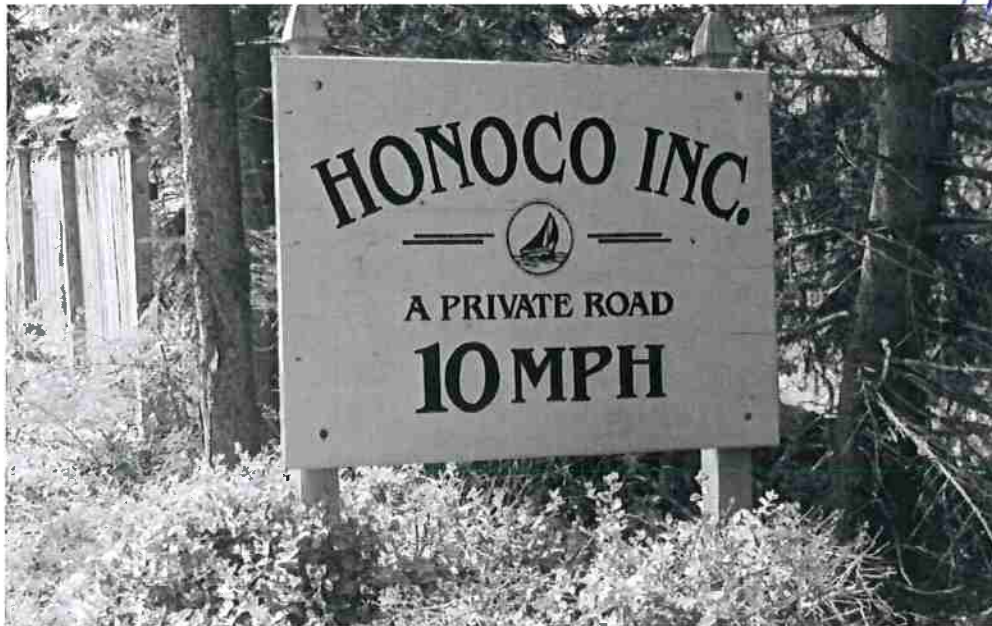


Cayuga County Water and Sewer Authority

7413 County House Road
Auburn, New York 13021

PRELIMINARY ENGINEERING REPORT *for the* HONOCO ROAD SANITARY SEWER SYSTEM



April 2021

MRB Group Project No. 0303.20001.000

NYSEFC Engineering Planning Grant #90412

Prepared by:

MRB | group

220 Salina Meadows Parkway, Suite 180
Syracuse, NY 13212

(315) 457-0537 — (585) 381-1008 fax

www.mrbgroup.com — e-mail: info@mrbgroup.com

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EXECUTIVE SUMMARY

The Cayuga County Water and Sewer Authority (CCWSA) retained MRB Group to prepare this Preliminary Engineering Report (PER) to evaluate the potential of expanding sanitary sewer service from the Village of Aurora WWTP to serve approximately 157 parcels of land located along Honoco Road, and an additional 71 residences along Lake Road and Sunset Beach Drive, along the eastern shoreline of Cayuga Lake. A total of 228 residences would be connected per the proposed project.

Our PER evaluated both a conventional sanitary sewer system (consisting of gravity sewers, pumping stations, and force mains) and a low pressure sewer system (consisting of grinder pump stations and small diameter force mains). This analysis concluded that the low pressure sewer system alternative is more practical and cost-effective than a conventional gravity sewer system.

The total project cost of the low pressure sewer system is estimated at \$6,007,000, while the total project cost for the gravity sewer system is estimated at \$7,685,000.

The recommended and proposed plan is the construction of a low-pressure sewer system consisting of approximately 19,200 linear feet of small diameter (2", 3", and 4" diameter HDPE) sewer force main along Honoco Road, 157 grinder pump stations, associated air release manholes, flushing stations, clean-out manholes, and an odor control station for conveyance of sewage to the intersection of Honoco Road and Lake Road. A larger sewage pump station would be constructed near the Honoco Road and Lake Road intersection that would convey the collected sewage from Honoco Road to the Village of Aurora WWTP along Lake Road and Sunset Beach Drive.

Residences along Lake Road and Sunset Beach Drive would also be connected to this force main by grinder pump stations located at each residence. This force main would be approximately 11,200 linear feet long and consist of 6" diameter force main and associated air relief valves, cleanouts and other appurtenances.

