

AGENDA ITEM NO:

15-2(B-1)

MEETING DATE:

April 19, 2016**STAFF REPORT – COVER SHEET**SUBJECT: Vedder Bridge Replacement
Design-Build Project – RFP AcceptanceDATE: April 12, 2016DEPARTMENT: EngineeringPREPARED BY: Rod Sanderson**1. SUMMARY OF ISSUE:**

Design-Build proposals were received from Martens Asphalt Ltd. / McElhanney Engineering Ltd.; Emil Anderson Construction (EAC) Inc. / Klohn Crippen Berger; and Surespan Construction Ltd. / Hatch Mott MacDonald for the design and construction of the Vedder Bridge Replacement Project. Two bridge design options were received from each team for consideration: Option 1 (Steel Girder Design) and Option 2 (Steel Arch Design)

A decision to accept a proposal for the Vedder Bridge Replacement Design-Build Project is required.

2. RECOMMENDATION:

Recommendation that Council accept the proposal for the Vedder Bridge Replacement Design-Build Project from the lead proponent Emil Anderson Construction (EAC), in the amount of **\$11,331,052.00** (plus applicable taxes) with Option 2 (Steel Arch) as the selected bridge type; and further, that the Mayor and Clerk be authorized to sign any necessary documentation.


D.A. Blain, Director of Planning and Engineering

3. FINANCE COMMENTS:

Sufficient funds are available in the 2016 Financial Plan funded from the Roads DCC and the Provincial-Federal New Building Canada Fund – Small Communities Program.


Glen Savard, Director of Finance

**4. CHIEF ADMINISTRATIVE OFFICER'S
RECOMMENDATION/COMMENTS:**

Supports Recommendation.


Peter Monteith, CAO

STAFF REPORT ON

VEDDER BRIDGE REPLACEMENT DESIGN-BUILD PROJECT – RFP ACCEPTANCE

PREPARED BY: Kevin Pollard DATE: April 12, 2016

POSITION: Supervisor – Roads and Drainage DEPARTMENT: Engineering

1. DEFINITION OF ISSUE:

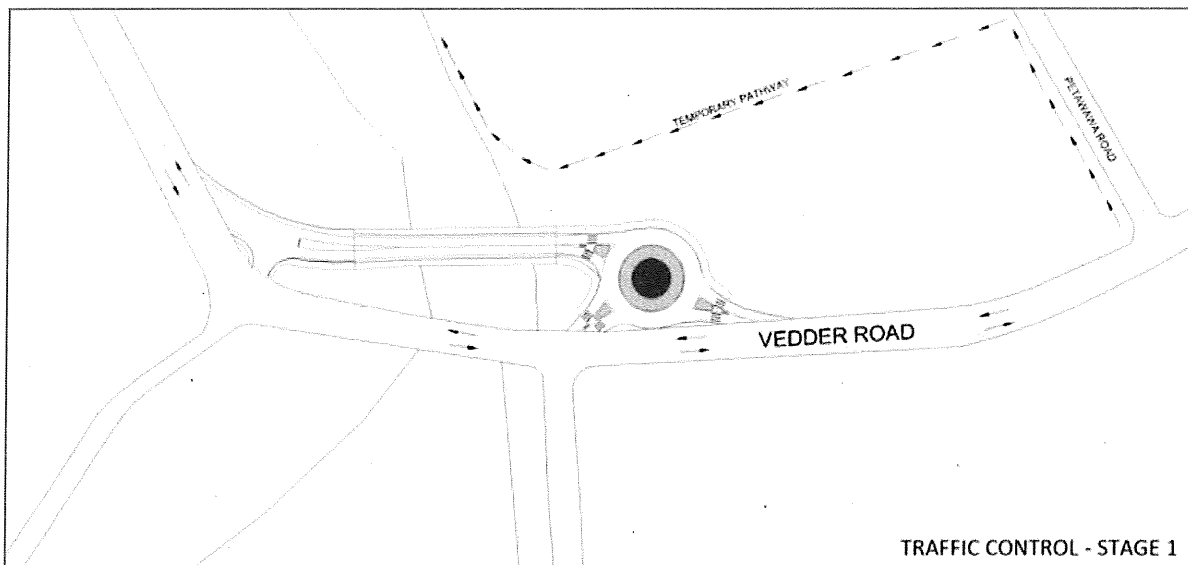
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2. BACKGROUND:

- 2.1 On July 11, 2015 the Vedder Bridge Replacement Project was chosen to receive Federal and Provincial funding through the New Building Canada Fund: Small Communities program to advance the \$12.56 million dollar project.
- 2.2 The current bridge which was constructed in 1947, is deficient in clearance above flood waters, and does not meet current day lane width standards. Through this project the Vedder Bridge will be replaced with a new bridge that includes wider travel lanes and shoulders along with two multi-use pathways to accommodate two-way pedestrian and cyclist traffic. In addition, the approaching roads and the adjacent intersection will be upgraded with a single-lane roundabout to provide greater travel capacity and improved safety.
- 2.3 On September 15th, 2015 the following three (3) proponents were advanced to the RFP Stage 2:
 1. Emil Anderson Construction (EAC) Inc. / Klohn Crippen Berger;
 2. Martens Asphalt Ltd. / McElhanney Engineering Ltd.; and
 3. Surespan Construction Ltd. / Hatch Mott MacDonald
- 2.4 The attached, Figure 1, shows the lead proponent's (Emil Anderson Construction Inc.) Option 1 (Steel Girder) and Option 2 (Steel Arch).
- 2.5 The attached Figures 2 & 3 show the lead proponent's (Emil Anderson Construction Inc.) design of the new bridge alignment and roundabout for Option 2 (Steel Arch).
- 2.6 The proposal from the lead proponent included a Construction Sequencing Plan and Traffic Management Plan that demonstrated how the proposed works can be staged to minimize disruptions to traffic.

- 2.7 The Construction Sequencing Plan provided by Emil Anderson Construction shows mobilizing to site to commence construction activities September 2016 and substantial completion of the project in October 2017.
- 2.8 The first 10 months of construction will be completed off-line from the Vedder Road / Vedder Mountain Road corridor allowing traffic to continue as they currently do with the only difference being that speed limit will be reduced from 60km/hr to 50km/hr through the work zone. (see Traffic Control Stage 1 diagram)



- 2.9 In addition Emil Anderson Construction Inc. has committed to shortened work day prior all weekends between May 1 and September 15 each season.

3. ANALYSIS:

- 3.1 The table below summarizes the proposal prices, adjusted prices and points awarded for superior technical elements:

Bridge Option 1 (Steel Girder)

Proponent Name	Base Price	Adjustments	Total Price	Technical Points /45	Price Points /55	Total Points /100
Emil Anderson	\$10,095,857.00	\$0.00	\$10,095,857.00	37.2	55	92.2
Martens (Eurovia)	\$9,993,149.86	\$133,958.00	\$10,127,107.86	34.5	54.75	89.2
Surespan	\$12,610,500.00	\$0	\$12,610,500.00	33.2	34.5	67.7

Bridge Option 2 (Steel Arch)

Proponent Name	Base Price	Adjustments	Total Price	Technical Points /45	Price Points /55	Total Points /100
Emil Anderson	\$10,885,636.00	\$0.00	\$10,885,636.00	37.0	55	92.0
Martens (Eurovia)	\$11,125,272.78	\$133,958.00	\$11,259,230.78	35.1	52.18	87.3
Surespan	\$12,976,000.00	\$0	\$12,976,000.00	33.9	39.16	73.1

- 3.2 The evaluation committee ranked the RFP submittals based on information contained within the respective proposals.
- 3.3 The evaluation committee concluded that Emil Anderson Construction (EAC) Inc, submitted the best technical proposal for both bridge design options by providing comprehensive and superior Technical Reports and Project Plans as requested in the RFP document.
- 3.4 The Financial Proposals remained sealed until all rated criteria evaluations of the technical proposals were finalized and documented. The City Treasury Department provided and opened the Financial Proposals at the conclusion of the technical evaluation. The evaluation team assessed a financial adjustment for required road drainage infrastructure that was not included in the original proposal from Martens (Eurovia).
- 3.5 Emil Anderson Construction (EAC) Inc. has earned the highest technical points, and by submitting the lowest cost proposal for both Option 1 (Steel Girder) and Option 2 (Steel Arch) has become the lead proponent for both options. In addition the financial proposals for both options are significantly below the Design-Build Contract Budget.
- 3.6 The reduction in construction costs allows for provisional items such as the Rotary Trail Connection and increased costs for necessary BC Hydro & Telus overhead and underground utility relocations.

