

# Town of Sweden

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18 State Street  
Brockport, NY, 14420

## TOWNWIDE - WATER SYSTEM EXPANSION STUDY

*for the*

## TOWN OF SWEDEN

*Updated January 2023*

MRB Group Project No. 1910.22002

Prepared by:

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## I. INTRODUCTION

The Townwide Water System Expansion Study was originally prepared for the Town in 2018 and it was an extension of the Comprehensive Water Study dated 1999. In 2021 the Town completed a major objective noted in these studies by installing a central transmission watermain along Lake Road (Route 19). This transmission watermain was constructed along Lake Road from the existing water system located south of White Road to the Sweden-Bergen Townline and was the most important improvement to the expansion of the Town water system. This new transmission main represents the central spine of the water system for being able to serve east-west roads in the southern area of Sweden. Based on this improvement, the Town felt it was prudent to update the 2018 report to reflect these system changes and to adjust estimated costs for future expansion to unserved areas of the Town.

Many of the residents within the Town of Sweden get their main water supply from private wells since public water supply is not available in many areas of the Town, most notably to the south of Route 31. Lands to the south of Colby Street / Fourth Section Road, along with sections of along Gordon Road / Sweden-Walker Road / East Avenue and West Canal / East Canal Road comprise the majority of unserved areas in the Town and are the subject of this study area. Water quality and quantity tend to be common problems in the study area, particularly during dry weather periods. This is especially true in rural residential and agricultural communities where public water supplies are limited. Specifically, representative problems include; poor water quality, limited supply, unacceptable levels of bacteria, high concentrations of undesirable inorganic chemicals (such as iron and sulfur), disagreeable odor, unpleasant taste, and excessively hard water that results in the buildup of mineral deposits on plumbing fixtures. Some residents experience many or all of these undesirable issues and since decent water quality is a basic necessity, many residents experience financial hardship in attempts to address these issues.

## A. PURPOSE

The Town has previously examined providing public water to select areas of the Town where the watermain network could be readily extended. This report builds upon those studies to evaluate serving a wider area of the Town. Residents within most areas of the Town have expressed the desire to connect to the existing public water service if it were available at an affordable cost. Thus, the purpose of the study is to evaluate the feasibility of extending public water to all areas of the Town outside of the Village not presently served by public water, including areas that are minimally populated. Many of these areas previously could not be served because there was no water source near there roads. However, as a result of the completion of the Lake Road watermain the Town now has greater flexibility to form new districts to serve the residents that are in the greatest need of water.

## B. METHODOLOGY

A proposed water system layout has been developed that would serve both the present and future public water needs of the Town. Summarized construction cost estimates for providing public water on each unserved road in the Town are presented, as shown in Section VI, Table 2. In 2021 a central, main transmission feed was installed along Lake Road (Route 19) and represents the main trunk line that can serve as that base for extensions to the majority of roads in the Town that do not yet have public water supply. A few proposed improvement segments that are not currently connected to the public water supply and are geographically located within existing service areas are also depicted on the schematic. The feasibility of each improvement project segment has been evaluated with respect to capital cost, potential level of financial assistance and funding, and resulting annual cost to each property. In this analysis, each parcel is considered an Equivalent Dwelling Unit (EDU), regardless of whether or not the property has a residence or is vacant, which is consistent with the methodology the Town has used for previous water districts. Finally, we note that some of these segments are dependent on

water first being installed along adjacent roads, which needs to be factored into any prioritizing of improvements.

## II. STUDY AREA

### A. GENERAL

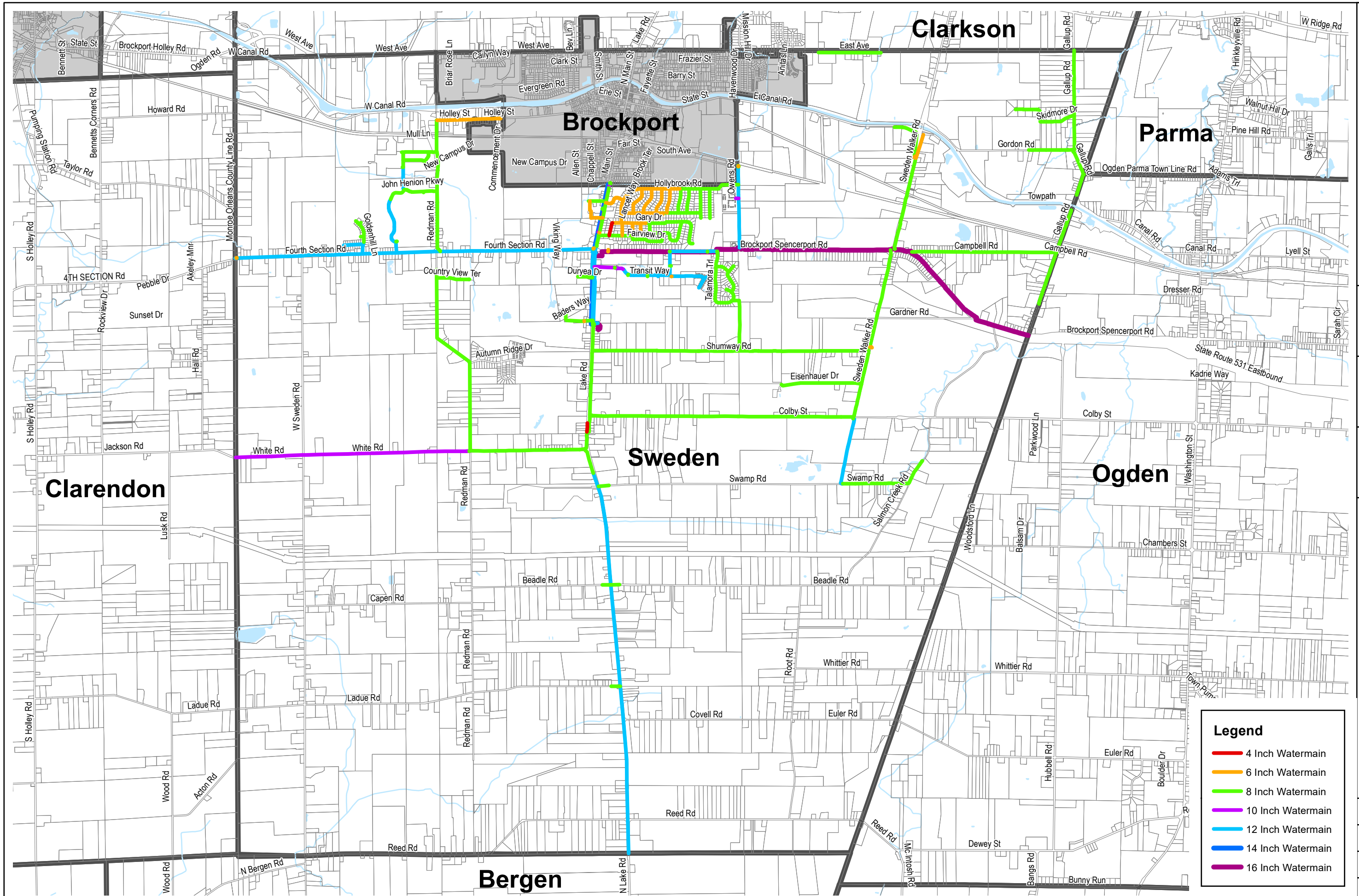
The scope of this study is generally limited to the boundaries of the Town of Sweden, Monroe County, New York. The Town of Sweden is approximately 12 miles due west of Rochester and is approximately 34.3 square miles in size. Based on 2020 US Census data, the population of the Town is approximately 13,142, of which 8,142 live in the Village of Brockport. Hence, the population of the Town alone is approximately 5,000. Since the Village residents already have public water supply, Town residents are the main focus of this study.

Based on previous data provided by the Monroe County Water Authority (MCWA), there are approximately 1,357 customer accounts in the Town of Sweden. US Census data also showed that the residential occupancy ratio for the Town is 2.32. This represents approximately 3,150 people, indicating that roughly 63% of the population is served by public water as represented in **Figure 1. Existing Water System.**

### B. ENVIRONMENTAL RESOURCES PRESENT

While a full environmental assessment has not been completed for this project area, available environmental resource mapping for the project area has been investigated. This information indicates that there are both NYS DEC Regulatory Wetlands as well as NWI Wetlands located at several areas along the proposed project route. Refer to **Figure 2. NWI and NYS DEC Regulatory Wetlands.**

Mapping from the New York State Office of Parks, Preservation and Historic Preservation shows that portions of this project fall within areas mapped as having potential historical/archaeological sites. It should be noted, however, that the proposed watermain route is to be primarily within the road right-of-way areas.



