



Clause No. 13 in Report No. 5 of the Committee of the Whole was adopted, without amendment, by the Council of The Regional Municipality of York at its meeting on March 27, 2014

**CONSULTANT SERVICE FEES FOR ADDITIONAL SCOPE FOR DETAILED DESIGN
ROUNDBOUT AT YORK/DURHAM LINE AND DURHAM REGIONAL ROAD 5
CITY OF MARKHAM AND CITY OF PICKERING**

Committee of the Whole recommends adoption of the following recommendation contained in the report dated February 24, 2014 from the Commissioner of Transportation and Community Planning:

1. RECOMMENDATION

It is recommended that:

1. Council authorize the agreement between the Region and Robinson Consultants Inc. for the detailed design of the intersection improvements at York/Durham Line (Y.R. 30) and Durham Regional Road 5, in the City of Markham, and City of Pickering, be amended to increase the contract price, within the Capital Spending Authority for this project, from \$99,750 to \$194,530, excluding HST, as a result of an increase to the scope of work required to complete the assignment.

2. PURPOSE

This report seeks Council authorization to increase Blanket Purchase Order No. B00014548 issued to Robinson Consultants Inc. for the detailed design of the Roundabout Intersection Improvements at York/Durham Line and Durham Regional Road 5, in the City of Markham and the City of Pickering. The increase is necessary to undertake additional work, including a peer review, enhanced consultation, host a Public Information Centre and liaison during construction (see *Attachment 1*).

As the additional fees exceed staff authorities provided for in the Region's Purchasing By-law, Council approval is required for this increase.

3. BACKGROUND

The intersection of York/Durham Line and Durham Regional Road 5 had an irregular layout which created operational issues

The intersection of York/Durham Line and Durham Regional Road 5 is located approximately 1.3 km north of Elgin Mills Road. York/Durham Line and Durham Regional Road 5 are predominately two-lane rural roads within 20 metre rights-of-way. Under the terms of the boundary road agreement with Durham Region, York Region is responsible for routine maintenance and capital improvements of this intersection.

The intersection of York/Durham Line and Durham Regional Road 5 had an irregular configuration. It consisted of a T-intersection with a free flowing ramp that facilitated two-way traffic movements to and from the north on York/Durham Line, and to and from the east on Durham Regional Road 5, which was the predominant movement over the last few decades (see *Attachment 2*).

Vehicles destined to or from the south on York/Durham Line had to yield to traffic using the ramp portion. Although well signed, an increase in the volume of north-south traffic on the York-Durham line in recent years justified consideration of intersection improvements.

An engineering services contract was awarded to complete the detailed design of the preferred roundabout solution

York and Durham Regions identified improvements to this intersection and a feasibility study was undertaken which identified a single lane roundabout as the preferred solution to address near-term operational needs (see *Attachment 3*).

In April 2013, an engineering services contract was awarded to Robinson Consultants Inc. to complete the detailed design of the preferred solution. Their scope of work also included contract preparation services. To meet the objective to have the roundabout in-service by December 2013, the construction contract needed to be ready for tender in July 2013. The project team worked diligently and met the tender release date.

A construction contract was tendered in July 2013 and awarded to Miwel Construction in September 2013

Significant focus was put on delivery of this project to construct and open the roundabout before winter. A public tender was issued and the contract for construction of the roundabout was awarded to Miwel Construction. Construction began in September 2013 and the roundabout was opened to traffic on December 21, 2013.

Construction was suspended for winter shutdown and will resume in spring 2014. Final grading, paving, landscaping and restoration are remaining and will be completed in summer 2014.

