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SANITARY SEWER REHABILITATION - CONSULTANT SELECTION PROJECT NUMBER 78520 (EI08019) TOWNS OF AURORA, NEWMARKET AND RICHMOND HILL

The Environmental Services Committee recommends the adoption of the recommendations contained in the following report dated March 23, 2010, from the Commissioner of Environmental Services.

1. RECOMMENDATIONS

It is recommended that:

1. AECOM Canada Ltd be engaged to undertake the Detailed Design, Contract Administration and Site Inspection for the Aurora and Newmarket Sanitary Sewer Rehabilitation project, as outlined in this report, at an upset limit fee of \$638,798.80 excluding GST. The upset limit fee includes:
 - a) \$416,179.90 for detailed design and engineering services during construction.
 - b) \$222,618.90 for contract administration and site inspection services, based on 36 weeks construction duration estimated by staff.
2. The Commissioner of Environmental Services be authorized to adjust the contract administration and site inspection fees using the competitive unit price of \$6183.86 per week excluding GST and using the construction duration stipulated in the tender documents.

2. PURPOSE

This Report seeks Council authorization to retain engineering consultant services related to the Detailed Design, Contract Administration and Site Inspection for the Aurora and Newmarket Sanitary Sewer Rehabilitation Project. Location maps are appended to this Report (*see Attachment 1 and Attachment 2*). The Region's Purchasing By-law requires Council authorization to award Request for Proposals (RFP) over \$500,000 or when the recommended proponent is not the lowest bidder.

3. BACKGROUND

Need to rehabilitate sanitary sewer sections for structure reliability

York Region uses a three-phased approach to the management of regional water and wastewater infrastructure including the York Durham Sanitary Sewer (YDSS). The first

phase of the program involves an analysis of available data (i.e. location, age, past inspections, etc.) to determine potential risk areas in our water and wastewater infrastructure. The second phase of the program is the preliminary inspection of risk areas using Closed Circuit Television (CCTV) and visual inspections to establish actual sewer conditions. The third phase involves the detailed condition assessment of areas of concern in the infrastructure to determine mitigating capital project requirements.

Through the Infrastructure Improvement Program (IIP) the detailed condition assessment of the Aurora and Newmarket YDSS sanitary sewer was completed in September 2009. These sections of sanitary sewer were constructed in between 1980 to 1982. Heavy corrosion was found in some sections of sanitary sewer during condition assessment. The condition assessment report has recommended immediate action to rehabilitate the sanitary sewer sections:

- from MH 75-10 to MH 36-01 (approximately 950 meter of 1050mm diameter) located within the St. Andrew's Golf Course (golf course) in the Town of Newmarket and in the Town of Aurora (*See Attachment 1*).
- from MH 9934-03A to MH 9934-01A (approximately 250 meters of 1050mm diameter) on Bloomington Road east of Yonge Street (*See Attachment 2*).
- from MH 42-07 to MH 53-05 (approximately 820 meters of 1200mm) on Yonge Street in the Town of Richmond Hill (*See Attachment 2*).

The recommended rehabilitation strategy is to apply epoxy structural Cure-In-Place Pipe (CIPP) liner (trenchless technology) to operate the sewer with a high degree of structural reliability and extend the service life of sewers. This rehabilitation strategy also supports the reduction of inflow and infiltration within these sections of the YDSS.

4. ANALYSIS AND OPTIONS

Four engineering consulting firms responded to the Request for Proposal

In accordance with the Region's Purchasing By-law, engineering firms were invited to submit proposals for the assignment. The following four firms submitted proposals:

- AECOM Canada Ltd.
- CH2M HILL Canada Limited
- Conestoga-Rovers & Associates (CRA)
- GENIVAR Consultants LP

The Request for Proposal detailed the scope of work required, which included the following services:

- Project management, planning and control
- Detailed design
- Procurement of approvals
- Tender and award
- Construction contract administration including site inspection
- Quality assurance and quality control

Proposals were evaluated using the two-envelope system

Proposals were evaluated using the two-envelope system with technical and financial information submitted in separate envelopes. Technical proposals were evaluated prior to any knowledge of financial information. Content of technical proposals was weighted at 80%.