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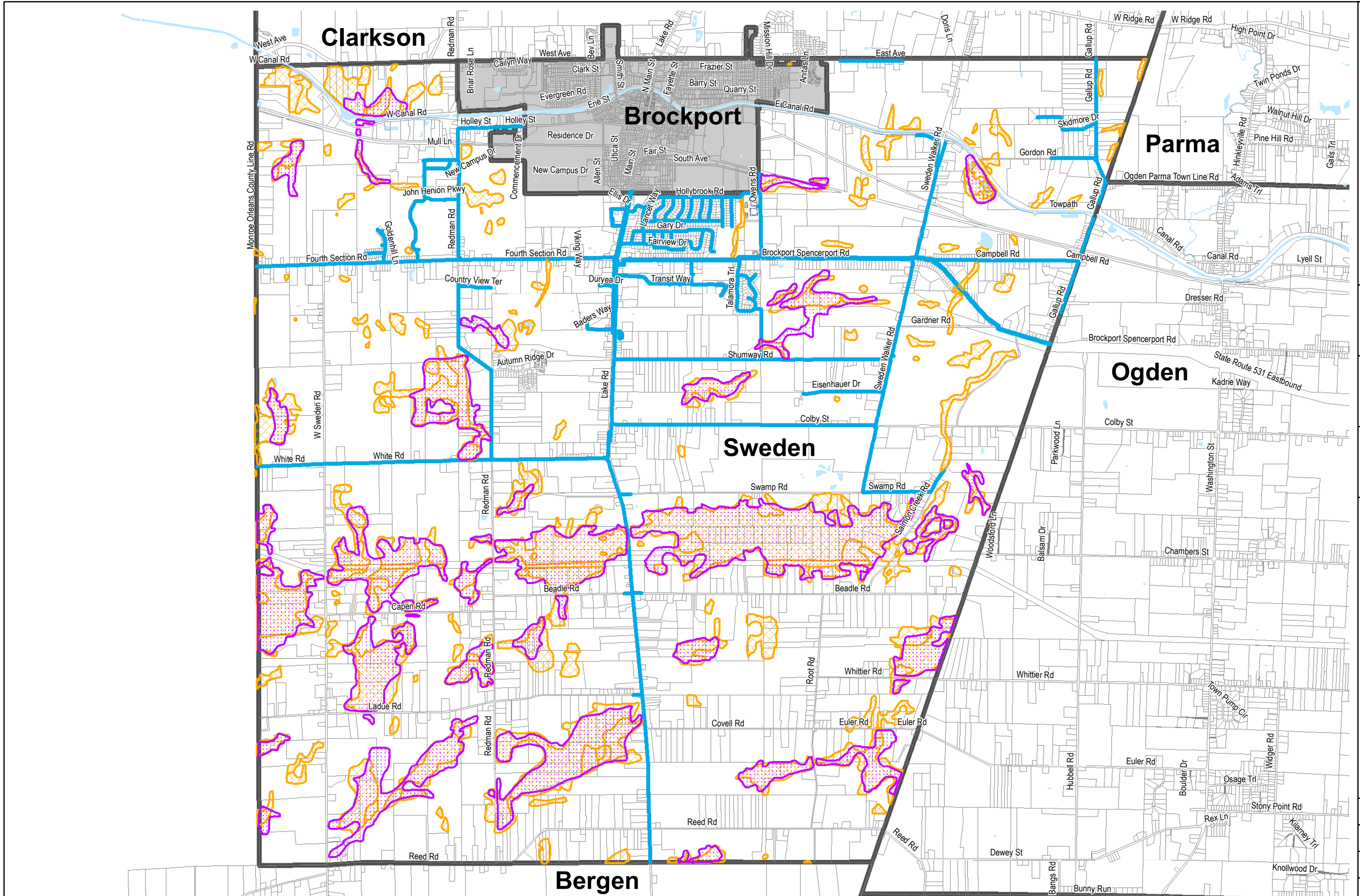
FIGURE  
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**Legend**

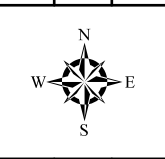
- 4 Inch Watermain
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- 10 Inch Watermain
- 12 Inch Watermain
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**TOWN OF SWEDEN**  
**COMPREHENSIVE WATER STUDY - 2023 UPDATE**  
**NWI AND NYS DEC REGULATORY WETLANDS**



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**FIGURE**  
 2



While it does not appear that any environmental or cultural resources will be prohibitive to the development of the project, all appropriate environmental and cultural resources would need to be investigated and documented. This documentation would be performed as part of the required State Environmental Quality Review (SEQR) review, including historic and archaeological sites and critical species and habitats.

### III. EXISTING FACILITIES

#### A. GENERAL

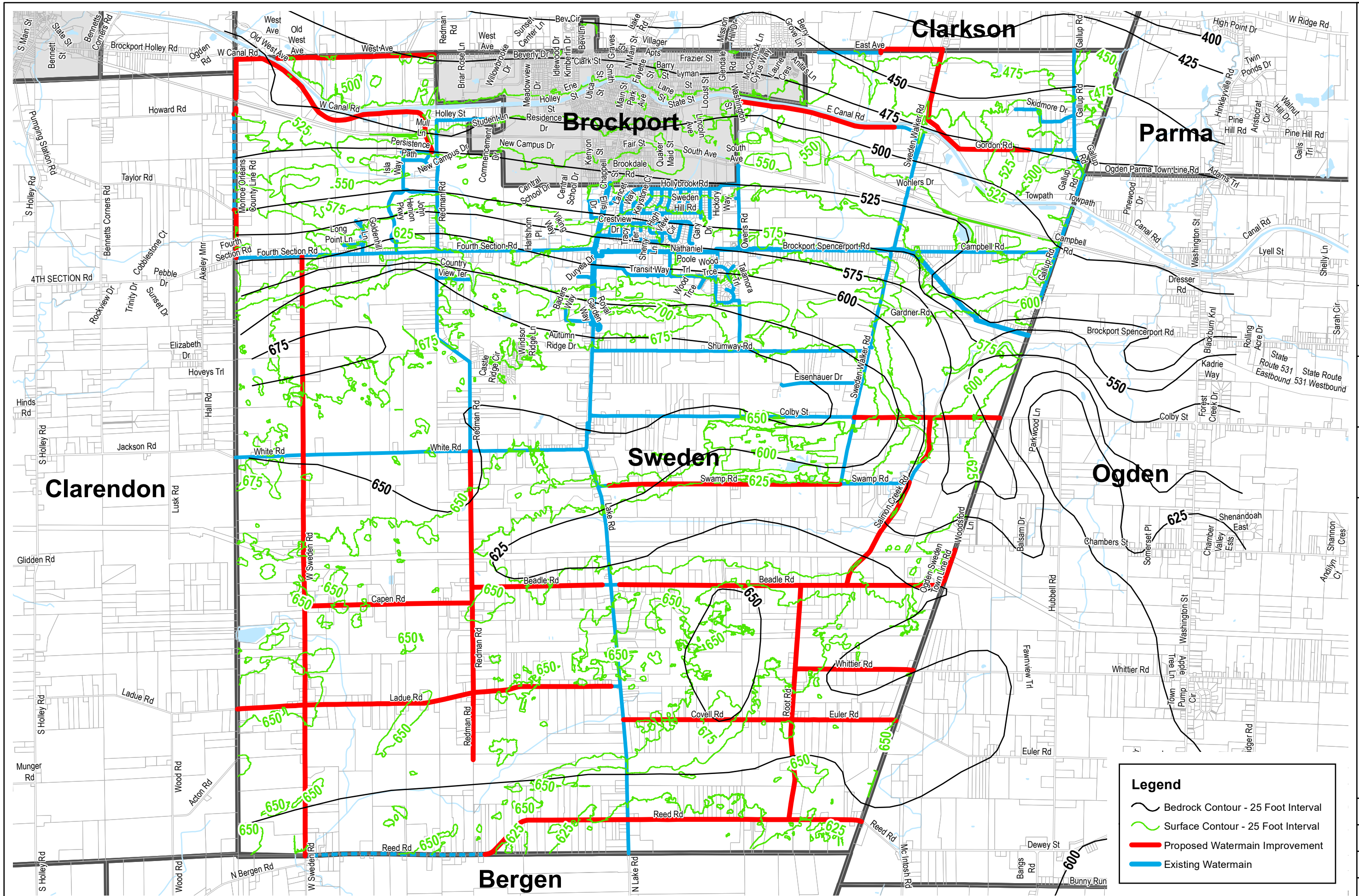
The Town of Sweden owns the water distribution network that currently serves the residents of the Town. The MCWA operates and maintains the distribution system under a long-term lease agreement with the Town of Sweden. Under the terms of the lease, the Town is responsible for capital costs and debt service associated with existing and new water districts; the MCWA is responsible for upkeep of the system and costs associated with modifications needed to improve overall system performance. **Figure 1. Existing Water System** shows the existing distribution system in the Town of Sweden

## B. SUPPLY

The MCWA supplies water to the Town of Sweden distribution network in addition to operating and maintaining the system per a lease agreement signed in 2002 and a water district main extension agreement signed in 2021. Per this agreement, the MCWA will only cover costs to repair or replace materials used in the system that meet MCWA standards, which requires ductile iron pipe (DIP) for watermains. While the MCWA does allow the Town to opt for PVC and other AWWA and NFS approved materials, the MCWA will not cover costs for improvements using these materials and these costs will be charged back to the district. DIP watermain is prevalent in improvements made since 1999 due to these MCWA standards, while the remaining network is primarily comprised of polyvinyl chloride (PVC) watermain. For the purpose of this study, the Town has requested that both materials be evaluated.

## C. TOPOGRAPHY

The USGS Brockport Quadrangle indicates that the ground elevations within the Town of Sweden increase from north to south to a point approximately 3,000 feet south of Brockport-Spencerport Road. Elevations less than 550 feet are common along the northern Town boundary, while elevations in excess of 700 feet exist within the Lakeview Cemetery. The Niagara Escarpment, a defined ridge rising 65 feet in less than a quarter mile and whose upper elevations represent the Town's highest elevations, traverses the Town in an east to west direction. Elevations south of this ridge steadily decrease to approximately 625 feet at the southern Town boundary line. Bedrock elevations in this area are relatively high in relation to the ground surface elevations, as shown in **Figure 3**.



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**FIGURE**  
 3

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#### D. WATER DISTRICTS

The Town of Sweden created a consolidated water district in 1990. Since the *Comprehensive Water Study for the Town of Sweden Water Distribution System – July 1999* (1999 water study), there have been several new water districts and extensions created. Operation of the system is on a retail basis, allowing the elimination of district specific water meters and unencumbered interconnections between districts. Operation of the system is based on the previously mentioned pressure zones.

Specific Water Districts added since the *1999 water study* are located on White Road east of Lake Road, developments north of Fourth Section Road and west of Redman Road, districts on Shumway Road, Colby Street, Sweden-Walker Road, Swamp Road, and Salmon Creek Road.

There is also a district in the northeast corner of the Town that is in the 706 zone that includes Gordon Road, Gallup Road and Skidmore Drive. This district is supplied out of the Town of Clarkson network and is not connected to the rest of the Town of Sweden watermain network.

In 2021 the Town completed construction of a water system serving the southern end of Lake Road, parts of Redman Road and Country View Terrace. This district made connections to the White Road water main and also terminated in an interconnection with the Town of Bergen on Lake Road.

Refer to **Figure 1. Existing Water System** for further details.

## IV. HYDRAULIC AND SUPPLY CONSIDERATIONS

### A. METHODOLOGY

Hydraulic network modeling software was previously utilized to conduct a preliminary hydraulic analysis of the priority improvement project alternatives. The actual hydraulic parameters will depend to a large extent on the sequence through which the various priority improvement projects are implemented. The hydraulic analysis performed to-date, therefore, is preliminary in nature, and the hydraulic conditions will need to be further evaluated as each individual improvement project is implemented.

