

# City of Kalamazoo

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**FY 2019 DWRP**

**Project Application Narrative**

Prepared for  
**City of Kalamazoo**

March 2019

2180550



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## Kalamazoo 2018 DWRF Project Plan

# 1 City of Parchment Lead Water Service Line Replacement

## 1.1 Project Definition and Overview

On July 26, 2018, the City of Parchment discovered unacceptable levels of PFAS in its drinking water well supply. At that time, the City of Parchment provided drinking water from ground water wells to portions of both the City of Parchment and Cooper Township. The current total service population is approximately 3,100 residential units and several businesses. The service areas are shown in Figure 1. Both of these service districts lie north of and adjacent to the City of Kalamazoo. When the PFAS issue was discovered, the three communities of Cooper Township, the City of Parchment, and the City of Kalamazoo immediately began coordinated efforts to shut down the Parchment wells and provide drinking water through emergency interconnections with the City of Kalamazoo water system. City of Kalamazoo was notified at approximately 6:30 pm on July 26, 2018. Temporary water connections were completed and the City of Kalamazoo was flushing the Parchment water system by 12:32 AM on July 27, 2018. Three permanent connections were designed, permitted, constructed, and put into permanent service within 21 days, one connection week each. Flushing and testing of the Parchment system continued after the permanent connections were made and the “Do not drink” order was lifted on August 27, 2018.

The City of Kalamazoo and the Parchment/Cooper system have agreed signed agreements such that the City of Kalamazoo has purchased the current system equity and has begun providing retail water service.

As part of the work to connect the Parchment/Cooper water system with the City of Kalamazoo water system, a review was done of the existing service connections in Parchment/Cooper. Based on a search of current water records, the west/central portion of the City of Parchment water system has many homes with (or that may have) lead/galvanized water services (see Figure 2). Although there are approximately 430 parcels in the potential lead service area, detailed record reviews indicate that some of the services have already been replaced and there are approximately 300 remaining which require replacement.

Along with switching water supply from the Parchment wells to the City of Kalamazoo, it is the intent of the project to replace all of the existing lead/galvanized services in the project area with new copper water services from the public water main to the house meter.

As a note, the City of Kalamazoo’s standard policy is (and will remain) to own/operate all water service lines from the water main to the water meter.

## 1.2 Study Area and Project Zone

Figure 2 illustrates the areas in the City of Parchment where lead/galvanized services have either been directly assessed or determined likely based on service line date of installation. All of the water mains in this area are existing and will not be replaced as part of this project. No new water main extensions are proposed as part of this project.

## 1.3 Existing Facilities

Figure 1 illustrates the existing Parchment/Cooper water system. Appendix A of the application has maps of the existing Kalamazoo water system and how it is now interconnected with the Cooper/Parchment system. Previous to the PFAS issue, the City of Parchment held the WSSN number and provided water to

themselves and Cooper Township. Cooper has about 600 existing connections and Parchment has around 900 connections.

Appendix A has the report summarizing the modeling results of adding the existing Parchment/Cooper system to the Kalamazoo system. The City of Kalamazoo system is supplied by several well fields scattered throughout the system. Treatment takes place at each wellfield. The City owns all of their system and has entered into agreements with Parchment/Cooper for ownership of that system also.

With the addition of the 1500 service connection from the Parchment/Cooper system, the City of Kalamazoo has a total of 57,768 residential equivalent service connections (86.4% of which are actually residential connections).

As part of a separate project, the City of Parchment will abandon their existing water supply wells in compliance with all rule/regulation requirements.

## **1.4 Project Need**

As part of the work to connect the Parchment/Cooper water system with the City of Kalamazoo water system, a review was done of the existing service connections in Parchment/Cooper. Based on a search of current water records, the west/central portion of the City of Parchment water system has many homes with (or that may have) lead/galvanized water services as shown in Figure 2. As noted above, this project will affect the services to approximately 300 residences.

## **1.5 Alternatives Analysis**

Lead service replacements have been mandated by the State of Michigan so no alternatives were reviewed for this proposed action.

## **1.6 Proposed Project**

Replace all of the existing lead/galvanized services in the project area with new copper water services from the public water main to the house meter. Based on the bid prices for lead service replacement projects in the City of Kalamazoo in 2017 and 2018, we estimate the probable project cost to replace 300 water service lines to be approximately \$1,690,000.

## **1.7 Environmental Preview/Review**

In the City of Parchment, all of the proposed water service work will be within existing road right-of-way and on existing building sites. There is no water service replacement work that will impact sensitive areas. The MDEQ self-certification form is included in Appendix C. Communications with SHPO and the Tribal Organizations in Included in Appendix D.

## **1.8 Other Impacts or Concerns**

The City of Kalamazoo's standard policy is (and will remain) to own/operate all water service lines from the water main to the water meter. Therefore all of the proposed projects include the costs for the entire water service, including meter placement and connection.

The water systems for the City of Parchment and City of Kalamazoo have been modeled to determine if the City of Kalamazoo system can provide adequate supply and pressure to the existing/future Parchment system. Technical Memoranda regarding the modeling results are included in Appendix A. Results

indicate that the interconnection with the City of Parchment system and the City of Kalamazoo system will function correctly and pose no detrimental impacts to either system.

## **1.9 Mitigation**

Installation of individual water services generally does not create any significant disruptions. All water services will be installed and connected with less than one day interruption of water supply to each home. Minor local traffic control will be implemented during each connection made to the public water main.

## **1.10 Public Involvement: Information, Education, Participation, Notice**

There have been multiple public meetings in the City of Parchment where information has been presented to the public and public comment taken. On-line and direct communications have been maintained by the City, the County Health Department, and the MDEQ. Public information meetings, on-line information, and direct communications will be maintained until permanent action items have been implemented.

The City of Kalamazoo and the City of Parchment held a public hearing and Public Information meeting on Thursday, March 14, 2019 from 6-8pm, at the United Methodist Church located at 225 Glendale Boulevard, Parchment, Michigan, 49004. The meeting mailer, advertisement, affidavit of advertisement, and list of attendees are included in Appendix B.

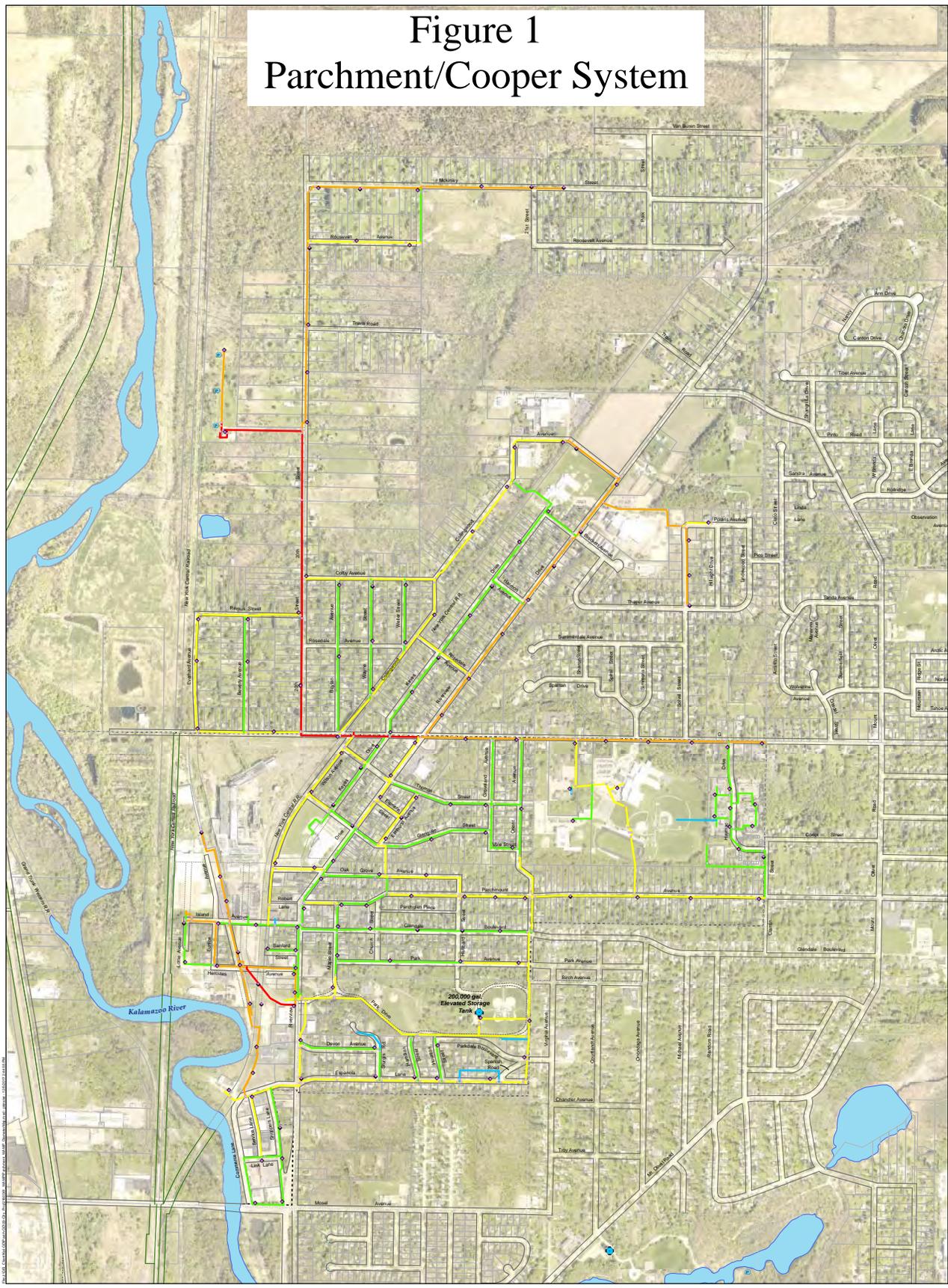
The Public Hearing was video recorded by Joe Starr from Public Media Network located at 359 South Kalamazoo Mall, Suite 300, Kalamazoo, Michigan, 49007. All questions posed by the audience during the public hearing were immediately answered. No modifications to the project were required as a result of any of the questions or answers. A copy of the video will be provided in digital format to the MDEQ upon availability the week of March 18, 2019.

