pere within 24 hours of our return to the laboratory.

2.2.2 Asphaltic Concrete Pavement Testing Services

During paving operations, BATC staff will provide on-site asphalt density testing and asphalt sampling on an as requested basis. Sampling of asphalt pavement may occur on-site or at the asphalt plant either by our qualified staff or the asphalt suppliers' staff, depending on the asphalt suppliers' insurance and liability restrictions. In either case, BATC personnel will be present during the sampling of the asphalt to ensure proper sampling techniques are followed. We typically require a 12 hour notice for any field sampling and testing, but will try to accommodate the schedule of either the City or asphalt paving contractor with a notice of 4 hours.

After sampling, BATC personnel will return the asphalt sample to our laboratory to perform testing. We are capable and our laboratory is certified to perform asphalt extraction and gradation analysis, including asphalt content, and theoretical maximum density of bituminous pavement. If further analysis is needed, such as determining the bulk density by use of gyratory compaction methods in the laboratory, we may have to employ a subcontractor to perform these services. However, we can determine bulk specific gravity of in-place compacted asphalt pavement from core samples from the roadway during construction, if needed. Test results for asphalt density testing will be provided within 48 hours of receiving the sample. Asphalt extraction and gradation and theoretical maximum density determination laboratory asphalt testing will be provided within 36 hours of receiving the sample.

2.2.3 Concrete Testing Services

Based on our past experience working with the City of De Pere, typically concrete testing and cylinders would be cast by BATC, but some may be cast by City of De Pere inspectors. When providing concrete testing services, BATC will conduct slump, air content, and temperature tests, and cast four (4) standard 6" x 12" concrete cylinders, unless directed otherwise. BATC will typically pick-up cylinders within 24 hours of cylinders being cast, but in no case will cylinders be in the field longer than 48 hours. We understand that the most critical time period for cylinders is within the first 48 hours of curing in the field. Therefore, we will do our best to

ensure all cylinders cast by BATC and the City of De Pere inspectors cure at the proper initial curing temperature and record maximum/minimum temperatures upon pick-up of the cylinder sets. If we notice that cylinders are curing too hot or too cold during the initial cure, we will immediately contact the City Project Manager and discuss methods to ensure proper curing methods. Test results for field testing will be reported to the City Inspector immediately after testing, with a written report sent to the City typically within 24 hours of testing. Compressive strength testing will be conducted at 7 and 28 days and reports will be sent to the City usually within 24 hours after the testing is completed. However, if concrete compressive strength does not meet the required 7-day or 28-day strength, BATC will immediately contact the City Project Manager to discuss the next course of action.

2.2.4 Soil Borings

Since we currently do not conduct or subcontract drilling services to provide soil borings, we will not be providing a price for the soil boring portion of this contract. However, in the future, we may provide prices for soil borings, if requested, on a case-by-case basis.

2.2.5 Construction Inspection and Observations

BATC will provide construction inspection and/or observations on an as requested basis throughout the 2021 construction season. We understand the scope may include but is not limited to: subgrade soil testing and observations in parking lot and building foundations, proof-rolling observations of either existing subgrade soils or compacted base course, pile driving observations, and structural concrete pour inspections and documentation. When observing and testing soils for foundations and parking lots, BATC follows the recommendations that are given in the geotechnical reports for the project. If a geotechnical report is not available for the project, BATC will provide our recommendation based on the soil conditions or refer back to the structural-engineer-of-record (SER) for recommendations concerning unsuitable soils. Further, based on the recommendations that are accepted, BATC will conduct the necessary field and laboratory testing to fulfill the intention of the specifications or

recommendations.

For structural concrete observations before and at the completion of concrete pours, BATC will provide documentation that the number, size, splice lengths and locations, and clear cover of the reinforcement steel match the reinforcement schedule prior to placement of concrete. If there is a deficiency in the reinforcement steel, BATC will immediately contact the project inspector or project engineer and the issue will be resolved prior to the placement of concrete. Further, if requested, BATC will also document the placement, orientation, and location of any structural bolt settings in accordance with the structural drawings. Also, BATC will ensure concrete placement is done in conformance with the most recent ACI and ASTM procedures for form work, perform mix design reviews, and review and recommend proper consolidation and curing techniques. Construction Inspection and/or Observation written reports will be available to the City within 48 hours of our return to the laboratory.

BATC can also provide concrete batch plant inspections, if requested by the City. BATC would travel to the concrete batch plant, perform the inspections in accordance with ACI 311.5 and document any deficiencies with the batch plant. These deficiencies would be documented during the inspection process and verbally reported to the City immediately following the inspection. The batch plant inspection report would be available to the City in writing within 24 hours of the completion of the inspection.

2.2.6 Additional Field and Laboratory Testing

BATC is capable and certified to perform a wide variety of specialty testing not typically requested on projects. Further, additional services include masonry testing and observations, sprayed applied fire-proofing testing, caisson inspections, moisture-vapor transmission testing, concrete and asphalt coring for thickness, concrete distress evaluations, smoke pencil testing of exterior building wall coverings, flexural and splitting tensile strength of concrete specimens, double hydrometer testing, and flat and/or elongated particle testing. Depending on what the circumstances are regarding the additional services, we will be able to perform the above testing

on an as-requested basis.

3.0 BATC KEY PERSONNEL AND ROLES

Jacob P. Franzmeier, P.E.
Professional Engineer/Staff Engineer/Field Operations Manager/Chief Quality Control Officer

Jacob will be the primary contact for the construction materials testing services for this contract. Jacob has over 15 years of experience in construction materials testing, site recommendations and trouble shooting, and geotechnical engineering. Jacob is the Field Operations Manager/Lab Supervisor of BATC. His duties include overseeing all operations of BATC from scheduling technicians to reviewing field reports. He is also BATC's Radiation Safety Officer and Chief Quality Control Officer for the WisDOT Laboratory Certification. Jacob will be the direct contact for this contract and will be coordinating the material testing, including concrete, asphalt, soil, base aggregate, and any other testing services needed for the City contract. He will also be attending all meetings that require our attendance as requested by the City. Further, he will also conduct field work involving engineering recommendations and inspections, and on occasion field materials testing, if needed or if immediate testing is requested by the City. Jacob is licensed in the State of Wisconsin as a Professional Engineer.

Henry P. Koch, CET
Senior Engineering Technician

Henry has over 25 years of experience as both a field and laboratory technician. His field experience includes concrete testing, soil and asphalt density testing, soil, aggregate, and asphalt sampling, subgrade soil observations and testing, proof-rolling observations, spray fire resistant material and intumescent fireproof testing, concrete coring, and water vapor transmission testing. His laboratory experience includes but is not limited to hardened concrete testing, soil and base aggregate sieve analysis, specific gravity of fine and coarse aggregates, WisDOT asphalt mix and quality testing, and many more. Henry is certified in all of the field and laboratory testing performed by BATC currently.

Matt Scriven
Senior Engineering Technician

Matt has over 10 years of experience as both a field and laboratory technician. His field experience includes concrete testing, soil and asphalt density testing, soil, aggregate, and asphalt sampling, subgrade soil observations and testing, proof-rolling observations, concrete coring, and many more. His laboratory experience includes, but is not limited to: hardened concrete testing, soil and aggregate sieve analysis, and many more. Matt is certified to perform all of the field and laboratory testing with the exception of the asphalt mix laboratory testing.

Austin Dier, CET
Engineering Technician

Austin has over 8 years of experience as both a field and laboratory technician. His field experience includes proof-rolling observations, concrete testing, soil, aggregate, and asphalt density testing, and aggregate sampling. His laboratory experience includes, but is not limited to: hardened concrete testing, soil and base aggregate sieve analysis, standard and modified proctor tests, and many more. Austin is certified to perform all of the field and laboratory testing with the exception of soil subgrade bearing capacity verification and asphalt mix laboratory testing.

Ethan Bornick, CET
Engineering Technician

Ethan has over 8 years of experience as both a field and laboratory technician. His field experience includes soil subgrade bearing capacity verification, proof-rolling observations, concrete testing, soil, aggregate, and asphalt density testing, and aggregate sampling. His laboratory experience includes, but is not limited: to hardened concrete testing, soil and base aggregate sieve analysis, standard and modified proctor tests, and many more. Ethan is certified to perform all of the field and laboratory testing with the exception of asphalt mix laboratory testing.

Justin VandenHeuvel, CET
Engineering Technician

Justin has almost 2 years of experience as both a field and laboratory technician. His field experience includes concrete testing, soil, aggregate, and asphalt density testing, and aggregate sampling. His laboratory experience includes, but is not limited: to hardened concrete testing, soil and base aggregate sieve analysis, standard and modified proctor tests, and many more. Justin is certified to perform all of the field and laboratory testing with the exception of asphalt mix laboratory testing.

Depending on the schedule for the day and the complexity of the City project, any of the above staff may be sent to the projects. However, a majority of the field testing will be performed by either a Senior Engineering Technician or an Engineering Technician. Further, if the project is complex and requires more extensive testing and observations, either a Senior Engineering Technician or a Staff Engineer would be scheduled to the project because of their experience. If a project would require a recommendation regarding either an alternative construction method or a change in design, a Staff Engineer or a Professional Engineer would be scheduled for that

particular case. Only in cases in which the City would need an immediate response to a project, any of the staff personnel could be scheduled to that project to ensure that the required testing is performed, especially if the testing is critical to the project schedule.

4.0 BATC ADDITIONAL INFORMATION

4.1 Project Response Time and Saturday Work

We understand in some cases project plans change and a quick response is required with very little notice. With our past experience on similar projects, especially working with time critical concrete pours, such as with the Wisconsin Department of Transportation, we recognize that at times the City of De Pere will need an immediate response. As stated previously, BATC takes pride in reliable and timely service. For instance, the office phone is always with the owner and field coordinator, Mr. Franzmeier, day and night, weekdays, and on the weekends. All phone calls for BATC run through one point of contact, ensuring that all scheduling gets to the technicians as quickly and efficiently as possible. If a situation would arise that requires immediate testing in the City of De Pere, a BATC staff member will almost always be there when needed or within a reasonable time limit, day or night, if requested. Also, based on previous year's project locations, we generally have multiple projects in or near the City of De Pere. With this many projects in the area, we will have more flexibility with our schedule and a more timely response if something is not scheduled and work needs to be performed. Typically, if Saturday work is expected for an upcoming weekend, we would ask to have a curtesy call prior to Friday to inform us. We understand that sometimes weekend work is unexpected and is usually last minute scheduling by the contractor, which we can typically accommodate.

4.2 BATC Approach

BATC's primary goal is to provide affordable quality control while emphasizing safety and team work. We have experience in almost all facets of the construction project, from soil assessments in the geotechnical phase to inspecting and testing construction materials during the construction phase. BATC, as a part of your construction team, is committed to the success of your projects. One of our goals as a smaller company is to achieve exceptional quality control on each project to ensure our client's satisfaction. We will assist both the project engineer and project inspector in the scheduling and management of the quality control by being proactive and we will be available anytime for questions you may have before, during, and after the completion of the project. Our success depends on the success of our clients. We strive to improve the quality control on projects in any way possible. Because most of our staff has worked with the City of De Pere in the past, we are familiar with most of the current City Public Works Staff and a majority of the operating procedures of the City.

5.0 PREVIOUS PROJECTS

BATC has performed construction materials testing on a wide variety of projects throughout the state in recent years. The following is a list of recent projects of similar nature that BATC was contracted to perform, a brief description of the services performed, and references for each of the contracts:

- 2011, 2016, 2019, and 2020 City of De Pere Construction Materials Testing Contract, De Pere, Wisconsin
  BATC performed the annual construction materials testing contract for the City of De Pere, which included but was not limited to: plastic concrete testing and concrete compressive strength testing on concrete curb and gutter, sidewalk, and pavement throughout the City of De Pere. We also performed soil and aggregate field and laboratory testing, including utility trench compaction testing, soil subgrade density testing, roadway base course density, sieve analyses and proctor testing. Further, we also performed asphalt density testing on various streets for this contract.
  Contracting Party: City of De Pere
  Project Contact: Chase K. Kuffel
  Contact Number: 920-339-4060

- Titletown Development Phase I and Phase II, Green Bay, Wisconsin
  BATC is currently performing all inspections and testing for the general contractor on a site development project including, but not limited to: soil subgrade bearing capacity verification, proof-rolling observations, over-excavation recommendations, plastic and hardened concrete testing, soil compaction testing, soil laboratory testing, frost checks, reinforcing steel observations, fireproofing inspections, and construction observations.
  Contracting Party: Sterling Development Group
  Project Contact: Adam Bickoff
  Contact Number: 201-207-9205

- Titletown – Bellin Clinic, Ashwaubenon, Wisconsin
  BATC performed all inspections and testing for the general contractor on the new orthopedic sports medicine clinic including but not limited to: soil subgrade bearing capacity verification, proof-rolling observations, over-excavation recommendations, reinforcing steel inspections and observations, plastic and hardened concrete testing, soil compaction testing, soil laboratory testing, and asphalt density testing.
  Contracting Party: Miron Construction Company
  Project Contact: Chad Theilman
  Contact Number: 920-585-3780

- City of Kaukauna – Project 1-17, 1-18, 1-19, 1-20, Kaukauna, Wisconsin
  BATC performed the construction materials testing contract for the City of Kaukauna Project 1-17, which included but was not limited to: plastic concrete testing and concrete compressive strength testing on concrete curb and gutter, sidewalk, and pavement on multiple streets downtown in the City of Kaukauna, Wisconsin. We also performed soil and aggregate field and laboratory testing, including utility trench compaction testing, soil roadway base course density, sieve analyses and proctor testing.
  Contracting Party: Vinton Construction Company
  Project Contact: Ron Raboine
  Contact Number: 920-682-0375

- Cedars Central Parkway Demolition, Grading, and Graveling – Phase I, Kimberly, Wisconsin
  BATC performed the construction materials testing contract for the Village of Kimberly, which included but was not limited to: approval of backfill material and building demolition and utility removal compaction testing for a new site development. We also performed soil and aggregate field and laboratory testing, including sieve analyses and proctor testing.
  Contracting Party: Peters Concrete Company
  Project Contact: Brian Bartels
  Contact Number: 920-494-3700

- Aurora Baycare Medical Center, Building Additions and Parking Lot Expansions, Green Bay, Wisconsin
  BATC performed all inspections and testing on the hospital building additions and parking lot expansions for the owner including but not limited to: soil subgrade bearing capacity verification, proof-rolling observations, over-excavation recommendations, construction inspections, plastic and hardened concrete testing, soil compaction testing, soil laboratory testing, asphalt density testing, and vapor barrier inspections.
  Contracting Party: Aurora Baycare Medical Center
  Project Contact: Barbara Johnson
  Contact Number: 920-288-4033

- Agropur Expansion and Renovations, Luxemburg and Weyauwega, Wisconsin
  BATC performed all inspections and testing for the general contractor on the cheese plant expansions and renovations including building additions, parking lot expansions, and wastewater treatment plant construction including, but not limited to: soil subgrade bearing capacity verification, proof-rolling observations, over-excavation recommendations, reinforcing steel inspections and observations, plastic and hardened concrete testing, soil compaction testing, soil laboratory testing, asphalt density testing.
  Contracting Party: Miron Construction Company
  Project Contact: Chad Theilman
  Contact Number: 920-585-3780

- Belmark Building Additions and Expansions on Multiple Buildings, De Pere, Wisconsin
  BATC performed all inspections and testing for the general contractor on multiple building and parking lot expansions to the plant including, but not limited to: soil subgrade bearing capacity verification, proof-rolling observations, over-excavation recommendations, plastic and hardened concrete testing, soil compaction testing, and soil laboratory testing.
  Contracting Party: The Boldt Company
  Project Contact: Tony Meeuwsen
  Contact Number: 920-450-3255

- Appleton Medical Center Hybrid OR Expansion, Appleton, Wisconsin
  BATC performed all inspections and testing for the general contractor on a hospital building expansion including, but not limited to: soil subgrade bearing capacity verification, over-excavation recommendations, plastic and hardened concrete testing, soil compaction testing, soil laboratory testing, frost checks, sprayed applied fireproof testing, reinforcing steel observations, and construction observations.
  Contracting Party: The Boldt Company
  Project Contact: Matt Peterson
  Contact Number: 920-225-6259

- Wrightstown Water Transmission Main Project, Brown County, Wisconsin
  BATC performed testing for the general contractor on a water transmission main project including, but not limited to: plastic and hardened concrete testing, soil compaction testing, soil laboratory testing, and asphalt density testing.
  Contracting Party: Carl Bowers and Sons Construction
  Project Contact: Bill Bowers
  Contact Number: 920-419-4950

- Aldon Station Infrastructure Construction, Village of Ashwaubenon, Wisconsin
  BATC performed testing for the general contractor on a mass fill / utility construction project including, but not limited to: hardened concrete testing, soil compaction testing, and soil laboratory testing.
  Contracting Party: Riverview Construction
  Project Contact: Matt Athey
  Contact Number: 920-609-1025

6.0 SUPPLEMENTAL FEE SCHEDULE

BATC FEE SCHEDULE 2021

Soil and Aggregate Laboratory Services:

1.	Mechanical Analysis of Soils, 3" to Fine Aggregate (ASTM C136)	$60.00/Each
2.	Mechanical Analysis of Soils, 3" to 6" (ASTM C136)	$110.00/Each
3.	Moisture Content of Soils (ASTM D2216)	$7.50/Each
4.	Percent Material Passing the #200 Sieve (ASTM D1140)	$40.00/Each
5.	Atterberg Limits (Liquid Limit, Plastic Limit, Plasticity Index) (ASTM D4318)	$45.00/Each
6.	Standard Proctor Test (ASTM D698)	$105.00/Each
7.	Modified Proctor Test (ASTM D1557)	$115.00/Each
8.	Hydrometer Test (ASTM D422)	$70.00/Each
9.	Dispersive Characteristics of Clay Soil by Double Hydrometer (ASTM D4221)	$170.00/Each
10.	Permeability of Granular Soils (ASTM D5084)	$225.00/Each
11.	Permeability of Cohesive Soils (ASTM D5084)	$275.00/Each
12.	Organic Content of Soils (D2974)	$40.00/Each
13.	Organic Impurities in Fine Aggregate (ASTM C40)	$30.00/Test
14.	Flat/Elongated Particles, Fractured Particles in Coarse Aggregate (ASTM D4791)	$25.00/Test
15.	Unit Weight of Aggregate (ASTM C29)	$30.00/Test
16.	Abrasion of Coarse Aggregate by Los Angeles Machine (ASTM C131)	$150.00/Test
17.	Soundness of Aggregate, Sodium or Magnesium Sulfate (ASTM C88)	$270.00/Test
18.	Freeze/Thaw Soundness of Aggregates (AASHTO T103)	$240.00/Test
19.	Fine Aggregate Specific Gravity (ASTM C128)	$65.00/Each
20.	Coarse Aggregate Specific Gravity (ASTM C127)	$65.00/Each
21.	Friable Particles in Aggregate (ASTM C142)	$60.00/Test
22.	Lightweight Pieces in Aggregate (ASTM C123)	$140.00/Test
23.	Visual Examination of Chert in Aggregate	$25.00/Test

Asphalt Laboratory Testing Services

24.	Extraction / Gradation of Bituminous Mixtures (ASTM D2172)	$175.00/Test
25.	Theoretical Maximum Specific Gravity (ASTM D2041)	$80.00/Test
26.	Bulk Specific Gravity of Cored Asphalt Specimens (ASTM D2726)	$90.00/Core

Laboratory Services and Equipment Rentals:

27.	Compressive Strength of Cylinders (ASTM C39)	$12.00/Each
28.	Flexural Strength of Concrete (ASTM C78)	$38.00/Each
29.	Splitting Tensile Strength of Cylindrical Concrete Specimens (ASTM C496)	$18.00/Each
30.	Handling Reserve Cylinders (ASTM C39)	$5.00/Each
31.	Trimming Non-Planar Concrete Cylinder Specimens (ASTM C42)	$20.00/Each
32.	Compressive Strength of 2" Mortar Cubes (ASTM C109)	$8.50/Each
33.	Compressive Strength of 3" x 3" x 6" Grout Prisms (ASTM C1019)	$9.50/Each
34.	Trimming, Capping, and Compressive Strength of Drilled Cores (ASTM C42)	$40.00/Each
35.	Case of Cylinder Molds	$28.00/Case
36.	Mileage	$0.30/Mile
37.	Nuclear Gauge Rental	$25.00/½ day: $40.00/day
38.	Cone Penetrometer Rental	$20.00/½ day: $35.00/day
39.	Coring Equipment Rental	$150.00/½day:$250.00/day
40.	Moisture Vapor Transmission (MVT) Test Kits (ASTM F1869)	$16.00/test kit
41.	Sample Pick-up from Quarry/Pit within 30 Miles of Green Bay	$50.00/Trip

Field Services Staff:

42.	Jacob Franzmeier, PE, Project Engineer	$80.00/hour
43.	Jacob Franzmeier, PE, Staff Engineer	$60.00/hour
44.	Henry Koch, CET, Senior Engineering Technician	$44.00/hour
45.	Matt Scriven, Senior Engineering Technician	$44.00/hour
47.	Austin Dier, Engineer Technician	$35.00/hour
48.	Ethan Bornick, Engineer Technician	$35.00/hour
49.	Justin VandenHeuvel, Engineer Technician	$35.00/hour
50.	Engineering Technician, Intern / Coop	$35.00/hour
51.	Administrative Assistant	$30.00/hour

Note: The prices included for this project will be in effect for the duration of the project and throughout the 2021 construction season. Further, if your project requires an additional test procedure to be performed that is not included on this fee schedule, feel free to contact our office for additional pricing. Any work on Saturday may be subject to an overtime rate of 1.5 times the personnel rate. Further, any work performed on Sunday may be subject to an overtime rate of 1.75 times the personnel rate. However, none of the laboratory testing methods and procedures will be subject to any increase in price.

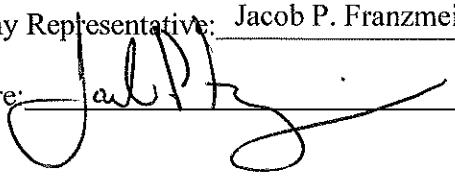
Proposed Fee Schedule

Company Name: Bay Area Testing & Consulting, LLC.

Company Address: 3125 Birch Road, Suite B

Company Address: Suamico, WI 54173

Company Representative: Jacob P. Franzmeier

Signature: 

CONSTRUCTION MATERIALS AND SOIL TESTING				
Item	**Unit**	**Estimated Quantity**	**Unit Price**	**Total**
Engineering Services				
Project Manager	HR	10	$60.00	$600.00
Project Engineer	HR	15	$80.00	$1,200.00
Staff Engineer	HR	50	$60.00	$3,000.00
Field Technician				
Senior Technician	HR	50	$44.00	$2,200.00
Technician	HR	400	$35.00	$14,000.00
Clerical	HR	50	$30.00	$1,500.00
Mileage	MI	5,000	$0.30	$1,500.00
Distance from Office to City of De Pere – 925 S. Sixth Street	MI	16		
Laboratory Testing Services				
Standard Proctor	EA	1	$105.00	$105.00
Modified Proctor	EA	10	$115.00	$1,150.00
Concrete Compression Test (Cylinder by Company)	EA	500	$12.00	$6,000.00
Concrete Compression Test (Cylinder by City)	EA	10	$12.00	$120.00
Handling of Backup Cylinders	EA	160	$5.00	$800.00
Aggregate Sieve Analysis	EA	10	$60.00	$600.00
Atterberg Limits	EA	1	$45.00	$45.00
Permeability, Granular Soils	EA	1	$225.00	$225.00
Permeability, Cohesive Soils	EA	1	$275.00	$275.00
Field Technician Services				
Sample Pickup	EA	1	$50.00	$50.00
Nuclear Density Gauge	½ DAY	100	$25.00	$2,500.00
Nuclear Density Gauge	DAY	5	$40.00	$200.00

SOIL BORING SERVICES				
Item	**Unit**	**Estimated Quantity**	**Unit Price**	**Total**
Soil Boring				
Mobilization	EA	5	N/A	N/A
Soil Boring	VF	150	N/A	N/A
Report	EA	1	N/A	N/A

PSI Proposal No.: PO-0094-3291
December 7, 2020

Professional Service Industries, Inc.
3009 Vandenbroek Road
Kaukauna, Wisconsin 54130
Phone: (920)-735-1200

Mr. Chase K. Kuffel, P.E.
City of De Pere
925 South Sixth Street
De Pere, Wisconsin 54115

Re: Proposal for Construction Material Testing Services
Proposed Soil Testing Services – 2021 Construction
De Pere, Wisconsin

Dear Mr. Kuffel,

In accordance with your request, Professional Service Industries, Inc. (PSI), an Intertek Company, is pleased to submit this proposal for providing construction materials testing services for the above referenced project. The purpose of the services will be to perform construction observations and materials testing, as part of a generalized evaluation of compliance with the project specifications, within the limitations of the authorized scope of our work. A brief description of our understanding of the project, scope of proposed work to be provided, proposed method of performance and fee is included in the following paragraphs.

Project Description

It is understood that the 2021 capital improvement program will include projects such as: new street construction, street reconstruction, street milling and overlays, sanitary sewer improvements, water system improvements, storm sewer improvements, concrete replacement (curb and gutter, sidewalk, driveway, street), concrete street construction/reconstruction, and new pond construction in the City of De Pere, Wisconsin. No additional design information was available at the time of proposal preparation.

Scope of Work

PSI can provide the following construction monitoring and testing services, when scheduled by your personnel:

Earthwork

- Observe site stripping to document that unsuitable fills, organic soils and existing building foundations, walls and slabs are removed and that exposed subgrades are suitable for placement of new fill or subbase materials.

- Perform moisture-density relationship testing in accordance with ASTM D698 (Standard Proctor) or ASTM D1557 (Modified Proctor) in order to determine the Proctor maximum dry density and optimum moisture content.
- Document in-place density of compacted fill soils in accordance with ASTM D2922 at the frequencies described in the project documents.