### B. WATER SUPPLY

As noted in the previous section, water to the Town is supplied by the Monroe County Water Authority.

### C. WORKING PRESSURES AND FIRE FLOWS

The water distribution network within the Town of Sweden contains three pressure zones: 810, 740 and 706. Further details regarding these three pressure zones can be found in the previous study, *Comprehensive Water Study 2013-Update (2013 Water Study)*. The *Recommended Standards for Water Works* indicates that a minimum working pressure of 35 psi should be maintained in the distribution system. Therefore, in order for the Lake Road storage tank to maintain 35 psi in the 706 pressure zone, the maximum ground elevation is 625 feet. The maximum elevation that can be served in the 740 zone is 659 feet and the maximum elevation that can be served in the 810 zone is 729 feet.

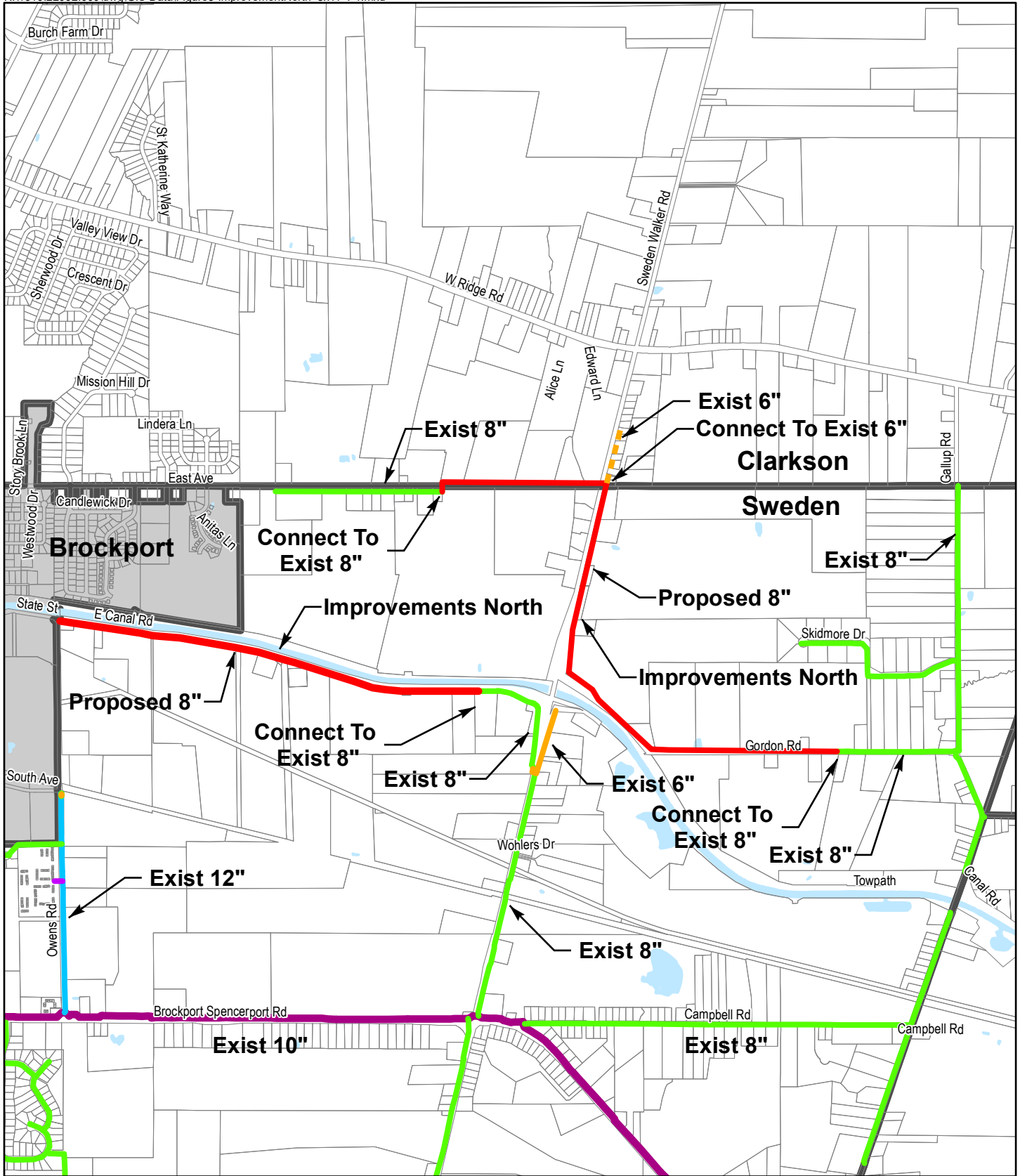
Given the uncertainty associated with the sequence of the various improvements, a


separate, supplemental hydraulic analysis will need to be conducted for each improvement project prior to implementation, to verify that adequate pressures and flows are available.

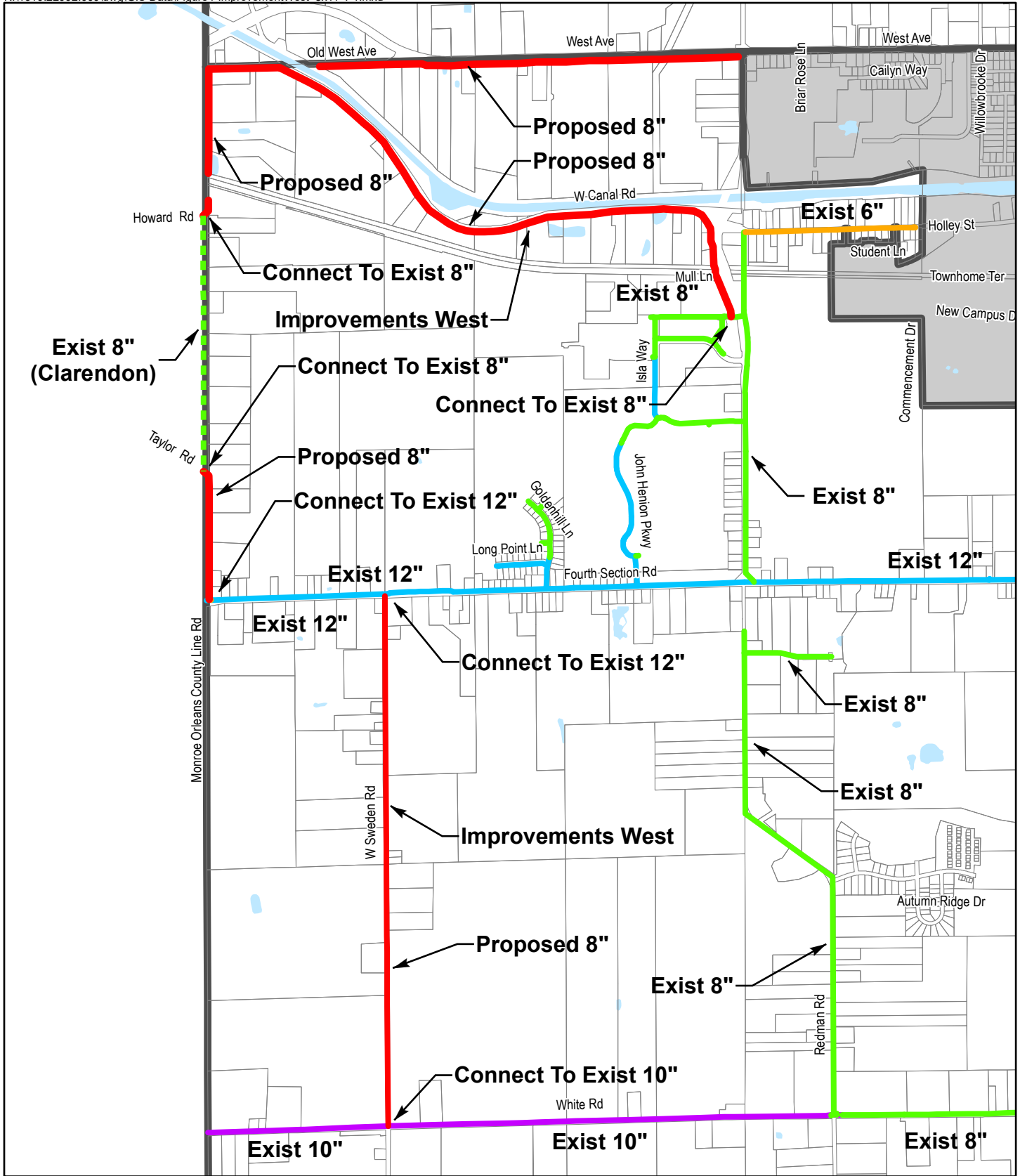
## V. PROPOSED WATER SYSTEM

**Figure 7. Proposed Water System** shows the entire proposed water system that is recommended for the Town's public water improvement program which would provide public water on all town roads in Sweden. **Figures 4, 5, and 6** also depict the portions of the proposed water system, but at a smaller scale to show greater detail.





