

Clause 10 in Report No. 5 of Committee of the Whole was adopted, without amendment, by the Council of The Regional Municipality of York at its meeting held on March 26, 2015.

10

Highway 7 Lane Reductions  
City of Vaughan

**Committee of the Whole recommends adoption of the following recommendations contained in the report dated March 3, 2015 from the Commissioner of Transportation Services:**

1. Recommendations

It is recommended that:

1. Highway 7 be reduced from six to four lanes from east of Edgeley Boulevard to Jane Street, in the City of Vaughan, for an estimated duration of seven months from the end of May 2015, to the end of December 2015 to facilitate construction of the subway and vivaNext bus rapidway components of the future Vaughan Metropolitan Centre station.
2. The reduction of Highway 7 be contingent on implementation of feasible mitigation measures and confirmation that the lane reduction will achieve real schedule savings to the Vaughan Metropolitan Centre subway station, the overall opening date of the Toronto-York Spadina Subway Extension, and the vivaNext bus rapidway to the satisfaction of the Commissioner of Transportation Services.
3. The reduction of Highway 7 be contingent on approval from the Ontario Ministry of Transportation.
4. The Regional Clerk circulate this report to the Clerk of the City of Vaughan, the Ontario Ministry of Transportation, and the Toronto Transit Commission.

# Highway 7 Lane Reductions City of Vaughan

## 2. Purpose

This report seeks Council authority to reduce Highway 7, from east of Edgeley Boulevard to Jane Street, from six lanes to four lanes to facilitate the following:

- Construction of the subway extension and the Vaughan Metropolitan Centre (VMC) Station as part of the Toronto-York Spadina Subway Extension (TYSSE) project; and
- Handover of a section of Highway 7 to the York Region Rapid Transit Corporation (YRRTC) to facilitate construction of the vivaNext bus rapidway to enable its commissioning concurrently with the subway opening.

Temporarily reducing lanes for construction activity is within the Commissioner of Transportation Services' delegated authority but given the significance of this prospective reduction on Highway 7, Council authority is sought.

## 3. Background

The Spadina subway extension to the Vaughan Metropolitan Centre will connect with the new vivaNext bus rapidway

The YYSSE will be 8.6 kilometres in length, consisting of six new subway stations crossing the municipal boundary between the City of Toronto and York Region. Attachment 1 illustrates the location and alignment of the subway extension.

VMC Station is the new "end-of-the-line" station in York Region located primarily on the north side of Highway 7 west of Jane Street, and will have direct connection to the new at-grade vivaNext bus rapidway via platforms located in the median of Highway 7.

The subway extension project is being managed by the Toronto Transit Commission (TTC)

The Federal government, Province of Ontario, City of Toronto and York Region jointly fund the YYSSE. Delivery of the entire YYSSE construction project is managed by TTC, and the expected in-service date of late 2016 is under review and expected to be extended.

## Highway 7 Lane Reductions City of Vaughan

The vivaNext bus rapidway project is being managed by the York Region Rapid Transit Corporation

The vivaNext bus rapidway project along Highway 7 in the City of Vaughan is being managed by YRRTC. Construction of the project is funded by the Province through Metrolinx. Phase 1 of the project, which extends from Edgeley Boulevard to Bowes Road, is planned to open concurrently with the TYSSE.

Construction of the Toronto-York Spadina Subway Extension and Vaughan Metropolitan Centre Station is behind schedule

There is significant work remaining for the VMC Station, including handover of a section of Highway 7 to YRRTC to allow construction of the direct connection between the vivaNext bus rapidway and the VMC subway station. The handover, which was originally scheduled to occur in November of 2013, must be completed this year to mitigate further delays for subway station construction and the vivaNext bus rapidway project.

To avoid further delays and recover schedule, TTC has requested that York Region approve reduction of Highway 7 from six to four lanes from east of Edgeley Boulevard to Jane Street. Extending the duration of the lane reduction will expedite construction of the at-grade vivaNext bus rapidway to facilitate its opening concurrently with the VMC Station.

