



Report to: General Committee

Date Report Authored: November 8, 2017

SUBJECT: Status of Capital Projects as of September 30, 2017
PREPARED BY: Andrea Tang – Senior Manager, Financial Planning (Ext. 2433)
Jemima Lee – Senior Financial Analyst (Ext. 2963)

RECOMMENDATION:

- 1) THAT the report dated November 8, 2017 entitled “Status of Capital Projects as of September 30, 2017” be received;
- 2) AND THAT the amount of \$1,094,108 from the closure of capital projects be transferred to the sources of funding as listed on Exhibit A;
- 3) AND THAT the closure of projects as outlined on Exhibit B and C be approved;
- 4) AND THAT the Non-Development Charge Capital Contingency Project be topped up from the Lifecycle Replacement and Capital Reserve Fund, by \$1,107,941 to the approved amount of \$250,000;
- 5) AND THAT the Engineering Capital Contingency Project be topped up, from the City-Wide Hard Development Charges Reserve, by \$113,158 to the approved amount of \$100,000;
- 6) AND THAT the Design Capital Contingency Project be topped up, from the Development Charges Reserve, by \$76,118 to the approved amount of \$100,000;
- 7) AND THAT the Planning Capital Contingency Project be topped up, from the Development Charges Reserve, by \$12,217 to the approved amount of \$50,000;
- 8) AND THAT the Waterworks Capital Contingency Project be topped up, from the Waterworks Stabilization/Capital Reserve, by \$366,704 to the approved amount of \$100,000;
- 9) AND THAT the following in-year 2017 new capital projects, subsequent to the approval of the 2017 capital budget, be received;

Project Number	Name	Budget	Funding Source
17328	Thornhill CC Flooding Emergency Work	\$66,144	Other External: Insurance Claim
17331	Mt Joy CC Brine Pump Replacement	\$19,843	Non-DC Capital Contingency
17332	Thornhill CC 2nd Flood Emergency Work	\$254,400	Other External: Insurance Claim
17333	Old Unionville Well Building Structure Removal	\$56,000	Waterworks Capital Contingency
17339	Mt Joy CC Dehumidifier Replacement	\$82,000	Non-DC Capital Contingency
17340	Varley Art Gallery HVAC RTU Replacement	\$155,742	Non-DC Capital Contingency
17343	Service Connection Deficiency Repairs	\$50,000	Non-DC Capital Contingency
17345	Corporate GIS Review and Strategy	\$71,232	Non-DC Capital Contingency

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- 10) AND THAT Staff be authorized and directed to do all things necessary to give effect to this resolution.

PURPOSE:

The purpose of this report is to provide a status update of capital projects as of September 30, 2017, and obtain Council approval for the transfer of funds to and from Reserves and Reserve Funds.

DISCUSSION/OPTIONS:

In an effort to promote timely closure of projects and the return of surplus funds, Staff conducted a status review of all open capital projects as of September 30, 2017. As a result, 82 projects are identified for closure, with a total budget remaining of \$1,094,108 to be returned to the original sources of funding.

A detailed listing of projects to be closed and the funding amounts to be transferred are included in the following exhibits:

Exhibit A – Summary of funding from closed capital projects to be returned to funding sources as of September 30, 2017

Exhibit B – Details of capital projects to be closed with funding to be returned to funding sources as of September 30, 2017

Exhibit C – Summary of capital projects to be closed that are fully expended as of September 30, 2017

Details within Exhibit A include the following:

Lifecycle Replacement & Capital Reserve Fund

The closure of capital projects identifies funds in the amount of \$458,987 to be returned to the Lifecycle Replacement & Capital Reserve Fund. Below are highlights of the capital projects listed in Exhibit B with surplus funds of more than 50% of the approved budget as well as other projects that will be returned to the Lifecycle Replacement & Capital Reserve Fund (78% of \$458,987, or \$355,908).