<p><b>TOWN OF SWEDEN</b></p> <p><b>COMPREHENSIVE WATER STUDY - 2023 UPDATE</b></p> <p><b>PROPOSED IMPROVEMENTS - NORTH</b></p>	<p>1" = 2,000'</p>	<p><b>MRB   group</b></p> <p>Engineering, Architecture &amp; Surveying, D.P.C.</p> <p>145 Culver Road, Suite 160 Rochester, NY 14620 (585) 381-9250 Phone www.mrbgroup.com</p>	<p><b>FIGURE</b></p> <p>4</p>
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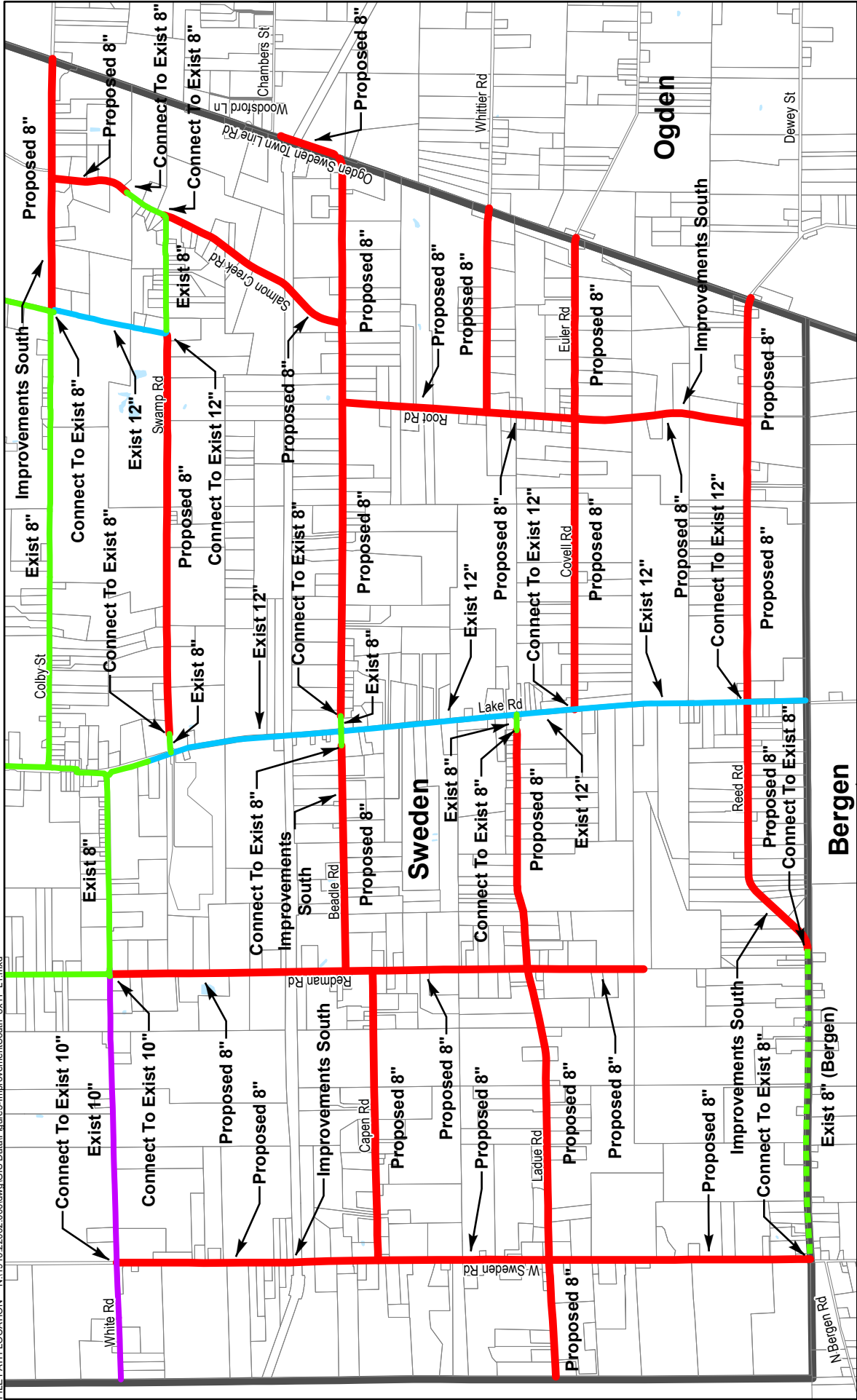
**TOWN OF SWEDEN**  
**COMPREHENSIVE WATER STUDY - 2023 UPDATE**  
**PROPOSED IMPROVEMENTS - WEST**

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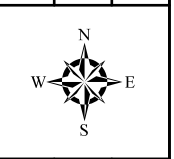
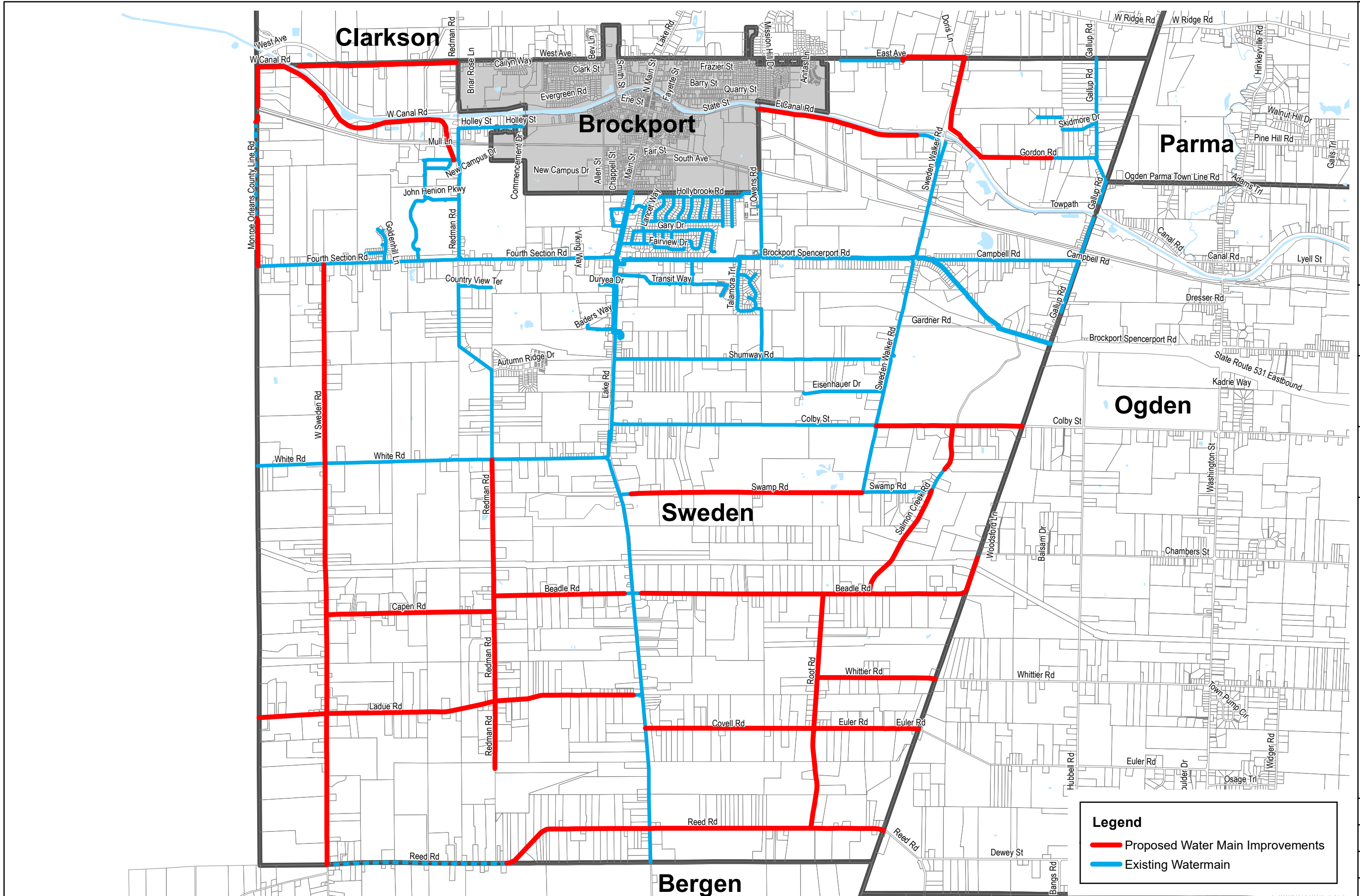
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<b>FIGURE</b>	5
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	COMPREHENSIVE WATER STUDY - 2023 UPDATE	
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 FIGURE  
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## A. BASE INFRASTRUCTURE

In 2021 a 12” watermain was installed along Lake Road (Route 19), running between White Rd and Swamp Rd, terminating at the Sweden-Bergen Townline where an interconnection was made with the Bergen water system. This 12” watermain will serve as a base infrastructure for 8” east-west extensions as described in the proposed segments below. In addition to these segments, there are other proposed segments that do not connect to the base infrastructure on Lake Road due to their geographical locations, including: a portion of East Ave, a portion of Sweden-Walker Road, Monroe-Orleans County Line Road, West Ave, East Canal and West Canal Roads, and a portion of Gordon Road. These segments are situated adjacent to existing public water service area and can connect to the existing infrastructure. It should also be noted that the possibility exists for other connections depending on the priority of improvements and interest of the public. Those connections could potentially include a southerly connection along Reed Road into Bergen along with connections to the MCWA system in Ogden or Orleans County.

## B. PROPOSED SEGMENTS – SERVED OFF ROUTE 19

1. Lake Rd – *Completed*. Lake Road System was installed in 2021 from the White Road to the Sweden-Bergen Town Line.
2. Reed Rd – Approximately 15,350 LF of 8” watermain to extend east to west from Sweden-Ogden Townline to the Bergen water main east of W. Sweden Road.
3. Covell Rd – Approximately 6,680 LF of 8” watermain to extend east to west from Root Road to Lake Road.
4. Euler Rd – Approximately 4,160 LF of 8” watermain to extend east to west from Sweden-Ogden Townline to Root Road.
5. Beadle Rd - Approximately 20,220 LF of 8” watermain to extend east to west from Sweden-Ogden Townline to Redman Road.
6. Ladue Rd - Approximately 12,730 LF of 8” watermain to extend east to west from Lake Road to the Monroe-Orleans County Line.
7. Capen Rd - Approximately 6,690 LF of 8” watermain to extend east to west



- from Redman Road to W. Sweden Road.
8. Swamp Rd - Approximately 9,530 LF of 8” watermain to extend east to west from Sweden-Walker Road to Lake Road.
  9. Colby Street - Approximately 8,240 LF of 8” watermain to extend east to west from the Sweden-Ogden Townline boundary to Sweden-Walker Road.
  10. Country View Terrace – Watermain was installed along Country View Terrace in 2021.
  11. W. Sweden Rd
    - a. (north segment) - Approximately 7,890 LF of 8” watermain to extend north to south from Fourth Section Road to White Road.
    - b. (south segment) - Approximately 15,900 LF of 8” watermain to extend north to south from White Road to Reed Road.
  12. Redman Rd
    - a. (North segment - Completed) – Watermain was installed along Redman Road from Fourth Section Road to White Road. No connection was made to Fourth Section Road.
    - b. (South segment) - Approximately 9,600 LF of 8” watermain to extend north to south from White Road to a termination point south of Ladue Road.
  13. Root Rd - Approximately 9,200 LF of 8” watermain to extend north to south from Beadle Road to Reed Road.
  14. Salmon Creek Rd
    - a. (North segment) - Approximately 2,240 LF of 8” watermain to extend north to south from Colby Street to the existing watermain connection just north of Swamp Road.
    - b. (South segment) - Approximately 5,010 LF of 8” watermain to extend north to south from. Swamp Road to Beadle Road
  15. Ogden-Sweden Rd - Approximately 1,680 LF of 8” watermain to extend north to south from Chambers Street to Beadle Road.
  16. Whittier Rd - Approximately 4,770 LF of 8” watermain to extend east to



west from the Sweden-Ogden Townline boundary to Root Road.