The City of Kalamazoo City Commission has its regular meeting on Monday, March 18, 2019. At that meeting, the Commission will consider a resolution to accept the final project plan. That resolution will also be provided to the MDEQ the week of March 18, 2019.

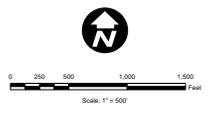
# Figures

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# Figure 1 Parchment/Cooper System



- LEGEND**
- |  |                         |
|--|-------------------------|
| <span style="color: blue;">—</span> 4" Main or Smaller | • Valve                 |
| <span style="color: green;">—</span> 6" Main           | ◆ Hydrant               |
| <span style="color: yellow;">—</span> 8" Main          | ⊕ Production Well       |
| <span style="color: orange;">—</span> 10" Main         | ⊕ Elevated Storage Tank |
| <span style="color: red;">—</span> 12" Main            |                         |



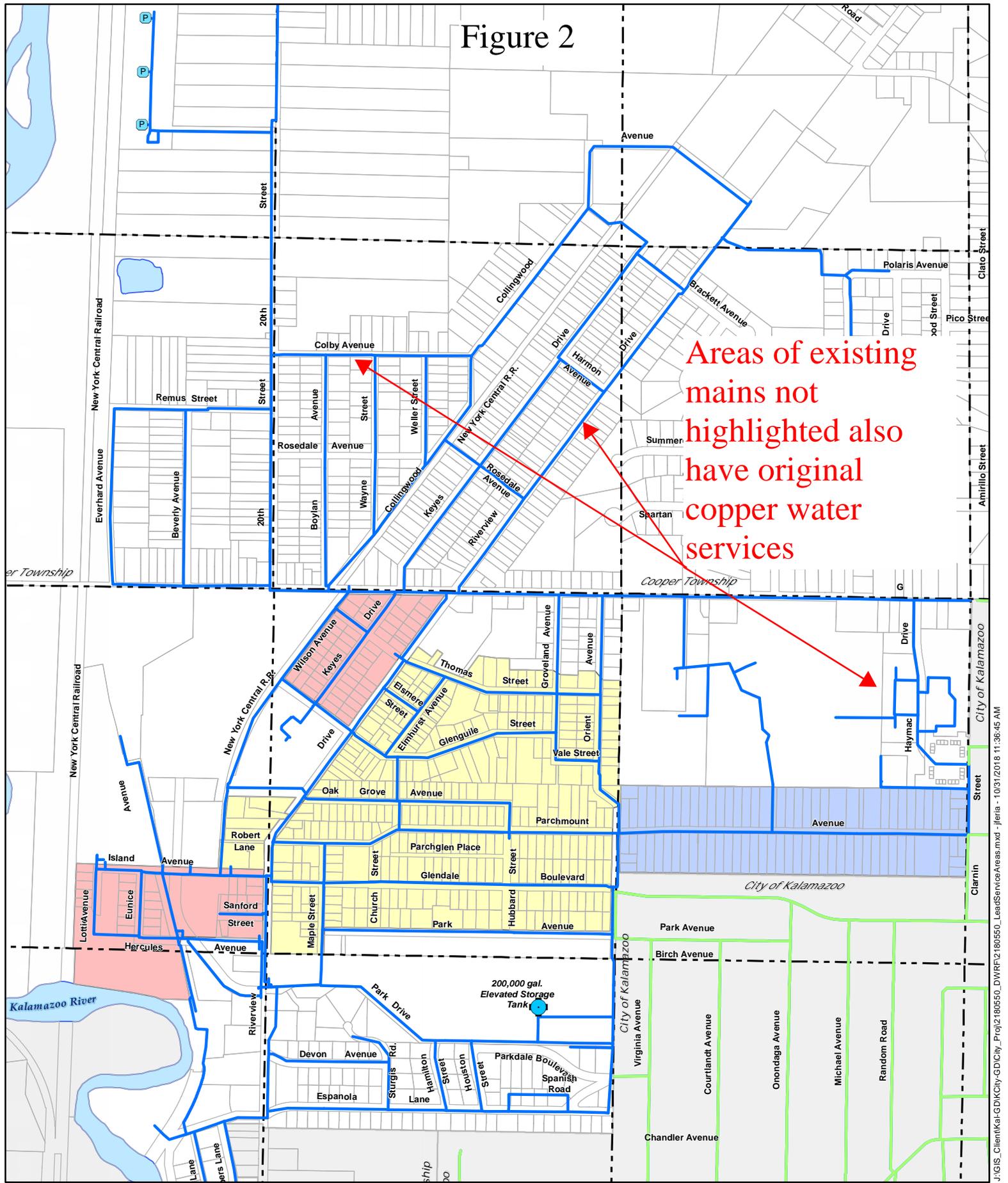
City of Parchment  
Kalamazoo County, Michigan

Water Distribution System

## Map 1: Diameter

Prem&Newhot  
December 2017  
2160361

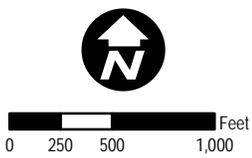
# Figure 2



Areas of existing mains not highlighted also have original copper water services

### LEGEND

- |  |   |
|--|---|
| <span style="display: inline-block; width: 15px; height: 15px; background-color: #f08080; border: 1px solid black;"></span> Water Service Inventory      | <span style="display: inline-block; width: 15px; border-bottom: 2px solid blue;"></span> Existing City of Parchment Water Main  |
| <span style="display: inline-block; width: 15px; height: 15px; background-color: #ffff00; border: 1px solid black;"></span> Lead Original (90 Parcels)   | <span style="display: inline-block; width: 15px; border-bottom: 2px solid green;"></span> Existing City of Kalamazoo Water Main                                       |
| <span style="display: inline-block; width: 15px; height: 15px; background-color: #ffff00; border: 1px solid black;"></span> Lead Potential (340 Parcels) | <span style="display: inline-block; width: 10px; height: 10px; border: 1px solid black; border-radius: 50%;"></span> Production Well                                  |
| <span style="display: inline-block; width: 15px; height: 15px; background-color: #add8e6; border: 1px solid black;"></span> Copper Original (84 Parcels) | <span style="display: inline-block; width: 10px; height: 10px; border: 1px solid black; border-radius: 50%; background-color: #00b0f0;"></span> Elevated Storage Tank |



City of Parchment  
Kalamazoo County, MI

## LEAD AND COPPER SERVICE AREAS

Prein&Newhof  
October 8, 2018

J:\GIS\_Client\Kalamazoo\City-GD\City\_Proj\2180550\_DWRF\2180550\_LeadServiceAreas.mxd - Jleria - 10/31/2018 11:36:45 AM

# Appendix A

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# Memorandum

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Date:	August 1, 2018
To:	Steve Skalski
Company:	City of Kalamazoo
From:	Prein&Newhof
Project #:	2180076
Re:	City of Parchment Water Main Hard Connection – Hydraulic Analysis

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## Background

The City of Kalamazoo is planning to provide water to the City of Parchment, and has requested a hydraulic analysis to determine if the City of Parchment's water system can be supplied from two or more locations via long-term hard connections. Using the existing hydraulic models of the City of Kalamazoo and City of Parchment water systems, we analyzed two proposed locations for hard connections between the systems: one at G Avenue and Hanson Street and one at Spanish Road and Virginia Avenue.

The hydraulic analysis will consider each of the following:

- Supply through two connections where either one of the connections may not be available (firm capacity)
- Ability to supply adequate pressures for customers in all seasons
- Ability to provide fire flows which meet or exceed existing available fire flows of 1,000 gpm for two hours throughout the system
- Pressure reducing valves at each hard connection, set at the City of Parchment tank over flow elevation (essentially acting as an altitude valve)
- City of Parchment tank availability for storage
- Supply capacity availability from the City of Kalamazoo
- Supply to the City of Parchment without harmful impact to existing City of Kalamazoo customers

The combined model of City of Parchment water system and the City of Kalamazoo water system surrounding it is shown in Figure 1. Note the transmission (10" main and larger) is shown in pink for each system and 8-inch and larger diameter is shown in blue. These mains are critical to conveying water all parts of the system.

The City of Parchment and City of Kalamazoo water systems were modeled with hard connections at the following locations, as shown in Figure 2.

- G Avenue and Hanson Street (10" to 8") with 10" PRV
- Spanish Road and Virginia Avenue (8" to 8") with 8" PRV

## Assumptions

The hard connections were modeled using pressure reducing valves, set to maintain pressures in the City of Parchment system just below the top of the City of Parchment tank.

The model was analyzed with each hard connection open individually, and with both hard connections open together.

- Average day and maximum day demands from the existing system are provided in Table 1. These were distributed as in the existing models.
- Pipe roughness is based on the existing calibrated models.
- The hard connections were modeled using pressure reducing valves, set to maintain pressures in the City of Parchment system just below the top of the City of Parchment tank.
- InfoWater Modeling Software, developed by Innovyze, is a fully GIS integrated water distribution modeling and management software application
- The hydraulic model simulated each hard connection open individually and with both hard connections open together.

