



Map, Plan and Report

For

WATER SYSTEM IMPROVEMENTS

in the

TOWN OF CANADICE

Prepared for

TOWN OF CANADICE

ONTARIO COUNTY, NEW YORK

Updated January 30, 2018

LaBella Project No. 2151017

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LaBella Associates, D.P.C.

300 State Street

Rochester, New York 14614

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INTRODUCTION

A Map, Plan and Report dated May 27, 2014 (“2014 Report”) determined it was feasible to establish a special improvement district for water supply to 450 households in the Town of Canadice. The 2014 Report further concluded that the probable cost of the project was \$5,000,000, applied a \$750,000 USDA Rural Development available grant, and determined that the annual cost per user was \$1,049. The New York State Comptroller’s approved the district in June of 2015 and on July 13, 2015, pursuant to Article 12-A of New York’s Town Law, the Town of Canadice duly adopted and properly formed Canadice Water District No. 1.

The Town was subsequently awarded a \$3.0 million grant through Environmental Facility Corporation’s Drinking Water State Revolving Fund (DWSRF). With the DWSRF grant, The Town no longer qualified for the \$750,000 Rural Development grant. Project costs increased due to \$6.0 million to scheduling delays and additional design improvements. The net effect was a reduction in anticipated user costs.

The project was bid and the low bidder was over the engineer’s final opinion of probable project costs. There is only a 1.5 % construction contingency remaining. It was decided to increase the total project costs and bonded indebtedness to \$6.20 million to increase construction contingencies to about 5.75%.

BACKGROUND

The study area of this report includes approximately 450 households within the Town of Canadice. These homes are primarily located along West Lake Road (Co. Rd.36), Old West Lake Road and along the waterfront of Honeoye Lake. **Figure 1** in **Attachment A** depicts the study area.

The residents of this area currently obtain their water supply from private wells or water drawn directly from Honeoye Lake. There exists a mobile home park on Ranch Road, which operates on a small community system. In response to a previous water supply survey conducted by the Town and issued to the residents of this area, nearly 45 percent of the respondents indicated their water source has significantly degraded over the years. The survey did not distinguish this degradation as being quantity or quality related.

The Town of Canadice has requested LaBella Associates, DPC to re-evaluate the feasibility of the special improvement district for water supply, complete the design of the improvements and to develop an opinion of the total annual reoccurring cost for a typical single-family property located in the District.

PROPOSED IMPROVEMENTS

General Overview

Servicing the residents in the study area will require a connection to the Monroe County Water Authority’s (“Authority’s”) water distribution system near the Richmond Town Line. An Agreement for Wholesale Water Supply between the Town and the Authority has been executed and is provided in **Attachment B**. Considering the operating gradient of the MCWA’s system and elevations within the service area, a pump station will be required. A series of 8-inch diameter water mains, including valves, hydrants, and related appurtenances, will be installed along the waterfront and West Lake

Road (County Road 36) to service the homes. In addition, a water storage reservoir will be installed with a 12-inch main connecting it to the new distribution system. **Figure 2 in Attachment A** depicts the proposed improvements.

The Town has entered into an Inter-Municipal Agreement with the City of Rochester for operation and maintenance of services. A copy of the Inter-Municipal Agreement is provided in **Attachment B**.

Master Meter

At the connection to the MCWA's distribution system, a master meter will be installed to record the amount of water purchased and conveyed to the Town of Canadice. A control valve will be installed to allow the MCWA system to be back-fed in emergency conditions, such as a fire.

Pump Station

The pump station will convey water to the Town of Canadice's distribution system. The station will be equipped with two pumps, each capable of conveying the maximum day demand. The pumping rate will be set to avoid excessively drawing down the supply pressures in the MCWA system. The pump station will be equipped with a stationary power generator for improved reliability of service. A telemetry system will be installed for remote communication to system's storage reservoir and City of Rochester Bureau of Water's operation center.

Transmission/Distribution System

The distribution system will consist of approximately 33,000 lineal feet, 8-inch diameter, PVC water main installed through the lakeside communities and along West Lake Road and Old West Lake Road. There will be two interconnecting mains between the two longitudinal mains for improved hydraulic efficiency and increased reliability of service – one at the south end of the project and one at Joe Bear Road. Fire hydrants with guard valves will be spaced a maximum of 600 feet throughout the distribution system. Isolation valves will be spaced a maximum of 800 feet throughout the distribution system and at points of interconnections. Necessary easements have been obtained through the lakeside communities, for the interconnecting main and in some areas along West Lake Road and Old West Lake Road.

Reservoir

A 197,000-gallon water storage reservoir will be installed on the hillside on the west side of West Lake Road. The reservoir will require the construction of an access drive and the acquisition of land. Approximately 700 lineal feet of 12-inch diameter transmission water main including valves will connect the storage reservoir to the distribution system. The water levels within the reservoir will provide for a maximum of 100 pounds per square inch (psi) of static pressure at the lakefront households while supplying the minimum pressures necessary to serve all other homes within the district. This will be achieved by controlling the high and low water levels within the reservoir tank by telemetry communication with the pump station. The water reservoir will also be equipped with an internal mixing system to assist in maintaining water quality and a spray aeration system to off-gas THMs. A re-chlorination station will be installed to booster residuals leaving the reservoir for the distribution system. The station will consist of a day tank, and a positive displacement pump.

Water Services

Water services will be installed to all parcels regardless of the owner's intention to connect to the system at the time of construction. Service lines will be installed to the right-of-way or easement line. It will be the property owner's responsibility to extend the service line to the structure and make modification to existing plumbing. A water meter will be provided to parcels intending to connect to the system at the time of construction. Drive-by "radio-read" meters will be used to standardize to equipment used by the Bureau of Water in operating the system.

CONSTRUCTION CONSIDERATIONS

United States Department of Agriculture's Soil Conservation Service Soil Survey of Ontario County, New York indicates a portion of the study area has a depth of bedrock ranging from 12 to 60 inches while the remainder of the site has a depth of bedrock in excess of 6 feet. Bedrock is more commonly located amongst the multiple stream crossings located within the study area. There is also a portion of the area adjacent to West Lake Road starting south of Cratsley Hill Road and continuing 1.6 miles southward that indicates bedrock may be encountered at depths of 12 to 20 inches. Further investigation will be required during the design of the improvements to delineate the type, extent, and quality of rock that may be encountered during construction. At this time, it is anticipated that some rock or shale requiring mechanical means of removal will be encountered during water main installation.

The Soil Survey also indicates soils are considered moderately well to well drained and have a water table depth ranging from 24 to 72 inches. Groundwater encountered in trenches is anticipated to be managed through the use of sumps and pumps.

Available mapping from the New York State Historic Preservation Office (OPRHP) indicates there are regions within the proposed construction that are of archeological interest. The Town completed a Phase I Cultural Resource Investigation for the project. As a result of the investigation, the OPRHP has issued a letter of "no effect" for the project.

The project will involve a series of stream crossings. It is anticipated the streams will be intermittent and low flow streams. The streams will have higher flows during rainfall events; therefore, crossings will need to be scheduled during periods when rainfall is not anticipated. Armor stone will be provided to protect the water main from washout.

There are no unusual construction or environmental problems that would substantially impede the completion of the project. Standard construction practices will be used and delays in obtaining approvals of the involved regulatory agencies are not anticipated.

ADEQUACY OF SUPPLY

The proposed water distribution system with the intent of Section 8.2.1 of the Recommended Standards for Water Works (Ten State Standards). The requirements of this section indicate:

- The normal working pressure in the distribution system should be approximately 60 to 80 psi and not less than 35 psi.

- The system will be designed to maintain a minimum pressure of 20 psi at ground level at all points in the distribution system under all conditions of flow.

These criteria for supply are typically applied to the pressure at the water main. The topography of the service area is, however, unique. The area to the east of West Lake Road to the waterfront has mild slopes generally sloping from the road to the lake. The area on the west side of West Lake Road has steep slopes increasing in elevation to the west. Because of the significant differences in elevation between water main along West Lake Road and the residences to the west, the above criteria will be applied to pressure at the end of the west side services. This will provide a higher level of service during all flow conditions and minimize concerns of backflow.

Anticipated Peak Daily Demand

The proposed water extension will service 450 existing homes and trailers. The 2000 Census data indicates that average number of persons per dwelling unit in the Town is 2.37. The current population of the service area is estimated to be 1,067 persons (2.37 persons per home x 450 homes). According to the Genesee Regional Finger Lakes Planning Council, the Town of Canadice is projected to have a population increase of approximately 142 persons from 2010 to 2030. For the purpose of this study, we considered half of this increase will occur within the study area. This equates to a 6.6% increase in population and approximately 30 new dwellings. This is slightly in excess of the number of vacant parcels within the study area and is, therefore, considered to represent a conservative estimate of future population growth.

The average consumption rate of 75 gallons per capita per day (gpcd) combined with the projected population creates an average daily water consumption of 85,350 gallons per day (gpd). A peaking factor of 9 was used to estimate the peak hourly demand of 533 gallons per minute (gpm). The maximum day demand was considered to be twice the average daily demand or 170,700 gallons.

Fire Demand

The minimum available fire flow for fire hydrants to be installed on a public main is 500 gpm. The Insurance Services Office’s (ISO) Fire Suppression Rating schedule recommends fire flow demands for one- and two-family dwellings not exceeding two-stories in height, based on the structure spacing. **Table 1** shows these recommended needed fire flows.

Table 1 – ISO Fire Flow Standards

<u>DISTANCE BETWEEN BUILDINGS</u>	<u>NEEDED FIRE FLOW</u>
More than 100'	500 gpm
31-100'	750 gpm
11-30'	1,000 gpm
10' or less	1,500 gpm

The areas fronting on Honeoye Lake are zoned HLS or Honeoye Lake Shore District, which requires a minimum 20-foot front (50 feet if from county or state road) and rear setback and a minimum 10-foot side setback. This results in a minimum structure spacing of 20 feet. For a structure spacing of 11 to 30 feet, ISO recommends a needed fire flow of 1,000 gpm. The area to the west of West Lake

Road is zoned R or Rural District, which requires a minimum 50-foot frontal setback and a 20-foot rear and side setback. This results in a minimum structure spacing of 40 feet. For a structure spacing of 31-100 feet, ISO recommends a needed fire flow of 750 gpm.