Concrete Observations and Testing

- Perform and document slump testing in accordance with ASTM C143 at the point of discharge for each set of cylinders taken.
- Perform and document air content testing in accordance with ASTM C231 for regular weight concrete.
- Record concrete and air temperature at the time cylinders are taken.
- Cast, cure and test cylinders in accordance with project specifications.
- Transport laboratory cured cylinders to our facilities to be placed in our curing tanks within 24 to 48 hours of casting.

Fees

Professional Service Industries, Inc. proposes to provide the above referenced services on a unit rate basis in accordance with the PSI's Standard Fee Schedule, and pursuant to the General Conditions, which are enclosed herein and considered part of this agreement. PSI's fees will be determined by the actual time expended by our personnel for this project and the amount of field and laboratory testing performed, and therefore directly dependent on the actual construction period, extent of our involvement, and the testing requirements outlined in the project specifications. We request that the field services be scheduled at least 24 hours in advance.

Closing

If this proposal is acceptable, please sign and return one (1) copy of this proposal to PSI. We also ask that you complete and return the attached Project Data Sheet so that we can properly establish your file. **PSI can proceed with services immediately; however, all reports will be withheld until we have received written authorization to proceed and a completed copy of the attached project data sheet.**

PSI appreciates the opportunity to offer its services to your project and looks forward to being of service to you. Meanwhile, if you have any questions or require additional information, please contact our office at (920) 735-1200.

Respectfully submitted,

PROFESSIONAL SERVICE INDUSTRIES, INC.

Electronic Copy
Patrick Bray
Branch Manager

Attachments: Proposal Acceptance Form
City of De Pere Fee Schedule
General Conditions

PROPOSAL ACCEPTANCE:

AGREED TO, THIS _____ **DAY OF** _____ **, 2020**

BY *(please print)*: _____

TITLE: _____

COMPANY: _____

SIGNATURE: _____

PROJECT INFORMATION:

1. Project Name: _____
2. Project Location: _____
3. Your Job No: _____ Purchase Order No.: _____
4. Project Manager: _____ Telephone No.: _____
5. Site Contact: _____ Telephone No.: _____
6. Distribution of Reports:

Name	Email Address	Report Type				
		Soils/ Foundation	Reinforcing Steel	Concrete	Structural Steel	Misc.

7. Invoicing Address: _____
_____
_____
Attn: _____

8. Other Pertinent Information Or Previous Subsurface Information Available:
_____

Proposed Fee Schedule

Company Name: Professional Service Industries, Inc.

Company Address: 3009 Vandenbroek Road

Company Address: Kaukauna, WI 54130

Company Representative: Patrick Bray

Signature: Patrick Bray Digitally signed by Patrick Bray DN: cn=Patrick Bray, o=Intertek-PSI, ou, email=patrick.bray@intertek.com, c=US Date: 2020.12.07 10:31:10 -06'00'

CONSTRUCTION MATERIALS AND SOIL TESTING				
Item	**Unit**	**Estimated Quantity**	**Unit Price**	**Total**
Engineering Services				
Project Manager	HR	10	$65.00	$650.00
Project Engineer	HR	15	$75.00	$1,125.00
Staff Engineer	HR	50	$65.00	$3,250.00
Field Technician				
Senior Technician	HR	50	$40.00	$2,000.00
Technician	HR	400	$35.00	$14,000.00
Clerical	HR	50	$25.00	$1,250.00
Mileage	MI	5,000	$0.50	$2,500.00
Distance from Office to City of De Pere – 925 S. Sixth Street	MI			
Laboratory Testing Services				
Standard Proctor	EA	1	$125.00	$125.00
Modified Proctor	EA	10	$145.00	$1,450.00
Concrete Compression Test (Cylinder by Company)	EA	500	$14.00	$7,000.00
Concrete Compression Test (Cylinder by City)	EA	10	$14.00	$140.00
Handling of Backup Cylinders	EA	160	$14.00	$2,240.00
Aggregate Sieve Analysis	EA	10	$50.00	$500.00
Atterberg Limits	EA	1	$75.00	$75.00
Permeability, Granular Soils	EA	1	$275.00	$275.00
Permeability, Cohesive Soils	EA	1	$325.00	$325.00
Field Technician Services				
Sample Pickup	EA	1	$35.00	$35.00
Nuclear Density Gauge	½ DAY	100	$20.00	$2,000.00
Nuclear Density Gauge	DAY	5	$40.00	200.00

SOIL BORING SERVICES				
Item	**Unit**	**Estimated Quantity**	**Unit Price**	**Total**
Soil Boring				
Mobilization	EA	5	$500.00	$2,500.00
Soil Boring	VF	150	$13.95	$2,092.50
Report	EA	1	$1,000.00	$1,000.00

GENERAL CONDITIONS

1. PARTIES AND SCOPE OF WORK: Professional Service Industries Inc. ("PSI") shall include said company or its particular division, subsidiary or affiliate performing the work. "Work" means the specific service to be performed by PSI as set forth in PSI's proposal, Client's acceptance thereof and these General Conditions. Additional work ordered by Client shall also be subject to these General Conditions. "Client" refers to the person or business entity ordering the work to be done by PSI. If Client is ordering the work on behalf of another, Client represents and warrants that it is the duly authorized agent of said party for the purpose of ordering and directing said work. Unless otherwise stated in writing, Client assumes sole responsibility for determining whether the quantity and the nature of the work ordered by the client is adequate and sufficient for Client's intended purpose. Client shall communicate these General Conditions to each and every third party to whom Client transmits any part of PSI's work. PSI shall have no duty or obligation to any third party greater than that set forth in PSI's proposal, Client's acceptance thereof and these General Conditions. The ordering of work from PSI, or the reliance on any of PSI's work, shall constitute acceptance of the terms of PSI's proposal and these General Conditions, regardless of the terms of any subsequently issued document.

2. TESTS AND INSPECTIONS: Client shall cause all tests and inspections of the site, materials and work performed by PSI or others to be timely and properly performed in accordance with the plans, specifications and contract documents and PSI's recommendations. No claims for loss, damage or injury shall be brought against PSI by Client or any third party unless all tests and inspections have been so performed and unless PSI's recommendations have been followed. Client agrees to indemnify, defend and hold PSI, its officers, employees and agents harmless from any and all claims, suits, losses, costs and expenses, including, but not limited to, court costs and reasonable attorney's fees in the event that all such tests and inspections are not so performed or PSI's recommendations are not so followed.

3. PREVAILING WAGES: This proposal specifically excludes compliance with any project labor agreement, labor agreement, or other union or apprenticeship requirements. In addition, unless explicitly agreed to in the body of this proposal, this proposal specifically excludes compliance with any state or federal prevailing wage law or associated requirements, including the Davis Bacon Act. It is agreed that no applicable prevailing wage classification or wage rate has been provided to PSI, and that all wages and cost estimates contained herein are based solely upon standard, non-prevailing wage rates. Should it later be determined by the Owner or any applicable agency that in fact prevailing wage applies, then it is agreed that the contract value of this agreement shall be equitably adjusted to account for such changed circumstance. Client will reimburse, defend, indemnify and hold harmless PSI from and against any liability resulting from a subsequent determination that prevailing wage regulations cover the Project, including all costs, fines and attorney's fees.

4. SCHEDULING OF WORK: The services set forth in PSI's proposal and Client's acceptance will be accomplished by PSI personnel at the prices quoted. If PSI is required to delay commencement of the work or if, upon embarking upon its work, PSI is required to stop or interrupt the progress of its work as a result of changes in the scope of the work requested by Client, to fulfill the requirements of third parties, interruptions in the progress of construction, or other causes beyond the direct reasonable control of PSI, additional charges will be applicable and payable by Client.

5. ACCESS TO SITE: Client will arrange and provide such access to the site and work as is necessary for PSI to perform the work. PSI shall take reasonable measures and precautions to minimize damage to the site and any improvements located thereon as the result of its work or the use of its equipment.

6. CLIENT'S DUTY TO NOTIFY ENGINEER: Client warrants that it has advised PSI of any known or suspected hazardous materials, utility lines and pollutants at any site at which PSI is to do work, and unless PSI has assumed in writing the responsibility of locating subsurface objects, structures, lines or conduits, Client agrees to defend, indemnify and save PSI harmless from all claims, suits, losses, costs and expenses, including reasonable attorney's fees as a result of personal injury, death or property damage occurring with respect to PSI's performance of its work and resulting to or caused by contact with subsurface or latent objects, structures, lines or conduits where the actual or potential presence and location thereof were not revealed to PSI by Client.

7. RESPONSIBILITY: PSI's work shall not include determining, supervising or implementing the means, methods, techniques, sequences or procedures of construction. PSI shall not be responsible for evaluating, reporting or affecting job conditions concerning health, safety or welfare. PSI's work or failure to perform same shall not in any way excuse any contractor, subcontractor or supplier from performance of its work in accordance with the contract documents. Client agrees that it shall require subrogation to be waived against PSI and for PSI to be added as an Additional Insured on all policies of insurance, including any policies required of Client's contractors or subcontractors, covering any construction or development activities to be performed on the project site. PSI has no right or duty to stop the contractor's work.

8. SAMPLE DISPOSAL: Test specimens will be disposed immediately upon completion of the test. All drilling samples will be disposed sixty (60) days after submission of PSI's report.

9. PAYMENT: The quantities and fees provided in this proposal are PSI's estimate based on information provided by Client and PSI's experience on similar projects. The actual total amount due to PSI shall be based on the actual final quantities provided by PSI at the unit rates provided herein. Where Client directs or requests additional work beyond the contract price it will be deemed a change order and PSI will be paid according to the fee schedule. Client shall be invoiced once each month for work performed during the preceding period. Client agrees to pay each invoice within thirty (30) days of its receipt. Client further agrees to pay interest on all amounts invoiced and not paid or objected to for valid cause in writing within said thirty (30) day period at the rate of eighteen (18) percent per annum (or the maximum interest rate permitted under applicable law), until paid. Client agrees to pay PSI's cost of collection of all amounts due and unpaid after thirty (30) days, including court costs and reasonable attorney's fees. PSI shall not be bound by any provision or agreement requiring or providing for arbitration of disputes or controversies arising out of this agreement, any provision wherein PSI waives any rights to a mechanics' lien, or any provision conditioning PSI's right to receive payment for its work upon payment to Client by any third party. These General Conditions are notice, where required, that PSI shall file a lien whenever necessary to collect past due amounts. Failure to make payment within 30 days of invoice shall constitute a release of PSI from any and all claims which Client may have, whether in tort, contract or otherwise, and whether known or unknown at the time.

10. ALLOCATION OF RISK: CLIENT AGREES THAT PSI'S SERVICES WILL NOT SUBJECT PSI'S INDIVIDUAL EMPLOYEES, OFFICERS OR DIRECTORS TO ANY PERSONAL LIABILITY, AND THAT NOTWITHSTANDING ANY OTHER PROVISION OF THIS AGREEMENT, CLIENT AGREES THAT ITS SOLE AND EXCLUSIVE REMEDY SHALL BE TO DIRECT OR ASSERT ANY CLAIM, DEMAND, OR SUIT ONLY AGAINST PSI.

SHOULD PSI OR ANY OF ITS EMPLOYEES BE FOUND TO HAVE BEEN NEGLIGENT IN THE PERFORMANCE OF ITS WORK, OR TO HAVE MADE AND BREACHED ANY EXPRESS OR IMPLIED WARRANTY, REPRESENTATION OR CONTRACT, CLIENT, ALL PARTIES CLAIMING THROUGH CLIENT AND ALL PARTIES CLAIMING TO HAVE IN ANY WAY RELIED UPON P SI' S WORK AGREE THAT THE MAXIMUM AGGREGATE AMOUNT OF THE LIABILITY OF PSI, ITS OFFICERS, EMPLOYEES AND AGENTS SHALL BE LIMITED TO $25,000.00 OR THE TOTAL AMOUNT OF THE FEE PAID TO PSI FOR ITS WORK PERFORMED ON THE PROJECT, WHICHEVER AMOUNT IS GREATER. IN THE EVENT CLIENT IS UNWILLING OR UNABLE TO LIMIT PS I' S LIABILITY IN ACCORDANCE WITH THE PROVISIONS SET FORTH IN THIS PARAGRAPH, CLIENT MAY, UPON WRITTEN REQUEST OF CLIENT RECEIVED WITHIN FIVE DAYS OF C LI E N T' S ACCEPTANCE HEREOF, INCREASE THE LIMIT OF PS I' S LIABILITY TO $250,000.00 OR THE AMOUNT OF P SI' S FEE PAID TO PSI FOR ITS WORK ON THE PROJECT, WHICHEVER IS THE GREATER, BY AGREEING TO PAY PSI A SUM EQUIVALENT TO AN ADDITIONAL AMOUNT OF 5% OF THE TOTAL FEE TO BE CHARGED FOR P SI' S SERVICES. THIS CHARGE IS NOT TO BE CONSTRUED AS BEING A CHARGE FOR INSURANCE OF ANY TYPE, BUT IS INCREASED CONSIDERATION FOR THE GREATER LIABILITY INVOLVED. IN ANY EVENT, ATTOR NEY'S FEES EXPENDED BY PSI IN CONNECTION WITH ANY CLAIM SHALL REDUCE THE AMOUNT AVAILABLE, AND ONLY ONE SUCH AMOUNT WILL APPLY TO ANY PROJECT.

NEITHER PARTY SHALL BE LIABLE TO THE OTHER IN CONTRACT, TORT (INCLUDING NEGLIGENCE AND BREACH OF STATUTORY DUTY) OR OTHERWISE FOR LOSS OF PROFIT (WHETHER DIRECT OR INDIRECT) OR FOR ANY INDIRECT, CONSEQUENTIAL, PUNITIVE, OR SPECIAL LOSS OR DAMAGE, INCLUDING WITHOUT LIMITATION LOSS OF PROFITS, REVENUE, BUSINESS, OR ANTICIPATED SAVINGS (EVEN WHEN ADVISED OF THEIR POSSIBILITY).

NO ACTION OR CLAIM, WHETHER IN TORT, CONTRACT, OR OTHERWISE, MAY BE BROUGHT AGAINST PSI, ARISING FROM OR RELATED TO P S I'S WORK, MORE THAN TWO YEARS AFTER THE CESSATION OF PSI'S WORK HEREUNDER, REGARDLESS OF THE DATE OF DISCOVERY OF SUCH CLAIM.

11. INDEMNITY: Subject to the above limitations, PSI agrees not to defend but to indemnify and hold Client harmless from and against any and all claims, suits, costs and expenses including reasonable attorney's fees and court costs to the extent arising out of PSI's negligence as finally determined by a court of law. Client shall provide the same protection to the extent of its negligence. In the event that Client or Client's principal shall bring any suit, cause of action, claim or counterclaim against PSI, the Client and the party initiating such action shall pay to PSI the costs and expenses incurred by PSI to investigate, answer and defend it, including reasonable attorney's and witness fees and court costs to the extent that PSI shall prevail in such suit.

12. TERMINATION: This Agreement may be terminated by either party upon seven days' prior written notice. In the event of termination, PSI shall be compensated by Client for all services performed up to and including the termination date, including reimbursable expenses.

13. EMPLOYEES/WITNESS FEES: PSI's employees shall not be retained as expert witnesses except by separate, written agreement. Client agrees to pay PSI's legal expenses, administrative costs and fees pursuant to PSI's then current fee schedule for PSI to respond to any subpoena. For a period of one year after the completion of any work performed under this agreement, Client agrees not to solicit, recruit, or hire any PSI employee or person who has been employed by PSI within the previous twelve months. In the event Client desires to hire such an individual, Client agrees that it shall seek the written consent of PSI and shall pay PSI an amount equal to one- half of the employee's annualized salary, without PSI waiving other remedies it may have.

14. FIDUCIARY: PSI is not a financial advisor, does not provide financial advice or analysis of any kind, and nothing in our reports can create a fiduciary relationship
between PSI and any other party.

15. RECORDING: Photographs or video recordings of the Client's own project may be taken by and used for the Client's own internal purposes. Photographs or video recordings may not be used for marketing or publicity or distributed to a third party or otherwise published without PSI's prior review and consent in writing. Taking photographs of other Clients' samples, test setups, or facilities, or recording in any manner any test specimen other than the test specimen related to the Client's project is prohibited; and the Client agrees to hold in strict confidence and not use any proprietary information disclosed either advertently or inadvertently. The Client shall defend, hold harmless, and indemnify PSI for any breach of this clause.

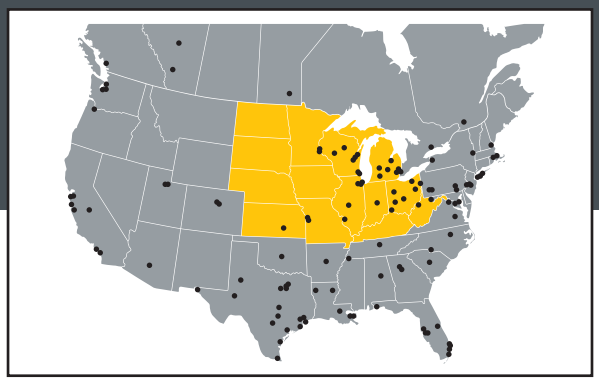
16. CHOICE OF LAW AND EXCLUSIVE VENUE: All claims or disputes arising or relating to this agreement shall be governed by, construed, and enforced in accordance with the laws of Illinois. The exclusive venue for all actions or proceedings arising in connection with this agreement shall be either the Circuit Court in Cook County, Illinois, or the Federal Court for the Northern District of Illinois.

17. PROVISIONS SEVERABLE: The parties have entered into this agreement in good faith, and it is the specific intent of the parties that the terms of these General Conditions be enforced as written. In the event any of the provisions of these General Conditions should be found to be unenforceable, it shall be stricken, and the remaining provisions shall be enforceable.

18. ENTIRE AGREEMENT: This agreement constitutes the entire understanding of the parties, and there are no representations, warranties or undertakings made other than as set forth herein. This agreement may be amended, modified or terminated only in writing, signed by each of the parties hereto.

BUILDING & CONSTRUCTION CENTRAL REGION

ASSURANCE, TESTING, INSPECTION, AND CERTIFICATION FOR THE BUILT ENVIRONMENT

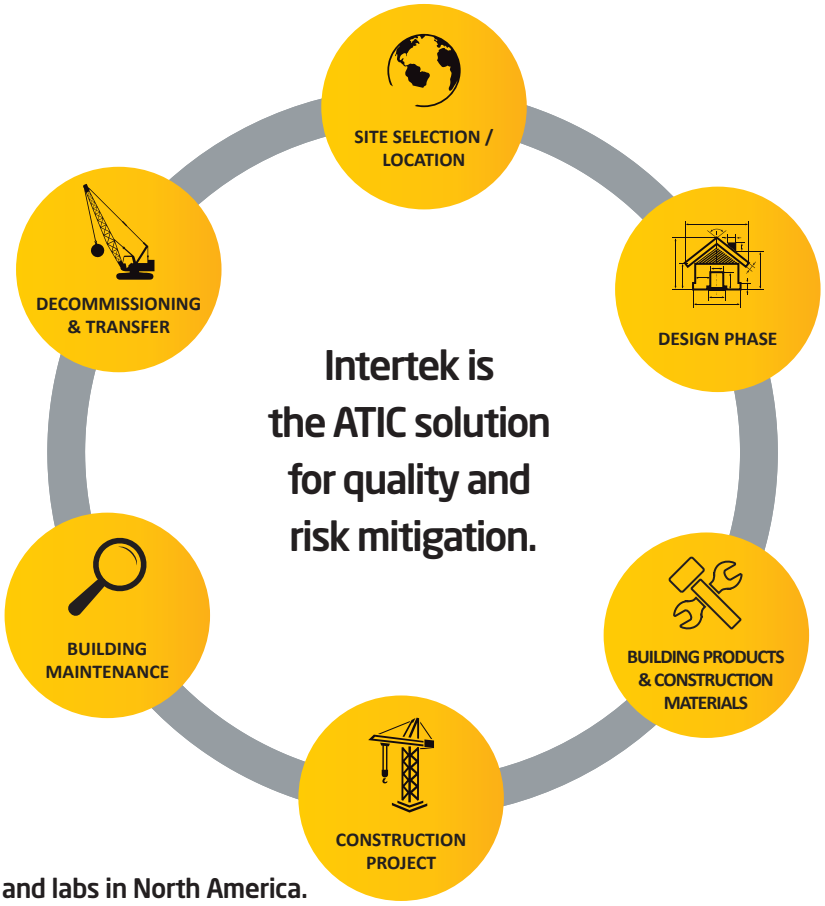


Market Access. Risk Mitigation. Total Assurance.

Leverage the building, engineering, and construction market leader for all of your building product and construction and infrastructure projects. As the only firm with the ability to offer a full-suite of product-related testing and certification capabilities, and project-related assurance, testing, inspection, and consulting services, we bring customers a level of capabilities unparalleled in the industry. Intertek is your one solution for faster and more cost effective access to domestic and international markets.

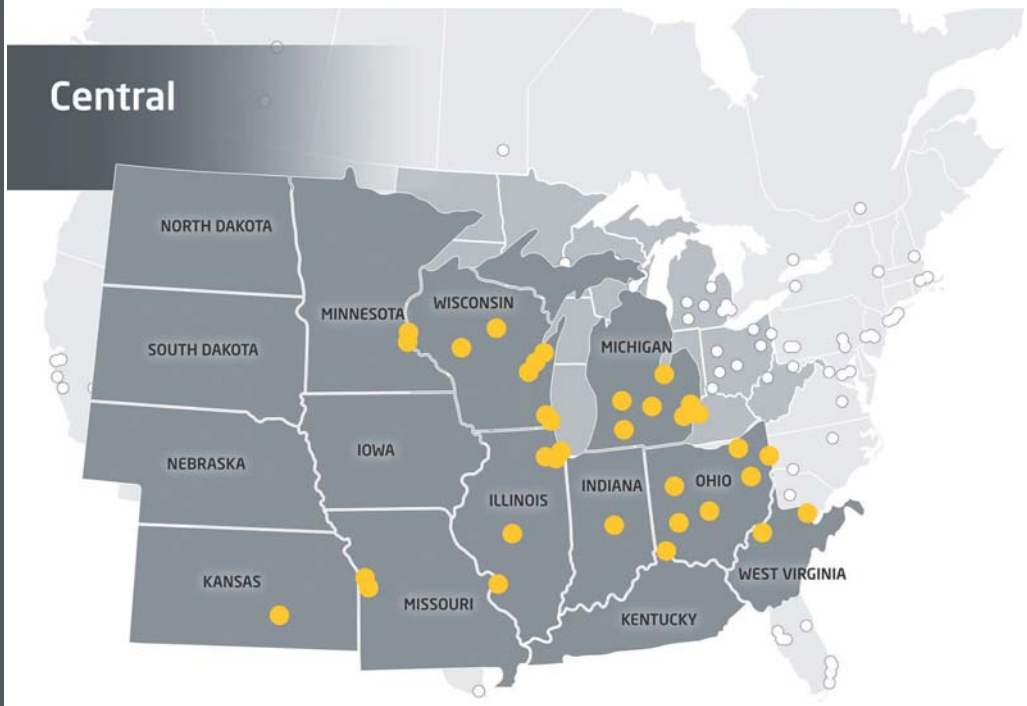
Services Throughout the Entire Project Lifecycle

Every project is unique, from its location to the regulatory code it must follow to the methods of construction it undergoes. With services that span the entirety of the construction lifecycle, Intertek is your partner from ground breaking to the demolition ball.



Global company. Local presence with over 100 offices and labs in North America.

+1 800 967 5352
icenter@intertek.com
intertek.com/building



Our services include:

Building Science Solutions - Assessing and identifying building system deficiencies and potential problems to assure minimized project risk.

Construction Materials Testing & Engineering - From on-site to in-lab testing of construction materials (concrete, soil, asphalt, etc.), we can ensure compliance and material quality.

Environmental Services - Assessing and providing solutions to a variety of regulatory (local or national) environmental needs.

Field Testing & Mock Up - Testing products and systems in the field or at our labs to ensure their performance before completing the construction project.

Geotechnical Engineering - Testing, sampling, analyzing, and consulting of a variety of subsurface materials to understand their interaction with the structure.

Industrial Hygiene - Surveying, assessing, and monitoring the indoor environment to mitigate associated human health issues.

Non-Destructive Testing - Leverage our expertise to evaluate a material without destroying its usefulness.

Specialty Testing & Engineering - Regardless of your material, testing, or need, we offer a range of specialty testing and engineering solutions.

Built on legacy

Intertek's Building & Construction division stands on the shoulders of giants. Our history of innovation, growth, and expanded services comes from a legacy of leading industry organizations whose spirit and culture continue to drive our desire to serve our clients ever better.

Pat Bray
Branch Manager
920-735-1200
patrick.bray@intertek.com

Brian Olesen, PE
Business Development Manager
920-202-6653
brian.olesen@intertek.com

Intertek-PSI
3009 Vandenbroek Road
Kaukauna, WI 54130

+1 920-735-1200

AMERICAN ENGINEERING TESTING, INC.

CONSULTANTS
· ENVIRONMENTAL
· GEOTECHNICAL
· MATERIALS
· FORENSICS

December 4, 2020

Mr. Eric Rackers, P.E.
City Engineer, City of De Pere

City of De Pere
925 South Sixth Street
De Pere, Wisconsin 54115

RE: Proposal for Geotechnical Services/Construction Materials Consulting
2021 Construction Season
City of De Pere

Dear Mr. Rackers:

On behalf of American Engineering Testing Inc. (AET) we are pleased to submit our proposal for geotechnical services and construction materials consulting for 2021. We are submitting the proposal in response to your Request for Proposal dated November 18, 2020.

Our project team strives to function as an extension of our clients through close cooperation and understanding of their specific needs and objectives. Our staff will work closely with you over the next year to assist the City in meeting your objectives and goals regarding construction materials and geotechnical services.

We look forward to providing consulting services to you.

Sincerely,
American Engineering Testing, Inc.

Zachary Kaup
Project Manager

Enclosures

AMERICAN ENGINEERING TESTING, INC.

