

RESOLUTION RECORD**VILLAGE OF NEWBURGH HEIGHTS, OHIO****RESOLUTION NO. 21-16****INTRODUCED BY:** Mayor Elkins

A RESOLUTION AUTHORIZING THE MAYOR TO ENTER INTO A CONTRACT WITH OHM ADVISORS TO PERFORM E. 41st STREET MCIP POST-CONSTRUCTION PROJECT PERFORMANCE VERIFICATION, AND DECLARING AN EMERGENCY.

WHEREAS, the Village has committed to the installation of storm sewers and re-surfacing of East 41ST Street; and

WHEREAS, the Village will need to have the performance verification on the Project completed prior to construction;

NOW, THEREFORE, BE IT RESOLVED BY THE COUNCIL OF THE VILLAGE OF NEWBURGH HEIGHTS, CUYAHOGA COUNTY, OHIO, that:

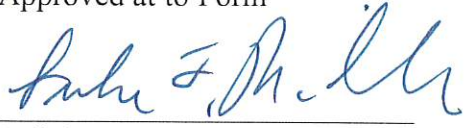
Section 1. Council hereby authorizes the Mayor to enter into a contract for E. 41st Street MCIP Post-Construction Project Performance Verification services with OHM ADVISORS in the amount of \$33,000.00, in accordance with all of the terms and conditions of the Proposal for Consulting Services, a copy of which is attached hereto as Exhibit A and incorporated herein by reference as if fully rewritten.


Section 2. That it is found and determined that all formal actions of this Council concerning and relating to the adoption of this Ordinance were adopted in an open meeting of this Council, and that all deliberations of this Council that resulted in such formal action occurred in meetings open to the public, in compliance with all legal requirements, including Section 121.22 of the Ohio Revised Code.


Section 3. This Ordinance is hereby determined to be an emergency measure necessary for the immediate preservation of the public peace, health, safety and welfare of the Village and its residents, the emergency being the need to award the bid for the Project within a time frame that will allow the Village to complete the Project by December 31, 2021. Therefore, provided it receives two-thirds (2/3) of the vote of all members of Council elected thereto, said Ordinance shall be in full force and effect immediately upon its adoption by the Council and approval by the Mayor, otherwise from and after the earliest period allowed by law.

PASSED: October 5, 2021

Approved at to Form


Solicitor


Trevor Elkins, Mayor
Village of Newburgh Heights, Ohio


Cathleen Nagorski, Fiscal Officer
Village of Newburgh Heights, Ohio

1ST Reading: 10/5/21
2ND Reading: 10/5/21
3RD Reading: 10/5/21



ARCHITECTS. ENGINEERS. PLANNERS.

September 16, 2021

Village of Newburgh Heights
Mayor Trevor Elkins
3801 Harvard Avenue
Newburgh Heights, OH 44105

RE: E. 41st Street MCIP Post-Construction Project Performance Verification
Village of Newburgh Heights
Proposal # 21240

Dear Mayor Elkins:

The following scope of services, price proposal, and project schedule represent our understanding of the project, based upon prior discussions, meetings, and/or additional project information made available at the time of this proposal. Should you have any questions, please let us know.

Proposal Outline

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Sincerely,

OHM Advisors

Authorization to Proceed

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Signature Date

Trevor Elkins Mayor
Printed Name Title

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Project Understanding

The Northeast Ohio Regional Sewer District (“the District”) requires its member communities to perform project performance verification to document how a Member Community Infrastructure Program (MCIP) project is performing. The District required that the Newburgh Heights E. 41st Street MCIP Sewer Separation project perform pre-construction and post-construction project performance verification activities. Pre- and post-construction activities collect data that can quantify rainfall-derived inflow and infiltration (RDII) contributions to a sanitary sewer. This proposal includes the work necessary to meet the District’s post-construction MCIP requirements. A separate project was completed prior to construction that met the District’s pre-construction MCIP requirements.

OHM proposes the following work be performed as part of this project to meet the District’s post-construction MCIP requirements:

- Coordinate meter installation and post-construction monitoring period with the District
- Perform post-construction flow monitoring at the location where pre-construction flow data was collected to record flow within the sewer separation project area
- Conduct post-construction RDII evaluation of the flow monitoring data collected during the post-construction monitoring period to quantify private property RDII contributions to the new sanitary sewer
- Conduct end-of-pipe water quality sampling for *E. coli* at the discharge of the new storm sewer on three separate days at three different times during dry weather to verify no domestic sewage is contributing to flow in the pipe
- Prepare a technical submittal summarizing the work performed as part of the pre-construction and post-construction project performance verification, according to District minimum requirements

Scope of Services

Task #1 Data Collection and Review (\$3,000)

Task 1 includes collecting available data from the Village and the District necessary to complete the proposed tasks. It is expected that the following data will be made available to perform the work:

- As-builts from the Village providing the length, diameter, material and invert elevation of the constructed sewer separation project
- Rainfall data from a District-owned rain gauge sufficient for the project’s needs

Task #2 Post-Construction Flow Monitoring (\$11,000)

For MCIP sewer separation projects, the District requires post-construction sewer flow monitoring to document the hydraulic performance and flow characteristics in the MCIP project area. The objective of Task 2 is to measure and record the flow in the sanitary sewer as a result of the sewer separation projects. To accomplish this, one flow meter will be installed on the new sanitary sewer, immediately downstream of the MCIP project area, after the completion of sewer separation construction. The meter location is shown in Figure 1 (attached) and is the same location where pre-construction flow monitoring was performed.

