



CITY of NOVI CITY COUNCIL

Agenda Item H
February 26, 2018

SUBJECT: Approval to award engineering design services to OHM Advisors (Orchard, Hiltz & McCliment) for sanitary sewer flow metering at select locations throughout the city, in the amount of \$35,500.00.

SUBMITTING DEPARTMENT: Department of Public Services, Water and Sewer Division

CITY MANAGER APPROVAL: 

EXPENDITURE REQUIRED	\$ 35,500
AMOUNT BUDGETED	\$ 35,500
LINE ITEM NUMBER	592-592.00-976.051 Footing Drain Disconnection Program

BACKGROUND INFORMATION:

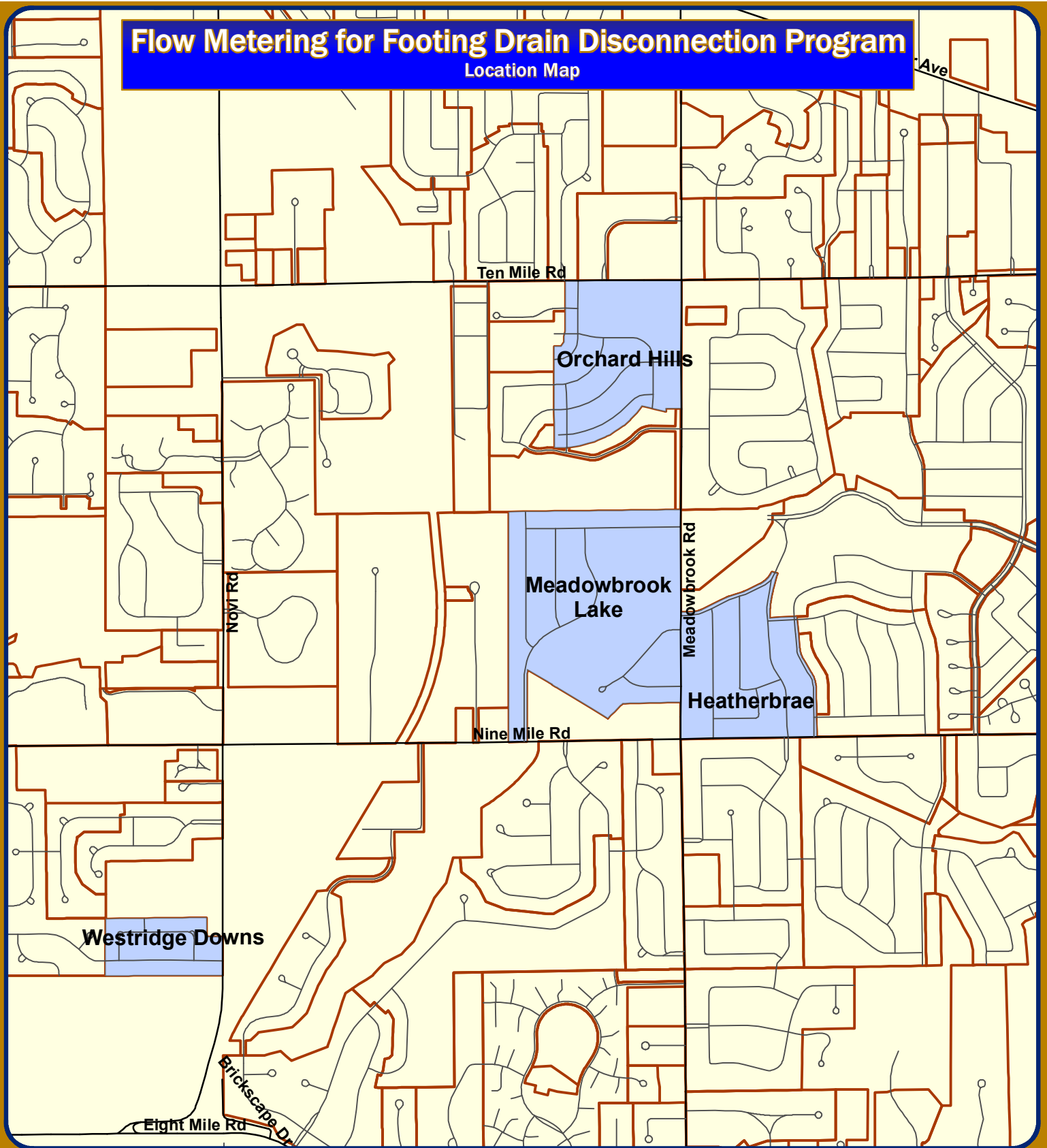
In an effort to reduce the presence of inflow from residential footing drains directly connected to the sanitary sewer system, the Water and Sewer Division has asked Orchard, Hiltz & McCliment (OHM Advisors) to assist with a feasibility study to determine the potential benefit of a footing drain disconnection (FDD) program at multiple subdivisions throughout the city. A successful FDD program has the potential to reduce flow significantly, which would be very beneficial since the city has experienced flows that have exceeded the contract capacity in the past. The attached map shows the locations of the subdivisions targeted for the program.

