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TO:	CHAIR AND MEMBERS CIVIC WORKS COMMITTEE MEETING ON MARCH 23, 2015
FROM:	JOHN BRAAM, P. ENG. MANAGING DIRECTOR, ENVIRONMENTAL AND ENGINEERING SERVICES AND CITY ENGINEER
SUBJECT:	CONTRACT AWARD: TENDER NO. 15-06 Highbury Avenue Bridge Rehabilitation over CN Rail

RECOMMENDATION

That, on the recommendation of the Managing Director, Environmental & Engineering Services and City Engineer, the following actions **BE TAKEN** with respect to the award of a contract for the Highbury Avenue over CN Rail Bridge Rehabilitation:

- (a) the bid submitted by Clearwater Structures Inc., at its submitted tendered price of \$3,220,081.95 (excluding H.S.T.), for the project **BE ACCEPTED**; it being noted that the bid submitted by Clearwater Structures Inc. was the lowest of seven (7) bids received and meets the City's specifications and requirements in all areas;
- (b) Stantec Consulting Ltd., **BE AUTHORIZED** to carry out the resident inspection and contract administration of the said project in the amount of \$321,614.70 (excluding H.S.T.), in accordance with Section 15.2 (g) of the Procurement of Goods and Services Policy;
- (c) the financing for this project **BE APPROVED** as set out in the Sources of Financing Report attached hereto as Appendix "A";
- (d) the Civic Administration **BE AUTHORIZED** to undertake all the administrative acts that are necessary in connection with this project;
- (e) the approval given herein **BE CONDITIONAL** upon the Corporation entering into a formal contract for the material to be supplied and the work to be done relating to this project (Tender 15-06); and,
- (f) the Mayor and City Clerk **BE AUTHORIZED** to execute any contract or other documents, if required, to give effect to these recommendations.

PREVIOUS REPORTS PERTINENT TO THIS MATTER
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- August 19, 2013 – Civic Works Committee, Appointment of Consulting Engineer, Highbury Avenue over CN Rail Bridge (4-BR-09) Rehabilitation, Detailed Design & Tendering.

BACKGROUND

Purpose

This report recommends award of a construction tender to a contractor and continuation of engineering consulting services for the Highbury Avenue Bridge Rehabilitation over CN Rail Project.

Context

The Highbury Avenue over CN Rail Bridge (4-BR-09) is located between Brydges Street and Trafalgar Street in east London. Constructed in 1963, it is a six (6) span concrete slab structure approximately ninety-three metres (93 m) long. This structure carries four (4) lanes, (two lanes of traffic both north and southbound) over Oakland Avenue at the north end, multiple CN Rail tracks, and an access road at the south end.

The 1962 Federal Board Order related to the construction of the overpass obligates the City to undertake the structure maintenance such as the work identified in this tender. This is a typical arrangement for railway overpasses.

The 2011 Structure Inventory Inspection program identified this structure as requiring major repairs. Various bridge elements were found to be in fair to poor condition including the abutments, wingwalls, piers, deck, deck joints, median, sidewalks and the bridge barrier system. Contract design was completed last year (2014), but due to budgetary constraints in the bridge life cycle renewal account, this project tender was delayed until 2015.

Rehabilitation of this important structure contributes to a sustainable transportation system by managing the transportation infrastructure gap and maintaining the integrity of this important community and economic transportation corridor.

DISCUSSION

Contract Design and Preparation

The Highbury Avenue over CN Rail Bridge provides an important corridor link in east London with an average annual daily traffic of approximately 50,000, of which roughly 10% is trucks.

Originally constructed in 1963, this structure has only had basic maintenance over the past 52 years. The structure has shown progressive deterioration over the recent years, with chunks of concrete falling to the ground below and damage to the existing railings through vehicle impacts. The 2012 Preliminary Structural Design Report identified that the abutments, wingwalls and piers show severe disintegration, delamination and spalling, with some of the piers having exposed corroded reinforcing steel in several locations and numerous corrosion stains. There is medium to severe delaminations and spalling along the fascia and soffit of the sidewalk overhang, with exposed reinforcing steel. The existing aluminum railing system has several locations of impact damage to the pickets, and the concrete post at the northwest corner is also loose due to impact.

