

Clause No. 4 in Report No. 1 of Committee of the Whole was adopted, without amendment, by the Council of The Regional Municipality of York at its meeting held on January 23, 2014.

**4**

**ADDITIONAL SCOPE OF WORK FOR HIGHWAY 7 EAST  
FROM TOWN CENTRE BOULEVARD TO SCIBERRAS ROAD  
CITY OF MARKHAM**

**Committee of the Whole recommends adoption of the following recommendations contained in the report dated December 16, 2013 from the Commissioner of Transportation and Community Planning:**

**1. RECOMMENDATION**

It is recommended that:

1. Council approve an increase of \$466,000, excluding taxes, to contract number B00014627 for additional detailed design and field investigation work for the reconstruction and widening of Highway 7 East, from Town Centre Boulevard to Sciberras Road, in the City of Markham, thereby increasing the fees for AECOM Canada Limited to \$808,699.

**2. PURPOSE**

This report seeks Council authorization to increase the scope of work and fees under the engineering services agreement with AECOM Canada Limited for the detailed design of Highway 7 East, from Town Centre Boulevard to Sciberras Road, in the City of Markham.

The recommended purchase order increase is in excess of the scope change and contingency allowance in the Region's Purchasing Bylaw. A context map and location plan is appended to this report (see *Attachment 1*).

### **3. BACKGROUND**

#### **Environmental assessment clearance was obtained as part of the York Region Rapid Transit Plan**

An Individual Environmental Assessment report was approved in November 2006 for the York Region Rapid Transit Plan on Highway 7. The Individual Environmental Assessment report recommended widening Highway 7 to six-lanes from Montgomery Court to Sciberras Road. The recommendations also included a streetscaped median, a three-metre bicycle path on the south boulevard and “Regional Centre” streetscaping.

#### **Construction west of Town Centre Boulevard is underway as part of the vivaNext project**

The York Region Rapid Transit Corporation is delivering improvements to Highway 7, from Montgomery Court to Town Centre Boulevard, as part of the H3 vivaNext project, which includes a widening of Highway 7 in addition to the exclusive transit-only rapidway lanes. This work is under construction and is scheduled for completion in 2014.

#### **This section of Highway 7 is part of a Regional Centre and provides the primary transportation corridor to support the high density, mixed-use development underway in Markham Centre**

The Regional Official Plan identifies a number of Regional Centres across York Region. Regional Centres are intended to serve as the focal points for living, working, shopping and entertainment within the community. They include higher densities as well as a mix of employment and residential land uses. Markham Centre has been designated a Regional Centre. The section of Highway 7 between Town Centre Boulevard and Sciberras Road, is intended to provide significant transportation service to support the Regional Centre. This includes not only vehicle and transit service but also support and infrastructure for other forms of mobility, including walking, cycling and carpooling.

The City of Markham endorsed the redevelopment of the Highway 7 corridor in September 2011. This included road widening, enhanced streetscape elements, buffered on-street cycling facilities and Regional approval of Markham’s *Municipal Streetscape Partnership Program* works. Given the important function of Highway 7 within the Markham Centre, the City of Markham Council requested that Regional staff consult with City staff as well as Markham’s *Cycling and Pedestrian Advisory Committee* on the design of the pedestrian, cycling, transit and streetscaping elements of the project.

### **Design work between Town Centre Boulevard and Sciberras Road is being completed under two engineering services contracts**

AECOM Canada Limited was retained to provide engineering services for the detailed design of Highway 7 from Town Centre Boulevard to Verclaire Gate. The status is approaching 30 per cent completion.

URS Canada Inc. was retained to provide engineering services for the detailed design of Highway 7 from Verclaire Gate to east of Sciberras Road. The status is approaching 60 per cent completion.

The design criteria for both sections was based on the Individual Environment Assessment preliminary design and the Region's *Towards Great Regional Streets* standards.

The intent has been for AECOM Canada Limited to accelerate the design of their section to align with the Verclaire Gate to Sciberras Road section being designed by URS Canada Inc. The two design assignments would be combined into a single tender for Highway 7 from Town Centre Boulevard to Sciberras Road, with construction to commence in the first quarter of 2015.

## **4. ANALYSIS AND OPTIONS**

### **York Region design standards and criteria continue to evolve in order to reflect the changing context of urbanizing communities**

The Region has been developing *Context Sensitive Solutions* design guidelines and standards. This work has had a significant influence on the approach taken in the design of this section of Highway 7 as an "Urban Centre". The most notable impacts relate to the treatment of the boulevard and streetscaping elements. Based on the *Context Sensitive Solutions* guidelines, a reassessment of the Highway 7 corridor from Town Centre Boulevard to Sciberras was completed with a focus on the cross-section elements and boulevard treatments to reflect an "Urban Centre" designation.

### **The detailed design needs to reflect the plan to extend Viva service along Highway 7 east of Town Centre Boulevard**

The *Viva Network Expansion Plan* includes the extension of Viva service on Highway 7 east of Town Centre Boulevard. The expansion requires significant analysis and modification to the AECOM Canada Limited scope to provide a transition for Viva buses from the median rapidway lanes west of Town Centre Boulevard to curbside lanes to the east.

New curbside Viva stations also need to be designed at Warden Avenue, Village Parkway/Birchmount Avenue and Unionville Gate.

This represents a significant change to the original scopes of the AECOM Canada Limited and URS Canada Inc. engineering services assignments.

