

V-E-3

# HARRISON ENGINEERING DEPARTMENT

Town/Village of Harrison  
Alfred F. Sulla, Jr. Municipal Building  
1 Heineman Place  
Harrison, New York 10528

Michael J. Amodeo, P.E., CFM  
Town Engineer



May 31, 2018

Mayor Ron Belmont and  
Members of the Village Board  
Village of Harrison  
1 Heineman Place  
Harrison, New York 10528

Re: Town-Wide Sanitary Sewer Evaluation Study

Dear Mayor Belmont and Members of the Village Board:

Village Board authorization is requested for a professional services contract with GHD, for work associated with a Town-Wide Sanitary Sewer Evaluation Study at a cost not to exceed \$2,137,950.00. The scope of services is based upon the draft Work Plan submitted to the New York State Department of Environmental Conservation and is continuation of the SSES performed in 2017. A copy of the proposal is attached for your information and review.

Further authorization is requested for the Purchasing Department to issue a Purchase Order in an amount not to exceed \$2,137,950.00 payable to GHD.

Finally, funding for this contract is available in Capital Account #18SD06.

Respectfully submitted,

A handwritten signature in dark ink, appearing to read "Michael J. Amodeo", is written over the "submitted" portion of the "Respectfully submitted," line.

Michael J. Amodeo, P.E., CFM  
Town and Village Engineer

MJA/fmb

Attachment



May 30, 2018

Mr. Michael Amodeo, PE, CFM  
Town Engineer  
Town of Harrison  
1 Heineman Place  
Harrison, NY 10528

Dear Mr. Amodeo:

**Re: Proposal for Town-Wide Sanitary Sewer Evaluation Survey  
Town of Harrison, New York**

GHD is pleased to present this proposal to perform a Town-wide Sanitary Sewer Evaluation Survey (SSES) in the Town of Harrison (Town). The scope of work identified in this proposal is based on a draft Work Plan that has been prepared by the Town and will be submitted to the New York State Department of Environmental Conservation (NYSDEC) for review.

#### SCOPE OF SERVICES

The Work Plan identifies various neighborhoods/areas of the Town that will receive different levels of investigation. A map of the Town outlining the different neighborhoods is shown in Attachment No. 1. Table 1 identifies the neighborhoods and different types of investigation that will be performed.

**Table 1 Investigations by Neighborhood**

Neighborhood	Manhole Inspections	Sewer Cleaning	Smoke and Dye Testing	CCTV Inspection
Park Lane	X			
Purchase Estates	X			
Purchase (Central)	X			
Star Farm Road	X			
Knightsbridge Manor	X			
Silver Lake	X	X	X	X
Purchase (West)	X	X	X	X
Downtown	X	X	X	X
Brentwood	X	X	X	X
Sunny Ridge	X	X	X	X
Purchase (East)	X	X		X
Country Club	X	X		X
West Street	X	X		X

**GHD**

One Remington Park Drive Cazenovia New York 13035 USA  
T 315 679 5800 F 315 679 5801 W www.ghd.com





GHD will team with a subcontractor to complete the investigations. The subcontractor will be responsible for completing the sewer cleaning, CCTV inspections, manhole inspections, and smoke testing and dye testing. GHD will be responsible for program management, data analysis, and reporting. GHD will also provide a part-time field representative (20 hours/week) to provide coordination and regular communication between the field crews, GHD, and the Town.

There will be as many as six separate crews simultaneously working in various locations of the Town to complete this project within the given timeframe. The anticipated schedule to complete the SSES is as follows:

**Table 2 Project Schedule**

Task	Date
Kickoff Meeting	June 27, 2018
Weekly Coordination Calls	Beginning July 6, 2018
Begin Sewer Investigations	July 9, 2018
Complete Sewer Investigations	November 16, 2018
Submit Draft Report to NYSDEC for review	January 31, 2019

## **GIS DATABASE**

This project will generate a tremendous amount of data that can be captured in the Town's existing GIS system. GHD will create a GIS database that contains the geospatial coordinates (location) of the inspected manholes, wastewater pipes, and attribute information such as material and size. The GIS database will also contain links to reports and videos and can be accessed through the Town's data server or external hard drive.