Proposal for Material Testing Services
City of De Pere – 2021

Firm and Firm Representation

American Engineering Testing, Inc.
3194 Market Street, Suite D
Green Bay, Wisconsin 54304
www.amengtest.com
Phone: (920) 347-1286

I, Zachary P. Kaup, hereby certify that I am entitled to represent the firm.

December 4, 2020

Zachary P. Kaup
Project Manager

General Information

AET is a geotechnical and material testing engineering firm licensed to provide engineering services by the State of Wisconsin Attorney General (License No. 2832-11). AET currently operates 17 offices and has a staff of over 400 individuals across the Upper Midwest. In Wisconsin, AET operates out of three offices; Green Bay, Wausau, and Chippewa Falls. The services for the 2021 City of De Pere Material Testing contract will be provided from our office in Green Bay.

Statement of Qualification

AET is an employee-owned corporation providing geotechnical, environmental, materials and forensics consulting and testing services to public and private sector clients in a broad spectrum of industries. AET has also provided professional consulting services to municipalities over the Upper Midwest for over 30 years. We have worked as the City of Green Bay's construction materials testing consultant since 2012.

Our staff is supported by a strong commitment to keep pace with advancing technology, and is equipped with a full array of computer, testing, and data gathering equipment, all linked by an extensive computer network.

Our staff demonstrates their personal and professional commitment through involvement in community groups, professional organizations, and the organizations that support growth and development of technology in the engineering and planning professions.

Project Description

The City of De Pere is planning capital improvements throughout 2021. Based on our experience and our review of the Request For Proposal (RFP), we understand the construction materials testing and geotechnical services programs generally covers the following services:

- Backfill Testing – Testing backfill for sewer/water trenches, roadway construction, and structural fill. These tests will be performed on an on-call basis and could include sieve analysis, laboratory Proctor tests, and field density tests.

- Subbase and Base Course Testing – This service is performed on an on-call basis and could include sieve analysis, laboratory Proctor tests, and field density tests.

- Construction Inspection/Observation – This work may include review of subgrade soils exposed for pavement or building foundations, observation of proof rolling operations, pile driving inspection, and inspection prior to and during structural concrete placements. This work will be on an as-needed basis.

- Concrete Testing – This service may consist of:

    1. Concrete testing during placement as requested. Work shall be performed by an ACI Certified Concrete Technician (and/or WisDOT PCCTech I) and shall consist of casting cylinders, slump tests, air content, concrete temperature, and visual observation of placement.

    2. Compressive strength testing of concrete cylinders at 7 and 28 days or as requested.

    3. Compressive strength testing of masonry and mortar/grout cubes.

    4. Ready-mix concrete batch plant inspections.

- Asphalt Pavement Testing – This service may consist of asphalt extraction and asphalt content tests, and sieve analysis of aggregate for asphalt pavement samples to check the material conforms with the project specifications. Other related services may be requested to include; laboratory Marshall density testing, field density testing, and air void analysis. The frequency of testing will vary on a project-by-project basis and will be as requested.

AMERICAN ENGINEERING TESTING, INC.

- Specialty Testing and Consulting

    1. Ground Penetrating Radar (GPR) – AET can provide the City with GPR services to locate in-slab concrete reinforcement, including post-tension cables.

    2. Professional Consulting – AET staff can meet with City staff, aid with training, and provide support in staff development. AET also has professional staff with years of experience and can consult on a wide range of construction material products and geotechnical matters.

    3. Structural Steel Testing – This service consists on non-destructive testing of welds and bolted connections on existing and new structural components. We also provide inspection/testing of shop fabrication. The frequency of testing would vary on a project-by-project basis and will be as requested.

Project Experience and References

- Contacts: Ms. Jennifer McCartney
  City of Green Bay
  Green Bay, Wisconsin
  (920) 448-3093

  Ms. Kristin Romanowicz
  (920) 265-9638

  2012-2020 Construction Materials Testing – City of Green Bay, Wisconsin

- Contact: Mr. Sean Gehin
  Village of Allouez
  Green Bay, Wisconsin
  (920) 448-2802

  2019-2020 Field and Laboratory Quality Control Testing – Village of Allouez, Wisconsin

Key Personnel

Our laboratory is Wisconsin DOT-qualified and our materials engineers and technicians are certified by agencies such as the American Concrete Institute (ACI), the American Welding Society (AWS), and the Wisconsin Highway Technician Certification program for aggregate, concrete, soil, and asphalt testing as well as concrete and asphalt mix design.

Laboratory and field testing will be performed by our staff of qualified technicians. Field testing and sample/cylinder pick-ups would be performed by technicians who are available at the time.

AMERICAN ENGINEERING TESTING, INC.

The following is a list of our key Green Bay office personnel and titles. AET billing falls under engineer and technician categories based on title. Billing rates are provided in the fee schedule located on pages 7 and 8 of this proposal.

Andrew Walters, P.E. – Manager / Engineer
Zachary Kaup – Project Manager / Sr. Engineering Technician
Jonathan Humphrey – Engineering Technician II
Joseph Bittner – Engineering Technician II
Glenn Dionne, CWI – Sr. Engineering Technician

Subcontractors

For the services under this contract, AET will not markup subcontracting costs. At this time, no subcontracting services are expected to be needed. If a City project would require services we do not generally perform, we would obtain quotes for these services and present them to the City for approval.

Additional Services

In addition to the services described in the RFP, AET also offers the following non-routine engineering services.

Ground Penetrating Radar – Pavement and Forensic Analysis

Ground Penetrating Radar (GPR) offers a non-destructive means of pavement thickness analysis without coring or probing. GPR is a pulse-echo method for measuring depths where material types change. With GPR we can determine the thickness of existing pavement conditions, depth to utilities, and depth to reinforcing steel.

Falling Weight Deflectometer

The Falling Weight Deflectometer (FWD) is a cost-effective method for the evaluation of pavement and pavement subgrade parameters. The pavement, base, and subgrade response data obtained is utilized in AASHTO's most recent, Mechanistic-Empirical Pavement Design procedures for design of new pavement structures and rehabilitation of existing pavement structures. It is typically used in conjunction with GPR and selective soil borings.

Vibration Monitoring

AET has self-recording seismographs to monitor the ground and structure vibrations from construction operations (pile driving, pavement demolition, soil compaction) and traffic on pavement. With our ReMi micro seismic equipment we can determine the shear wave velocity in soil and use this parameter to calculate the dynamic shear modulus (G) and settlement of structures.

Petrographic Analysis

Petrographic Analysis allows us to identify the reasons of problems with concrete, such as; alkali-silica reaction (ASR), alkali carbonate reaction (ACR), cracking, delamination, low strength, spalling, pop-outs, and fire damage. We can also determine the cement content and water-cement ratio at the time of placement of cured concrete.

On-Call Approach

Our staff consists of engineers, technicians, and administrative assistants. This diverse staff offers the City of De Pere a degree of flexibility and versatility for City projects. Based on our experience, we understand construction schedules are constantly changing and pride ourselves on being able to meet the City's needs. The Public Works and Engineering Department staff will be encouraged to call one person, Zach Kaup, for all scheduling needs.

Upon initial contact, we will match up the City's response needs with appropriate personnel. The selected personnel will come equipped with personal protective equipment, field instruments and testing equipment. With our office located on the City of Green Bay's southwest side near HWY's 41 and 172, we are within minutes of any project in the City of De Pere.

We will be able to respond to requests for testing services relatively quickly, depending on technician availability. We request the City give as much notice as possible when requesting field testing or sampling. We typically consider a minimum 24-hour notice to be reasonable during the height of the construction season.

Rates

The attached rates presented are portal-to-portal with expenses and equipment rentals being additional. AET provides additional services not listed here; we appreciate any request for additional services and can provide pricing for those services upon request.

Please note, overtime rate for personnel is charged plus 25% for over 8 hours (single day) or Saturday; and at personnel rate plus 50% for work Sundays and legal holidays.

The unit prices provided will be in effect through the contract duration, December 31, 2021.

Turn-Around / Reports

Standard laboratory testing turn-around varies based on the requested test. Most of the testing requested by the City can be completed within 48 hours.

AET provides verbal test results on site to the City's designated representative, and if approved, directly to the contractor. AET will prepare a Daily Field Report (DFR) documenting attendance at a given project and detailing the tasks performed. A typed DFR will be submitted to the City along with field data collected. Laboratory test reports will be prepared as tests are completed. AET reports are distributed in electronic format (PDF) through our online Construction Hive. The Construction Hive is a personalized database an assigned user has control of to search, forward, download, or print selected reports.

Terms and Conditions

The terms and conditions will be per the Agreement for Services between the City of De Pere and American Engineering Testing, Inc

See our 'On-Call Approach' section for discussion on scheduling services.

Construction Safety

The contractors on the City project must provide labor and facilities for safe access to the work areas to be tested or observed. AET will not be held responsible for injuries to AET personnel or others due to unsafe site conditions, improper operation of equipment by contractors, or lack of safe access to test locations.

The contractors must comply with the latest OSHA regulations for trench excavation and safety, and general construction site safety. Their regulations require a contractor to assign a "competent person" on the site during trenching operations to determine safe slopes for excavations. AET cannot direct the contractors' personnel or work, and we cannot assume the responsibility for safety.

AMERICAN ENGINEERING TESTING, INC.

Acceptance

Please indicate your acceptance of this proposal by endorsing one the enclosed copies and returning it to us.

If you have questions regarding this proposal, please contact us.

Sincerely,

American Engineering Testing, Inc.

Zachary Kaup
Project Manager

Attachments: Proposed Fee Schedule

PROPOSAL ACCEPTED BY:

Signature: _____

Printed Name: _____

Title: _____

Date: _____

Proposed Fee Schedule

Company Name: American Engineering Testing, Inc.

Local Office Address: 3194 Market Street, Suite D, Green Bay, WI 54304

Corporate Office Address: 550 Cleveland Avenue North, St. Paul, MN 55114

Company Representative: Zach Kaup – Project Manager

Signature:

CONSTRUCTION MATERIALS AND SOIL TESTING				
Item	**Unit**	**Estimated Quantity**	**Unit Price**	**Total**
Engineering Services				
Project Manager	HR	10	$90.00	$1,100.00
Project Engineer	HR	15	$90.00	$1,650.00
Staff Engineer	HR	50	$90.00	$5,500.00
Field Technician				
Senior Technician	HR	50	$65.00	$3,250.00
Technician	HR	400	$45.00	$18,000.00
Clerical	HR	50	$35.00	$1,750.00
Mileage	MI	5,000		
Distance from Office to City of De Pere – 925 S. Sixth Street	MI	1.7		
Laboratory Testing Services				
Standard Proctor	EA	1	$115.00	$115.00
Modified Proctor	EA	10	$140.00	$1,400.00
Concrete Compression Test (Cylinder by Company)	EA	500	$15.00	$7,500.00
Concrete Compression Test (Cylinder by City)	EA	10	$15.00	$150.00
Handling of Backup Cylinders	EA	160	$15.00	$2,400.00
Aggregate Sieve Analysis	EA	10	$90.00	$900.00
Atterberg Limits	EA	1	$90.00	$90.00
Permeability, Granular Soils	EA	1	$290.00	$290.00
Permeability, Cohesive Soils	EA	1	$425.00	$425.00
Field Technician Services				
Sample Pickup	EA	1	$45.00	$45.00
Nuclear Density Gauge	½ DAY	100	$20.00	$2,000.00
Nuclear Density Gauge	DAY	5	$40.00	$200.00

SOIL BORING SERVICES				
Item	**Unit**	**Estimated Quantity**	**Unit Price**	**Total**
Soil Boring				
Mobilization	EA	5	$500.00	$2,500.00
Soil Boring	VF	150	$18.00	$2,700.00
Traffic Control Requiring Flaggers	HR	N/A	$175.00	---
Report	EA	1	$1,100.00	$1,100.00

ECS MIDWEST, LLC
"Setting the Standard for Service"
Geotechnical • Construction Materials • Environmental • Facilities

December 7, 2020

Mr. Chase Kuffel
Assistant City Engineer
City of De Pere
925 S. Sixth Street
De Pere, WI 54115

ECS Proposal No: 59:3127

Re: Soil Testing Services – 2021 Construction
City of De Pere, Wisconsin

Mr. Kuffel:

ECS Midwest, LLC appreciates the opportunity to develop our relationship with the City of De Pere by providing geotechnical engineering and construction materials consulting services to support your 2021 projects. We feel ECS has the requisite capabilities, knowledge, and resources to successfully perform the City of De Pere's geotechnical and construction materials consulting services. By choosing ECS to perform consulting services for your projects in 2021, you will be working with a trusted partner who is very knowledgeable of your construction practices, methods, and specifications.

ECS brings to your projects a depth and quality of resources typically found in a large national firm combined with the personalization of service delivery and flexibility of a small local firm. These attributes in conjunction with our ability to tailor quality and risk management methodology provides you with a strong value proposition that maximizes your probability of success and minimizes your risk.

We look forward to working with you on your projects. Please note that the attached "Proposed Fee Schedule" and "TERMS AND CONDITIONS OF SERVICE" are a part of this proposal. Should you have any questions regarding this letter, attached rates, or would like to schedule our services, please contact myself or Mr. Mark King in our Green Bay office at (920) 347-9040.

Respectfully submitted,

Troy Vetort, P.E.
Construction Materials Department Manager

Proposed Fee Schedule

Company Name: ECS Midwest, LLC

Company Address: 1280 Parkview Road

Company Address: Green Bay, WI 54304

Company Representative: Troy Vetort, P.E.

Signature:

CONSTRUCTION MATERIALS AND SOIL TESTING				
Item	**Unit**	**Estimated Quantity**	**Unit Price**	**Total**
Engineering Services				
Project Manager	HR	10	$65.00	$650.00
Project Engineer	HR	15	$120.00	$1,800.00
Staff Engineer	HR	50	$95.00	$4,750.00
Field Technician				
Senior Technician	HR	50	$50.00	$2,500.00
Technician	HR	400	$45.00	$18,000.00
Clerical	HR	50	$35.00	$1,750
Mileage	MI	5,000	$0.65	$3,250
Distance from Office to City of De Pere – 925 S. Sixth Street	MI	4		
Laboratory Testing Services				
Standard Proctor	EA	1	$132.00	$132.00
Modified Proctor	EA	10	$150.00	$1,500.00
Concrete Compression Test (Cylinder by Company)	EA	500	$13.00	$6,500.00
Concrete Compression Test (Cylinder by City)	EA	10	$20.00	$200.00
Handling of Backup Cylinders	EA	160	$9.00	$1,440.00
Aggregate Sieve Analysis	EA	10	$70.00	$700.00
Atterberg Limits	EA	1	$64.00	$64.00
Permeability, Granular Soils	EA	1	$320.00	$320.00
Permeability, Cohesive Soils	EA	1	$320.00	$320.00
Field Technician Services				
Sample Pickup	EA	1	$15.00	$15.00
Nuclear Density Gauge	½ DAY	100	$30.00	$3,000.00
Nuclear Density Gauge	DAY	5	$45.00	$225.00

SOIL BORING SERVICES				
Item	**Unit**	**Estimated Quantity**	**Unit Price**	**Total**
Soil Boring				
Mobilization	EA	5	$250.00	$1,250.00
Soil Boring	VF	150	$12.00	$1,800.00
Report	EA	1	$1,200.00	$1,200.00

ECS MIDWEST, LLC
TERMS AND CONDITIONS OF SERVICE

The professional services (the "Services") to be provided by ECS MIDWEST, LLC ["ECS"] pursuant to the Proposal shall be provided in accordance with these Terms and Conditions of Service ("Terms"), including any addenda as may be incorporated or referenced in writing shall form the Agreement between ECS and Client.

1.0 INDEPENDENT CONSULTANT STATUS - ECS shall serve as an independent professional consultant to CLIENT for Service on the Project, identified above, and shall have control over, and responsibility for, the means and methods for providing the Services identified in the Proposal, including the retention of Subcontractors and Subconsultants

2.0 SCOPE OF SERVICES - It is understood that the fees, reimbursable expenses and time schedule defined in the Proposal are based on information provided by CLIENT and/or CLIENT'S contractors and consultants. CLIENT acknowledges that if this information is not current, is incomplete or inaccurate, if conditions are discovered that could not be reasonably foreseen, or if CLIENT orders additional services, the scope of services will change, even while the Services are in progress.

3.0 STANDARD OF CARE

3.1 **In fulfilling its obligations and responsibilities enumerated in the Proposal, ECS shall be expected to comply with and its performance evaluated in light of the standard of care expected of professionals in the industry performing similar services on projects of like size and complexity at that time in the region (the "Standard of Care"). Nothing contained in the Proposal, the agreed-upon scope of Services, these Terms and Conditions of Service or any ECS report, opinion, plan or other document prepared by ECS shall constitute a warranty or guaranty of any nature whatsoever.**

3.2 CLIENT understands and agrees that ECS will rely on the facts learned from data gathered during performance of Services as well as those facts provided by the CLIENT. CLIENT acknowledges that such data collection is limited to specific areas that are sampled, bored, tested, observed and/or evaluated. Consequently, CLIENT waives any and all claims based upon erroneous facts provided by the CLIENT, facts subsequently learned or regarding conditions in areas not specifically sampled, bored, tested, observed or evaluated by ECS.

3.3 If a situation arises that causes ECS to believe compliance with CLIENT'S directives would be contrary to sound engineering practices, would violate applicable laws, regulations or codes, or will expose ECS to legal claims or charges, ECS shall so advise CLIENT. If ECS' professional judgment is rejected, ECS shall have the right to terminate its Services in accordance with the provisions of Section 25.0, below.

3.4 If CLIENT decides to disregard ECS' recommendations with respect to complying with applicable Laws or Regulations, ECS shall determine if applicable law requires ECS to notify the appropriate public officials. CLIENT agrees that such determinations are ECS' sole right to make.

4.0 CLIENT DISCLOSURES

4.1 Where the Scope of Services requires ECS to penetrate a Site surface, CLIENT shall furnish and/or shall direct CLIENT'S consultant(s) or agent(s) to furnish ECS information identifying the type and location of utility lines and other man-made objects known, suspected, or assumed to be located beneath or behind the Site's surface. ECS shall be entitled to rely on such information for completeness and accuracy without further investigation, analysis, or evaluation.

4.2 "Hazardous Materials" shall include but not be limited to any substance that poses or may pose a present or potential hazard to human health or the environment whether contained in a product, material, by-product, waste, or sample, and whether it exists in a solid, liquid, semi-solid or gaseous form. CLIENT shall notify ECS of any known, assumed, or suspected regulated, contaminated, or other similar Hazardous Materials that may exist at the Site prior to ECS mobilizing to the Site.

4.3 If any Hazardous Materials are discovered, or are reasonably suspected by ECS after its Services begin, ECS shall be entitled to amend the scope of Services and adjust its fees to reflect the additional work or personal protective equipment and/or safety precautions required by the existence of such Hazardous Materials.

5.0 INFORMATION PROVIDED BY OTHERS - CLIENT waives, releases and discharges ECS from and against any claim for damage, injury or loss allegedly arising out of or in connection with errors, omissions, or inaccuracies in documents and other information in any form provided to ECS by CLIENT or CLIENT's agents, contractors, or consultants, including such information that becomes incorporated into ECS documents.

6.0 CONCEALED RISKS - CLIENT acknowledges that special risks are inherent in sampling, testing and/or evaluating concealed conditions that are hidden from view and/or neither readably apparent nor easily accessible, *e.g.*, subsurface conditions, conditions behind a wall, beneath a floor, or above a ceiling. Such circumstances require that certain assumptions be made regarding existing conditions, which may not be verifiable without expending additional sums of money or destroying otherwise adequate or serviceable portions of a building or component thereof. Accordingly, ECS shall not be responsible for the verification of such conditions unless verification can be made by simple visual observation. Client agrees to bear any and all costs, losses, damages and expenses (including, but not limited to, the cost of ECS' Additional Services) in any way arising from or in connection with the existence or discovery of such concealed or unknown conditions.

7.0 RIGHT OF ENTRY/DAMAGE RESULTING FROM SERVICES

7.1 CLIENT warrants that it possesses the authority to grant ECS right of entry to the Site for the performance of Services. CLIENT hereby grants ECS and its subcontractors and/or agents, the right to enter from time to time onto the property in order for ECS to perform its Services. CLIENT agrees to indemnify and hold ECS harmless from any claims arising from allegations that ECS trespassed or lacked authority to access the Site.

7.2 CLIENT warrants that it possesses all necessary permits, licenses and/or utility clearances for the Services to be provided by ECS except where ECS' Proposal explicitly states that ECS will obtain such permits, licenses, and/or utility clearances.

7.3 ECS will take reasonable precautions to limit damage to the Site and its improvements during the performance of its Services. CLIENT understands that the use of exploration, boring, sampling, or testing equipment may cause minor, but common, damage to the Site. The correction and restoration of such common damage is CLIENT'S responsibility unless specifically included in ECS' Proposal.

7.4 CLIENT agrees that it will not bring any claims for liability or for injury or loss against ECS arising from (i) procedures associated with the exploration, sampling or testing activities at the Site, (ii) discovery of Hazardous Materials or suspected Hazardous Materials, or (iii) ECS' findings, conclusions, opinions, recommendations, plans, and/or specifications related to discovery of contamination.

8.0 UNDERGROUND UTILITIES

8.1 ECS shall exercise the Standard of Care in evaluating client-furnished information as well as information readily and customarily available from public utility locating services (the "Underground Utility Information") in its effort to identify underground utilities. The extent of such evaluations shall be at ECS' sole discretion.

8.2 CLIENT recognizes that the Underground Utility Information provided to or obtained by ECS may contain errors or be incomplete. CLIENT understands that ECS may be unable to identify the locations of all subsurface utility lines and man-made features.

8.3 CLIENT waives, releases, and discharges ECS from and against any claim for damage, injury or loss allegedly arising from or related to subterranean structures (pipes, tanks, cables, or other utilities, etc.) which are not called to ECS' attention in writing by CLIENT, not correctly shown on the Underground Utility Information and/or not properly marked or located by the utility owners, governmental or quasi-governmental locators, or private utility locating services as a result of ECS' or ECS' subcontractor's request for utility marking services made in accordance with local industry standards.

9.0 SAMPLES

9.1 Soil, rock, water, building materials and/or other samples and sampling by-products obtained from the Site are and remain the property of CLIENT. Unless other arrangements are requested by CLIENT and mutually agreed upon by ECS in writing, ECS will retain samples not consumed in laboratory testing for up to sixty (60) calendar days after the issuance of any document containing data obtained from such samples. Samples consumed by laboratory testing procedures will not be stored.

9.2 Unless CLIENT directs otherwise, and excluding those issues covered in Section 10.0, CLIENT authorizes ECS to dispose of CLIENT'S non-hazardous samples and sampling or testing process by-products in accordance with applicable laws and regulations.

10.0 ENVIRONMENTAL RISKS

10.1 When Hazardous Materials are known, assumed, suspected to exist, or discovered at the Site, ECS will endeavor to protect its employees and address public health, safety, and environmental issues in accordance with the Standard of Care. CLIENT agrees to compensate ECS for such efforts.

10.2 When Hazardous Materials are known, assumed, or suspected to exist, or discovered at the Site, ECS and/or ECS' subcontractors will exercise the Standard of Care in containerizing and labeling such Hazardous Materials in accordance with applicable laws and regulations, and will leave the containers on Site. CLIENT is responsible for the retrieval, removal, transport and disposal of such contaminated samples, and sampling process byproducts in accordance with applicable law and regulation.

10.3 Unless explicitly stated in the Scope of Services, ECS will neither subcontract for nor arrange for the transport, disposal, or treatment of Hazardous Materials. At CLIENT'S written request, ECS may assist CLIENT in identifying appropriate alternatives for transport, off-site treatment, storage, or disposal of such substances, but CLIENT shall be solely responsible for the final selection of methods and firms to provide such services. CLIENT shall sign all manifests for the disposal of substances affected by contaminants and shall otherwise exercise prudence in arranging for lawful disposal.

10.4 In those instances where ECS is expressly retained by CLIENT to assist CLIENT in the disposal of Hazardous Materials, samples, or wastes as part of the Proposal, ECS shall do so only as CLIENT'S agent (notwithstanding any other provision of this AGREEMENT to the contrary). ECS will not assume the role of, nor be considered a generator, storer, transporter, or disposer of Hazardous Materials.

10.5 Subsurface sampling may result in unavoidable cross-contamination of certain subsurface areas, as when a probe or excavation/boring device moves through a contaminated zone and links it to an aquifer, underground stream, pervious soil stratum, or other hydrous body not previously contaminated, or connects an uncontaminated zone with a contaminated zone. Because sampling is an essential element of the Services indicated herein, CLIENT agrees this risk cannot be eliminated. Provided such services were performed in accordance with the Standard of Care, CLIENT waives, releases and discharges ECS from and against any claim for damage, injury, or loss allegedly arising from or related to such cross-contamination.

10.6 CLIENT understands that a Phase I Environmental Site Assessment (ESA) is conducted solely to permit ECS to render a professional opinion about the likelihood of the site having a Recognized Environmental Condition on, in, beneath, or near the Site at the time the Services are conducted. No matter how thorough a Phase I ESA study may be, findings derived from its conduct are highly limited and ECS cannot know or state for an absolute fact that the Site is unaffected or adversely affected by one or more Recognized Environmental Conditions. CLIENT represents and warrants that it understands the limitations associated with Phase I ESAs.

11.0 OWNERSHIP OF DOCUMENTS

11.1 ECS shall be deemed the author and owner (or licensee) of all documents, technical reports, letters, photos, boring logs, field data, field notes, laboratory test data, calculations, designs, plans, specifications, reports, or similar documents and estimates of any kind furnished by it [the "Documents of Service"] and shall retain all common law, statutory and other reserved rights, including copyrights. CLIENT shall have a limited, non-exclusive license to use copies of the Documents of Service provided to it in connection with the Project for which the Documents of Service are provided until the completion of the Project.

