



**CITY OF NOVI CITY COUNCIL
DECEMBER 21, 2020**

SUBJECT: Approval to award engineering design services to Spalding DeDecker to replace and upsize the existing sanitary sewer for the Drake's Bay Effluent and Lanny's Influent sanitary sewer capacity upgrade project along Wixom Road in the amount of \$82,400.00.

SUBMITTING DEPARTMENT: Department of Public Works, Engineering Division

EXPENDITURE REQUIRED	\$ 82,400.00
AMOUNT BUDGETED	\$101,846.00
APPROPRIATION REQUIRED	\$ 0
LINE ITEM NUMBER	592-592.00-976.110

BACKGROUND INFORMATION: The 2014 Sanitary Sewer Capacity Assessment identified two sections of sanitary sewer between the Drake's Bay lift station and Lanny's lift station along Wixom Road that were undersized and without sufficient capacity to handle future flow rates. Spalding DeDecker completed a preliminary study for upsizing these sewer sections, which identified the need to replace 1,200 feet of 18-inch with 21-inch, and another 1,600 feet of 12-inch with 15-inch. This project will prevent surcharging in the pipes and will accommodate the future flows following build-out of this area of the City.

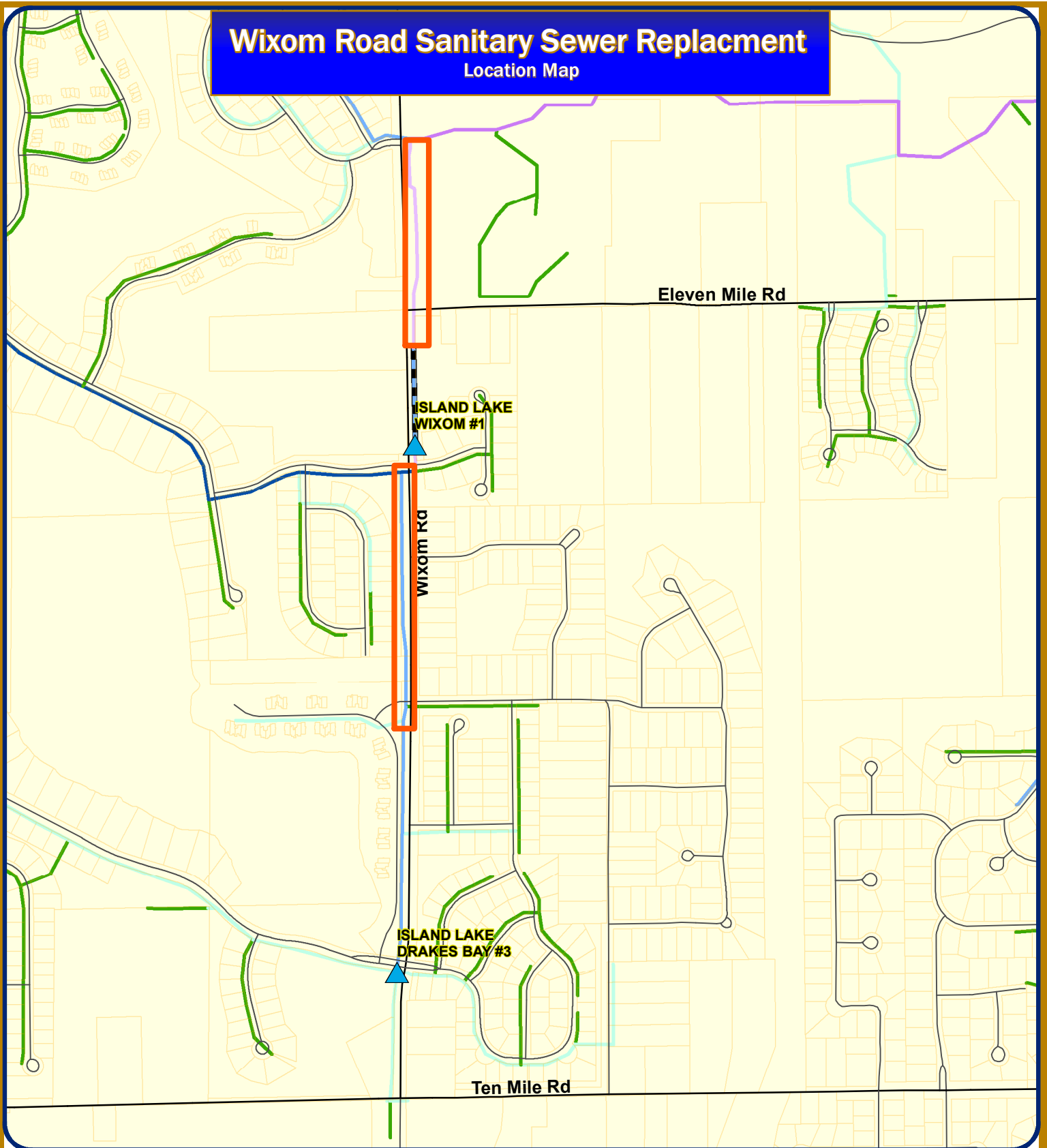
The attached design engineering services proposal outlines the scope of services in more detail. The design fee for this project will be \$82,400 (8.5% of the estimated construction cost of \$968,750). Spalding DeDecker's engineering fees are based on the fixed fee schedule established in the Agreement for Professional Engineering Services for Public Projects.