The FDD program is recommended in the FY 2018-19 budget; however, the metering required for the feasibility study must be completed in the spring to capture the seasonal variability of the system's response to rainfall. Therefore, OHM has provided the attached proposal for the metering task, which could be performed this spring rather than having to wait an additional year to start the program. The proposal includes all the tasks involved with the flow metering and analysis of the data collected, and the rental of up to three flow meters, too (OHM will use the five meters owned by the City, plus the three to be rented).

RECOMMENDED ACTION: Approval to award engineering design services to OHM Advisors (Orchard, Hiltz & McCliment) for sanitary sewer flow metering at select locations throughout the city, in the amount of \$35,500.00.

Flow Metering for Footing Drain Disconnection Program

Location Map



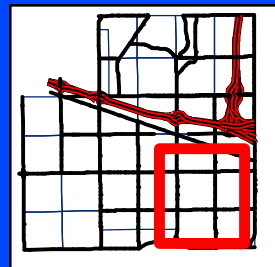
Map Author: Croy
Date: 2/15/18
Project: FDD
Version #: v1.0

MAP INTERPRETATION NOTICE

Map information depicted is not intended to replace or substitute for any official or primary source. This map was intended to meet National Map Accuracy Standards and use the most recent, accurate sources available to the people of the City of Novi. Boundary measurements and area calculations are approximate and should not be construed as survey measurements performed by a licensed Michigan Surveyor as defined in Michigan Public Act 132 of 1970 as amended. Please contact the City GIS Manager to confirm source and accuracy information related to this map.

Map Legend

 FDD Candidates



City of Novi

Engineering Division
Department of Public Services
26300 Lee BeGole Drive
Novi, MI 48375
cityofnovi.org

Feet
0 305 610 1,220 1,830

1 inch = 1,500 feet



January 30, 2018

City of Novi, MI
Ben Croy, Water and Sewer Senior Manager
26300 Lee BeGole Drive
Novi, Michigan 48375

RE: Flow Metering Proposal for Novi Sanitary Sewer System - Footing Drain Disconnection with Green Infrastructure Feasibility Study

Dear Mr. Ben Croy:

Thank you for the opportunity to submit this proposal for professional services based on our January 26, 2018 meeting at your office as well as ongoing discussions. This letter presents our proposed scope of services and fee to begin flow metering in March 2018.

Project Approach Overview

This proposal outlines the tasks necessary to perform flow metering as part of the Novi FDD Feasibility Study that will be completed by OHM Advisors. The remaining tasks for the study are outlined in the full proposal submitted to the City on September 26, 2017.

Scope of Services

Task #1 Flow Metering (\$25,000)

Flow metering will be performed, in the neighborhoods identified in Task 2, to quantify the presence of inflow and infiltration (I&I) from directly connected footing drains in the sanitary sewer system tributary to each meter. To capture the seasonal variability of the system's response to rainfall, due to antecedent moisture conditions, metering should commence in early spring and end in July (five months total).

- Metering will span a five month period and is expected to have eight meters deployed throughout the City. An additional meter is included as a control.
- Specific work efforts of the flow metering will include:
 - Perform pre-flow metering field reconnaissance to review the potential metering sites
 - Work with the City to finalize the flow-metering plan
 - Install eight meters and two rain gauges for a five month period
 - Maintain and download the meters during the flow metering period
 - Scrub the flow metering data after downloading to diagnose any metering problems, and correct those problems in the field
 - Remove the meters
 - Organize the flow metering data for transmittal to the City and for use in the modeling. Flow data will be imported into the H2Ometrics program for analysis.



Task #2 Flow Meter Rental **(\$10,500)**

The City of Novi will provide five of the meters deployed at the start of this study. Up to three flow meters will be rented from OHM Advisors in order to begin metering in March 2018. The City will be investing in new meters but they will not be available by March 2018. Once the newly purchased meters can be installed, they will replace the rented meters from OHM Advisors. The cost of this task represents renting three meters for five months. If less meters are needed or if the rented meters are removed prior to five months, the cost will be adjusted accordingly.

Budget

<i>#</i>	<i>Bidding Tasks</i>	<i>Fee</i>
<i>Task #1</i>	<i>Flow Metering</i>	<i>\$25,000</i>
<i>Task #2</i>	<i>Flow Meter Rental</i>	<i>\$10,500</i>
	<i>Grand Total =</i>	<i>\$35,500</i>

Contract Terms and Conditions

Work will be performed through our existing as-needed contract with the City of Novi Department of Public Services.

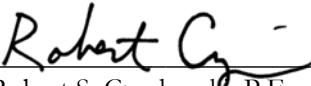
Acceptance

If this proposal is acceptable to you, a signature on the last page of this letter will serve as our authorization to proceed.

Thank you for giving us the opportunity to be of service. We look forward to working with you on this project.

Sincerely,

OHM Advisors



Robert S. Czachorski, P.E.
robert.czachorski@ohm-advisors.com
D: 734.466.4548

Authorization to Proceed

Signature Date

Printed Name Title