#### 4. Analysis and Options

Reducing Highway 7 to four lanes from east of Edgeley Boulevard to Jane Street will mitigate delays to both projects

The TYSSE construction contract requires the contractor to maintain six lanes along Highway 7 between Edgeley Boulevard and Jane Street; however, TTC is requesting approval to divert Highway 7 onto a four-lane detour to be constructed on the south side of existing Highway 7, which enables a larger excavation and reduces traffic staging requirements to mitigate delays to the subway project. YRRTC is requesting to further extend duration of the four-lane detour to mitigate delays on the vivaNext bus rapidway project. Attachment 2 illustrates the location of the proposed lane reductions and four-lane detour.

TTC is proposing the Highway 7 lane reduction for an estimated three months starting end of May 2015 through August 2015. As Highway 7 must span over the subway station excavation, there will be no opportunity to re-open six lanes on Highway 7 until the subway box structure is complete and the excavation backfilled.

## Highway 7 Lane Reductions City of Vaughan

The lane reduction would be further extended an estimated four months, to the end of December 2015, to expedite construction of the vivaNext bus rapidway. This extension is requested to align construction of the vivaNext bus rapidway with the opening of the subway. There will be an opportunity at this stage to re-establish six lanes on Highway 7, if necessary, although this may result in additional schedule and/or cost implications to the vivaNext bus rapidway project.

York Region's approval of this proposal mitigates at least one year of existing subway construction delays, which are also impacting the vivaNext bus rapidway project. TTC indicates that a refusal to accommodate the proposed lane reduction will preclude their ability to mitigate current project delays, resulting in impacts to both projects.

Highway 7 east of Jane Street is already reduced to four lanes through to the end of 2015

Highway 7 to the east of Jane Street is already reduced to four lanes for rapidway construction and is expected to remain reduced until the end of December 2015. The proposed lane reduction would extend the current all-day lane reduction on Highway 7 east of Jane Street westerly to east of Edgeley Boulevard (approximately 500 metres).

To assess traffic impacts associated with reducing Highway 7 between Edgeley Boulevard and Jane Street, joint analyses were conducted by the TTC and York Region. Recent traffic data collected in February of 2015 indicates that commuters have already changed their travel patterns, as Highway 7 traffic volumes have been reduced by approximately five to ten per cent relative to pre-construction volumes.

The traffic modelling, which was calibrated based on observations of existing traffic conditions, indicates that morning peak hour eastbound travel times on Highway 7 between Highway 400 and Jane Street are expected to increase from three minutes to six minutes. Westbound morning peak hour travel times between Jane Street and Highway 400 are expected to increase from three minutes to four minutes.

While travel time is an important measure of the transportation impacts, vehicle queue lengths are also important, particularly as they relate to the Highway 400 interchange ramps. The traffic modelling shows that vehicle queues on the Highway 400 off-ramps will not extend back to the mainline highway.

Lane reductions in the area of highway interchanges require Ontario Ministry of Transportation (MTO) approval. Initial meetings with the MTO have been positive, with an approval decision expected in March once the traffic modelling work has been reviewed.

## Highway 7 Lane Reductions City of Vaughan

Mitigation options are being investigated in conjunction with an extensive communication plan for affected stakeholders

A comprehensive package of mitigation measures are being implemented to help manage and minimize traffic disruption on Highway 7 and the surrounding area, and include:

- Maintaining all exclusive turn lanes and maximizing vehicle storage
- Deploying electronic message signs informing motorists of real-time delays
- Installing detour signs directing motorists to use alternate routes. Attachment 3 shows alternate routes in the area.
- Monitoring traffic operations closely in the Region's Traffic Management Centre to ensure signal timings are adjusted as necessary to accommodate demands

TTC will implement an extensive communication plan in advance of work to ensure effective community outreach. This includes a mail notification, construction notices, road closure signage, a website feature, email blasts and newspaper advertisements. In addition, business owners in the affected area will be contacted directly. All public inquiries concerning the lane closures will be directed to the call centre for the TYSSE project for briefing and information.