The estimated construction cost of the proposed low pressure sewer project is \$4,375,000, and the total project cost is estimated at \$6,007,000.

Installation of the proposed low-pressure sewer system offers the following advantages over a conventional gravity sewer system for providing sewer service to the Honoco Road area:

1. Lower project cost of \$6,007,000, as compared to \$7,549,000 for the gravity sewer option.
2. Lower annual O&M cost of \$203,400 per year, as compared to \$254,900 per year for the gravity sewer option.
3. The ability to add sewage from the Long Point State Park facilities in the future. This would take these properties off of septic systems near the lake and transport the sewage to the Aurora WWTP where improved treatment is available.
4. A low pressure sewer would produce a lower volume of sewage for treatment at the Aurora WWTP than a gravity system due to lower infiltration and inflow rates.

A secondary recommendation is that the Village of Aurora consider conducting an Inflow and Infiltration (I&I) study to determine which areas of the Village are contributing the most to the existing I&I.

We recommend that CCWSA review and approve this Engineering Report. Once approved by CCWSA we can submit it to the NYSDEC for technical review and final approval, which will allow you to be reimbursed for the cost of the report. If CCWSA determines that the project is feasible than it should be submitted to the NYSEFC for scoring and listing on the CWSRF Intended Use Plan. Grant applications should be submitted for CWSRF funding, WIIA grants, and WQIP grants to assist with financing of the project.

I. PROJECT BACKGROUND AND HISTORY

The northern end of Honoco Road is located about three miles south of the Village of Aurora, along the eastern shoreline of Cayuga Lake. It stretches for about 3.6 miles (19,200 linear feet) through the Town of Ledyard, with the southern end being in the Town of Genoa.

This area contains approximately 157 parcels of land that are tightly clustered along the shoreline of the lake. It contains a mix of seasonal and year round houses. Honoco Road and the homes along this road are located between Cayuga Lake to the west and a steep incline to the east. Most residents along Honoco Road currently use outhouses for sanitary sewage disposal, while some have underground holding tanks. They also use privately owned lake water intakes for their grey water and are not presently served with public water. A Honoco Homeowner's Association exists and coordinates efforts for needed improvements in the area.

There has been state wide concern in recent years regarding the need for proper treatment of sanitary sewage from waterfront homes and cottages along lakes and rivers. Frequently the outhouses, holding tanks, and septic systems currently in use do not provide adequate treatment to the local water resource. It seems likely that sewage and grey water from some of the properties along Honoco Road are adversely impacting Cayuga Lake water quality. Therefore, in order to protect the water quality of Cayuga Lake, a sanitary sewer system is needed to collect and transport the sewage to a WWTP for proper treatment.

The Village of Aurora has a municipal WWTP located about three miles to the north of the northern end of Honoco Road. Conveyance of sanitary sewage from the Honoco Road area to the Village of Aurora WWTP for treatment is a viable option. An additional 71 residences are located along the proposed route to the WWTP, and would be added to the sewered area as part of this project, increasing the total number of sewer connections to 228 for this project.

This PER will allow the CCWSA to pursue funding assistance from the Clean Water State

Revolving Fund (SRF) program, NYS Water Infrastructure Improvement Act (WIIA) grant program, and the Water Quality Improvement Project (WQIP) grant program for construction of the proposed sanitary sewer system.

Preparation of this PER is being funded in part by an Engineering Planning Grant issued by the NYSEFC through the Clean Water SRF program under Project #90412. The remainder of the funds required to prepare this Engineering Report are being provided by the CCWSA.

A. SITE INFORMATION

Honoco Road is located along the eastern shoreline of Cayuga Lake, between Aurora and King Ferry, in New York's Finger Lakes Region. This is desirable real estate of significant natural beauty, including year-round recreational activities. The northern end of Honoco Road intersects with Lake Road about 1 mile west of NYS Route 90. Figure I.1 is a map showing the location of Honoco Road.