## Results

### City of Parchment Water System

Model results show that system pressures are adequate under average day demand conditions for all modeled scenarios: one connection at G Avenue, one connection at Spanish and Virginia, and both connections open simultaneously. As seen in Figures 3 and 4, system pressures at Haymac Drive and Spanish and Espanola are maintained above 30 psi under average day demands. These two locations represent higher elevation areas in the City of Parchment system and are susceptible to low pressures. Figure 5 presents system pressures at 20<sup>th</sup> and McKinley, which is a low elevation area with higher pressures. As shown in the graph, simulations indicate pressures would be just below 85 psi at 20<sup>th</sup> and McKinley, which is similar to existing pressures.

Figure 6 illustrates the head range in the City of Parchment tank with each proposed hard connection individually and with both connections operating together under average day demands. The Spanish and Virginia connection is located near the City of Parchment tank, and holds the tank level for consistently so that the tank cannot “turn over” during average day demand conditions, which presents a concern for high water age and low chlorine residual in the City of Parchment system. Water age estimates for several locations in the City of Parchment system with the Spanish and Virginia connection only are provided in Table 2. The G Avenue Connection provides better tank operation under average day demands, allowing the water to “turn over” in the tank a few times per day.

Maximum day and peak hour demands simulated for the City of Parchment system are too high to be supplied by one hard connection at G Avenue individually, as shown in Figure 7. The tank empties with only the G Avenue connection and drops below half full for the Spanish and Virginia connection. Both connections should be operated during peak demands to more effectively maintain levels in the City of Parchment tank.

Available fire flow in the City of Parchment system under the three connection scenarios are shown in Figures 8 through 10. Available fire flows are greater than 1,000 gpm in all locations for all three scenarios, with the exception of the higher elevations area near Haymac Drive and a few short dead end mains. Available flows near Haymac Drive are approximately 600 to 900 gallons per minute.

### **Kalamazoo System**

The impact of the hard connections in the City of Kalamazoo's Intermediate pressure district was also analyzed using the hydraulic model. Table 3 shows the impact on system pressures and available fire flows at several locations throughout the Intermediate pressure district. As seen in the results in Table 3, maximum day pressures in the Kalamazoo system are reduced by anywhere from 2 to 9 psi, with the highest drops experienced near the hard connection points. Both average day and maximum day pressures were modeled throughout the Intermediate pressure district, and the model indicates that pressures are maintained above 30 psi at all locations. Improved transmission main connectivity, as well as the addition of Variable Frequency Drives for pumps at the well stations in the Intermediate pressure district will help maintain pressures during peak hour demands. These Variable Frequency Drives are also recommended for the City well pumps if the City of Parchment is not supplied with water.

Figure 11 shows tank levels at the Mount Olivet Tank during average day demands under all three connection scenarios. Model results indicate that the tank will fill slightly slower and empty slightly faster than under existing conditions with the City of Parchment connections.

### **Supply and Storage Capacity**

The Intermediate pressure district is supplied by Pump Station #5 and Pump Station #14, with a total supply capacity of 4.0 mgd and a firm supply capacity of 1.7 mgd from well fields. The Intermediate pressure district can get an additional 4.4 mgd of supply through booster and bleeder stations coming into the district from surround districts. With firm supply from well fields and supply from booster/bleeder stations, the Intermediate pressure district has a firm supply of 6.1 mgd. Existing maximum day demands from both the Intermediate pressure district and the City of Parchment total approximately 4 mgd, or 65% of the firm supply capacity.

The Intermediate pressure district has one 500,000 gallon storage tank, and has access to another 1.5 million gallons of storage in the East Side High pressure district. The East Side High district is connected to the Intermediate pressure district through several bleeder valves and can provide additional flow in case of emergency. In combination with the existing 200,000 gallons of elevated storage in the City of Parchment system, no additional storage is needed at this time.

## Conclusion

Model simulations show that the proposed system hard connections are hydraulically feasible, maintaining pressures in the City of Parchment system above 35 psi during existing average day demands with either connection out of service. Both connections are required to maintain pressures above 35 psi during maximum day and peak hour demands. By installing PRVs at both connections, either connection is able to maintain levels in the existing City of Parchment tank for average day demands, but both connections are needed to maintain tank levels under peak demands. Both connections are recommended to be used to supply the City of Parchment system during the summer or other high demand periods. The Spanish and Virginia connection is located close to the City of Parchment tank and does not allow “turn-over” in the tank, even under average day demands. The G Avenue connection is recommended to be used alone during average day demands (fall, winter and spring seasons) to help reduce water age in the City of Parchment system.

Results are as follows:

- System pressures in City of Parchment can be maintained above 35 psi with either connection out of service under average day demands. Both connections are needed together to maintain levels in the City of Parchment tank and keep pressures above 35 psi during peak hour demands.
- The supply capacity to the City of Parchment system is adequate. Each hard-connection and PRV is able to supply the average day demand of 320 gpm on its own, but both hard connections are required to supply maximum day demands without losing system pressure. Maximum day demands in the Intermediate pressure district plus the City of Parchment represent 65% of the firm supply capacity.
- Storage capacity is also adequate for the Intermediate pressure district and City of Parchment.
- Available fire flows in the City of Parchment system meets the existing 1,000 gpm for residential areas with either connection out of service in almost all areas. Simulations for the high elevation area near Haymac Drive indicate that the available fire flow would be between 600 and 900 gpm.
- City of Kalamazoo customers in the Intermediate pressure district would have a slight difference in water supply as a result of the additional supply to the City of Parchment. Pressures drop approximately 5 to 10 psi near the connection points and less in other locations, and available fire flow is reduced by 300 to 500 gpm. The City should consider additional transmission loops in the Intermediate pressure district to connect the storage tanks, pump stations, and new interconnections to the City of Parchment. The City should provide variable frequency drives on the well pumps to maintain current conditions.

**Table 1. System Demands**

	Average Day Demand		Maximum Day Demand	
	GPM	MGD	GPM	MGD
City of Parchment	317	0.46	950	1.37
City of Kalamazoo Intermediate Pressure District	912	1.31	1,814	2.61
Total	1,229	1.77	2,764	3.98

**Table 2. City of Parchment System Approximate Water Age**

Location	G Avenue Connection Only		Spanish and Virginia Connection Only	
	Water Age (hours)	Water Age (days)	Water Age (hours)	Water Age (days)
City of Parchment Tank	671	28	1,149	48
Parchment High School	364	15	373	16
Church and Glendale	373	16	870	36
Mosel and Commerce	556	23	788	33
McKinley dead end	521	22	964	40
Collingwood and Rosedale	400	17	770	32
Sovel and Thayer dead end	512	21	741	31

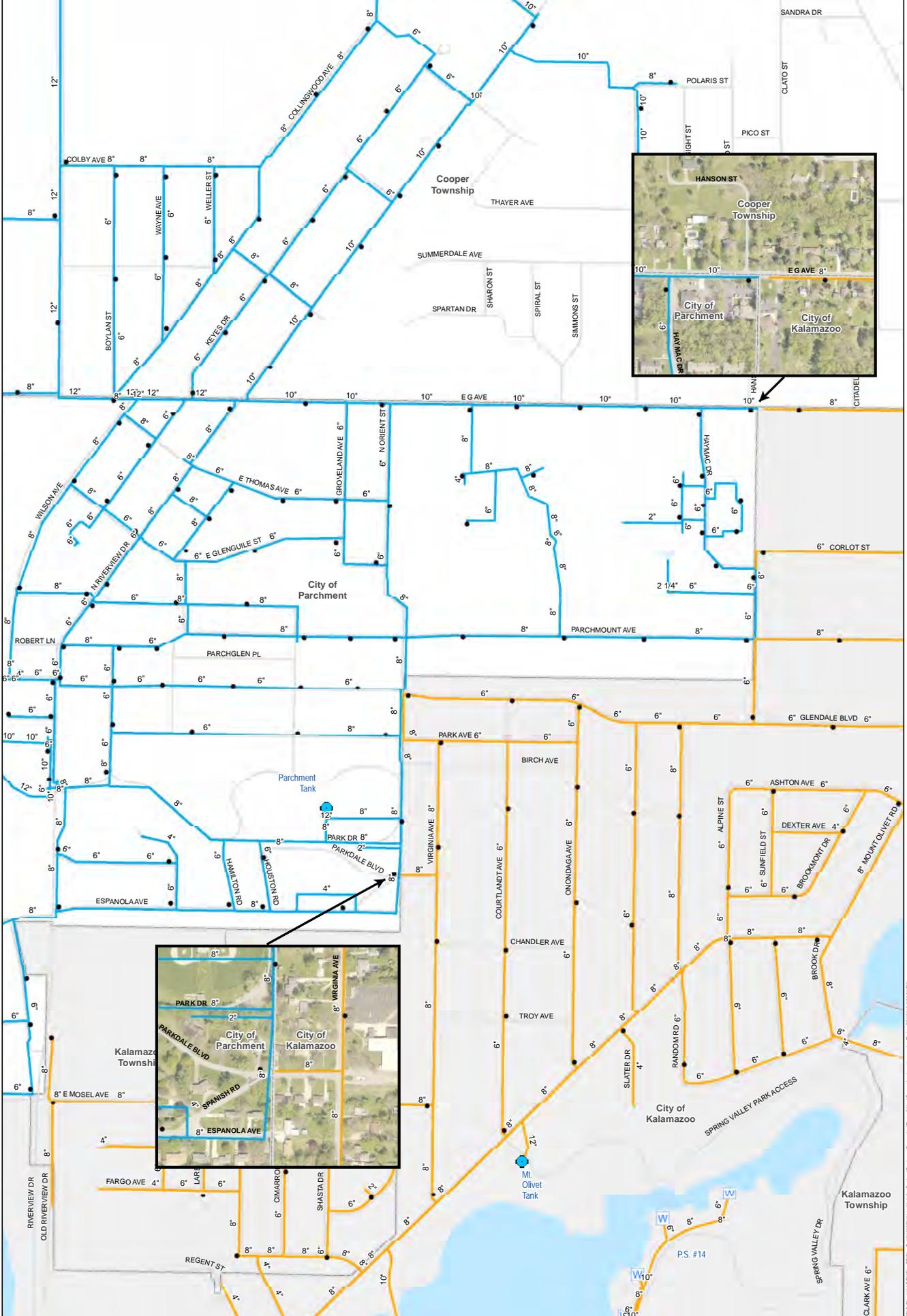
Note: Water age is approximate and should be used for comparison only.