The responsibility of communication and response to public inquiries will be taken over by the YRRTC team once the site is handed over to facilitate construction of the vivaNext bus rapidway project.

Some additional measures are being explored to assist in mitigating impacts including:

- Adding an additional lane to Portage Parkway between Edgeley Boulevard and Jane Street, either through a local widening or by changing pavement markings
- Adding a dual eastbound left turn lane at the intersection of Highway 7 and Edgeley Boulevard to encourage increased use of Portage Parkway as an alternate route
- Temporarily removing the northbound left turn restriction at the intersection of Jane Street at Interchange Way to divert traffic from the Highway 7 at Jane Street intersection

## Highway 7 Lane Reductions City of Vaughan

The benefits and feasibility of these additional mitigation measures are still being investigated and therefore are not included in the traffic modelling results discussed above. Some measures would also require approvals from other agencies such as the City of Vaughan or the Ministry of Transportation of Ontario.

The lane reduction on Highway 7 will not impact the Games Route Network for the Pan Am/Parapan Am Games

Highway 407 is established as the east-west corridor for the Games Route Network, which will accommodate athletes, media and high occupancy vehicle trips. The Games Route Network ensures travel time reliability for all coaches, athletes, and officials travelling between athlete's villages and event venues. The proposed lane reduction on Highway 7 is not expected to impact travel times for Pan Am/Parapan Am games participants.

It is recognized that there are a number of hotels in the VMC area that will likely accommodate tourists travelling to various Pan Am/Parapan Am games events. All of the hotels are accessed from the local road network including Edgeley Boulevard, Portage Parkway and Applewood Crescent. Travel on these routes will be maintained while the lane reduction is in place.

YRT/Viva service can be adjusted as required to accommodate the proposed lane closures

YRT/Viva has been managing the lane closures associated with the construction of the vivaNext bus rapidway and subway in this area for the past two years. Transit services can be maintained through the proposed lane closures on Highway 7 between Jane Street and Edgeley Boulevard by using additional buses and monitoring service.

Link to key Council-approved plans

This report supports the 2011-2015 Strategic Plan priority areas to increase economic vitality and focus growth along Regional corridors.

### 5. Financial Implications

The proposed lane reduction will mitigate construction delays and costs to the TYSSE project and vivaNext bus rapidway project. Adding additional bus service to mitigate transit service delays through the corridor for the eight-month lane reduction will create an operational pressure of approximately \$250,000.

## 6. Local Municipal Impact

TTC used a similar approach for construction of the Finch West Station, which required a full closure of Keele Street at Finch Avenue

TTC has already used a similar communication approach on the TYSSE project to mitigate construction delays. To facilitate construction of the Finch West Station in the City of Toronto, a full road closure of Keele Street at Finch Avenue was required from July 7 to September 15, 2014. TTC will build on this experience and work closely with the Region and stakeholders in the planning and public communication process for the proposed Highway 7 lane reduction.

Region staff will assist TTC by meeting with City of Vaughan staff to co-ordinate implementation of feasible mitigation measures, and with local and Regional Councillors on behalf of the project to explain the need for the Highway 7 lane reduction.

## 7. Conclusion

The proposed lane reduction on Highway 7 from east of Edgeley Boulevard to Jane Street is requested to reduce construction delays and costs for construction of the Vaughan Metropolitan Centre (VMC) Station, as part of the Toronto-York Spadina Extension (TYSSE) project and the vivaNext bus rapidway project.

To manage traffic impacts, an extensive communication plan will be implemented in addition to a number of mitigating measures.