Design of this project would begin following award, with construction expected to start in July 2021.

RECOMMENDED ACTION: Approval to award engineering design services to Spalding DeDecker to replace and upsize the existing sanitary sewer for the Drake's Bay Effluent and Lanny's Influent sanitary sewer capacity upgrade project along Wixom Road in the amount of \$82,400.00.

Wixom Road Sanitary Sewer Replacment

Location Map













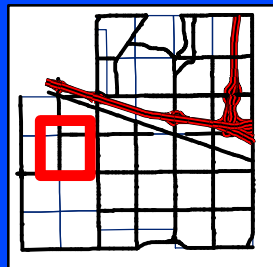
Map Author: R. Runkel
 Date: 12/4/20
 Project: Wixom Rd Sanitary Sewer
 Version #: v1.0

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

-  Sanitary Lift Station
-  Force Main
-  Sanitary Gravity Main 6"
-  8.0"
-  10.0"
-  12.0"
-  15.0"
-  18.0"
-  21.0"
-  12"



City of Novi

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



1 inch = 875 feet



November 24, 2020

Ben Croy, PE
City Engineer
City of Novi
26300 Lee BeGole Drive
Novi, Michigan 48375

**Re: Wixom Road Sanitary Sewer Replacement
Proposal for Civil Engineering Services**

Dear Mr. Croy:

Spalding DeDecker (SD) is pleased to provide the following proposal for engineering design services to replace and upsized the existing Sanitary Sewer in Wixom Road.

Project Understanding

SD understands that due to the recent pump station improvements at Wixom Road Pump Station and Drake's Bay Pump Station, the larger pumps put the existing downstream sanitary sewer into a surcharge state. With the sewer being undersized for the new pumps the surcharge state needs to be alleviated with the installation of a new, larger sewer. SD was able to develop a preliminary layout and sewer sizing and paired it to the capacity of the larger pumps at Wixom Road. This determined that 1,200' of sanitary sewer should be upsized from 18" to 21" and 1,600' of sanitary sewer should be upsized from 12" to 15". The preliminary layout does minimize by-pass pumping operations as well as utility conflicts. SD will work closely with the City of Novi staff to establish the new final alignment of these sewer sections and it is understood that some sections may be in the same alignment as the existing sewer. SD will utilize this preliminary design, the hydraulic model and the existing sanitary sewer study completed by OHM in 2014 through the design process.

Proposed Scope of Services

SD's scope will include:

- Prepare a topographic survey of the Wixom Road Corridor to obtain all surface features and surface elevation information.
- Review and implement current documentation for the sanitary sewer and other utilities into the design to minimize conflicts in construction.
- Prepare preliminary layout and cost estimate for review.
- Prepare MDEQ permit applications for submittal.
- Prepare 90% plans and specifications for final review.
- Prepare complete set of bid documents including plans and specifications.
- SD will assist the City during the bidding process as needed.



Construction Cost Estimate and Proposed Fees

Based on our pre-qualification status with the City, engineering design fees are typically based on a pre-determined percentage of the pre-design construction cost estimate. A preliminary cost estimate for the project has been generated with an estimated cost of \$968,750. Based on this estimated cost, the fee for this project will be:

Design Phase Services (8.50% of estimated cost) - **\$82,400.00**
*Prepare a soils investigation scope for the City to contract with their pre-approved consultant.

Project Schedule

The following summarizes the anticipated schedule for the project:

<u>Milestone</u>	<u>Completed By</u>
Design Project Award	12/22/2020
Initial Meetings and Site Visits	1/10/2021
Survey Field Work	12/30-1/18/2021
30% Preliminary Plans	3/12/2021
MDEQ Permit Submittals	4/26/2021
90% Final Plans	5/2/2021
100% Bid Package & Advertising	5/30/2021
Bid Opening	6/9/2021
Award by Council	7/8/2021*
Construction Start	8/19/2021*
Construction Completion	12/3/2021*

*Dates shown are earliest possible, we understand the City may not fund for construction until 2022.

Thank you for the opportunity to provide this proposal for Engineering Services. Please don't hesitate to contact me if you have any questions or comments regarding this submittal.