C. PROPOSED SEGMENTS – AREAS NORTH OF ROUTE 31

1. Gordon Rd - Approximately 6,470 LF of 8” watermain to extend east to west from the existing connection on Gordon Road to Sweden-Walker Road.
2. Sweden-Walker Rd - Approximately 5,180 LF of 8” watermain to extend south to north from Gordon Road to East Ave.
3. East Ave - Approximately 3,130 LF of 8” watermain to extend east to west from Sweden-Walker Road to a termination point at the existing system connection.
4. Monroe Orleans County Line Rd – A total of approximately 3,273 LF of 8” watermain to extend north to south from West Canal Road to a dead end, and from Taylor Rd to Fourth Section Road.
5. West Canal Rd - Approximately 9,000 LF of 8” watermain to extend east to west from Redman Rd to Monroe Orleans County Line Road.
6. East Canal Rd - Approximately 7,477 LF of 8” watermain to extend east to west from Sweden Walker Road to Owens Road.
7. West Ave / Old West Ave – Approximately 6800 LF of 8” watermain to extend west from the Village of Brockport to the canal.

## VI. CAPITAL COST ESTIMATES

The preliminary cost estimates were derived from 2022 supplier pricing for materials, and recent contractor pricing using the New York State prevailing wage rates. **Table 1** summarizes the unit costs used to develop the estimates.

Estimates include costs for rock blasting and excavation where applicable. Estimates for rock excavation assume a total trench depth of seven (7) feet and an average depth of grade to top of bedrock of two (2) feet, resulting in bedrock depth of five (5) feet, and an assumed trench width of three (3) feet. These assumptions suggest that approximately 0.52 cubic

yards and 0.56 cubic yards of rock will be excavated per lineal foot of trench during the installation of an 8-inch respectively. We would anticipate that as part of the design work on specific segments of expansion, test holes would be dug to verify actual depths of rock along project routes.

Watermain material costs are based on MCWA standard Class 52 ductile iron pipe (DIP). PVC pressure class 150 pipe may also be used but, as discussed earlier, any repair or replacement for the life of the pipe would be charged back to the district per the lease agreement.

Furthermore, the cost estimates include a conservative 15 percent contingency and 25 percent for Engineering, Legal, & Administration costs. These percentages would be further refined once any of these project segments advance from a preliminary stage to a more defined project design.

**Table 1 – 2023 Preliminary Unit Costs**

DESCRIPTION	UNIT	UNIT COST
* 8-inch CL 52 DIP Watermain	Lineal Foot	\$85
* 8-inch DR 18 PVC Pipe	Lineal Foot	\$65
8-inch Gate Valve and Box	Each	\$3,000
Hydrant Unit	Each	\$8,000
Connection to Existing Watermain	Each	\$8,000
NYS DOT Road Boring & Casing	Lineal Foot	\$400
Rock Excavation	Cubic Yard	\$130

\* Includes general conditions, restoration, and services within the right-of-way.

The following **Table 2** provides a summary of the total estimated costs for each improvement, as well as an alternative total cost to complete the same segments using PVC pipe in place of DIP. The breakdown of estimated preliminary cost for each individual improvement segment is provided in the Appendix.

**Table 2 – Preliminary Cost Estimates for All Segment Improvements**

<b>Summary</b>	<b>Cost</b>
Lake Road Segment - <i>Completed in 2021</i>	\$0
Reed Rd Segment	\$3,319,000
Covell Rd Segment	\$1,485,000
Euler Rd Segment	\$955,000
Beadle Rd Segment	\$4,309,000
Ladue Rd Segment	\$2,731,000
Capen Rd Segment	\$1,441,000
Swamp Rd Segment	\$2,059,000
Colby Street	\$1,781,000
Country View Terrace - <i>Completed in 2021</i>	\$0
W. Sweden Rd - North and South Segments	\$5,071,000
Redman Rd - South Segment	\$2,121,000
Root Rd Segment	\$1,986,000
Salmon Creek Rd - North and South Segments	\$1,571,000
Ogden-Sweden Rd Segment	\$381,000
Whittier Rd Segment	\$1,033,000
Gordon Rd Segment	\$1,415,000
Sweden-Walker Rd Segment	\$1,124,000
East Ave Segment	\$691,000
Monroe Orleans County Line Rd Segment	\$729,000
West Canal Rd Segment	\$1,934,000
East Canal Rd Segment	\$1,614,000
West Ave / Old West Ave Segment	\$1,463,000
<b>Total =</b>	<b>\$39,213,000</b>
<i>PVC Alternative Total =</i>	<i>\$35,265,996</i>

## VII. PHASED IMPLEMENTATION PLAN

### A. GENERAL

Based on the schematic water system described in Section V, a number of geographic areas or “segments” have been identified for the development of the Town’s public water system. Implementation of plans for extending public water will be dependent on funding availability and the amount available will dictate how many years would be required to provide water to all roads within the Town. With the number of variables involved, both financial and practical, it is difficult to project a timetable at this stage for the full implementation of the water system improvement program.

### B. COST AND FINANCING SUMMARY FOR IMPROVEMENT PROJECT ALTERNATIVES

**Tables 3A, and 3B**, located in Appendix A, summarize the preliminary financial analysis of the water system expansion as broken down into road segments. The analysis is based on the following assumptions:

- USDA Rural Development for the year 2023 will continue to use the 2010 Census Data. Income levels of \$45,506 to \$56,882 would qualify for the Intermediate Rate Loan and Grant Funds up to 45% of the project cost. 2010 Census Data for the Town of Sweden indicates a Town MHI of \$52,623.
- A “target” maximum annual cost per user has been established at approximately \$1,050. The target maximum equates to approximately 2.0% of the Town’s median household income based on a 2010 Census, based on USDA Rural Development’s typical annual cost threshold formula. Additionally, New York State threshold in 2023 is \$1,040 for Town Water Districts. The level of Rural Development grant funding necessary to reach this target has been applied to each alternative, up to the maximum amount typically available.

- The balance of project costs over and above available grant funding would be financed through Rural Development at an estimated interest rate of 3.25% for a 38-year term (Intermediate Rate). It has been assumed that the “essentially level debt” method will be employed in the amortization.
- The cost of water is based on the Monroe County Water Authority’s retail rate 2023, which is a base charge of \$0.26 per day and a commodity charge of \$3.80 per thousand gallons, as well as an average of 50,000 gallons (per MCWA record data) of water used per year per residential user.
- Capital cost estimates are approximate, based on limited field reconnaissance. No test pits or subsurface investigation was conducted in an effort to define the depth of rock or adverse soil conditions. The cost estimates were prepared at the level of detail required for the relative evaluation and comparison of alternatives.
- Unit counts are based on using both occupied and vacant parcels, using data from the Monroe County Real Property Service tax mapping. As the Town implements the various alternatives, detailed unit counts will need to be conducted in coordination with the Town Assessor.
- As each alternative is implemented and the corresponding water district is established, the final capital cost estimate for each alternative, and the estimated annual cost per user, will vary from that presented herein to the extent that a more detailed field investigation and unit count may reveal more complete and accurate information. Additionally, the source and connecting infrastructure components will have an impact of the project cost for each alternative.

## VIII. CONCLUSIONS AND RECOMMENDATIONS

A number of alternatives appear feasible for the Town to begin the process of expanding its public water system, assuming that grant subsidies from agencies such as USDA - Rural Development continue to be reasonably attainable. It should be noted that USDA – Rural Development typically encourages projects that serve as much of the areas in need as is possible.

Based on the information presented herein, we make the following recommendations:

- Based on the estimated annual user costs, the Town Board should informally poll the residents in the priority improvement project areas to confirm the level of interest for public water and at what cost threshold. Informational meetings may be the most efficient method to gauge public support.

Based on the confirmation of satisfactory public support for the various priority improvement areas identified in this report, the Town should work closely with its engineer and funding consultant to begin the preliminary engineering and funding application process on a project-by-project basis. If the Town wishes to pursue a grant, then it should be identified immediately and the application process started. USDA Rural Development is currently using the 2010 MHI income and population data. Income surveys must be previously requested, justified, and approved by USDA Rural Development based on extreme changes to the community to be serviced. According to USDA RD, income surveys should not be conducted for the express purpose of determining if a community qualifies for a lower interest rate or higher grant eligibility.



