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The Regional Municipality of Durham Report

To: Works Committee
From: Commissioner of Works
Report: #2024-W-21
Date: June 5, 2024

Subject:

Sole Source of Engineering Services for the Detailed Design for the widening of Lake Ridge Road (Regional Road 23) through the intersection with Rossland Road (Regional Road 28), in the Town of Ajax and the Town of Whitby

Recommendations:

That the Works Committee recommends to Regional Council:

- A) That staff be authorized to award a sole source engineering services agreement with R.V. Anderson Associates Limited to undertake the detailed design for the widening of Lake Ridge Road (Regional Road 23) through the intersection with Rossland Road (Regional Road 28), in the Town of Ajax and the Town of Whitby, at an amount not to exceed \$625,000*; to be financed through the approved project budget; and
 - B) That the Commissioner of Finance be authorized to execute the necessary documents related to the sole source agreement.
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Report:

1. Purpose

- 1.1 The purpose of this report is to obtain authorization to award a sole source engineering services agreement with R.V. Anderson Associates Limited (R.V. Anderson) to undertake the detailed design for the widening of Lake Ridge Road (Regional Road 23) through the intersection with Rossland Road (Regional Road 28), in the Town of Ajax (Ajax) and the Town of Whitby (Whitby).

- 1.2 Dollar amounts followed by an asterisk (*) are before applicable taxes.

2. Background

- 2.1 In June 2022, the Rossland Road widening Environmental Assessment (EA) from Westney Road (Regional Road 31) to Lake Ridge Road was completed by Ajax. As part of the EA, a commitment was made at the request of the Regional Municipality of Durham (Region) to include the Region's detailed design scope of work to widen Lake Ridge Road through the intersection with Rossland Road in Ajax's upcoming Rossland Road widening detail design assignment. Rossland Road is not a Regional Road within Ajax. However, Rossland Road is Regional Road 28 east of Lake Ridge Road in Whitby.
- 2.2 Ajax completed a Request for Pre-Qualification in January 2023, followed by a Request for Proposal in April 2023, for the detailed design for the widening of Rossland Road from Westney Road to Lake Ridge Road. The Region was not involved at the time of the Request for Pre-Qualification or Request for Proposal. Therefore, Ajax detailed design assignment did not include the detailed design scope of work to widen Lake Ridge Road through the Rossland Road intersection. In June 2023, Ajax awarded the Request for Proposal to R.V. Anderson (See Attachment #1 Town of Ajax Council Report OES-2023-19).
- 2.3 Funding for the detailed design work for the widening of Lake Ridge Road through the Rossland Road intersection has been previously approved in the Regional Road Program budget.
- 2.4 The Region's 2024 Capital Road Program forecasts construction funding for the widening of Lake Ridge Road through the Rossland Road intersection in 2026. This timing is proposed to align with the construction timing of Ajax's Rossland Road widening at the Lake Ridge Road intersection.
- 2.5 The deliverable of R.V. Anderson's detailed design will be to produce a single construction contract, including Ajax's widening of Rossland Road and the Region's widening of Lake Ridge Road through the Rossland Road intersection. This is to minimize future reconstruction and disruption of the intersection as envisioned during Ajax's EA for the widening of Rossland Road. This will also prevent future disruption to the intersection when the Region subsequently widens Lake Ridge Road from Regional Highway 2 to Rossland Road. The Region's widening of Lake Ridge Road from Regional Highway 2 to Rossland Road has construction funding forecasted in 2028 in the 2024 Capital Road Program.

3. Sole Source Justification

3.1 Retaining R.V. Anderson to complete detail design for the widening of Lake Ridge Road through the Rossland Road intersection while completing the design for the widening of Rossland Road at the same intersection is beneficial for the following reasons:

- a. The design of the Lake Ridge Road widening at the Rossland Road intersection will provide an accelerated and seamless design and leverage the synergies between Ajax and the Region by having one consultant complete the work.
- b. Having a single consultant will streamline utility relocation work and ensure utility relocation plans account for the Rossland Road and Lake Ridge Road widenings, avoiding the need to complete relocations twice.
- c. Coordinating the Rossland Road widening and Lake Ridge Road widening designs simultaneously with regulatory agencies will reduce review and approval times.
- d. Retaining a different design consultant to complete the widening of Lake Ridge Road through the Rossland Road intersection while R.V Anderson is completing the design for the widening of Rossland Road at the same intersection is not feasible, as the road design process is very dynamic and having two separate consultants trying to coordinate overlapping designs at a single intersection would require complete integration of each consultants' design processes.