4. FACTORS:

- 4.1 The project presents significant challenges relating the existing BC Hydro and Telus utilities given their location immediately adjacent to the existing Vedder bridge. As such, City staff have been meeting with BC Hydro, Telus and Shaw over the last nine months in preparing a design solution to accommodate both the new bridge and roundabout construction as well as deconstruction of the existing bridge.
- 4.2 After contract negotiations with the lead proponent, agreed additional works require a net increase of \$147,925.00 (excluding GST), to the contract. These additional works consist of bridge illumination (\$ 100,000) and additional utility items (\$ 47,925).
- 4.3 Provisional items for the Rotary Trail Connection under the bridge, offered at \$242,836 and the Underground Electrical conduit and vault, offered at \$54,655 will add value to the project and are recommended. The rebuilding of the bridge parking lot, offered at \$694,809, is not recommended at this time, but will be considered for construction as a separate project after the completion of the bridge construction.

5. RECOMMENDATION & SUBSTANTIATION:

Recommendation:

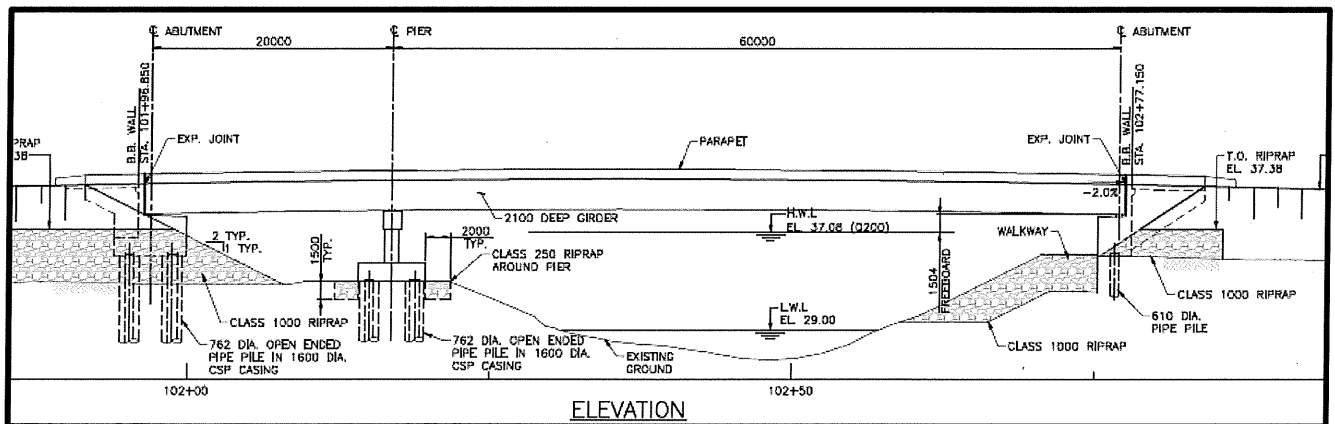
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Substantiation:

The Vedder Bridge Replacement will provide for enhanced safety, more efficient vehicular movements and increased pedestrian/cyclist facilities.

Figure 1

Emil Anderson Construction – Bridge Option 1 (Steel Girder)



Emil Anderson Construction – Bridge Option 2 (Steel Arch)