SPALDING DEDECKER ASSOCIATES, INC.

Jeremy Schrot, PE
Director of Public Engineering

OPINION OF PROBABLE CONSTRUCTION COST

For: Pre-Design Conceptual Estimate

PROJECT NAME: Wixom Road Sanitary Sewer Upgrade, North of 11 Mile Road
 CLIENT NAME: CITY OF NOVI
 PREPARED BY: STI
 REVISED BY: JJS

PROJECT NO: PR19-013/NV19-004
 DATE: 1-Apr-20
 DATE: 17-Nov-20

NO.	ITEM	QUANTITY	UNIT	UNIT PRICE	TOTAL AMOUNT
1	Bonds, Insurance and Mobilization (10% Max)	1	LS	\$ 42,000.00	\$ 42,000.00
2	Pre-Construction Audio-Visual	1	LS	\$ 3,000.00	\$ 3,000.00
3	Soil Erosion Control Measures	1	LS	\$ 5,000.00	\$ 5,000.00
4	Temporary Traffic Control Devices	1	LS	\$ 20,000.00	\$ 20,000.00
5	12" DI Forcemain	130	FT	\$ 140.00	\$ 18,200.00
6	21" Sanitary Sewer PVC Truss (for N. of 11 Mile Road)	1,110	LF	\$ 200.00	\$ 222,000.00
7	21" Sanitary Sewer PVC Truss - Jack & Bore (for N. of 11 Mile Road)	90	LF	\$ 500.00	\$ 45,000.00
8	Sanitary Sewer Tap, 21"	15	EA	\$ 1,500.00	\$ 22,500.00
9	Remove Existing Sanitary Sewer	1,200	LF	\$ 15.00	\$ 18,000.00
10	Remove & Replace Existing 8' Wide Asphalt Pathway	400	LF	\$ 75.00	\$ 30,000.00
11	Restoration	1	LS	\$ 25,000.00	\$ 25,000.00
12	Permit Allowance	1	DLR	\$ 500.00	\$ 500.00
Construction Subtotal - Sanitary Section F-1					\$ 451,200.00

1	Bonds, Insurance and Mobilization (10% Max)	1	LS	\$ 50,000.00	\$ 50,000.00
2	Pre-Construction Audio-Visual	1	LS	\$ 3,000.00	\$ 3,000.00
3	Soil Erosion Control Measures	1	LS	\$ 5,000.00	\$ 5,000.00
4	Temporary Traffic Control Devices	1	LS	\$ 15,000.00	\$ 15,000.00
5	15" Sanitary Sewer PVC Truss (for S. of 11 Mile Road)	1,515	LF	\$ 135.00	\$ 204,525.00
6	15" Sanitary Sewer PVC Truss - Jack & Bore (for S. of 11 Mile Road)	70	LF	\$ 400.00	\$ 28,000.00
7	Sanitary Sewer Tap, 15"	16	EA	\$ 1,500.00	\$ 24,000.00
8	Remove Existing Sanitary Sewer	1,585	LF	\$ 15.00	\$ 23,775.00
9	Sanitary Sewer Service Lead Re-Connection	12	EA	\$ 2,000.00	\$ 24,000.00
10	Remove & Replace Existing 8' Wide Asphalt Pathway	1,200	LF	\$ 75.00	\$ 90,000.00
11	Remove & Replace Existing Drive Approach, Concrete	250	SY	\$ 75.00	\$ 18,750.00
12	Remove & Replace Existing Drive Approach, Asphalt	100	SY	\$ 60.00	\$ 6,000.00
13	Restoration	1	LS	\$ 25,000.00	\$ 25,000.00
14	Permit Allowance	1	DLR	\$ 500.00	\$ 500.00
Construction Subtotal - Sanitary Section E-1					\$ 517,550.00

				Construction Subtotal:	\$ 968,750.00
				Design Engineering:	8.50% \$ 82,400.00
				Contingency:	20% \$ 193,800.00
				Construction Total:	\$ 1,244,950.00
				(Crew Days at \$700/Day):	45 \$ 31,500.00
				Contract Administration:	5.50% \$ 68,500.00
				Material Testing:	2.5% \$ 31,200.00
				Permitting:	\$ 500.00
				Geotechnical Investigation	\$ 5,500.00
OPINION OF PROBABLE CONSTRUCTION COST					Total Estimated Project Cost: \$ 1,382,150.00

In providing opinions of probable construction cost, the Client understands that the Consultant has no control over the cost or availability of labor, equipment or materials, or over market conditions or the Contractor's method of pricing, and that the Consultant's opinions of probable construction costs are made on the basis of the Consultant's professional judgement and experience. The Consultant makes no warranty, express or implied, that the bids or the negotiated cost of the Work will not vary from the Consultant's opinion of probable construction cost.