3.2 Combining the design of the Rossland Road widening and the Lake Ridge Road intersection widening into a single construction contract designed by R.V. Anderson will save cost and time and limit public disruption by avoiding the need to impact the intersection twice. This also benefits the overall road network by having the intersection operating in its ultimate widened configuration sooner than the Region's widening of Lake Ridge Road from Regional Highway 2 to Rossland Road (construction funding forecasted in 2028 in the 2024 Capital Road Program), in addition to addressing the existing lane imbalance on Rossland Road through the Lake Ridge Road intersection that was created by Whitby's widening of Rossland Road to the east of Lake Ridge Road, prior to Rossland Road becoming a Regional Road east of Lake Ridge Road.

4. Proposed Engineering Services

4.1 The estimated engineering fee of \$625,000* includes the following services:

- a. Project Management;
 - b. Coordination with Conservation Authorities, the Town of Whitby and other key stakeholders;
 - c. Subsurface utility investigations, mapping and coordination for relocations;
 - d. Road design, including traffic safety;
 - e. Hydrology, drainage, and stormwater management investigations, reporting and design;
 - f. Geotechnical and geo-environmental investigations, reporting and design;
 - g. Permit applications and approvals;
 - h. Environmental studies to support permit applications;
 - i. Traffic signal design;
 - j. Traffic and construction staging design;
 - k. Contract specification preparation; and
 - l. Additional services as required by the project.
- 4.2 The hourly rates used by R.V. Anderson staff for this assignment are comparable to hourly rates on other competitively bid assignments undertaken by consultants on behalf of the Region.

5. Financial Implications

- 5.1 Section 8.4.2 of the Region's Purchasing By-law Number 16-2020 requires approval of Regional Council to award an assignment as a sole source where the project or annual value of a consulting or professional service assignment is expected to be \$100,000 or greater.
- 5.2 Financing for the procurement of the engineering services estimated at \$625,000* is to be provided from the approved project budget (Project ID R1809).

6. Relationship to Strategic Plan

- 6.1 This report aligns with the following strategic goals and priorities in the Durham Region Strategic Plan:
- a. Economic Prosperity Goal #3.3: Enhance communication and transportation networks to better connect people and move goods more effectively.
 - b. Service Excellence Goal #5.1: Optimize resources and partnerships to deliver exceptional quality services and value.

7. Conclusion

- 7.1 It is recommended that authorization be approved for the sole source engineering services agreement with R.V. Anderson Associates Limited for the detailed design of the widening of Lake Ridge Road (Regional Road 23) through the intersection with Rossland Road (Regional Road 28) in the Town of Ajax and the Town of Whitby, at an upset limit not to exceed \$625,000*.
- 7.2 This report has been reviewed by the Finance Department, and the Commissioner of Finance concurs with the recommendations.
- 7.3 For additional information, contact: Reid McGregor, Manager, Transportation Design, at 905-668-4113, extension 3502.

8. Attachments

- 8.1 Attachment #1: Town of Ajax Council Report (report # OES-2023-19) – Contract Award – Rossland Road widening from Westney Road to Lake Ridge Road Detail Design

Respectfully submitted,

Original signed by:

Ramesh Jagannathan, M.B.A, M.Eng., P.Eng., PTOE
Commissioner of Works

Recommended for Presentation to Committee

**Original signed by Brian Bridgeman,
Commissioner of Planning and
Economic Development for**

Elaine C. Baxter-Trahair
Chief Administrative Officer

Town of Ajax Report



Report To: General Government Committee

Prepared By: Ranil Fernando, Manager, Infrastructure and Asset Management

Report #: OES-2023-19

Subject: **Contract Award – Rossland Road widening from Westney Road to Lake Ridge Road Detail Design**