**Table 3. City of Kalamazoo System Pressure and Fire Flow**

	System Pressure <sup>1</sup> (psi)				Available Fire Flow <sup>1</sup> (gpm)			
	Mt. Olivet Rd & G Ave	Virginia Ave & Spanish Rd	Courtlandt Ave & Glendale Blvd	Mt. Olivet Rd & Brook Dr	Mt. Olivet Rd & G Ave	Virginia Ave & Spanish Rd	Courtlandt Ave & Glendale Blvd	Mt. Olivet Rd & Brook Dr
Existing Operations	54	64	55	55	1,570	2,450	1,540	2,640
One Connection at G Ave	46	62	53	51	1,560	2,390	1,490	2,630
One Connection at Spanish and Virginia	50	55	50	52	1,370	2,430	1,460	2,650
Both Connections	45	55	49	50	1,500	2,390	1,440	2,550

Notes: System pressures & available fire flow are steady-state simulations for existing maximum day demand conditions.





SCALE: 1" = 650'

- LEGEND**
- City of Kalamazoo Water Main
  - City of Parchment Water Main
  - Hydrant
  - Storage Tank
  - Supply Well
  - Area Served by the City of Kalamazoo

CITY OF KALAMAZOO  
 KALAMAZOO COUNTY, MICHIGAN  
**HARD CONNECTION POINTS**  
 FIGURE 2  
 Prein&Newhol  
 2108176

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Figure 3. City of Parchment System Average Day Demand Pressure – Haymac Drive

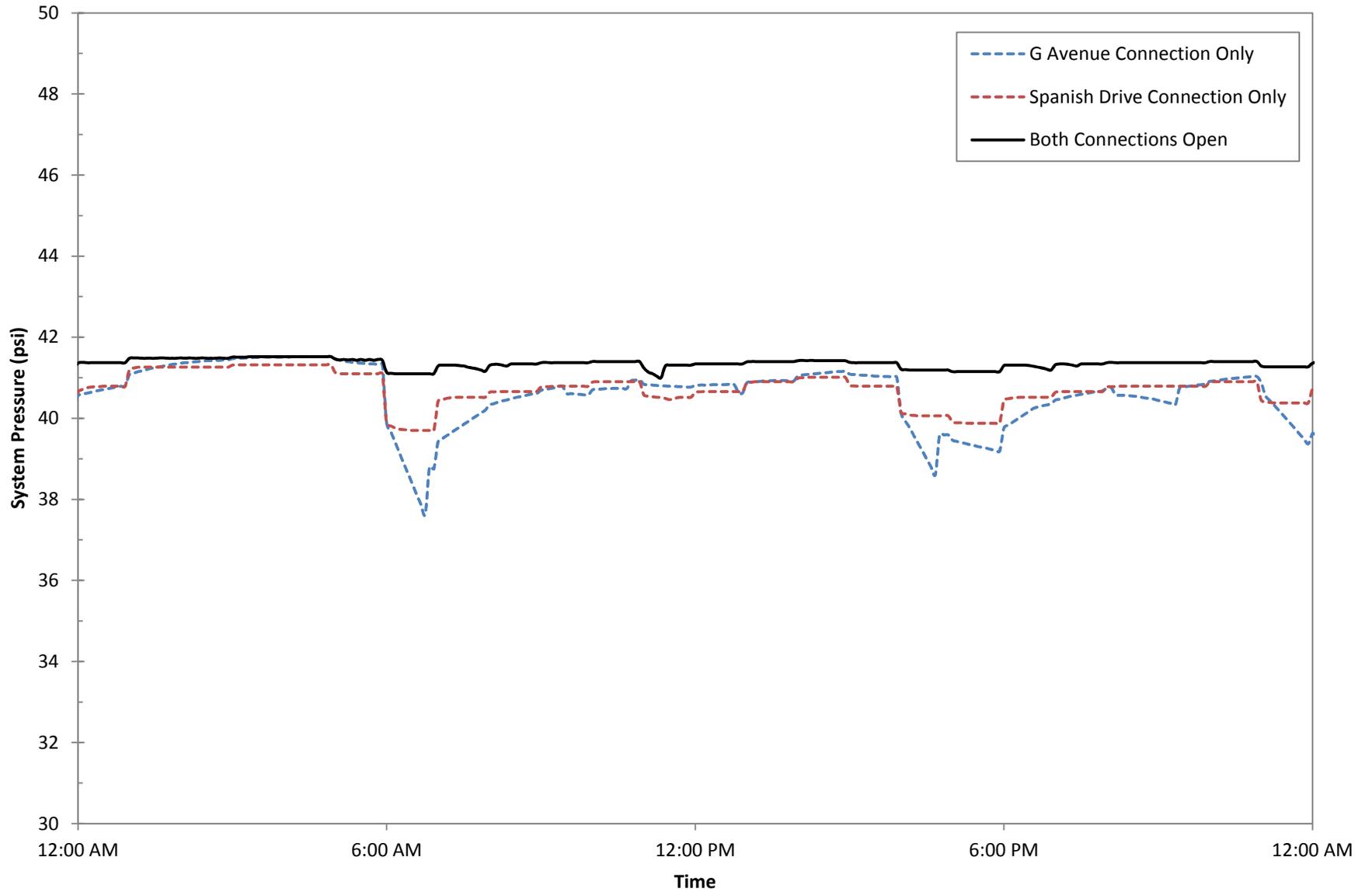


Figure 4. City of Parchment System Average Day Demand Pressure – Spanish and Espanola

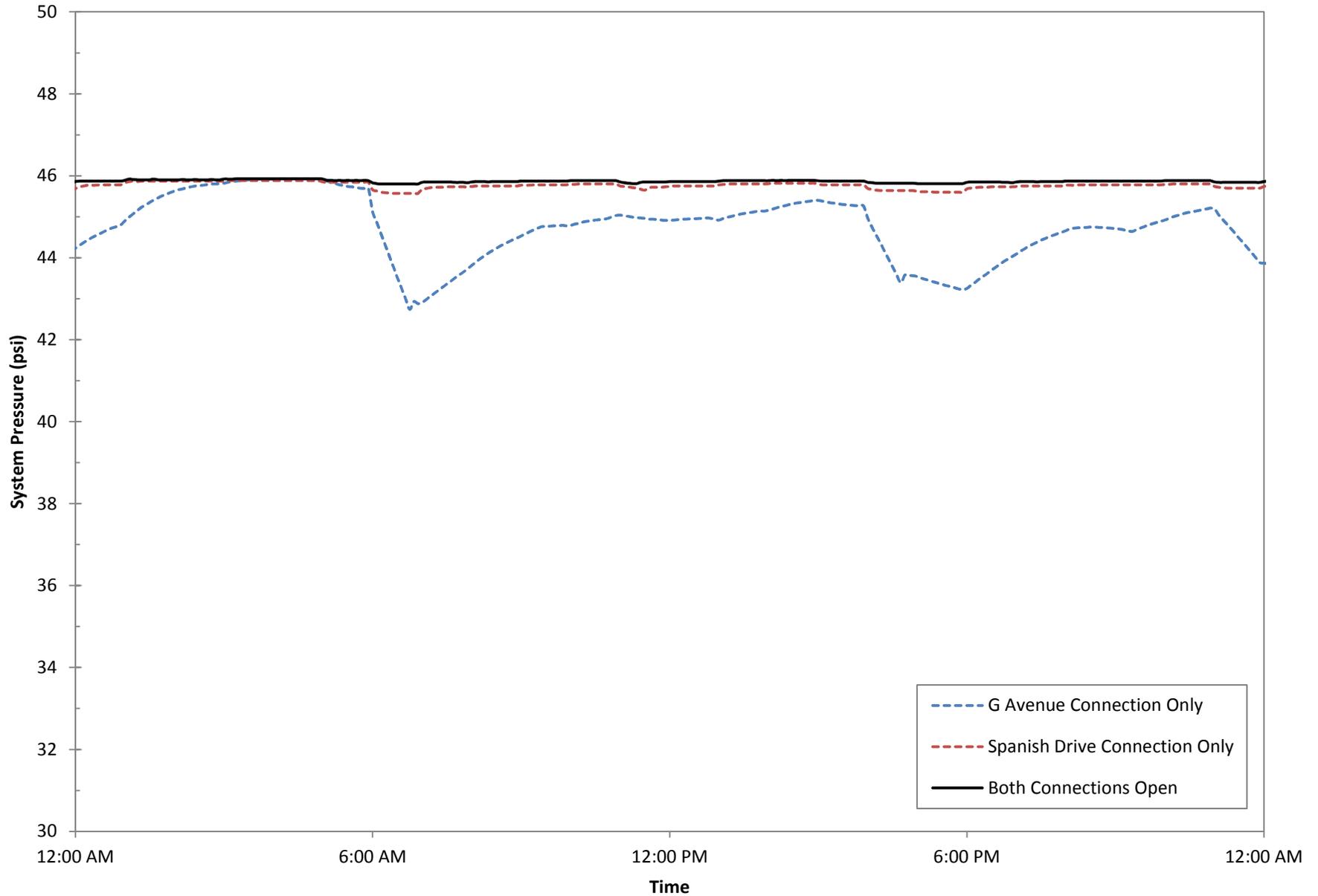


Figure 5. City of Parchment System Average Day Demand Pressure – 20<sup>th</sup> and McKinley