Hydraulic Justification

The project is capable of supplying the:

- Peak hourly demand of 533 gpm while maintaining residual pressures ranging from approximately 72 to 94 psi along the grade over the water main. Homes that are located at elevations significantly above the road will experience lower pressures. The higher elevation homes may experience pressures of about 35 psi. It will be important that property owners install properly sized services to minimize potential frictional pressure losses.
- Peak hourly plus fire flow demands totaling between 1283 to 1533 gpm while maintaining residual pressures ranging from approximately 50 to 89 psi along the grade over the water main. Homes located at elevations significantly above the road will experience lower pressures. The higher elevation homes may experience pressures of about 20 psi during fire conditions. It will be important that property owners install properly sized services to minimize potential frictional pressure losses.

Hydrant flow test data and hydraulic calculations supporting the justification are included in **Attachment C**.

Adequacy of Source

Water will be supplied by the Authority who has surplus water available and is willing to sell to the Town of Canadice. The Town of Canadice has entered into a Wholesale Water Supply Agreement with the Authority. A copy of the Agreement is provided in **Attachment B**

OPINION OF PROBABLE PROJECT COSTS

The opinion of probable project costs for the improvements associated with the proposed distribution system is \$6,200,000. A detailed breakdown of costs is provided in **Attachment D**. These costs are based on the project being completed by an outside contractor retained under the requirements of General Municipal Law for construction in the 2017 construction season, including allowance for legal, administrative and engineering fees, land acquisition costs, interim interest, and contingencies.

FINANCING

The Town has received:

- A grant from the Drinking Water State Revolving Fund (DWSRF) in the amount of \$3.0 million.
- A low-interest loan from USDA - Rural Development in the amount of \$2.0 million. The loan will be repaid over a term of 38-years at a rate of 2.125%.

The Town is applying for a second loan from Rural Development in the amount of \$1.2 million. The loan will be repaid over a term of 38-years. The interest rate on the loan would be 2.125%, if the loan funds are obligated by March 31, 2018.

Financing of the project is outlined below.

Project Costs	\$6,200,000
DWSRF Grant	<u>\$3,000,000</u>
Amount to be Financed	\$3,200,000
Total First-Year Principal & Interest Payment (Term: 38 years, Rate: 2.125%)	\$ 123,583

To retire the debt, the Town will assess, levy, and collect funds from property owners within the water district's boundaries on a benefit formula basis. The first dwelling unit on a parcel will be assessed 1 benefit unit. Additional dwelling units will be assessed at 0.5 benefit units per dwelling unit, in consideration that additional distribution mains are not required, only one service will be installed, and the property owner will be responsible for operation and maintenance of the private distribution system. Vacant parcels with sufficient building area will be assessed 0.25 benefit units. There are an estimated 402.5 benefit units within the proposed district. A typical single family residential home will be assessed about \$308 annually.

The Authority made improvements to the Richmond system which will also impact the water supply to the Town of Canadice and the cost to Canadice users. The Authority began collecting a fee from customers in Richmond in January of 2014 and will continue to collect this fee until January of 2019. If Canadice customers are also receiving water services during the period this fee is collected, the Canadice Water District will be assessed an additional charge. The current charge is \$2.58 per quarter.

In addition to the special assessment charge by the Town of Canadice, property owners connected to the water system will be responsible for operation and maintenance costs. Operation and maintenance costs include fees for water purchase from the Authority, operation and maintenance charges from the City of Rochester's Bureau of Water, establishing a reserve fund for future replacement of short-lived assets and Town administration of the district. By the terms and conditions of the Rural Development funding, the Town must fund the reserve account \$30,800 annually.

Revenue for operation and maintenance expenses will be collected through charges for metered water usage. Rates were developed considering 75 percent of all property owners in the district would connect and 50 percent of the units connected would be year-round residents. First-year rates were conservatively projected as a quarterly charge of \$25 plus \$7.90 per 1,000 gallons of metered water usage. A typical single-family with year-round residency using 56,000 gallons per year would be charged \$543 annually. Actual charges for water usage will vary based on the number of persons in the household and their water usage habits.

The total annual reoccurring cost for a typical single-family property with year-round residency would be the sum of the special assessment for debt reduction, the Richmond surcharge and the quarterly commodity charges. These charges are projected to be (\$308 + 11 + 543) \$862 per year.

Approval of the district by the State Comptroller's Office is required where it is proposed to finance the improvements through issuance of indebtedness and the total fees (debt service, operation & maintenance, and other charges related to the improvements exclusive of hook-up fees) required to be paid by the "typical property" exceed the average cost threshold established by the State Comptroller's Office. The NYS Office of Audit and Control has established the annual threshold for "low-cost" town water districts as \$904 per year for proposed districts with notices for public hearings published through December 31, 2018. Approval of this district will not be required.

In addition to the above reoccurring charges, properties electing to connect to the system will be responsible for extending the water service from the right-of-way or easement lines to their homes and modifying internal plumbing.

The cost of extending the services to the structure will vary based on site grades, soil conditions, and the length and size of service required. A typical property owner can anticipate paying in the order of \$600 to extend service to their home. Homes located on the hillside west of the West Lake Road will typically require longer and larger services, encounter steeper slopes and poor soil condition. These conditions will result in higher costs. If residents contract in groups, they should expect to receive more competitive pricing.

Modifications to internal plumbing would include disconnecting their existing water supply and installing a pressure reducing valve and meter yoke. A typical property owner can anticipate paying in the order of \$450 to these services.

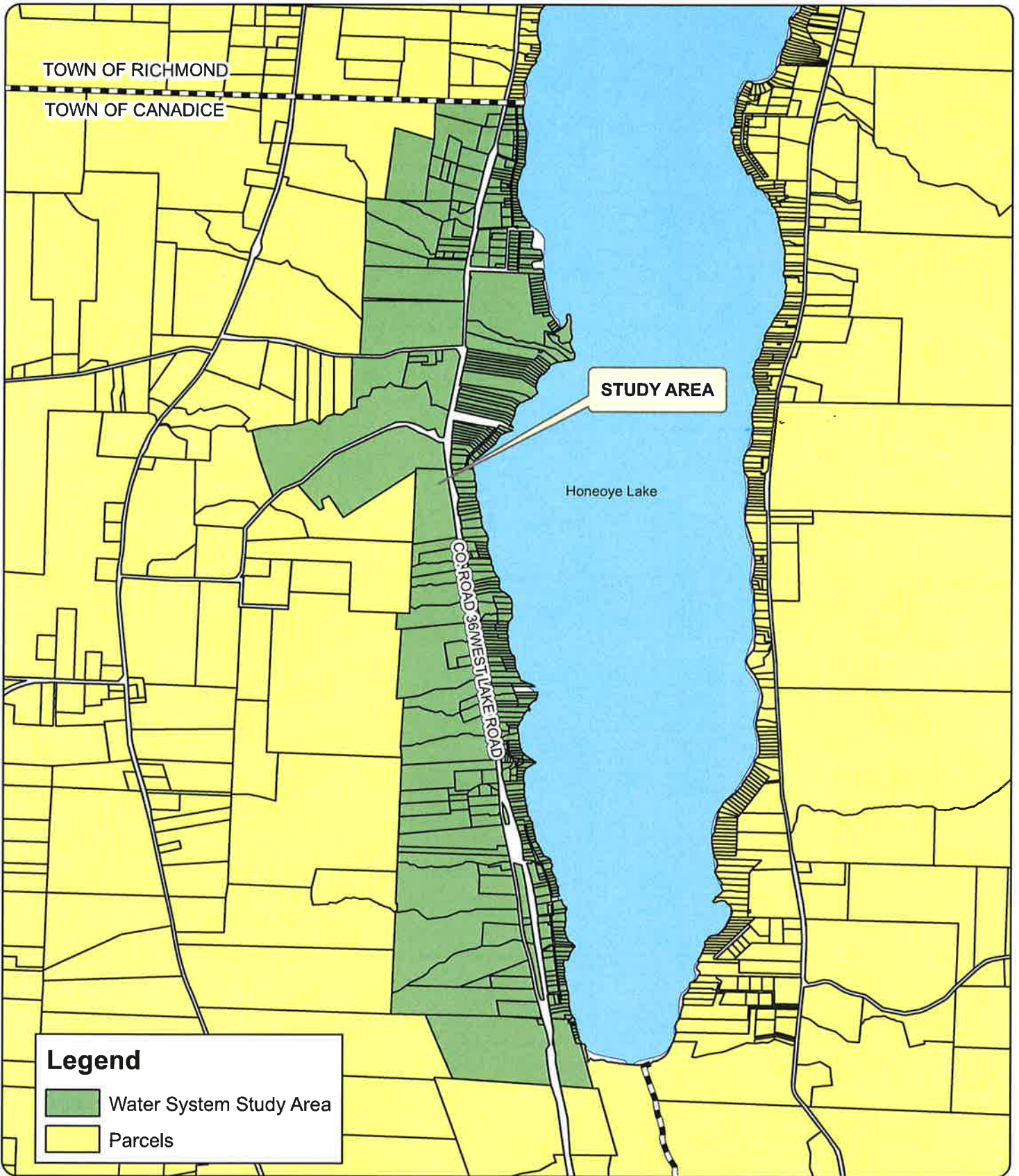
The Town will charge a one-time fee for account initiation (\$25) and service inspection and meter installation (\$75).

DISTRICT DESCRIPTION

The Town intends to establish a special improvement district for water supply. The proposed district's boundaries are shown graphically on **Figures 3, 4 and 5** in **Attachment A**. A written description of the service area is provided in **Attachment E**.

ATTACHMENT A

FIGURES



Legend

- Water System Study Area
- Parcels

PROJECT/DRAWING NUMBER

PROJECT # 209465

FIGURE # 1

DRAWING TITLE

PROJECT STUDY AREA

ISSUED FOR:
MAP, PLAN
AND REPORT

DATE: MAY 2011

DESIGNED BY: MSS/KDC
DRAWN BY: KDC
REVIEWED BY: MSS

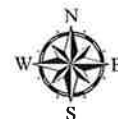
PROJECT / CLIENT

WATER DISTRICT NO 1
TOWN OF CANADICE

SCALE

0 437.5 875 1,750 2,625 3,500
Feet

ABELLA
Associates, P.C.