# **APPENDIX A**

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## **PRELIMINARY FINANCIAL ANALYSIS AND SEGMENT COST ESTIMATES**

**COSTS PER IMPROVEMENT SEGMENT**

**Proposed Segments - Served Off Route 19**

**Lake Road Segment -Completed in 2021**

Item	Work Description	Units	Qty	Unit Cost	Total Cost
1	12" DIP Watermain	lf			\$0
2	12" Gate Valve and Box	ea			\$0
3	Hydrant Unit	ea			\$0
4	Connection to Existing Watermain	ea			\$0
5	Rock Excavation	cy			\$0
Sub-Total					\$0
15% Contingency					\$0
25% Engineering, Legal, Administration					\$0
<b>TOTAL</b>					<b>\$0</b>
<b>Alternate</b>					
*1A	<i>Alt. cost for 12" DR-18 PVC Watermain</i>	<i>lf</i>			<i>\$0</i>
<b>TOTAL with PVC in place of DIP</b>					<b>\$0</b>

**Reed Rd Segment**

Item	Work Description	Units	Qty	Unit Cost	Total Cost
1	8" DIP Watermain	lf	15,350	\$85	\$1,304,750
2	8" Gate Valve and Box	ea	17	\$3,000	\$51,000
3	Hydrant Unit	ea	31	\$8,000	\$248,000
4	Connection to Existing Watermain	ea	2	\$8,000	\$16,000
5	NYS DOT Road Boring & Casing	lf	60	\$400	\$24,000
6	Rock Excavation	cy	5,117	\$130	\$665,167
Sub-Total					\$2,309,000
15% Contingency					\$346,000
25% Engineering, Legal, Administration					\$664,000
<b>TOTAL</b>					<b>\$3,319,000</b>
<b>Alternate</b>					
*1A	<i>Alt. cost for 8" DR-18 PVC Watermain</i>	<i>lf</i>	<i>15,350</i>	<i>\$ 65.00</i>	<i>\$675,146</i>
<b>TOTAL with PVC in place of DIP</b>					<b>\$2,689,396</b>

Town of Sweden  
2023 Cost Estimates

**Covell Rd Segment**

Item	Work Description	Units	Qty	Unit Cost	Total Cost
1	8" DIP Watermain	lf	6,680	\$85	\$567,800
2	8" Gate Valve and Box	ea	8	\$3,000	\$24,000
3	Hydrant Unit	ea	14	\$8,000	\$112,000
4	NYS DOT Road Boring & Casing	lf	60	\$400	\$24,000
5	Connection to Existing Watermain	ea	2	\$8,000	\$16,000
6	Rock Excavation	cy	2,227	\$130	\$289,467
Sub-Total					\$1,033,000
15% Contingency					\$155,000
25% Engineering, Legal, Administration					\$297,000
<b>TOTAL</b>					<b>\$1,485,000</b>
<b>Alternate</b>					
*1A	<i>Alt. cost for 8" DR-18 PVC Watermain</i>	<i>lf</i>	<i>6,680</i>	<i>65.00</i>	<i>\$434,200</i>
<b>TOTAL with PVC in place of DIP</b>					<b>\$1,351,400</b>

**Euler Rd Segment**

Item	Work Description	Units	Qty	Unit Cost	Total Cost
1	8" DIP Watermain	lf	4,160	\$85	\$353,600
2	8" Gate Valve and Box	ea	6	\$3,000	\$18,000
3	Hydrant Unit	ea	9	\$8,000	\$72,000
4	NYS DOT Road Boring & Casing	lf	60	\$400	\$24,000
5	Connection to Existing Watermain	ea	2	\$8,000	\$16,000
6	Rock Excavation	cy	1,387	\$130	\$180,267
Sub-Total					\$664,000
15% Contingency					\$100,000
25% Engineering, Legal, Administration					\$191,000
<b>TOTAL</b>					<b>\$955,000</b>
<b>Alternate</b>					
*1A	<i>Alt. cost for 8" DR-18 PVC Watermain</i>	<i>lf</i>	<i>4,160</i>	<i>65.00</i>	<i>\$270,400</i>
<b>TOTAL with PVC in place of DIP</b>					<b>\$871,800</b>

Town of Sweden  
2023 Cost Estimates

**Beadle Rd Segment**

Item	Work Description	Units	Qty	Unit Cost	Total Cost
1	8" DIP Watermain	lf	20,220	\$85	\$1,718,700
2	8" Gate Valve and Box	ea	22	\$3,000	\$66,000
3	Hydrant Unit	ea	41	\$8,000	\$328,000
4	Connection to Existing Watermain	ea	1	\$8,000	\$8,000
5	NYS DOT Road Boring & Casing	lf	0	\$400	\$0
6	Rock Excavation	cy	6,740	\$130	\$876,200
Sub-Total					\$2,997,000
15% Contingency					\$450,000
25% Engineering, Legal, Administration					\$862,000
<b>TOTAL</b>					<b>\$4,309,000</b>
<b>Alternate</b>					
*1A	<i>Alt. cost for 8" DR-18 PVC Watermain</i>	<i>lf</i>	<i>20,220</i>	<i>65.00</i>	<i>\$1,314,300</i>
<b>TOTAL with PVC in place of DIP</b>					<b>\$3,904,600</b>

**Ladue Rd Segment**

Item	Work Description	Units	Qty	Unit Cost	Total Cost
1	8" DIP Watermain	lf	12,730	\$85	\$1,082,050
2	8" Gate Valve and Box	ea	14	\$3,000	\$42,000
3	Hydrant Unit	ea	26	\$8,000	\$208,000
4	Connection to Existing Watermain	ea	2	\$8,000	\$16,000
5	Rock Excavation	cy	4,243	\$130	\$551,633
Sub-Total					\$1,900,000
15% Contingency					\$285,000
20% Engineering, Legal, Administration					\$546,000
<b>TOTAL</b>					<b>\$2,731,000</b>
<b>Alternate</b>					
*1A	<i>Alt. cost for 8" DR-18 PVC Watermain</i>	<i>lf</i>	<i>12,730</i>	<i>65.00</i>	<i>\$827,450</i>
<b>TOTAL with PVC in place of DIP</b>					<b>\$2,476,400</b>

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**Capen Rd Segment**

Item	Work Description	Units	Qty	Unit Cost	Total Cost
1	8" DIP Watermain	lf	6,690	\$85	\$568,650
2	8" Gate Valve and Box	ea	8	\$3,000	\$24,000
3	Hydrant Unit	ea	14	\$8,000	\$112,000
4	Connection to Existing Watermain	ea	1	\$8,000	\$8,000
5	Rock Excavation	cy	2,230	\$130	\$289,900
Sub-Total					\$1,003,000
15% Contingency					\$150,000
25% Engineering, Legal, Administration					\$288,000
<b>TOTAL</b>					<b>\$1,441,000</b>
<b>Alternate</b>					
*1A	<i>Alt. cost for 8" DR-18 PVC Watermain</i>	<i>lf</i>	<i>6,690</i>	<i>65.00</i>	<i>\$434,850</i>
<b>TOTAL with PVC in place of DIP</b>					<b>\$1,307,200</b>

**Swamp Rd Segment**

Item	Work Description	Units	Qty	Unit Cost	Total Cost
1	8" DIP Watermain	lf	9,530	\$85	\$810,050
2	8" Gate Valve and Box	ea	11	\$3,000	\$33,000
3	Hydrant Unit	ea	20	\$8,000	\$160,000
4	Connection to Existing Watermain	ea	2	\$8,000	\$16,000
5	NYS DOT Road Boring & Casing	lf	0	\$400	\$0
6	Rock Excavation	cy	3,177	\$130	\$412,967
Sub-Total					\$1,432,000
15% Contingency					\$215,000
25% Engineering, Legal, Administration					\$412,000
<b>TOTAL</b>					<b>\$2,059,000</b>
<b>Alternate</b>					
*1A	<i>Alt. cost for 8" DR-18 PVC Watermain</i>	<i>lf</i>	<i>9,530</i>	<i>65.00</i>	<i>\$619,450</i>
<b>TOTAL with PVC in place of DIP</b>					<b>\$1,868,400</b>

Town of Sweden  
2023 Cost Estimates

**Colby Street**

Item	Work Description	Units	Qty	Unit Cost	Total Cost
1	8" DIP Watermain	lf	8,240	\$85	\$700,400
2	8" Gate Valve and Box	ea	10	\$3,000	\$30,000
3	Hydrant Unit	ea	17	\$8,000	\$136,000
4	Connection to Existing Watermain	ea	2	\$8,000	\$16,000
5	Rock Excavation	cy	2,747	\$130	\$357,067
Sub-Total					\$1,239,000
15% Contingency					\$186,000
25% Engineering, Legal, Administration					\$356,000
<b>TOTAL</b>					<b>\$1,781,000</b>
<b>Alternate</b>					
*1A	<i>Alt. cost for 8" DR-18 PVC Watermain</i>	<i>lf</i>	<i>8,240</i>	<i>65.00</i>	<i>\$535,600</i>
<b>TOTAL with PVC in place of DIP</b>					<b>\$1,616,200</b>

**Country View Terrace - Completed in 2021**

Item	Work Description	Units	Qty	Unit Cost	Total Cost
1	8" DIP Watermain	lf			\$0
2	8" Gate Valve and Box	ea			\$0
3	Hydrant Unit	ea			\$0
4	Connection to Existing Watermain	ea			\$0
5	Rock Excavation	cy			\$0
Sub-Total					\$0
15% Contingency					\$0
25% Engineering, Legal, Administration					\$0
<b>TOTAL</b>					<b>\$0</b>
<b>Alternate</b>					
*1A	<i>Alt. cost for 8" DR-18 PVC Watermain</i>	<i>lf</i>			<i>\$0</i>
<b>TOTAL with PVC in place of DIP</b>					<b>\$0</b>



Town of Sweden  
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**W. Sweden Rd - North and South Segments**

Item	Work Description	Units	Qty	Unit Cost	Total Cost
1	8" DIP Watermain	lf	23,790	\$85	\$2,022,150
2	8" Gate Valve and Box	ea	25	\$3,000	\$75,000
3	Hydrant Unit	ea	48	\$8,000	\$384,000
4	Connection to Existing Watermain	ea	2	\$8,000	\$16,000
5	Rock Excavation	cy	7,930	\$130	\$1,030,900
Sub-Total					\$3,528,000
15% Contingency					\$529,000
25% Engineering, Legal, Administration					\$1,014,000
<b>TOTAL</b>					<b>\$5,071,000</b>
<b>Alternate</b>					
*1A	<i>Alt. cost for 8" DR-18 PVC Watermain</i>	<i>lf</i>	<i>23,790</i>	<i>65.00</i>	<i>\$1,546,350</i>
<b>TOTAL with PVC in place of DIP</b>					<b>\$4,595,200</b>