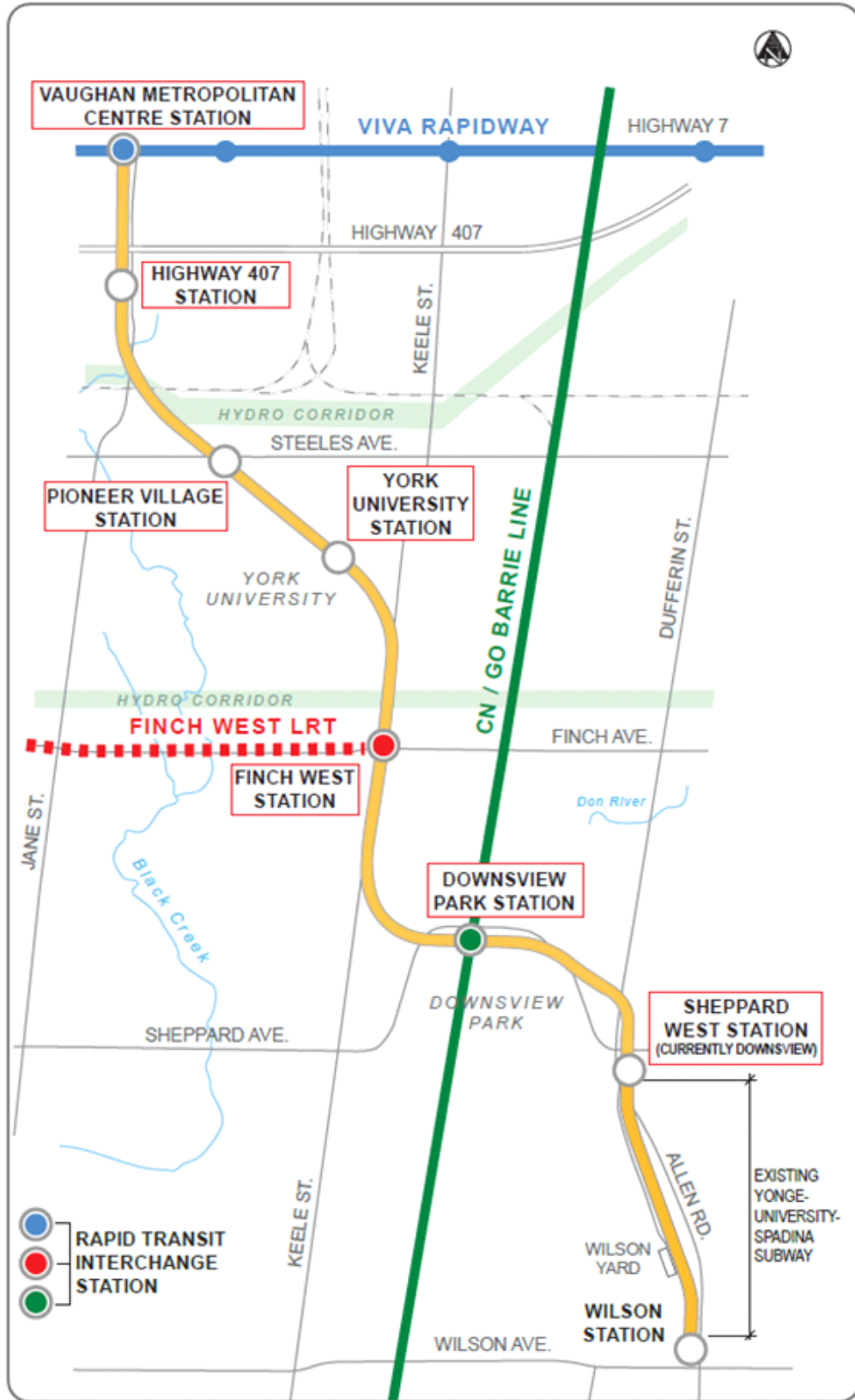
For more information on this report, please contact Brian Titherington, Director, Roads and Traffic Operations at ext. 75901.

The Senior Management Group has reviewed this report.

