



TO: GENERAL COMMITTEE


SUBJECT: LAKESHORE DRIVE RECONSTRUCTION (TORONTO STREET TO TIFFIN STREET) PROJECT UPDATE

WARD: ALL

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GENERAL MANAGER APPROVAL: D. FRIARY
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(Acting) 

CHIEF ADMINISTRATIVE OFFICER APPROVAL: C. LADD
CHIEF ADMINISTRATIVE OFFICER 

RECOMMENDED MOTION

1. That additional funding be provided for the Lakeshore Drive Reconstruction (Toronto Street to Tiffin Street) project in the amount of \$1,935,448, to be funded from development charges, tax reserves and rate reserve funds as follows:
 - a) \$1,140,634 – Tax Capital Reserve (13-04-0440)
 - b) \$247,671 – Development Charges - Roads (11-05-0540)
 - c) \$568,643 - Development Charges – Storm (11-05-0530)
 - d) (\$16,366) – Development Charges - Parks & Rec (11-05-0555)
 - e) \$19,970 – Wastewater Reserve Fund (12-05-0575)
 - f) (\$25,104) – Water Reserve Fund (12-05-0580)

2. That the costs associated with the Centennial Park improvements phase of the project be reduced to offset the increase in cost for the stormwater improvements and road reconstruction phase of the project to ensure that the overall project cost does not exceed the previously approved total project budget of \$27,388,400, as adjusted for inflation.

PURPOSE & BACKGROUND

3. The purpose of this staff report is to seek additional funding in order to award the tender for Contract 2014-001T, which is the second phase of construction for the Lakeshore Drive Reconstruction Project.

4. The first phase of project construction, known as Contract 1, included building two new bridges for the future realigned Lakeshore Drive across Bunker's Creek and Dymment's Creek.

5. The second phase of construction, known as Contract 2, will include:
 - a) Improving Bunker's Creek Drainage from Lakeshore Drive to Kempenfelt Bay to convey storm flows

 - b) Improving Dymment's Creek Drainage from Bradford Street to Kempenfelt Bay to convey storm flows

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- c) Realigning Lakeshore Drive from Toronto Street to Tiffin Street onto the former railroad bed
- d) Reconstructing Victoria Street from Lakeshore Drive to Ellen Street and resurfacing Victoria Street from Ellen Street to Bradford Street
- e) Providing a segment of a second effluent pipe across the new Lakeshore Drive roadway for future conveyance of treated flow from the Wastewater Treatment Facility (WwTF)
6. The Engineer's Estimate for the work in the tender was \$10,690,000. This estimate was derived using standard estimating practices based on the consultant's experience and the City's database of recent contract prices.
7. Tenders for Contract 2014-001T closed on June 12, 2014. Three bids were received and opened on June 12, 2014, 2014 at 2:15 p.m. All the bids were reviewed and were found to be in good order. The bid values (excluding HST) are:
- | | | |
|----|----------------------------|------------------|
| a) | Harvie Construction Inc. | \$12,394,395.96 |
| b) | Arnott Construction Ltd. | \$12,623,762.50 |
| c) | Drainstar Contracting Ltd. | \$16,524,996.60* |
- *Drainstar's bid was adjusted after the bid opening due to a mathematical error.
8. The tenders were carefully reviewed and compared to the pre-tender estimate. In general, it was found that the bid unit prices were higher than the estimated unit prices. The higher than expected unit prices and low number of bids received may be attributed to several factors:
- a) Construction activity in both the public and private sectors has been increasing recently is expected to continue at current levels for the foreseeable future (for example, there have been many large scale projects recently related to the Pan Am Games and infrastructure funding by higher levels of government is anticipated to continue). Typically, the City of Barrie receives bids from Toronto based contractors who are currently choosing to pursue the more numerous contracting opportunities closer to their home base.
- b) The early start and late end to the past winter has meant that contractors have an abundance of "carry-over" work this year that has meant they are not able to pursue new contracts to the same extent as in previous years.
- c) The unit prices of aggregate materials has been increasing beyond the rate of inflation as the availability of local product diminishes.
- d) Fuel prices have risen approximately 10% over the past year and are expected to continue to rise, which is increasing the pricing for most materials and manufactured products.
9. The approved total project budget is \$19,488,400 as shown in Appendix "A". The budget was reduced through the June 2014 Capital Status Report by \$7,900,000 from the original total project budget of \$27,388,400 (2013 dollars) by removing the scope of work related to the Centennial Park improvements phase of the project.