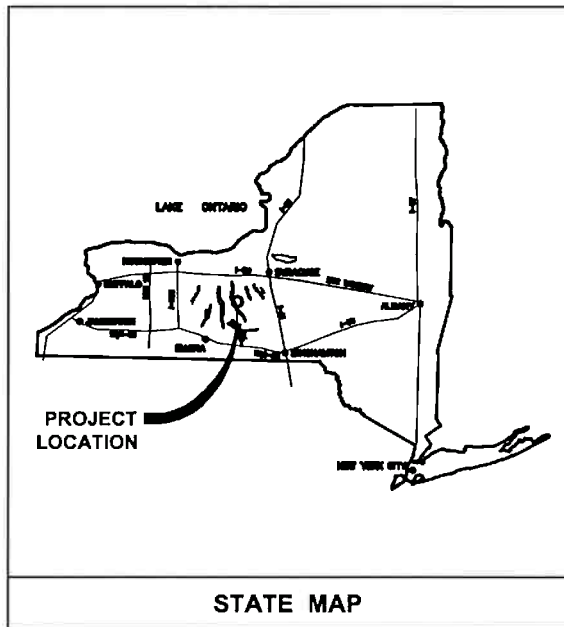
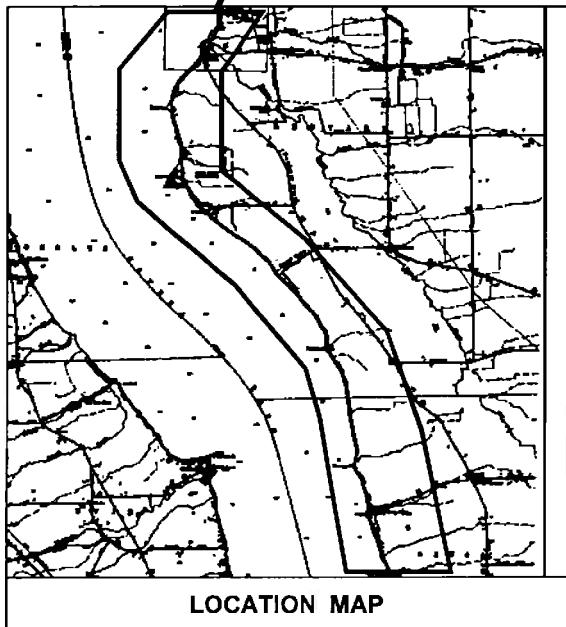
It is believed that Honoco Road was originally a railroad bed years ago. About 157 land parcels are included, with many having either seasonal or year-round houses constructed on them close to the Lake shoreline. Cayuga Lake water quality may be compromised from the lack of septic systems in the area.

The topography along Honoco Road is flat along its 3.6-mile length, with ground surface generally being only about 20 feet higher at the north end compared to the south end. The road has a single entrance.

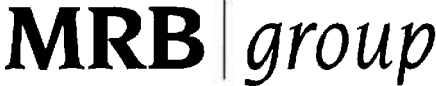
Challenging site conditions along Honoco Road include the following:

1. Very small building lots with little to no room for septic tanks and leach fields.
2. Many of the homes are located very close to the lake, and even overhang the lake shore.

**PROJECT
LOCATION**



PROJECT LOCATION MAPS

Project Name:		PRELIMINARY ENGINEERING REPORT CAYUGA COUNTY WATER/SEWER AUTHORITY CAYUGA COUNTY, NEW YORK				Project No. 0303.20001	
 <small>Engineering, Architecture & Surveying, D.P.C. The Culver Road Armory, 145 Culver Road, Suite 160, Rochester, New York 14620 Phone: 585-381-9250 www.mrbgroup.com</small>	Drawn By:					Sheet No.	
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Copyright © 2020 MRB Group All Rights Reserved		Date:	APRIL 2020		No. Revisions	By	Date
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3. Many of the homes are located very close to the roadway, with little to no room for installation of in ground piping, pump systems, or other equipment.
4. The road is very narrow, with limited space for the addition of sewer AND water lines with the typically required separation of 10'.
5. Most of the homes are occupied seasonally, with only a small percentage of full-time residents.
6. The road is privately owned by the homeowners.
7. There is no existing utility right-of-way or easement available for construction of the sewer system.

B. OWNERSHIP AND SERVICE AREA

The proposed service area includes 157 parcels of land on Honoco Road and an additional 71 existing residences along Lake Road and Sunset Beach Drive. On Honoco Road most parcels have seasonal homes, and there are a few year-round homes. The existing residences on Lake Road and Sunset Beach Road are a mix of seasonal and year-round homes. The entire project area is located in Cayuga County. Portions of the project area are located within the Towns of Aurora, Ledyard, and Genoa.