The Region's proposal evaluation team reviewed the four technical management proposals based on the following criteria:

- Corporate experience, sewer rehabilitation and CIPP lining design engineering experience of the firm.
- Project manager and proposed key staff experience for similar projects.
- Proposed technical support staff experience for similar projects.
- Project understanding and ability to deliver the project.
- Staff training and skills upgrade policy of the firm.
- Sub-consultants' experience.
- Project management, implementation and in-house resources.
- Professional designations.
- Innovative concepts presented by the proponent.
- Other miscellaneous issues.
- References

The financial evaluation composed the remaining 20% of the total evaluation. To be considered for award, proponents must achieve a minimum technical score of 60% (48 points) out of the potential 80 points allocated to technical merit. GENIVAR Consultants LP did not have their financial envelopes opened as they did not achieve the minimum score of 48 points on their technical proposal. Technical and financial results are summarized in Table 1 below:

Table 1
Consultant Proposal Evaluation Summary

Consultant	Technical Score (Out of 80)	Financial Score (Out of 20)	Total Score	Cost per Technical Point	Total Fee (Excluding GST)
AECOM	61.8	18.2	80.0	\$10,336.55	\$638,798.80
CH2M Hill	64.5	17.1	81.6	\$10,553.89	\$680,198.00
CRA	48.7	20.0	68.7	N/A	\$581,627.00
GENIVAR	42.7	N/A	N/A	N/A	N/A

Evaluation summary revealed AECOM Canada Ltd. as highest ranked proponent

When two or more bidders are within five points of the highest overall score, a dollar cost per technical point methodology is applied to determine the winning bidder. In this case the proponent with the second highest total score (80) and lowest cost per technical point score was AECOM Canada Ltd. Their proposal represents the best overall value to the Region.

Supplies and Services Branch has reviewed the evaluation summary and has issued their internal report confirming AECOM Canada Ltd. be recommended as the successful overall proponent for Engineering Services for the Aurora and Newmarket Sanitary Sewer Rehabilitation project under Request for Proposal P-10-36.

5. FINANCIAL IMPLICATIONS

The upset limit cost included in the highest rated proposal is \$638,798.80 excluding GST. The approved 2010 capital program includes a total project budget of \$5.0 million for this project. For this assignment, the engineering fee is 12.77% of the construction cost estimate, which is within the range for this type of rehabilitation project.

Payment for engineering services during construction is based on construction contract duration. Based on the condition assessment report and preliminary design, an allowance for contract administration and site inspection services of 180 working days (36 weeks) is included within the financial proposal. The proposal includes unit prices for contract administration and site inspection, in this case \$6183.86 per week, which staff deem adequate for this type of project.

Actual construction duration will be determined upon completion of detailed design and construction staging and may vary from the estimated hours that were quoted on by all parties in the Request for Proposal. The construction administration and site inspection fees may need to be adjusted based on competitive pricing to match the updated

construction duration at the tendering stage for the contract. It is recommended that the Commissioner of Environmental Services be authorized to amend the contract to reflect these changes.

6. LOCAL MUNICIPAL IMPACT

The Aurora and Newmarket sanitary sewers are integral components of the YDSS conveying sanitary flows from Towns of Aurora, Newmarket and Richmond Hill. Rehabilitation of sanitary sewer sections will restore structure integrity and enhance the reliability of the sewer in the Towns of Aurora, Newmarket and Richmond Hill. In addition, it will also benefit the inflow and infiltration reduction.

7. CONCLUSION

Implementation of the Aurora and Newmarket Sanitary Sewer Rehabilitation Project will restore structural reliability against corrosion, extend the service life and improve the performance of sewer.

Consultants' proposals were evaluated in accordance with the Region's Purchasing By-law. The proposal from AECOM Canada Ltd. represents the best overall value to the Region and it is recommended that the project assignment be awarded to AECOM Canada Ltd. at the upset limit cost of \$638,798.80, excluding GST.

For more information on this report, please contact Daniel Kostopoulos, Director, Capital Planning and Delivery, Environmental Services at extension 5070.

The Senior Management Group has reviewed this report.

(The two attachments referred to in this clause are attached to this report.)