- a) Environmental Services – Right of Way Assets
Project 16292 – ROW Bridges & Culverts Warranties – Budget of \$22,379 with remaining funds of \$22,379 (100% of project budget). Staff conducted the final inspection instead of hiring an external consultant upon expiry of the warranty period; therefore no expenditure was incurred.
- b) ITS
Project 16061 – By-Law Licencing and Enforcement Handheld Units – Budget of \$75,600 with remaining funds of \$75,600 (100% of project budget). Vendor quotes were over budget, and the department will revisit project requirements. Project will be requested as part of a future budget process.

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- c) Urban Design (Parks Construction)
Project 15637 – 2015 Design Warranty – Budget of \$351,773 with remaining funds of \$286,908 (82% of project budget). \$24,254 will be returned to the Life-Cycle Replacement & Capital Reserve Fund and the remaining balance of \$262,654 will be returned to DC Reserves. Final inspections of the nine (9) parks in warranty were completed and the remaining funds can be returned to source.
 - d) Environmental Services – Right of Way Assets
Project 14277 – ROW Bridge and Culverts Warranties – Budget of \$1,551,821 with remaining funds of \$48,149 (3% of project budget). Only a portion of the contingency budget was utilized.
 - e) Museum
Project 14105 – Markham Museum – Mount Joy School Restoration – Budget of \$342,544 with remaining funds of \$42,671 (13% of project budget). Contract award less than \$25,000 were under budget, and contingency funds were not fully expended.

Project 15116 – Museum Facility Improvements – Budget of \$306,800 with remaining funds of \$38,858 (13% of project budget). Contract award less than \$25,000 were under budget, and contingency funds were not fully expended.

Project 15118 – Museum Kinnee Barn Repairs – Budget of \$187,700 with remaining funds of \$27,909 (15% of project budget). Contract award less than \$25,000 were under budget, and contingency funds were not fully expended.
 - f) Operations – Utility Inspection & Survey
Project 15274 – Former Sabiston Landfill – Monitoring – Budget of \$156,600 with remaining funds of \$25,800 (16% of project budget). Funds allocated to contingency were not fully expended.
 - g) Recreation
Project 16114 – Recreation Services – Markham Village Rubber Flooring – Budget of \$56,900 with remaining funds of \$25,557 (45% of project budget). Change in project scope resulted in contract award lower than originally budgeted.
Project 17087 – Clatworthy Arena Low Emissivity Ceiling Replacement – Budget of \$63,700 with remaining funds of \$24,731 (39% of project budget). Competitive market conditions resulted in favourable pricing for each project component less than \$25,000; therefore surplus funds were returned at time of project closure.

Return of Funds to the Lifecycle Replacement & Capital Reserve Fund

Contract awards greater than \$25,000 with surplus funds are returned to the original funding source(s).

Since the last report on Status of Capital Projects tabled at General Committee in April 2017, \$1,252,954 has been returned to the Lifecycle Replacement & Capital Reserve Fund from contract awards (Total: \$1,484,158 year to date 2017).

Development Charges (DC) Reserves

Funds in the amount of \$339,054 will be returned to the DC Reserves from the closure of capital projects.

There is one (1) project listed in Exhibit B with surplus funds of more than 50% of the approved budget. The amount represents approximately 77% of the total funds to be returned to this funding source.

a) Urban Design (Parks Construction)

Project 15637 – 2015 Design Warranty – Budget of \$351,773 with remaining funds of \$286,908 (82% of project budget). \$262,654 will be returned to DC Reserves and the remaining balance of \$24,254 will be returned to the Life-Cycle Replacement & Capital Reserve Fund. Final inspections of the nine (9) parks in warranty were completed and the remaining funds can be returned to source.