11.2 ECS' Services are performed and Documents of Service are provided for the CLIENT'S sole use. CLIENT understands and agrees that any use of the Documents of Service by anyone other than the CLIENT, it's licensed consultants and its contractors is not permitted. CLIENT further agrees to indemnify and hold ECS harmless for any errors, omissions or damage resulting from its contractors' use of ECS' Documents of Service.

11.3 CLIENT agrees to not use ECS' Documents of Service for the Project if the Project is subsequently modified in scope, structure or purpose without ECS' prior written consent. Any reuse without ECS' written consent shall be at CLIENT'S sole risk and without liability to ECS or to ECS' subcontractor(s). CLIENT agrees to indemnify and hold ECS harmless for any errors, omissions or damage resulting from its use of ECS' Documents of Service after any modification in scope, structure or purpose.

11.4 CLIENT agrees to not make any modification to the Documents of Service without the prior written authorization of ECS. To the fullest extent permitted by law, CLIENT agrees to indemnify, defend, and hold ECS harmless from any damage, loss, claim, liability or cost (including reasonable attorneys' fees and defense costs) arising out of or in connection with any unauthorized modification of the Documents of Service by CLIENT or any person or entity that acquires or obtains the Documents of Service from or through CLIENT. CLIENT represents and warrants that the Documents of Service shall be used only as submitted by ECS.

12.0 SAFETY

12.1 Unless expressly agreed to in writing in its Proposal, CLIENT agrees that ECS shall have no responsibility whatsoever for any aspect of site safety other than for its own employees. Nothing herein shall be construed to relieve CLIENT and/or its contractors, consultants or other parties from their responsibility for site safety. CLIENT also represents and warrants that the General Contractor is solely responsible for Project site safety and that ECS personnel may rely on the safety measures provided by the General Contractor.

12.2 In the event ECS assumes in writing limited responsibility for specified safety issues, the acceptance of such responsibilities does not and shall not be deemed an acceptance of responsibility for any other non-specified safety issues, including, but not limited to those relating to excavating, trenching, shoring, drilling, backfilling, blasting, or other construction activities.

13.0 CONSTRUCTION TESTING AND REMEDIATION SERVICES

13.1 CLIENT understands that construction testing and observation services are provided in an effort to reduce, but cannot eliminate, the risk of problems arising during or after construction or remediation. CLIENT agrees that the provision of such Services does not create a warranty or guarantee of any type.

13.2 Monitoring and/or testing services provided by ECS shall not in any way relieve the CLIENT'S contractor(s) from their responsibilities and obligations for the quality or completeness of construction as well as their obligation to comply with applicable laws, codes, and regulations.

13.3 ECS has no responsibility whatsoever for the means, methods, techniques, sequencing or procedures of construction selected, for safety precautions and programs incidental to work or services provided by any contractor or other consultant. ECS does not and shall not have or accept authority to supervise, direct, control, or stop the work of any contractor or consultant or any of their subcontractors or subconsultants.

13.4 ECS strongly recommends that CLIENT retain ECS to provide construction monitoring and testing services on a full time basis to lower the risk of defective or incomplete Work being installed by CLIENT'S contractor(s). If CLIENT elects to retain ECS on a part time basis for any aspect of construction monitoring and/or testing, CLIENT accepts the risks that a lower level of construction quality may occur and that defective or incomplete work may result and not be detected by ECS' part time monitoring and testing. Unless the CLIENT can show that the error or omission is contained in ECS' reports, CLIENT waives, releases and discharges ECS from and against any other claims for errors, omissions, damages, injuries, or loss alleged to arise from defective or incomplete work that was monitored or tested by ECS on a part time basis. Except as set forth in the preceding sentence, CLIENT agrees to indemnify and hold ECS harmless from all damages, costs, and attorneys' fees, for any claims alleging errors, omissions, damage, injury or loss allegedly resulting from Work that was monitored or tested by ECS on a part time basis.

14.0 CERTIFICATIONS - CLIENT may request, or governing jurisdictions may require, ECS to provide a "certification" regarding the Services provided by ECS. Any "certification" required of ECS by the CLIENT or jurisdiction(s) having authority over some or all aspects of the Project shall consist of ECS' inferences and professional opinions based on the limited sampling, observations, tests, and/or analyses performed by ECS at discrete locations and times. Such "certifications" shall constitute ECS' professional opinion of a condition's existence, but ECS does not guarantee that such condition exists, nor does it relieve other parties of the responsibilities or obligations such parties have with respect to the possible existence of such a condition. CLIENT agrees it cannot make the resolution of any dispute with ECS or payment of any amount due to ECS contingent upon ECS signing any such "certification."

15.0 BILLINGS AND PAYMENTS

15.1 Billings will be based on the unit rates, plus travel costs, and other reimbursable expenses as stated in the Professional Fees section of the Proposal. Any Estimate of Professional Fees stated in these Terms shall not be considered as a not-to-exceed or lump sum amount unless otherwise explicitly stated. CLIENT understands and agrees that even if ECS agrees to a lump sum or not-to-exceed amount, that amount shall be limited to number of hours, visits, trips, tests, borings, or samples stated in the Proposal.

15.2 CLIENT agrees that all Professional Fees and other unit rates shall be adjusted annually to account for inflation based on the most recent 12-month average of the Consumer Price Index (CPI-U) for all items as established by www.bls.gov when the CPI-U exceeds an annual rate of 2.0%.

15.3 Should ECS identify a Changed Condition(s), ECS shall notify the CLIENT of the Changed Condition(s). ECS and CLIENT shall promptly and in good faith negotiate an amendment to the Scope of Services, Professional Fees, and time schedule.

15.4 CLIENT recognizes that time is of the essence with respect to payment of ECS' invoices, and that timely payment is a material consideration for this agreement. All payment shall be in U.S. funds drawn upon U.S. banks and in accordance with the rates and charges set forth in the Professional Fees. Invoices are due and payable upon receipt.

15.5 If CLIENT disputes all or part of an invoice, CLIENT shall provide ECS with written notice stating in detail the facts of the dispute within fifteen (15) calendar days of the invoice. CLIENT agrees to pay the undisputed amount of such invoice promptly.

15.6 ECS reserves the right to charge CLIENT an additional charge of one-and-one-half (1.5) percent (or the maximum percentage allowed by Law, whichever is lower) of the invoiced amount per month for any payment received by ECS more than thirty (30) calendar days from the date of the invoice, excepting any portion of the invoiced amount in dispute. All payments will be applied to accrued interest first and then to the unpaid principal amount. Payment of invoices shall not be subject to unilateral discounting or set-offs by CLIENT.

15.7 CLIENT agrees that its obligation to pay for the Services is not contingent upon CLIENT'S ability to obtain financing, zoning, approval of governmental or regulatory agencies, permits, final adjudication of a lawsuit, CLIENT'S successful completion of the Project, settlement of a real estate transaction, receipt of payment from CLIENT'S client, or any other event unrelated to ECS provision of Services. Retainage shall not be withheld from any payment, nor shall any deduction be made from any invoice on account of penalty, liquidated damages, or other sums incurred by CLIENT. It is agreed that all costs and legal fees including actual attorney's fees, and expenses incurred by ECS in obtaining payment under this Agreement, in perfecting or obtaining a lien, recovery under a bond, collecting any delinquent amounts due, or executing judgments, shall be reimbursed by CLIENT.

15.8 Unless CLIENT has provided notice to ECS in accordance with Section 16.0 of these Terms, payment of any invoice by the CLIENT shall mean that the CLIENT is satisfied with ECS' Services and is not aware of any defects in those Services.

16.0 DEFECTS IN SERVICE

16.1 CLIENT, its personnel, its consultants, and its contractors shall promptly inform ECS during active work on any project of any actual or suspected defects in the Services so to permit ECS to take such prompt, effective remedial measures that in ECS' opinion will reduce or eliminate the consequences of any such defective Services. The correction of defects attributable to ECS' failure to perform in accordance with the Standard of Care shall be provided at no cost to CLIENT. However, ECS shall not be responsible for the correction of any deficiency attributable to CLIENT- furnished information, the errors, omissions, defective materials, or improper installation of materials by CLIENT's personnel, consultants or contractors, or work not observed by ECS. CLIENT shall compensate ECS for the costs of correcting such defects.

16.2 Modifications to reports, documents and plans required as a result of jurisdictional reviews or CLIENT requests shall not be considered to be defects. CLIENT shall compensate ECS for the provision of such Services.

17.0 INSURANCE - ECS represents that it and its subcontractors and subconsultants maintain Workers Compensation insurance, and that ECS is covered by general liability, automobile and professional liability insurance policies in coverage amounts it deems reasonable and adequate. ECS shall furnish certificates of insurance upon request. The CLIENT is responsible for requesting specific inclusions or limits of coverage that are not present in ECS insurance package. The cost of such inclusions or coverage increases, if available, will be at the expense of the CLIENT.

18.0 LIMITATION OF LIABILITY

18.1 CLIENT AGREES TO ALLOCATE CERTAIN RISKS ASSOCIATED WITH THE PROJECT BY LIMITING ECS' TOTAL LIABILITY TO CLIENT ARISING FROM ECS' PROFESSIONAL LIABILITY, I.E. PROFESSIONAL ACTS, ERRORS, OR OMISSIONS AND FOR ANY AND ALL CAUSES INCLUDING NEGLIGENCE, STRICT LIABILITY, BREACH OF CONTRACT, OR BREACH OF WARRANTY, INJURIES, DAMAGES, CLAIMS, LOSSES, EXPENSES, OR CLAIM EXPENSES (INCLUDING REASONABLE ATTORNEY'S FEES) RELATING TO PROFESSIONAL SERVICES PROVIDED UNDER THIS AGREEMENT TO THE FULLEST EXTENT PERMITTED BY LAW. THE ALLOCATION IS AS FOLLOWS.

18.1.1 If the proposed fees are $10,000 or less, ECS' total aggregate liability to CLIENT shall not exceed $20,000, or the total fee received for the services rendered, whichever is greater.

18.1.2 If the proposed fees are in excess of $10,000, ECS' total aggregate liability to CLIENT shall not exceed $50,000, or two (2) times the total fee for the services rendered, whichever is greater.

18.2 CLIENT agrees that ECS shall not be responsible for any injury, loss or damage of any nature, including bodily injury and property damage, arising directly or indirectly, in whole or in part, from acts or omissions by the CLIENT, its employees, agents, staff, consultants, contractors, or subcontractors to the extent such injury, damage, or loss is caused by acts or omissions of CLIENT, its employees, agents, staff, consultants, contractors, subcontractors or person/entities for whom CLIENT is legally liable.

18.3 CLIENT agrees that ECS' liability for all non-professional liability arising out of this agreement or the services provided as a result of the Proposal be limited to $500,000.

19.0 INDEMNIFICATION

19.1 Subject Section 18.0, ECS agrees to hold harmless and indemnify CLIENT from and against damages arising from ECS' negligent performance of its Services, but only to

the extent that such damages are found to be caused by ECS' negligent acts, errors or omissions, (specifically excluding any damages caused by any third party or by the CLIENT.) ECS does not waive any limitations it may have on its liability under the Illinois Workers Compensation Act, or any other statute.

19.2 To the fullest extent permitted by Law, CLIENT agrees to indemnify, and hold ECS harmless from and against any and all liability, claims, damages, demands, fines, penalties, costs and expenditures (including reasonable attorneys' fees and costs of litigation defense and/or settlement) ["Damages"] caused in whole or in part by the negligent acts, errors, or omissions of the CLIENT or CLIENT'S employees, agents, staff, contractors, subcontractors, consultants, and clients, provided such Damages are attributable to: (a) the bodily injury, personal injury, sickness, disease and/or death of any person; (b) the injury to or loss of value to tangible personal property; or (c) a breach of these Terms. The foregoing indemnification shall not apply to the extent such Damage is found to be caused by the sole negligence, errors, omissions or willful misconduct of ECS.

19.3 It is specifically understood and agreed that in no case shall ECS be required to pay an amount of Damages disproportional to ECS' culpability. **IF CLIENT IS A HOMEOWNER, HOMEOWNERS' ASSOCIATION, CONDOMINIUM OWNER, CONDOMINIUM OWNER'S ASSOCIATION, OR SIMILAR RESIDENTIAL OWNER, ECS RECOMMENDS THAT CLIENT RETAIN LEGAL COUNSEL BEFORE ENTERING INTO THIS AGREEMENT TO EXPLAIN CLIENT'S RIGHTS AND OBLIGATIONS HEREUNDER, AND THE LIMITATIONS, AND RESTRICTIONS IMPOSED BY THIS AGREEMENT. CLIENT AGREES THAT FAILURE OF CLIENT TO RETAIN SUCH COUNSEL SHALL BE A KNOWING WAIVER OF LEGAL COUNSEL AND SHALL NOT BE ALLOWED ON GROUNDS OF AVOIDING ANY PROVISION OF THIS AGREEMENT.**

19.4 **IF CLIENT IS A RESIDENTIAL BUILDER OR RESIDENTIAL DEVELOPER, CLIENT SHALL INDEMNIFY AND HOLD HARMLESS ECS AGAINST ANY AND ALL CLAIMS OR DEMANDS DUE TO INJURY OR LOSS INITIATED BY ONE OR MORE HOMEOWNERS, UNIT-OWNERS, OR THEIR HOMEOWNER'S ASSOCIATION, COOPERATIVE BOARD, OR SIMILAR GOVERNING ENTITY AGAINST CLIENT WHICH RESULTS IN ECS BEING BROUGHT INTO THE DISPUTE.**

19.5 **IN NO EVENT SHALL THE DUTY TO INDEMNIFY AND HOLD ANOTHER PARTY HARMLESS UNDER THIS SECTION 19.0 INCLUDE THE DUTY TO DEFEND.**

20.0 CONSEQUENTIAL DAMAGES

20.1 CLIENT shall not be liable to ECS and ECS shall not be liable to CLIENT for any consequential damages incurred by either due to the fault of the other or their employees, consultants, agents, contractors or subcontractors, regardless of the nature of the fault or whether such liability arises in breach of contract or warranty, tort, statute, or any other cause of action. Consequential damages include, but are not limited to, loss of use and loss of profit.

20.2 ECS shall not be liable to CLIENT, or any entity engaged directly or indirectly by CLIENT, for any liquidated damages due to any fault, or failure to act, in part or in total by ECS, its employees, agents, or subcontractors.

21.0 SOURCES OF RECOVERY

21.1 All claims for damages related to the Services provided under this agreement shall be made against the ECS Entity contracting with the CLIENT for the Services, and no other person or entity. CLIENT agrees that it shall not name any affiliated entity including parent, peer, or subsidiary entity or any individual officer, director, or employee of ECS, specifically including its professional engineers and geologists.

21.2 In the event of any dispute or claim between CLIENT and ECS arising out of in connection with the Project and/or the Services, CLIENT and ECS agree that they will look solely to each other for the satisfaction of any such dispute or claim. Moreover, notwithstanding anything to the contrary contained in any other provision herein, CLIENT and ECS' agree that their respective shareholders, principals, partners, members, agents, directors, officers, employees, and/or owners shall have no liability whatsoever arising out of or in connection with the Project and/or Services provided hereunder. In the event CLIENT brings a claim against an affiliated entity, parent entity, subsidiary entity, or individual officer, director or employee in contravention of this Section 21, CLIENT agrees to hold ECS harmless from and against all damages, costs, awards, or fees (including attorneys' fees) attributable to such act.

22.0 THIRD PARTY CLAIMS EXCLUSION - CLIENT and ECS agree that the Services are performed solely for the benefit of the CLIENT and are not intended by either CLIENT or ECS to benefit any other person or entity. To the extent that any other person or entity is benefited by the Services, such benefit is purely incidental and such other person or entity shall not be deemed a third party beneficiary to the AGREEMENT. No third-party shall have the right to rely on ECS' opinions rendered in connection with ECS' Services without written consent from both CLIENT and ECS, which shall include, at a minimum, the third-party's agreement to be bound to the same Terms and Conditions contained herein and third-party's agreement that ECS' Scope of Services performed is adequate.

23.0 DISPUTE RESOLUTION

23.1 In the event any claims, disputes, and other matters in question arising out of or relating to these Terms or breach thereof (collectively referred to as "Disputes"), the parties shall promptly attempt to resolve all such Disputes through executive negotiation between senior representatives of both parties familiar with the Project. The parties shall arrange a mutually convenient time for the senior representative of each party to meet. Such meeting shall occur within fifteen (15) days of either party's written request for executive negotiation or as otherwise mutually agreed

Should this meeting fail to result in a mutually agreeable plan for resolution of the Dispute, CLIENT and ECS agree that either party may bring litigation.

23.2 CLIENT shall make no claim (whether directly or in the form of a third-party claim) against ECS unless CLIENT shall have first provided ECS with a written certification executed by an independent engineer licensed in the jurisdiction in which the Project is located, reasonably specifying each and every act or omission which the certifier contends constitutes a violation of the Standard of Care. Such certificate shall be a precondition to the institution of any judicial proceeding and shall be provided to ECS thirty (30) days prior to the institution of such judicial proceedings.

23.3 Litigation shall be instituted in a court of competent jurisdiction in the county or district in which ECS' office contracting with the CLIENT is located. The parties agree that the law applicable to these Terms and the Services provided pursuant to the Proposal shall be the laws of the Commonwealth of Virginia, but excluding its choice of law rules. Unless otherwise mutually agreed to in writing by both parties, CLIENT waives the right to remove any litigation action to any other jurisdiction. Both parties agree to waive any demand for a trial by jury.

24.0 CURING A BREACH

24.1 A party that believes the other has materially breached these Terms shall issue a written cure notice identifying its alleged grounds for termination. Both parties shall promptly and in good faith attempt to identify a cure for the alleged breach or present facts showing the absence of such breach. If a cure can be agreed to or the matter otherwise resolved within thirty (30) calendar days from the date of the termination notice, the parties shall commit their understandings to writing and termination shall not occur.

24.2 Either party may waive any right provided by these Terms in curing an actual or alleged breach; however, such waiver shall not affect future application of such provision or any other provision.

25.0 TERMINATION

25.1 CLIENT or ECS may terminate this agreement for breach or these terms, non-payment, or a failure to cooperate. In the event of termination, the effecting party shall so notify the other party in writing and termination shall become effective fourteen (14) calendar days after receipt of the termination notice.

25.2 Irrespective of which party shall effect termination, or the cause therefore, ECS shall promptly render to CLIENT a final invoice and CLIENT shall immediately compensate ECS for Services rendered and costs incurred including those Services associated with termination itself, including without limitation, demobilizing, modifying schedules, and reassigning personnel.

26.0 TIME BAR TO LEGAL ACTION - Unless prohibited by law, and notwithstanding any Statute that may provide additional protection, CLIENT and ECS agree that a lawsuit by either party alleging a breach of this agreement, violation of the Standard of Care, non-payment of invoices, or arising out of the Services provided hereunder, must be initiated in a court of competent jurisdiction no more than two (2) years from the time the party knew, or should have known, of the facts and conditions giving rise to its claim, and shall under no circumstances shall such lawsuit be initiated more than three (3) years from the date of substantial completion of ECS' Services.

27.0 ASSIGNMENT - CLIENT and ECS respectively bind themselves, their successors, assigns, heirs, and legal representatives to the other party and the successors, assigns, heirs and legal representatives of such other party with respect to all covenants of these Terms. Neither CLIENT nor ECS shall assign these Terms, any rights thereunder, or any cause of action arising therefrom, in whole or in part, without the written consent of the other. Any purported assignment or transfer, except as permitted above, shall be deemed null, void and invalid, the purported assignee shall acquire no rights as a result of the purported assignment or transfer and the non-assigning party shall not recognize any such purported assignment or transfer.

28.0 SEVERABILITY - Any provision of these Terms later held to violate any law, statute, or regulation, shall be deemed void, and all remaining provisions shall continue in full force and effect. CLIENT and ECS shall endeavor to quickly replace a voided provision with a valid substitute that expresses the intent of the issues covered by the original provision.

29.0 SURVIVAL - All obligations arising prior to the termination of the agreement represented by these Terms and all provisions allocating responsibility or liability between the CLIENT and ECS shall survive the substantial completion of Services and the termination of the agreement.

30.0 TITLES; ENTIRE AGREEMENT

30.1 The titles used herein are for general reference only and are not part of the Terms and Conditions.

30.2 These Terms and Conditions of Service together with the Proposal, including all exhibits, appendixes, and other documents appended to it, constitute the entire agreement between CLIENT and ECS. CLIENT acknowledges that all prior understandings and negotiations are superseded by this agreement.

30.3 CLIENT and ECS agree that subsequent modifications to the agreement represented by these shall not be binding unless made in writing and signed by authorized representatives of both parties.

30.4 All preprinted terms and conditions on CLIENT'S purchase order, Work Authorization, or other service acknowledgement forms, are inapplicable and superseded by these Terms and Conditions of Service.

30.5 CLIENT's execution of a Work Authorization, the submission of a start work authorization (oral or written) or issuance of a purchase order constitutes CLIENT's acceptance of this Proposal and its agreement to be fully bound the foregoing Terms. If CLIENT fails to provide ECS with a signed copy of these Terms or the attached Work Authorization, CLIENT agrees that by authorizing and accepting the services of ECS, it will be fully bound by these Terms as if they had been signed by CLIENT.

< END OF TERMS AND CONDITIONS OF SERVICE >

City of De Pere, Wisconsin

Request For Board of Public Works Action

MEETING DATE: **January 11, 2021**

DEPARTMENT: **Board of Public Works**

FROM: **Eric Rakers**

SUBJECT: **Consideration and possible action on Extension of Agreement for Spur Line Maintenance***

ATTACHMENTS:

- 2021 0111 CI_BOPW_Spur_Line_Maintenance (PDF)
- 2018 0709 Spur Line Cost Summary (PDF)
- 2018 0605 CE_Requests for Proposal Spur Line Maintenance (PDF)
- 2018 0628 Proposal - Holubar Construction Company (PDF)
- 2018 0628 Proposal - Railworks Track Systems, Inc. (PDF)
- 2018 0828 Holubar_Agreement (PDF)

CITY OF DE PERE
MEMO

To: Honorable Mayor Boyd
Members of the Board of Public Works
From: Eric P. Rakers, P.E., City Engineer
Date: January 11, 2021

RE: **Consider Extension of Agreement for Spur Line Maintenance***

The Engineering Department received proposals in 2018 for spur line maintenance of the City's western industrial parks in years 2019 and 2020. These spur lines are operated by the Canadian National Railroad (CN). The contractor has offered to extend their agreement and maintain their prices for an additional two years.

In 2018, the City received two proposals. When the contract was first awarded, the estimated annual cost for this work, based on 2015 and 2016 work totals, was as follows:

Spur Line Maintenance	Estimate
Holubar Construction Company	$32,700
Railworks Track Systems, Inc.	$60,575

Over the past two years, the total spur line maintenance work has totaled to be the following:

Company	2019	2020
Holubar Construction Company	$31,595	$29,350

The staff recommendation is to extend the agreement with Holubar Construction Company for the Spur Line Maintenance in the City's west industrial park through the year 2022. Budgeted funds are $45,000 per year over the next two years split between TID 11 and TID 12. CN has had an increased presence inspecting the City's spur lines, requiring additional maintenance due to normal wear and tear. Failure to maintain these spur lines will result in a lock-out by CN, preventing deliveries to and from those businesses operating on the spur line.

Attachments:

2018 0709 Spur Line Cost Summary (PDF)
2018 0605 CE_Requests for Proposal Spur Line Maintenance (PDF)
2018 0628 Proposal – Holubar Construction Company (PDF)
2018 0628 Proposal – Railworks Track Systems, Inc. (PDF)
2018 0828 Holubar_Agreement (PDF)

2019-2020 West Business Park Spur Line Maintenance

Item	Holubar Fee	Railworks Fee	Unit	Estimated Annual QTY	Holubar Annual Cost Estimate	Railworks Annual Cost Estimate
Snow Removal Services				**Snow Removal Estmate**		
Mobilization	$100	$100	Per event	15	$1,500	$1,500
Snow Removal >/= 3.0 inches	$100	$400	Per switch	70	$7,000	$28,000
Snow Removal < 3.0 inches	$150	$325	Per switch	35	$5,250	$11,375
				Adjustment Estimate		
Adjustments						
Mobilization	$100	$100	Per event	2	$200	$200
Gapped Switch	$350	$300	Per each	4	$1,400	$1,200
Weld Frog Point	$500	$750	Per turnout	2	$1,000	$1,500
Paint Derails School Bus Yellow include switch handles	$5	$25	Per Derail	2	$10	$50
				Replacement Estimate		
Replacements						
Mobilization	$300	$500	Per event	1	$300	$500
Broken Rail	$1,200	$1,750	Per each	1	$1,200	$1,750
Bad Tie	$85	$160	Per each	20	$1,700	$3,200
Install Switch Hooks and Remove CN Locks (return to CN)	$5	$25	Per each	7	$35	$175
Head Block	$150	$400	Per each	1	$150	$400
Head Block Ties	$150	$400	Per each	4	$600	$1,600
Set of Comp bars	$500	$550	Per set	2	$1,000	$1,100
				Additions/Improvement Estimate		
Additions/Improvements						
Mobilization	$300	$100	Per event	4	$1,200	$400
Point Protectors	$3,800	$2,500	Per turnout	2	$7,600	$5,000
Label Switch Numbers	$5	$25	Per switch	7	$35	$175
Provide and Install Switch Broom	$10	$50	Per switch	7	$70	$350
Spring & Fall Maintenance					**Spring & Fall Main**	
Clean, Adjust, and Graphite Switch	$350	$300	Per switch	7	$2,450	$2,100
					$32,700	**$60,575**

City of De Pere

925 South Sixth Street
De Pere, WI 54115-1199
Phone: 920-339-4072 ext. 2239
Cell: 920-639-1019

Chase Kuffel, P.E.
Assistant City Engineer
ckuffel@mail.de-pere.org
www.de-pere.org

June 5, 2018

Mr. Dan Haefs
Wisconsin Rail and Steel
1871 Cofrin Drive
Green Bay, WI 54302

RE: Spur Line Maintenance
City of De Pere

Dear Mr. Haefs:

The City of De Pere is requesting a proposal from your firm to complete maintenance of the City spur lines. Attached with this letter is a Request for Proposal that contains information on the scope of work. If you are interested in this work, please complete and return the attached fee schedule with your firm's rates, additional rate information that may not be listed, and a cover letter describing your firm's services.