Attachments (3)

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Accessible formats or communication supports are available upon request



# Highway 7 Lane Reductions

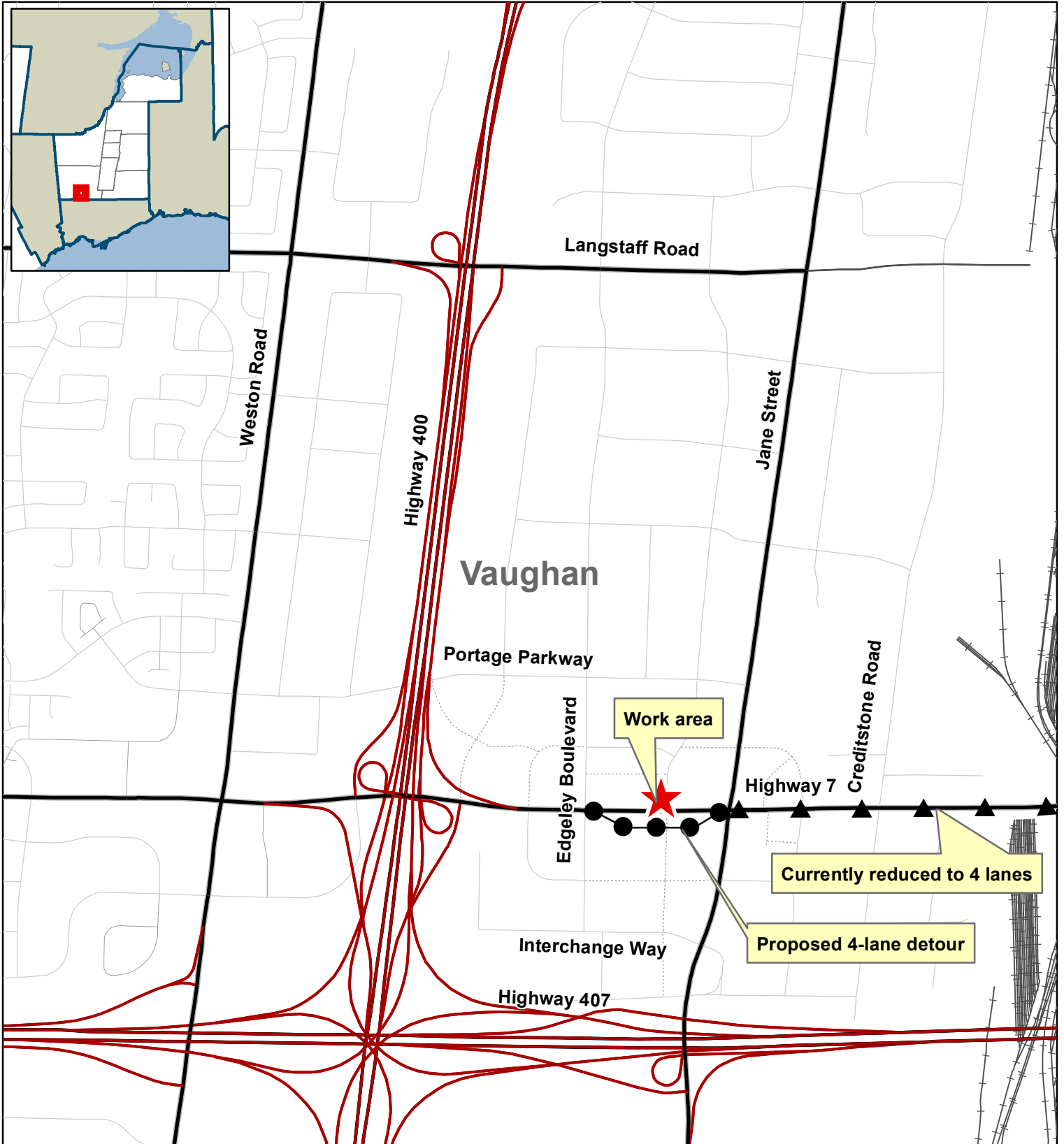
Toronto - York Spadina Subway Extension Route Map, March 5, 2015



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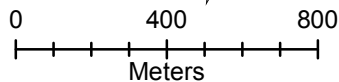
# Highway 7 Lane Reductions