C. EXISTING FACILITIES AND PRESENT CONDITION

There is no sanitary sewer system or public water system available to these residences along Honoco Road, Lake Road or Sunset Beach Drive. Most residents currently use outhouses for sanitary waste disposal, a few individual septic systems exist, and some have primitive underground sewage holding tanks. There are 228 parcels of land within the project area that potentially can be served by the proposed collection system.

For the convention gravity sewer system, using an estimate of 3 people per parcel and 100 gpd per person (from the Ten State Standards) produces an average daily flow of 68,400 gpd or 48 gpm. Using a peaking factor of 3.9 from the Ten State Standards gives us a peak hourly flow of 187 gpm.

For the low pressure sewer system, using an estimate of 3 people per parcel and 50 gpd per person produces an average flow of 150 gpd per house. According to the USEPA Alternative Wastewater Collection System Manual and the WEF Manual of Practice FD-12 Alternative Sewer Systems (2008), a 50 gpcd flow rate can be used when calculating design flows for low pressure sewer systems, since infiltration and inflow are discounted. Therefore, the Average Daily flow is estimated at 34,200 gpd or 24 gpm. Using a peaking factor of 3.9 from the Ten State Standards gives us a peak hourly flow of 94 gpm.

The Village of Aurora WWTP is located about 3 miles to the North of this area. It is located near the southwestern corner of the Village on Main Street (NYS Route 90). The WWTP and collection system are of original construction, with no history of large capital improvements since the time of their original construction in the late 1960s. The WWTP currently operates at an average daily flow rate of 0.117 MGD, compared to its rated capacity of 0.3 MGD. The WWTP operators report that flows very occasionally approach the SPDES permitted limits of 0.3 MGD during the snowmelt events in the spring months, which is likely attributable to seasonal inflow and infiltration (I/I) within the Village collection system. Much of the collection system is reportedly vitrified clay pipe, with joints every 4 feet.

Flows at the WWTP averaged 0.117 MGD during the 12 months from March 2019 through February 2020, with the flows dropping as low as 0.055 MGD (based on monthly average) during the summer months (when Wells College is not in session). The student population at Wells College forms approximately 50% of the total Village population when in session. The highest monthly average flow in the last 12 months occurred in May 2019 and was 0.202 MGD.

The treatment process is designed to not exceed the following effluent quality:

Max Monthly Average Flow	0.3 MGD
BOD5 – Monthly Average	20 mg/L or 50 lbs/day
BOD5 – 7 Day Average	30 mg/L or 75 lbs/day
TSS – Monthly Average	20 mg/L or 50 lbs/day
TSS – 7 Day Average	30 mg/L or 75 lbs/day
Settleable Solids – Daily Maximum	0.3 ml/L
Ammonia – 4/1 to 9/30	6.6 mg/L
Ammonia – 10/1 to 3/31	14.0 mg/L
Phosphorus – Monthly Average	1.0 mg/L
Fecal Coliform – 30 Day Geo Mean	200 per 100 ml
Fecal Coliform – 7 Day Geo Mean	400 per 100 ml
Total Residual Chlorine – Daily Max	0.05 mg/L
CBOD5 and TSS Removals	Minimum of 85% of Influent Concentrations

A copy of the current SPDES discharge permit for the Village of Aurora WWTP is included in Appendix A.

Performance of this WWTP during the 12-month period from March 2019 through February 2020 is summarized in Appendix B. As shown, there were no exceedances of any of the effluent limits during this period of time and the WWTP achieved a minimum of 98% removal of both BOD5 and TSS during this period of time.

The calculated average daily sewer flow from the 228 sewered lots as part of this project is 34,200 gpd, which is compared to the 120,000 gpd average for 2019, and the permit limit of 300,000 gpd. Addition of sewage from the 228 lots proposed by this project would result in a 28.5% increase in daily flow to the WWTP, increasing daily average flow from 40.0% of the permit limit to 51.4% of the permitted flow. Based on this data and discussion with the Chief Operator at the WWTP, the Village of Aurora WWTP appears to have

adequate excess capacity to accept and treat the additional sewage flows anticipated from the proposed service area.

D. DEFINITION OF THE PROBLEM

It is perceived that sewage and grey water from the residences along Honoco Road is leaching out into the lake and adversely impacting the water quality. Therefore, to protect the water quality of the lake, a sanitary sewer system needs to be installed to collect the sewage and grey water generated and convey it to appropriate treatment works.

