

To: York Region Rapid Transit Corporation Board of Directors
From: Mary-Frances Turner, President
Subject: Memorandum of Understanding for a Stormwater Retrofit Project with the Lake Simcoe Regional Conservation Authority (LSRCA) and York Region

Recommendation(s)

It is recommended that:

1. The Board authorizes staff to enter into a Memorandum of Understanding (MOU) with the Lake Simcoe Regional Conservation Authority (LSRCA) and York Region for a stormwater retrofit project at 17250 Yonge Street, in Newmarket.
2. The Board authorizes staff to issue a request for proposal (RFP), to award and execute a contract, for the detailed design, contract administration and inspection for the stormwater retrofit project at 17250 Yonge Street in Newmarket.

Purpose

The purpose of this report is to:

- (i) Seek the Board's authorization for staff to enter into a Memorandum of Understanding (MOU) with Lake Simcoe Regional Conservation Authority (LSRCA) and York Region for the Stormwater Retrofit Project at 17250 Yonge Street, Newmarket
- (ii) Obtain the Board's authority to award a contract for the detailed design, contract administration and inspection for the Stormwater Retrofit Project at 17250 Yonge Street

- (iii) Provide the history, rationale, preliminary schedule and budget for the project

Background

LSRCA advised YRRTC that the vivaNext Yonge Street bus rapid transit project in Newmarket crosses the Western Creek catchment that has a number of existing flood prone areas and requires all projects to manage the stormwater impact

- The management of the stormwater impact is a condition of the issuance of the LSRCA's Section 28 permit of the Conservation Authorities Act, for the Yonge Street project work.
- The requirement to manage the stormwater impact was identified post planning, environmental assessment, preliminary engineering and design build procurement stages and YRRTC has agreed to make best efforts to mitigate the impacts of the increased drainage for the Yonge Street project in the Western Creek catchment area.
- There are limited opportunities to mitigate the impacts of the increased drainage due to constraints and cost restrictions inside the corridor right-of-way.
- LSRCA advised that should the stormwater management measures not be feasible to implement within the corridor; an "offset" approach could be utilized to mitigate the impacts at a 1:1 ratio for peak flow and additional runoff volume.
- Three locations were recommended by LSRCA to explore the opportunities for offsetting (17250 Yonge St, 100 Eagle St, and 50 Eagle St.).
- LSRCA noted that they are interested in partnering with the selected offset project, to obtain an overall net benefit to the reduction of the downstream runoff and to maximize the proposed site's potential for stormwater management measures.

YRRTC proposes to partner with York Region and LSRCA to implement a subsurface stormwater storage system at the 17250 Yonge Street location

- Together with York Region, the Town of Newmarket and property owners, YRRTC analyzed opportunities for offsetting, at three different locations.
- With the cooperation of the Newmarket, LSRCA retained Aquafor Beech Ltd. to review stormwater management potential and best practices at 100 Eagle Street, Newmarket.
- YRRTC evaluated the suite of the stormwater best management practices selected by Newmarket based on cost and schedule considerations.
 - Through this evaluation it was projected that the suite of measures selected would cost over \$1.5M to implement, and as a result was not recommended to carry forward to preliminary design.
 - The York Region Administration Centre at 17250 Yonge Street was also evaluated as a potential location for offsetting, and YRRTC retained WSP/MMM to review the site's drainage and stormwater management potential.
 - This site is located around the southeast corner of York Region's Administration Centre property, adjacent to the Yonge Street corridor (Attachment 1).
- In consultation with York Region and LSRCA, it was agreed in principle that that a stormwater retrofit project at 17250 Yonge Street had merit, based on the following factors:
 - Although the building was designed in accordance with approved standards at the time, the site has no drainage controls for quantity or quality
 - The site is directly adjacent to the corridor which is a practical location for the use of subsurface storage, providing low cost and low maintenance option
- LSRCA is interested in contributing to the project to maximize the site's potential and to achieve a net benefit.

- YRRTC and WSP/MMM have developed a Preliminary Design Report and a Project Partnership Principle Memo. The Preliminary Design Report recommends the subsurface storage system in front of the Administration Centre's Ceremonial Entrance.

The Design Criteria and contribution levels

Design Criteria	YRRTC Y3.2	LSRCA	York Region
Water Balance	560m ³	170m ³	0
Peak Flow	290L/s		0

** Quantities are approximate and to be confirmed during detailed design*

- The recommended option is to utilize a subsurface storage system, located in the grassed area adjacent to the Yonge Street right of way in front of the Administration Centre's Ceremonial Entrance, based on the following factors:
 - The existing storm system flows through this area making it ideal for retrofit
 - There is a low capital cost per unit
 - The long-term maintenance requirements at this location are considered low
 - The construction impact at this location is considered low

A Project Partnership Principle Memo was developed as the basis of a Memorandum of Understanding (MOU)

- *A project partnership principle memo was developed as the basis of a MOU, to be executed by the project participants.*
- An agreement must be reached on the principles contained within the Memo prior to the issuance of a LSRCA O.Reg.179/06 permit for the Yonge Street project
- *The project principles include the following:*
 1. Stormwater management measures will be retrofitted at 17250 Yonge Street at a ratio of 1:1 for the net increase in stormwater runoff over existing conditions to Western Creek as a result of the Yonge Street project.
 2. The offsite stormwater management measures apply to the Western Creek Drainage area only.

