

# **The Regional Municipality of York**

Committee of the Whole  
Transportation Services  
April 16, 2020

Report of the Commissioner of Transportation Services

## **Amendment to Agreement for Consultant Services Major Mackenzie Drive Road Improvements Highway 400 to Keele Street, City of Vaughan**

### **1. Recommendation**

1. Council approve an amendment to the agreement between the Region and Parsons for improvements to Major Mackenzie Drive (Y.R. 25) from Highway 400 to Keele Street (Y.R. 6), to increase the contract price, within the Capital Spending Authority, from \$1,748,800 to \$3,645,576, excluding HST, as a result of additional services required during construction of the road improvements.

### **2. Summary**

This report seeks Council approval to increase the contract price of the agreement with Parsons for the design of improvements to Major Mackenzie Drive. Additional fees are required to increase the scope of engineering consultant services to include contract administration and inspection (CA&I) services during construction of the improvements. A location map is included as Attachment 1.

As the additional fees being requested exceed staff authority provided for in the Region's Procurement Bylaw, Council approval is required.

Key Points:

- Major Mackenzie Drive connects and provides access to critical infrastructure. The road improvements will support travel to and from Highway 400, between the existing Mackenzie Richmond Hill Hospital and proposed Mackenzie Vaughan Hospital, as well as adjacent communities and commercial retail spaces.
- Parsons has been retained by the Region to provide engineering consultant services for the detailed design and preparing the tender package for improvements to Major Mackenzie Drive from Highway 400 to Jane Street.
- Another consultant is designing the improvements to Major Mackenzie Drive between Jane Street and Keele Street.

- Increasing the scope of services for Parsons' assignment to provide the CA&I services during the construction of Major Mackenzie Drive between Highway 400 and Keele Street will ensure continuity of consultant services, reduce costs and risks to Region.
- The Commissioner of Transportation Services, through delegated authority, will enter into an agreement with the Ministry of Transportation of Ontario (MTO) for improvements within the highway interchange limits which are under the MTO's jurisdiction, including improvements to widen the road and support active transportation on Major Mackenzie Drive across the bridge over Highway 400.

### 3. Background

#### **Major Mackenzie Drive, from Highway 400 to Keele Street is an important link in the Region's road network, providing access to and from the new Mackenzie Vaughan Hospital and Highway 400**

Major Mackenzie Drive between Highway 400 and Keele Street is a four-lane arterial road with an Average Annual Daily Traffic (AADT) volume of approximately 40,000 vehicles. The eastern section towards Keele Street is within the City of Vaughan's Maple Heritage District. Major Mackenzie Drive provides access to Highway 400, Canada's Wonderland, the new Mackenzie Vaughan Hospital, Vaughan City Hall and many businesses and residences. Recognizing the importance of the corridor in the Regional road network, improvements to Major Mackenzie Drive have been included in the Region's road construction program.

Construction of the new Mackenzie Vaughan Hospital is currently underway with completion planned by the end of 2020. Mackenzie Health will operate a two-site hospital model, with Mackenzie Richmond Hill Hospital and the new Mackenzie Vaughan Hospital providing core hospital services and a different set of speciality programs and services. The improved Major Mackenzie Drive will be a critical link between the two hospitals serving the residents of Vaughan and York Region.

The Region has completed a Municipal Class Environmental Assessment (EA) study for Major Mackenzie Drive from Highway 400 to Jane Street. The EA study addressed necessary improvements adjacent to the future hospital, Canada's Wonderland and Major Mackenzie Drive across the Highway 400 interchange. The recommendations of the study are to widen Major Mackenzie Drive from Highway 400 to Jane Street to six lanes and to provide sidewalks and cycling facilities.

The Region has also completed an EA study for Major Mackenzie Drive from McNaughton/Avro Road to Keele Street. The study recommended operational improvements including the installation of a new continuous centre turning lane to allow left-turning vehicles to access the adjacent properties without impeding through traffic. New traffic signals at Gram Street, an eastbound right turn lane at Keele Street and a multi-use path on Major Mackenzie Drive are also recommended.

## **Parsons and another consultant are working on detailed design assignments to widen and improve Major Mackenzie Drive from Highway 400 to Keele Street**

Parsons has been retained by the Region to work on the detailed design to widen Major Mackenzie Drive from Highway 400 to Jane Street from four lanes to six lanes. Significant improvements are also proposed within the Highway 400 interchange limits, which are under the MTO's jurisdiction. The work will involve widening the bridge over Highway 400 and modifications to the interchange infrastructure and ramps to and from Highway 400. The bridge over Highway 400 will be widened to provide additional traffic lanes and an active transportation facility.