**Redman Rd - South Segment**

Item	Work Description	Units	Qty	Unit Cost	Total Cost
1	8" DIP Watermain	lf	9,600	\$85	\$816,000
2	8" Gate Valve and Box	ea	11	\$3,000	\$33,000
3	Hydrant Unit	ea	20	\$8,000	\$160,000
4	Connection to Existing Watermain	ea	2	\$8,000	\$16,000
5	PRV Vault	ls	1	\$35,000	\$35,000
6	Rock Excavation	cy	3,200	\$130	\$416,000
Sub-Total					\$1,476,000
15% Contingency					\$221,000
25% Engineering, Legal, Administration					\$424,000
<b>TOTAL</b>					<b>\$2,121,000</b>
<b>Alternate</b>					
*1A	<i>Alt. cost for 8" DR-18 PVC Watermain</i>	<i>lf</i>	<i>9,600</i>	<i>65.00</i>	<i>\$624,000</i>
<b>TOTAL with PVC in place of DIP</b>					<b>\$1,929,000</b>

Town of Sweden  
2023 Cost Estimates

**Root Rd Segment**

Item	Work Description	Units	Qty	Unit Cost	Total Cost
1	8" DIP Watermain	lf	9,200	\$85	\$782,000
2	8" Gate Valve and Box	ea	11	\$3,000	\$33,000
3	Hydrant Unit	ea	19	\$8,000	\$152,000
4	Connection to Existing Watermain	ea	2	\$8,000	\$16,000
5	Rock Excavation	cy	3,067	\$130	\$398,667
Sub-Total					\$1,382,000
15% Contingency					\$207,000
25% Engineering, Legal, Administration					\$397,000
<b>TOTAL</b>					<b>\$1,986,000</b>
<b>Alternate</b>					
*1A	<i>Alt. cost for 8" DR-18 PVC Watermain</i>	<i>lf</i>	<i>9,200</i>	<i>65.00</i>	<i>\$598,000</i>
<b>TOTAL with PVC in place of DIP</b>					<b>\$1,802,000</b>

**Salmon Creek Rd - North and South Segments**

Item	Work Description	Units	Qty	Unit Cost	Total Cost
1	8" DIP Watermain	lf	7,250	\$85	\$616,250
2	8" Gate Valve and Box	ea	9	\$3,000	\$27,000
3	Hydrant Unit	ea	15	\$8,000	\$120,000
4	Connection to Existing Watermain	ea	2	\$8,000	\$16,000
5	Rock Excavation	cy	2,417	\$130	\$314,167
Sub-Total					\$1,093,000
15% Contingency					\$164,000
25% Engineering, Legal, Administration					\$314,000
<b>TOTAL</b>					<b>\$1,571,000</b>
<b>Alternate</b>					
*1A	<i>Alt. cost for 8" DR-18 PVC Watermain</i>	<i>lf</i>	<i>7,250</i>	<i>65.00</i>	<i>\$471,250</i>
<b>TOTAL with PVC in place of DIP</b>					<b>\$1,426,000</b>

Town of Sweden  
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**Ogden-Sweden Rd Segment**

Item	Work Description	Units	Qty	Unit Cost	Total Cost
1	8" DIP Watermain	lf	1,680	\$85	\$142,800
2	8" Gate Valve and Box	ea	3	\$3,000	\$9,000
3	Hydrant Unit	ea	4	\$8,000	\$32,000
4	Connection to Existing Watermain	ea	1	\$8,000	\$8,000
5	Rock Excavation	cy	560	\$130	\$72,800
Sub-Total					\$265,000
15% Contingency					\$40,000
25% Engineering, Legal, Administration					\$76,000
<b>TOTAL</b>					<b>\$381,000</b>
<b>Alternate</b>					
*1A	<i>Alt. cost for 8" DR-18 PVC Watermain</i>	<i>lf</i>	<i>1,680</i>	<i>65.00</i>	<i>\$109,200</i>
<b>TOTAL with PVC in place of DIP</b>					<b>\$347,400</b>

**Whittier Rd Segment**

Item	Work Description	Units	Qty	Unit Cost	Total Cost
1	8" DR 18 P.V.C. Watermain	lf	4,770	\$85	\$405,450
2	8" Gate Valve and Box	ea	6	\$3,000	\$18,000
3	Hydrant Unit	ea	10	\$8,000	\$80,000
4	Connection to Existing Watermain	ea	1	\$8,000	\$8,000
5	Rock Excavation	cy	1,590	\$130	\$206,700
Sub-Total					\$718,000
15% Contingency					\$108,000
25% Engineering, Legal, Administration					\$207,000
<b>TOTAL</b>					<b>\$1,033,000</b>
<b>Alternate</b>					
*1A	<i>Alt. cost for 8" DR-18 PVC Watermain</i>	<i>lf</i>	<i>4,770</i>	<i>65.00</i>	<i>\$310,050</i>
<b>TOTAL with PVC in place of DIP</b>					<b>\$937,600</b>

Town of Sweden  
2023 Cost Estimates

**Proposed Segments - Areas North of Route 31**

**Gordon Rd Segment**

Item	Work Description	Units	Qty	Unit Cost	Total Cost
1	8" DIP Watermain	lf	6,470	\$85	\$549,950
2	8" Gate Valve and Box	ea	8	\$3,000	\$24,000
3	Hydrant Unit	ea	13	\$8,000	\$104,000
4	Connection to Existing Watermain	ea	1	\$8,000	\$8,000
5	Rock Excavation	cy	2,157	\$130	\$280,367
6	NYS DOT Road Boring & Casing	lf	60	\$300	\$18,000
Sub-Total					\$984,000
15% Contingency					\$148,000
25% Engineering, Legal, Administration					\$283,000
<b>TOTAL</b>					<b>\$1,415,000</b>
<b>Alternate</b>					
*1A	<i>Alt. cost for 8" DR-18 PVC Watermain</i>	<i>lf</i>	<i>6,470</i>	<i>65.00</i>	<i>\$420,550</i>
<b>TOTAL with PVC in place of DIP</b>					<b>\$1,285,600</b>

**Sweden-Walker Rd Segment**

Item	Work Description	Units	Qty	Unit Cost	Total Cost
1	8" DIP Watermain	lf	5,180	\$85	\$440,300
2	8" Gate Valve and Box	ea	7	\$3,000	\$21,000
3	Hydrant Unit	ea	11	\$8,000	\$88,000
4	Connection to Existing Watermain	ea	1	\$8,000	\$8,000
5	Rock Excavation	cy	1,727	\$130	\$224,467
Sub-Total					\$782,000
15% Contingency					\$117,000
25% Engineering, Legal, Administration					\$225,000
<b>TOTAL</b>					<b>\$1,124,000</b>
<b>Alternate</b>					
*1A	<i>Alt. cost for 8" DR-18 PVC Watermain</i>	<i>lf</i>	<i>5,180</i>	<i>65.00</i>	<i>\$336,700</i>
<b>TOTAL with PVC in place of DIP</b>					<b>\$1,020,400</b>

Town of Sweden  
2023 Cost Estimates

**East Ave Segment**

Item	Work Description	Units	Qty	Unit Cost	Total Cost
1	8" DIP Watermain	lf	3,130	\$85	\$266,050
2	8" Gate Valve and Box	ea	5	\$3,000	\$15,000
3	Hydrant Unit	ea	7	\$8,000	\$56,000
4	Connection to Existing Watermain	ea	1	\$8,000	\$8,000
5	Rock Excavation	cy	1,043	\$130	\$135,633
Sub-Total					\$481,000
15% Contingency					\$72,000
25% Engineering, Legal, Administration					\$138,000
<b>TOTAL</b>					<b>\$691,000</b>
<b>Alternate</b>					
*1A	<i>Alt. cost for 8" DR-18 PVC Watermain</i>	<i>lf</i>	<i>3,130</i>	<i>65.00</i>	<i>\$203,450</i>
<b>TOTAL with PVC in place of DIP</b>					<b>\$628,400</b>

**Monroe Orleans County Line Rd Segments**

Item	Work Description	Units	Qty	Unit Cost	Total Cost
1	8" DIP Watermain	lf	3,273	\$85	\$278,205
2	8" Gate Valve and Box	ea	5	\$3,000	\$15,000
3	Hydrant Unit	ea	7	\$8,000	\$56,000
4	Connection to Existing Watermain	ea	2	\$8,000	\$16,000
5	Rock Excavation	cy	1,091	\$130	\$141,830
Sub-Total					\$507,000
15% Contingency					\$76,000
25% Engineering, Legal, Administration					\$146,000
<b>TOTAL</b>					<b>\$729,000</b>
<b>Alternate</b>					
*1A	<i>Alt. cost for 8" DR-18 PVC Watermain</i>	<i>lf</i>	<i>3,273</i>	<i>65.00</i>	<i>\$212,745</i>
<b>TOTAL with PVC in place of DIP</b>					<b>\$663,540</b>

Town of Sweden  
2023 Cost Estimates

**West Canal Rd Segment**

Item	Work Description	Units	Qty	Unit Cost	Total Cost
1	8" DIP Watermain	lf	9,000	\$85	\$765,000
2	8" Gate Valve and Box	ea	10	\$3,000	\$30,000
3	Hydrant Unit	ea	18	\$8,000	\$144,000
4	Connection to Existing Watermain	ea	2	\$8,000	\$16,000
5	Rock Excavation	cy	3,000	\$130	\$390,000
Sub-Total					\$1,345,000
15% Contingency					\$202,000
25% Engineering, Legal, Administration					\$387,000
<b>TOTAL</b>					<b>\$1,934,000</b>
<b>Alternate</b>					
*1A	<i>Alt. cost for 8" DR-18 PVC Watermain</i>	<i>lf</i>	<i>9,000</i>	<i>65.00</i>	<i>\$585,000</i>
<b>TOTAL with PVC in place of DIP</b>					<b>\$1,754,000</b>

**East Canal Rd Segment**

Item	Work Description	Units	Qty	Unit Cost	Total Cost
1	8" DIP Watermain	lf	7,477	\$85	\$635,545
2	8" Gate Valve and Box	ea	9	\$3,000	\$27,000
3	Hydrant Unit	ea	15	\$8,000	\$120,000
4	Connection to Existing Watermain	ea	2	\$8,000	\$16,000
5	Rock Excavation	cy	2,492	\$130	\$324,003
Sub-Total					\$1,123,000
15% Contingency					\$168,000
25% Engineering, Legal, Administration					\$323,000
<b>TOTAL</b>					<b>\$1,614,000</b>
<b>Alternate</b>					
*1A	<i>Alt. cost for 8" DR-18 PVC Watermain</i>	<i>lf</i>	<i>7,477</i>	<i>65.00</i>	<i>\$486,005</i>
<b>TOTAL with PVC in place of DIP</b>					<b>\$1,464,460</b>