Waterworks Stabilization/Capital Reserve

Funds in the amount of \$252,194 will be returned to the Waterworks Stabilization/Capital Reserve resulting from the closure of capital projects. Below are highlights of the capital projects listed in Exhibit B with surplus funds of more than 50% of the approved budget as well as other projects that will be returned to the Waterworks Stabilization/Capital Reserve (78% of \$252,194 or \$197,591).

a) Environmental Services - Waterworks

Project 17217 — Manhole Sealing – Annual Program – Budget of \$56,000 with remaining funds of \$56,000 (100% of project budget). Manhole sealing was completed as part of the Roads department Asphalt Resurfacing Program.

b) Engineering

Project 12328 — Watermain Construction and Replacement Program – Budget of \$2,880,328 with remaining funds of \$71,894 (2% of project budget). Funds allocated to contingency were not fully expended.

c) Environmental Services – Environmental Assets

Project 15621 — ES – Environmental Assets – Watermain Construction & Replacement – Fairway Heights/Almond Avenue Looping & Disconnect – Budget of \$1,320,233 with remaining funds of \$69,697 (5% of project budget). Funds allocated to contingency were not fully expended.

Other Reserves and Reserve Funds

Funds in the amount of \$43,873 will be returned to other Reserves and Reserve Funds resulting from the closure of capital projects.

CAPITAL CONTINGENCY PROJECTS

In accordance with the Capital Budget Control Policy, the five (5) Capital Contingency Projects are topped up to the maximum approved funding amount through the semi-annual Status of Capital Projects Report to Council.

1. Non-DC Capital Contingency

The Non-DC Capital Contingency Project was approved to a maximum of \$250,000. Currently, the account has a negative balance of \$857,941. Therefore a top-up of \$1,107,941 is required from the Lifecycle Replacement & Capital Reserve Fund.

For this period, the City experienced a number of emergency building repairs and storm sewer repairs due to inclement weather. Of the \$1,107,941 \$1,107,941 drawn from the Non-DC Capital Contingency Project, \$648,662 (59%) was related to the following emergency repairs:

a) Operations – Roads

Project 17135 - Emergency Repairs – Annual Program - \$163,746 – Storm sewer repair work performed due to excessive rain and flooding events;

b) Arts Centre

Project 17340 - Varley Art Gallery HVAC Remote Terminal Unit (RTU) Replacement - \$154,942 – The rooftop HVAC unit at the Fred Varley Art Gallery ceased to operate in August, and it required replacement. The unit was originally identified in the Life Cycle Reserve Study to be replaced in 2018;

c) Environmental Services – Right of Way

Project 16218 - Pedestrian Bridge Rehab (7 Structures) – Design & Construction - \$128,699 – The conversion of the expansion joint to support the end of four (4) bridges extends the service life by 15 years and reduces its capital cost per year over its remaining life cycle from \$3,700 per year to \$2,400 per year. Therefore, the financial benefit supported the decision for the conversion. Unanticipated concrete repairs on the underside of the bridges and replacement of bearings and girders were also identified during annual inspection, and additional scaffolding for work under the bridge areas to prevent deleterious material into waster course was required by recently changed environmental protection policy as mandated by TRCA and Health & Safety requirements;

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- d) Environmental Services – Environmental Assets
Project 15272 - Storm Water Management Pond Cleaning – ID#7 and ID#59 - \$99,432 – Additional costs resulting from excessive water from unidentified locations which disrupted dewatering activities and prevented the sediment from drying. A new drying methodology was applied incorporating a polymer additive to improve the rate of sediment drying;
 - e) Recreation
Project 17339 - Mt Joy CC Dehumidifier Replacement - \$82,000 - Emergency replacement of the dehumidifiers at Mt Joy Arena. The unit was originally identified in the Life Cycle Reserve Study to be replaced in 2018;
 - f) Recreation
Project 17331 - Mt Joy CC Brine Pump Replacement - \$19,843 – Emergency replacement of the brine pump that was no longer functioning.