To meet the District’s MCIP flow monitoring requirements, post-construction flow monitoring will be conducted for a three-month duration, or until three storms that meet either of the following criteria are captured:



- Rain event meets or exceeds a depth of 0.5 inches AND an intensity of 0.25 inches/hour
- 24-hour rainfall is greater than 0.75 inches

Specific work efforts of the post-construction flow monitoring task include the following:

- Coordinate with the District to prepare for post-construction flow monitoring
- Flow meter pre-installation site investigation to confirm installation feasibility and prepare for installation
- Provide for traffic control and safety during site visits
- Install and calibrate one flow meter at the following location: District Manhole ID CO35AAMC0 (located at the intersection of E. 41st St. and Bridgeview Ave.)
- Collect and record the following data in 5-minute intervals over a continuous monitoring period for a duration up to three months:
 - Depth
 - Velocity
 - Flow
- Maintain and service flow meters, including battery replacement
- Perform data downloads (manual data downloads two times per month or telemetry transfer of meter data during monitoring period, if feasible)
- Review post-construction flow data collected
- Uninstall meter at conclusion of post-construction monitoring period

Task #3 Post-Construction RDII Analysis (\$6,000)

The flow monitoring data collected in Task 2 will be used to perform the post-construction RDII analysis. The objective of Task 3 is to quantify the amount of RDII in the sanitary sewer system as a result of the sewer separation project. For MCIP sewer separation projects, the District requires post-construction RDII analysis that provides, at a minimum, a calculation of the percentage of rainfall that enters the sanitary sewer system for each rain event collected during the post-construction monitoring period. The District refers to this percentage as the R-value; the term “R-value” is used interchangeably with “RDII,” “percent I/I,” and “capture coefficient.” The R-value will be determined for each storm event recorded during the post-construction monitoring period using the H2Ometrics software.

Specific work efforts of the RDII analysis task include the following:

- Import flow monitoring and District rainfall data into H2Ometrics software
- Edit (“scrub”) flow monitoring data using H2Ometrics software
- Calculate RDII for each storm event with rainfall that caused a wet-weather response in the monitored sanitary sewer

Task #4 Post-Construction Dry Weather Water Quality Investigation and Sampling (\$1,000 base fee; \$6,000 if authorized)

The District requires post-construction dry weather water quality sampling in the new storm sewer for MCIP sewer separation projects when flow is observed in the storm sewer during dry weather. The objective of the sampling is to obtain data that verifies the infrastructure separation. The “base” fee includes field investigation to observe and document the presence or absence of flow in the new storm sewer. If no flow is observed, a photograph will be taken to document that no water quality sampling is



necessary. If flow is observed, post-construction dry weather sampling will be required, and the “if authorized” fee will need approval to perform the sampling work.

Post-construction dry weather water quality sampling includes collecting and analyzing dry weather flow samples from the storm water pipe at the downstream end of the separated area. Sampling is required on three separate days and at three different times, in order to ensure a representative *E. coli* measurement. OHM has partnered with a local water and wastewater lab to perform *E. coli* lab analysis on collected samples.

Specific work efforts of the dry-weather water quality sampling task include the following:

- Collect three field samples on three separate days at three different times during dry weather at the end of the new storm sewer
- Perform lab analysis for *E. coli*

Task #5 Technical Submittal (\$12,000)

All work included in the tasks above will be summarized and presented in the format of a technical submittal according to District minimum requirements. The technical submittal will summarize the work performed and analyzed as part of this post-construction MCIP requirements and the pre-construction MCIP requirements project previously completed.

The minimum deliverables required as part of the submittal to the District include the following:

- For flow monitoring and RDII evaluation:
 - Site installation forms
 - Rain data in 5-minute intervals
 - Raw and edited flow monitoring data in 5-minute intervals
 - RDII evaluation summary, including supporting tables and figures
 - RDII evaluation conclusions
- For water quality sampling:
 - Field sample collection summary, including supporting tables and figures
 - Sample analysis results
 - Water quality sampling conclusion



Price Proposal

<i>#</i>	<i>Tasks</i>	<i>Base Fee</i>	<i>If Authorized</i>
<i>Task #1</i>	<i>Data Collection and Review</i>	<i>\$3,000</i>	
<i>Task #2</i>	<i>Post-Construction Flow Monitoring</i>	<i>\$11,000</i>	
<i>Task #3</i>	<i>Post-Construction RDII Analysis</i>	<i>\$6,000</i>	
<i>Task #4</i>	<i>Post-Construction Dry Weather Water Quality Investigation and Sampling</i>	<i>\$1,000</i>	<i>\$6,000</i>
<i>Task #5</i>	<i>Technical Submittal</i>	<i>\$12,000</i>	
<i>Grand Total =</i>		<i>\$33,000</i>	<i>\$6,000</i>

Schedule

With a Notice to Proceed by January 2022, the work summarized above can be completed by the end of November 2022.

Assumptions

The following assumptions are made in this fee proposal:

- Coordination with the District is limited to telephone and e-mail communication, and no in-person meetings will be required by the project team.
- Coordination with the Village is limited to telephone and e-mail communication, and no in-person meetings with the project team will be required.

Figure 1. E. 41st Street MCIP Post-Construction Flow Meter Location