3. The stormwater retrofit project will be a subsurface storage system similar to that described “Y3.2/Stormwater Management Low Impact Development Retrofit Project Preliminary Design Report”.
4. LSRCA will consider partnering with the stormwater retrofit project at 17250 Yonge Street to maximize the stormwater management potential of the site and obtain an overall net benefit to downstream runoff reduction.
5. York Region will own, operate and maintain the stormwater facility and the project will include a 2 year warranty period.
6. The anticipated long-term maintenance is minimal, only requiring periodic inspections and cleaning.
7. YRRTC agrees to restore the stormwater retrofit project site at 17250 Yonge Street to a similar condition as currently existing and York Region’s sign will be reinstated, landscaping, utilities, etc.
8. YRRTC will coordinate work with York Region Property Services and both the Yonge Street and Annex projects to manage site and project impacts.
9. YRRTC will be the project managers for the stormwater retrofit project.
 - a. Impacts to the business operation of York Region’s Administration Centre will be minimized
 - b. A Traffic Management Plan will be prepared and submitted to York Region for approval
 - c. A detailed schedule will be prepared and submitted to York Region Property Services
 - d. YRRTC to provide regular updates to project stakeholders
10. York Region Property Services will assign a representative to the project, provide guidance, assist as required and aid in stakeholder communications.
11. The stormwater retrofit work at 17250 Yonge Street shall be installed and rendered operational prior to the completion of the Yonge Street project.
12. An agreement must be reached on the principles contained within the Memo prior to the issuance of a LSRCA O.Reg.179/06 permit for the Yonge Street project.

13. Cost Responsibility:

- a. YRRTC is responsible for all capital costs to design and construct the stormwater facility to mitigate project impacts to the level of performance outlined in principle #1
 - b. LSRCA is responsible for the capital costs to design and construct any additional stormwater measures requested that provide performance above and beyond the requirements outlined in principle #1
 - c. York Region is responsible for the operational and maintenance costs
14. Notwithstanding item 12. (b.) above, no expansion to the scope of work that is detailed in point 3 will be permitted unless approved in writing by York Region.
15. YRRTC will perform the work in a continuous manner, and complete the work detailed in point 3 in an expeditious manner.

Next Steps

The stormwater retrofit project has number of key deliverables to be achieved to bring the project to completion.

Project Approvals	Anticipated Deadline
YRRTC Board of Directors	Feb-17
Committee and Council	Mar-17
LSRCA	Authority received
Execution of Memorandum of Understanding	Q2 2017
LSRCA Permit	
LSRCA to issue 0.Reg. 179/06 permit for Yonge Street Y3.2 BRT project (Levendale to Gamble)	Q2 2017
Project Deliverables	
Procure design, contract administration and inspection services for the project	Q1 2017
Detailed design work	Q4 2017
Project tender	Q1 2018
Construction completion	Q4 2018

Financial Implications

YRRTC will be responsible for the capital costs for the delivery and construction of the stormwater retrofit project at 17250 Yonge Street, to address the vivaNext Yonge Street project's stormwater impact to Western Creek.

- The budgetary estimate for the project is as follows:

Design, Contract Administration & Inspection	\$100 K
Construction	\$650 K
Contingency	\$200 K
Total	\$950 K

- YRRTC has allocated the capital costs within the Yonge Street project financials, and the project is funded through Metrolinx.

Conclusion

- The proposed stormwater retrofit project at 17250 Yonge Street, Newmarket, is a mutually beneficial project that utilizes a site currently owned by York Region.
- It addresses the Yonge Street drainage impacts and has the ability to provide net benefit to the Western Creek catchment through Lake Simcoe Regional Conservation Authority's (LSRCA) project contribution maximizing the sites drainage potential.

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

Mary-Frances Turner
President

Date signed

Attachment (1)

Project Details:



- Up to 732 m³ of underground storage units:
 - 562 m³ by YYRTC
 - 170 m³ by LSRCA (to be confirmed)
- Depth: 5.5 m
- Area: 55 m by 12 m
- The proposed units will tie into existing site storm sewers
- There will be up to 3 access MHs for maintenance and also monitoring access holes if required
- Location: ideal due to location of storm sewers and minimal impacts to the site. **However, it may change as a result of detailed design.**

StormTech Underground Storage Units