The use of the contingency account was necessitated for the following non-emergency projects:

- a) Operations – Parks
Project 17153 - John Daniels Park – Fountain, Gazebo, & Trellis Replacement - \$79,036 – The contract awarded was higher than budget;
- b) ITS
Project 17345 – Corporate GIS Review and Strategy - \$71,232 – To hire an external consultant to conduct a current state assessment of the current Corporate GIS function and recommend an implementation plan on how to fully integrate GIS technology and services into relevant business systems and processes;
- c) Sustainability Asset Management – Facility Assets
Project 17190 - Roofing Replacement Projects - \$58,104 – Additional insulation was required during detailed design which was not anticipated at time of budget;
- d) Sustainability Asset Management – Facility Assets
Project 16203 - Satellite Community Centre Improvements - \$50,150 – To design and construct a mechanic room and HVAC replacement at Markham Train Station. The contract awarded was higher than budget.
- e) Engineering
Project 15635 - Residential Water Service Connections - \$50,000 – Unforeseen deficiency repair work of residential infill service connections. These connections were under warranty from original vendor; however, the vendor declared bankruptcy and the City is now undertaking the repair work;

- f) Sustainability Asset Management – Facility Assets
Project 15069 - Bayview Glen SNAP – Pilot Implementation Phase - \$32,027 – Additional funds were required to replace playground sand that was contaminated during construction, replaced damaged curb, added accessible sidewalk ramp and added topsoil in the open play space;

The remaining draws totaling \$118,730 were each under \$25,000.

2. Engineering DC Capital Contingency

The Engineering DC Capital Contingency Project was approved to a maximum of \$100,000. The project currently has a balance of \$13,158 therefore requiring a top up of \$113,158 from the City-Wide Hard DC Reserve.

The use of the contingency account was necessitated by the following projects:

- a) Engineering
Project 13021 - Yorktech Drive Extension (EA) - \$76,807 – Additional engineering services for geotechnical investigation and slope stability study required for Rouge River and Beaver Creek top of bank assessment;
- b) Engineering
Project 17037 - 404 North Collector Roads (EA) - \$36,351 – The contract award was higher than budget.

3. Design DC Capital Contingency

The Design DC Capital Contingency Project was approved to a maximum of \$100,000. The project currently has a balance of \$23,882 therefore requiring a top-up of \$76,118 from the Design DC Reserve.

The use of the contingency account was necessitated for the following project:

- a) Design
Project 17001 - Box Grove Community Park (Phase 2 of 2) - \$76,118 – The contract award was higher than budget.

4. Planning DC Capital Contingency

The Planning DC Capital Contingency Project was approved to a maximum of \$50,000. The project currently has a balance of \$37,783 therefore requiring a top-up of \$12,217 from the Planning DC Reserve.

The use of the contingency account was necessitated by the following project:

- a) Planning
Project 9068 - Markham Centre – Finalize Streetscape Details - \$12,217 – Additional funding was required to complete detailed streetscape design around Markham Centre and align the design to the latest engineering road requirements.

5. Waterworks Capital Contingency

The Waterworks Capital Contingency Project was approved to a maximum of \$100,000. The project currently has a negative balance of \$266,704 therefore requiring a top-up of \$366,704 from the Waterworks Stabilization/Capital Reserve.

The use of the contingency account was necessitated by the following project:

a) Environmental Services – Environmental Assets

Project 17329 - Consulting Engineering – Cast Iron Watermain Rehabilitation - \$282,778 – Clean Water and Wastewater Fund (CWWF) approved eligible funding to the City subject to project work being completed by August 31, 2018. In order to achieve completion by August 31, 2018 for the cast iron watermain rehabilitation works, detailed design work needed to commence immediately in order to release the tender for the construction contract by September 2017;

b) Environmental Services – Waterworks

Project 17333 - Old Unionville Well Building Structure Removal - \$56,000 – Removal of well control building structure inside Austin Drive Park originally identified for removal in 2018. Due to safety concerns and unauthorized use, the project was undertaken in July.

The remaining draws totaling \$27,926 were each under \$30,000.

STATUS OF OPEN CAPITAL PROJECTS

After the closure of 82 projects, there are 553 open capital projects/project groups with a total budget of \$676.9M as of September 30, 2017. The term “open” refers to approved projects that have not started, or they are at various stages of project completion.

In comparison to the September 2016 status update, there were 563 open projects with a total budget of \$659.3M.

Of the 553 open capital projects, 237 were approved in 2017 (43%), 126 were approved in 2016 (23%) and 190 were approved in 2015 & prior (34%) (refer to **TABLE A**).