4. ANALYSIS AND OPTIONS

Significant extra design work was required to address unanticipated requirements of this project - York Region's first roundabout

The original scope of work that Robinson Consultants Inc. was contracted for was based on York Region's design standards and limited internal roundabout experience. As the detailed design work progressed, it became evident that significant unanticipated work was necessary to ensure the needs of various stakeholders were met. These stakeholders included:

- City of Markham
- City of Pickering
- Durham Region
- Residents
- Area agricultural community
- Regulators
- Various operating groups within our Transportation and Community Planning Department

The additional work includes:

- Independent peer review
- Design revisions to reflect peer review and extensive stakeholder comments
- Species at Risk Assessment
- Public Information Session and enhanced stakeholder consultation
- Liaison during construction

New standards had to be developed for the Region's first roundabout, as well as for the unique context of this rural boundary road intersection

Staff gained significant new knowledge and experience during the detailed design of this project, York Region's first roundabout. This was acquired through extensive review of roundabout design principles, consultation with other jurisdictions, including The Region of Waterloo who has significant experience in roundabout design and operations, as well as the completion of a detailed peer review.

The rural context of the intersection and the unique vehicles/equipment using the road network in this area required an iterative approach to the detailed design. Several revisions were needed to ensure that the oversized farm equipment that travels through this intersection was accommodated.

All of this effort has produced a roundabout design for this project that will provide a strong foundation as the Region implements roundabouts as an alternate form of intersection control.

A Species at Risk investigation was as a result of a constructability review

A constructability review identified the need to conduct a Species at Risk study of the construction limits. The study was required to meet regulatory requirements and to ensure any identified species at risk were properly accommodated and any impacts mitigated during construction. The necessity for the Species at Risk study was not known when the original scope was developed and was therefore beyond the scope of work identified in the engineering assignment.

As this was York Region's first roundabout, a Public Information Centre was completed to ensure that all key stakeholders were informed

These intersection improvements qualified as a Scheduled A+ undertaking in accordance with the Municipal Class Environmental Assessment process. The typical notification for schedule A+ undertakings is a newspaper advertisement. Staff determined that a higher level of information exchange was appropriate and hosted a Public Information Centre on July 11, 2013. This public meeting was not anticipated in the original scope of work.

Link to key Council-approved plans

The intersection improvements being implemented at York/Durham Line and Durham Regional Road 5 align with the 2011 to 2015 Strategic Plan goal to "*continue to deliver and sustain critical infrastructure*". The project improves traffic operations and enhances road user navigation through the intersection.

5. FINANCIAL IMPLICATIONS

Additional fees in the amount of \$94,780 are required to complete the requirements of this assignment. Staff reviewed the request for additional work and consider the fees to be fair and reasonable, based on the amended total fee of \$194,530 being less than similar work Robinson Consultants Inc. is completing on a similar project for York Region.

There are sufficient funds in the approved 2014 Roads Capital Budget to fund this additional work. All expenditures for this project are funded 90 per cent from development charges and 10 per cent from tax levy.

6. LOCAL MUNICIPAL IMPACT

The implementation of the intersection improvements at York/Durham Line and Durham Regional Road 5 will improve the operational efficiency of the intersection, and the transportation needs of commuters and commercial traffic between the City of Markham, City of Pickering, and Town of Whitchurch-Stouffville.