Honoco Road is very narrow at spots and does not afford adequate width to maintain the required minimum 10 feet of separation between sanitary sewers and water mains. This fact will need to be considered if a project moves forward because if sanitary sewer service is extended along Honoco Road, it will also be beneficial to provide public water service within the same area, and the two utilities will need to be located in the roadway approximately 6-8 feet away from each other.

E. FINANCIAL STATUS

As with any public sewer project the project costs are expected to be borne by the residents who benefit from the service. A Honoco Homeowners Association exists and provides a forum for residents to obtain information about pertinent issues that affect this residential area. CCWSA will contact the Honoco Homeowners Association when this report is approved by the NYSDEC and inform the Association of the potential benefits and costs of a project.

II. ALTERNATIVES ANALYSIS

The following alternatives are considered in this PER:

- Alternative #1 consists of a low pressure sewer system with individual grinder pump stations located at each of the 157 properties along Honoco Road that would collect and convey sanitary sewage through small diameter force mains to a new large pump station to be constructed at the northern end of Honoco Road near the Lake Road intersection. Collected sewage would be conveyed via this new pump station in a force main along Lake Road to the Village of Aurora WWTP. The 71 existing residences located along the force main route near Lake Road and on Sunset Brach Drive would also have grinder pumps installed to increase the total number of services to 228.
- Alternative #2 consists of conventional gravity sewers along Honoco Road to serve 157 properties, with five intermediate pumping stations located along Honoco Road to collect and convey sanitary sewage generated in the project planning area to a new larger pump station to be constructed at the northern end of Honoco Road near the intersection with Lake Road. As with Alternative #1, collected sewage would be conveyed via this new larger pump station in a force main along Lake Road to the Village of Aurora WWTP. This alternative would serve the 157 parcels on Honoco Road, and would not provide service to the existing residences on Lake Road or Sunset Beach Drive.

A. DESCRIPTION OF ALTERNATIVES

a. Alternative #1 – Low Pressure Sewer System

This alternative consists of the following two major components:

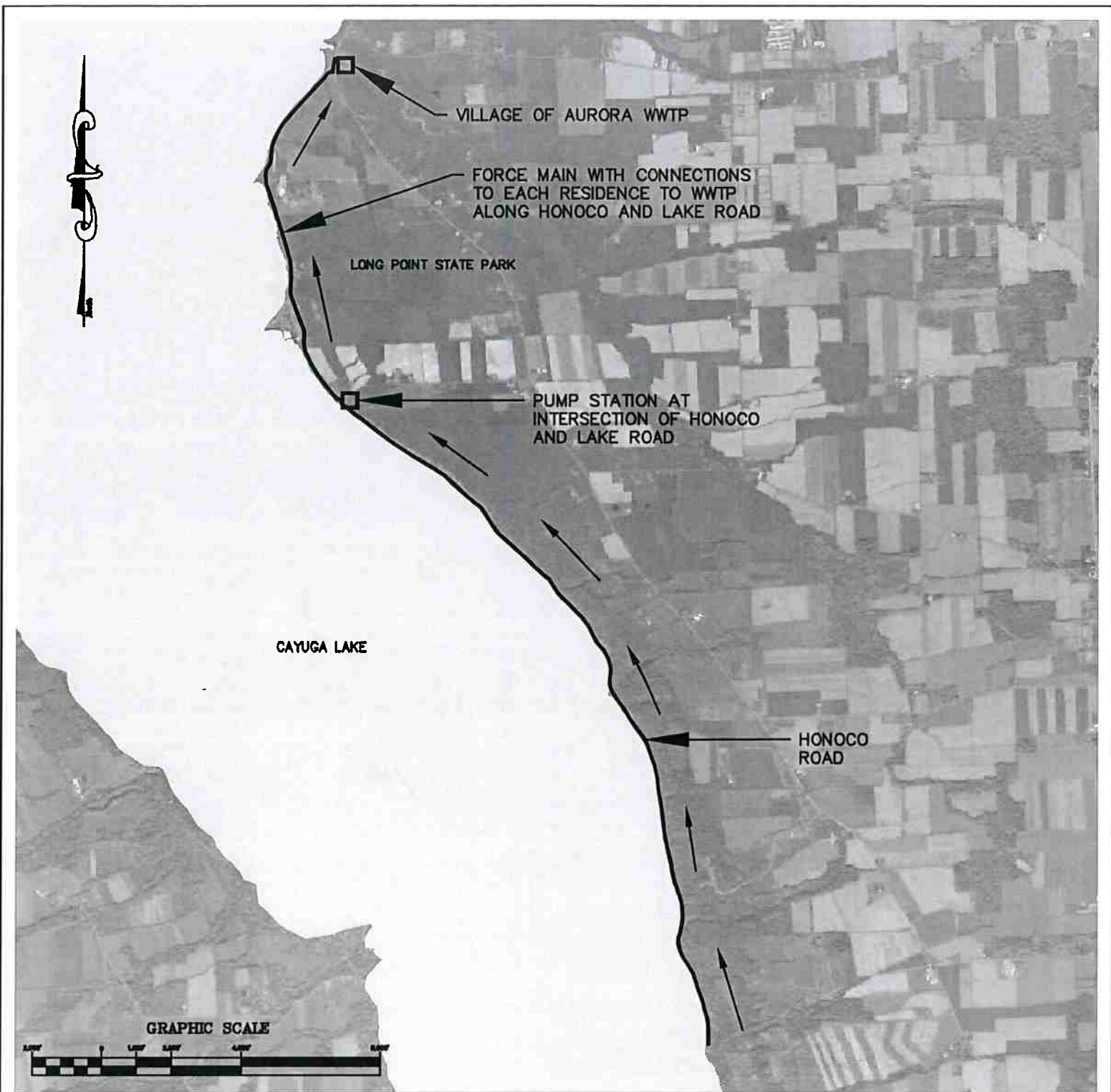
1. Low Pressure Sewer System along Honoco Road:

6,400 linear feet of 2” HDPE sewer force main
6,400 linear feet of 3” HDPE sewer force main
6,400 linear feet of 4” HDPE sewer force main
228 Grinder Pump Stations
6,900 linear feet of 1.25” HDPE sewer lateral pipe
5 Air Release Valves in Manholes
12 Clean Out / Flushing Manholes
1 Odor Control Station

2. Main Pump Station and Force Main Along Lake Road to Aurora WWTP:

Pump Station with flow meter and emergency generator
11,200 linear feet of 6” force main

Figure II.1 illustrates the alignment of the low pressure sewer system with the proposed locations of the grinder pump stations. In addition, Appendix C provides preliminary sizing information for the low pressure sewer system and Appendix D provides general information on the grinder pump stations. Each grinder pump station discharges a maximum of 11gpm. A liquid chemical (Bioxide) odor control station will be necessary due to the long residence time in the sewer system. Periodic line flushing and air release valves maintenance will be necessary. Clean outs will be installed at intervals of approximately 1,000 feet. Air release valves will be installed at peak elevations of about 25 feet or more or at intervals of about 2,500 feet. Lateral kits consisting of a ball and



LOW PRESSURE SEWER LAYOUT

Project Name: PRELIMINARY ENGINEERING REPORT CAYUGA COUNTY WATER/SEWER AUTHORITY CAYUGA COUNTY, NEW YORK	Project No. 0303.20001
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<small>Engineering, Architecture & Surveying, D.P.C. The Culver Road Armory, 145 Culver Road, Suite 160, Rochester, New York 14620 Phone: 585-381-9250 www.mrbgroup.com</small>	Drawn By: RJM					Sheet No. FIGURE II.1
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check valve will be installed between the pump discharge and force main down by the road. The individual grinder pump stations shall have an alarm light and audible alarm.

b. Alternative #2 – Conventional Gravity Sewer System:

This alternative consists of the following two major components:

1. Gravity Collection System Along Honoco Road:

- 19,200 linear feet of 8” diameter gravity sewer pipe
- 57 pre-cast concrete manholes
- 5 pumping stations with emergency generators
- 6,900 linear feet of lateral pipe from house to mainline sewer
- 14,000 linear feet of force mains

2. Main Pump Station and Force Main Along Lake Road to Aurora WWTP:

- Pump Station with flow meter and emergency generator
- 11,200 linear feet of 6” force main

Figure II.2 illustrates the proposed locations of the pumping stations to be constructed along the route, while Appendix D provides general equipment information on the proposed pump stations (equipped with duplex submersible pumps).

c. Flood Protection Requirements

The TR-16 Guide requires that all new pumping stations, including electrical and mechanical equipment, should be protected from physical damage by water at or above the 100-year flood elevation and should remain fully operational and accessible during the 25-year flood. This requirement does not pose a problem because all proposed

equipment is well above the 100-year flood elevation.