If you have any questions, please call me at (920) 339-4072 ext. 2239.

Sincerely,

DEPARTMENT OF PUBLIC WORKS

Chase Kuffel, P.E.
Assistant City Engineer

cc: Kimberly Flom, Economic Developer & Planning Director
Eric Rakers, City Engineer

X:\Correspondence\General\2018\RFP - West Industrial Park Railroad Maintenance\CE_CN_RFP-2018-Spur-Line-Maintenance_041318.docx

City of De Pere

925 South Sixth Street
De Pere, WI 54115-1199
Phone: 920-339-4072 ext. 2239
Cell: 920-639-1019

Chase Kuffel, P.E.
Assistant City Engineer
ckuffel@mail.de-pere.org
www.de-pere.org

June 5, 2018

Mr. Seth Holubar
Holubar Construction Company, Inc.
1519 Shannon Street
Green Bay, WI 54304

RE: Spur Line Maintenance
City of De Pere

Dear Mr. Holubar:

The City of De Pere is requesting a proposal from your firm to complete maintenance of the City spur lines. Attached with this letter is a Request for Proposal that contains information on the scope of work. If you are interested in this work, please complete and return the attached fee schedule with your firm's rates, additional rate information that may not be listed, and a cover letter describing your firm's services.

If you have any questions, please call me at (920) 339-4072 ext. 2239.

Sincerely,

DEPARTMENT OF PUBLIC WORKS

Chase Kuffel, P.E.
Assistant City Engineer

cc: Kimberly Flom, Economic Developer & Planning Director
Eric Rakers, City Engineer

City of De Pere

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Chase Kuffel, P.E.
Assistant City Engineer
ckuffel@mail.depere.org
www.de-pere.org

June 5, 2018

Mr. Rich Hawkins
Knapp Railroad Builders
4777 West Lincoln Avenue
West Milwaukee, WI 53219

RE: Spur Line Maintenance
City of De Pere

Dear Mr. Hawkins:

The City of De Pere is requesting a proposal from your firm to complete maintenance of the City spur lines. Attached with this letter is a Request for Proposal that contains information on the scope of work. If you are interested in this work, please complete and return the attached fee schedule with your firm's rates, additional rate information that may not be listed, and a cover letter describing your firm's services.

If you have any questions, please call me at (920) 339-4072 ext. 2239.

Sincerely,

DEPARTMENT OF PUBLIC WORKS

Chase Kuffel, P.E.
Assistant City Engineer

cc: Kimberly Flom, Economic Developer & Planning Director
Eric Rakers, City Engineer

Request for Proposals
For
Spur Line Maintenance

The City of De Pere would like to invite your firm to submit a proposal for 2019-2020 Spur Line Maintenance in the City's West Business Park.

Your proposal must be submitted to our office by June 28, 2018 at 3:00 PM.

GENERAL INFORMATION:

The City of De Pere has two spur tracks that provide service to the West Business Park, hereinafter referred to the north spur and the south spur. The purpose for this Request for Proposal (RFP) is to obtain services to provide maintenance and repair services for these spur lines.

The actual quantities of work will be based on the actual number of events that require snow removal, adjustments or replacements identified in CN inspections, and any additions, improvements or maintenance items requested by the City.

SCOPE OF SERVICES:

Spur line maintenance services include, but are not limited to:

1. Snow Removal
2. Adjusting Gapped Switches
3. Replacing Head Blocks
4. Repairing Frog Points
5. Repair of Broken Rail or Tie
6. Provide and Installing Switch Hooks
7. Cleaning, Adjusting, and Graphite of four (4) switches
8. Mobilization
9. Provide and Install Point Protectors
10. Point or Switch Replacement
11. Provide and Install Switch Numbers
12. Provide and Install Switch Brooms

SCHEDULING:

The City will request services throughout 2019 and 2020. Generally, the City will give 24 hours from e-mail notification to complete snow removal, address gapped switches, make frog point repairs, repair a broken rail or replace head blocks. All other work, other than a derailment or major rebuild, will be addressed in 5 calendar days from e-mail notification.

INSURANCE:

Your company shall effect and maintain insurance to protect from claims under workers compensation acts; claims for damages because of bodily injury including personal injury, sickness or disease, or death of any of the company's employees; and from claims for damages because of injury to or

destruction of tangible property including loss of use resulting there from; and from claims arising out of the performance of professional services caused by any errors, omissions or negligent acts for which the company is legally liable.

The company shall indemnify and save harmless the City of De Pere and their representatives from all suits, actions, or claims of any character brought for or on account of any injuries ort damages received by any person, persons or property resulting from the negligent acts of the company or of any of their subconsultants in prosecuting the work.

PROPERTY PROTECTION:

The company shall take precautions to prevent damage to property and any underground lines and shall restore the site to the condition existing prior to entry.

FEE:

The proposed fee schedule shall be submitted on the attached form. Defined work for each fee will provide a functionally complete project. If there are specific items which the contractor believes are not identified in any item, but are required to provide a functionally complete project, then the identified specific work item shall be included in the appropriate fee.

A company fee schedule shall be attached for additional services offered that are not shown on the attached form.

INFORMATION PROVIDED BY THE CITY:

The City will provide location maps and switch numbers to be used in all correspondence including billing.

The limit of snow removal for each switch is shown on the attached detail.

ADDITIONAL INFORMATION:

A sample consultant agreement is attached.

INVOICING:

Invoices will be accepted monthly and should include a breakdown of charges for each spur.

Proposed Fee Schedule

Company Name:_____

Company Address:_____

Company E-mail Address:_____

Company Representative:_____

Signature:_____

Item	Fee	Unit
Snow Removal Services		
Mobilization		Per event
Snow Removal >/= 3.0 inches		Per switch
Snow Removal < 3.0 inches		Per switch
Adjustments		
Mobilization		Per event
Gapped Switch		Per each
Weld Frog Point		Per turnout
Paint Derails School Bus Yellow include switch handles		Per Derail
Replacements		
Mobilization		Per event
Broken Rail		Per each
Bad Tie		Per each
Install Switch Hooks and Remove CN Locks (return to CN)		Per each
Head Block		Per each
Head Block Ties		Per each
Set of Comp bars		Per set
Additions/Improvements		
Mobilization		Per event
Point Protectors		Per turnout
Label Switch Numbers		Per switch
Provide and Install Switch Broom		Per switch
Spring & Fall Maintenance		
Clean, Adjust, and Graphite Switch		Per switch

WEST INDUSTRIAL PARK SPUR MAINTENANCE (NORTH)

Engineering Division
925 S. 6Th St.
De Pere, WI 54115
Office: 920-339-4061
Fax: 920-339-4071

Spur Maintenace

Project:

05-2018

WEST INDUSTRIAL PARK SPUR MAINTENANCE (SOUTH)

Engineering Division
925 S. 6Th St.
De Pere, WI 54115
Office: 920-339-4061
Fax: 920-339-4071

Spur Maintenace

Project:

05-2018

AGREEMENT FOR SERVICES BETWEEN THE CITY OF DE PERE AND _(CONSULTANT NAME)_ (Project Name)

THIS AGREEMENT, made and entered into this ___ day of _____, 2016, by and between the City of De Pere, Wisconsin, ("City"), and _____ _____("Consultant").

WITNESSETH

WHEREAS, the City is in need of_____(project description)_____ _____; and

WHEREAS, the Consultant has available and offers to provide personnel and facilities necessary to accomplish the work within the required time.

NOW THEREFORE, City and Consultant agree as follows:

I. DESCRIPTION OF PROJECT

The project is as described in the __(date)__ City Request for Proposals (Exhibit A) and Consultants Proposal thereto dated __(date)__ (Exhibit B), both of which are attached hereto and incorporated by reference. If a conflict exists between Exhibit A and Exhibit B, the terms of Exhibit A shall prevail. If there is a conflict between the terms and conditions of Exhibit A and this Agreement, the terms of this Agreement shall prevail.

If, during the course of performing the work, City and Consultant agree that it is necessary to make changes in the project as described in the exhibits, such changes will be incorporated into this Agreement only by written amendment, signed by the parties.

II. SCOPE OF CONSULTING SERVICES

Consultant agrees to perform those services described Exhibits A and B. Any change to the scope of services as identified therein shall be defined in writing and authorized by both parties prior to performing such work. Such writing shall include the scope of work to be done, schedule for commencing and completing the work and the basis for compensation for such work.

III. SCOPE OF CITY SERVICES

City agrees to provide the Consultant items such as existing plans, standard specifications, and other information concerning the project that may be applicable in the design of the project, as are available.

SAMPLE

IV. AUTHORIZATION, PROGRESS, AND COMPLETION

In signing this Agreement, the City grants the Consultant specific authorization to proceed with the work described herein.

For special services, the authorization by the City shall be in writing and shall include the definition of the work to be done, the schedule for commencing and completing the work, and the basis for compensation for the work, all as agreed upon by the City and the Consultant.

V. OWNERSHIP AND FORM OF DOCUMENTS

All documents created, maintained or received during the course of this Agreement, including those in electronic form, shall be deemed the property of City and Consultant shall not be considered the owner of any such document nor shall the Consultant retain any common law, statutory, or other right therein, including copyright, patent, or trademark. To that end, Consultant agrees to and hereby does assign and transfer to City all rights, title, and other interests in such drawings, specifications, or other documents, which rights shall including copyright, trademark, or patent rights therein, unless City fails to pay Consultant for such drawings specifications and other documents, in which case the ownership and all rights shall revert to the Consultant.

City hereby grants Consultant a non-exclusive license to use the documents created pursuant to this Agreement, including any standard details used herein.

Consultant acknowledges that, as the Consultant to City, a Wisconsin municipality, Wis. Stats. §19.36(3) applies to it and records produced by it pursuant to this contract are subject to the public records law to the extent they would otherwise be if maintained by the City. Consultant agrees that, within 10 business days of a written request of City, it shall forward to City any such contract or records maintained by Consultant as are requested by City. Such records shall be in the format requested by City provided that such records are kept and maintained in that format. City shall reimburse Consultant for its reasonable costs incurred in complying with this paragraph.

Consultant further agrees to indemnify the City from all costs City incurs should Consultant fail to comply with these requirements.

VI. CONFIDENTIAILITY OF INFORMATION

Consultant understands that, during the course of work under this contract, Consultant may become privy to confidential information of City. Consultant shall maintain the confidentiality of all information specifically designated confidential by City unless withholding such information would violate the law, create a significant harm to the public, or risk of significant harm to the public.

SAMPLE

VII. TIME FOR COMPLETION

The parties hereto agree that time is of the essence in completion of the project. Should Consultant encounter any circumstances, which, in the Consultant's opinion, will delay their response time, Consultant shall so inform the City as soon as the delay in response time is known.

VIII. COMPENSATION

The City agrees to pay, and the Consultant agrees to accept, compensation as identified in Exhibit B, to be paid in a lump sum at the conclusion of the work. Payment to the Consultant is due upon receipt of invoice by the City. If payment is not made within 30 days, interest on the unpaid balance will accrue beginning with the 31st day at the rate of 1.0 percent per month or the maximum interest rate permitted by law, whichever is less. Such interest will become due and payable at the time said overdue payment is made. Compensation for special services shall be as agreed upon by the City and Consultant and set forth in the written authorization for special services.

IX. RESPONSIBILITY OF CONSULTANT

The Consultant is employed to render a professional service only, and any payments made to the Consultant are compensation solely for such services rendered and recommendations made in carrying out the work. The Consultant shall follow the practice of its profession to make findings, opinions, factual presentations, and professional advice and recommendations.

X. NON-DISCRIMINATION

The Consultant agrees that, in performing under this Agreement with the City, it will not discriminate against any employee, applicant for employment or any other person or member of the public on the basis of age, race, creed, color, disability, marital status, sex, national origin, ancestry, arrest record, conviction record, military service, use or non-use of lawful products off the employer's premises during nonworking hours, declining to attend a meeting or to participate in any communication about religious matters or political matters, or any other basis provided under Wis. Stats. §111.321.

XI. INSURANCE

A. The Consultant shall maintain during the life of the Agreement, the following minimum public liability and property damage insurance to cover claims for injuries, including accidental death, as well as from claims for property damages which may arise from the performance of work under the Agreement as stated below:

1. Comprehensive general liability insurance, including personal injury liability, blanket contractual liability and broad form property damage liability. The combined single limit for bodily injury and property damage shall not be less than

SAMPLE

$1,000,000; with additional umbrella liability insurance coverage for a total of not less than $2,000,000.

2. Automobile bodily injury and property damage liability insurance covering owned, nonowned, rented and hired cars. The combined single limit for bodily injury and property damage shall be not less than $600,000.

3. Statutory workers compensation and employers' liability insurance as required by the state having jurisdiction.

4. Professional liability insurance covering damages resulting from errors and omissions of the Consultant. The limit of liability shall be $1,000,000 or the total consultant's fee on the project, whichever is greater.

B. Proof of Insurance. The Consultant shall furnish the City with a Certificate of Insurance and additional insured endorsement countersigned by a Wisconsin Resident Agent or Authorized Representative of the insurer indicating that the Consultant meets the insurance requirements identified above. The Certificate of Insurance shall include a provision prohibiting cancellation of said policies except upon 30 days' prior written notice to the City and shall name the City as an additional insured under Consultant's general and professional liability policies for the specific contract or project covered. A copy of the Certificate of Insurance and endorsement shall be delivered to the City prior to execution of the agreement for final approval.

XII. ALLOCATION OF RISKS

To the fullest extent permitted by law, the Consultant shall indemnify and hold harmless the City, City's officers, directors, partners, and employees from and against any and all costs, losses, and damages (including, but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) caused by the negligent acts or omissions of Consultant or Consultant's officers, directors, partners, employees, and Consultant's Consultants in the performance and furnishing of Consultant's services under this Agreement.

To the fullest extent permitted by law, Consultant's total liability to City and anyone claiming by, through, or under City for any cost, loss or damages caused in part by the negligence of Consultant or Consultant's subcontractor and in part by the negligence of City or any other negligent entity or individual, shall not exceed the percentage share that Consultant's or Consultant's subcontractor negligence bears to the total negligence of City, Consultant and all other negligent entities and individuals.

XIII. SUBCONTRACTS

The Consultant shall obtain the written consent of the City prior to subcontracting any portion of the work to be performed under this project. The Consultant shall be responsible to the City for the actions of person and firms performing subcontract work.

SAMPLE

XIV. ASSIGNMENT

This Agreement is binding on the heirs, successors, and assigns of the parties hereto. This Agreement is not to be assigned by either the City or Consultant without the prior written consent of the other.

XV. INTEGRATION

This Agreement represents the entire understanding of the City and Consultant as to those matters contained herein. No prior oral or written understanding shall be of any force or effect with respect to those matters covered hereunder. This Agreement may not be modified or altered except in writing signed by both parties.

XVI. JURISDICTION

This Agreement shall be administered and interpreted under the laws of the State of Wisconsin. Jurisdiction of litigation arising from this Agreement shall be in that state. If any part of this Agreement is found to be in conflict with applicable laws, such part shall be inoperative, null and void insofar as it is in conflict with said laws, but the remainder of this Agreement shall be in full force and effect.

XVII. SUSPENSION OF WORK

The City may suspend, in writing, all or a portion of the work under this Agreement in the event unforeseen circumstanced beyond the control of the Contractor make normal progress in the performance of the work impossible. The Consultant may request that the work be suspended by notifying the City, in writing, of circumstances which are interfering with normal progress of the work. If agreed, the time for completion of the work shall be extended by the number of days the work is suspended by Contractor through no fault of Contractor. In the event that the period of suspension exceeds 90 days, the terms of this Agreement are subject to renegotiation and both parties are granted the option to terminate work on the suspended portion of the project in accordance with Article XVIII.

XVIII. TERMINATION OF WORK

The City may terminate all or a portion of the work covered by this Agreement for its convenience. Either the City or the Consultant may terminate work in the event the other party fails to perform in accordance with the provisions of this Agreement. Termination of this Agreement is accomplished by 15 days prior written notice from the party initiating termination to the other. Notice of termination shall be delivered by certified mail with receipt for delivery returned to the sender.

In the event of termination, the Consultant shall perform such additional work as is necessary for the orderly filing of documents and closing of the project. The additional time for filing and closing shall not exceed 10 percent of the total time expended on the completed portion of the project prior to the effective date of termination.

SAMPLE

The Consultant shall be compensated for the completed portion of the work on the basis of work actually performed prior to the effective date of termination plus the work required for filing and closing.

XIX. MEDIATION

All claims, disputes and other matters in question between the parties of this Agreement arising out of or relating to this Agreement or breach thereof, which are not disposed of by mutual agreement of the parties, shall be subject to mediation as a condition precedent to the institution of legal proceedings by either party. If such claim, dispute or other matter involves a lien arising out of the Consultant's services, the Consultant may proceed in accordance with applicable law to comply with lien notice and filing deadlines prior to resolution of the matter by mediation.

The City and Consultant shall attempt to resolve claims, disputes and other matters in question between them by mediation. A request for mediation shall be filed in writing with the other party to this Agreement. The request may be made concurrently with the filing of a civil action, but mediation shall proceed in advance of legal proceedings.

The parties shall share the mediator's and any filing fees equally. The mediation shall be held in the place where the Project is located, unless another location is mutually agreed upon. Agreements reached in mediation shall be enforceable as settlement agreements in any court having jurisdiction thereof.

XX. NOTICES

Any notification required or needed under the contract shall be sent via First Class Mail to the following:

If to City:

If to Consultant:

SAMPLE

IN WITNESS WHEREOF, the parties hereto have made and executed this Agreement as of the day and year first above written.

(COMPANY NAME)	CITY OF DE PERE, WISCONSIN
By: _____	By:_____
Name: _____	Michael J. Walsh, Mayor
By:_____	By:_____
Name: _____	Shana D. Ledvina, Clerk-Treasurer

H:\jdupont\Agreements\2016\Consultant Agreement Template revised 2-22-16.docx

SAMPLE

HOLUBAR
Construction Company, Inc.

June 28, 2018

Mr. Chase Kuffel
Assistant City Engineer
City of De Pere

Mr. Kuffel-

Please find enclosed the fee schedule for the year 2019 Track maintenance.

We have been a service provider in the local area for customers with Rail Spurs since 1979. We specialize in Track Maintenance and rehab. We have a full time staff that will be able to accommodate the City's needs easily.

We look forward to working with you.

Sincerely,

George Holubar

1519 Shannon Street Green Bay, WI 54304
Office: 920-499-5629 Fax: 920-499-3404
www.holubarconstruction.com

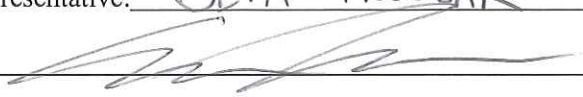
Proposed Fee Schedule

Company Name: HOLUBAR CONSTRUCTION COMPANY

Company Address: 1519 SHANNON ST. GREEN BAY, WI

Company E-mail Address: HOLUBAR CONSTRUCTION @ GMAIL.COM

Company Representative: SETH HOLUBAR

Signature: 

Item	Fee	Unit
Snow Removal Services		
Mobilization	100.00	Per event
Snow Removal >/= 3.0 inches	100.00	Per switch
Snow Removal < 3.0 inches	150.00	Per switch
Adjustments		
Mobilization	100.00	Per event
Gapped Switch	350.00	Per each
Weld Frog Point	500.00	Per turnout
Paint Derails School Bus Yellow include switch handles	5.00	Per Derail
Replacements		
Mobilization	300.00	Per event
Broken Rail	1,200.00	Per each
Bad Tie	85.00	Per each
Install Switch Hooks and Remove CN Locks (return to CN)	5.00	Per each
Head Block	150.00	Per each
Head Block Ties	150.00	Per each
Set of Comp bars	500.00	Per set
Additions/Improvements		
Mobilization	300.00	Per event
Point Protectors	3,800.00	Per turnout
Label Switch Numbers	5.00	Per switch
Provide and Install Switch Broom	10.00	Per switch
Spring & Fall Maintenance		
Clean, Adjust, and Graphite Switch	350.00	Per switch

Proposed Fee Schedule

Company Name: Railworks Track Systems, Inc.

Company Address: 1871 Cofrin Dr, Green Bay, WI 54302

Company E-mail Address: JBruynes@Railworks.com

Company Representative: Jacob Bruynes

Signature: _____

Item	Fee	Unit
Snow Removal Services		
Mobilization	$100.00	Per event
Snow Removal >/= 3.0 inches	$400.00	Per switch
Snow Removal < 3.0 inches	$325.00	Per switch
Adjustments		
Mobilization	$100.00	Per event
Gapped Switch	$300.00	Per each
Weld Frog Point	$750.00	Per turnout
Paint Derails School Bus Yellow include switch handles	$25.00	Per Derail
Replacements		
Mobilization	$500.00	Per event
Broken Rail	$1,750.00	Per each
Bad Tie	$160.00	Per each
Install Switch Hooks and Remove CN Locks (return to CN)	$25.00	Per each
Head Block	$400.00	Per each
Head Block Ties	$400.00	Per each
Set of Comp bars	$550.00	Per set
Additions/Improvements		
Mobilization	$100.00	Per event
Point Protectors	$2,500.00	Per turnout
Label Switch Numbers	$25.00	Per switch
Provide and Install Switch Broom	$50.00	Per switch
Spring & Fall Maintenance		
Clean, Adjust, and Graphite Switch	$300.00	Per switch

AGREEMENT FOR CONTRACTOR SERVICES BETWEEN THE CITY OF DE PERE AND HOLUBAR CONSTRUCTION COMPANY, INC.
(Spur Line Maintenance)

THIS AGREEMENT made and entered into this 28 day of August, 2018, by and between the City of De Pere, Wisconsin, ("City") and Holubar Construction Company, Inc. ("Contractor").

I. SCOPE OF CONTRACTING SERVICES

Contractor agrees to perform spur line maintenance and repair services throughout 2019 and 2020, as described in the City's Request for Proposals for Spur Line Maintenance attached and incorporated herein as Exhibit A. Any change to the scope of services as identified therein shall be defined in writing and authorized by both parties prior to performing such work. Such writing shall include the scope of work to be done, the schedule for commencing and completing the work and the basis for compensation for such work.

II. COMPENSATION

Contractor shall be paid as provided in Contractor's Proposal attached and incorporated herein as Exhibit B. Invoices shall be submitted monthly and include a breakdown of charges for each spur.

III. INSURANCE

The Contractor shall maintain during the course of the project, the following minimum public liability and property damage insurance to cover claims for injuries, including accidental death, as well as from claims for property damages which may arise from the performance of work under the Agreement as stated below:

1. Comprehensive general liability insurance, including personal injury liability, blanket contractual liability and broad form property damage liability. The combined single limit for bodily injury and property damage shall not be less than $2,000,000 per occurrence; with additional umbrella liability insurance coverage to a total of not less than $2,000,000.

2. Automobile Liability

   (A) Coverages must include the following extensions:
   Comprehensive Form
   (1) All Owned Autos
   (2) All Hired Autos
   (3) All Non-Owned Autos
   (4) Mobile Equipment
   (5) Specialized Equipment
   (6) Contractual Liability

(7) Uninsured Motorists to Limit of Policy
(8) Additional Insured Endorsement naming City of De Pere, its employees, agents and assigns

(B) Limits of Liability:
Combined Single Limit/Bodily Injury and Property Damage:
$1,000,000 per person/per accident

Uninsured/Underinsured Motorists:
Limits equal to above combined single limit

3. Worker's Compensation and Employers' Liability Insurance
Limits of Liability: Statutory

The Contractor shall provide City with a certificate of insurance outlining the required coverage and which names the City as an additional insured thereunder for purposes of the Contract. A copy of the Additional Insured Endorsement shall also be provided.

IV. INDEMNIFICATION

The Contractor shall indemnify and hold harmless the City, its officers, agents and employees from and against all claims, damage, losses, and expenses including reasonable attorney's fees arising out of or resulting from the performance of the work specified in this Contract, provided that any such claim damage, loss or expense is caused in whole or in part by any negligent or intentional act or omission of the Contractor, any Subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, regardless of whether or not it is caused in part by a party indemnified hereunder.

V. LEGAL RELATIONS AND PUBLIC RESPONSIBILITY

1. LAWS TO BE OBSERVED. The Contractor shall at all times observe and comply with all federal, state, and local laws, regulations and ordinances which are in effect or which may be placed in effect during the contract period and which in any manner affect the conduct of the work. The Contractor shall indemnify and save harmless the City and all of its officers, agents and employees against any claim or liability arising from or based on the violation of any such law, ordinance, or regulation, whether by himself or his employees, subcontractors, or agents.

2. CONTRACTOR RECORDS. Contractor acknowledges that, as a contractor of a Wisconsin Municipality, Wis. Stats. §19.36(3) applies to it and records produced by it pursuant to this contract are subject to the public records law to the extent that they would otherwise be if maintained by the City of De Pere. Contractor agrees that, within 10 business days of a written request of the City of De Pere, it shall forward such records as are requested by the City of De Pere. Such records shall be in the

format requested by City of De Pere provided that such records are kept and maintained in that format.

3. PERMITS AND LICENSING. The Contractor shall procure all permits and licenses necessary and incidental to the work required hereunder.

4. SAFETY, HEALTH AND SANITATION. The Contractor shall comply with all federal, state and local laws governing the safety, health and sanitation, and shall provide all safeguards, safety devices and protective equipment and take any other needed actions, on his own responsibility, or as the City Engineer may determine reasonably necessary, to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract.

