

TOWN OF DRYDEN
TOMPKINS COUNTY, NEW YORK

ENGINEER'S REPORT
June 2004

Proposed
Royal Road Water District

PREPARED BY:
T. G. Miller, P.C.
Engineers and Surveyors
Ithaca, New York



TABLE OF CONTENTS

<u>SECTIONS</u>		Page
Section 1	- Introduction	1
Section 2	- History of Water Supply	1
Section 3	- Service Area	1
Section 4	- Design Considerations	2
Section 5	- Construction Conditions	2
Section 6	- Estimate of Project Cost	2
Section 7	- Method of Financing Project Costs	2-3
Section 8	- Supplementary Costs	4
Section 9	- Cost of the District to a Typical Property	4

APPENDICES

Appendix A	- Boundary Description, Town Of Dryden Royal Road Water District
------------	--

MAPS

Proposed District Boundary and Plan of Water System

SECTION 1 - INTRODUCTION

Interest has been expressed from persons owning land and businesses along Royal Road for the extension of public water to their neighborhood. The Town Board authorized this Engineering Report to provide the information necessary to describe the project for public review and comment prior to a public hearing. The following pages indicate the basic information needed to assess the project and the costs so that both the landowners and the Town Board may express their comments. After the public hearing the Board will complete a review of environmental impacts pursuant to Article 8 of the Environmental Conservation Law and determine whether to proceed with the district-formation process. If established by resolution, the Board's determination will be subject to a permissive referendum.

SECTION 2 - HISTORY OF WATER SUPPLY

With the exception of the Guthrie Healthcare facility the source of supply for the existing residential and commercial properties has been from groundwater wells. The existing Monkey Run Water District is immediately adjacent to the proposed District and in the early 1990's became the supply for the Guthrie Clinic. The predominant commercial nature of this area combined with the presence of wetlands will result in separation distances between groundwater sources, surface waters and septic systems that are problematic. The extension of municipal services will allow for the best use of the commercial lands without creating possible adverse sanitary conditions.

SECTION 3 - SERVICE AREA

The proposed service area includes a total of six tax map parcels encompassing twenty-eight acres. Land within the proposed District is all zoned M-A (retail, manufacturing, industrial) with the exception of two rental housing properties, which predated the M-A zone. The total 2004 assessed value of all land and improvements within the proposed District is \$4,416,000. The attached map identifies the boundary of the District and the parcels to be benefited.

The Guthrie Clinic is presently supplied water from the Town's Monkey Run Water District as an "Out of District Contract User". In 1990 Guthrie extended an 8-inch ductile iron service line along the east side of Hanshaw Road, under Hanshaw Road and along the north side of Royal Road. This service line was constructed to Town and NYS Health Department standards so that it could be incorporated into a future district as Town infrastructure.

None of the properties included in the proposed district are within the Tompkins County Agricultural District No. 1.

Properties in the Service Area

Parcel No.	Address	Parcel Owner	Use	Assessment	Acreage
43.-1-29.6	15 Royal Road	Prudence Frank & Tony	Comm	54,000	3.60
43.1-31	1756 Hanshaw Road	Davis Walter Jr. & Annie	Rental	67,000	4.83
43.-1-32	1770 Hanshaw Road	Kimberly Realty Co.	Rental	60,000	0.88
43.-133.11	27 Royal Road	Wilcox, Gene & Jeannette	Comm	190,000	1.02
43.-1-33.121	35 Royal Road	Cayuga Partners	Comm	1,450,000	11.85
43.-1.33.2	8 Royal Road	Guthrie Healthcare Systems	Office	2,595,000	6.15

SECTION 4 - DESIGN CONSIDERATIONS

For those properties presently on well water the average day consumption was determined using sewage discharge rates from the NYSDEC Design Standards for Wastewater Treatment Works and is estimated to be 1,300 gallons. Records of metered water use indicate the Guthrie Clinic averaged 1,100

Engineer's Report

Proposed Royal Road Water District

gallons per day for the last four quarters. The combined present consumption within the District, therefore, is 2,400 gallons per day.