B. COST ESTIMATES

Cost estimates for each of the two options are included on Tables 1 and 2.

a. Alternative #1 – Low Pressure Sewer System

Total Project Cost	\$6,007,000
Annual Capital Cost Per each of 228 EDUs.....	\$1,344
(based on 30-year financing at 3%, with no grant funding)	

Annual operation and maintenance costs are estimated as follows:

- Maintenance Labor and Management Cost	\$40,000
- Truck and Small Parts	\$25,000
- Repair 9 pumps per year, at a cost of \$1,100 per repair	\$9,900
- Emergency Generator Maintenance (contract)	\$3,000
- Biocide purchase	\$6,000
- Flushing	\$4,000
- Clear blockages – 1 repair per year	\$4,000
- Electricity	\$12,000
- WW Treatment at Aurora at \$8/1000 gallons	\$99,900

Total Estimated Annual O&M Cost..... \$203,800

Annual O&M Cost Per each of 228 EDUs..... \$894

Total Annual Fee Per EDU, Cap. plus O&M \$2,238

Table 1 - Honoco Road Low Pressure Sewer Cost Estimate

Item	Quantity	Unit	Unit Cost	Total Cost
Main Pump Station	1	EA	\$351,700	\$351,700
6" Force Main to WWTP	11200	LF	\$45	\$504,000
Air Release Valves and Manholes	10	EA	\$9,200	\$92,000
Cleanout Assemblies	12	EA	\$1,800	\$21,600
Connect to WWTP	1	EA	\$5,000	\$5,000
Site Restoration along Lake Road	11200	LF	\$1	\$11,200
Honoco Road 2" Force Main	6200	LF	\$30	\$186,000
Honoco Road 3" Force Main	6200	LF	\$35	\$217,000
Honoco Road 4" Force Main	6100	LF	\$40	\$244,000
Grinder Pumps	228	EA	\$6,300	\$1,436,400
Spare Grinder Pumps	7	EA	\$1,670	\$11,690
Spare Control Panels	7	EA	\$400	\$2,800
1.25" HDPE Sewer Laterals	6900	LF	\$10	\$69,000
Check valve/Curb Box Assemblies	228	EA	\$500	\$114,000
Odor Control Station	1	EA	\$73,600	\$73,600
Air Release Valves and Manholes	10	EA	\$9,200	\$92,000
Cleanout Assemblies	12	EA	\$1,800	\$21,600
Electrical Connections	228	EA	\$500	\$114,000
Site Restoration	18500	LF	\$1	\$18,500
Subtotal – Base Construction Cost				\$3,586,090

Miscellaneous Contractual Items:

General Conditions @ 3%	\$107,583
Mob and Demob @ 4%	\$143,444
Construction Contingency Allowance @ 15%	\$537,914
TOTAL CONSTRUCTION COST:	\$4,375,030

Engineering, Legal & Admin Allowance @ 25%	\$1,093,757
TOTAL PROJECT COST:	\$6,006,701

Table 2 - Honoco Road Gravity Sewer Cost Estimate

Item	Quantity	Unit	Unit Cost	Total Cost
Main Pump Station	1	EA	\$351,700	\$351,700
6" Force Main to WWTP	11200	LF	\$45	\$504,000
Air Release Valves and Manholes	10	EA	\$9,200	\$92,000
Cleanout Assemblies	12	EA	\$1,800	\$21,600
Connect to WWTP	1	EA	\$5,000	\$5,000
Site Restoration along Lake Road	11200	LF	\$1	\$11,200
Honoco Road 8" Sewer	18500	LF	\$75	\$1,387,500
Manholes	45	EA	\$7,000	\$315,000
Small Pump Stations	5	EA	\$320,000	\$1,600,000
Air Release Valves and Manholes	5	EA	\$9,200	\$46,000
Cleanout Assemblies	12	EA	\$1,800	\$21,600
4" Force Main	14000	LF	\$40	\$560,000
Odor Control Station	1	EA	\$73,600	\$73,600
Electrical Service to Pump Stations	5	EA	\$10,000	\$50,000
Site Restoration	18500	LF	\$1	\$18,500
Subtotal – Base Construction Cost				\$5,039,200

Miscellaneous Contractual Items:

General Conditions @ 3%	\$151,176
Mob and Demob @ 4%	\$201,568
Construction Contingency Allowance @ 15%	\$755,880