300 STATE STREET
ROCHESTER, NY 14614
P: (585) 454-8110
F: (585) 454-3066
www.labellapc.com

PLOT: PWR C:\Users\jld\OneDrive\Documents\Drawings\Town of Canadice\Drawings\GIS\Map\2-15-2011\Figure 1.dgn
 MODEL: JLD
 FILE PATH: Y:\Canadice, Town of\Drawings\GIS\Map\2-15-2011\Figure 1.dgn
 DATE/TIME: 2/15/2011 4:28:42 PM

MATCHLINE SEE FIGURE 4



DRAWING TITLE: **BOUNDARY MAP**
 ISSUED FOR: **MAP PLAN AND REPORT**
 SCALE: 1" = 200' (22 X 34)
 DESIGNED BY: KCC/MS
 DRAWN BY: RJC
 DATE: FEBRUARY 2011
 REVIEWED BY: MS

PROJECT/CLIENT:
WATER DISTRICT NO 1
TOWN OF CANADICE

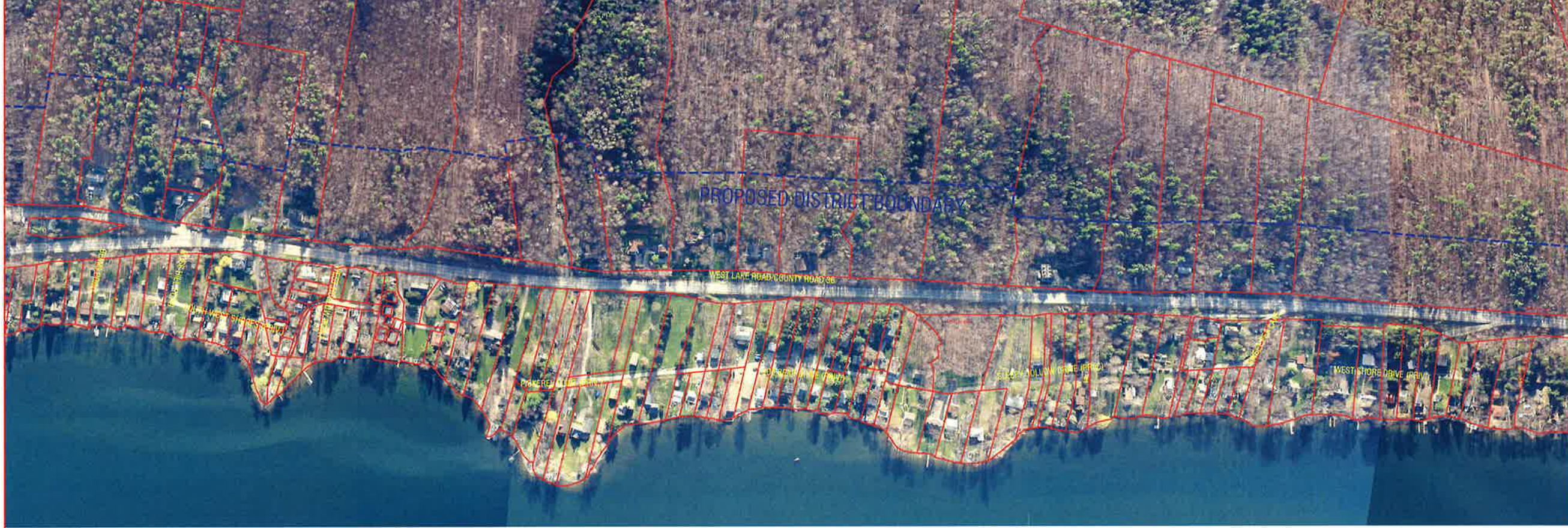
LABELLA
 Associates, P.C.
 300 STATE STREET
 ROCHESTER, NY 14614
 P: (585) 454-6110
 F: (585) 454-3066
 www.labello.com
 created: 11/1/2005

NO.	REVISION	BY	DATE

It is a condition of these plans that the owner shall accept full responsibility for the accuracy of the information provided and for the results of the project. The engineer shall not be responsible for the accuracy of the information provided or the results of the project. The engineer shall not be responsible for the accuracy of the information provided or the results of the project.

PROJECT/DRAWING NUMBER
 209465
3

MATCHLINE SEE FIGURE 5



MATCHLINE SEE FIGURE 3

DRAWING TITLE
DISTRICT BOUNDARY

ISSUED FOR
MAP PLAN AND REPORT

SCALE: 1" = 200' (22 X 34)

DESIGNED BY: KDC/MS
 DRAWN BY: KDC
 DATE: FEBRUARY 2011
 REVIEWED BY: MS

PROJECT/DRAWING NUMBER

209465

4

PROJECT/CUSTOMER

WATER DISTRICT NO 1

TOWN OF CANADICE

LABELLA
 Associates, P.C.

300 STATE STREET
 ROCHESTER, NY 14614
 P: (585) 454-6110
 F: (585) 454-3066
 www.labellic.com

NO.	REVISION	BY	DATE

It is the responsibility of the user of this drawing to ensure that all applicable laws, codes, and regulations are followed. The user of this drawing is responsible for obtaining all necessary permits and approvals. The user of this drawing is also responsible for ensuring that all information is accurate and up-to-date. The user of this drawing is also responsible for ensuring that all information is accurate and up-to-date.

ATTACHMENT B

AGREEMENTS

**AGREEMENT FOR WHOLESALE WATER SUPPLY
TO THE TOWN OF CANADICE
FROM
MONROE COUNTY WATER AUTHORITY**

AGREEMENT made this 31st day of MARCH, 2014, between the Monroe County Water Authority, a public benefit corporation with its offices at 475 Norris Drive, in the City of Rochester, Monroe County, New York (the "Authority"), and the Town of Canadice, Ontario County, New York, a municipal corporation, acting on behalf of the Water District No. 1 and all extensions thereto, whether now existing or hereafter formed (collectively referred to as the "Town").

WHEREAS, the Town intends to duly form, pursuant to the applicable provisions of the Town Law of the State of New York, construct the requisite facilities, and operate Water District No. 1; and

WHEREAS, the Authority has the desire to sell, and the Town has the desire to purchase, water at wholesale for resale at retail to customers in Water District No. 1; and

WHEREAS, the Authority and the Town wish to enter into an Agreement with respect to wholesale water supply by the Authority to the Town;

NOW, THEREFORE, it is mutually agreed as follows:

1. The Authority agrees to sell to the Town and the Town agrees to purchase from the Authority, at metered connections, water of the same quality and content as furnished to other Authority customers. The Town shall purchase from the Authority its entire supply of water to serve its present and any future customers within the Town whether served under present or future extensions to a water district, or within the Town limits but outside of a water district. A map of the Town retail service area is attached as Schedule A. The Town will not sell or resell water outside of the Town's current limits, nor will the Town seek any extensions to its water districts, without the Authority's prior written consent. Any prior contract, arrangement or agreement for the sale or resale of water by the Town or any of its water districts shall be disclosed to the Authority and, at the option of the Authority, either assigned to the Authority or canceled prior to the Effective Date.

2. The Authority agrees to furnish a supply of water through existing metered connections to the Town's system and/or through additional metered interconnections that may be constructed from time to time to facilities of the Authority and/or other water districts.

3. The Town shall purchase and pay for water taken by the Town at the Authority's regular Wholesale Service Metered Rates for sale of water to Water Districts and Towns in accordance with the Authority's Current Rate Schedule as established from time to time by the Authority (the "Current Rate Schedule"), except that:

(i) As long as the Authority's cost to purchase water from the City of Rochester at the Authority's Richmond Connection exceeds the Authority's cost to purchase water from the City of Rochester at other locations, the Town shall pay a surcharge to the

Commodity Rate in an amount equal to one-hundred and ten percent (110%) of the amount by which the Authority's cost to purchase water from the City of Rochester at the Authority's Richmond Connection from time to time exceeds the Commodity Rate under the Current Rate Schedule; and

(ii) As long as the Authority is charging the Town of Richmond Class - CIP Surcharge under the Current Rate Schedule, the Town shall also pay an amount equal to that surcharge for each customer service connection in the Town. The Town of Richmond Class - CIP Surcharge is calculated annually and billed quarterly based on (i) recoverable costs for capital improvements to the Town of Richmond's water supply system that in turn serves the Town and (ii) the actual number of customers connected.

4. All future connections to facilities owned by the Authority or systems owned by others for purpose of supply to the Town shall be approved by the Authority before construction. All connections shall be metered. All meters shall be of a type approved by the Authority. All future connections to facilities owned by the Authority or other systems owned by others and installation of water meters shall be made by the Authority or under its supervision and direction, at such locations and in such a manner as the Authority and other appropriate parties, depending on source and ownership, shall direct. The full cost and expense of all work, supplies, meters, materials and other facilities required for such future interconnections requested by the Town, regardless of who shall have furnished or installed the same, shall be borne and paid for by the Town. If initially paid for by the Authority, the Town shall pay for such costs within 30 days following receipt of an invoice from the Authority. The Authority shall only connect to the Town facilities where the Town agrees they shall do so.

5. The Authority shall have the right to install, at its sole expense, additional connections to supply the Town when it is determined by the Authority that such connections would be beneficial to both the Town and the Authority. Title to all such interconnections, including meters, vaults and appurtenances, shall be in the Authority.

6. In the event that pressure in the Town's mains shall be inadequate and the use of pumps is necessary, they shall be installed, operated and maintained by and at the expense of the Town. No pumps shall be installed for the purpose of taking water without the written permission of the Authority.

7. The Town shall be responsible for installing, maintaining and operating any pressure regulating valves or devices ("PRVs"). The Town shall promptly deliver to the Authority all readings taken relating to such PRVs. The Town and Authority agree that, in the event the regulation of pressure by the Town causes any adverse impact to the operations of the Authority's system, the Town and Authority will work together in good faith to resolve the issue. Any new or substantial revision to any PRV by the Town shall be reviewed and approved by the Authority prior to installation.