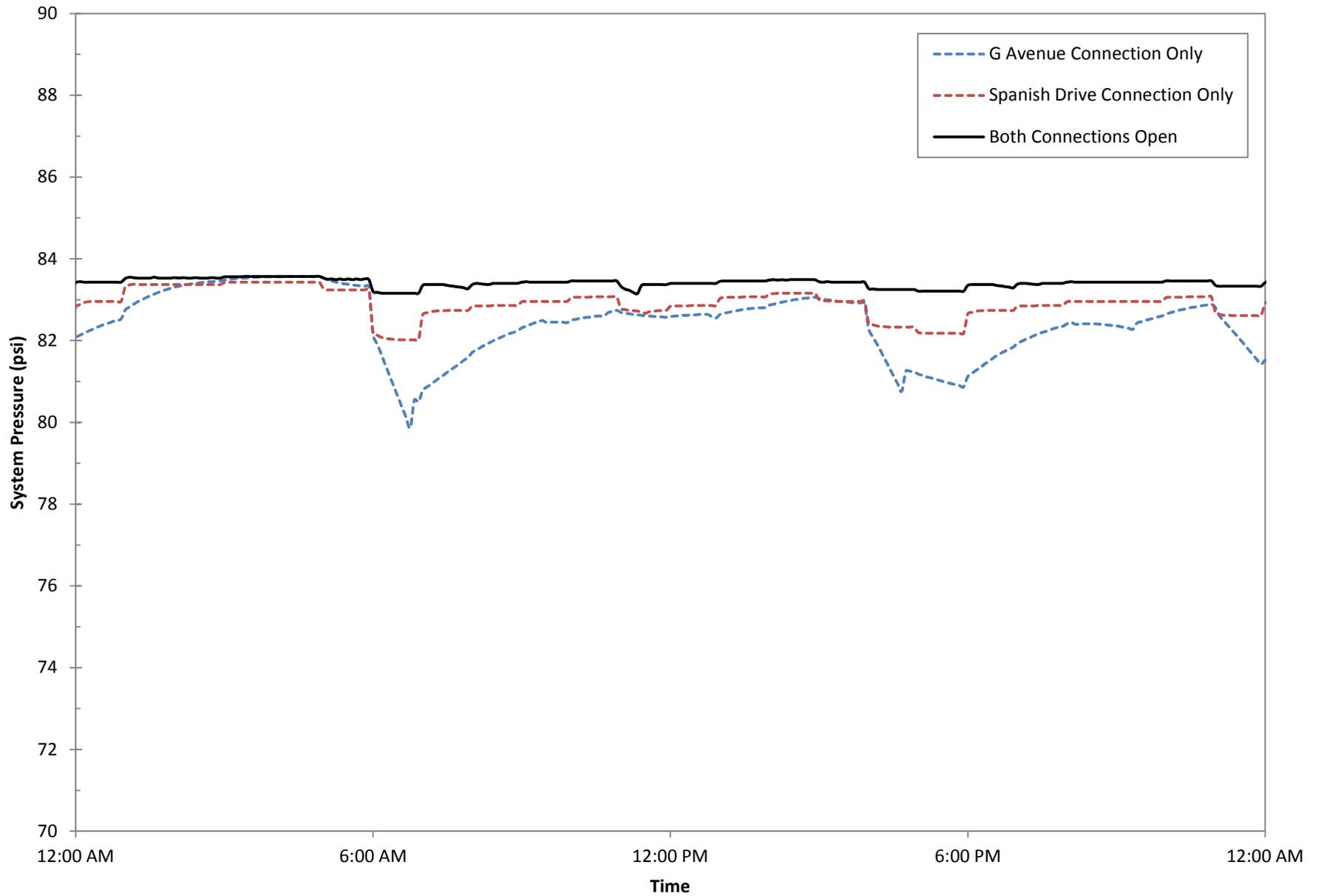


Figure 6. Parchment Tank Head – Average Day Demands

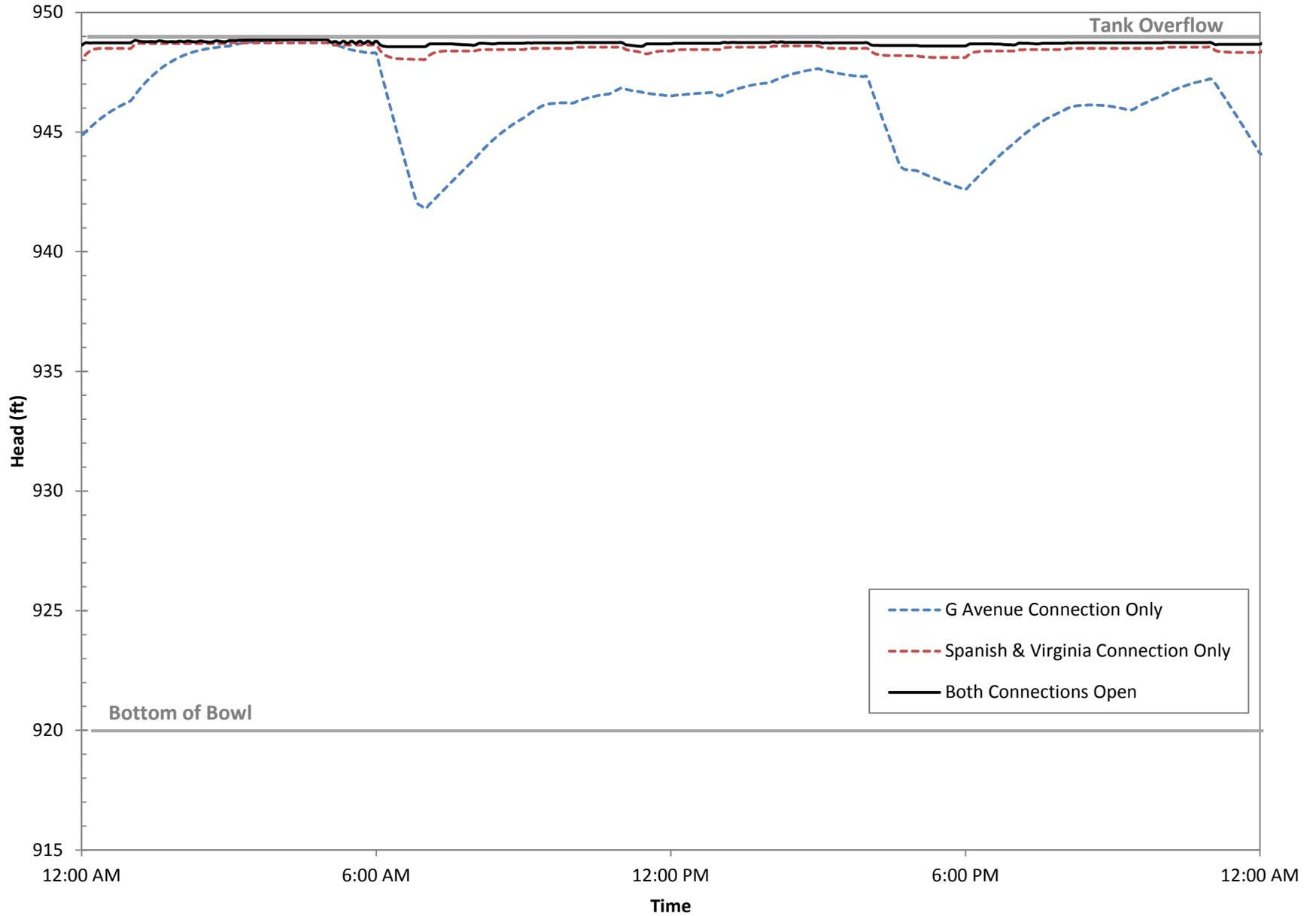
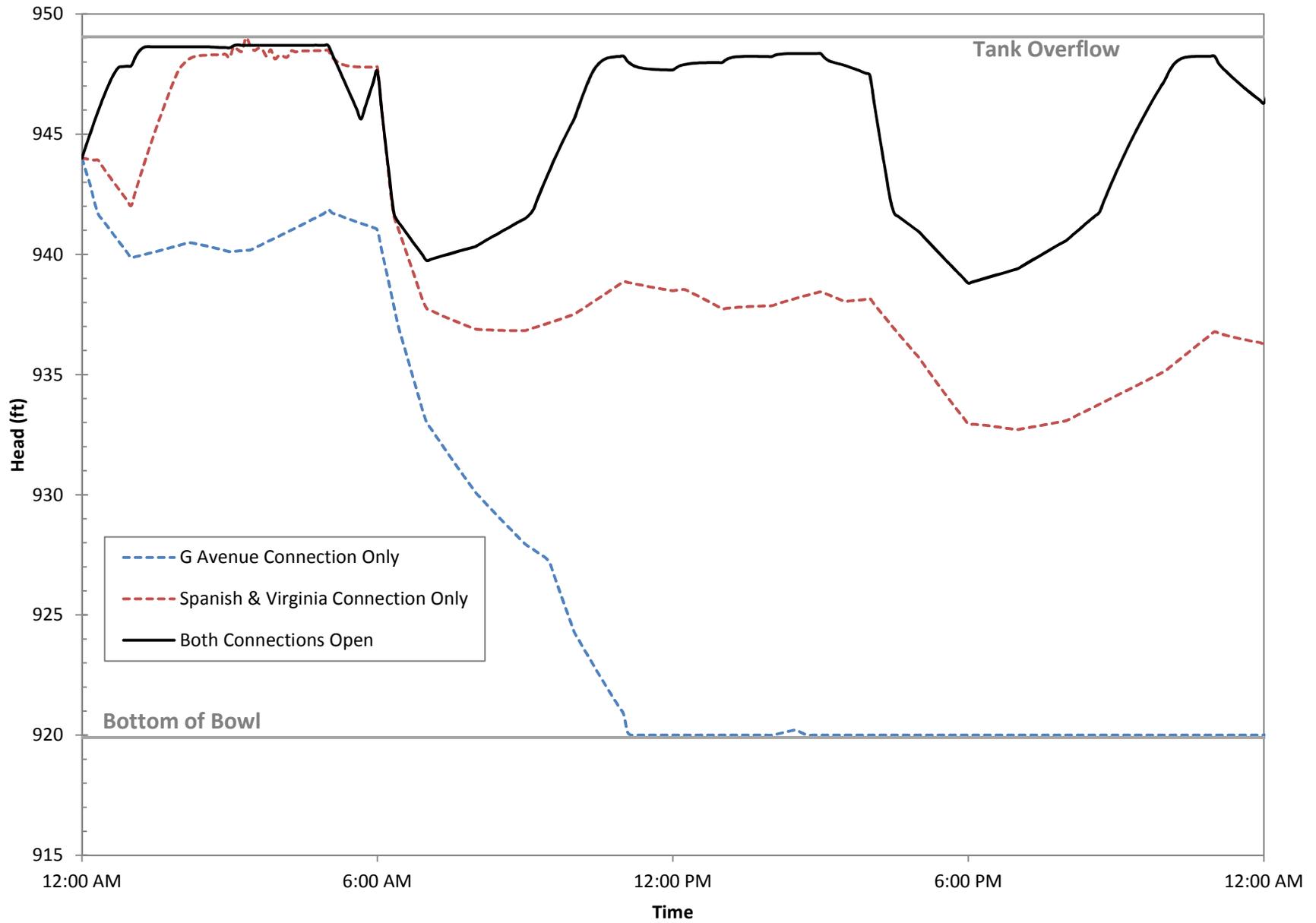
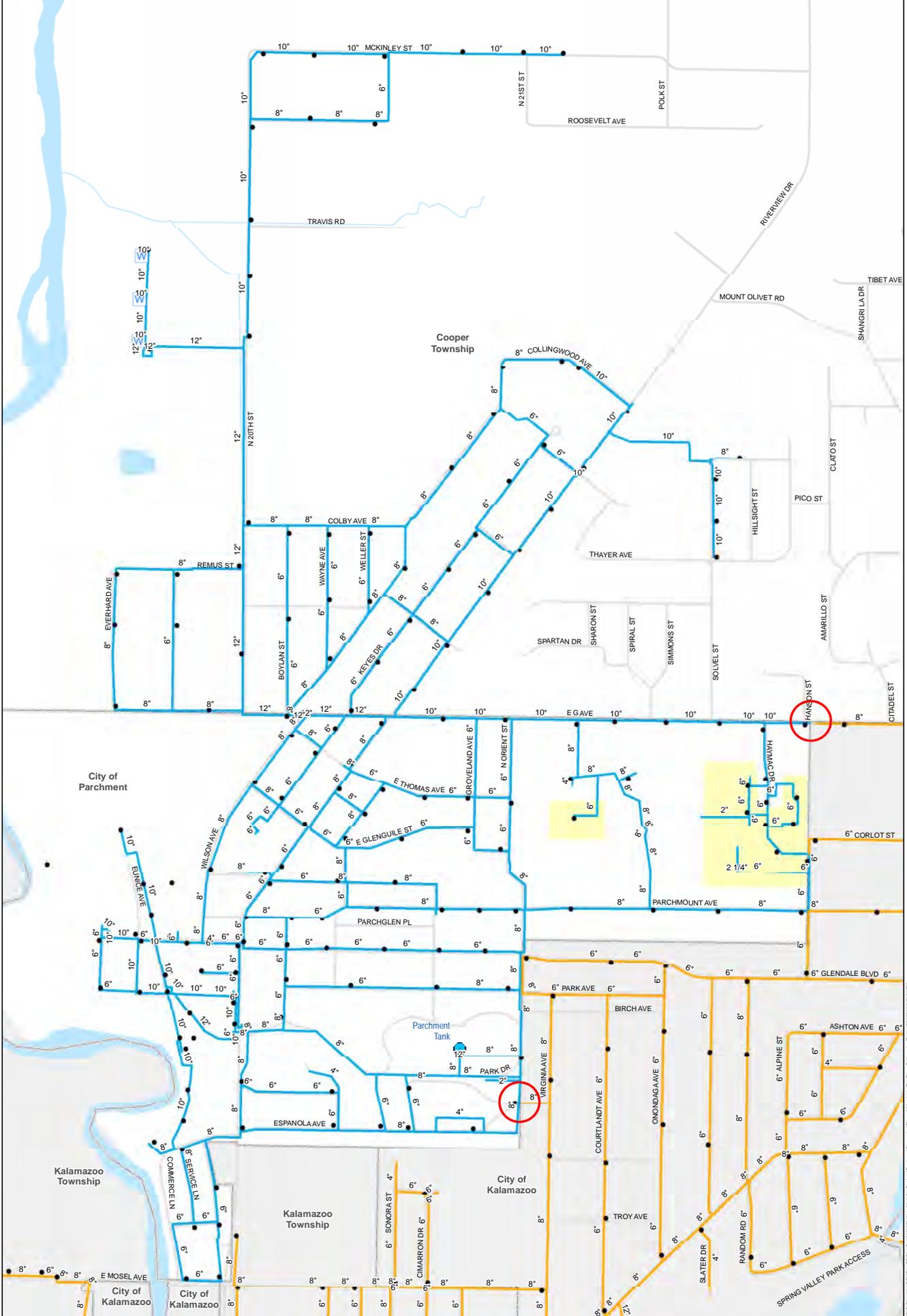


Figure 7. City of Parchment Tank Head – Maximum Day Demands









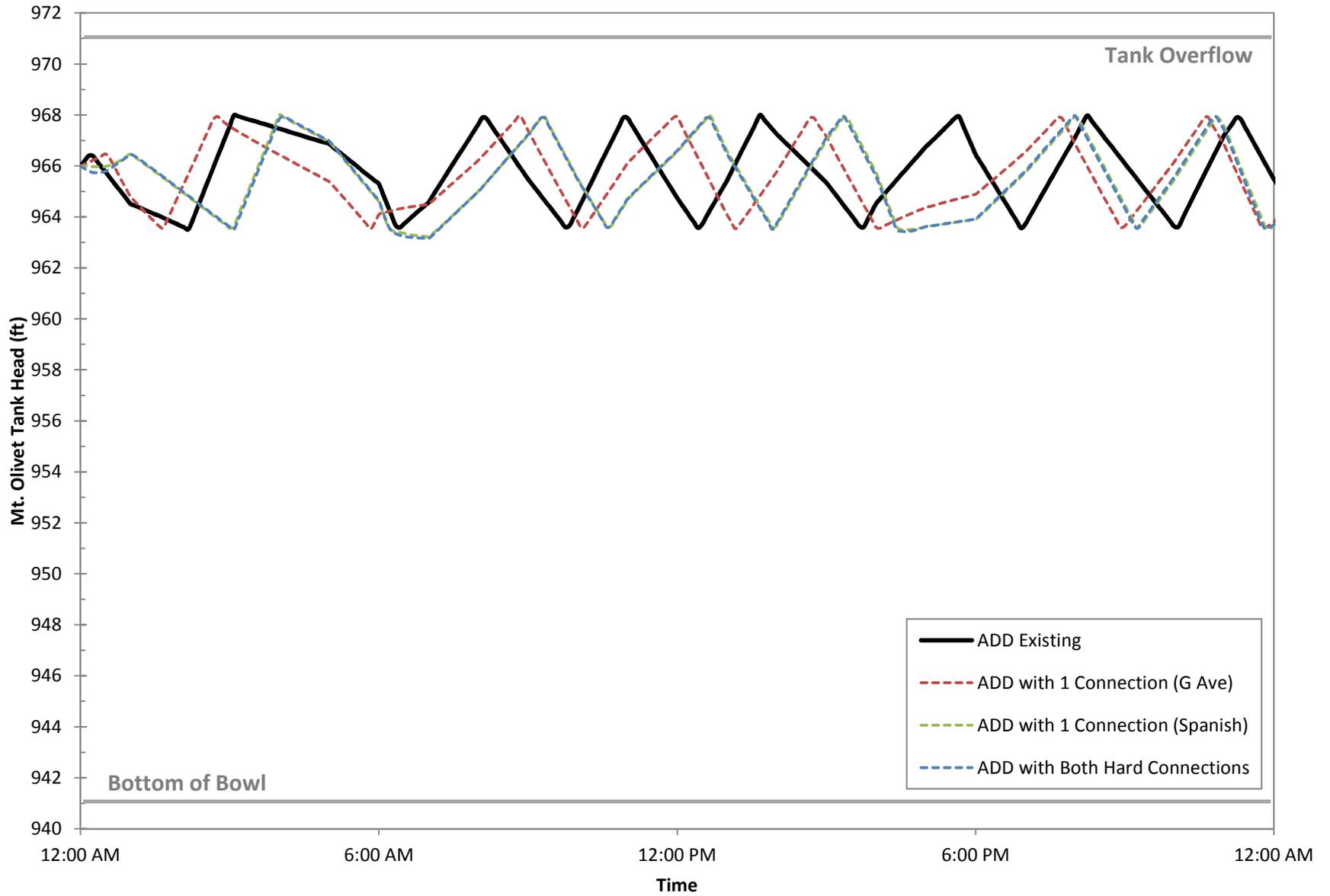

  
 SCALE: 1" = 800'

- LEGEND
- Available Fire Flow
  -  Areas with Less than 1,000 GPM
  -  City of Kalamazoo Water Main
  -  City of Parchment Water Main
  -  Hydrant
  -  Storage Tank
  -  Supply Well
  -  Area Served by the City of Kalamazoo

CITY OF KALAMAZOO  
 KALAMAZOO COUNTY, MICHIGAN  
**AVAILABLE FIRE FLOW - BOTH CONNECTIONS OPEN**  
 FIGURE 10  


2024.01.15 10:00 AM C:\Users\jg\OneDrive\Documents\Projects\Kalamazoo\Map\Map\_10\_Available\_Fire\_Flow\_Both\_Connections\_Open.dwg

**Figure 11. Mount Olivet Tank Head – Average Day Demands**



# Appendix B

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**Public Services Department**  
***Water Resources Division***

415 Stockbridge Avenue  
Kalamazoo, MI 49001-2898  
Ph.269.337.8601  
Fx.269.337.8533

February 2019

**Notice of Public Meeting**  
Lead Service Replacement

Dear Resident,

The City of Kalamazoo and the City of Parchment are committed to providing safe and reliable drinking water to all their citizens. You are receiving this notification because water records indicate that your address may have a lead water service. Because the City of Kalamazoo is providing public water service to the City of Parchment residents, work for lead water service replacements will be managed by the City of Kalamazoo.