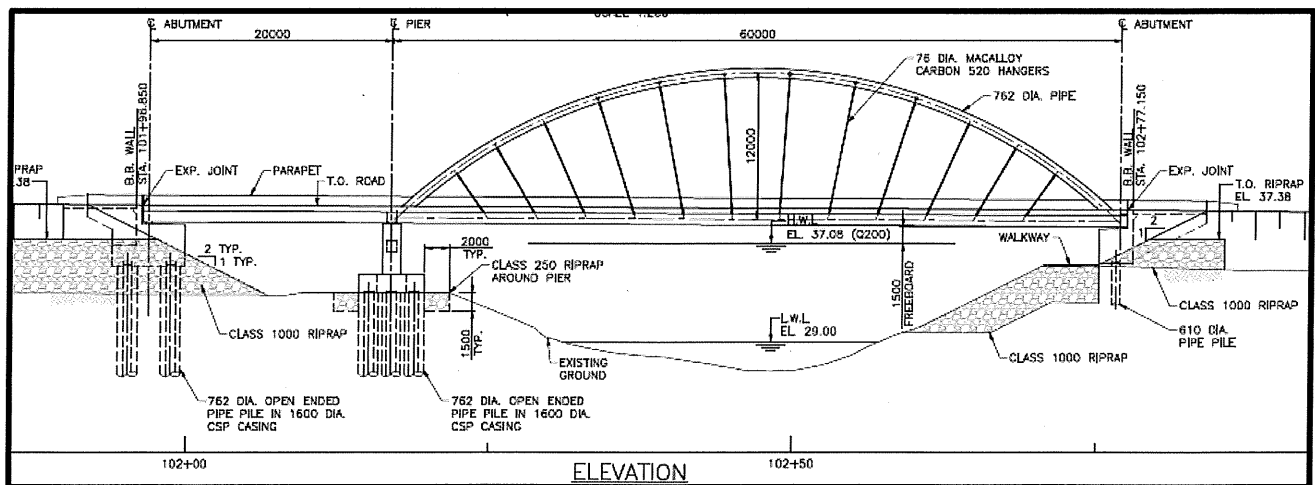


Figure 2

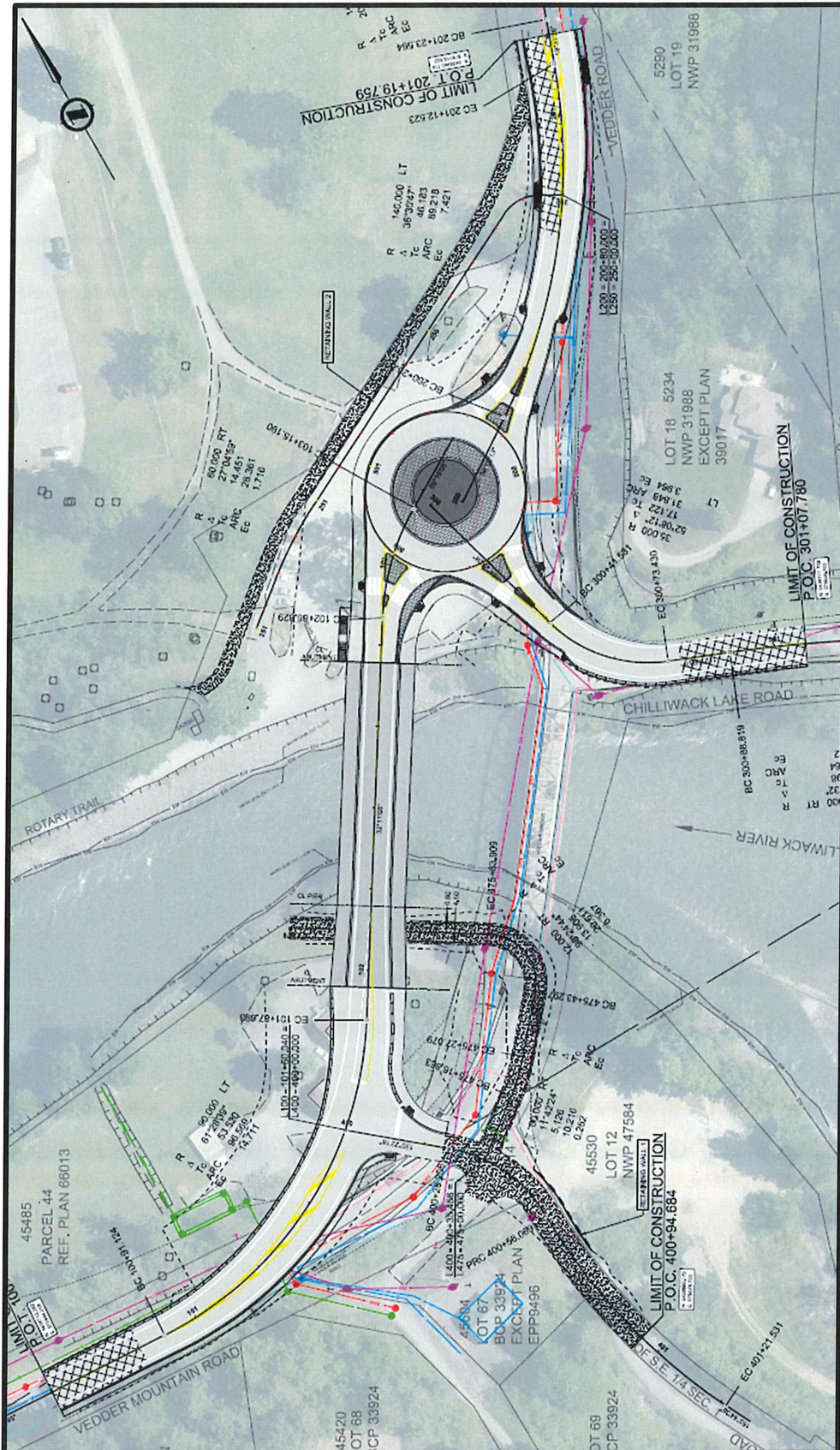


Figure 3