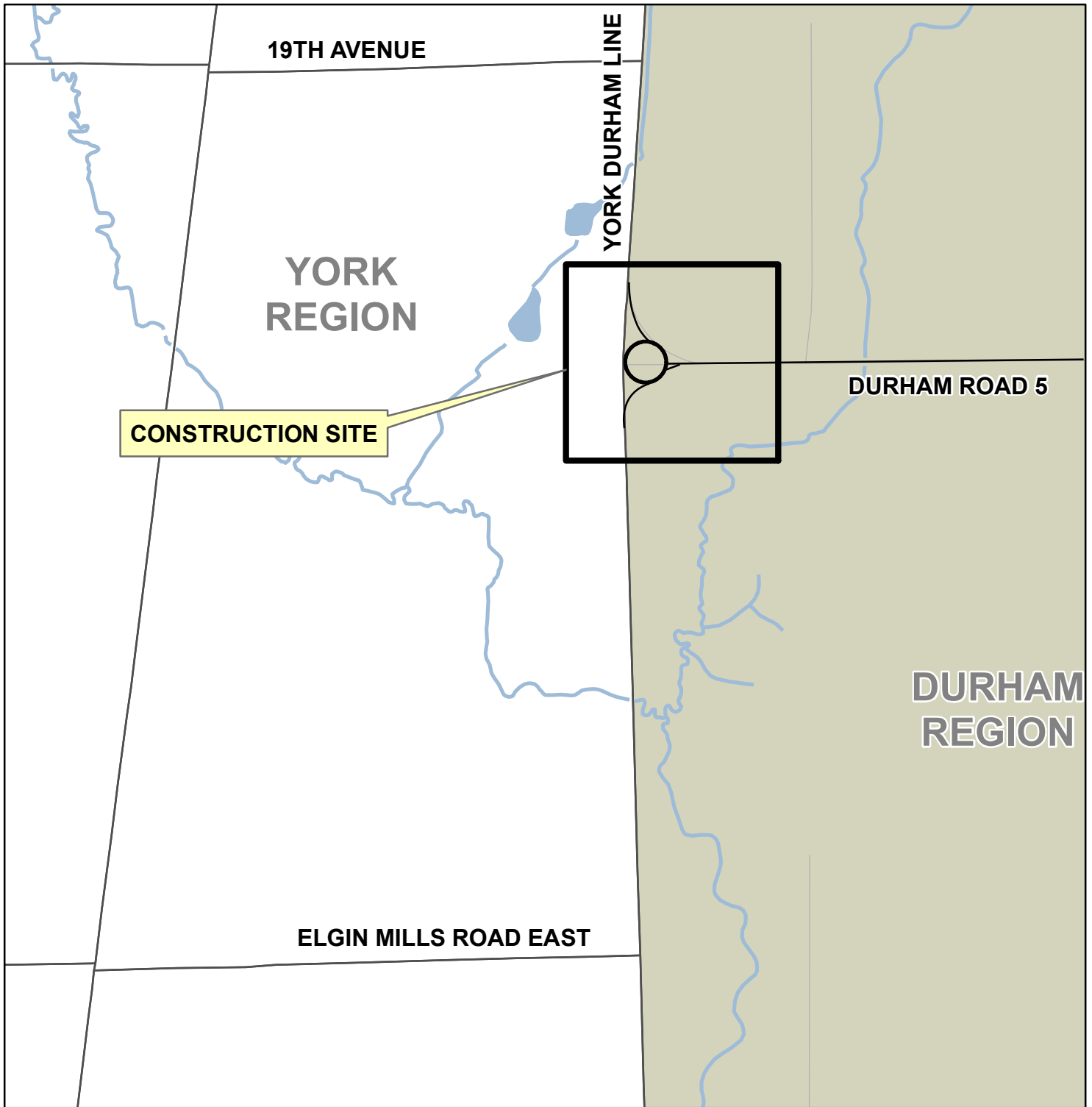
7. CONCLUSION

There is a need to undertake additional work to complete the detailed design and liaison during construction of the intersection improvement at York/Durham Line and Durham Regional Road 5. Additional fees in the amount of \$94,780 are required to complete this assignment. Council authorization is being sought to increase the overall purchase order with Robinson Consultants Inc. from \$99,750 to \$194,530, excluding HST.

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

The Senior Management Group has reviewed this report.

Attachments (3)