**York Region and the City of Markham have agreed to revise the design of the boulevard elements to better reflect an “Urban Centre” context**

York Region is evolving the approach to accommodating and providing for pedestrians, cyclists, and streetscape features within Regional corridors. Through discussions with City of Markham and their *Cycling and Pedestrian Advisory Committee*, the urban boulevards have been revised to include off-street cycling facilities, which will be located in closer proximity to the pedestrian facilities. This change reflects the evolving nature of Markham Centre to function as a downtown, and this section of Highway 7 to function as an “Urban Centre” corridor in addition to an arterial road. Based on this context, the Regional cycling facility needs to also perform a more local function for the portion of Highway 7 from Town Centre Boulevard to Sciberras Road.

This represents another significant change to the original scopes of the AECOM Canada Limited and URS Canada Inc. engineering services assignments.

**The design changes to reflect the “Urban Centre” context of the project are best delivered through a single engineering services provider**

The changes to the original scopes and previously completed work will require many elements of the detailed design work to be restarted. Both the AECOM Canada Limited and URS Canada Inc. engineering services contracts would be affected. Given that there are significant changes to both assignments, it is recommended that the detailed design assignment be delivered through a single engineering service provider for the following reasons:

- A single point of responsibility for completing the detailed design, which is planned to be delivered as a single construction project
- Consistency in the design of the transit, pedestrian, cycling, urban landscape and boulevard treatments
- Eliminate the co-ordination required between the adjacent road sections, which will be delivered as a single construction project
- Ease of co-ordination for all pre-construction activities, including utility relocations, permitting, property acquisition and liaison with residents and adjacent landowners

### **Staff have reviewed the project requirements and recommend AECOM Canada Limited deliver the complete detailed design assignment**

AECOM Canada Limited is best positioned to provide this service to York Region for the following reasons:

- Familiarity with York Region *Context Sensitive Solutions* guidelines because of their significant involvement in their development
- The team is already working on the most complex section of this project which must accommodate the transition of buses from the centre rapidway to curbside service between Town Centre Boulevard and Warden Avenue
- Staff expertise and experience working on York Region projects
- Immediate availability of all staff, sub-consultants and resources necessary to complete the combined projects

The contract with URS Canada Inc. would be closed.

### **Link to key Council-approved plans**

The reconstruction and widening of Highway 7 East from Town Centre Boulevard to Sciberras Road aligns with the 2011 to 2015 Strategic Plan goal to “continue to deliver and sustain critical infrastructure” by providing the additional lane capacity and “focus growth along Regional Centres and corridors” by incorporating the enhanced streetscaping features in the project under the *Municipal Streetscaping Partnership Policy*.

## **5. FINANCIAL IMPLICATIONS**

The design of this section of Highway 7 will reflect an “Urban Centre” context, which includes enhanced streetscaping consistent with the westerly sections of Highway 7 that are being constructed as part of the vivaNext Rapidway project. Impacts to the project from a capital perspective are negligible since elements such as off-street cycling facilities are replacing the previously planned on-street facilities.

Some costs are also being shared with the City of Markham through the *Municipal Streetscape Partnership Program*.

With the approval sought in this report, operating costs would increase for the new urbanized section compared to the existing rural cross-section; however, the costs are expected to be comparable with the rest of Highway 7 to the west being constructed as part of the vivaNext rapidways.

The fees to consolidate the design into a single assignment and incorporate the new design requirements summarized in this report are \$466,000. This increases the total fees for AECOM Canada Inc. to complete the detailed design assignment to \$808,669.

This fee increase is partially offset by the fees that will not be incurred on the URS Canada Inc. contract, which will be closed. The additional fees remaining on the URS Canada Inc. contract are \$163,000, which means the net increase in professional engineering services is \$303,000.

The project has an estimated construction value of \$16.6 million. Detailed design assignments typically represent five to seven per cent of the project's construction value. The recommended total AECOM fees for this project are \$808,669, which equates to approximately five per cent of the estimated construction value, which falls within this standard range.

There are sufficient funds in the 2014 Roads Capital Budget to cover the additional expenditures. This project is funded from 10 per cent tax levy and 90 percent development charges.

## **6. LOCAL MUNICIPAL IMPACT**

The reconstruction and widening of Highway 7 East from Town Centre Boulevard to Sciberras Road in Markham Centre will provide much needed infrastructure to ensure all travel modes are accommodated, and to support increased growth in the City of Markham.

Staff will work with the City of Markham to incorporate the local municipal infrastructure requirements, and to resolve the ownership, operation and maintenance of the pedestrian and cycling facilities, as well as the enhanced streetscape elements.

## **7. CONCLUSION**

The reconstruction and widening of Highway 7 East from Town Centre Boulevard to Sciberras Road in Markham Centre provides the needed road capacity for commuters in this corridor. By incorporating the enhanced boulevard and streetscaping features, the corridor is improved for all travel modes, including commuters, pedestrians, cyclists and businesses/developments adjacent to the right-of-way. The design also reflects the role of Highway 7 as a "main street" within the evolving Markham Centre.

Consolidating the engineering design work under the AECOM Canada Inc. assignment will facilitate the delivery of the project and provides single point accountability and responsibility from design through to construction. Staff recommends increasing the scope and fees of AECOM's contract to undertake the additional work in the amount of \$466,000.

For more information on this report, please contact Brian Titherington, Director Roads at ext. 75901.

The Senior Management Group has reviewed this report.

*Attachment (1)*



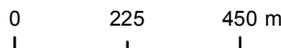
Path: G:\Transportation\T02 - Design and Planning\9817,9818 Y.R. 7 Hwy 7 -From Monticmery to Sciberras\Aerial Maps\Highway 7 from Towncentre to Sciberras Aerial Map Council Attachment Jan 2014.mxd

# Highway 7 Town Centre Boulevard to Sciberras Road City of Markham

Additional Scope of Work



Produced by:  
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Transportation and Community Planning Department  
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## Legend

- Regional Road
- Railway
- Project Site
- AECOM Design
- URS Design