8. It is understood and agreed that the Authority makes no guarantees as to pressure, quantity, quality or continuity of service, and shall not, under any circumstances, be held liable for loss or damage from a deficiency or failure in the supply of water, whether caused by shutting off of water in case of accident, or for alterations, extensions, connections or repairs, or for any cause whatever. In the event of an emergency or other necessity, the Authority shall

have the right to shut off or reduce the flow of water for such periods as are necessary. The Authority shall restore service and make water available as soon as it can reasonably do so.

9. During the term of this Agreement, all sales of water and the performance of services by the Authority for the District and the Town shall be made in accordance with and governed in all respects by the Authority's Rules for the Sale of Water and the Collection of Rents and Charges, as amended from time to time by the Authority in its sole discretion (the "Authority's Rules") and subpart 5-1, Public Water Supplies, of the New York State Sanitary Code.

10. The Town agrees that the Authority may use the facilities of the Town and its water districts without the imposition of any rentals or other charges of whatever kind therefor, to serve water to areas located outside of, or beyond the limits of, the Town. The Town or its Water Districts may, at its option and from time to time, set any out-of-district fees or connection charges applicable to out-of-district applicants. The Authority shall not be responsible for the payment of such fees.

11. The Authority agrees that such use by it of the facilities of the Town shall not reduce below accepted standards the supply or pressure of water then being furnished by the Authority to residents and inhabitants within the Town. Any interconnections installed for this purpose shall be metered and shall be installed at the sole cost and expense of the Authority and title thereto shall remain in the Authority.

12. At each metered point of interconnection between the Town and the facilities of the Authority and/or other service areas, the meter will be maintained within the accuracy limits as specified for repair of meters in the then latest revision of the American Water Works Association standards for testing coldwater meters. Irrespective of which party owns the meter, the right and obligation to maintain the meter is hereby vested in the Authority and the cost of such maintenance shall be the responsibility of the Authority. Either party may test meter accuracy at any reasonable time at its own expense.

13. If, in the opinion of the Authority, a meter has stopped registering or is improperly registering at a metered interconnection, the Authority will estimate consumption based upon actual consumption during the corresponding months of previous years or such other method as may be reasonable and is agreed upon by both parties. The Authority will promptly repair such meter as herein provided.

14. The Town agrees not to resell water purchased from the Authority to any other municipality or any other water district or any other customers outside the Town limits.

15. The Town shall submit all construction plans for extensions to existing water districts or new water districts to the Authority for its review and approval in advance of construction. In the event that the Authority's regulations and specifications call for a method, quality, material or procedure more costly or different from that desired by the Town, the parties agree to discuss the differences. The Authority may, at its option, choose to participate to some extent financially in the construction to resolve cost differences. The Town may proceed without the Authority's approval of the method, quality, material or procedure as noted above, but if it does so, the Town will be responsible for the direct costs of repairs or replacements related to any differences in method, quality, material or procedures noted by the Authority's Chief Engineer, should the Town enter into a Retail Lease Agreement with the Authority in the future.

16. Except as otherwise provided herein, the Town shall set its own rules, rates and regulations within the corporate limits of the Town regarding the sale, use and distribution of water.

17. Pursuant to the provisions of Section 1105 of the Public Authorities Law of the State of New York, the Authority will not be required to pay any taxes or assessments upon any properties, replacements, betterments and improvements owned by the Authority or under its supervision and control.

18. The term of this Agreement shall be for a period of forty (40) years from the Effective Date. As used in this Agreement, the "Effective Date" means the earliest practicable date after all of the conditions to the Effective Date contained in this Agreement are satisfied that is mutually designated by the Town and the Authority for that purpose.

19. The Effective Date is subject to satisfaction or waiver by the Authority of each of the following conditions:

(i) *Board Resolution Condition.* The Board of Supervisors of Ontario County, in accordance with Section 1096(7) of the Public Authorities Law, has duly adopted a resolution consenting to and approving this Agreement;

(ii) *District Formation.* Water District No. 1 is duly formed pursuant to the applicable provisions of the Town Law of the State of New York.

(iii) *Requisite Facilities.* The Town has constructed, to the satisfaction of the Authority, a pump station, tank, water main and any other facilities required for the Town to take water under this Agreement and to sell and distribute water to consumers in Water District No. 1, and has delivered to the Authority in the format requested plans and maps of those facilities, showing the location of all water mains;

(iv) *Exchange Agreement Condition.* The City of Rochester and the Authority have modified the Exchange Agreement for Water Supply dated May 12, 2011, to add a supply connection for the Town in the Town of Richmond;

(v) *Permits and Approvals.* All applicable governmental and regulatory approvals, licenses and permits necessary for the transactions contemplated by this Agreement are in effect, and are final orders.

(vi) *No Litigation.* No litigation, action, suit, demand, claim, hearing, arbitration, proceeding or disclosed investigation that challenges or might prevent, impede or make illegal this Agreement or the Authority's performance of its obligations under this Agreement may be pending or threatened.

20. This Agreement incorporates the entire agreement between the parties hereto as the subject matter hereof and terminates and overrides any prior agreement.

21. This Agreement may be executed in several counterparts, each of which shall be an original and all of which shall constitute but one and the same instrument.

22. The parties hereto agree to execute such further instruments, documents or certificates as may be necessary or desirable to effectuate the purposes and intent of this Agreement.

23. The parties hereto agree to execute such further instruments, documents or certificates as may be necessary or desirable to effectuate the purposes and intent of this Agreement.

24. This Agreement may not be amended, changed, modified, or altered except in a writing executed by the parties hereto.

25. No waiver of compliance with any provision or condition hereof, and no consent provided for herein, shall be effective unless evidenced by an instrument in writing duly executed by the party sought to be charged therewith. A party's failure to exercise, or delay in exercising, its rights hereunder will not operate as a waiver of those rights, nor will any single or partial exercise by any party of any right preclude any other or future exercise thereof or the exercise of any other right.

26. No party shall assign or attempt to assign any of its rights or obligations under this Agreement without the prior written consent of the other party hereto.

27. This Agreement will be binding upon and inure to the benefit of the parties and their respective successors and assigns. This Agreement creates no rights of any nature in any person not a party hereto.

28. All the rights and duties of the parties created by this Agreement shall survive with respect to the services performed prior to such termination.

29. This Agreement is governed by the laws of the State of New York.

IN WITNESS WHEREOF, the parties hereto have caused their corporate seals to be hereunto affixed and this Agreement to be signed by its duly authorized officers the day and year first above written.

MONROE COUNTY WATER AUTHORITY

By: Nicholas A. Noce
Nicholas A. Noce, Executive Director

TOWN OF CANADICE

By: Christine Sings
Town Supervisor

Town of Canadice
February 2014

STATE OF NEW YORK)
COUNTY OF MONROE):ss

On the 31 day of March in the year 2014 before me, the undersigned, a Notary Public in and for said State, personally appeared **Nicholas A. Noce**, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

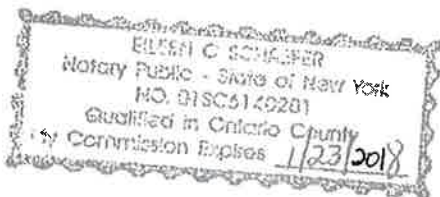
Karin C. Anderson
Notary Public

KARIN C. ANDERSON
Notary Public, State of New York
Qualified in Monroe County
No. 01AN6062568
Commission Expires 8-13-2017

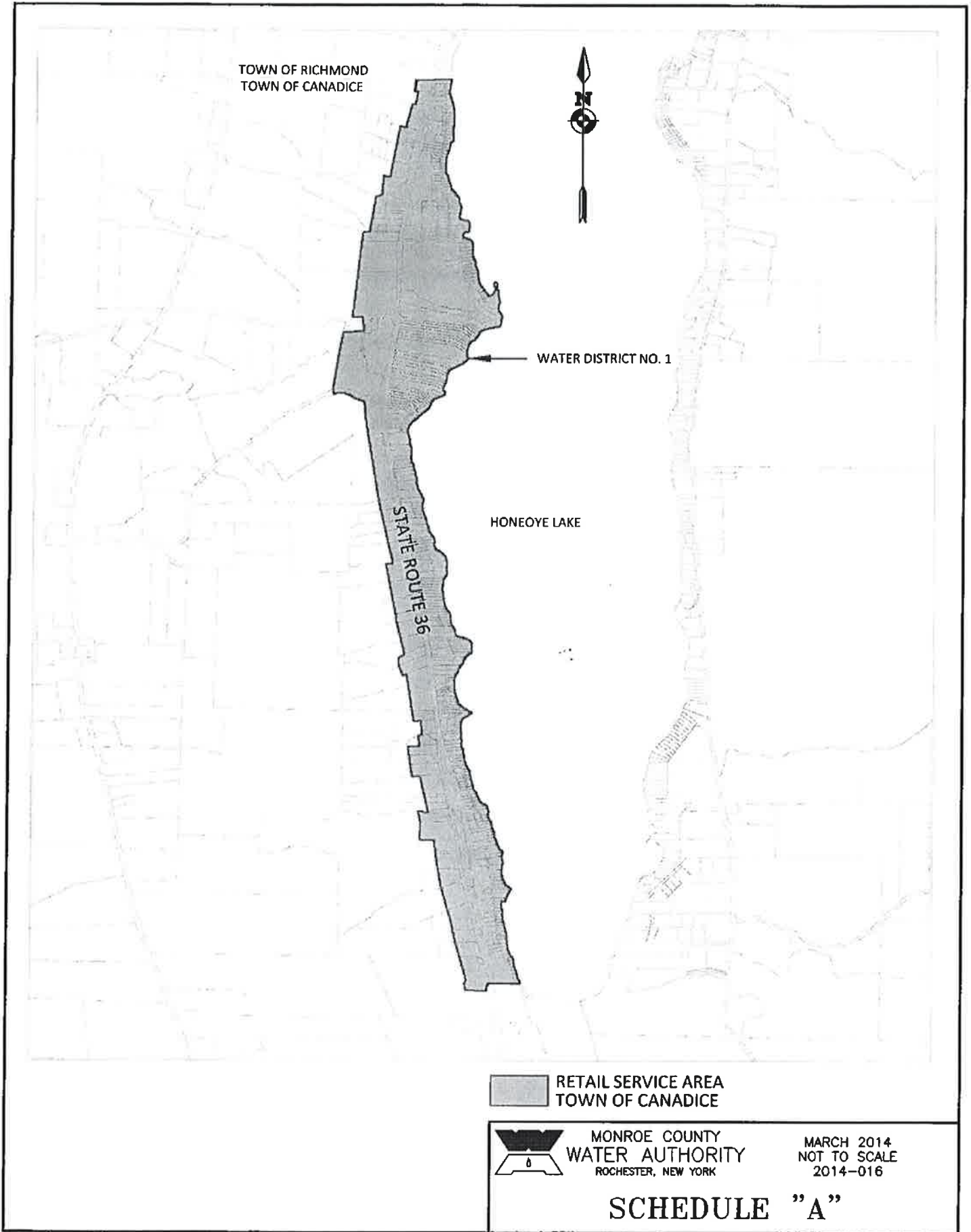
STATE OF NEW YORK)
COUNTY OF Ontario):ss

