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To: York Region Rapid Transit Corporation Board of Directors

From: Mary-Frances Turner, President

Subject: Authorization to enter into Highway 400/Highway 7 and Highway 407/Bathurst Street Construction Agreements – Vaughan vivaNext Rapidway Projects

Ref: YORK-#7546869

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## Recommendations

It is recommended that:

1. The Board authorize YRRTC staff, as Metrolinx's representative, to enter into a construction agreement with the Ontario Ministry of Transportation (MTO), for widening and rehabilitation of the Highway 7 bridge over Highway 400, and other works within the interchange area.
2. The Board authorize YRRTC staff, as Metrolinx's representative, to enter into a construction agreement with 407ETR, for repurposing and the rehabilitation of the Bathurst Street bridge over Highway 407.

## Purpose

The purpose of this report is to facilitate the construction of the second phase of the Vaughan vivaNext Rapidway Project by:

- Entering into construction agreements with the Ontario Ministry of Transportation (“MTO”) to permit the widening and rehabilitation of the Highway 7 bridge at Highway 400 and other works within the interchange area.
- Entering into construction agreement with 407ETR for rehabilitation of Bathurst Street bridge over Highway 407.

## Background

### The second phase of the Vaughan VivaNext Rapidway Projects is funded by Metrolinx and well underway

- The second phase of the Vaughan VivaNext Bus Rapid Transit (“H2W&E”) Project is funded by Metrolinx and includes the following segments:
  - Highway 7 from Bruce Street to Edgeley Boulevard,
  - Centre Street from Highway 7 to Bathurst Street,
  - Bathurst Street from Centre Street to Highway 7, and
  - Highway 7 from Bathurst Street to Yonge Street



- The second phase of the Vaughan VivaNext Rapidway project includes the addition of bus rapidway lanes, raised cycle tracks, and enhanced and urbanized boulevards along the corridor.
- The contract is being delivered as a Design-Build-Finance (“DBF”) contract, using the Infrastructure Ontario Alternative Financing and Procurement model.
- Metrolinx entered into a project agreement with EllisDon-Coco VivaNext Partnership (“Project Co”) dated September 18, 2015 in respect of the design, construction and financing of the vivaNext Bus Rapid Transit Expansion Project (H2W&E) (“vivaNext Project Agreement”), YRRTC has been designated through its agreement with Metrolinx to carry out the administrative responsibility for the rights and obligations of Metrolinx pursuant to the terms of the vivaNext Project Agreement.

- The DBF contractor is a joint partnership between EllisDon and Coco Paving Inc. (“EDCO”). Design is well advanced and utility relocations are ongoing. The scheduled completion of the H2W&E project is December 2019.

**The second phase of the Vaughan VivaNext Bus Rapid Transit (H2W&E) project includes widening and rehabilitation of the Highway 7 bridge over Highway 400**

- The MTO has jurisdiction over the structures and lands at the Highway 400/Highway 7 interchange.
- Major project works within the Highway 400 Control-Access Highway (“CAH”) limits include widening and rehabilitation of the existing Highway 7 bridge over Highway 400.
- These works are to accommodate the rapid transit lanes, a multi-use path (MUP) for cyclists and pedestrians, and the relocation of the Highway 400 South to East/West and East to North ramps, (Attachments 1 and 2).
- This work is on the critical path for the project schedule.

**The second phase of the Vaughan VivaNext Bus Rapid Transit (H2W&E) project includes lane re-purposing and the minor rehabilitation of the Bathurst Street bridge over Highway 407**

- The 407ETR has jurisdiction over the structures and lands at the Highway 407/Bathurst Street interchange.
- Bathurst Street in the vicinity of Highway 407 will include a southbound rapid transit lane, which requires removal of the existing median on the Bathurst Street bridge over Highway 407 in addition to repaving the road surface (Attachment 2, Figure 2).

**Encroachment permit requires an executed construction, operation and maintenance agreement with the Ministry of Transportation of Ontario (MTO) and 407 Express Toll Route (ETR)**

- The Design-Build Finance (DBF) contractor requires encroachment permits from MTO and from 407 ETR, to carry out works within the MTO and 407 ETR control access highway (CAH) limits.
- MTO and 407ETR require that the Region enter into Operations and Maintenance agreements.
- MTO and 407ETR require YRRTC, as Metrolinx’s representative, enter into Construction agreements, prior to MTO and 407ETR issuing encroachment permits to the DBF contractor, authorizing the works to proceed.