Town of Sweden  
2023 Cost Estimates

**West Ave / Old West Ave Segment**

Item	Work Description	Units	Qty	Unit Cost	Total Cost
1	8" DIP Watermain	lf	6,800	\$85	\$578,000
2	8" Gate Valve and Box	ea	8	\$3,000	\$24,000
3	Hydrant Unit	ea	14	\$8,000	\$112,000
4	Connection to Existing Watermain	ea	1	\$8,000	\$8,000
5	Rock Excavation	cy	2,267	\$130	\$294,667
Sub-Total					\$1,017,000
15% Contingency					\$153,000
25% Engineering, Legal, Administration					\$293,000
<b>TOTAL</b>					<b>\$1,463,000</b>
<b>Alternate</b>					
*1A	<i>Alt. cost for 8" DR-18 PVC Watermain</i>	<i>lf</i>	<i>6,800</i>	<i>65.00</i>	<i>\$442,000</i>
<b>TOTAL with PVC in place of DIP</b>					<b>\$1,327,000</b>

Table 3A  
Summary of Project Alternative Segment Costs

Priority Improvement Project Alternative Segment	Description	Linear Feet of Pipe	Total Capital Cost	RD Grant	Net Capital Cost	Debt Service 20 yrs at 6.5%	No. Units	Annual Costs For Users			RD Grant % of Total Capital Cost
								Debt Service Per Unit	Cost of Water	Total Annual Cost per Unit	
1	Lake Road Segment - Completed in 2021	-	\$0	\$0	\$0	\$0	0	\$0	\$285	\$0	0
2	Reed Rd Segment	15,350	\$3,319,000	\$0	\$3,319,000	\$301,220	106	\$2,842	\$285	\$3,127	0
3	Covell Rd Segment	6,680	\$1,485,000	\$0	\$1,485,000	\$134,773	57	\$2,364	\$285	\$2,649	0
4	Euler Rd Segment	4,160	\$955,000	\$0	\$955,000	\$86,672	22	\$3,940	\$285	\$4,225	0
5	Beadle Rd Segment	20,220	\$4,309,000	\$0	\$4,309,000	\$391,069	101	\$3,872	\$285	\$4,157	0
6	Ladue Rd Segment	12,730	\$2,731,000	\$0	\$2,731,000	\$247,656	85	\$2,916	\$285	\$3,201	0
7	Capen Rd Segment	6,690	\$1,441,000	\$0	\$1,441,000	\$130,780	39	\$3,353	\$285	\$3,638	0
8	Swamp Rd Segment	9,530	\$2,059,000	#REF!	\$2,059,000	\$186,867	21	\$6,898	\$285	\$9,183	#REF!
9	Colby Street	8,240	\$1,781,000	#REF!	\$1,781,000	\$161,637	16	\$10,102	\$285	\$10,387	#REF!
10	Country View Terrace - Completed in 2021	-	\$0	#REF!	\$0	\$0	0	\$0	\$285	\$0	0
11	W. Sweden Rd - North and South Segments	23,790	\$5,071,000	\$0	\$5,071,000	\$460,226	91	\$5,057	\$285	\$5,342	0
12	Redman Rd - South Segment	9,600	\$2,121,000	\$0	\$2,121,000	\$192,494	52	\$3,702	\$285	\$3,987	0
13	Root Rd Segment	9,200	\$1,986,000	\$0	\$1,986,000	\$180,242	33	\$5,462	\$285	\$5,747	0
14	Salmon Creek Rd - North and South Segments	7,250	\$1,571,000	\$0	\$1,571,000	\$142,578	19	\$7,504	\$285	\$7,789	0
15	Ogden-Sweden Rd Segment	1,680	\$381,000	\$0	\$381,000	\$34,578	3	\$11,528	\$285	\$11,811	0
16	Whittier Rd Segment	4,770	\$1,033,000	\$0	\$1,033,000	\$93,751	12	\$7,813	\$285	\$8,098	0
17	Gordon Rd Segment	6,470	\$1,415,000	\$0	\$1,415,000	\$128,420	6	\$21,403	\$285	\$21,688	0
18	Sweden-Walker Rd Segment	5,180	\$1,124,000	\$0	\$1,124,000	\$102,010	15	\$6,800.68	\$285	\$7,086	0
19	East Ave Segment	3,130	\$691,000	\$0	\$691,000	\$62,713	5	\$12,543	\$285	\$12,827	0
20	Monroe Orleans County Line Rd Segments	3,273	\$729,000	\$0	\$729,000	\$66,161	9	\$7,351	\$285	\$7,636	0
21	West Canal Rd Segment	9,000	\$1,934,000	\$0	\$1,934,000	\$175,523	21	\$8,359.23	\$285	\$8,643	0
22	East Canal Rd Segment	7,477	\$1,614,000	\$0	\$1,614,000	\$146,481	58	\$2,526	\$285	\$2,810	0
23	West Ave / Old West Ave Segment	6,800	\$1,463,000	\$0	\$1,463,000	\$132,777	17	\$7,810	\$285	\$8,095	0
	All Segments	181,220	\$39,213,000	\$0	\$39,213,000	\$3,558,831	788	\$4,516	\$285	\$4,801	0
	All Segments (PVC)	181,220	\$35,265,996	\$0	\$35,265,996	\$3,200,615	788	\$4,062	\$285	\$4,347	0



Table 3B  
Summary of Project Alternative Segment Costs w/ RD Funding at Intermediate Level

Priority Improvement Project Alternative Segment	Description	Linear Feet of Pipe	Total Capital Cost	RD Grant 45%	Net Capital Cost	Debt Service 38 yrs at 3.25%	No. Units	Annual Costs For Users			Cost at 2% of MHI \$52,500
								Debt Service Per Unit	Cost of Water	Total Annual Cost per Unit	
1	Lake Road Segment - Completed in 2021	-	\$0	\$0	\$0	\$0	0	\$0	\$285	\$285	\$1,050
2	Reed Rd Segment	15,350	\$3,319,000	\$1,493,550	\$1,825,450	\$84,344	106	\$796	\$285	\$1,081	\$1,050
3	Covell Rd Segment	6,680	\$1,485,000	\$668,250	\$816,750	\$37,737	57	\$662	\$285	\$947	\$1,050
4	Euler Rd Segment	4,160	\$955,000	\$429,750	\$525,250	\$24,269	22	\$1,103	\$285	\$1,388	\$1,050
5	Beadle Rd Segment	20,220	\$4,309,000	\$1,939,050	\$2,369,950	\$109,502	101	\$1,084	\$285	\$1,369	\$1,050
6	Ladue Rd Segment	12,730	\$2,731,000	\$1,228,950	\$1,502,050	\$69,401	85	\$816	\$285	\$1,101	\$1,050
7	Capeen Rd Segment	6,690	\$1,441,000	\$648,450	\$792,550	\$36,619	39	\$939	\$285	\$1,224	\$1,050
8	Swamp Rd Segment	9,530	\$2,059,000	\$926,550	\$1,132,450	\$52,324	21	\$2,492	\$285	\$2,777	\$1,050
9	Coby Street	8,240	\$1,781,000	\$801,450	\$979,550	\$45,260	16	\$2,829	\$285	\$3,114	\$1,050
10	Country View Terrace - Completed in 2021	-	\$0	\$0	\$0	\$0	0	\$0	\$285	\$285	\$1,050
11	W. Sweden Rd - North and South Segments	23,790	\$5,071,000	\$2,281,950	\$2,789,050	\$128,867	91	\$1,416	\$285	\$1,701	\$1,050
12	Redman Rd - South Segment	9,600	\$2,121,000	\$954,450	\$1,166,550	\$53,900	52	\$1,037	\$285	\$1,321	\$1,050
13	Root Rd Segment	9,200	\$1,986,000	\$893,700	\$1,092,300	\$50,469	33	\$1,529	\$285	\$1,814	\$1,050
14	Salmon Creek Rd - North and South Segments	7,250	\$1,571,000	\$706,950	\$864,050	\$39,923	19	\$2,101	\$285	\$2,386	\$1,050
15	Ogden-Sweden Rd Segment	1,680	\$381,000	\$171,450	\$209,550	\$9,682	3	\$3,227	\$285	\$3,512	\$1,050
16	Whittier Rd Segment	4,770	\$1,033,000	\$464,850	\$568,150	\$26,251	12	\$2,188	\$285	\$2,472	\$1,050
17	Gordon Rd Segment	6,470	\$1,415,000	\$636,750	\$778,250	\$35,959	6	\$5,993	\$285	\$6,278	\$1,050
18	Sweden-Walker Rd Segment	5,180	\$1,124,000	\$505,800	\$618,200	\$28,564	15	\$1,904	\$285	\$2,189	\$1,050
19	East Ave Segment	3,130	\$691,000	\$310,950	\$380,050	\$17,560	5	\$3,512	\$285	\$3,797	\$1,050
20	Imogene Orleans County Line Rd Segments	3,273	\$729,000	\$328,050	\$400,950	\$18,526	9	\$2,058	\$285	\$2,343	\$1,050
21	West Canal Rd Segment	9,000	\$1,934,000	\$870,300	\$1,063,700	\$49,148	21	\$2,340	\$285	\$2,625	\$1,050
22	East Canal Rd Segment	7,477	\$1,614,000	\$726,300	\$887,700	\$41,016	58	\$707	\$285	\$992	\$1,050
23	West Ave / Old West Ave Segment	6,800	\$1,463,000	\$656,350	\$806,650	\$37,178	17	\$2,187	\$285	\$2,472	\$1,050
	All Segments Combined	181,220	\$39,213,000	\$17,645,850	\$21,567,150	\$966,498	788	\$1,265	\$285	\$1,549	\$1,050
	All Segments (PVC)	181,220	\$35,285,996	\$15,869,698	\$16,396,298	\$757,582	788	\$961	\$285	\$1,246	\$1,050