10. The projected total project cost for Contract 2014-001T, excluding HST, based on the low tender is \$21,423,848, as shown below:

Project Costs for Lakeshore Drive Reconstruction	
Design	\$1,007,507
Contract 1	\$6,289,109
Utility Relocations	\$87,000
Property	\$75,000
Contract 2 - Total Tender Price	\$12,394,396
Contingencies (7.5% of Contract 2 Total tender price)	\$929,580
Non-recoverable HST (1.76% of Contract 2 Total Tender Price)	\$239,955
Construction Administration and Material Testing (3% of Contract 2 Total Tender Price)	\$416,214
Total Project Costs (estimate to complete)	\$21,423,848

11. This is higher than the approved budget by \$1,935,448 or just under 10%. The Capital Project Financial Control Policy requires that funding requirements that exceed the lesser of 10% of the capital projects approved budget or \$250,000 require Council approval. Therefore, Council approval is required to increase the project budget to award this contract to the low bidder.

ANALYSIS

12. Harvie Construction Inc. (Harvie) is a contractor in the general contracting industry and has the resources and experience necessary to complete the work, as they have completed similar projects for other municipalities in the City of Toronto and Town of Innisfil.
13. Delaying the work is not recommended for the following reasons.
- a) Bunker's Creek and Dymont's Creek are flowing through temporary pipe diversions which do not provide the proper flow capacity for the major storm design flow rates. The new storm channels with increased capacity are urgently required to convey storm flows during major storm events and prevent flooding.
 - b) The existing Lakeshore Drive roadway needs to be replaced as soon as possible as it has exceeded its life cycle and will continue to require expensive ongoing maintenance until replaced.
14. During the design phase, a value engineering exercise was undertaken to reduce costs. Once Contract 2 has been awarded, staff will work with the contractor to identify possible cost savings through a construction phase value engineering process. Also, staff will carefully monitor the project budget during the implementation of Contract 2 to minimize expenditure of the contingencies.
15. As outlined in Staff Report ENG001-14, detailed design for the Centennial Park improvements (Contract 3) will be completed after approval of the Waterfront Master Plan. A further value engineering exercise will be undertaken before the design of the Centennial Park Improvements is finalized in order to reduce the cost of Contract 3. It is anticipated that the Waterfront Master Plan will be completed in 2015, the detailed design of the Centennial Park Improvements will be completed in 2016 and Contract 3 will be tendered in 2017, depending on budget approval.

16. Therefore, staff recommend that the previously approved total project budget of \$27,388,400, as adjusted for inflation, be honoured by reducing the costs associated with Centennial Park improvements phase of the project (Contract 3) to offset cost increases associated with Contract 2. The resulting estimated cost breakdown for the project is shown below:

Description	Status	Cost (2013 dollars)
Design for Contracts 1 and 2	Final Actual Cost	\$1,007,507
Contract 1 – Bridges at Dymont's Creek and Bunker's Creek	Final Actual Cost	\$6,289,109
Utility Relocates	Estimate	\$87,000
Property	Estimate	\$75,000
Contract 2 – Improvements to Dymont's Creek and Bunker's Creek Drainage and Reconstruction of Lakeshore Drive	Estimate at Tender Award	\$13,990,006
Contract 3 – Centennial Park Improvements	Upset Limit for Final Design and Construction (to be included for consideration in a future Business Plan)	\$5,939,778
Total Project Budget	Upset Limit	\$27,388,400

ENVIRONMENTAL MATTERS

17. Bunker's Creek needs its flow capacity improved to reduce the risk of flooding (i) lands bordered by Bradford Street, Lakeshore Drive, Victoria Street and Simcoe Street; and (ii) Lakeshore Drive between Toronto Street and Victoria Street.
18. Dymont's Creek needs its flow capacity improved to reduce the risk of flooding (i) lands bordered by Bradford Street, Victoria Street, Kempenfelt Bay and the WwTF; and, (ii) the WwTF treatment facilities.