TABLE A

Project approval year	# of open projects	% of open projects	Unencumbered \$ in M	% of Unencumbered \$
2017	237	43%	\$94.8	49%
2016	126	23%	\$42.3	22%
2015	69	12%	\$9.6	5%
2014	37	7%	\$20.5	11%
2013 and prior	84	15%	\$26.2	14%
	553	100%	\$193.4	100%

The following summarizes the status of open capital:

(in millions)	Q3 2017		Q3 2016	
Encumbered/Committed	\$ 483.5	71%	\$ 501.9	76%
Unencumbered/Uncommitted	\$ 193.4	29%	\$ 157.4	24%
Total Open Capital	\$ 676.9		\$ 659.3	

Encumbered/Committed

The total 2017 encumbered amount of \$483.5M includes expenditures of \$414.7M and commitments of \$68.8M. (Expenditures refer to payments issued for goods/services received and commitments refer to purchase orders on file with the Purchasing Department.)

Unencumbered/Uncommitted

Of the 2017 unencumbered/uncommitted amount of \$193.4M, approximately 49% was approved in 2017, 22% was approved in 2016 while 29% was approved in 2015 & prior.

Major projects, defined as a multi-year one time projects, account for \$179.7M (93% of \$193.4M) of the total unencumbered amount which includes the following projects:

- Highway 404 Ramp Extension, North of Hwy 7
- Miller Avenue – Woodbine Avenue to Rodick Road (Construction)
- Anti-Whistling
- Highway 404 Mid-Block Crossing, North of Hwy 7
- Watermain Construction and Replacement Program
- Miller Avenue – CN to Kennedy Road – Phase 4
- Kirkham Drive Park Construction
- Cornell Community Park Construction
- Box Grove Community Park
- Thornhill Park Improvements
- Emerald Ash Borer Program
- Official Plan and Secondary Plan Engineering Studies
- Wismer Hwy #48 Museum Park North – Construction
- Rodick Road Reconstruction – Miller to 14th Avenue

FINANCIAL CONSIDERATIONS:

The net amount of (\$582,030) as summarized in the following table will be transferred to/(draw from) Reserves and Reserve Funds as a result of closing capital projects, return of surplus funds from open projects and top-up of capital contingency projects.

	Return to Reserves / Reserve Funds from Closed Projects (A)	Top up Contingency Projects from Reserves / Reserve Funds (B)	Net Change to Reserves / Reserve Funds (C)=(A)+(B)
Lifecycle Replacement & Capital Reserve	\$458,987	(\$1,107,941)	(\$648,954)
Development Charge Reserves	\$339,054	(\$201,493)	\$137,561
Waterworks Stabilization / Capital Reserve	\$252,194	(\$366,704)	(\$114,510)
Other Reserves & Reserve Funds	\$43,873	-	\$43,873
Net Change to Reserves & Reserve Funds	\$1,094,108	(\$1,676,138)	(\$582,030)*

*Due to emergency repairs, the net change to Reserves and Reserve Funds results in a draw from Reserves and Reserve Funds.

Since the last report on Status of Capital Projects tabled at General Committee in April 2017, \$1,252,954 has been returned to the Lifecycle Replacement & Capital Reserve Fund from contract awards. (Total: \$1,484,158 year to date 2017).

HUMAN RESOURCES CONSIDERATIONS:

Not applicable.

ALIGNMENT WITH STRATEGIC PRIORITIES:

Not applicable.

BUSINESS UNITS CONSULTED AND AFFECTED:

All business units managing capital projects have been consulted in the development of the capital status update.

RECOMMENDED BY:

2017-11-27

X 

Joel Lustig
Treasurer
Signed by: cxa

2017-11-27

X 

Trinela Cane
Commissioner, Corporate Services
Signed by: cxa

ATTACHMENTS:

- Exhibit A – Summary of funding from closed capital projects to be returned to original funding sources as of September 30, 2017
- Exhibit B – Details of capital projects to be closed with funding to be returned to original funding sources as of September 30, 2017
- Exhibit C – Summary of capital projects to be closed that are fully expended as of September 30, 2017