5. RESPONSIBILITY FOR DAMAGE CLAIMS. The Contractor and its surety shall indemnify and save harmless the City and all of its officers, officials, agents and employees from all suits, actions or claims of any character brought because of any injuries or damages received or sustained by any person, persons, or property on account of the operations of the said Contractor; or on account of or in consequence of any neglect in safeguarding the work, or through use of unacceptable materials in constructing the work; or because of any act or omission, neglect or misconduct of said Contractor; or because of any claims or amount recovered for any infringement of patent, trademark or copyright; or from any claims or amounts arising or recovered under the worker's compensation law; or any other law, ordinance, order or decree; and so much of the money due the said Contractor under and by virtue of this contract as shall be considered necessary by the Board of Public Works for such purposes, may be retained for the use of the City; or, in case no money or insufficient money is retained, the Contractor's surety shall be held.

   The City shall not be liable to the Contractor for damages or delays resulting from work by third parties or by injunctions or other restraining orders obtained by third parties.

   It shall be the Contractor's responsibility to see that all of the contract operations incidental to the completion of this contract are covered by public liability and property damage liability insurance in order that the general public or any representative of the contracting authority may have recourse against a responsible party for injuries or damages sustained as a result of said contract operations. This requirement shall apply with equal force, whether the work is performed by the Contractor, or by a Subcontractor or by anyone directly or indirectly employed by either of them.

6. CONTRACTOR'S RESPONSIBILITY FOR WORK. Until acceptance of the Work by the City Engineer, the Contractor shall have the charge and care thereof and shall take every precaution against injury or damage to any part thereof by the action of the

elements, or from any other cause, whether arising from the execution or non-execution of the Work. The Contractor shall rebuild, repair, restore and make good all injuries or damages to any portion of the Work occasioned by any of the above causes before acceptance and shall bear the expense thereof, except damage to the Work due to unforeseeable causes beyond control of and without the fault or negligence of the Contractor, including but not restricted to acts of God, of public adversaries or of governmental authorities. In case of suspension of work from any cause whatever, the Contractor prior to suspension shall take such precautions as may be necessary to prevent damage to the project, provide for normal drainage and shall erect any necessary temporary barricades, signs or other facilities, at the Contractor's expense, as directed by the Engineer.

7. PERSONAL LIABILITY OF PUBLIC OFFICIALS. In carrying out any of the provisions of this contract or in exercising any power or authority granted to them thereby, there shall be no personal liability upon the City, its officers, officials, agents and employees, it being understood that in such matters they act as agents and representatives of the City. Any right of action by the Contractor against the City, or its agents or employees, is hereby expressly waived.

VI. GUARANTEE OF MATERIALS AND WORKMANSHIP

The Contractor shall guarantee all materials furnished and all work performed under the Contract against all defects in materials and workmanship for a period of one year following the date of acceptance of the Work, which date shall be understood to be the date of which final payment of all monies due the Contractor under the contract is authorized by the Director of Public Works. Should any defect appear during the guarantee period, the Contractor shall make the required repairs or replacement upon receipt of written notification from the Director of Public Works to do so.

VII. MEDIATION

All claims, disputes and other matters in question between the parties of this Agreement arising out of or relating to this Agreement or breach thereof, which are not disposed by mutual agreement of the parties, shall be subject to mediation as a condition precedent to the institution of legal proceedings by either party. If such claim, dispute or other matter involves a lien arising out of the Contractor's services, the Contractor may proceed in accordance with applicable law to comply with lien notice and filing deadlines prior to resolution of the matter by mediation.

The City and Contractor shall attempt to resolve claims, disputes and other matters in question between them by mediation in accordance with the Rules of the American Arbitration Association currently in effect unless the parties agree otherwise. A request for mediation shall be filed in writing with the other party to this Agreement and, if applicable, the American Arbitration Association. The request may be made concurrently with the filing of a civil action, but mediation shall proceed in advance of legal proceedings, which may be stayed pending

mediation for a period of 60 days from the date of filing, unless a longer period is agreed to by the parties or required by a court order.

The parties shall share the mediator's and any filing fees equally. The mediation shall be held in the place where the Project is located, unless another location is mutually agreed upon. Agreements reached in mediation shall be enforceable as settlement agreements in any court having jurisdiction thereof.

VIII. NOTICES

Any notification required or needed under the contract shall be sent to the following:

If to City:	If to Contractor:
City of De Pere Attention: City Engineer 925 South Sixth Street De Pere, WI 54115	Holubar Construction Company, Inc. Attention: George Holubar 1519 Shannon Street Green Bay, WI 54304

IN WITNESS WHEREOF, the parties hereto have made and executed this Agreement as of the day and year first above written.

HOLUBAR CONSTRUCTION COMPANY, INC.

By: _____
George Holubar
Title: PRESIDENT

By: _____
Printed Name: _____
Title: _____

CITY OF DE PERE

By: _____
Michael J. Walsh, Mayor

By: _____
Shana D. Ledvina, Clerk-Treasurer

Approved as to Form:

_____
Judith Schmidt-Lehman, City Attorney

J:\Law\Agreements\2018\Holubar Construction (Rail Spur Line Maintenance)7-18-161-001-18

Request for Proposals
For
Spur Line Maintenance

The City of De Pere would like to invite your firm to submit a proposal for 2019-2020 Spur Line Maintenance in the City's West Business Park.

Your proposal must be submitted to our office by June 28, 2018 at 3:00 PM.

GENERAL INFORMATION:

The City of De Pere has two spur tracks that provide service to the West Business Park, hereinafter referred to the north spur and the south spur. The purpose for this Request for Proposal (RFP) is to obtain services to provide maintenance and repair services for these spur lines.

The actual quantities of work will be based on the actual number of events that require snow removal, adjustments or replacements identified in CN inspections, and any additions, improvements or maintenance items requested by the City.

SCOPE OF SERVICES:

Spur line maintenance services include, but are not limited to:

1. Snow Removal
2. Adjusting Gapped Switches
3. Replacing Head Blocks
4. Repairing Frog Points
5. Repair of Broken Rail or Tie
6. Provide and Installing Switch Hooks
7. Cleaning, Adjusting, and Graphite of four (4) switches
8. Mobilization
9. Provide and Install Point Protectors
10. Point or Switch Replacement
11. Provide and Install Switch Numbers
12. Provide and Install Switch Brooms

SCHEDULING:

The City will request services throughout 2019 and 2020. Generally, the City will give 24 hours from e-mail notification to complete snow removal, address gapped switches, make frog point repairs, repair a broken rail or replace head blocks. All other work, other than a derailment or major rebuild, will be addressed in 5 calendar days from e-mail notification.

INSURANCE:

Your company shall effect and maintain insurance to protect from claims under workers compensation acts; claims for damages because of bodily injury including personal injury, sickness or disease, or death of any of the company's employees; and from claims for damages because of injury to or

destruction of tangible property including loss of use resulting there from; and from claims arising out of the performance of professional services caused by any errors, omissions or negligent acts for which the company is legally liable.

The company shall indemnify and save harmless the City of De Pere and their representatives from all suits, actions, or claims of any character brought for or on account of any injuries ort damages received by any person, persons or property resulting from the negligent acts of the company or of any of their subconsultants in prosecuting the work.

PROPERTY PROTECTION:

The company shall take precautions to prevent damage to property and any underground lines and shall restore the site to the condition existing prior to entry.

FEE:

The proposed fee schedule shall be submitted on the attached form. Defined work for each fee will provide a functionally complete project. If there are specific items which the contractor believes are not identified in any item, but are required to provide a functionally complete project, then the identified specific work item shall be included in the appropriate fee.

A company fee schedule shall be attached for additional services offered that are not shown on the attached form.

INFORMATION PROVIDED BY THE CITY:

The City will provide location maps and switch numbers to be used in all correspondence including billing.

The limit of snow removal for each switch is shown on the attached detail.

ADDITIONAL INFORMATION:

A sample consultant agreement is attached.

INVOICING:

Invoices will be accepted monthly and should include a breakdown of charges for each spur.

Proposed Fee Schedule

Company Name:_____

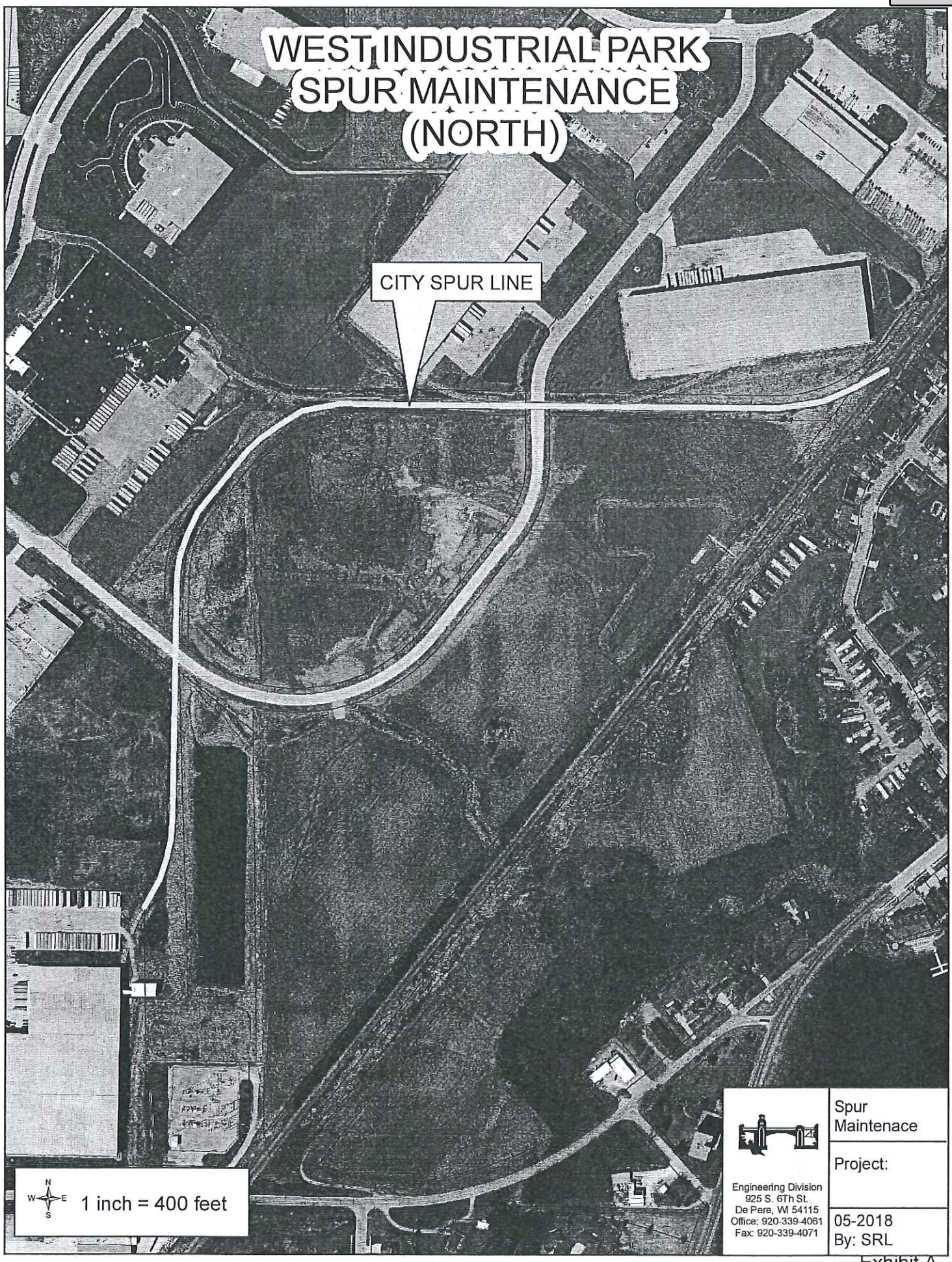
Company Address:_____

Company E-mail Address:_____

Company Representative:_____

Signature:_____

Item	Fee	Unit
Snow Removal Services		
Mobilization		Per event
Snow Removal >/= 3.0 inches		Per switch
Snow Removal < 3.0 inches		Per switch
Adjustments		
Mobilization		Per event
Gapped Switch		Per each
Weld Frog Point		Per turnout
Paint Derails School Bus Yellow include switch handles		Per Derail
Replacements		
Mobilization		Per event
Broken Rail		Per each
Bad Tie		Per each
Install Switch Hooks and Remove CN Locks (return to CN)		Per each
Head Block		Per each
Head Block Ties		Per each
Set of Comp bars		Per set
Additions/Improvements		
Mobilization		Per event
Point Protectors		Per turnout
Label Switch Numbers		Per switch
Provide and Install Switch Broom		Per switch
Spring & Fall Maintenance		
Clean, Adjust, and Graphite Switch		Per switch



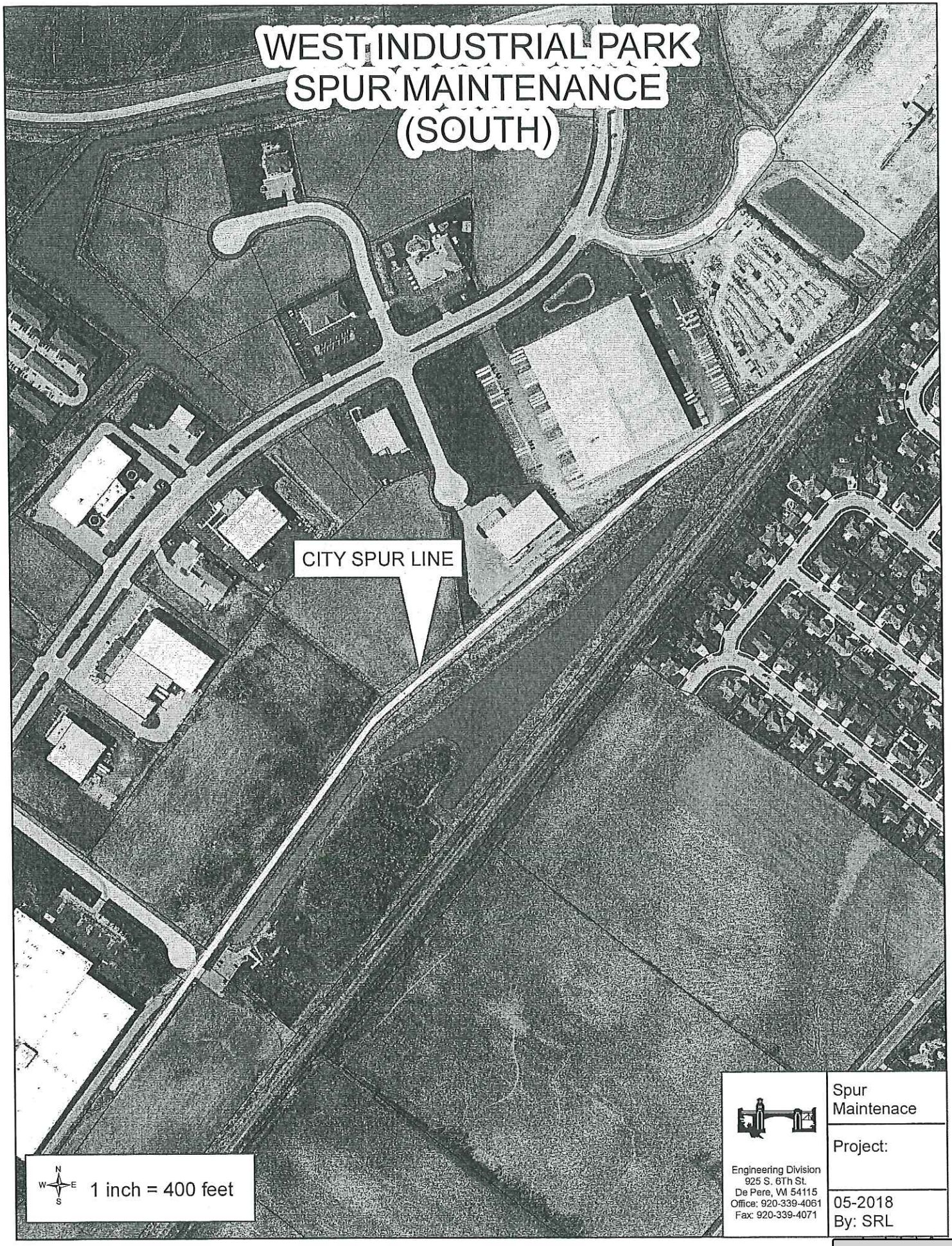
Engineering Division
925 S. 6Th St.
De Pere, WI 54115
Office: 920-339-4061
Fax: 920-339-4071

Spur Maintenace

Project:

05-2018
By: SRL

Exhibit A



Engineering Division
925 S. 6Th St.
De Pere, WI 54115
Office: 920-339-4061
Fax: 920-339-4071

Spur Maintenace

Project:

05-2018
By: SRL

HOLUBAR
Construction Company, Inc.

June 28, 2018

Mr. Chase Kuffel
Assistant City Engineer
City of De Pere

Mr. Kuffel-

Please find enclosed the fee schedule for the year 2019 Track maintenance.

We have been a service provider in the local area for customers with Rail Spurs since 1979. We specialize in Track Maintenance and rehab. We have a full time staff that will be able to accommodate the City's needs easily.

We look forward to working with you.

Sincerely,

George Holubar

1519 Shannon Street Green Bay, WI 54304
Office: 920-499-5629 Fax: 920-499-3404
www.holubarconstruction.com

Proposed Fee Schedule

Company Name: HOLUBAR CONSTRUCTION COMPANY

Company Address: 1519 SHANNON ST. GREEN BAY, WI

Company E-mail Address: HOLUBAR CONSTRUCTION @ GMAIL.COM

Company Representative: SETH HOLUBAR

Signature: [signature]

Item	Fee	Unit
Snow Removal Services		
Mobilization	100.00	Per event
Snow Removal >/= 3.0 inches	100.00	Per switch
Snow Removal < 3.0 inches	150.00	Per switch
Adjustments		
Mobilization	100.00	Per event
Gapped Switch	3.50.00	Per each
Weld Frog Point	500.00	Per turnout
Paint Derails School Bus Yellow include switch handles	5.00	Per Derail
Replacements		
Mobilization	300.00	Per event
Broken Rail	1,200.00	Per each
Bad Tie	85.00	Per each
Install Switch Hooks and Remove CN Locks (return to CN)	5.00	Per each
Head Block	150.00	Per each
Head Block Ties	150.00	Per each
Set of Comp bars	500.00	Per set
Additions/Improvements		
Mobilization	300.00	Per event
Point Protectors	3,800.00	Per turnout
Label Switch Numbers	5.00	Per switch
Provide and Install Switch Broom	10.00	Per switch
Spring & Fall Maintenance		
Clean, Adjust, and Graphite Switch	350.00	Per switch

ACORD®

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
8/28/2018

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Ansay & Associates, LLC. 1710 Lawrence Drive De Pere WI 54115	CONTACT NAME: Erin Gresen, CISR PHONE (A/C, No, Ext): 800-236-8652 FAX (A/C, No): 920-437-4179 E-MAIL ADDRESS: erin.gresen@ansay.com
INSURED HOLUCON-01 Holubar Construction Company Inc 1519 Shannon Street Green Bay WI 54304	INSURER(S) AFFORDING COVERAGE / NAIC # INSURER A : Western National Insurance Group 15377 INSURER B : INSURER C : INSURER D : INSURER E : INSURER F :

COVERAGES **CERTIFICATE NUMBER:** 1677227284 **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X COMMERCIAL GENERAL LIABILITY [ ] CLAIMS-MADE [X] OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: [ ] POLICY [X] PRO-JECT [ ] LOC [ ] OTHER:	Y		CPP1144801	8/1/2018	8/1/2019	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG $	$ 1,000,000 $ 100,000 $ 5,000 $ 1,000,000 $ 2,000,000 $ 2,000,000 $
A	AUTOMOBILE LIABILITY X ANY AUTO [ ] ALL OWNED AUTOS [ ] SCHEDULED AUTOS X HIRED AUTOS [X] NON-OWNED AUTOS			CPP1143187	8/1/2018	8/1/2019	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident) $	$ 1,000,000 $ $ $ $
A	X UMBRELLA LIAB [X] OCCUR EXCESS LIAB [ ] CLAIMS-MADE [ ] DED [X] RETENTION $ 10,000			UMB1024042	8/1/2018	8/1/2019	EACH OCCURRENCE AGGREGATE $	$ 8,000,000 $ 8,000,000 $
A	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? Y/N [N] N/A (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below		N/A	WCV1026046	8/1/2018	8/1/2019	X PER STATUTE [ ] OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	 $ 1,000,000 $ 1,000,000 $ 1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
City of De Pere is included as additional insured in regards to General Liability.

CERTIFICATE HOLDER

City of De Pere
335 South Broadway
De Pere WI 54115

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

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COMMERCIAL GENERAL LIABILITY
WN GL 89 07 15

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

ADDITIONAL INSURED – CONTRACTORS – OPERATIONS AND COMPLETED OPERATIONS – WITH ADDITIONAL INSURED REQUIREMENT IN CONSTRUCTION CONTRACT

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

1. Additional Insured – Operations

A. Operations Performed For An Additional Insured

Section II – Who Is An Insured is amended to include as an additional insured any person or organization, if you and such person or organization have agreed in writing in a contract or agreement that such person or organization be included as an additional insured on your policy, but only with respect to liability for "bodily injury", "property damage" or "personal and advertising injury" arising out of your ongoing operations for the additional insured.

B. Limitations

The Operations Performed for Additional Insured coverage is limited as follows:

(1) This insurance does not apply to "bodily injury" or "property damage" occurring after:

a. All work, including materials, parts or equipment furnished in connection with such work, on the project (other than service, maintenance or repairs) to be performed by or on behalf of the additional insured(s) at the location of the covered operations has been completed; or

b. That portion of "your work" out of which the injury or damage arises has been put to its intended use by any person or organization other than another contractor or subcontractor engaged in performing operations for a principal as a part of the same project.

2. Additional Insured – Completed Operations

A. Additional Insured – Completed Operations

Section II – Who Is An Insured is amended to include as an additional insured any person or organization, if you and such person or organization have agreed in writing in a contract or agreement that such person or organization be included as an additional insured on your policy, but only with respect to "bodily injury" or "property damage", arising out of "your work" performed for the additional insured and included in the "products-completed operations hazard".

B. Limitations

The Additional Insured – Completed Operations coverage is limited as follows:

(1) A person or organization's status as an insured under Additional Insured – Completed Operations continues only for the period of time required by any written contract or agreement.

(2) The insurance provided to the additional insured does not apply to "bodily injury", "property damage" or "personal and advertising injury" arising out of "your work" for which a consolidated (wrap-up) insurance program has been provided by the prime contractor-project manager or owner of the construction project in which you are involved.

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3. **Primary and Noncontributory**

   The following is added to the **Other Insurance** Condition and supersedes any provision to the contrary:

   Primary And Noncontributory Insurance

   This insurance is primary to and will not seek contribution from any other insurance available to an additional insured under your policy provided that:

   (1) The additional insured is a Named Insured under such other insurance; and

   (2) You have agreed in writing in a contract or agreement that this insurance would be primary and would not seek contribution from any other insurance available to the additional insured.

4. **Other Provisions Applicable to Additional Insured – Operations and Additional Insured – Completed Operations**

   A. The Amendment of Insured Contract Definition (Endorsement CG 24 26) does not apply to an additional insured.

   B. The coverage provided under Paragraph **f.** of the definition of "insured contract" under **Section V – Definitions** does not apply to an additional insured under this endorsement unless required by a written contract or agreement.

   C. The insurance afforded to such additional insured only applies to the extent permitted by law; and

   If coverage provided to the additional insured is required by a contract or agreement, the insurance afforded to such additional insured will not be broader than that which you are required by the contract or agreement to provide for such additional insured.

   D. With respect to the insurance afforded to these additional insureds, the following is added to **Section III – Limits Of Insurance**:

   If coverage provided to the additional insured is required by a contract or agreement, the most we will pay on behalf of the additional insured is:

   (1) The minimum amount required by the contract or agreement; or

   (2) The Limits of Insurance shown in the Declarations;

   whichever is less.

   This endorsement shall not increase the applicable Limits of Insurance shown in the Declarations.

   E. With respect to the insurance afforded to these additional insureds, the following additional exclusion applies:

   This insurance does not apply to:

   (1) "Bodily injury", "property damage" or "personal and advertising injury" arising out of the rendering of, or the failure to render, any professional architectural, engineering or surveying services, including:

   a. The preparing, approving, or failing to prepare or approve, maps, shop drawings, opinions, reports, surveys, field orders, change orders or drawings and specifications; or

   b. Supervisory, inspection, architectural or engineering activities.

   This exclusion applies even if the claims against an additional insured allege negligence or other wrongdoing in the supervision, hiring, employment, training or monitoring of others by that insured, if the "occurrence" which caused the "bodily injury" or "property damage", or the offense which caused the "personal and advertising injury", involved the rendering of or failure to render any professional services by you with respect to your providing engineering, architectural or surveying services in your capacity as an engineer, architect or surveyor.

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City of De Pere, Wisconsin

Request For Board of Public Works Action

MEETING DATE:	**January 11, 2021**
DEPARTMENT:	**Public Works**
FROM:	**Scott Thoresen**
SUBJECT:	**Consider and Possible Action for Engineering Technical Services Regarding Installation of T-Mobile's Wireless Antennae Facilities on Merrill Water Tower***

The City received a request from T-Mobile regarding installation of wireless antennae facilities on the City's Merrill water tower. As part of this request, the City will need to hire Dixon Engineering to perform engineering technical services for the City to make sure there is no impact to the City's water tower with the work being proposed by T-Mobile. Staff has received payment from T-Mobile for funding the engineering services (See attached engineering agreement) to be performed by Dixon Engineering.

Staff recommends approving the engineering services agreement with Dixon Engineering for the T-Mobile's wireless upgrade on the Merrill water tower.

ATTACHMENTS:

- De Pere Merrill T-Mobile (ML94454A) Proposal November 2020 (PDF)

DIXON
ENGINEERING & INSPECTION SERVICES FOR THE COATING INDUSTRY

4811 S. 76th Street
Suite 109
Greenfield, WI 53220
Telephone: (414) 529-1859
Fax: (414) 282-7830

Proposal/Contract Agreement for Antennas

City of De Pere / T-Mobile (ML94454A) Upgrade
250,000 Gallon Legged Merrill 49-05-11-01

The agreement is between Dixon Engineering, Inc. (DIXON) and **City of De Pere, Wisconsin** (OWNER) to contract with DIXON for technical services for **T-Mobile** (CONTRACTOR). This agreement inclusive together with any expressly incorporated appendix or Schedule, constitutes the entire agreement between Owner and Engineer and supersedes all prior written or oral understandings. This Agreement may only be amended, supplemented, modified, or canceled by a duly executed written instrument. This agreement includes pages 1 through 4 and Schedules A, B, and C.