## ANALYSIS AND IMPLICATIONS

### **A partial encroachment permit has been issued by the Ministry of Transportation (MTO) for phased construction works on the Highway 7 bridge**

- In lieu of an executed construction agreement, the Design-Build-Finance contractor has had to split the MTO control access highway (CAH) limits works into phases, to try and acquire encroachment permits for smaller packages of work, until such time that the Construction, Operations and Maintenance agreements are executed.
- MTO has issued a partial encroachment permit to the DBF contractor to allow works to commence on the Highway 7 bridge substructure in May 2017.
- The scope of these works will be completed by August 2017, upon which time the partial encroachment permit will expire, prior to placement of bridge girders currently scheduled for September 2017.

### **Ministry of Transportation (MTO) issuance of further encroachment permit requires execution of the Construction agreement with YRRTC and the Operations and Maintenance agreement with York Region**

- MTO has noted that prior to issuance of any further encroachment permits for works within their control access highway (CAH) limits, execution of the Construction, Operations and Maintenance agreements will be required.
- It is imperative that the project work towards execution of these agreements well before September 2017.
- This will provide the Design-Build Finance contractor the confidence level required to maintain a focused planning for the works on the structure (e.g. girders and other long lead-time materials order), and avoiding construction delays to the Highway 400 works, which are on the critical path of the H2W&E project schedule.
- YRRTC will enter into a construction agreement with MTO in parallel to York Region entering into a long-term operation and maintenance agreement with MTO.

### **Principles of construction agreements are in line with the second phase of the Vaughan VivaNext Bus Rapid Transit (H2W&E) Project Agreement**

- The principles of the Construction, Operations and Maintenance agreements are being negotiated with MTO and with 407ETR to reflect the obligations of the

H2W&E Project Agreement (design-build contract), such as design review and approval, permits, coordination, insurance, etc.

### **York Region will enter into Operations and Maintenance agreements with Ministry of Transportation (MTO) MTO and 407ETR for the long term maintenance of the bridges**

- In cases where the Region’s public roadways pass under or over Provincial highways, the MTO has jurisdiction over these sections of the crossing public roads. MTO Directive (B-101) for Provincial Highways, dated May 11, 1988 describes and clarifies maintenance, repair and rehabilitation activities involving grade separations and intersections
- The proposed Operation agreements are similar to other MTO agreements which require municipalities to operate and maintain the roadway under its jurisdiction in accordance with the Ministry Directive B-101 for Provincial Highways dated May 11, 1988. The proposed agreements will address the following elements as a result of the H2W&E Project such as Multi-Use Path and rapid transit lanes
- Both MTO and 407ETR have however, requested that York Region enter into Operations and Maintenance agreements with both parties, respectively. In the Bathurst Street bridge at Highway 407 Operation and Maintenance agreement, the Region will be responsible for costs associated with the operation, maintenance, repair, and/or rehabilitation services of the Bathurst Street structure changes
- York Region will bring forth a report to Committee of the Whole and York Region Council to seek authority to enter into Operation and Maintenance agreement

### **Financial Considerations**

- There are no financial impacts to the execution of the construction agreements as all construction work is within the two interchange areas which are included in the base scope of the contract with the design-build finance contractor.
- York Region will bring forth a report to Committee of the Whole and York Region Council on the Operation and Maintenance agreements. The proposed Operation and Maintenance Agreements are in accordance with the general principles of B-101 Provincial legislation.

### **Conclusion**

- Phased construction work at the Highway 7 bridge has commenced under a partial encroachment permit issued by MTO to the DBF contractor. To date,

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407ETR has issued permits to enter and construct to the DBF contractor, for miscellaneous works at the Bathurst Street bridge. Both MTO and 407ETR require that Construction, Operations and Maintenance agreements are executed prior to issuing any further permits (MTO), or issuing permits for significant works (407ETR).

- Construction agreements between MTO and YRRTC, and between 407ETR and YRRTC, with YRRTC as Metrolinx’s Representative, are executed to allow MTO and 407ETR to issue encroachment permits to the DBF contractor, for the Highway 7 bridge works, and the Bathurst Street bridge works, respectively. Failure to execute these agreements potentially before August 2017 will result in delays to the H2W&E project.

For more information on this report, please contact Paul May, Chief Engineer, York Region Rapid Transit Corporation at 905-886-6767, Ext. 71030.