There is approximately five acres of developable land in the District, including conversion of the two rental properties to commercial use. Allowing for this development the future average day water consumption is estimated to be 3,500 gallons. The Town of Dryden is a member municipality of the Southern Cayuga Lake Intermunicipal Water Commission (Bolton Point), the source of supply, and sufficient capacity exists in the existing water treatment plant to allow the extension of service to this District.

Water will be delivered through a series of 12 and 8-inch mains beginning at the Varna Pump Station that were constructed by the Monkey Run Water District. The static pressures along Royal Road will fluctuate between 80 and 93 pounds per square inch (psi) depending on the water level maintained in the NYSEG tanks. There is adequate capacity in both the pump station and storage tanks to accommodate the demands of this District.

SECTION 5 - CONSTRUCTION CONDITIONS

F&T Distributors, Inc. is presently constructing a new warehouse and distribution facility on parcel 43.-1-29.6 and as an "Out of District Contract User" will be extending 470 feet of 8-inch service main along Royal Road. The construction cost for this portion of work is estimated to be \$34,500. As a District improvement, an 8-inch water main will be extended approximately 180 feet further west along Royal Road to serve parcels 43.-1-33.11 and -33.121. A fire hydrant will be installed at the end of this main. Parcels 43.-1-31 and -32 will be served from the existing water main along Hanshaw Road. All water mains will be constructed within the Town or County road rights-of-way. Each parcel will be responsible for extending the entire service line from the main to the building at the time a connection is made.

SECTION 6 - ESTIMATE OF PROJECT COST

The following table presents the estimated project cost inclusive of the distribution main construction and District formation expenses:

Item	Estimated Quantity	Unit of Measure	Unit Price	Total Price
Connection to existing system	1	Ea	\$2,500	\$2,500
8-inch DI Water main (CL 52)	180	Lf	\$50	\$9,000
6-inch Gate Valve	1	Ea	\$1,650	\$1,200
Fire Hydrant Assembly Relocation	1	Ea	\$1,000	\$1,000
			Construction Subtotal =	\$13,700
			Construction Contingency @ 10% =	\$ 1,400
			TOTAL CONSTRUCTION COST =	\$15,100
			Engineering, Planning, Design, and Construction	\$5,400
			Legal, Bonding, and Administration	\$2,500
			Acquisition of F&T Distributors Service Line	\$34,500
			TOTAL PROJECT COST	\$57,500

SECTION 7 - METHOD OF FINANCING PROJECT COST

Through an acquisition agreement with the Town the service line improvements completed by F&T Distributors will be purchased by the District. It is anticipated that these improvements will be

Engineer's Report

Proposed Royal Road Water District

acquired within the first year of construction, therefore, the Project Cost ultimately to be financed by the benefited properties will remain \$57,500. In February, 1993 the Guthrie Clinic and the Town executed a Purchase of Water and Sewer Facilities Agreement, which established a ten-year depreciation schedule⁷ for purchasing the original capital improvements constructed by Guthrie in 1990. According to schedule, after the tenth year no consideration is due Guthrie.

The Project Cost is planned to be financed by the issuance of serial bonds to mature in annual installments based on the following assumptions:

Principal	\$57,500
Interest	5.5%
Term	20 years
Capital Recovery Factor (C.R.F.)	0.0837
Annual Payment	\$4,814

The Annual Payment will be assessed to all properties within the District per the following benefit formula:

- 50% of Annual Payment based on Total Assessed Value of property in the District
- 35% of Annual Payment based on Acreage of property in the District
- 15% of Annual Payment based on Units within the District

Units are defined in the table below:

Land Use	Units
Residential Property	1 Unit per living unit.
Commercial Property	1 Unit for each store or separate place of business.
Health Care	1 Unit for each 16,000 cubic feet, or part thereof, of water estimated to be consumed annually.