ALTERNATIVES

19. The following Alternative is available for consideration by General Committee:

Alternative #1 General Committee could choose not to approve the additional funding to award the current tender. Instead, General Committee could direct staff to reduce the scope of the project and issue a post-tender addendum that would allow award within budget. Without impacting the proposed drainage improvements and the reconstruction of Lakeshore Drive, remaining scope elements that could be considered for removal include Victoria Street, the pedestrian bridge structure, the rehabilitation of Dymont's Creek Pond, and landscaping (median plantings, boulevard trees, etc.).

This alternative is not recommended as there is no guarantee that the revised bids would allow award within budget, even with the reduced scope. Also, there is a risk of the City paying higher costs when the reduced scope is tendered at a later date.

FINANCIAL

20. The approved capital budget for the Lakeshore Drive Reconstruction project is \$19,488,400. The estimated budget required to award Contract 2 and complete the project is \$21,423,848. Therefore, additional funding of \$1,935,448 is required.
21. The additional funding of \$1,935,448 will be funded from development charges, tax reserves and rate reserve funds as follows (refer to Appendix "A"):
- a) \$1,140,634 – Tax Capital Reserve (13-04-0440)
 - b) \$247,670 – Development Charges - Roads (11-05-0540)
 - c) \$568,642 - Development Charges – Storm (11-05-0530)
 - d) (\$16,366) – Development Charges - Parks & Rec (11-05-0555)
 - e) \$19,970 – Wastewater Reserve Fund (12-05-0575)
 - f) (\$25,104) – Water Reserve Fund (12-05-0580)
22. The project is partly growth related, with approximately half (47 percent) of the additional funding to be financed from Development Charges. Overall, the project is approximately 26 percent funded from Development Charges.
23. It is noted that a \$2 million Provincial Grant was received for the Dymont's Creek stormwater improvements.
24. In order to offset the additional amount required for the stormwater improvements and road reconstruction portion of the project, the costs associated with the Centennial Park improvements will be reduced accordingly when it is redesigned following the completion of the Waterfront Master Plan.

LINKAGE TO 2010 – 2014 COUNCIL STRATEGIC PLAN

25. The recommendations included in this Staff Report support the following goals identified in the 2010-2014 City Council Strategic Plan:
- Create a Vibrant and Healthy City Centre
 - Manage Growth and Protect the Environment
26. Reconstruction of Lakeshore Drive and Victoria Street provides better access to the Barrie Downtown and Waterfront; and, provides opportunity to improve and expand the waterfront parkland that is the centre of Barrie's recreation and public events.
27. Improving the creek flow capacities in the vicinity of Lakeshore Drive is essential for significantly reducing the risk of flooding lands between Bradford Street and Kempenfelt Bay.
28. The recommendation is part of a larger Infrastructure Renewal Program to prioritize rehabilitation and repair of roads, pipes, and other City assets.

APPENDIX "A"
Contract 2014-001T - Total Project Cost Based On Tender (Contract 2)

CURRENT FUNDING

Component	Lakeshore Drive: Toronto to Tiffin										Victoria St: Ellen to Lakeshore				Victoria St: Bradford to Ellen		TOTAL		
	TRAFFIC SIGNALS 14-16-2381-1224	STREET LIGHTING 14-16-2383-1224	ROADS 14-16-2510-1224	BRIDGES 14-16-2511-1224	STORM SEWERS 14-16-2520-1224	CULVERT 14-16-2521-1224	CULVERT 14-16-2521-1304	WATER-COURSE 14-16-2523-1304	WATER-COURSE 14-16-2523-1304	SIDEWALK 14-16-2525-1224	WATER 2535-1224	PARKS 14-16-2351-1224	PARKING 14-16-4020-1224	STREET LIGHTING 14-16-2383-1554	ROADS 14-16-2510-1554	STORM SEWERS 14-16-2520-1554		SIDEWALK 14-16-2525-1554	ROADS 14-16-2510-1653
Tax Capital Reserve	162,270	463,627	2,099,196	600,000	1,169,369	898,000	351,528	375,657	97,878		334,471	195,000	147,071	381,465	107,546	28,495	32,400		7,443,973
DCA	152,730	436,373	1,975,604		1,100,631		653,864	149,343	92,122		115,529		12,929	33,535	9,454	2,505			4,734,819
Developer Agreements						50,000													98,000
Prov of Ontario							2,000,000	48,000											2,000,000
Federal Gas Tax						2,952,000	1,069,608												4,021,608
Water Rate									640,000										640,000
Wastewater Rate																		550,000	550,000
TOTAL	\$315,000	\$900,000	\$4,075,000	\$600,000	\$2,270,000	\$3,900,000	\$4,075,000	\$525,000	\$190,000	\$640,000	\$450,000	\$195,000	\$160,000	\$415,000	\$117,000	\$31,000	\$32,400	\$550,000	\$19,488,400