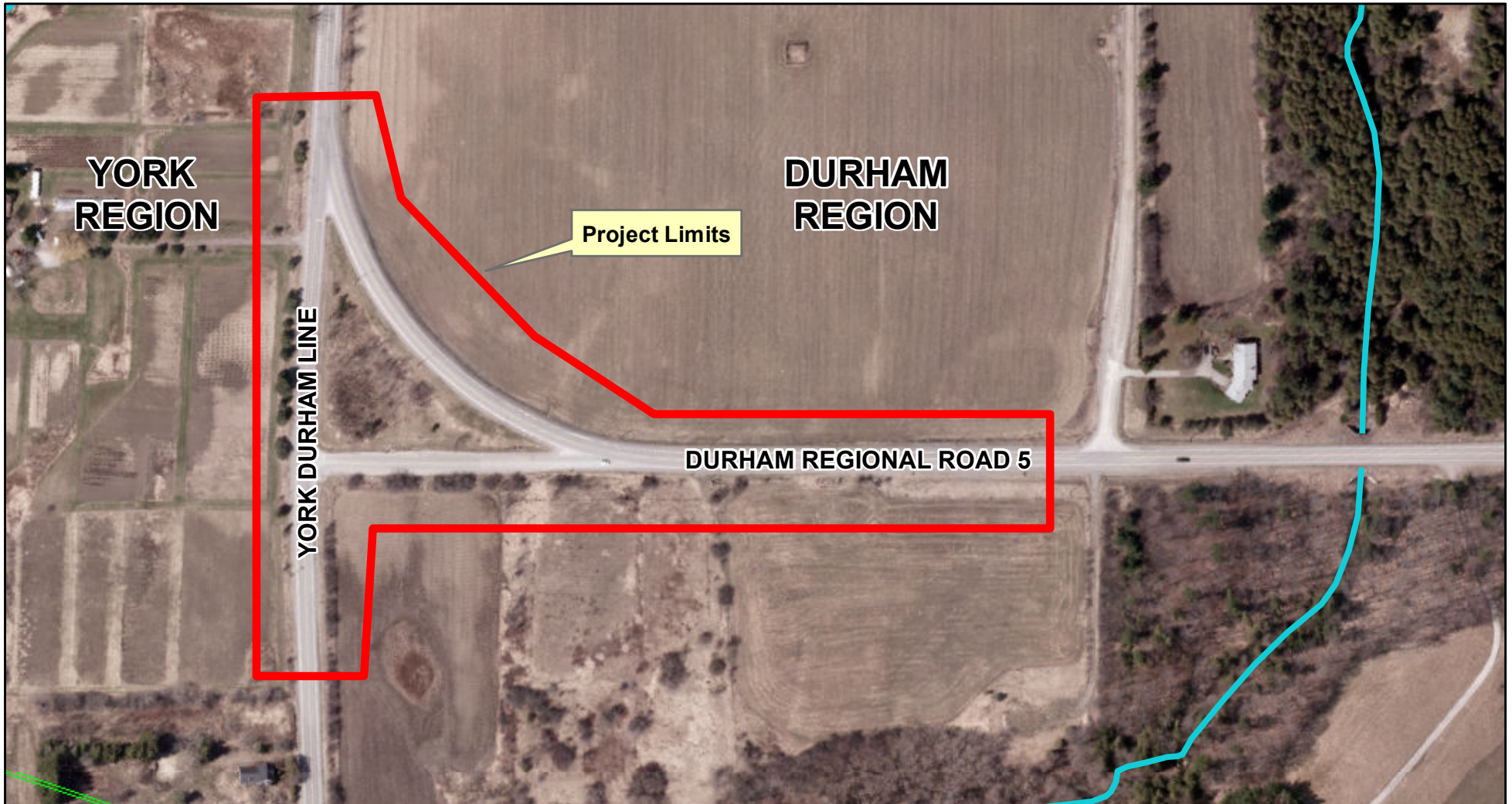


LOCATION PLAN
YORK-DURHAM LINE AND DURHAM ROAD 5



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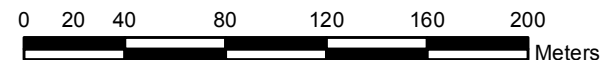
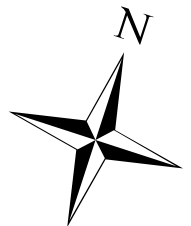