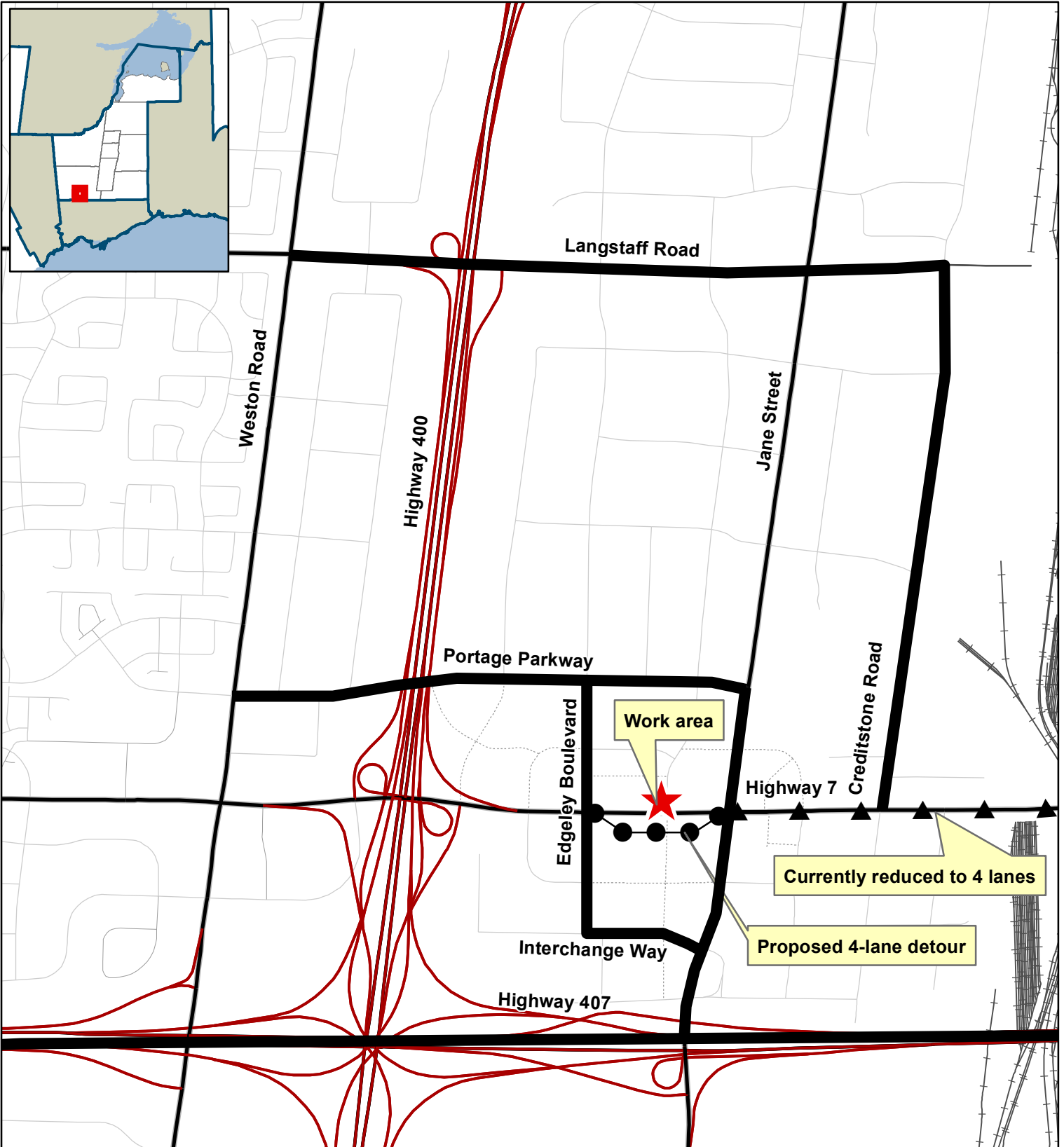
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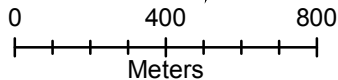
# Highway 7 Lane Reductions - Alternate Routes

March 5, 2015



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## Legend

 Alternate Routes

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