Ward(s): 1,2

Date of Meeting: June 12, 2023

Reference: Capital Account Number 1029011.4108 – Rossland Road Salem Road to Lake Ridge – Design

Capital Account Number 1028611.4108 – Rossland Road Westney Road to Salem Road – Design

Schedule 'C' Class Environmental Assessment for Rossland Road from Westney Road to Lake Ridge Road – June 2022

Recommendation:

That Council award the contract for detailed design of Rossland Road from Westney Road to Lake Ridge Road to R.V. Anderson Associates Limited in the amount of \$1,638,296.60 (inclusive of all taxes).

Background:

Population growth in north Ajax and network improvements east and west of the Town has resulted in higher traffic volumes and traffic congestion. These pressures and potential growth east of Salem Road on the Rossland Road corridor has caused the need to evaluate opportunities for network improvements to accommodate the traffic demand. Additionally, the proposed road improvements will improve the pedestrian/bicycle network and transit route along Rossland Road.

In June 2022, a Schedule 'C' Class Environmental Assessment (EA) and preliminary design for improvements to Rossland Road was completed from Westney Road to Lake Ridge Road in the Town of Ajax.

The EA was completed to identify transportation problems and opportunities as they relate to traffic service, capacity for future growth, infrastructure needs, safety and operations and subsequently recommend and evaluate opportunities for improvements to the study area. The EA reassessed the needs, justification and alternative solutions established in the Ajax Integrated Transportation Master Plan (ITMP). The EA also reassessed the recommendations of the Town of Ajax's 2018 Development Charges Background Study to widen Rossland Road to four lanes.

Rossland Road is an east-west arterial road in western Durham Region that connects the City of Pickering, Town of Ajax and Town of Whitby. Rossland Road is classified as a Type 'B' arterial road with a posted speed limit of 60 km/h. From Westney Road to Salem Road, Rossland Road is a 2-lane urban roadway and from Salem Road to Lake Ridge Road it is a 2 lane rural roadway. The total length of roadway for the project is approximately 4.0 km. The limits of construction is outlined in Figure 1.



Figure 1.

The detailed design for the proposed work will include the following:

- The reconstruction of Rossland Road from Westney Road to Lake Ridge Road
- Four general purpose lanes - two in each direction
- Centre turning lane
- Accessibility for Ontarians with Disabilities (AODA) compliant intersections
- Cross rides at intersection to accommodate both pedestrians and cyclists
- Culvert replacement at Lynde Creek crossing
- Improvements to bridge over Carruthers Creek east of Salem Road
- Improved storm water management
- Land acquisition
- Utility relocation
- Illumination along the corridor, and
- Opportunities for streetscaping

The proposed cross section of Rossland Road from Westney Road to Lake Ridge Road as outlined in the Schedule 'C' Class EA is as follows:

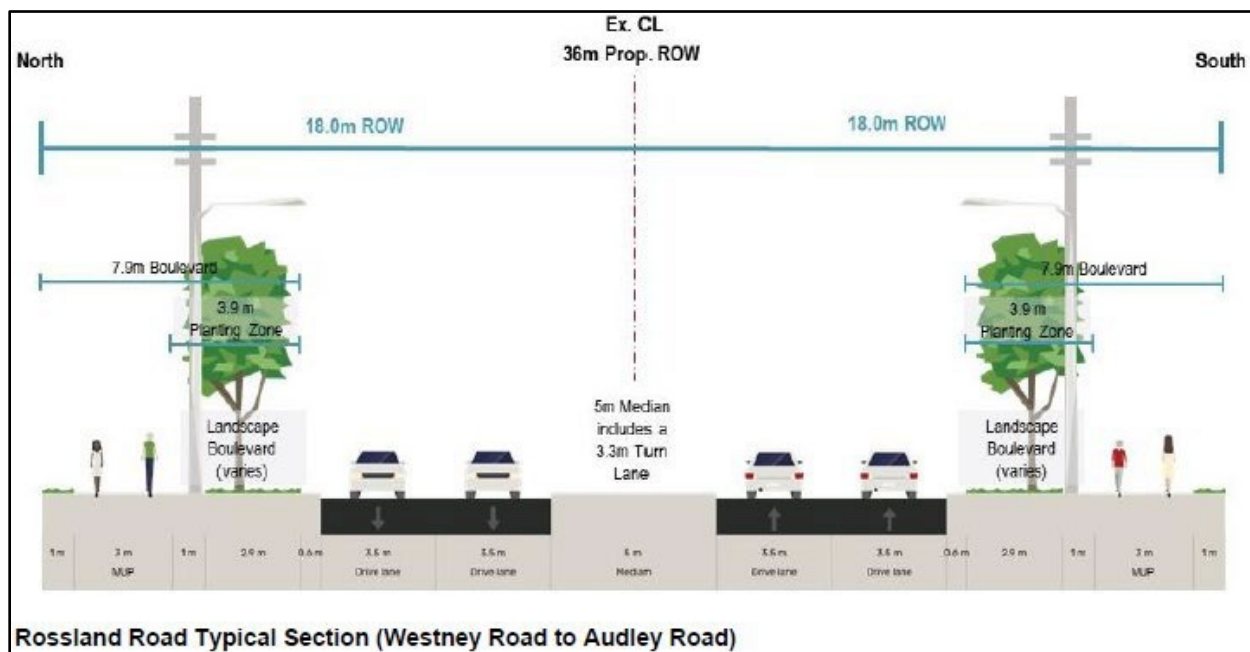


Figure 2.

Rossland Road from Westney Road to Audley Road (Figure 2.) includes an urban cross section with the following elements:

- Two 3.5m lanes in each direction
- Centre median/ turning lane
- 3.0m multi-use path (MUP) on the north and south sides, and
- Landscaped boulevards

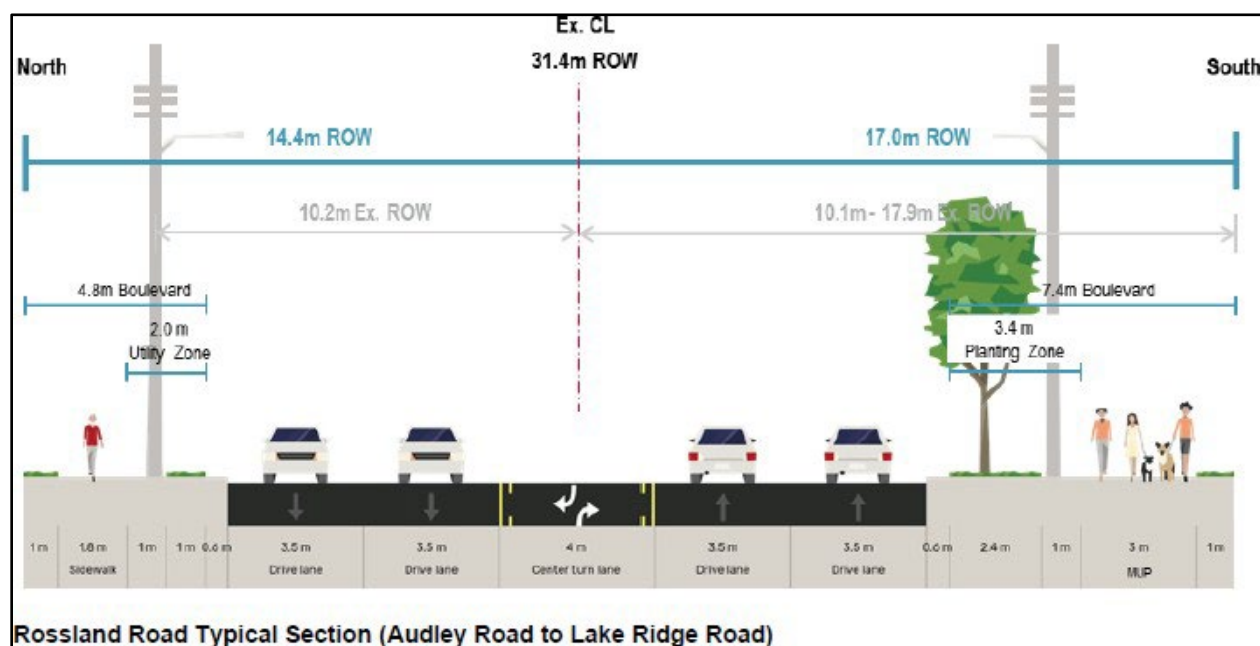


Figure 3.