TOTAL CONSTRUCTION COST:	\$6,147,824
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Engineering, Legal & Admin Allowance @ 25%	\$1,536,956
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TOTAL PROJECT COST:	\$7,684,780
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b. Alternative #2 – Conventional Gravity Sewer System

Total Project Cost	\$7,685,000
Annual Capital Cost Per each of 157 EDUs.....	\$2,497
(based on 30 year financing at 3%, with no grant funding)	

Annual operation and maintenance costs are estimated as follows:

- Maintenance Labor and Management Cost	\$20,000
- Truck and Small Parts	\$10,000
- Repair 1 pump per year, at a cost of \$1,100 per repair =	\$1,100
- Emergency Generator Maintenance (contract)	\$3,000
- Biocide purchase	\$3,000
- Flushing	\$2,000
- Clear blockages – 1 repair per year	\$4,000
- Electricity	\$12,000
- WW Treatment at Aurora at \$8/1000 gallons	\$199,800

Total Estimated Annual O&M Cost..... \$254,900

Annual O&M Cost Per each of 157 EDUs..... \$1,624

Total Annual Fee Per EDU, Cap. plus O&M \$4,121

C. NON-MONETARY FACTORS

The low pressure sewer system alternative has the following advantages over a gravity system which are not simply monetary factors:

1. Low pressure sewers are not influenced by inflow and infiltration, and so will generate a lower amount of sewage flow than gravity sewers would generate.
2. There is little chance for low pressure sewers to leak sewage into the ground, potentially polluting nearby lake water.
3. Low pressure sewers only require a single pipe to be located under Honoco Road, whereas the gravity sewer solution would require installation 2 pipes under the road.
4. Installation of grinder pumps at each property will allow homeowners greater flexibility than gravity sewers because the grinder pumps will transfer sewage up to the roadbed force main, which may be at a higher elevation than the homes.

For all of the above reasons, the low pressure sewer system alternative is preferred over the conventional gravity sewer system alternative.

III. SUMMARY AND COMPARISON OF ALTERNATIVES

A summary of the viable alternatives is presented in this section of the report, and is based 30 year financing at a 3% interest rate with no grant funding.

A. Low Pressure Sewer System Along Honoco Road

Total Project Cost	\$6,007,000
Annual O&M Cost	\$203,800
Total Project Present Worth Cost.....	\$6,210,800
Annual Debt Service Per Each of 228 Lots	\$1,344
Annual O&M Cost Per Each of 228 Lots	\$894
Total Annual Cost per EDU	\$2,238

B. Conventional Gravity Sewer System Along Honoco Road

Total Project Cost	\$7,684,800
Present Worth of Annual O&M Cost	\$254,900
Total Project Present Worth Cost.....	\$7,939,700
Annual Debt Service Per Each of 157 Lots	\$2,497
Annual O&M Cost Per Each of 157 Lots	\$1,624
Total Annual Cost per EDU	\$4,121

As shown above, the low pressure sewer system alternative has a lower total project present worth cost than the conventional gravity sewer system alternative.

C. IMPLEMENTATION RECOMMENDATIONS AND SCHEDULE

The following recommendations are made for implementation of the low pressure sewer system to serve the Honoco Road area:

1. The CCWSA shall own and be responsible for the main pressure sewer lines and the individual grinder pumps that pump into the low pressure sewer system.
2. The individual grinder pumps shall be installed on property which the CCWSA has right of access to.
3. The individual grinder pumps shall be located a minimum of ten (10) feet from any house
4. Residents who decide at a later date to connect to the low pressure sewer system will be required to purchase and install the individual grinder pumps at their own expense.
5. A municipal agreement must be reached between the Town of Ledyard, Village of Aurora, and the Town of Genoa.
6. The municipalities should utilize “blanket property easements”, so they can possess the flexibility of locating the individual grinder pump stations wherever necessary on the small building plots of land.
7. A new sewer district would need to be formed to allow construction of the project.

The recommended schedule for implementing the proposed sanitary sewer system to serve the Honoco Road residents is based on a traditional project approach, which includes planning, financing, district formation, design, bidding, construction, and startup.

The following schedule assumes timely reviews by the NYSDEC and is subject to vary based on funding availability:

Report Review/Approval	Summer 2021
District Formation	Fall 2021

Conduct SEQR Review	Winter 2021/2
Funding Applications	Summer 2021
Detailed Design	Spring 2022
Bidding	Summer 2022
Construction Start	Fall 2022
Construction Completion	Winter 2022/3
Startup	April 2023