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Mary-Frances Turner  
President

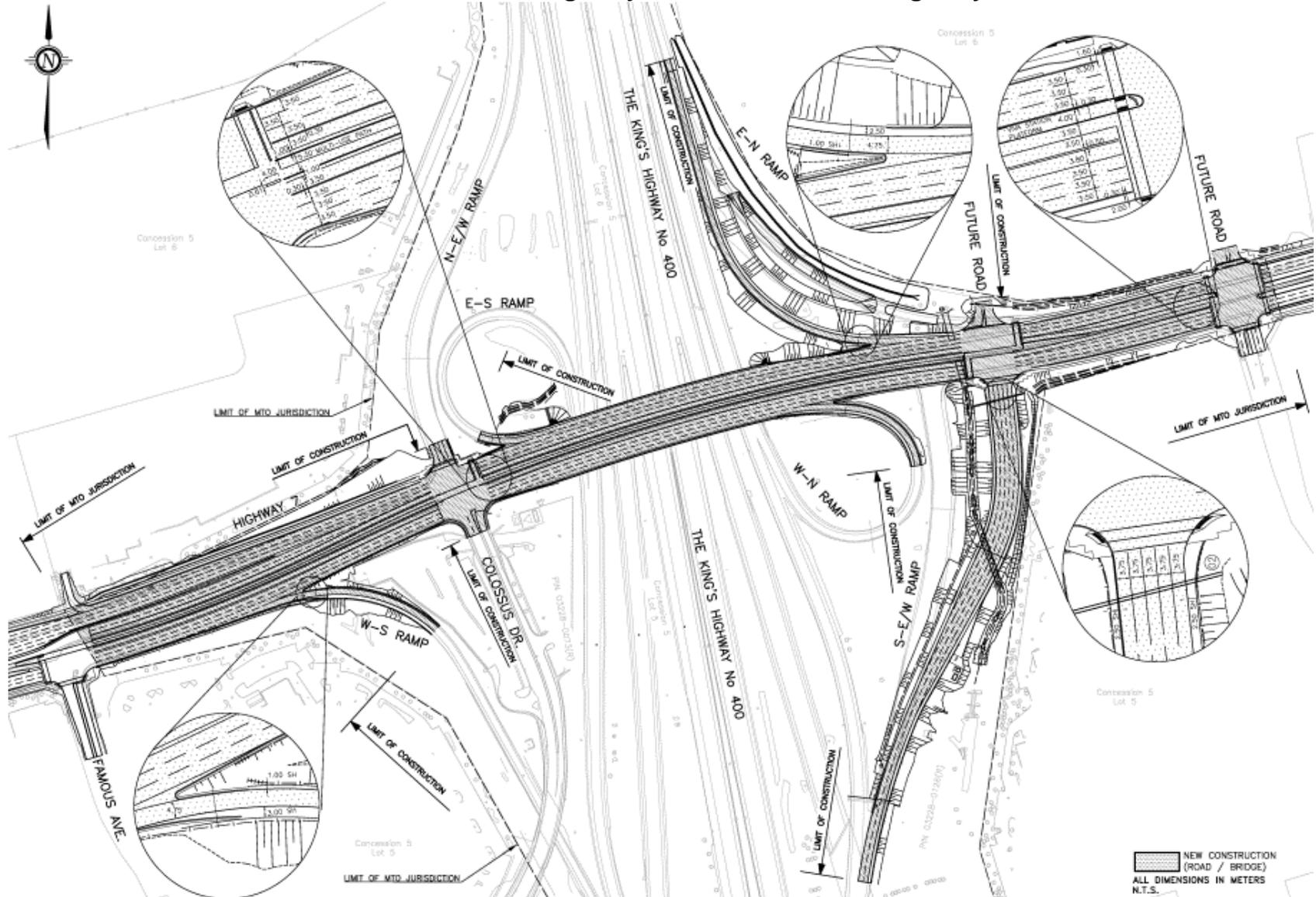
June 8, 2017

Attachments (2)

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Accessible formats or communication supports are available upon request.

**Attachment 1**  
**H2W&E Works within Highway 400 Control-Access Highway**



**Attachment 2**

**Figure 1: Highway 7 Bridge at Highway 400 - Cross-section**

**Proposed Lane Configuration**



**Figure 2: Bathurst Street Bridge at Highway 407 - Cross-section**

**Proposed Lane Configuration**