Rossland Road from Audley Road to Lake Ridge Road (Figure 3.) includes an urban cross section with the following elements:

- Two 3.5m lanes in each direction
- Centre turning lane
- 3.0m MUP on the south side
- 1.8m sidewalk on the north side, and
- Landscaped boulevards

Puckrin Bridge Improvements

As part of the Amazon Development at Rossland Road and Salem Road, the widening of Rossland Road to the ultimate cross section including the incorporation of a Multi-Use Pathway (MUP) as outlined in the Schedule 'C' Class EA were required to accommodate the vehicle and pedestrian traffic demands.

Within the limits of the road widening, there is a rigid frame bridge over Carruthers Creek (Puckrin Bridge), which currently carries two lanes of traffic in each direction. The additional traffic generated by Amazon Development, resulted in the need for an additional left turn lane for the new entrance to the Amazon complex at the southeast corner of Salem Road and Rossland Road. The inclusion of the additional left turn lane, not outlined in the Schedule 'C' class EA, requires existing bridge to be widened. The new ultimate cross-section will include two 3.0m wide MUP's at the north and south sides of the bridge.

The bridge widening design will include a structural assessment of Puckrin Bridge in accordance with the Canadian Highway Bridge Design Code to confirm that the truck traffic applied loadings will not exceed the structural capacity of the bridge. The assessment will include recommendations to improve the structural capacity of the bridge, if required.

The design will include a complete life cycle cost analysis to evaluate two alternatives to determine the most cost-effective and appropriate solution for the ultimate cross section including continuous MUP's on both sides of Puckrin Bridge. The following alternatives will be evaluated:

1. Widen the bridge to accommodate 2 lanes of traffic in each direction, a centre left turn lane and a MUP on the north and south side.
2. Widen the bridge to accommodate 2 lanes of traffic in each direction, a centre left turn lane, one MUP on the south side through the bridge section and a separate prefabricated pedestrian bridge adjacent to the existing structure on the north side.

The two alternatives will be evaluated as part of the life cycle cost analysis using the following criteria:

- Construction cost
- Constructability of the structure
- Traffic Staging and Construction duration
- Permitting and Regulatory Approvals
- Durability and maintenance cost
- Aesthetics

Schedule of Events

Task	Phase 4 – Salem to Lake Ridge	Phase 5 – Salem to Westney
Anticipated Contract Award: Detail Design	Week of June 19, 2023	Week of June 19, 2023
Project Commencement:	June 26, 2023	June 26, 2023
Land Acquisition	January 2024	January 2025
Contract Award: Utility Relocation	January 2025	January 2026
Final Design Drawings & Specifications	April 2025	April 2025
Tender Package	April 2025	April 2027

Discussion:

The Town undertook a Request for Pre-Qualification [RPQ No. PQ2301] for Pre-Qualification Consulting Firms ~ Rossland Road Phase 4 & 5 Detailed Design in January 2023 to cover detailed design requirements. This RPQ resulted in the appointment of 3 pre-qualified Bidders.

