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CONSULTANT SELECTION FOR DETAILED DESIGN, CONTRACT ADMINISTRATION AND SITE INSPECTION FOR WEST RICHMOND HILL PUMPING STATION AND WATERMAINS, PROJECT 75400

The Environmental Services Committee recommends the adoption of the recommendations contained in the following report dated December 16, 2011, from the Commissioner of Environmental Services.

1. RECOMMENDATIONS

It is recommended that:

1. GHD Inc. be engaged to undertake detailed design, contract administration and site inspection for the West Richmond Hill Pumping Station and Watermains as outlined in this report, at a fee of \$2,656,607 excluding taxes. The fee includes:
 - a) \$1,815,007 for detail design and engineering services.
 - b) \$841,600 for contract administration and site inspection services, based on an estimated 132-week construction duration.
2. The Commissioner of Environmental Services be authorized to adjust the contract administration and site inspection fees using the competitive unit price of \$6,375.76 per week, excluding taxes, once the updated construction duration is determined and specified in the tender documents, within the Total Project Budget Authority.
3. Council authorize an update to Total Project Budget Authority for the West Richmond Hill Pumping Station and Watermains project from \$1,250,000 to \$2,950,000 based on the submitted bid for detailed design, contract administration and site inspection services, plus a reasonable amount for contingencies, within the approved total project budget of \$33,990,000.

2. PURPOSE

This report seeks Council authorization to retain engineering consulting services related to detailed design, contract administration and site inspection for the West Richmond Hill Pumping Station and Watermains in the Town of Richmond Hill and the City of Vaughan. A location plan is appended to this report (*see Attachment 1*).

The Region's Purchasing By-law requires Council authorization to award a Request for Proposal (RFP) over \$500,000 or when the recommended proponent does not have the

lowest cost. In this case, the recommended proponent submitted the lowest responsive bid; however, their bid is greater than \$500,000.

3. BACKGROUND

Water Master Plan Update identified the need for a new Pressure District 8 Pumping Station

The need for the West Richmond Hill Pumping Station was identified in the 2009 Long Term Water Master Plan Update as one of the priority water projects. As part of the need and justification analysis, as well as the detailed design of the pumping station, a reduced per capita water consumption rate based on water conservation forecasts will be used. The proposed West Richmond Hill Pumping Station is intended to pump water from Pressure District 6 to Pressure District 7 and Pressure District 8. This project is a critical capacity trigger project for growth in the service area as outlined in the quarterly critical infrastructure status update reports provided to Environmental Service Committee.

Class Environmental Assessment Study identified the preferred solution for the additional water supply capacity infrastructure

A Municipal Class Environmental Assessment Study has been completed and has identified the preferred West Richmond Hill Pumping Station location and associated watermain routes (*see Attachment 1*). The study was conducted in accordance with Schedule B of the Municipal Class Environmental Assessment (October 2000, as amended in 2007) with *the Ontario Environmental Assessment Act*. A Public Consultation Session was held on August 11, 2011 and input from the public and review agencies was received and incorporated into this assessment. A Project File was prepared and placed on public record for review for a period of 30 calendar days from on October 13, 2011 through November 14, 2011. No Part II Order requests were received.

The proposed West Richmond Hill Pumping Station will accommodate increasing demand within the water supply systems and allow for future decommissioning of the North Richmond Hill Pumping Station

The proposed West Richmond Hill Pumping Station is to be located on the same site as the existing South Richmond Hill Reservoir and will provide the following benefits:

- Alleviate demand on, and provide additional capacity and security for the water supply systems.
- Allow for the future decommissioning of the existing North Richmond Hill pumping station which has a history of operational challenges and capacity limitations.

Proposed watermains required to transmit the additional capacity being provided by the proposed West Richmond Hill Pumping Station

The associated watermains proposed as part of this project will be required to transmit water from Yonge Street to the existing South Richmond Hill Reservoir, then from West Richmond Hill Pumping Station north along Bathurst Street. The proposed watermains will have the following benefits:

- Address increasing demands and improve security of supply for Pressure District 6 through addition of a new watermain to provide additional water supply to the South Richmond Hill Reservoir.
- Increase water supply capacity for Pressure District 7 and Pressure District 8 through the addition of a new watermain to transmit the supply provided by the proposed West Richmond Hill Pumping Station.

4. ANALYSIS AND OPTIONS

Request for Proposal P-11-110 issued to five pre-qualified consulting engineering firms

In accordance with the Region's Purchasing By-law, a Request for Qualification P-11-43 for detailed design, contract administration and site inspection for the West Richmond Hill Pumping Station and Watermains project was advertised in the *Daily Commercial News* and electronically on *Biddingo.com*.

Based on the information provided in the formal responses to the Request for Qualification P-11-43, the following five firms were invited to submit a proposal in response to Request for Proposal P-11-110.

- CH2M HILL Canada Limited
- Cole Engineering Group Ltd.
- Black & Veatch Canada Company
- GHD Inc.
- The Municipal Infrastructure Group Ltd.