Creating the GIS database includes the following tasks:

1. **Compile and Standardize Sanitary Sewer GIS Layers** - Convert the Town's existing sanitary sewer GIS mapping into the ESRI Local Government Data Model (LGDM). The LGDM is a standardized GIS database model designed to work across and support typical functions of local governments. The Town will provide GIS shapefiles of the existing sanitary sewer system.
2. **Import Results From SSES** - At the completion of the SSES, the sewer and manhole attribute data will be migrated into the new LGDM GIS database.
3. **GIS Links to Scanned Inspection Forms, Photos, and CCTV** - At the completion of the SSES, collected forms, photos, and CCTV videos will be linked into the new LGDM GIS database. Prior to commencing the project, this task will need to be discussed with the Town to develop the storage location of the final attachments so that proper linking can be established.
4. **Develop a pipe condition database** which contains a link to photographs of individual pipe defects.



## FEES

The Town shall pay GHD in accordance with Table 3. Unit prices have been provided for the investigation work where exact quantities are unknown at this time. Estimated quantities are shown based on discussions with the Town. A lump sum mobilization fee has been included to mobilize people and equipment for the investigations. A lump sum value has also been provided for project management, data analysis, and reporting. Included in the project management line item is providing a part-time resident project representative during the field investigations. A separate lump sum value has been included to prepare the GIS database.

**Table 3 Fee Breakdown**

Task	Unit	Estimated Quantity	Unit Price	Extended Price
Mobilization/demobilization	LS	1	\$10,000.00	\$10,000.00
CCTV and light cleaning (6")	LF	1,000	\$2.63	\$2,630.00
CCTV and light cleaning (8"-24")	LF	360,000	\$2.48	\$892,800.00
CCTV and light cleaning (25"-36")	LF	1,000	\$2.63	\$2,630.00
Heavy cleaning (8"-12") <sup>(1)</sup>	LF	50,000	\$0.79	\$39,500.00
Heavy cleaning (13"-24") <sup>(1)</sup>	LF	15,000	\$1.58	\$23,700.00
Heavy cleaning (25"-36") <sup>(1)</sup>	LF	1,000	\$2.63	\$2,630.00
Smoke testing	LF	260,000	\$0.69	\$179,400.00
Dye testing	Each	100	\$263.00	\$26,300.00
Manhole inspections	Each	2,800	\$79.00	\$221,200.00
Traffic control (flaggers)	Day	60	\$1,890.00	\$113,400.00
Cut protruding tap	Each	20	\$263.00	\$5,260.00
Disposal of debris <sup>(2)</sup>	Ton	300	\$184.00	\$55,200.00
Allowance – Police traffic control <sup>(3)</sup>	--	1	\$100,000.00	\$100,000.00
Allowance – Water meter purchase <sup>(4)</sup>	--	1	\$10,000.00	\$10,000.00
Project Management/Data Analysis and Reporting	LS	1	\$395,000.00	\$395,000.00
GIS Database	LS	1	\$58,300.00	\$58,300.00
<b>ESTIMATED TOTAL <sup>(5)</sup></b>				<b>\$2,137,950.00</b>

(1) Includes three or more passes and mechanical root/grease removal.

(2) Includes disposal of non-hazardous debris.

(3) The Town has requested this allowance be included in the proposal so the Town's police can provide traffic control on high traffic roads where required.

(4) The Town has requested this allowance to purchase two water meters for the cleaning operations of this proposal. It is anticipated the Town will provide one working water meter.

(5) No bypass pumping is included for any of the investigations.



## OWNER RESPONSIBILITIES

The Town will be responsible for the following:

1. Provide one working water meter from Westchester Joint Water Works. Through the allowance in this contract, GHD will purchase two additional water meters so there is a minimum of three meters.
2. Cost of all water used for the project.
3. Hydrant use permits (if required).
4. Access and rights-of-way to all openings and easements.
5. GIS mapping with complete manhole numbering prior to starting field investigations.
6. Police detail for traffic protection, if required. This item will be paid for through the allowance in this contract.
7. Provide a location to store the cleaning and CCTV equipment overnight.

We look forward to working with you on this project. If you have any questions, please contact me.

Sincerely,

GHD

A handwritten signature in black ink, appearing to read 'R. M. Cameron', with a long horizontal flourish extending to the right.

Randy M. Cameron, PE  
Associate

RMC/ct

Enclosure

Town-Wide SSES  
 MAY 8, 2018  
 AREA CONCEPT