1.01 Payment

DIXON shall provide, or cause to be provided, services detailed in Scope of Services and OWNER agrees to pay DIXON as compensation for their services the (not to exceed/lump sum) fee of **Four Thousand Nine Hundred** dollars **$4,900**. Terms of charges and payments per details in Schedule B. (Prices quoted are subject to change 90 days after proposal date, if not contracted.)

2.01 SCOPE OF SERVICES

Design Review, Attend a Precon Meeting, and Installation Inspections

3.01 SIGNATURES

Joseph T. Hoban, Vice President — November 6, 2020
PROPOSED by DIXON (Not a contract until approved by an officer) — PROPOSAL DATE

_____
CONTRACT APPROVED by OWNER — POSITION — DATE

_____
CO SIGNATURE (if required) — POSITION — DATE

_____
CONTRACT APPROVED by DIXON OFFICER — EFFECTIVE CONTRACT DATE

4.01 ADDITIONAL SERVICES

A. If additional services are **Requested and authorized** by the OWNER which are not within the proposed Scope of Services or because of changes in the Project, these additional services will be on a time and material basis per fee schedule of attached SCHEDULE C.

B. **Delay by the Contractor** in completing the work, which is the responsibility of the Contractor and which extends the amount of time required for DIXON to complete their work, will be charged as an Additional Service.

C. **Failure by the Contractor to notify** DIXON of the necessity to change inspection dates more than twenty-four (24) hours in advance and which results in unnecessary travel and/or expense to DIXON shall cause this travel and expense to be charged as Additional Service.

D. **Failure by the Contractor to Meet Specifications** and/or to complete work prior to requesting an inspection is considered a failed inspection. Services provided by DIXON during or for a failed inspection include travel, inspector, and project manager time will be charged as an Additional Service.

5.01 Termination

A. The obligation to provide further services under this Agreement may be terminated:
   1. For cause,
      a. By either party upon thirty (30) days written notice in the event of substantial failure by the other party to perform in accordance with the Agreement's terms through no fault of the terminating party. Agreement will not terminate as a result of substantial failure under paragraph 5.01.A.1.a if the party receiving such notice begins, within seven (7) days of receipt of such notice, to correct its failure and proceeds diligently to cure such failure within no more than thirty (30) days of receipt of notice; provided, however, that if and to the extent such substantial failure cannot be reasonably cured within such thirty (30) day period, and if such party has diligently attempted to cure the same and thereafter continues diligently to cure the same, then the cure period provided for herein shall extend up to, but in no case more than, sixty (60) days after the date of receipt of the notice.
      b. By DIXON upon seven days written notice:
         1) If Owner fails to pay invoices by 60 days.
         2) Upon seven (7) days written notice if the DIXON's services for the Project are delayed or suspended for more than ninety (90) days for reasons beyond DIXON's control.
         3) If DIXON believes that Engineer is being requested by Owner to furnish or perform services contrary to engineer's responsibilities as a licensed professional.
         4) DIXON shall have no liability to Owner on account of such termination.

2. For Convenience,
   a. By OWNER effective upon the receipt of notice by DIXON.

B. The terminating party may set the effective date of termination at a time up to thirty (30) days later to allow Engineer to demobilize personnel and equipment from the Project site, to complete tasks whose value would otherwise be lost, to prepare notes as to the status of completed and uncompleted tasks, and to assemble Project materials in orderly files.

6.01 Controlling Law

A. This Agreement is to be governed by the law of the state in which the Project is located.

7.01 Successors, Assigns, and Beneficiaries

A. OWNER and DIXON and their successors are hereby bound to successors and legal representatives of the other to the extent permitted by law in respect of all covenants, agreements, and obligations of this Agreement.

B. Neither OWNER nor DIXON may assign, sublet, or transfer any rights under or interest (including, but without limitation, moneys that are due or may become due) in this Agreement.

8.01 General Considerations

A. The **Standard of Care** for all professional engineering and related services performed or furnished by DIXON under this Agreement will be the care and skill ordinarily used by members of the subject profession practicing under similar circumstances at the same time and in the same locality. DIXON makes no warranties, expressed or implied, under this Agreement or otherwise, in connection with DIXON's services. DIXON and its consultants may use or rely upon the design services of others, including, but not limited to, contractors, manufacturers, and suppliers.

B. DIXON shall **Not** at any time **Supervise**, direct, or have control over any of the **Contractor's** work, nor shall DIXON have authority over or responsibility for the means, methods, techniques, sequences, or procedures of construction selected or used by any contractor, for safety precautions and programs incident to contractor's work progress, nor for any failure of any contractor to comply with laws and regulations applicable to contractor's work.

C. Engineer does not guarantee the performance of any contractor and does **Not Assume Responsibility** for any contractor's failure to furnish and perform its work in accordance with the contract between Owner and such contractor.

D. Engineer shall **Not be Responsible For the acts or Omissions of any Contractor**, subcontractor, or supplier, or of any contractor's agents or employees or any other persons (except Engineer's own employees) at the Project site or otherwise furnishing or performing any of the construction work; or for any decision made on interpretations or clarifications of the construction contract given by Owner without consultation and advice of Engineer.

E. The **General Conditions** for any construction contract documents prepared hereunder are to be the "Standard General Conditions of the Construction Contract" as prepared by the Engineers Joint Contract Documents Committee (No. C-700, 2007 Edition) or equally protective document provided by Owner.

F. All **Design Documents** prepared or furnished by DIXON are instruments of service, and DIXON retains an ownership and property interest (including the copyright and the right of reuse) in such documents, whether or not the Project is completed.

G. DIXON agrees to defend, **Indemnify**, and hold harmless the Owner, its officers, agents, and employees, from and against legal liability for all claims, losses, damages, or expenses to the extent such claims, losses, damages, or expenses are directly caused by Engineer's negligent or intentional acts, errors, or omissions. Limits of liability for negligence is based on the comparative negligence principle.

H. The parties acknowledge that DIXON's scope of services does not include any services related to a **Hazardous Environmental Condition** (the presence of asbestos, PCBs, petroleum, hazardous substances or waste, and radioactive materials). DIXON acknowledges that some hazardous metals may be encountered in coatings.

8.02 Severability

A. If any clause or paragraph or sentence is found to be in opposition to any law in the state of the Project, that clause or paragraph or sentence may be severed from the Agreement with no effect on remaining clauses.

8.03 Headings

A. Article and paragraph headings are inserted for convenience only and do not constitute parts of these General Conditions. Words in the first sentence are in bold to act as secondary headings and should not be interpreted any different than a numbered heading.

SCHEDULE A

City of De Pere / T-Mobile (ML94454A) Upgrade
250,000 Gallon Legged Merrill 49-05-11-01

I. Design Drawings and Structural Calculations Review:
   a. Staff Engineer to review designs created by others. No calculations or Professional Engineering seal are included.

II. Site Work for:
   a. Attend and participate in a Preconstruction Meeting.
   b. Perform Installation inspections as the project progresses and or a final post inspection to compare with design criteria. These inspections include letter report and photographs.

SCHEDULE B

City of De Pere / T-Mobile (ML94454A) Upgrade
250,000 Gallon Legged Merrill 49-05-11-01

I. PAYMENT

a. When service is rendered Owner shall pay DIXON the following line item prices:
   i. Schedule A, Item I, Design Drawings and Structural Calculations Review, the lump sum of $**1,450**.

b. Owner shall pay DIXON the following line items times the number of units used:
   i. Schedule A, Item II
      1. **(1)** Preconstruction Meeting $**1,150** per meeting
      2. **(2)** Installation Inspections $**1,150** per inspection

II. INVOICES

a. Invoices will be compiled monthly.

b. All DIXON services that are outstanding more than thirty (30) days from date of issue shall be assessed (DIXON's favor) one and a half percent (1.5%) per month interest starting from 30 days after date of issue.

Attachment C
Employee Billable Rates and Terms
Antennas

Labor Class	Per Hour	Overtime Rate*
Principal	$265.00	
Project Manager	$160.00	$240.00
Engineer	$165.00	$248.00
CWI Welding RPR	$175.00	$262.00
DIXON Level 3 or NACE certified Level 3 RPR	$110.00-$145.00	$165.00-$217.00
DIXON Level 2 or NACE Level 2 RPR	$96.00-$122.00	$144.00-$183.00
DIXON Level 1 or NACE Level 1 RPR	$90.00-$100.00	$135.00-$150.00
Contract Support Staff	$115.00-$140.00	$173.00-$210.00

Expenses	Metropolitan	Out-State
Mileage	$0.75/mile + tolls	$0.65/mile
Lodging	$130.00 per diem	$120.00 per diem
Meals	$49.00 per diem	$45.00 per diem

FEES EFFECTIVE THROUGH: December 31, 2021 (Revised: 8/6/2020)

City of De Pere, Wisconsin

Request For Board of Public Works Action

MEETING DATE:	**January 11, 2021**
DEPARTMENT:	**Board of Public Works**
FROM:	**Eric Rakers**
SUBJECT:	**Consideration and possible action to Reconstruct Erie Street**

ATTACHMENTS:

- 2021 0111 CI_BOPW_Erie Street Reconstruction (PDF)
- 2020 0111 Erie Street Exhibit (PDF)

CITY OF DE PERE
MEMO

To: Honorable Mayor Boyd
Members of the Board of Public Works
From: Eric P. Rakers, P.E., City Engineer
Date: January 11, 2021

RE: **Consideration and possible action to Reconstruct Erie Street**

The City of De Pere has been reconstructing streets each year as part of the capital improvement program (CIP). The determination for reconstructing streets is based on many different factors including the pavement rating, age of pavement, pavement structure, utility conditions, etc. In 2021, Lewis Street from Broadway Street to Ontario Street is included in the CIP for reconstruction. The reconstruction of Lewis Street was scheduled to coincide with the construction of the Mulva Cultural Center (MCC). The MCC schedule has been revised and is currently scheduled to open in early 2023. Much of the heavy construction on the MCC is anticipated in 2021. Due to the change in MCC opening, staff is recommending Lewis Street reconstruction be postponed until 2022.

The City's CIP includes street reconstructions each year. With the proposed delay in Lewis Street reconstruction to 2022 staff is recommending Erie Street from George Street to Ridgeway Boulevard be moved up to 2021. There are many similarities between Lewis Street and Erie Street including:

- Lewis Street is 1,870 feet long and Erie Street is 1,970 feet long.
- Both streets are rated 4 and 5.
- The amount of sanitary and storm sewer work is similar on both streets.

The only difference between the two streets is the amount of water main relay. There is more water main work on Erie Street due to the installation of 16" water main. The additional cost will be accommodated through a change in scope of the amount of water main relay on Ridgeway Boulevard.

The staff recommendation is to delay the reconstruction of Lewis Street until 2022 and reconstruct Erie Street from George Street to Ridgeway Boulevard in 2021.

DE PERE

Engineering Division
925 S. 6Th St.
De Pere, WI 54115
Office: 920-339-4061
Fax: 920-339-4071

N. Erie St.
Reconstruction

Project:
21-02

Jan. 2021
By: BK

City of De Pere, Wisconsin

Request For Board of Public Works Action

MEETING DATE:	**January 11, 2021**
DEPARTMENT:	**Public Works**
FROM:	**Scott Thoresen**
SUBJECT:	**Consider and Possible Action for S. Webster Entrance Sign Replacement***

The City replaced five (5) existing decorative signs located at various entrances throughout the City. On November 27, 2020 the new sign located on S. Webster was vandalized. (See attached photos) The sign has been covered since this date. Our insurance company has agreed with replacing the sign for $5,153.10 (See attached estimate) less the City's $1,000 deductible.

Since we are going to replace the sign, the City has the opportunity to raise the sign. Currently, the sign is several feet lower than the back of sidewalk due to the slope behind the sidewalk. Staff received the following estimates(See attached estimates) for raising the sign:

Raise two (2) feet: Additional cost $658.90
Raise three (3) feet: Additional cost $1,009.90
Raise four (4) feet: Additional cost $1,279.90

The funding for raising the sign would need to come from unassigned general fund balance. Staff would recommend raising the sign three (3) feet.

In addition, staff inquired painting the back of the sign. If we were to paint the sign using one of the colors (grey, blue, or white) on the front of the sign there would be no extra charge. If the City wanted a different color the extra cost would be $120. Staff also requested a cost for using anti-graffiti paint. The additional cost would be $485. The vendor said they have never used this type of paint before so they do not know how well it would work.

ATTACHMENTS:

- S. Webster Damage Sign photo #1 (JPG)
- S. Webster Damage Sign photo #2 (JPG)
- City of De Pere Sign Replacement Estimate S. Webster(PDF)
- City of De Pere Sign Replacement Options (PDF)

Welcome
to
DEPERE

fuck
cops

Fox Cities Sign LLC
1125 W Tuckaway Lane Suite D
Menasha, WI 54952
Ph: (920) 378-3515
FAX: (920) 228-8993
Email: sales@foxcitiessign.com
Web: www.foxcitiessign.com

Estimate

Created Date:	12/3/2020 10:57:00AM	**Prepared For:**	City of De Pere
Salesperson:	Kristina Coppo	**Contact:**	Tony Fietzer, Street Superintendent
Email:	kristina@foxcitiessign.com	**Office Phone:**	(920) 339-8325
Office Phone:	(920) 378-3515		
Office Fax:	(920) 228-8993	**Email:**	tfietzer@deperewi.gov
Entered by:	Sara Greil	**Address:**	925 S. 6th Strret De Pere, WI 54115

Description: Welcome signs - Replacement for damage

		Quantity	Unit Price	Subtotal
1	**Product:** Custom Sign	1	$5,153.10	$5,153.10

Description: 5323.1 Replacement
Remove existing vandalized sign. Produce and install (1) new 77.6" x 64" x 4" single sided Foam Core Sign with hardcoat. Includes stucco finish w/raised lettering and logo on face. Sign mounted over two steel posts. Includes 7 Year material warranty.
*Quoted as removing from existing poles, and installing new onto existing poles/foundation.

- Standard Install

		Quantity	Unit Price	Subtotal
2	**Product:** Custom Sign	1	$4,330.72	$4,330.72

Description: 5323.2 Repair
Remove existing vandalized sign, carefully removing from existing poles. Crate and transport sign. Resporay and repaint sign, return to site and reinstall sign onto existing poles/footing.
*If sign cannot be removed from poles without causing damage to sign, we will have to remove the existing footing and install new footing (not included)

- Standard Install

Notes

PRICE VALID FOR 30 DAYS. CUSTOMER IS RESPONSIBLE FOR SIGN PERMIT OR MAY CONTRACT FOX CITIES SIGN, LLC A WISCONSIN LIMITED LIABILITY COMPANY ("COMPANY") DBA FOX CITIES SIGN TO OBTAIN PERMIT FOR $100 FEE PLUS COST O PERMIT AND ANY ADDITIONAL FEES REQUIRED FROM MUNICIPALITY. CLIENT IS RESPONSIBLE FOR ABIDING BY MUNICIPAL C STATE & DOT REGULATIONS. FOX CITIES SIGN, LLC A WISCONSIN LIMITED LIABILITY COMPANY ("COMPANY") DBA FOX CITIES IS NOT RESPONSIBLE FOR RUNNING ELECTRICAL TO SIGN, ENGINEERING OR INSPECTIONS.
OUR TERMS ARE 75% DOWN WITH BALANCE DUE UPON INSTALLATION/COMPLETION PRODUCTION WILL BEGIN UPON RECEI THE FOLLOWING: SIGNED CONTRACT & RENDERINGS, DOWN-PAYMENT, PERMIT APPROVAL. ESTIMATED COMPLETION DATE BE PROVIDED APPROXIMATELY ONE WEEK AFTER RECEIVING THESE ITEMS. 3.5% CHARGE TO BE ADDED FOR ALL CREDIT C PURCHASES.
*** FINAL INVOICE AMOUNT MAY VARY UPON COMPLETION ***
THERE MAY BE ADDITIONAL CHARGES DUE TO ABNORMAL SOIL CONDITIONS, READINESS OF THE SITE UPON OUR ARRIVAL, ACCESS ISSUES, RUSH FEES, AND ADDITIONAL REPAIRS. IF THE BUILDING OR OTHER EXISTING STRUCTURE IN WHICH SIGN WILL BE ATTACHED IS FOUND TO BE NOT SUPPORTIVE OR STRUCTURALLY SOUND, THERE MAY BE ADDITIONAL LABOR/MATERIAL CHARGES. QUOTE IS VALID FOR MILD TEMPERATURE INSTALLATION. IF PAINTING, VINYL OR FLEX FACE INSTALLATION IS REQUIRED DURING TEMPERATURES BELOW 50 DEG, THERE MAY BE ADDITIONAL COSTS OR DELAYS INVOL

Payment Terms:

Client Reply Request

☐ **Estimate Accepted "As Is". Please proceed with Order.**
☐ **Changes required, please contact me.**
☐ **Other:** _____
SIGN: _____ **Date:** / /

Print Date: 12/3/2020 2:39:41PM

We'll Keep an Eye on your Sign!

Fox Cities Sign LLC
1125 W Tuckaway Lane Suite D
Menasha, WI 54952
Ph: (920) 378-3515
FAX: (920) 228-8993
Email: sales@foxcitiessign.com
Web: www.foxcitiessign.com

Estimate

Created Date:	12/3/2020 10:57:00AM	**Prepared For:**	City of De Pere
Salesperson:	Kristina Coppo	**Contact:**	Tony Fietzer, Street Superintendent
Email:	kristina@foxcitiessign.com	**Office Phone:**	(920) 339-8325
Office Phone:	(920) 378-3515		
Office Fax:	(920) 228-8993	**Email:**	tfietzer@deperewi.gov
Entered by:	Sara Greil	**Address:**	925 S. 6th Strret De Pere, WI 54115

Description: Welcome signs - Replacement for damage

	Quantity	Unit Price	Subtotal
1	1	$5,153.10	$5,153.10

Product: Custom Sign
Description: 5323.1a Replacement
Remove existing vandalized sign. Produce and install (1) new 77.6" x 64" x 10" single sided Foam Core Sign with hardcoat. Includes stucco finish w/raised lettering and logo on face. Sign mounted over two steel posts. Includes 7 Year material warranty.
*Quoted as removing from existing poles, and installing new onto existing poles/foundation.

- Standard Install

	Quantity	Unit Price	Subtotal
2	1	$4,330.72	$4,330.72

Product: Custom Sign
Description: 5323.2 Repair
Remove existing vandalized sign, carefully removing from existing poles. Crate and transport sign. Respray and repaint sign, return to site and reinstall sign onto existing poles/footing.
*If sign cannot be removed from poles without causing damage to sign, we will have to remove the existing footing and install new footing (not included)

- Standard Install

	Quantity	Unit Price	Subtotal
3	1	$5,812.00	$5,812.00

Product: Custom Sign
Description: 5323.1b Replacement - 2' Taller
Remove existing vandalized sign. Produce and install (1) new 101.6" x 64" x 10" single sided Foam Core Sign with hardcoat. Includes stucco finish w/raised lettering and logo on face. Sign mounted over two steel posts. Includes 7 Year material warranty.
*Quoted as removing from existing poles, and installing new onto existing poles/foundation.

- Standard Install

	Quantity	Unit Price	Subtotal
4	1	$6,163.00	$6,163.00

Product: Custom Sign
Description: 5323.1c Replacement - 3' Taller
Remove existing vandalized sign. Produce and install (1) new 113.6" x 64" x 10" single sided Foam Core Sign with hardcoat. Includes stucco finish w/raised lettering and logo on face. Sign mounted over two steel posts. Includes 7 Year material warranty.
*Quoted as removing from existing poles, and installing new onto existing poles/foundation.

- Standard Install

	Quantity	Unit Price	Subtotal
5	1	$6,433.00	$6,433.00

Product: Custom Sign
Description: 5323.1d Replacement - 4' Taller
Remove existing vandalized sign. Produce and install (1) new 125.6" x 64" x 10" single sided Foam Core Sign with hardcoat. Includes stucco finish w/raised lettering and logo on face. Sign mounted over two steel posts. Includes 7 Year material warranty.
*Quoted as removing from existing poles, and installing new onto existing poles/foundation.

- Standard Install

Print Date: 12/15/2020 2:19:23PM

We'll Keep an Eye on your Sign!

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Menasha, WI 54952
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Estimate

Notes

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OUR TERMS ARE 75% DOWN WITH BALANCE DUE UPON INSTALLATION/COMPLETION PRODUCTION WILL BEGIN UPON RECEI THE FOLLOWING: SIGNED CONTRACT & RENDERINGS, DOWN-PAYMENT, PERMIT APPROVAL. ESTIMATED COMPLETION DATE ' BE PROVIDED APPROXIMATELY ONE WEEK AFTER RECEIVING THESE ITEMS. 3.5% CHARGE TO BE ADDED FOR ALL CREDIT C/ PURCHASES.
*** FINAL INVOICE AMOUNT MAY VARY UPON COMPLETION ***
THERE MAY BE ADDITIONAL CHARGES DUE TO ABNORMAL SOIL CONDITIONS, READINESS OF THE SITE UPON OUR ARRIVAL, ACCESS ISSUES, RUSH FEES, AND ADDITIONAL REPAIRS. IF THE BUILDING OR OTHER EXISTING STRUCTURE IN WHICH SIGN/ WILL BE ATTACHED IS FOUND TO BE NOT SUPPORTIVE OR STRUCTURALLY SOUND, THERE MAY BE ADDITIONAL LABOR/MATERIAL CHARGES. QUOTE IS VALID FOR MILD TEMPERATURE INSTALLATION. IF PAINTING, VINYL OR FLEX FACE INSTALLATION IS REQUIRED DURING TEMPERATURES BELOW 50 DEG, THERE MAY BE ADDITIONAL COSTS OR DELAYS INVOL'

Payment Terms:

Client Reply Request

☐ **Estimate Accepted "As Is". Please proceed with Order.**
☐ **Changes required, please contact me.**
☐ **Other:** _____
SIGN: _____ **Date:** / /

Print Date: 12/15/2020 2:19:23PM

We'll Keep an Eye on your Sign!

City of De Pere, Wisconsin

Request For Board of Public Works Action

MEETING DATE:	**January 11, 2021**
DEPARTMENT:	**Public Works**
FROM:	**Scott Thoresen**
SUBJECT:	**Consideration and possible action on Ald. Hansen's Request for Responsible Bidder's Ordinance***

ATTACHMENTS:

- Consider Ald. Hansen's Request for Responsible Bidder's Ordinance 01-07-2021 (PDF)
- Brown County Responsible Bidder Ordinance (PDF)
- City Attorney Memo on Brown County Responsible Bidder Ordinance (PDF)
- UA 400 Pipe Trades Responsible Bidder Ordinance Talking Points (PDF)
- City of De Pere Bidder Prequalification Form (PDF)
- 2020 Bidder Survey (PDF)

CITY OF DE PERE
MEMO

To: Honorable Mayor Boyd
Board of Public Works Members
From: Scott J. Thoresen, Director of Public Works
Date: January 7, 2021
RE: Consideration and possible action on Ald. Hansen's Request for Responsible Bidder's Ordinance*

Alderperson Hansen has requested the BOPW consider a responsible bidder's ordinance similar to the ordinance Brown County passed (See attached Brown County Responsible Bidder Ordinance). In addition, I have attached a memo from the City Attorney regarding the responsible bidder ordinance Brown County adopted. The request for the City to adopt this ordinance is coming from the UA 400 Pipe Trades. See attached UA 400 Pipe Trades Responsible Bidder Ordinance "talking points" which was provided to the Mayor and Alderperson Hansen. In addition, the City requires all bidders to submit statutorily required proof of responsibility under Wis. Stats. §66.0901(2) (See attached City of De Pere Bidder Prequalification Form).

The public works staff has evaluated the Brown County's responsible bidder's criteria as follows:

1. *The contractor must maintain a permanent place of business;*

   The City currently requires this as part of the City's current bidder's proof of responsibility and contract requirements.

2. *The contractor must be authorized to do business in the State of Wisconsin;*

   The City currently requires the contractor to be licensed to do business in the State of Wisconsin for all public works projects per contract requirements.

3. *The contractor, agent, partner, employee and/or officer of the contractor, must not be debarred, suspended, or declared ineligible from contracting with any unit of federal, state or local government;*

   This is already required as part of the City's contract and specification requirements under competency of bidders. Bidders may be disqualified if they have a conviction of a violation of a State or Federal law or regulation relating to or reflecting on the competency of the bidder.

4. *The contractor must be in compliance with the provisions of Section 2000e of Chapter 21, Title 42 of the United States Code, and Federal Executive Order No. 11246, as amended by Executive Order No. 11375 (known as the Equal Opportunity Employer provisions);*

   This is not currently part of the City's bidder's proof of responsibility process. Please note the City may not be in a position to determine compliance with this requirement.

5. *The contractor must have adequate and appropriate:*
    a) *general liability insurance;*

        General liability insurance is already required as part of the City's contract requirements.

    b) *automobile insurance, except when a licensed motor vehicle is not used in the performance of the contract; and*

        Automobile insurance is already required as part of the City's contract requirements.

    c) *workers' compensation and unemployment insurance, except when the contractor does not have employees.*

        Workers' compensation and unemployment insurance is already required as part of the City's contract requirements.

6. *The contractor must have complied with all provisions of any prevailing wage laws and federal Davis-Bacon related Acts, and the rules and regulations therein, for projects undertaken by the contractor that are covered by these laws, for the past five (5) years;*

    This is not currently part of the City's bidder's proof of responsibility process. Please note the City may not be in a position to determine compliance with this requirement.