Each benefited property in the district must pay a proportionate share of the Annual Payment. Based on present land use and assessed values the first year charge for each property is summarized in the following table:

Parcel No.	Parcel Owner	Use	Assessment	Acreage	Units	First Year Charge
43.-1-29.6	Prudence Frank & Tony	Comm	\$54,000	3.60	0	\$244
43.1-31	Davis Walter Jr. & Annie	Rental	67,000	4.83	1	\$414
43.-1-32	Kimberly Realty Co.	Rental	60,000	0.88	1	\$175
43.-133.11	Wilcox, Gene & Jeannette	Comm	190,000	1.02	1	\$254
43.-1-33.121	Cayuga Partners	Comm	1,450,000	11.85	1	\$1,585
43.-1.33.2	Guthrie Healthcare Systems	Health	2,595,000	6.15	4	\$2,141
Total			\$4,416,000	28.33	8	\$4,814

SECTION 8 - SUPPLEMENTAL COSTS

A. One-time Connection Charge

Customers will be responsible for the installation of a service line from the water main to their building. The costs associated with the service connection are estimated below and will vary for each parcel:

Connection Fee	\$250.00
¾" Meter	\$62.00
¾" PRV	\$100.00
1" Tap	\$110.00
Inspection Fee	\$170.00

Service line extension from main to building (cost will vary depending on length of service line) estimated average: 150 lf @ \$30/lf.	\$4,500.00
Total	<u>\$5,192.00</u>

B. Water Use

Water use fees, operating and maintenance (O&M) costs, and system-wide improvement costs are financed by metered water revenues. The customer receives a quarterly water use bill generated from the Water Rate schedule listed below:

Gallons Consumed	per Quarter
0-10,000	\$29.50 (base charge)
Over 10,000	\$.295/100 gallons

SECTION 9 – COST OF THE DISTRICT TO A TYPICAL PROPERTY

The typical property and the typical one family home are one in the same and has a mode-average assessment value of approximately \$60,000. The mode was determined from the assessment values listed in Section 3. The cost of the District to the typical property is the estimated amount that the owner of the property within the District will be required to pay for debt service, water use, operation, and maintenance in the first year following the formation of the District. The estimated average quarterly water use for the typical one family home is 27,000 gallons and equates to an annual water use charge of \$319. Together with the proportionate share of the Annual Payment the total cost of the District to the typical property is \$494.

APPENDICES

APPENDIX A

BOUNDARY DESCRIPTION
ROYAL ROAD WATER DISTRICT

All that tract or parcel of land situate in the Town of Dryden, County of Tompkins, State of New York being generally described as follows:

Beginning at a point at the intersection of the centerlines of Royal Road and Hanshaw Road;

Thence southerly along the centerline of Hanshaw Road a distance of 593 feet \pm ;

Thence westerly along the southern boundary of tax parcels 43.-1-31 and 43.-1-29.6 a distance of 727 feet \pm to the southwest corner of tax parcel 43.-1-26.9;

Thence northerly along the western boundary of tax parcel 43.-1-26.9 a distance of 570 feet \pm to a point on the southern boundary of tax parcel 43.-1-33.11;

Thence westerly along the southern boundary of tax parcels 43.-1-33.11 and 43.-1-33.121 a distance of 759 feet \pm to the south west corner of tax parcel 43.-1-33.121;

Thence northerly along the western boundary of tax parcel 43.-1-33.121 a distance of 672 feet \pm to the southern boundary of the NYS Route 13 Right-of-Way;

Thence easterly and southerly along the NYS Route 13 Right-of-Way a distance of 1,752 feet \pm to the Hanshaw Road Right-of-Way;

Thence southerly along the eastern boundary of tax parcel 43.-1-33.2 a distance of 69 feet \pm to the centerline of Royal Road;

Thence easterly along the centerline of Royal Road a distance of 25 feet \pm back to the point or place of beginning.

The boundaries of the said District and the Tax Map Parcels included are as shown on copies of the Tompkins County Tax Maps on file at the Dryden Town Clerk's Office.