LOCATION PLAN
YORK DURHAM LINE AND DURHAM REGIONAL ROAD 5
PROJECT NUMBER 80270

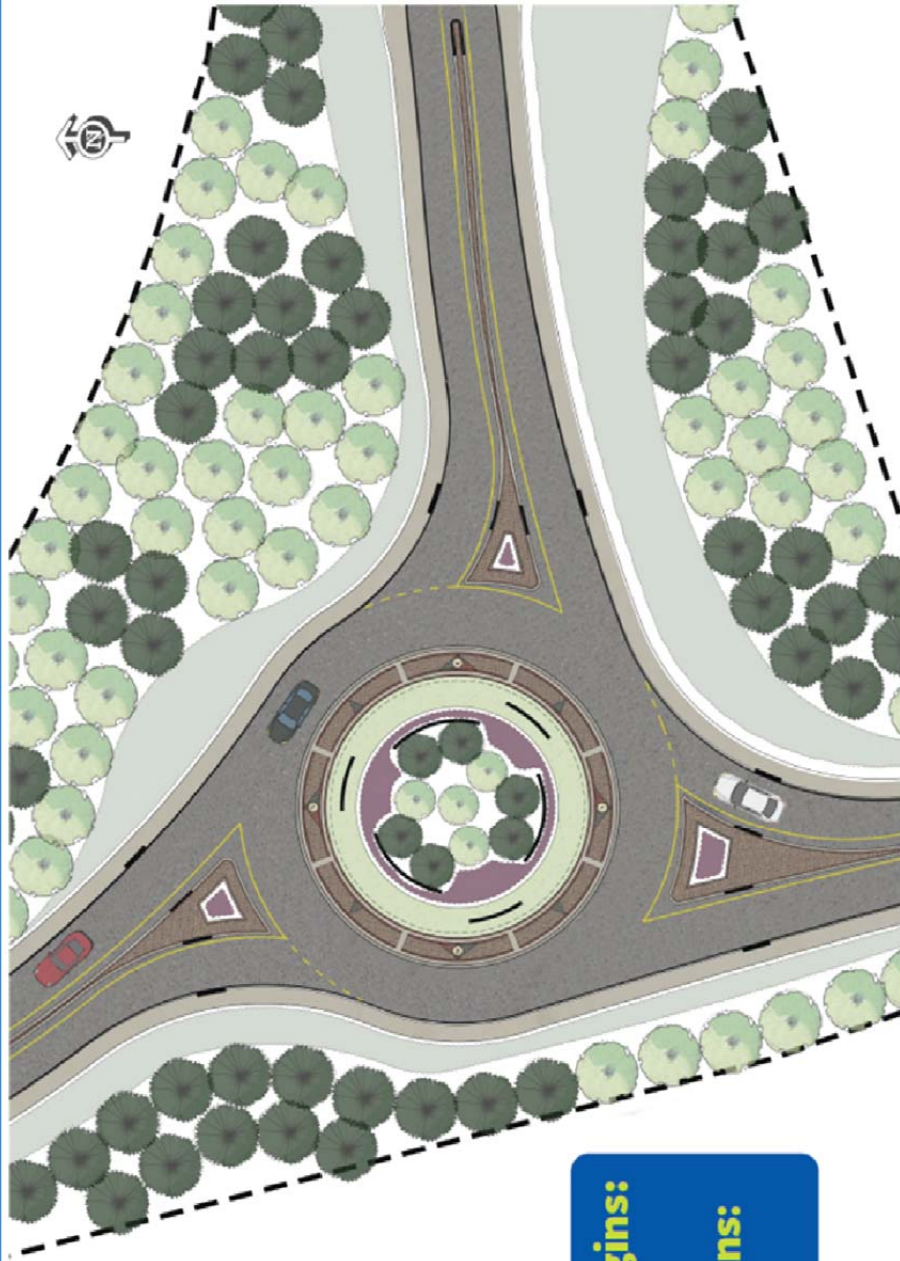


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Roundabout construction

York Durham Line at
Durham Road 5



Construction Begins:
September 2013
Intersection Opens:
December 2013



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