On the 26th day of March in the year 2014 before me, the undersigned, a Notary Public in and for said State, personally appeared Kristine Singer, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name(s) is (are) subscribed to the within instrument and acknowledged to me that he/~~she~~/they executed the same in his/~~her~~/their capacity(ies), and that by his/~~her~~/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

Eileen C Schaefer
Notary Public



Town of Canadice
February 2014



RETAIL SERVICE AREA
TOWN OF CANADICE



MONROE COUNTY
WATER AUTHORITY
ROCHESTER, NEW YORK

MARCH 2014
NOT TO SCALE
2014-016

SCHEDULE "A"

125390

INTER-MUNICIPAL COOPERATION AGREEMENT
BETWEEN
THE TOWN OF CANADICE
AND
THE CITY OF ROCHESTER
REGARDING
WATER SYSTEM OPERATION AND MAINTENANCE SERVICES

July __, 2013

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**INTER-MUNICIPAL COOPERATION AGREEMENT
BETWEEN
THE TOWN OF CANADICE
AND
THE CITY OF ROCHESTER
REGARDING
WATER SYSTEM OPERATIONS AND MAINTENANCE SERVICES**

This is an agreement made as of the 16th day of August 2013, by and between the Town of Canadice ("**Town**"), a municipal corporation with offices at 5949 County Road 37, Springwater, New York, and the City of Rochester ("**City**"), a municipal corporation with offices at 30 Church Street, Rochester, New York.

WHEREAS, the Town intends to construct a new public water system, Water District No. 1 ("**WD1**"), and desires to have the City provide operation and maintenance services on this water system; and

WHEREAS, the City owns and operates a regional water supply system with treatment and operations facilities located approximately five (5) miles northwest of WD1; and

WHEREAS, the City performs preventive maintenance, repairs and replacement of its own facilities and has the necessary personnel, equipment and expertise to perform said services for the Town; and

WHEREAS, the City's Water Bureau is a 24-hour, year-round operation and is willing to provide the same level of service to the Town as it does to all its customers; and

WHEREAS, this arrangement will result in operational efficiencies and economies for the Town by utilizing the City's full-service resources and thereby freeing the Town from having to create its own water department;

THEREFORE, the Town and the City are entering into an Inter-municipal Cooperation Agreement ("**Agreement**") whereby the City will operate and maintain the Town's WD1 system.

A. DEFINITIONS

- a. "Water System" – all facilities and appurtenances for the purpose of delivering potable water to the Town customers, including tanks, pumps, meters, pipes, valves, fire hydrants and service lines from the water main to the customer's curb box.
- b. "Operation and Maintenance" – the performance of all activities necessary to ensure the proper operation, maintenance, repair and replacement of the water system in compliance with federal, state and local regulations.
- c. "Time and Materials" – the actual cost of personnel, equipment and materials necessary to perform the Operation and Maintenance services ("O&M"), as listed in Appendix A, plus 15% administrative and stocking charges.

B. TERM

The term of the Agreement shall be five (5) years. Unless modified by mutual termination, renewal, or amendment, this Agreement shall be effective at the time the district becomes operational or when services are needed to bring the system on line and shall expire on December 31 of the 5th year following the effective date of this contract. With mutual written consent of both parties, this Agreement can be extended annually or for an agreed-upon longer period.

C. CONDITIONS TO EFFECTIVENESS

The Effective Date and the obligations of the City and the Town under this Agreement are subject to Town Board and City Council approval and authorization.

D. EFFECT OF THIS AGREEMENT

This Agreement contains the entire understanding of the parties with respect to its subject matter.

E. CITY RESPONSIBILITIES

- a. The City agrees to perform for the Town the O&M services listed in Appendix A on a schedule to be agreed upon by both parties.

- b. The City will perform additional services not included in Appendix A at the request of the Town at a fee agreed upon by both parties.
- d. The City will provide all necessary equipment and personnel to perform all the work in a reasonably timely manner.
- e. The City will provide a licensed Class D operator of record to ensure the Town's compliance with New York State Department of Health regulations.
- f. Delivery of water and the performances of services by the City will be in accordance with, and governed in all respects by, Subpart 5-1 of the Public Health Law, Public Water Supplies, of the New York State Sanitary Code.
- g. The City will read all customer meters quarterly and submit the meter readings to the Town for processing the water consumption bills. The City will test any meters from disputed bills and submit the results to the Town for resolution.
- h. The City will keep detailed records of worker and equipment time and materials used on each job by completing a Daily Time and Materials Record form as shown in Appendix B. The form will include quantity, description, unit price, and amount of each material. The labor and equipment sections will track workers and vehicles hours, rates, and amounts. The City will append this form to all invoices for work performed for the Town.
- i. The City will invoice the Town for all materials utilized in the performance of work at the rates shown in Appendix C. Non-stock items will be purchased by the City and invoiced to the Town.
- j. The City will submit detailed monthly invoices to the Town for all work performed during the month. The Town will pay the invoice within thirty (30) days after receipt.
- k. The City will make recommendations to the Town as to best practices to ensure the proper installation, operation, maintenance, repair and replacement of the Town's water facilities.
- l. The City will assist the Town in future improvements and extensions that the Town may consider.

- m. The City agrees to maintain the Town's water system maps, engineering drawings and records of the water system containing all pertinent information, including location, installation date, material, size, type, manufacturer and serial number (when available) of all system assets. The City will create and update a GIS database of the water records, data obtained during field testing of the Town's water system, and computations performed to calculate flow rates and pressures. Any reports on the Town's water system prepared by the City will be submitted to the Town for review and comment.
- n. Work performed by the City for the Town will be billed at the rates shown in Appendix A.
- o. Work performed other than during the regular workday (Monday-Friday, 7:00 AM-3:00 PM) or on weekends or Holidays will be billed at the rate of time-and-one-half.
- p. Rates are guaranteed by the City through June 30 of each Agreement year and are subject to change annually thereafter. The City shall notify the Town by June 1 what the new rate will be. The Town will respond by June 15 whether the new rate is acceptable or if it will not renew the Agreement. Failure to respond in writing by June 15 will be deemed to be an acceptance of the new rate.

F. TOWN RESPONSIBILITIES

- a. The Town will provide to the City general assistance in the conduct of the work detailed in Appendix A and supply drawings and maps depicting the locations of all the water facilities, including design plans, as-built drawings, and field notes and records. The City will safeguard and protect the mapping and will not release, or otherwise use, the mapping for any purposes other than performing O&M of the Town's water system.
- b. The Town will provide access to the City to all the Town's water facilities where the City is required to perform work.
- c. Except during an emergency, the Town will give the City 24 hours' advance notice of any need for non-scheduled work.
- d. The Town will process all customer billing and bill collection.

- e. The Town agrees to hold the City harmless from any liability arising from items for which the Town is responsible.

G. DEFAULT

In the event that either party fails or refuses to comply with any of its obligations hereunder within the grace period specified or, if none is so specified, within ten (10) days after written notice to the other of such failure or refusal, then and in any such event the party at anytime thereafter may give written notice to the other specifying such default and stating that this Agreement and the term hereof shall expire and terminate on the date specified in such notice, which shall be at least ten (10) days after the term hereof and all rights of the other party under this Agreement shall expire and terminate.

H. MISCELLANEOUS

- a. This Agreement represents the entire agreement between the parties regarding O&M services by the City for the Town's water system and supersedes all prior negotiations, representations or agreements, however characterized, whether written or oral, pertaining to matters within its scope.
- b. The provisions of the Agreement may be waived or modified only by a written amendatory agreement approved by both parties.
- c. This Agreement or any of the rights granted hereunder may not be sublet, conveyed, transferred, assigned, mortgaged, pledged, or hypothecated, in whole or in part, by the City or the Town, nor shall any security interest be granted by either party herein without the prior written consent of the other party.
- d. Any and all notices required to be given pursuant to this Agreement shall be in writing and given either by personal delivery or by first-class mail, postage prepaid, and deposited in an official receptacle of the United States Postal Service. All notices to the Town shall be addressed to the Town Supervisor, Town Hall, 5949 County Road 37, Springwater, NY 14560.

- e. All notices to the City shall be addressed to the Commissioner of Environmental Services, City of Rochester, 30 Church Street, Rochester, NY 14614. Notice shall be deemed given upon delivery, if personally delivered, or, if mailed, upon deposit in an official receptacle.

IN WITNESS WHEREOF, the Town and the City have executed this Agreement as of the date set forth above.

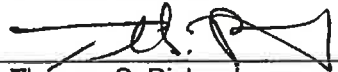
TOWN OF CANADICE

BY: _____


Kristine Singer
Supervisor

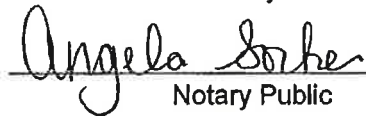
CITY OF ROCHESTER

By: _____


Thomas S. Richards
Mayor

STATE OF NEW YORK)
COUNTY OF MONROE) SS:

On this 16th day of August, 2013, before me the subscriber, **Thomas S. Richards**, personally known, who being by me duly sworn, did depose and say that he resides in the City of Rochester; that he is the Mayor City of Rochester, the municipal corporation described in and which executed the above instrument; and that he signed his name to the foregoing instrument by virtue of the authority vested in him by the laws of the State of New York and the local laws and ordinances of the City of Rochester.

