



Legislation Text

File #: 22-0414, Version: 1

CITY COUNCIL AGENDA ITEM

ACTION REQUESTED:

Approve the award of Bid 22-012, 2022 Sanitary Sewer Smoke Testing - Tributaries of North Wastewater Pump Station, to RJN Group Inc. for an amount not to exceed \$249,190.02, plus a 5% contingency

DEPARTMENT: Water Utilities

SUBMITTED BY: Darrell Blenniss, Director

BOARD/COMMISSION REVIEW:

N/A

BACKGROUND:

The objective of the smoke testing program is to identify defects in the sanitary sewer system. Smoke testing is a relatively simple process consisting of blowing smoke mixed with large volumes of air into the sanitary sewer lines, usually induced through the manholes. The smoke travels the path of least resistance and quickly shows in areas that allow surface water to inflow into the sanitary sewer system. The smoke will identify broken manholes and improper connections, including roof drains, sump pumps, storm sewer connections, yard drains, uncapped lateral lines and even will show cracked mains and laterals. If the pipeline has openings leading to the surface or a storm sewer, the smoke will follow the pathway and be visible at ground level. This program is part of Naperville's ongoing effort to identify sources of rainfall-derived infiltration and inflow (RDII) in areas experiencing elevated flow during wet weather events.

In March 2022, the Water Utilities issued Bid 22-012 seeking a qualified contractor to provide smoke testing of approximately 153,821 linear feet of existing 6-48-inch diameter sanitary sewer pipelines.

DISCUSSION:

The areas targeted for the project are West Highlands, Moser Highlands, Maplebrook, Hunters Woods, University Heights and Naper Carriage Hill subdivisions. The sanitary sewer smoke testing program is part of the Water Utilities IEPA required 10-year infiltration and inflow reduction program.

Advertisement Date:	03/22/2022	Notices Sent:	21
Bid Opening Date:	04/07/2022	Planholders:	12
		Bid Received:	1

Bid were received from the following vendors:

Firm Name	Unit Price	Bid Amount
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RJN Group, Inc.	\$1.62	\$249,190.02
Engineers Estimate		\$250,000

Staff contacted two planholders who did not submit bid responses, Robinson Engineering and Burns & McDonnell Engineering Company. Robinson Engineering stated that they are extremely busy this upcoming season and all the firm's smoke blowers and equipment are set up for liquid smoke, and not the candles which are required for this project. The Water Utilities use candles instead of liquid because smoke candles produce a notably denser smoke than that produced by liquid smoke. Dense smoke is more visible and therefore more effective at revealing defects. In addition, because liquid smoke is a petroleum-based oil, Water Utilities had issues in the past with liquid smoke leaving behind an oily residue in residents' homes.

Burns & McDonnell Engineering Company, Inc stated that their estimator has been working out of their Louisiana office and is not responding currently to Illinois bids due to local crews being fully contracted through 2022.

Staff has worked with RJN Group in the past and their work has been satisfactory. The completion date of this contract is October 31, 2022.

FISCAL IMPACT:

CIP: N/A

Smoke testing is expensed to the Architect and Engineering Services account listed below. A total of \$500,000 is budgeted for sewer system evaluations in 2022.

Account Number	Fund Description	Total Budget Amount
41251520-531301	Water & Wastewater	\$650,000

Per Council directive, contingency on construction projects is set at 3% on projects over \$500,000 and 5% on projects under \$500,000.