Another consultant retained by the Region is working on the detailed design of improvements to Major Mackenzie Drive between Jane Street and Keele Street. Improvements between McNaughton Road to Keele Street will include widening the road to install a new continuous centre turning lane, new traffic signals at Gram Street, a new eastbound right turn lane at Keele Street and a new multi-use path and sidewalks on Major Mackenzie Drive. This consultant is also working on the design for improvements to Major Mackenzie Drive between Jane Street and McNaughton Road located between the two sections of Major Mackenzie Drive that are to be widened. To prevent future disruption to the travelling public and community, the Region will also resurface and upgrade the intersections on the section of Major Mackenzie Drive between Jane Street and McNaughton/Avro Road. This will ensure the road corridor is upgraded from Highway 400 to Keele Street.

## **Other infrastructure projects will be underway in and around the Major Mackenzie Drive corridor at the same time**

MTO is currently improving Highway 400, from Major Mackenzie Drive to King Vaughan Road. The widening and improvements on Highway 400 are scheduled to be completed in 2021.

West of Highway 400, the Region is widening Major Mackenzie Drive to provide a continuous six-lane roadway from Highway 50 to Highway 400. The widening and improvements currently underway between Highway 50 and Pine Valley Drive are scheduled to be completed by the end of 2021.

A new York Region Transit bus terminal is proposed on the south side of Major Mackenzie Drive opposite the new Mackenzie Vaughan Hospital. Construction of the terminal is scheduled to begin in 2020 and includes retrofitting the existing vehicular underpass east of Wellness Way/Amusement Way for pedestrian passage between the terminal on the south side and the hospital on the north side.

In collaboration with Mackenzie Vaughan Hospital, the Region is working to complete the design of an elevator pavilion on the north side of Major Mackenzie Drive. The construction of the pavilion is expected to begin in 2020, connecting the pedestrian underpass and providing safer and more convenient access between Major Mackenzie Drive, the transit terminal and the hospital.

Individually, these projects will benefit specific stakeholder needs. However, common among them, and connecting them all, is Major Mackenzie Drive. Once operational, these improvements will improve traffic flow and travel to and from the two hospitals, Highway 400 and adjacent communities and commercial retail spaces. It is essential to coordinate delivery of the overall improvements in the corridor and minimize impact and disruption to travellers and the community.

## **4. Analysis**

### **Parsons' continued involvement during the construction of Major Mackenzie Drive corridor from Highway 400 to Jane Street will benefit the Region**

Only consultants qualified by MTO are allowed to complete work within MTO's 'Controlled Access Highway' jurisdiction at the Highway 400 and Major Mackenzie Drive interchange.

Parsons is approved by MTO to provide engineering consultant services. Parsons was retained by the Region to undertake the EA study and is currently undertaking the detailed design of the improvements. Both of these assignments were competitively procured through the Region's request for proposal procurement process.

Parsons' assignment was initially to design and prepare tenders for a two-phase construction. The first phase was to widen Major Mackenzie Drive immediately adjacent to the hospital up to Jane Street followed by a second phase for construction within the Highway 400 interchange. This approach was based on acknowledgement it will take longer to design and obtain approvals from MTO.

During recent analysis of the timing of the various projects, and in consideration of the amount of infrastructure work that will occur in and adjacent to the corridor, it would be disruptive to travellers and the community to undertake the work across the interchange at a later date. There could also be the potential that two different contractors would be successful in winning the contracts for the two phases, creating coordination and time/space logistic problems between two contractors working in an already crowded work space.

Staff has decided to expedite the design of the second phase as much as possible so all the work can be tendered as one contract in the summer of 2020. The Region and Parsons are working with MTO to ensure the improvements are designed to allow maximum opportunity to support pedestrians and cyclists and accommodate the high vehicular flows to and from Highway 400. Discussions with MTO are going well and their staff have agreed in principle to the Region's approach and proposed improvements.

The design of the section across the MTO jurisdiction will be finalized over the summer of 2020 and formal MTO approval to work in their jurisdiction, through an agreement and encroachment permit, will be secured after the contract has been awarded and construction has begun. Considering the design will be finalized and formal MTO approval sought when construction is ongoing, it would be beneficial to have Parsons provide the CA&I services, in addition to design services they are already providing, to ensure close coordination between

the design and construction teams from the same firm, minimizing costs and risks to the Region.

It is critical that construction of the improvements commence in 2020 to ensure coordination with adjacent projects and completion by the fall of 2022. Parsons' experience working on this project since spring 2017 and familiarity with stakeholders, primarily MTO, and those on adjacent projects, will allow for improved coordination during the construction phase of the project.