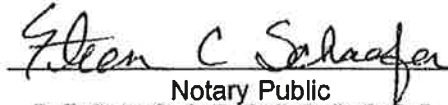


Notary Public

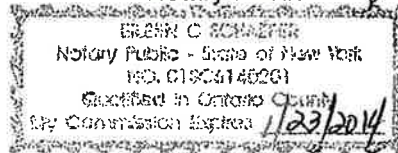
ANGELA SORBER
Notary Public, State of New York
Monroe County
Registration # 01SO4888920
Commission Expires April 6, 2015

STATE OF NEW YORK)
COUNTY OF ONTARIO) ss.:

On the 3rd day of August, 2013, before me, the undersigned, a Notary Public in and for said State, personally appeared **Kristine Singer**, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that she executed the same in her capacity, and that by her signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.



Notary Public



APPENDIX A

Operation and Maintenance Services

Schedule of O&M Services

Periodic Service	Employee(s)	Hrs/Yr*	Personnel Cost	Equipment	Hrs*	Equip Cost	Total Time Cost + 15%
Water Sample Collection	Water Supply Maint/Const	24	\$ 763.68	Pickup	24	\$ 480.00	\$ 1,430.23
Chlorination - Procurement, Operation, Maintenance	Water Supply Maint/Const	423	\$ 13,443.95	Pickup	364	\$ 7,280.00	\$ 23,832.54
Monthly DOH Reporting (Chlorine & Bactl)	Class D Licensed Operator of Record	24	\$ 763.68				\$ 878.23
DOH Compliance Bactl Testing	Laboratory Tech	6	\$ 236.88				\$ 272.41
Meter Reading	Dist. Tech	32	\$ 1,043.52	Pickup	32	\$ 640.00	\$ 1,936.05
Valve Exercising (3 yr) + Leak Sounding	(2) Dist. Tech	32	\$ 1,043.52	Pickup	32	\$ 640.00	\$ 1,936.05
Hydrant Inspection (1 yr) + Leak Sounding	Water Supply Maint/Const	30	\$ 954.60	Pickup	30	\$ 600.00	\$ 1,787.79
Structural Inspection - Tanks, Vaults, Pump Sta, Chlorine Sta (1 yr)	Eng III (PE)	8	\$ 421.68	Pickup	8	\$ 160.00	\$ 668.93
Water Main Flushing (1 yr)	(2) Dist. Tech	32	\$ 1,043.52	Pickup	16	\$ 320.00	\$ 1,568.05
Recording & Mapping	GIS Specialist	120	\$ 4,737.60				\$ 5,211.36
Total							\$ 39,521.64
As-Needed Service	Employee(s)	Hrs/Job*	Personnel Cost	Equipment	Hrs*	Equip Cost	Total Time Cost + 15%
Water Main Repair	(1) Water Operations Supervisor - (3) Water Supply Maint Worker	6	\$ 794.46	Pickup, 10-wheel Dump Truck, Track Shovel	6	\$ 648.72	\$ 1,587.50
Water Service Repair	(1) Water Operations Supervisor - (3) Water Supply Maint Worker	4	\$ 529.64	Pickup, 10-wheel Dump Truck, Track Shovel	4	\$ 432.48	\$ 1,058.33
Fire Hydrant Replacement	(1) Water Operations Supervisor - (3) Water Supply Maint Worker	6	\$ 794.46	Pickup, 10-wheel Dump Truck, Track Shovel	6	\$ 648.72	\$ 1,587.50
Residential Meter Replacement	Dist. Tech	1	\$ 32.61	Pickup	1	\$ 108.12	\$ 154.80
Valve Replacement	(1) Water Operations Supervisor - (3) Water Supply Maint Worker	6	\$ 794.46	Pickup, 10-wheel Dump Truck, Track Shovel	6	\$ 648.72	\$ 1,587.50
Curb Valve Replacement	(1) Water Operations Supervisor - (3) Water Supply Maint Worker	4	\$ 529.64	Pickup, 10-wheel Dump Truck, Track Shovel	4	\$ 432.48	\$ 1,058.33
Small Meter Testing	Dist. Tech	2	\$ 65.22	Pickup	2	\$ 216.24	\$ 309.61
Wire-to-Water Pump Efficiency Testing (5 yr)	Eng III + Elec	8	\$ 737.52	Pickup	8	\$ 864.96	\$ 1,762.73
Master Meter Testing In Situ (3 yr)	Eng III	4	\$ 368.76	Pickup	9	\$ 973.08	\$ 1,476.02
Stakeouts/Service Calls	Dist. Tech	1	\$ 32.61	Pickup	1	\$ 108.12	\$ 154.80

* All times are estimates.

APPENDIX B



City of Rochester

Department of Environmental Services
 Bureau of Water
 10 Felix Street
 Rochester, New York 14608
 www.cityofrochester.gov



Daily Time and Materials Record

Date	
Description of Work	

Labor	Hours/Day	Hourly Rate	Amount
Water Operations Supervisor			
Water Supply Maintenance/Construction Lab Technician			
Class D Licensed Operator			
Water Distribution Technician			
Electrician			
GIS Specialist			
Engineer III/Water			
Other			
Labor Total			

Equipment	Hours/Day	Hourly Rate	Amount
Pickup			
10-wheel Dump Truck			
Track Shovel			
Other			
Equipment Total			

Materials	Unit	Unit Price	Amount
Pipe			
Valve			
Hydrant			
Meter			
Pump			
Sand			
Other			
Materials Total			

Job Total			
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APPENDIX C

Materials Cost

Water Bureau Warehouse Stock Items

ATTACHMENT C

HYDRAULIC JUSTIFICATION

FlexTable: Junction Table (2011 1 27.wtg)

Current Time: 0.000 hours

Label	Elevation (ft)	Demand (gpm)	Pressure (psi)
J-45	875.00	11.4	64.6
J-3	866.00	1.4	68.6
J-2	863.00	9.1	69.9
J-4	856.00	3.6	72.6
J-55	853.00	0.0	74.1
J-1	853.00	1.4	74.2
J-42	852.00	2.5	74.5
J-53	852.00	0.0	74.5
J-51	851.00	0.0	75.0
J-5	846.00	21.3	76.9
J-40	845.00	1.4	77.5
J-44	842.00	3.6	78.8
J-39	839.00	12.5	80.1
J-41	835.00	1.4	81.8
J-37	822.00	3.6	87.3
J-48	823.00	12.5	87.3
J-38	815.00	13.6	90.3
J-32	815.00	23.5	90.3
J-31	815.00	24.7	90.4
J-9	814.00	46.9	90.8
J-8	813.00	11.4	91.2
J-34	812.00	94.7	91.6
J-36	811.00	28.0	92.0
J-30	811.00	44.7	92.2
J-35	809.00	14.7	92.9
J-6	808.00	62.5	93.3
J-50	808.00	0.0	93.5
J-29	807.00	36.0	93.8
J-7	806.00	10.2	94.2
J-28	806.00	22.5	94.2
J-33	806.00	19.0	94.2

FlexTable: Pipe Table (2011 1 27.wtg)

Current Time: 0.000 hours

Label	Length (Scaled) (ft)	Start Node	Stop Node	Diameter (in)	Hazen-Williams C	Flow (gpm)
P-1	604.79	J-1	J-2	8.0	115.0	73.8
P-2	37.40	J-2	J-3	8.0	115.0	64.6
P-5	329.34	J-5	J-4	8.0	115.0	3.6
P-6	301.68	J-5	J-6	8.0	115.0	52.3
P-7	349.81	J-6	J-7	8.0	115.0	10.2
P-9	940.16	J-8	J-9	8.0	115.0	-25.8
P-10	709.42	J-9	J-8	8.0	115.0	30.1
P-27	2,102.12	J-9	J-1	8.0	115.0	-102.8
P-30	2,639.68	J-6	J-28	8.0	115.0	-20.4
P-32	1,549.59	J-28	J-29	8.0	115.0	-42.9
P-34	832.57	J-29	J-30	8.0	115.0	-78.9
P-38	1,069.64	J-31	J-32	8.0	115.0	59.8
P-42	346.68	J-33	J-34	8.0	115.0	-42.5
P-43	1,065.22	J-34	J-8	8.0	115.0	-44.6
P-45	921.45	J-35	J-33	8.0	115.0	-23.5
P-47	1,463.57	J-36	J-35	8.0	115.0	-8.9
P-49	289.36	J-37	J-36	8.0	115.0	19.1
P-50	52.85	J-32	J-38	8.0	115.0	36.3
P-51	980.29	J-38	J-37	8.0	115.0	22.7
P-54	1,091.65	J-34	J-39	8.0	115.0	-92.6
P-55	144.52	J-39	J-40	8.0	115.0	-41.8
P-58	184.16	J-40	J-41	8.0	115.0	-43.2
P-60	277.96	J-41	J-42	8.0	115.0	-44.6
P-64	973.02	J-42	J-44	8.0	115.0	-47.0
P-72	3,061.46	J-45	J-48	8.0	115.0	-62.0
P-74	441.25	J-30	J-50	8.0	115.0	-123.5
P-75	1,385.28	J-50	J-31	8.0	115.0	84.5
P-76	420.02	J-48	J-50	8.0	115.0	208.0
P-77	382.66	R-4	PMP-1	8.0	115.0	178.0
P-78	405.15	PMP-1	J-1	8.0	115.0	178.0
P-81	349.33	T-4	J-48	12.0	120.0	359.7
P-82	2,402.61	J-48	J-51	8.0	115.0	77.2
P-83	2,747.96	J-51	J-5	8.0	115.0	77.2
P-88	452.20	J-44	J-53	8.0	115.0	-50.6
P-89	1,002.07	J-53	J-45	8.0	115.0	-50.6
P-93	2,053.62	J-3	J-55	8.0	115.0	63.3
P-94	797.85	J-55	J-39	8.0	115.0	63.3

FlexTable: Pump Table (2011 1 27.wtg)