7. *Regarding a Public Works Contract estimated to be in excess of two million dollars, and if determined to be appropriate in the discretion of the Brown County Purchasing Department at the time a Request for Bids or Request for Quotes is issued, then in order to be considered a responsible bidder, the contractor must participate in a Registered Apprenticeship Program;*

    The City currently does not have this in the City's bidder's proof of responsibility for a contractor having a registered apprenticeship program. Typically, apprenticeship programs are found with union contractors. Most of the City's contractors that bid on the City's public works projects are non-union and do not have an "apprenticeship program". Staff reached out to the contractors that typically bid on the City's public works projects to determine if they have an apprentice ship program (See attached 2020 Bidder Survey). If these contractors are required to have a certified apprenticeship program it will add costs to our construction projects because the contractor will be required to have an additional employee on the crew as an apprentice which will increase the hourly rate of the crew.

8. *The contractor must have a written substance abuse prevention program meeting the requirements of Wisconsin Statutes Section l03.503;*

    This is not currently part of the City's bidder's proof of responsibility process. Please note the City may not be in a position to determine compliance with this requirement.

9. *The employees who will perform work on the project for the contractor must be properly*

classified as employees or independent contractors under all applicable laws;

This is not currently part of the City's bidder's proof of responsibility process. Please note the City may not be in a position to determine compliance with this requirement.

10. *If the contractor has been the subject of any order or judgment from any state or federal agency or court concerning an employment practice, the contractor must provide copies of the investigation, order or judgment for the county to consider as a factor in determining whether the contractor is a responsible bidder. The contractor may be disqualified for failing to provide said documentation;*

    This is not currently part of the City's bidder's proof of responsibility process. Please note the City may not be in a position to determine compliance with this requirement.

11. *The contractor's employees who will perform work on the project must be covered under a current workers' compensation policy and must be properly classified under such policy;*

    This is not currently part of the City's bidder's proof of responsibility process. Please note the City may not be in a position to determine compliance with this requirement.

12. *The contractor must be in compliance with all laws regarding health insurance coverage for employees;*

    This is not currently part of the City's bidder's proof of responsibility process. Please note the City may not be in a position to determine compliance with this requirement

13. *The contractor must possess all applicable professional and trade licenses required for performing the public works;*

    This is not currently part of the City's bidder's proof of responsibility process. Please note the City may not be in a position to determine compliance with this requirement.

14. *The contractor must have adequate financial resources to complete the public works contract, and to complete all other work the bidder is presently under contract to complete;*

    The City currently requires this as part of the City's current bidder's proof of responsibility. The City requires the bidder to submit a letter from their bank or other financial institution advising line of credit set up for the organization. Bidder also needs to provide a financial statement regarding their finances which shows their assets and liabilities. In addition, the City requires bidder to list all other work they currently have under contract including their equipment and staffing resources for the previous three (3) years. The bidders are required to provide total contract costs for these projects which provide a history of the contractor's capabilities when it comes to the workload.

15. *The contractor must be bondable for the terms of the proposed public works contract;*

    The City currently requires this as part of the City's current bidder's proof of responsibility. Bidder is required to provide name of their bonding company. In addition, the City requires

bonding for all public works projects per contract requirements and needs to submit these bonds in order for the contract to be executed.

16. *If required in the discretion of the Brown County Purchasing Department at the time a Request for Bids or Request for Quotes regarding a contract of any amount is issued, then in order to be considered a responsible bidder, the contractor must have a record of satisfactorily completing a specific number of projects of similar size and complexity within the last specific number of years, with the required specific number of projects and years to be determined by the Purchasing Department prior to the Request for Bids or Request for Quotes being issued;*

    The City currently requires this as part of the City's current bidder's proof of responsibility. The City requires the bidder to provide all the projects they completed within the past three (3) years which includes the type of project, contract amount, and completion date. In addition, the bidder needs to submit their organization's experience in the construction of similar work for the project. This requirement goes beyond projects required to bid. It includes any project bid or subject to an RFP, meaning this requirement would apply to all those services the public works or other City departments send out (cleaning contracts, crack sealing, engineering design services, etc.).

17. *The contractor must have a history of satisfactorily completing projects. Criteria which will be considered in determining whether the contractor is a responsible bidder regarding satisfactorily completing projects may include, but are not limited to, whether the contractor has an acceptable past history of: a) completing contracts in accordance with drawings and specifications; b) diligently performing work and completing contracts in accordance with established time schedules, including any granted extensions of time; and c) fulfilling guarantee requirements of the contract documents; and*

    The City currently requires this as part of the City's current bidder's proof of responsibility. The City requires the bidder to provide all the projects they completed within the past three (3) years which includes the type of project, contract amount, and completion date. In addition, the bidder needs to submit their organization's experience in the construction of similar work for the project. The City also requires to the bidder to respond to questions if they have ever defaulted or failed to complete projects that have been awarded to them.

18. *The contractor must have, and diligently maintain, a written safety program.*

    This is not currently part of the City's bidder's proof of responsibility process. Please note the City may not be in a position to determine compliance with this requirement.

After reviewing the eighteen (18) requirements above: eight (8) currently are part of the City's bidder proof of responsibility process and/or contract requirements; ten (10) requirements are not currently part of the bidder's proof of responsibility process. Those that are not in the City's current process, the City may not be in a position to determine compliance with each specific requirement.

In researching the bidder's ordinance requirements requested, it appears the push for a responsible bidder ordinance is being done to offset the perceived negative impacts when the State repealed prevailing wages for workers on public works projects. The intent of eliminating the prevailing wage laws was to help municipalities save money on project costs. Staff feels introducing the requirements of the

responsible bidder's ordinance especially pertaining to apprenticeship program will increase the City project costs on public works contracts. In addition, it appears many communities that have adopted the bidder's ordinance requirement did not have any prior bidder prequalification requirements.

One of the UA 400 responsible bidder ordinance talking points refers to "While low cost is the first priority, value is also essential. You get what you pay for." In response to this, the City has an established prequalification process and employs full time staff to inspect and enforce City construction specifications and standards. Furthermore, if work is not completed pursuant to our plans and specifications we have measures in our contract requirements to take corrective actions and/or deductively bill for the repairs. Such measures incorporated into our contract general conditions as outline in our standard specifications are covered in the following subtitles:

- Removal of unauthorized and unacceptable materials and workmanship
- Owner may correct unacceptable work
- Responsibility for damage claims
- Contractor's Responsibility for work
- Suspension of Work
- Default on Contract
- Guarantee of Materials and Workmanship

In summary, the introduction of the bidder's ordinance requirements will increase City project costs and will require more staff time to review and oversee these requirements. The City currently has a bidder's proof of responsibility process that works. Staffs recommends not creating the responsible bidder's ordinance being requested and continue to use the current bidder's proof of responsibility and contract requirement processes.

CHAPTER 3
(Revised 06-25-2018)
COUNTY ADMINISTRATION

3.01 PUBLIC WORKS PROJECTS. (1) Public Work, How Done. All public work undertaken by Brown County or any agency thereof, including any contract for the construction, repair, remodeling, or improvement of any public work, building, or furnishing of supplies or materials of any kind where the estimated cost of such work will exceed $25,000, shall be let by contract to the lowest responsible bidder after review and approval by the appropriate oversight committee and the full County Board. Any public work, the estimated cost of which does not exceed $25,000, once the funds have been provided by the County Board by either the budgetary or transfer process, shall be let by contract after review and approval of the responsible county department. If the estimated cost of any public work is between $5,000 and $25,000, the County shall give a Class 1 notice under Ch. 985, Stats., before it contracts for the work or shall contract with a person qualified as a bidder under s. 66.0901(2), Stats. A contract, the estimated cost of which exceeds $25,000 shall be let and entered into under s. 66.0901, excepting that the County Board may by a three-fourths vote of all the members entitled to a seat, provide that any class of public work or any part thereof may be done directly by the County without submitting the same for bids. This subsection does not apply to highway contracts which the County Highway Officials or employees are authorized by law to let or make. (Sec. 59.52(29), Wis. Stats.)

(1)(a) Procedures for Change Orders to Public Works Contracts. Whenever it becomes necessary that a change order to a public works project contract be authorized on public work projects undertaken by Brown County or any agency thereof, the following procedures shall be utilized.

As provided in Sec. 59.52(29), Stats., and Sec. 66.0901, Stats., all public works contracts entered into by Brown County must be awarded to the lowest responsible bidder. In order to monitor any contract amendments causing changes in the contract price relating to change orders for work to be performed by the contractor selected, the Director of Facilities shall report all change orders to the relevant standing committee of the County Board of Supervisors. Those change orders which would change the cost of the public works project contract in excess of $10,000.00 or 25% of the contract price of the public works project, whichever is less, must receive prior approval of such appropriate standing committee.

The County Executive shall have the authority to authorize change orders in emergency situations without prior approval of such appropriate standing committee but upon conferral with the County Board Chair and Chairman of the appropriate standing committee. In those situations where the public works project is governed by other specific statutory authority, the procedures set forth herein do not apply.

(b) Bid Modifications. When the County bids a public work, pursuant to Sec. 59.52(29), Stats., and the low bidder wishes to increase its bid after the bids have been opened, the Administration Committee shall be informed of this request and shall consider the matter before a decision is made on awarding that portion of the bid.

(2) Public Emergencies. The provisions of subsection (1) above are not mandatory for the repair or reconstruction of public facilities when damage or threatened damage thereto creates an emergency, as determined by resolution of the County Board, in which the public health or welfare of the county is endangered. If an emergency occurs at such time as the County Board is not in session, then the County Executive shall have the authority to authorize

emergency repairs until such time as the County Board convenes in regular or special session (Sec. 59.52(29), Wis. Stats.).

(3) Prevailing Wage Rate. (a) The County Clerk shall obtain from the Wisconsin Department of Workforce Development the prevailing wage rate, hours of labor, and hourly basic pay rates for each trade or occupation required in any public work project by Brown County.

(b) All contractors or sub-contractors on any Brown County public works project shall pay the prevailing wage rates, including overtime, as determined by the State Department Workforce Development, to all of their employees engaged on any such project.

(c) The Director of Facilities shall notify the County Clerk whenever a public work project begins or ends and the name of the contractors involved. Each contractor engaged upon a public work project shall file with the County Clerk, within 10 days after the close of each week, a weekly or payroll period report of all employees engaged in such project. Such report shall be made in a form specified by the County Clerk.

(4) Penalty. Any person violating any provisions of this section may be required to forfeit not less than $10 nor more than $200. The failure to pay the required wage to an employee for any one week or part thereof, or the failure to file the report in any one week, shall be deemed a separate offense.

(5) Responsible Bidder Criteria

(a) Purpose. Pursuant to Wisconsin Statutes Sections 66.0901 and 59.52(29), all public works contracts, including any contract for the construction, repair, remodeling or improvement of any public work, building, or furnishing of supplies or material of any kind where the estimated cost of such work will exceed $25,000, shall be let by contract to the lowest responsible bidder. What constitutes a "responsible bidder" is a determination that requires the exercise of discretion by the county and its departments, officials and/or employees under reasonably consistent responsible bidder criteria, and this Ordinance is intended to provide that criteria.

(b) Definitions. In this section, the following definitions shall apply.

1. "Contractor" means a person, corporation, partnership or any other business entity that performs work on a public works contract as a general contractor, prime contractor or subcontractor at any tier.

2. "Registered Apprenticeship Program" means an apprenticeship program that is currently registered with either a State or Federal governmental entity and that has a graduated apprentices~~s~~ to journeyperson job classification system process as well as a bonafide training program.

3. "Public Works Contract" includes any contract for the construction, repair, remodeling or improvement of any public work, building, or furnishing of supplies or material of any kind where the estimated cost of such work will exceed $25,000.

(c) Responsible Bidder Criteria. In order to be considered a responsible bidder by Brown County for purposes of being awarded a public works contract, the following criteria must be met:

1. The contractor must maintain a permanent place of business;

2. The contractor must be authorized to do business in the State of Wisconsin;

3. The contractor, agent, partner, employee and/or officer of the contractor, must not be debarred, suspended, or declared ineligible from contracting with any unit of federal, state or local government;

4. The contractor must be in compliance with the provisions of Section 2000e of Chapter 21, Title 42 of the United States Code, and Federal Executive Order No. 11246, as amended by Executive Order No. 11375 (known as the Equal Opportunity Employer provisions);

5. The contractor must have adequate and appropriate:
   a) general liability insurance;
   b) automobile insurance, except when a licensed motor vehicle is not used in the performance of the contract; and
   c) workers' compensation and unemployment insurance, except when the contractor does not have employees.

6. The contractor must have complied with all provisions of any prevailing wage laws and federal Davis-Bacon related Acts, and the rules and regulations therein, for projects undertaken by the contractor that are covered by these laws, for the past five (5) years;

7. Regarding a Public Works Contract estimated to be in excess of two million dollars, and if determined to be appropriate in the discretion of the Brown County Purchasing Department at the time a Request for Bids or Request for Quotes is issued, then in order to be considered a responsible bidder, the contractor must participate in a Registered Apprenticeship Program;

8. The contractor must have a written substance abuse prevention program meeting the requirements of Wisconsin Statutes Section l03.503;

9. The employees who will perform work on the project for the contractor must be properly classified as employees or independent contractors under all applicable laws;

10. lf the contractor has been the subject of any order or judgment from any state or federal agency or court concerning an employment practice, the contractor must provide copies of the investigation, order or judgment for the county to consider as a factor in determining whether the contractor is a responsible bidder. The contractor may be disqualified for failing to provide said documentation;

11. The contractor's employees who will perform work on the project must be covered under a current workers' compensation policy and must be properly classified under such policy;

12. The contractor must be in compliance with all laws regarding health

insurance coverage for employees;

13. The contractor must possess all applicable professional and trade licenses required for performing the public works;

14. The contractor must have adequate financial resources to complete the public works contract, and to complete all other work the bidder is presently under contract to complete;

15. The contractor must be bondable for the terms of the proposed public works contract;

16. If required in the discretion of the Brown County Purchasing Department at the time a Request for Bids or Request for Quotes regarding a contract of any amount is issued, then in order to be considered a responsible bidder, the contractor must have a record of satisfactorily completing a specific number of projects of similar size and complexity within the last specific number of years, with the required specific number of projects and years to be determined by the Purchasing Department prior to the Request for Bids or Request for Quotes being issued;

17. The contractor must have a history of satisfactorily completing projects. Criteria which will be considered in determining whether the contractor is a responsible bidder regarding satisfactorily completing projects may include, but are not limited to, whether the contractor has an acceptable past history of: a) completing contracts in accordance with drawings and specifications; b) diligently performing work and completing contracts in accordance with established time schedules, including any granted extensions of time; and c) fulfilling guarantee requirements of the contract documents; and

18. The contractor must have, and diligently maintain, a written safety program.

(d) No Restriction on Discretion. If information is discovered or comes into the possession of the county or a county department, official and/or employee responsible for awarding the public works contract, and if such information calls into question the contractor's abilities or competence to faithfully and responsibly comply with the terms of a public works contract and is considered to be both credible and verifiable, then that information shall be considered in determining whether the contractor is a responsible bidder.

3.02 CORPORATION COUNSEL. There is hereby established the position of Corporation Counsel, in and for Brown County.

3.03 EMERGENCY MEDICAL SERVICES COUNCIL. (1) Emergency Medical Services Council. The Brown County Emergency Medical Services Council is hereby established pursuant to all applicable state laws and administrative codes and is hereafter referred to as the EMS Council.

CITY OF DE PERE
MEMO

To: Michael J. Walsh, MAyor
Larry Delo, City Administrator
From: Judy Schmidt-Lehman, City Attorney
Date: January 15, 2020
RE: **Brown County Public Works Ordinance – Responsible Bidder Criteria**

State laws require local units of government to award public works contracts to "…the lowest responsible bidder." In addition to being allowed to require proof of financial responsibility from bidders, municipalities are permitted to include in any public works contract "reasonable and lawful conditions" as to:

- Hours of labor, wages, residence
- Character and classification of workers to be employed

Municipalities may also classify contractors as to financial responsibility, competency and ability to get work done and create a classified list of contractors to select from.

Brown County Ordinance Section 3.01(5) sets forth 18 different criteria Brown County is to use in determining if a bidder is a "responsible bidder". Three criteria relate to financial ability to perform (#s 5, 14 and 15), two (#s 3 and17) relate to classification of workers to be employed, two (#s 3 and17) relate to ability to perform/competence, and two criteria appear specific to Brown County and an apprenticeship program. The remaining 9 criteria relate to compliance with other laws, such as EEOC regulations, having a written substance abuse program, Davis-Bacon compliance, having all required trade and professional licenses, and the like.

City ordinance currently requires bidders to pre-qualify financial ability in order to be eligible to bid on city project. The city has not developed criteria different than state law to determine a bidder's competence/responsibility to perform the work. In my experience, the Board of Public Works has determined one bidder to be an "incompetent bidder" based upon unacceptable work on a city project.

The Council could determine it is in the public interest for the city to enact an ordinance with specific criteria to use in determining if a bidder is a "responsible" under state law, particularly if those criteria relate to hours of labor, wages, and ability to perform the work. In my opinion, however, in addition to questionable statutory authority, it will be difficult to meaningfully use compliance with other laws to determine competence or responsibility; the City certainly would not be in a position to determine non-compliance with any of these other laws absent action by that enforcing agency.

Please let me know if you would like any additional information.

Responsible Bidder Ordinance Talking Points

- Wisconsin law mandates public contracts be let to "lowest ***responsible*** bidder," but what constitutes a "responsible" bidder is not well defined in the statutes
- Municipalities have discretion to determine who is a "responsible" bidder
- Statutes allow municipalities to require a sworn statement as to the bidder's "responsibility" prior to submitting a bid
- Ordinance will ensure that uniform criteria is used to determine who is a "responsible" bidder
- Gives the municipality greater protection from suit by the "non-responsible" low bidder who is not awarded a contract because criteria is known and applied to all bidders
- Criteria creates a level playing field for all bidders
- Apprenticeship requirement is for the protection and welfare of the public because
    - aging trades population means action is needed to train next generation
    - public should invest in companies that invest in our workforce through training programs
    - properly trained employees building our public facilities protect public safety and help ensure quality end product
- While low cost is the first priority, value is also essential. You get what you pay for.
- Most of the criteria in the model ordinance merely requires a bidder to confirm that they are, and have been recently, in compliance with employment and labor laws, OSHA safety standards, unemployment and worker's compensation requirements, etc.
    - If a contractor doesn't comply with the law, they should not be awarded a public contract
    - If a contractor cheats the system by failing to pay worker's compensation or unemployment insurance, they should not be rewarded with taxpayer dollars of a public contract
- Prevailing wage law protected municipalities against bidders using cutthroat and even illegal wage policies to win public contracts
    - Starting on 1/1/17, no municipal prevailing wage law
    - Race to the bottom for wages is inevitable
    - Responsible bidder criteria helps fill this gap somewhat, although risk cannot be avoided entirely

CITY OF DE PERE - BOARD OF PUBLIC WORKS

PREQUALIFICATION OF CONTRACTOR

This statement, submitted by the undersigned to the Board of Public Works of the City of De Pere, is made in accordance with Wis.Stats.§66.0901. It is understood that the contents of this statement shall be confidential and shall not be disclosed except upon the written order of the undersigned; or for necessary use by the Board of Public Works in qualifying the undersigned; or in cases of action against, or by the undersigned or the City of De Pere.

The undersigned, being duly sworn, does depose and say that they are an authorized representative of

_____ and on

behalf of same submits the statement to obtain approval for bidding on construction projects in

20_____ for the following:

_____concrete paving	_____storm sewer
_____asphalt paving	_____sanitary sewer
_____curb and gutter	_____watermains
_____sidewalks	_____ _____
_____grading	_____ _____

Complete all of the following items; if not applicable, print N/A.

1. Name of Bidder _____

2. Bidder's address _____

_____

3. Any questions regarding information provided on this form should be directed to

_____ at (_____) _____
Area code Telephone number

_____
Fax number Mobile number

4. Type of organization (check one): Corporation _____

Partnership _____ Individual _____ Joint Venture _____

Other _____. If other, attach a brief statement describing the organization.

5. When organized? _____

6. If a corporation, when and where incorporated _____

_____.

7. Attach a statement listing the corporate officers, partners or other principal members of your organization and detailing the background and experience of the principal members of your personnel, including the officers.

8. How many years has your organization been engaged in the contracting business under the

present firm name? _____.

9. General character of work performed by your firm _____

_____.

10. Attach a list of contracts on hand, for both public and private construction, including for each contract: the class of work; the contract amount; the percent completed; the estimated completion date; and the name and address of the owner or contracting officer.

11. Has your organization ever defaulted on a contract or failed to complete any work awarded to it? _____. If so, attach a statement explaining where and why.

12. Has any officer or partner of your organization been an officer or partner of some other organization within the past 10 years that failed to complete a construction contract during that period? _____ . If so, attach a statement indicating the name of individual, other organization and reason therefore.

13. Has any officer or partner of your organization within the past 10 years failed to complete a construction contract handled in his or her own name? _____. If so, attach a statement indicating the name of individual, name of owner and reason therefore.

14. Attach a list of the major projects your organization has completed within the past 3 years, including for each project; the class of work; the contract amount; the completion date; and the name and address of the owner or contracting officer.

15. Attach a list of the major equipment which is available to your organization for the proposed work.

16. Attach a statement of your organization's experience in the construction of work similar in nature and importance to this project.

17. Credit available _____
Attach a letter from your bank(s) or other financial institution(s) advising line of credit set up for your organization.

18. Name of Bonding Company and name, address and telephone number of agent:

_____

_____

19. Financial Statement.

Condition at close of business on _____, 20_____.

A. Cash _____

B. Accounts receivable _____

C. Real estate equity _____

D. Materials in stock _____

E. Equipment, book value _____

F. Furniture and fixtures book value _____

G. Other assets _____

TOTAL ASSETS _____

Liabilities

H. Accounts, notes and interest payable _____

I. Other liabilities _____

TOTAL LIABILITIES _____

NET WORTH _____

20. Additional information may be submitted if desired.

Dated at _____ this _____ day of

_____, 20____.

Name of organization _____

By: _____

Title: _____

State of _____)
)ss.
County of _____)

_____ being duly sworn says that they are

_____ of _____
(Name of Organization)

and that the answers to the foregoing questions and all statements contained herein and in the attachments are true and correct.

Signed _____

Subscribed and sworn to before me

this day of _____, 20_____.

_____
Notary Public

My commission expires _____.

2020 Bidder Survey

Consider Ald. Hansen's Request for Responsible Bidder's Ordinance

Monday, January 11, 2021

Company Name **Address Line 1** **Address Line 2** **Email (*if provided*)**	**Contact Name** **Telephone** **Fax** **Mobile**	**Union Contractor?**	**Apprenticeship Program?**
Advance Construction, Inc. 2141 Woodale Avenue Green Bay, WI 54313 	Glenn Joski 920-434-3978 920-434-6228 	No	No
Carl Bowers & Sons Construction Company, Inc. N1844 Maloney Rd. Kaukauna, WI 54130 	Bill Bowers 920-766-2629 920-766-5929 920-419-4950	No	Yes
David Tenor Corporation 2759 Dewey Decker Drive Green Bay, WI 54313 david.tenor.dtc@gmail.com	David Tenor 920-360-9246 920-857-3248 920-360-9246	No	No
De Groot, Inc. 4201 Champion Rd Green Bay, WI 54311 mark@degrootinc.com	Mark De Groot 920-866-2348 920-866-2361 920-621-3791	No	No
Dorner, Inc. E506 Luxemburg Rd, PO Box 129 Luxemburg, WI 54217 todd.dorner@dornerinc.com	Todd Dorner 920-845-2442 920-845-2458 	No	No
Feaker & Sons Company, Inc. P.O. Box 5817 De Pere, WI 54115 feaker@att.net	Randy Feaker 920-336-3344 920-336-1452 	No	No
Jossart Brothers, Inc. 1682 Swan Road De Pere, WI 54115 jessej@jossartbrothers.com	Jesse Jossart 920-339-8500 920-339-5200 920-371-0839	No	No
Kruczek Construction, Inc. 3636 Kewaunee Rd. Green Bay, WI 54311 wallyk@kruczekinc.com	Wally Kruczek 920-863-6841 920-863-2771 920-655-3801	No	No
PTS Contractors, Inc. 4075 Eaton Road Green Bay, WI 54311 jpetasek@PTSContractors.net	Jeannie Petasek 920-468-5217 920-468-4087 920-371-4730	No	No

2020 Bidder Survey

Consider Ald. Hansen's Request for Responsible Bidder's Ordinance

Monday, January 11, 2021

Company Name **Address Line 1** **Address Line 2** **Email (*if provided*)**	**Contact Name** **Telephone** **Fax** **Mobile**	**Union Contractor?**	**Apprenticeship Program?**
Superior Sewer and Water, Inc. 1801 Deer Trail Luxemburg, WI 54217 chad.dorner@gmail.com	Chad Dorner 920-866-1449 920-621-3504	Yes	Yes, through the Union upon request.
Triple P. Inc. DBA Peters Concrete Company 1516 Atkinson Dr. Green Bay, WI 54303 duke@petersconcrete.com	James Peters Jr. 920-494-3700 920-494-5475 	No	Yes, pursuant to WisDOT Bidding Practices
Van Straten Construction Company, Inc. 2117 South Oneida Street Green Bay, WI 54304 	Kevin Van Straten 920-497-1664 920-497-5041 920-660-9887	Yes	Yes, through the Union upon request.
Vinton Construction Company 1322 33rd Street, PO Box 137 Two Rivers, WI 54241 jreimer@vintonwis.com	Julie M. Reimer 920-682-0375 920-682-2838 	Yes	Yes, through the Union upon request.
Woleske Construction Company, Inc. 1827 East Washington Ave., Unit 167 Madison, WI 53704 jwoleske@gmail.com	Joseph E. Woleske 920-660-1115 920-497-9880 	No	No
Wood Sewer & Excavating, Inc. E9238 County Road X New London, WI 54961 	Greg L Wood 920-982-7721 920-982-7809 920-850-4191	No	No
	SUMMARY	**3/15 YES 20%**	**5/15 YES 33%**