If it is determined that your water service requires replacement, it is the intent of the project to replace your current water service with a new, copper water service. The new service would extend from the existing water main, into your home, and connect to the existing water meter. This service replacement will be done at **no cost to you**.

To promote communication, the two Cities will hold a public information meeting to present you with information on the proposed project area and to answer any questions you may have.

The public meeting will be held on Thursday, March 14, 2019 from 6-8pm at the Parchment United Methodist Church located at 225 Glendale Boulevard, Parchment, Michigan, 49004

We look forward to seeing you there.

**Thank you**



**Public Services Department**  
***Water Resources Division***

415 Stockbridge Avenue  
Kalamazoo, MI 49001-2898  
Ph.269.337.8601  
Fx.269.337.8533

February 2019

**Public Notice**  
Lead Service Replacement

There will be a public information meeting regarding lead water service replacements in the City of Parchment on Thursday, March 14, 2019 from 6-8pm at the Parchment United Methodist Church located at 225 Glendale Boulevard, Parchment, Michigan, 49004

# Affidavit

STATE OF MICHIGAN  
COUNTY OF Kalamazoo

Teresa Johnson, Public Services Deputy Director for the City of Kalamazoo, who is a resident of Kalamazoo County, State of Michigan, personally came and appeared before me, the undersigned Notary, and made the noted statement and Affidavit upon oath and affirmation of belief and personal knowledge that the following matters, facts, and noted items are true and correct to the best of her knowledge:

Statement:

A Legal Public Notice of meeting was placed in the Kalamazoo Gazette on February 12, 2019. The noticed meeting was regarding lead service replacements in the City of Parchment, set for Thursday, March 14, 2019 from 6-8pm, at the United Methodist Church located at 225 Glendale Boulevard, Parchment, Michigan, 49004.

Statement by: Teresa Johnson

Signed: Teresa Johnson

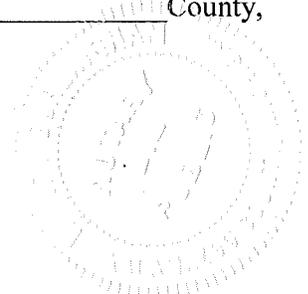
Dated: 3/4/19

Notary

Subscribed and sworn to before me this 4th day of March, 2019.

Wendy Burlington  
Notary Public  
Kalamazoo County,  
MI

My Commission Expires:  
1/30/2020



# City of Kalamazoo

## FY 2019 DWRP Project Plan Public Hearing

March 14, 2019

United Methodist Church, 225 Glendale Boulevard, Parchment, Michigan, 49004

The following information is required by the State of Michigan as proof of meeting attendance

NAME	ADDRESS
Brian Vilmont	3060 3 Mile Rd NE, Grand Rapids, MI 49525
Wendy Burlingham	5040 Coopers Landing, Kalamazoo, MI 49004
Steve Skalski	3726 Barrington Dr, Kalamazoo, MI 49006
Vern Johnson	Kalamazoo County Health Department
James Baker	57675 N Main, Three Rivers
Bobby J. Hopewell	241 West South Street, Kalamazoo
Rob Britigan	327 Glendale Blvd, Parchment, MI 49004
Shirley Kishpaugh	361 Glendale
Michael A. Digon	344 Glendale
Shirley Montgomery	122 Elsmere
John Griffith	430 Parkdale
Robin Noren	516 Parchment
Bev & Chuck Brown	212 E. Glenguile
Teresa Sprague	317 Glendale Blvd
Paul & Julie Camp	127 Glendale Blvd

Bonnie Arthur	2155 Riverview Pl
Cheryl & Mark Jenness	294 Glendale
Donna Ellis	117 S. Orient St
Matt Early	408 Glendale, Parchment
Amber Adams-Fall	312 Groveland Ave
Nancy Taylor Lenz	527 Parchmount
Carol Hilbaldt	335 E. Oak Grove
Nancy Stoddard	Parchment City Hall
Tom Jordan	904 Parchmount Ave
Suzan Dean	112 E Oak Grove
Stephanie G. Grathwol	227 Maple St
Richard Bogren	318 Parchmount
Kim Gheen	267 Parchmount
Jean Harden	511 Park Ave
Denny & Shauna Collison	121 Elsmere
David Janz	504 N. Orient
Ashlee Sowles	519 Vales
Rob Britigan	327 Glendale Blvd
Karen Martin-Hale	286 Glendale, 350 Glendale
Robert Fales	220 Sanford
Deborah Jackson	263 Oak Grove
Kaitt Linders	505 Glendale Blvd



# Appendix C

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# SRF-DWRF-NPS Applicant Self-Certification Forms (Rev. Draft 16 Jan 2019)

## APPLICANT INSTRUCTIONS FOR SECTIONS "A" and "B"

- Use streamlined checklists A & B below during and after the pre-application meeting to help determine which project planning elements are most relevant for developing a Project Application Narrative (PAN). The PAN proposed for pilot testing will be a streamlined version of the SRF-DWRF Project Plan. Refer to the Project Plan Preparation Guidance and Applicant Actions for details.
- The PAN is an Executive Summary-style planning document to be submitted with all new or amended projects in lieu of an SRF-DWRF Project Plan. For editorial consistency in this test of streamlining, the PAN will provide a ten-point table of contents described elsewhere in another guidance document.
- Important: **All planning elements in "A" and "B" must be considered for all projects, and all boxes must be marked, thereby attesting to the applicant's completion of a comprehensive planning process.** To streamline the narrative portion of the application, only the minimally required and most relevant elements must be described in the PAN (streamlined project plan).
- After considering each element, circle the appropriate box to indicate either: "Yes, the project is likely to involve or likely to impact" (Yes); or "No, the project is not likely to involve or not likely to impact" (No). Include "NA" if it is neither relevant nor applicable to the proposed project (NA).
- "REQUIRED FOR ALL" means the element must be considered and also briefly described in the narrative portion of the streamlined PAN, even if the statement is "no impact." Additional information can be attached or incorporated by reference. Add a check mark to confirm completion of this step.
- If a project involves multiple sub-projects or contracts with different characteristics and different answers for certain boxes, add clarifying comments, notes, or additional pages.
- In addition to the required Act 399 (water) or Part 41 (wastewater) construction permits, any other permits likely to be required prior to construction must be identified in Section "B".
- Submit the completed, signed self-certification forms "A" and "B" with the streamlined PAN document. .

### A. Purpose and Alternatives Analysis including Cost and Effectiveness PROJECT NO. \_\_\_\_\_

Project Need and Eligibility (identify problems, NOT the project to be constructed) <input checked="" type="checkbox"/> REQUIRED FOR ALL	Protection of Public Health and the Environment <input checked="" type="checkbox"/> REQUIRED FOR ALL	Removal of Lead Service Pipes in Water Systems (DWRF only) <input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> NA	Public Information and Education <input checked="" type="checkbox"/> REQUIRED FOR ALL
Existing Facilities (only as relevant to proposed project) <input checked="" type="checkbox"/> REQUIRED FOR ALL	Compliance Violation, Enforcement Action, or Related Concerns Yes <input checked="" type="radio"/> No <input type="radio"/> NA	Alternatives: Option to optimize performance and improve operation and maintenance <input checked="" type="checkbox"/> REQUIRED FOR ALL	Alternatives: Facility Regionalization / Coordination with Regional Planning Agencies <input checked="" type="checkbox"/> REQUIRED FOR ALL

Continued on Page 2



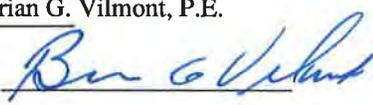
**B. Environmental Preview / Review (NEPA-Like) and Useful Life Analysis PROJECT NO. \_\_\_\_\_**