Current Time: 0.000 hours

Label	Status (Initial)	Hydraulic Grade (Suction) (ft)	Elevation (ft)	Hydraulic Grade (Discharge) (ft)	Flow (Total) (gpm)
PMP-1	On	932.99	853.00	1,024.59	178.0

FlexTable: Tank Table (2011 1 27.wtg)

Current Time: 0.000 hours

Label	Elevation (Minimum) (ft)	Elevation (Initial) (ft)	Elevation (Maximum) (ft)	Flow (Out net) (gpm)
T-4	997.00	1,025.00	1,034.00	360

ATTACHMENT D

OPINION OF PROBABLE PROJECT COST

Town of Canadice - Water District No. 1

Owner: Town of Canadice
 Engineer: LaBella Associates, D.P.C.
 Date: 01/30/2018
 By: M. Schaffron

Item No.	Description	Bid		Fineline Pipeline	
		Units	Quantity	Unit Price	Item Price
1090.01	Project Sign	EA	1	\$2,500.00	\$2,500.00
2102.01	Tree Removal - 6" up to 18" DBH	EA	35	\$1,000.00	\$35,000.00
2102.02	Tree Removal - 19" up to 30" DBH	EA	6	\$1,500.00	\$9,000.00
2102.03	Tree Removal - 31" up to 54" DBH	EA	5	\$2,500.00	\$12,500.00
2102.04	Clearing and Grubbing	ACRE	3	\$30,000.00	\$90,000.00
2221.01	Rock Excavation	CY	20	\$50.00	\$1,000.00
2222.01	Test Pit Excavation	CY	20	\$50.00	\$1,000.00
2511.01	Asphalt Pavement Restoration Town Road (Old West Lake Road)	SF	9,910	\$5.00	\$49,550.00
2511.02	Asphalt Pavement Restoration Local Road (Lakefront)	SF	2,440	\$5.00	\$12,200.00
2511.03	Asphalt Driveway Restoration	SF	7,300	\$4.00	\$29,200.00
2511.04	Asphalt Sidewalk Restoration	SF	25	\$10.00	\$250.00
2514.01	Concrete Driveway Restoration	SF	320	\$15.00	\$4,800.00
2514.02	Concrete Sidewalk Restoration	SF	610	\$12.00	\$7,320.00
2515.01	Stamped Concrete Driveway	SF	275	\$20.00	\$5,500.00
2522.01	Gravel Restoration, Road	SF	5,000	\$2.00	\$10,000.00
2522.02	Gravel Restoration, Driveway	SF	16,100	\$2.00	\$32,200.00
2522.03	Gravel Restoration, Sidewalk	SF	65	\$2.00	\$130.00
2522.04	Gravel Service Road	LS	1	\$25,000.00	\$25,000.00
2522.05	Gravel Yard	SY	380	\$20.00	\$7,600.00
2601.01	Storm Manhole	EA	1	\$4,000.00	\$4,000.00
2660.01	Special Backfill, County Owned Right-of-Way	CY	1,800	\$30.00	\$54,000.00
2660.02	Controlled Low Strength Material Encasement	CY	230	\$150.00	\$34,500.00
2660.03	Permanent Blow Off	EA	4	\$2,000.00	\$8,000.00
2660.04	Marker Post	EA	7	\$300.00	\$2,100.00
2660.05	Automatic Flushing Valve	EA	1	\$4,000.00	\$4,000.00
2660.06	Tracer Wire Box	EA	49	\$500.00	\$24,500.00
2660.07	4-inch Water Main (PVC)	LF	180	\$40.00	\$7,200.00
2660.08	6-inch Water Main (PVC)	LF	590	\$50.00	\$29,500.00
2660.09	8-inch Water Main (PVC)	LF	32,640	\$70.00	\$2,284,800.00
2660.10	8-inch Water Main (DIP)	LF	100	\$75.00	\$7,500.00
2660.11	12-inch Water Main (PVC)	LF	660	\$75.00	\$49,500.00
2660.12	12-inch Water Main (DIP)	LF	25	\$100.00	\$2,500.00
2660.13	8" Directional Drilling Sta. 76+28 to Sta. 77+69	LS	1	\$5,000.00	\$5,000.00
2660.14	8" Directional Drilling Sta. 81+76 to Sta. 82+53	LS	1	\$3,200.00	\$3,200.00
2660.15	8" Directional Drilling Sta. 82+92 to Sta. 84+46	LS	1	\$5,000.00	\$5,000.00
2660.16	8" Directional Drilling Sta. 104+58 to Sta. 105+86	LS	1	\$4,500.00	\$4,500.00
2660.17	8" Directional Drilling Sta. 106+30 to Sta. 107+58	LS	1	\$4,500.00	\$4,500.00
2660.18	8" Directional Drill Crossing Cty Rd. 36 at Sta. 52+14	LS	1	\$2,500.00	\$2,500.00
2660.19	8" Directional Drill Crossing Cty Rd. 36 at Sta. 79+43	LS	1	\$2,500.00	\$2,500.00
2660.20	8" Directional Drill Crossing Cty Rd. 36 at Sta. 149+57	LS	1	\$2,500.00	\$2,500.00
2660.21	3-inch Water Main (HDPE)	LF	1,000	\$40.00	\$40,000.00
2662.22	3"Directional Drill Crossing Cty Rd 36 Sta 25+00	LS	1	\$2,000.00	\$2,000.00
2662.23	3"Directional Drill Crossing Cty Rd 36 Sta 40+20	LS	1	\$2,000.00	\$2,000.00
2661.01	Dry Connect New Water Main to Existing Water Main	EA	1	\$5,000.00	\$5,000.00
2662.01	4-inch Gate Valve w/Valve Box	EA	4	\$1,000.00	\$4,000.00
2662.02	6-inch Gate Valve w/Valve Box	EA	1	\$1,500.00	\$1,500.00
2662.03	8-inch Gate Valve w/Valve Box	EA	90	\$2,000.00	\$180,000.00
2662.04	12-inch Gate Valve w/Valve Box	EA	2	\$4,000.00	\$8,000.00
2663.01	Valve Vault	LS	1	\$20,000.00	\$20,000.00
2664.01	Permanent Test Connection Assembly	EA	21	\$1,000.00	\$21,000.00
2666.01	New 1-inch PE Water Service	EA	376	\$500.00	\$188,000.00
2666.02	Additional 1-inch PE Water Service Tubing	LF	5,170	\$10.00	\$51,700.00
2666.03	New 1.25-inch PE Water Service	EA	6	\$750.00	\$4,500.00
2666.04	Additional 1.25-inch PE Water Service Tubing	LF	540	\$12.00	\$6,480.00
2666.05	New 2-inch PE Water Service	EA	1	\$1,000.00	\$1,000.00
2666.06	Additional 2-inch PE Water Service Tubing	LF	10	\$20.00	\$200.00
2668.01	New Hydrant Unit (Perpendicular) and 6" Guard Valve	EA	55	\$4,000.00	\$220,000.00
2668.02	New Hydrant Unit (Parallel) and 6" Guard Valve	EA	6	\$5,000.00	\$30,000.00
2668.03	New Frost proof Yard Hydrant and 1/2" Curb Stop	EA	1	\$2,000.00	\$2,000.00
2668.04	Additional 6-inch Anchor Pipe over 4'	LF	20	\$50.00	\$1,000.00
2668.05	Slope Cut and Apron for Hydrant	EA	1	\$500.00	\$500.00
2668.06	Slope Fill and Apron for Hydrant	EA	11	\$500.00	\$5,500.00
2680.01	8-inch SICC Storm Sewer	LF	290	\$20.00	\$5,800.00
2680.02	12 inch SICC Storm Sewer	LF	45	\$25.00	\$1,125.00
2680.03	Catch Basin - 2' x 2'	EA	9	\$2,000.00	\$18,000.00
2680.04	Dry Well	EA	1	\$4,000.00	\$4,000.00
2680.05	12-inch CPP Storm Sewer	LF	135	\$20.00	\$2,700.00
2680.06	Stone Lined Ditch with Underdrain	LF	575	\$50.00	\$28,750.00
2831.01	Chain Link Fence and Gate	LF	250	\$50.00	\$12,500.00
2831.02	Barrier Gate	EA	1	\$3,000.00	\$3,000.00
2900.01	Water Storage Reservoir	LS	1	\$500,000.00	\$500,000.00
2930.01	Stream/Drainage Ditch Crossing Stone Fill	CY	630	\$50.00	\$31,500.00
2930.02	Rip Rap Outlet Protection	CY	310	\$70.00	\$21,700.00
2950.01	Pump Station	LS	1	\$180,000.00	\$180,000.00
2975.01	Chemical Feed Station	LS	1	\$60,000.00	\$60,000.00
260500.01	Electrical Services Installation	LS	1	\$70,000.00	\$70,000.00
260500.02	Controls Installation	LS	1	\$50,000.00	\$50,000.00
263213.16.01	Propane Gas Generator	LS	1	\$31,800.00	\$31,800.00
Construction Total					\$4,691,805.00
Meters, software, programing					\$130,000.00
Admin / Legal					\$381,293.00
Technical Services					\$726,555.00
Contingencies					\$270,347.00
Project Costs					\$6,200,000.00

ATTACHMENT E

PROPOSED WATER DISTRICT DESCRIPTION

Town of Canadice

Water District No. 1

Description

Beginning at a point in the division line between the Towns of Richmond on the north and Canadice on the south at its intersection with the center line of County Road 36/West Lake Road thence:

- 1) Westerly along said division line a distance of 310 feet more or less to a point; thence
- 2) Southerly through the lands of Tax account No 164.07-1-66 on a line parallel with and 256 feet more or less westerly from the eastern property line of Tax account No. 164.07-1-66, a distance of 198 feet more or less to an angle point; thence
- 3) Easterly through said lands of Tax Account No. 164.07-1-66 a distance of 56 feet more or less to a point, said point being the north west corner of Tax Account No. 164.07-1-65; thence
- 4) Southerly along the westerly boundary of said Tax Account No. 164.07-1-65 a distance of 200 feet more or less to a point in the northerly boundary of Tax Account No. 164.07-1-59.11; thence
- 5) Westerly along the northern boundary of Tax Account No. 164.07-1-59.11 a distance of 50 feet more or less to a point, said point being the north west corner of Tax Account No. 164.07-1-59.11; thence
- 6) Southerly along the westerly boundary of Tax Account No. 164.07-1-59.11 a distance of 392 feet more or less to a point in the northerly boundary of Tax Account No. 164.07-1-72; thence
- 7) Westerly along the northern boundary of Tax Account No. 164.07-1-72 a distance of 98 feet more or less to an angle point; thence
- 8) Southerly through the lands of Tax Account Nos. 164.07-1-72, 164.07-1-73 and 164.07-1-74 on a line parallel with and 360 feet more or less westerly from the center line of County Road 36/West Lake Road, a distance of 894 feet more or less to a point on the northerly property line of Tax Account No. 164.07-1-75; thence
- 9) Westerly along the northerly boundary of Tax Account No. 164.07-1-75 a distance of 105 feet more or less to a point, said point being the north west corner of Tax Account No. 164.07-1-75; thence
- 10) Southerly along the westerly boundary of Tax Account Nos. 164.07-1-75 and 164.07-1-77 a distance of 315 feet more or less to a point in the northerly boundary of Tax Account No. 164.11-1-45; thence
- 11) Westerly along the northerly boundary of Tax Account No. 164.11-1-45 a distance of 151 feet more or less to a point, said point being the north west corner of Tax Account No. 164.11-1-45; thence
- 12) Southerly along the westerly boundary of Tax Account Nos. 164.11-1-45, 164.11-1-44, 164.11-1-43 and 164.11-1-42 and an extension of said line a distance of 595 feet more or less, to a point on the northerly boundary of Tax Account No. 164.11-1-39; thence
- 13) Westerly along the northerly boundary of Tax Account No. 164.11-1-39 a distance of 98 feet more or less to a point, said point being the north west corner of Tax Account No. 164.11-1-39; thence
- 14) Southerly along a line on the westerly boundary of Tax Account No. 164.11-1-39 a distance of 150 feet more or less, then continuing along an extension of said line through the lands

- of Tax Account No. 164.11-1-47 and 164.00-1-35 a distance of 1247 feet more or less to a point on the northerly right of way for Jersey Hill Rd ; thence
- 15) Easterly along the said northerly right of way a distance of 166 feet more or less to a point; thence
 - 16) Southerly through the right of way of Jersey Hill Road a distance of 66 feet more or less to a point in the southerly right of way of Jersey Hill Road; thence
 - 17) Southerly through the lands of Tax Account No. 164.00-2-19.11 on a line drawn perpendicular to the southerly right of way for Jersey Hill Rd a distance of 69 feet more or less to a point, said point being the north east corner of Tax Account No. 164.00-2-18; thence
 - 18) Southerly along the easterly boundary of Tax Account No. 164.00-2-18 a distance of 100 feet more or less to a point, said point being the south east corner of Tax Account No. 164.00-2-18; thence
 - 19) Westerly along the southerly boundary of Tax Account No. 164.00-2-18 a distance of 339 feet more or less to a point, said point being the north west corner of Tax Account No. 164.00-2-21.1; thence
 - 20) Southerly along the westerly boundary of Tax Account No. 164.00-2-21.1 a distance of 402 feet more or less to a point, said point being the south west corner of Tax Account No. 164.00-2-21.1; thence
 - 21) Southerly through the lands of Tax Account No. 164.00-2-59.11 along a line parallel to and a distance of 810 feet more or less from the easterly boundary of Tax Account No. 164.00-2-59.11 a distance of 575 feet more or less to an angle point on the northerly right of way for Cratsley Hill Rd; thence
 - 22) Southerly on a line drawn perpendicular to the northerly right of way for Cratsley Hill Rd through the right of way of Cratsley Hill Road a distance of 77 feet more or less to a point on the southerly right of way for Cratsley Hill Rd; thence
 - 23) Easterly along said northerly right of way a distance of 540 feet more or less to a point; thence
 - 24) Southerly through the lands of Tax Account Nos. 164.00-2-59.2, 164.00-2-23, 164.00-2-24.1, 164.00-2-24.2, 164.00-2-25, 164.00-2-26 and 164.00-2-27 on a line parallel with and a distance of 250 feet more or less from the easterly boundary of said Tax Account Nos. a distance of 2153 feet more or less to a point along the northerly boundary of Tax Account No. 164.00-2-57.111; thence
 - 25) Westerly along the northerly boundary of Tax Account No. 164.00-2-57.111 a distance of 101 feet more or less to a; thence
 - 26) Southerly through the lands of Tax Account Nos. 164.00-2-57.111, 164.00-2-30.1, 164.00-2-28.2, 164.00-2-29, 164.00-2-30.1 and 164.00-2-31 on a line parallel with and a distance of 350 feet more or less from the easterly boundary of said Tax Account Nos. a distance of 1511 feet more or less to a point along the northerly boundary of Tax Account No. 164.00-2-32.1; thence
 - 27) Westerly along the northerly boundary of Tax Account No. 164.00-2-32.1 a distance of 92 feet more or less to a point, said point being the north west corner of Tax Account No. 164.00-2-32.1; thence
 - 28) Southerly along the westerly boundary of Tax Account Nos. 164.00-2-32.1 and 164.00-2-32.2 a distance of 325 feet more or less to a point, said point being the south west corner of Tax Account No. 164.00-2-32.2; thence
 - 29) Easterly along the southerly boundary of Tax Account No. 164.00-2-32.2 a distance of 63 feet more or less to a point; thence
 - 30) Southerly through the lands of Tax Account Nos. 164.00-2-33, 164.00-2-34 and 174.00-2-1 on a line parallel with and a distance of 350 feet more or less from the easterly boundary of said Tax

Account Nos. a distance of 786 feet more or less to a point along the northerly boundary of Tax Account No. 174.00-2-4; thence

- 31) Easterly along the northerly boundary of Tax Account No. 174.00-2-4 a distance of 118 feet more or less to a point, said point being the north east corner of Tax Account No. 174.00-2-4; thence
- 32) Southerly along the easterly boundary of Tax Account No. 174.00-2-4 a distance of 226 feet more or less to a point, said point being the south east corner of Tax Account No. 174.00-2-4; thence
- 33) Southwesterly along the southerly boundary of Tax Account No. 174.00-2-4 a distance of 56 feet more or less to a point, said point being the north east corner of Tax Account No. 174.00-8; thence
- 34) Southerly along the easterly boundary of Tax Account No. 174.00-2-8 a distance of 171 feet more or less to a point, said point being the south east corner of Tax Account No. 174.00-2-8; thence
- 35) Westerly along the southerly boundary of Tax Account No. 174.00-2-8 a distance of 103 feet more or less to a point, said point being the south west corner of Tax Account No. 174.00-2-8; thence
- 36) Southerly along the westerly boundary of Tax Account Nos. 174.00-2-12, 174.00-2-13.1 and 174.00-2-14.1 a distance of 484 feet more or less to a point, said point being the south west corner of Tax Account No. 174.00-2-14.1; thence
- 37) Easterly along the southerly boundary of Tax Account No. 174.00-2-14.1 a distance of 124 feet more or less to a point; thence
- 38) Southerly through the lands of Tax Account Nos. 174.00-2-16, 174.00-2-18 and 174.00-2-19 on a line parallel with and a distance of 350 feet more or less from the easterly boundary of said Tax Account Nos. a distance of 615 feet more or less to a point along the northerly boundary of Tax Account No. 174.00-2-20.1; thence
- 39) Westerly along the said northerly boundary a distance of 166 feet more or less to a point, said point being the north west corner of Tax Account No. 174.00-2-20.1; thence
- 40) Southerly along the westerly boundary of Tax Account Nos. 174.00-2-20.1 and 174.00-2-23.2 a distance of 479 feet more or less to a point, said point being the south west corner of Tax Account No. 174.00-2-23.2; thence
- 41) Easterly along the southerly boundary of Tax Account No. 174.00-2-23.2 a distance of 227 feet more or less to an point; thence
- 42) Southerly through the lands of Tax Account Nos. 174.00-2-62.21, 174.00-2-62.1, 174.00-2-24.212, 174.00-2-29.121, 174.00-2-29.11, 174.00-2-29.2, 174.00-2-30.1, 174.00-2-31.1 and 174.00-2-33 on a line parallel with and a distance of 350 feet more or less from the easterly boundary of said Tax Account Nos. a distance of 2539 feet more or less to an point; thence
- 43) Easterly through the lands of Tax Account No. 174.00-2-33 on a line parallel with and a distance of 540 feet more or less from the northerly boundary of Tax Account No. 174.00-2-33 a distance of 354 feet more or less to an point along the westerly right of way for County Road 36/West Lake Road; thence
- 44) Northerly along the said westerly right of way a distance of 133 feet more or less to a point; thence
- 45) Easterly through the right of way of County Road 36/West Lake Road and through the lands of Tax Account No. 174.00-2-33 on a line parallel with and a distance of 428 feet more or less from the northerly boundary of Tax Account No. 174.00-2-33 a distance of 511 feet more or less to an point along the easterly boundary of Tax Account No. 174.00-2-33; thence

- 46) Northerly along the easterly boundary of Tax Account No. 174.00-2-33 a distance of 58 feet more or less to a point along the southerly boundary of Tax Account No. 174.19-1-19; thence
- 47) Easterly along the southerly boundary of Tax Account No. 174.19-1-19 a distance of 16 feet more or less to a point in the westerly shore of Honeoye Lake; thence
- 48) Northerly along the westerly shore of Honeoye Lake a distance of 18,050 feet more or less to a point along the division line between the Towns of Richmond on the north and Canadice on the south; thence
- 49) Westerly along the division line between the Towns of Richmond on the north and Canadice on the south a distance of 297 feet more or less to the point of beginning.

The following Tax Account Numbers within the District Boundary have insufficient area for a buildable lot and are excluded from the District:

1. 174.07-1-49.000
2. 174.00-2-28.100
3. 174.00-2-27.100
4. 164.07-1-49.112
5. 164.07-1-55.000
6. 174.07-1-34.110
7. 164.11-1-33.000
8. 174.15-1-1.220
9. 174.19-1-3.100
10. 164.19-1-45.000
11. 174.07-1-41.000