Agenda Item #	Page #

The rehabilitation of this structure will address the deck, expansion joints, abutments, piers, wingwalls, approaches, substructure, and bearing repairs, along with improvements to the barrier system, sidewalk, curbing, bridge lighting and embedded services within the structure. Investing in the proposed work will extend the life of this structure for approximately another 25 to 30 years.

The tendered work program includes:

- Replacement of expansion joints with new;
- Repairs to the concrete deck and place new concrete overlay;
- Waterproof and re-pave the bridge deck;
- Construction of new median, sidewalk and railing system;
- Bearing replacement; and
- Repair of substructure elements including pier columns, pier caps and abutments.

Completion of this work program is expected to be completed in the fall.

In addition to the bridge rehabilitation work, traffic signal upgrades at the intersection of Brydges Street and Highbury Avenue, along with upgrades to the street lighting north and south of the bridge will be completed at the same time in order to take advantage of the traffic control and reduce the disruption to the public.

Impacts to Traffic

The nature of the repair works will require that two of the four lanes of the bridge be closed to all pedestrian and vehicle traffic while that portion of the bridge is being worked on. The north and south bound lanes of traffic will be reduced to one lane in each direction and will be routed over the east or west side of the bridge depending on the work program of the contractor. The project is anticipated to extend from approximately April to October. This work is expected to cause significant delays for traffic on Highbury Avenue during peak hours and advance signage is planned to inform road users.

Every effort is being made to ensure Londoners are aware of construction zones and traffic detours resulting from road work. Daily updates are provided through the City's website, www.london.ca/construction with information about road closures, ongoing and upcoming projects on city streets.

CN Rail Corridor

The City has coordinated with CN Rail and the railway has provided approval. The required railway flagging has been identified and scheduled in order to minimize the flagging required, and ensure availability of flagpersons from CN Rail.

It will be necessary to ensure no debris falls on the rail lines below as a result of the works being completed on the structure. As well, worker safety in and around the active rail corridor will be paramount. All necessary requirements for protection of the track, train cars, workers, etc. will be in accordance with all CN Rail safety requirements.

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London Transit Commission (LTC) Access

Southbound LTC access to their Highbury Avenue facility is typically via Brydges Street, and Oakland Ave underneath this Highbury Avenue bridge. LTC has been consulted and the need for access identified. Work in this area will maintain LTC access under the bridge to their facility at all times.

Other Public Access to Adjacent Lands

Access to the other businesses adjacent to the site will be maintained throughout construction. Private access to the residences north and south of the bridge will not be impacted by the construction itself, but may be impacted by the traffic delays caused by the work.

It will be necessary to close the sidewalk on each side of the bridge when work on that side is being completed. Advance sidewalk closed signs will be positioned at Brydges Street and Trafalgar Street to provide safe locations for pedestrians to cross to the other sidewalk.

Contractor's Laydown Area

With two lanes of Highbury Avenue closed over the bridge while the rehabilitation work is being completed, and traffic routed over the other half of the bridge, the Contractor's lay down area will be on the ROW and approaches to the existing structure. Any areas disturbed by the need to access locations to complete the work will be restored.

Tender Summary

Tenders for the Highbury Avenue over CN Rail Bridge Rehabilitation Project were opened on Wednesday, February 11 2015. Seven (7) contractors submitted tenders prices as listed below (excluding H.S.T.).