Request for Proposal P-11-110 detailed the scope of work required, which included the following services:

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

Proposals evaluated using the two-envelope system

Proposals were evaluated using the two-envelope system with technical and financial information submitted in two separate envelopes. The overall proposal score was evaluated based on a weighting of 80 points for the technical proposal and 20 points for the financial proposal. Technical proposals were evaluated prior to any knowledge of financial information.

The Region's proposal evaluation team reviewed the five technical proposals based on the following criteria as listed in Request for Proposal P-11-110:

Project Team Experience:

- Stability and reputation with the Region and/or other clients
- Project Manager(s) and key staff experience
- Technical support staff experience
- Staff training
- Sub consultant's experience
- References

Project Implementation:

- Completeness and comprehensiveness of the proposal
- Understanding of the project and services to be provided
- Viability of the approach methodology
- Understanding the deliverables to be provided
- Project management approach
- Implementation of QA/QC process and its deliverables
- Approach to Health and Safety
- Value added services and innovative concepts
- Other miscellaneous items

Technical components of the proposal must achieve a minimum technical score of 60 per cent (48 points out of the potential 80 points) to have the financial portion of the proposal considered. If a proponent does not achieve this minimum technical score, their financial proposal is returned unopened. Technical and financial results are summarized in Table 1.

Table 1
Consultant Proposal Evaluation Summary

Consulting Engineering Firm	Technical Score (out of 80)	Total Fee (\$) (excluding taxes)	Financial Score (out of 20)	Total Score (out of 100)	Cost Per Technical Point (\$)
GHD Inc.	60.25	2,656,607.00	20.00	80.25	44,093.06
The Municipal Infrastructure Group Ltd.	63.70	3,392,574.00	15.66	79.36	53,258.62
Cole Engineering Group Ltd.	62.25	3,508,361.20	15.14	77.39	56,359.22
CH2M HILL Canada Limited	58.65	2,985,008.00	17.80	76.45	50,895.28
Black & Veatch Canada Company	53.80	5,425,762.00	9.79	63.59	N/A

Evaluation of proposals revealed GHD Inc. achieving highest total score and lowest price per technical score

The firm with the highest total score is GHD Inc. Given that the total score achieved by firms other than GHD Inc. were within five (5) points of the highest total score, a “dollar cost methodology” calculation was completed, as required by the Purchasing By-law. Results of this calculation, as shown in Table 1, determined that the proposal submitted by GHD Inc. represents the best overall value to the Region.

Link to key Council-approved Plans

The proposed West Richmond Hill Pumping Station is a priority project and will be a critical component of the Region’s water infrastructure. This project aligns with the Region’s 2011 to 2015 Strategic Planning objective of continuing to deliver and sustain critical infrastructure.

5. FINANCIAL IMPLICATIONS

The fee for the proposed work is \$2,656,607 excluding taxes. The proposed 2012 Capital Budget identifies a Total Project Budget Authority for this project of \$1,250,000 with a forecasted total project cost of \$33,990,000. Accordingly, this report also seeks approval of an update in the Total Project Budget Authority for this project to \$2,950,000 based on the submitted bid for detailed design, contract administration and site inspections services, plus a reasonable amount for contingencies.

The original Total Project Budget Authority was established based on limited information available prior to completion of the project's environmental assessment study. The submitted bid is based on more detailed information provided in the completed environmental assessment study documentation. The requested increase in Total Project Budget Authority is within the total project budget of \$33,990,000. Also, the requested increased engineering design and construction review budget represents approximately 8.7 per cent of the total project budget which is well within reasonable limits for these types of services.

Fees for the proposed work include detailed design contract administration and site inspection for an estimated duration of construction of 132 weeks. Based on the competitive prices within the financial proposal submitted by GHD Inc., this equates to a prorated value of \$6,375.76 for each week of construction. This value will be used to calculate either the increase or decrease in the fee, as the case may be, to account for the actual duration of construction.

Should the actual duration of construction increase, as determined by the detailed design and specified in the tender documents, it is recommended that the Commissioner of Environmental Services be authorized to adjust the fee accordingly by the amount of \$6,375.76 per week excluding taxes.

6. LOCAL MUNICIPAL IMPACT

This project is a critical capacity trigger project for growth in the service area as outlined in the quarterly critical infrastructure status update. This project will provide adequate capacity to accommodate approved growth in the Towns of Richmond Hill and Markham and the City of Vaughan as recommended in the 2009 Long Term Water Master Plan Update. This project will also result in improvements to the overall water collection system security, integrity and reliability.

7. CONCLUSION

Five proposals from engineering consultants were received and evaluated for this project in accordance with the Region's Purchasing By-law. The proposal from GHD Inc. represents the best overall value to the Region and it is recommended that GHD Inc. be engaged to undertake the detailed design, contract administration and site inspection for the West Richmond Hill Pumping Station and Watermains at a cost of \$2,656,607 excluding taxes.

For more information on this report, please contact Daniel Kostopoulos, Director, Capital Planning and Delivery, Environmental Services at 905-830-4444 Ext. 5070.

The Senior Management Group has reviewed this report.

(The attachment referred to in this clause is attached to this report.)