Request for Proposal (RFP) documents were posted to the Towns' eBidding platform, and the 3 pre-qualified bidders were invited to register for the opportunity. Of the invited bidders 3 registered for the opportunity with bids being received from 2 of these, prior to the closing on April 5, 2023. Listed below is a summary of the Proposals received:

NAME OF PROPONENTS
Parsons Inc.
R.V. Anderson Associates Limited

The following is the Proposal Evaluation Criteria used for this RFP:

MANDATORY SUBMISSION REQUIRMENTS		
(firms not meeting the mandatory requirements may be deemed non-responsive & subject to rejection)		
Insurance	Pass/Fail	
WSIB	Pass/Fail	
Health & Safety Plan/Policy	Pass/Fail	
EVALUATION CRITERIA	WEIGHTED POINTS	TOTAL AVAILABLE POINTS
QUALIFICATIONS & EXPERIENCE		
Demonstrated Experience of the Company	5	10
Demonstrated Experience of Key Personnel	5	
QUALITY OF PROPOSAL SUBMISSION		
Responsiveness/Completeness of Submission	10	20

Demonstrated Willingness to Comply with Terms of the Bid Document	10	
APPROACH & METHODOLOGY		
Demonstrated Understanding of the Requirements	10	40
Quality & Completeness of Approach/Work Plan/Methodology	10	
Project Management Structure	10	
Ability to Meet Time Estimates/Deadlines	10	
PRICING		
Cost Effectiveness of the Proposal		30
TOTAL POINTS		100
INTERVIEW (if applicable)		50
GRAND TOTAL		150

An Evaluation Committee, made up of Infrastructure and Asset Management staff, reviewed all the Proposals received. Based on the evaluation criteria, specified in the RFP document, R.V. Anderson Associates Limited was the highest scoring Proponent and met all the needs of the Town.

Financial Implications:

Approved Capital Account No. 1029011 – Rossland Road Salem Road to Lake Ridge Road - Design

2022 Approved Capital Budget		\$ 789,700.00
Contract (net of GST rebate)	\$ 702,616.42	
Contingency (10%)	<u>\$70,261.64</u>	<u>\$772,878.06</u>
Available Budget		<u>\$16,821.94</u>

Approved Capital Account No. 1028611 – Rossland Road Westney Road to Salem Road - Design

2022 Approved Capital Budget		\$ 770,900.00
Contract (net of GST rebate)	\$ 776,720.47	
Contingency (10%)	<u>\$69,946.08</u>	<u>\$769,406.93</u>
Available Budget		<u>\$1,493.07</u>

Unbudgeted Capital Account No. – Puckrin Bridge Improvements – Design and Construction

Recoveries from Developer		84,248.50
Design Contract (net of GST rebate)	\$ 73,259.57	
Contingency (15%)	\$10,988.94	\$84,248.50
Under Budget		<u>\$0.00</u>

A 10% and 15% contingencies has been allocated to this award to ensure sufficient funding is available to address site specific issues that can be encountered during the design process. Risk factors for this project will include:

- Concerns that arise from local residents or landowners
- Site conditions different than those anticipated
- Additional work requested by stakeholder
- Additional land requirements
- Additional coordination work with various stake holders including utility companies, and conservation authorities, Region of Durham and indigenous groups

These risks may result in revised design work or additional meetings to accommodate the requirements.

Through the Constuction and Development Charge Reimbursement Agreement as it relates to the Amazon Development, the Town will be reimbursed the design cost of the Puckrin Bridge improvements.

Communication Issues:

Extensive public consultation was held throughout the Class Environmental Assessment which was completed in June 2022. Previous comments from stakeholders will be incorporated into the design for the widening of Rossland Road from Westney Road to Lake Ridge Road.

The Town and its consulting team will be meeting with property owners and other stakeholders. As part of the engagement process, two Public Information Centre (PIC) will also be held to offer stakeholders an opportunity to comment and provide input on the design.

Relationship to the Strategic Plan:

This report aligns with the following section of the 2023-2026 Strategic Plan – Action 26:

Pillar 2: Growing Our Community

Priority 1: Embrace dynamic and sustainable growth

1.5: Improve road transportation network

Conclusion:

It is the recommendation of staff that R.V. Anderson Associates Limited be awarded the contract for Rossland Road Widening – Detailed Design, being the highest scoring Proponent.

Attachments:

ATT-1: Capital Detail Sheet 1029011.4108 – Rossland Road Salem Road to Lake Ridge Road – Design

Prepared by:

Ranil Fernando – Manager of Infrastructure and Asset Management

Submitted by:

Dave Meredith – Director of Operations and Environmental Services

Approved by:

Shane Baker – Chief Administrative Officer