The Region's work on Major Mackenzie Drive includes changes to the Highway 400 ramps to facilitate widening Major Mackenzie Drive from four to six lanes and changes on the south side of the bridge over Highway 400 to accommodate a new multi-use path. Although the Region's and MTO's work zones overlap at the Highway 400 interchange, it is expected the work limits can be separated between the Major Mackenzie Drive improvements above and the Highway 400 improvements below, however, as these will be in close proximity, the timing of the Region's work will need to be coordinated with the timing of MTO's work.

**Adding construction administration and inspection services for Major Mackenzie Drive from Jane Street to Keele Street to the scope of Parsons' assignment will provide continuity between the two sections under construction**

The tender for the construction of the road improvements on Major Mackenzie Drive, from Highway 400 to Jane Street, is expected to be issued in summer 2020 and construction will begin in 2020 and continue until 2022. The tender for the construction of improvements to Major Mackenzie Drive, from Jane Street to Keele Street, will be issued in late 2021 and construction will begin in 2022.

With adjacent projects on Major Mackenzie Drive scheduled to be under construction simultaneously, there is value in having one firm providing CA&I services across the entire corridor. Extending Parsons' scope of work to Keele Street will allow more seamless monitoring of construction progress, consistency between the project deliverables, effectively managing inevitable issues during construction and allowing one point of communication for the entire project to better address concerns from the travelling public and area residents.

**The Region will enter in to an agreement with the Ministry of Transportation to complete improvements to Major Mackenzie Drive within the Ministry's jurisdiction**

In order to widen Major Mackenzie Drive from four to six lanes and to accommodate a new active transportation facility on the south side across the Highway 400/Major Mackenzie Drive interchange, the bridge over Highway 400 will need to be modified and all four of the ramps will need to be reconfigured.

The Region is working to finalize the design details and obtain approvals for all works within the controlled access highway limits attributable to the Region. The Commissioner of Transportation Services, through delegated authority, will enter into an agreement with MTO for the associated works. The Region will pay for all improvements within the MTO's

jurisdiction to support the Region's plans to widen Major Mackenzie Drive. All improved works will be owned by MTO and they will be responsible for the long-term maintenance.

## **5. Financial**

### **Increased funding is required for the additional scope of consultant services to provide construction administration and inspection services during construction of the Major Mackenzie Drive improvements**

The agreement with Parsons needs to be amended to include additional scope of engineering consultant services in the amount of \$1,896,776, excluding HST, to provide for adequate CA&I services and design assistance during construction. Staff have reviewed the request for additional fees, compared them to rates in the current assignment and against other similar consultant assignments, and considers Parsons' request to be fair and reasonable. The amount for CA&I services and design assistance during construction is not a lump sum fee and only actual hours worked by the consultant will be paid.

The improvements to Major Mackenzie Drive from Highway 400 to Keele Street have a budgeted total project cost of \$37 million. The work will be funded from 90% development charges and 10% tax levy and is included in the approved 10-Year transportation capital budget.

Construction of sidewalks and new active transportation facilities for the City of Vaughan from Jane Street to McNaughton Road is expected to cost approximately \$500,000, which will be fully recovered from the City of Vaughan.

## **6. Local Impact**

Improvements to Major Mackenzie Drive from Highway 400 to Keele Street will provide enhanced travel for all road users in the City of Vaughan.

The Region will construct new sidewalks and active transportation facilities for the City of Vaughan on Major Mackenzie Drive. These facilities will provide a pedestrian and cycling connection between the Metrolinx 'park and ride', Canada's Wonderland, the new transit terminal, Mackenzie Vaughan Hospital and development lands to the west, creating a continuous active transportation route from Highway 50 to Keele Street.

## **7. Conclusion**

Major Mackenzie Drive, from Highway 400 to Keele Street is a very important link in the Regional road network. The road improvements will support growing travel demands in the City of Vaughan and provide a vital link to and from Highway 400, between the existing Mackenzie Richmond Hill Hospital and proposed Mackenzie Vaughan Hospital and adjacent communities and commercial retail spaces.

Parsons has been retained by the Region to provide engineering consultant services for the detailed design and preparing the tender package for improvements to Major Mackenzie Drive from Highway 400 to Jane Street. Increasing the scope of services for Parsons' assignment to provide the CA&I services during the construction of Major Mackenzie Drive improvements between Highway 400 and Keele Street will ensure continuity of consultant services, reduce costs and risks to Region.

It is recommended the agreement with Parsons be amended by an amount of \$1,896,776 increasing the total from \$1,748,800 to \$3,645,576, excluding HST.

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For more information on this report, please contact Salim Alibhai, Director, Capital Planning and Delivery, at 1-877-464-9675 ext. 75229. Accessible formats or communication supports are available upon request.

Recommended by: **Paul Jankowski**  
Commissioner of Transportation Services

Approved for Submission: **Bruce Macgregor**  
Chief Administrative Officer

March 19, 2020  
Attachment (1)  
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