SHPO: Archeo-Histor-Cultural <input checked="" type="checkbox"/> LETTERS SENT, REQUIRED FOR ALL	THPO: Tribal <input checked="" type="checkbox"/> LETTERS SENT, REQUIRED FOR ALL	Protected Plants and Animals (Endangered-Threatened) USFWS/MNFI Yes <input checked="" type="radio"/> No NA	Protected or Important Habitats (including Trees) Yes <input checked="" type="radio"/> No NA
Floodplain Impacts and/or Permit Yes <input checked="" type="radio"/> No NA	Wetlands Impacts and/or Permit Yes <input checked="" type="radio"/> No NA	Inland Lakes & Streams Impacts and/or Permit Yes <input checked="" type="radio"/> No NA	Airspace and Airports Yes <input checked="" type="radio"/> No NA
Soil Erosion and Sedimentation and/or Permit Yes <input checked="" type="radio"/> No NA	Construction Storm Water Permit, Storm Water Discharge Permit Yes <input checked="" type="radio"/> No NA	Great Lakes Coastal Zone and related (Shorelands, Sand Dunes, Submerged Lands, etc) and/or Permit Yes <input checked="" type="radio"/> No NA	Wild, Scenic and Natural Rivers / National Natural Landmarks / Farmland Preservation Yes <input checked="" type="radio"/> No NA
Air Quality (beyond temporary construction) Yes <input checked="" type="radio"/> No NA	Water or Wastewater Facility NPDES Discharge Permit (New or Modified) Yes <input checked="" type="radio"/> No NA	Other permits anticipated for water-wells, roads, buildings, local health dept, lagoon berm, etc (please identify) Yes <input checked="" type="radio"/> No NA	
Public Lands, Recreational Areas, Scenic Areas, Beauty Roads, Open Space, etc Yes <input checked="" type="radio"/> No NA	Noise-Sensitive or Security-Sensitive Zones (e.g., hospitals, schools, apartments) Yes <input checked="" type="radio"/> No NA	<p align="center"><b>USEFUL LIFE ANALYSIS (SRF ONLY)</b> <i>This checkbox satisfies the USEPA requirement</i></p> <p align="center">The Useful Design Life of the project or activity is <u>75</u> years. For projects with multiple sub-components, see XYZ for determining the Useful Life.</p>	
Applicant Comments (attach additional page if necessary) Lead service line replacement will be performed by excavating at the water main for new taps, excavating for new curb boxes, and trenchless installation for the remaining portions of a service. All excavation is planned to be in the public right-of-way. New water meters are also typically installed.			
MDEQ Reviewer Comments (attach additional page if necessary)			

**APPLICANT CERTIFICATION** (Please print or type)

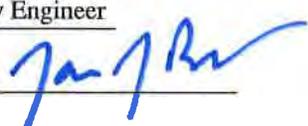
I certify that all the above-referenced planning requirements Pages 1-3 have been considered, including the environmental preview, and including additional planning elements where relevant and applicable to the proposed project.

Name of Professional Engineer Brian G. Vilmont, P.E.

Signature of Professional Engineer  Date 3/14/19

Name of Authorized Representative James Baker, P.E.

Title of Authorized Representative City Engineer

Signature of Authorized Representative  Date 3/14/19

**MDEQ Review** (attach existing May 1/July 1 Screening checklist until Rules / Law are amended)

I certify that I have completed a thorough review of the above-referenced proposed SRF/DWRF loan project, using steps consistent with the long-established State Environmental Review Process and associated historical and recent guidance documents.

Date of PAN Screening Review \_\_\_\_\_

Name of Reviewer \_\_\_\_\_

More Info Needed? Y / N

Preliminary Tier 1 - 2 - 3

Approve for Initial PPL? Y / N

End Draft 5 January 2018 CJC

Rev. Draft 30 Nov 2018 CJC

Rev. Draft 16 Jan 2019 CJC (added the PM certification on Page 4)

## Letter of Transmittal

To: State Historic Preservation Office  
Cultural Resources Management and Planning  
Section  
735 East Michigan Avenue  
P.O. Box 30044  
Lansing, MI 48909

From: Ariana Jeske  
Date: March 4, 2019  
Project #: 2180550

Re: City of Parchment Lead Service Line Replacements.

We are enclosing the following:

<i>Copies</i>	<i>Date</i>	<i>Description</i>
1		Section 106 Review Application
1		Project Area Map
1		Project Area Photos

These are transmitted:  for approval  for your use  \_\_\_\_\_

Remarks:

Please find attached the Section 106 Application for your review and approval. Call with any questions at (616)364.8491.

Any electronic media (computer disks) that may accompany this transmittal are only for the convenience of the recipient. Any conclusions or information obtained or derived from the data on the electronic media will be at the user's sole risk. Prein&Newhof's responsibility is limited to only the printed copies (also known as hard copies) that are delivered pursuant to the service under the contract with the client.

Signed: Ariana Jeske

cc:

February 26, 2019

Marcus Winchester, THPO  
Pokagon Band of Potawatomi  
58260 Sink Road  
Dowagiac, MI 49047 - Sent by email

RE: Notice and Opportunity to Comment  
Lead Service Line Replacement  
City of Parchment

Dear Mr. Winchester:

Prein&Newhof, working on behalf of the City of Kalamazoo, public water utility owner for the City of Parchment, is preparing an application to fund improvements for lead service line replacements in the City of Parchment.

The proposed work consists of removal of existing lead service lines to buildings and replacement with new copper water service lines.

The project is located in the City of Parchment, Kalamazoo County, Town 002S, Range 011W, and Sections 2 and 3. Please refer to actual work areas/locations in actual map(s). Area slated for replacement are shaded in red and yellow.

This notice and opportunity to comment is being sent to you to fulfill Section 106 of the National Historic Preservation Act review process, which requires a federal agency or applicant to consult with THPOs and federally recognized Indian tribes. The purpose of this notice is to give you an opportunity to have your interests and concerns considered. Should you have any comments on potential impacts to known religious and/or culturally significant properties in the area of the proposed project, please provide them to us within 30 days of this notice.

Sincerely,

**Prein&Newhof**



Brian Vilmont, P.E.

BV/ajj

Enclosure(s): Project Area Map



Pokégnek Bodéwadmik • Pokagon Band of Potawatomi  
Department of Language and Culture

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59291 Indian Lake Road • Dowagiac, MI 49047 • [www.PokagonBand-nsn.gov](http://www.PokagonBand-nsn.gov)  
(269) 462-4316 • (269) 782-2499 fax

3/6/2019

Ariana Jeske, P.E., PTOE  
Prein&Newhof  
3355 Evergreen Drive NE  
Grand Rapids, MI 49525  
Phone: 616-364-8491  
Email: [AJeske@preinnewhof.com](mailto:AJeske@preinnewhof.com)

**City of Parchment Lead Water Service Line Replacement Project Notice**

Dear Ariana:

Migweth for contacting me regarding these projects. As THPO, I am responsible for handling Section 106 Consultations on behalf of the tribe. I am writing to inform you that after reviewing the details for the project referenced above, I have made the determination that there will be **No Historic Properties in Area of Potential Effects (APE)** significant to the Pokagon Band of Potawatomi Indians. However, if any archaeological resources are uncovered during this undertaking, please stop work and contact me immediately. Should you have any other questions, please don't hesitate to contact me at your earliest convenience.

Sincerely,

Matthew J.N. Bussler  
Tribal Historic Preservation Officer  
Pokagon Band of Potawatomi Indians  
Office: (269) 462-4316  
Cell: (269) 519-0838  
[Matthew.Bussler@Pokagonband-nsn.gov](mailto:Matthew.Bussler@Pokagonband-nsn.gov)

A proud, compassionate people committed to strengthening our sovereign nation.

A progressive community focused on culture and the most innovative opportunities for all of our citizens.

February 26, 2019

Heather Bush  
Match-e-be-nash-shee-wish Gun Lake Band of Potawatomi Indians  
2872 Mission Drive  
Shelbyville, MI 49344 - Sent by email

RE: Notice and Opportunity to Comment  
Lead Service Line Replacement  
City of Parchment

Dear Ms. Bush:

Prein&Newhof, working on behalf of the City of Kalamazoo, public water utility owner for the City of Parchment, is preparing an application to fund improvements for lead service line replacements in the City of Parchment.

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Sincerely,

**Prein&Newhof**



Brian Vilmont, P.E.

BV/ajj

Enclosure(s): Project Area Map

February 26, 2019

Earl Meshigaud  
Hannahville Potawatomi Indian Community  
N-14911 Hannahville B-1 Road  
Wilson, MI 49896 - Sent by email

RE: Notice and Opportunity to Comment  
Lead Service Line Replacement  
City of Parchment

Dear Mr. Meshigaud:

Prein&Newhof, working on behalf of the City of Kalamazoo, public water utility owner for the City of Parchment, is preparing an application to fund improvements for lead service line replacements in the City of Parchment.

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Sincerely,

**Prein&Newhof**



Brian Vilmont, P.E.

BV/ajj

Enclosure(s): Project Area Map

February 26, 2019

Jay Sam, Director  
Little River Band of Ottawa Indians  
2608 Governmental Center Drive  
Manistee, MI 49660 - Sent by email

RE: Notice and Opportunity to Comment  
Lead Service Line Replacement  
City of Parchment

Dear Mr. Sam:

Prein&Newhof, working on behalf of the City of Kalamazoo, public water utility owner for the City of Parchment, is preparing an application to fund improvements for lead service line replacements in the City of Parchment.

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Sincerely,

**Prein&Newhof**



Brian Vilmont, P.E.

BV/ajj

Enclosure(s): Project Area Map

February 26, 2019

Mon-ee Zapata, Cultural Specialist  
Nottawaseppi Band of Huron Potawatomi  
1485 Mno-Bmadzewen Way  
Fulton, MI 49052 - Sent by email

RE: Notice and Opportunity to Comment  
Lead Service Line Replacement  
City of Parchment

Dear Ms. Zapata:

Prein&Newhof, working on behalf of the City of Kalamazoo, public water utility owner for the City of Parchment, is preparing an application to fund improvements for lead service line replacements in the City of Parchment.

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Sincerely,

**Prein&Newhof**



Brian Vilmont, P.E.

BV/ajj

Enclosure(s): Project Area Map

# Appendix D

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