PROPOSED FUNDING

Component	Lakeshore Drive: Toronto to Tiffin										Victoria St: Ellen to Lakeshore				Victoria St: Bradford to Ellen		TOTAL		
	TRAFFIC SIGNALS 14-16-2381-1224	STREET LIGHTING 14-16-2383-1224	ROADS 14-16-2510-1224	BRIDGES 14-16-2511-1224	STORM SEWERS 14-16-2520-1224	CULVERT 14-16-2521-1224	CULVERT 14-16-2521-1304	WATER-COURSE 14-16-2523-1224	WATER-COURSE 14-16-2523-1304	SIDEWALK 14-16-2525-1224	WATER 2535-1224	PARKS 14-16-2351-1224	PARKING 14-16-4020-1224	STREET LIGHTING 14-16-2383-1554	ROADS 14-16-2510-1554	STORM SEWERS 14-16-2520-1554		SIDEWALK 14-16-2525-1554	ROADS 14-16-2510-1653
Tax Capital Reserve	98,924	416,157	2,544,223	405,195	2,138,260	1,170,506	120,683	62,048	45,945		267,091	53,112	3,066	337,625	310,879	11,386	27,761		8,584,607
DCA	83,108	391,654	2,394,673		2,010,687		223,936	219,984	43,243		99,163		268	29,681	27,328	1,001			5,524,767
Developer Agreements						50,000		48,000											98,000
Prov of Ontario							2,000,000												2,000,000
Federal Gas Tax						2,952,000	1,069,608												4,021,608
Water Rate									614,896										614,896
Wastewater Rate																		569,970	569,970
TOTAL	\$192,032	\$807,851	\$4,938,896	\$405,195	\$4,146,947	\$4,172,906	\$3,414,227	\$773,330	\$38,188	\$614,896	\$386,254	\$53,112	\$3,335	\$367,306	\$338,207	\$12,397	\$27,761	\$569,970	\$21,423,848

FUNDING ADJUSTMENT

Component	Lakeshore Drive: Toronto to Tiffin										Victoria St: Ellen to Lakeshore				Victoria St: Bradford to Ellen		TOTAL			
	TRAFFIC SIGNALS	STREET LIGHTING	ROADS	BRIDGES	STORM SEWERS	CULVERT	CULVERT	WATER-COURSE	WATER-COURSE	SIDEWALK	WATER	PARKS	PARKING	STREET LIGHTING	ROADS	STORM SEWERS		SIDEWALK	ROADS	Wastewater Treatment Plant Twin Effluent Pipe
	14-16-2381-1224	14-16-2383-1224	14-16-2510-1224	14-16-2511-1224	14-16-2520-1224	14-16-2521-1224	14-16-2521-1304	14-16-2523-1224	14-16-2525-1224	14-16-2535-1224	14-16-2351-1224	14-16-4020-1224	14-16-2363-1554	14-16-2510-1554	14-16-2520-1554	14-16-2525-1554	14-16-2525-1554	14-16-2510-1553	14-16-2515-1619	
Tax Capital Reserve	(63,346)	(47,470)	445,027	(194,805)	966,891	272,906	(230,845)	62,048	(51,933)		(47,380)	(141,888)	(144,005)	(43,840)	203,333	(17,109)	(4,639)			1,140,634
DCA	(59,622)	(44,679)	418,869		910,056	(429,926)	70,641		(48,879)		(16,366)	(12,660)	(3,854)	17,874	(1,504)					799,948
Water Rate										(25,104)										(25,104)
Wastewater Rate																				19,970
TOTAL	\$ (122,968)	\$ (92,149)	\$ 863,896	\$ (194,805)	\$ 1,876,947	\$ 272,906	\$ (660,773)	\$ 62,048	\$ (100,812)	\$ (25,104)	\$ (63,746)	\$ (141,888)	\$ (156,665)	\$ (47,694)	\$ 221,207	\$ (18,613)	\$ (4,639)	\$ (4,639)	\$ 19,970	\$ 1,935,448