LOCATION PLAN

Aurora and Newmarket Sanitary Sewer Rehabilitation –
Consultant Selection Project Number 78520 (EI08019)

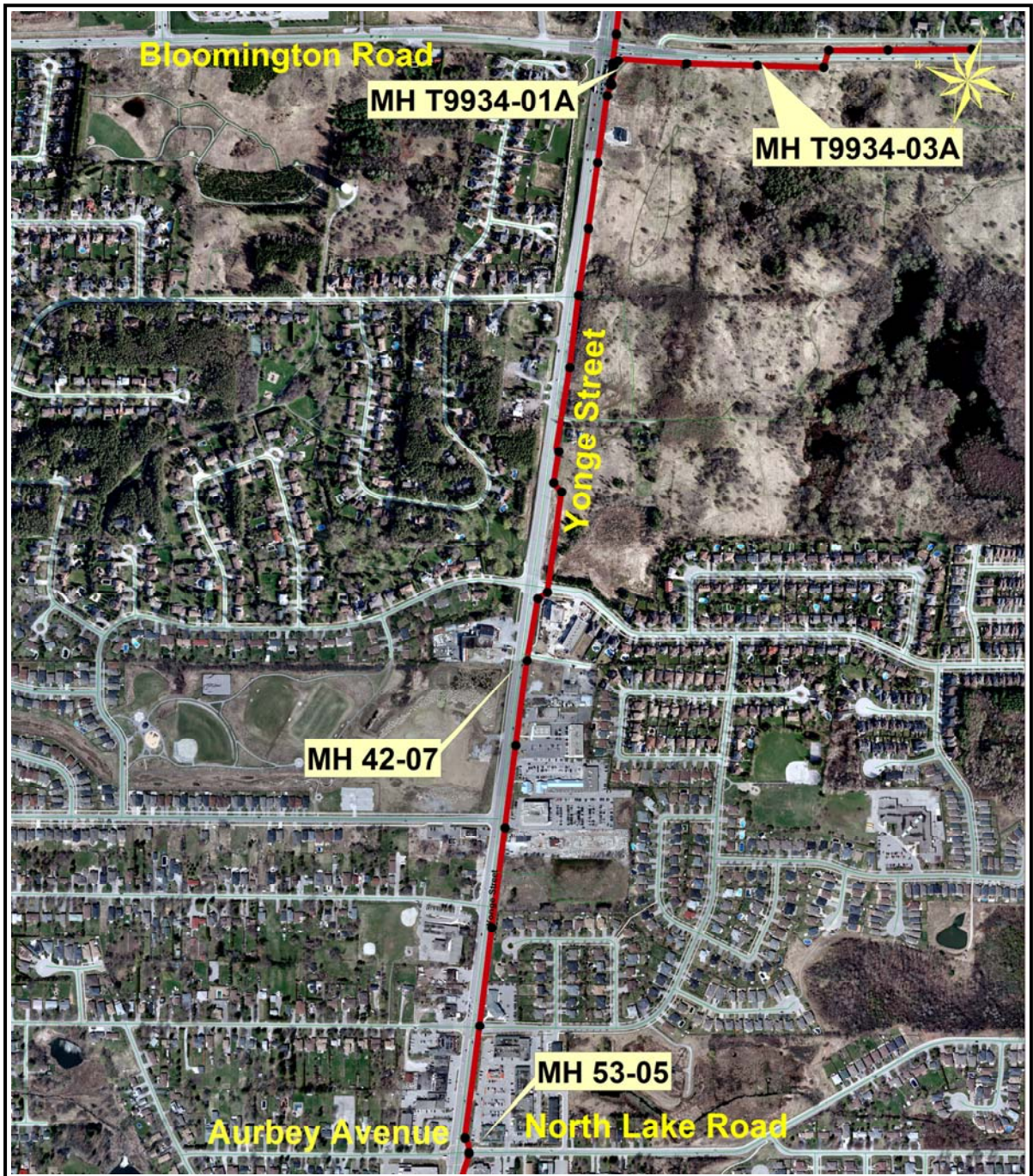
(Rehabilitation Section from MH75-10 to MH36-01)

0 20 40 80 120 160
Meters



Environmental Services

eDOCS # 1623446



LOCATION PLAN

Aurora and Newmarket Sanitary Sewer Rehabilitation –
Consultant Selection Project Number 78520 (EI08019)

(Rehabilitation Section from MH 42-07 to MH 53-05 and MH T9934-03A to MH T9934-01A)



Environmental Services

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