CONTRACTOR		TENDER PRICE SUBMITTED (\$)	CORRECTED TENDER PRICE (\$)
1.	Clearwater Structures Inc.	3,220,081.95	--
2.	McLean Taylor Construction Limited	3,233,377.59	--
3.	Hayman Construction	3,290,138.00	3,290,137.16
4.	Innovative Civil Constructors Inc	3,387,226.00	--
5.	Horseshoe Hill Construction Inc.	3,930,728.50	--
5.	Facca Incorporated	4,752,000.00	4,722,250.00
6.	Toronto Zenith Contracting Ltd.	rejected	rejected

All tenders have been checked by the Environmental and Engineering Services Department and Stantec Consulting Ltd. The review confirmed that the tenders submitted by Hayman Construction and Facca Incorporated contained calculation errors

Agenda Item #	Page #

resulting in a revised Total Contract Price as noted above. Furthermore, the bid submitted by Toronto Zenith Contracting Ltd. was rejected in accordance with Procurement of Goods and Services Policy, Schedule “C” – Irregularities Contained in Bids. All other tenders submitted were free from errors.

The tender estimate prior to tender opening was \$3,831,858 (excluding H.S.T.).

There are no anticipated additional annual operating costs to the Environmental and Engineering Services associated with the approval of this tender.

Consulting Services

Stantec Consulting Ltd. has completed the preliminary and detailed design for this rehabilitation project. Due to the consultant’s knowledge and experience with this project, Stantec was requested to submit a proposal to carry out the contract administration and resident supervision for this project.

In 2013, Stantec was initially selected from four consulting firms who submitted competitive proposals for this project. Based on the evaluation criteria and selection process, the evaluation committee concluded the proposal from Stantec Consulting Ltd provided the best value to the City. In accordance with Section 15.2 (d) of the Procurement of Goods and Services Policy, Civic Administration appointed Stantec Consulting Ltd. as the consulting engineer for the detailed design and tendering of the project.

In accordance with Section 15.2 (g) of the Procurement of Goods and Services Policy, Civic Administration is recommending Stantec Consulting Ltd. be authorized to carry out the remainder of engineering services to complete this project for an upset fee estimate of \$321,614.70 (excluding H.S.T.). The City’s requirement for the creation of record drawings following construction necessitates the reviewing engineer seal them on the basis of field verification and ongoing involvement. Consequently, the continued use of Stantec who created and sealed the design is required to not violate the City practice of Professional Engineers sealing record drawings. The continued use of Stantec on this project is also of financial advantage to the City due to the fact that they have specific knowledge of the project, and they have undertaken work for which duplication would be required if another firm were to be selected.

CONCLUSION

Civic Administration has reviewed the tender bids and recommends Clearwater Structures Inc. be awarded the contract for the Highbury Ave over CN Rail Bridge Rehabilitation Project.

Stantec Consulting Ltd. has demonstrated an understanding of the City requirements for this project, and it is recommended this firm continue as the consulting engineer for the purpose of contract administration as it is to the best financial and technical interests of the City.

Funding for this project primarily comes from the Bridge Major Upgrades (TS1763-14 & TS1763-15), Streetlights & Electrical (TS5123-15) and Traffic Signals Accounts (TS4067-15 & TS5123-15).

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Acknowledgements

This report was prepared with assistance from Jane Fullick, C.E.T., Technologist II, Max Kireev, C.E.T., Technologist II and Karl Grabowski, P. Eng., Transportation Design Engineer, all of the Transportation Planning and Design Division.

SUBMITTED BY:	REVIEWED & CONCURRED BY:
DOUG MACRAE, P.ENG. DIVISION MANAGER, TRANSPORTATION PLANNING & DESIGN	EDWARD SOLDI, P.ENG. DIRECTOR, ROADS AND TRANSPORTATION
RECOMMENDED BY:	
JOHN BRAAM, P.ENG. MANAGING DIRECTOR, ENVIRONMENTAL & ENGINEERING SERVICES & CITY ENGINEER	

KPG/jef

Attach: Appendix "A" – Source of Financing

- c. M. Ciceri, Clearwater Structures Inc., 397 Frankcom St., Ajax, ON L1S 1R4
- I. Bartlett, Stantec Consulting Ltd. 171 Queens Ave., Suite 600, London ON N6A 5J7
- P. Shack, Engineering Administration