



STAFF REPORT ACTION REQUIRED

2018-2027 TTC Capital Budget & Plan

Date:	November 28, 2017
To:	TTC Board
From:	TTC Budget Committee

Summary

The proposed 2018-2027 Capital Budget & Plan has been prepared consistent with the Commission's Five Year Corporate Plan with specific focus on the following:

- Effective, efficient management of assets that delivers reliable services in a state of good repair.
- An affordable expansion program that matches capacity to demand.
- A well-run, transparent business that delivers value for money in a financially viable way.

The following is an overview of the proposed 2018-2027 Capital Budget & Plan:

- A proposed 2018 Capital Budget with \$1.406 billion in cash flow that is fully funded within 2018 affordability limits.
- \$9.240 billion is forecasted as the overall requirement for the base capital program for the ten year planning period from 2018 to 2027; which is \$2.702 billion greater than the current capital funding capacity.
 - The TTC's 10 year unfunded list will require \$2.702 billion in added funding to proceed, comprised of capacity-to-spend adjustments of \$427 million and unfunded projects totalling \$2.275 billion.
- Continued use of \$557 million (\$279 million Federal share) in remaining funding available as part of the Federal Public Transit Infrastructure Fund (PTIF) program, as well as an additional \$73.1 million (\$36.5 million Federal share) of PTIF funding for the purchase of additional buses.
 - Under PTIF, total funding of up to \$1.712 billion gross (\$856 million Federal share) is available to the City of Toronto/TTC for transit upgrades and improvements.
 - Capital projects commenced after April 1, 2016 and completed by March 31, 2019

may receive up to 50% funding of eligible costs.

- The proposed capital budget includes \$120 million in cash flows for the property acquisition required for the New Subway Maintenance and Storages Facility.
- \$200.4 million is required in 2018 for the completion of the Toronto-York Spadina Subway Extension. The 8.6 km, six station underground extension to the Spadina Subway from Sheppard Station to Vaughan Metropolitan Centre is scheduled to open for revenue service on December 17, 2017.
- \$113.0 million is required in 2018 and \$3.307 billion from 2019 to 2027 for the construction of the Scarborough Subway Extension and life extension demolition of the Scarborough RT.
- Based on the Motion passed at the September 26, 2017 TTC Budget Committee Meeting, additional information is included in the Discussion section of this report surrounding the costs and strategy to complete the Bicycle Parking at Stations project at the remaining TTC stations.
- Based on City Council's decision at the November 7, 2017 meeting, the Capital Program includes a transfer of \$55.5 million (gross), comprising of \$27.8 million in PTIF funding and \$27.7 million in debt for Relief Line planning, design and engineering from the 2017 Corporate Initiatives Capital Budget Account to the Toronto Transit Commission (TTC). It is anticipated that Metrolinx will contribute an additional \$45 million to this project.
- Based on City Council's decision at the November 7, 2017 meeting, the capital Program also includes a transfer of \$3.6 million (gross) comprising of \$1.8 million in PTIF funding and \$1.8 million in debt for Waterfront Transit planning, design and engineering from the 2017 Corporate Initiatives Capital Budget Account to the Toronto Transit Commission (TTC). The scope of work includes the preliminary design for Exhibition to Dufferin Gate Loop.

The TTC 2018-2027 Capital Budget Summary is contained in Appendix A. The full Project Detail Listing (commonly known as the "Blue Pages") is included in the supplementary link.

Recommendations

It is recommended that the Board:

- 1) Approve the 2018-2027 TTC Capital Budget & Plan of \$10.252 billion (including the Toronto-York Spadina Subway Extension, Scarborough Subway Extension, Relief Line and Waterfront Transit expansion projects) as outlined in Appendix A of this report;
- 2) Direct the TTC's Chief Financial Officer to consult with the Toronto City Manager and Chief Financial Officer on the development of a financing strategy to address the \$2.702 billion in unfunded base capital requirements for consideration as part of the 2019 Budget process; and
- 3) Provide authority to proceed with the procurement of bicycle parking at an additional 9 TTC stations at a cost of \$0.130 million, enabling staff to amend the 2018 Capital Budget through delegated authority provided to PTIF eligible projects.
- 4) Forward this report to the City Budget Committee and the City Manager as the official 2018 - 2027 Capital Budget and Plan submission for the Toronto Transit Commission.

Implementation Points

This report should be considered in concert with the companion report on the "2018 TTC and Wheel-Trans Operating Budgets".

Financial Summary

The following table highlights the 2018 to 2027 TTC Capital Budget funding Summary:

Table 1

2018 - 2027 Capital Budget and Plan											
(\$Millions)	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	10-Year Total
2018 - 2027 Proposed Capital Plan Request	1,481.4	1,257.3	1,139.9	937.6	963.4	715.2	623.3	743.6	740.7	637.6	9,240.0
Funding Sources											
Provincial Funding	136.7	173.0	148.8	75.2	75.2	75.2	75.2	75.2	75.2	75.2	985.1
Federal Funding (Including PTIF)	399.1	250.9	167.4	167.4	167.4	167.4	167.4	167.4	167.4	167.4	1,989.3
Debt Funding	596.5	491.4	419.6	234.6	65.1	104.8	77.9	84.2	126.2	200.0	2,400.2
2017 Carry Forward Funding (Debt portion)	229.6										229.6
Capital Financing Reserve	70.3	156.5	37.6								264.4
TTC Internal (Depreciation)	29.3	18.1	11.9	13.5	9.7	12.0	9.3	10.6	18.8	18.4	151.7
Development Charges	132.8	65.0	65.9	65.1	64.7	43.1	28.9	29.8	9.1	12.0	516.4
TTC Other	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8
Total Funding Sources	1,595.9	1,154.9	851.3	555.8	382.1	402.5	358.7	367.3	396.8	473.1	6,538.4
Funding Shortfall											
	(114.6)	102.4	288.7	381.8	581.3	312.7	264.6	376.3	343.9	164.5	2,701.6
Reductions to address shortfall:											
Capacity to Spend (CTS) Adjustments	26.2	30.2	45.1	51.1	48.2	43.2	41.2	42.9	48.3	50.5	427.0
Existing Unfunded Projects	49.6	0.0	227.2	181.5	451.2	271.7	221.2	340.3	318.0	214.1	2,274.7
Total CTS Adjustments and Unfunded Projects	75.7	30.2	272.3	232.7	499.4	315.0	262.4	383.2	366.3	264.5	2,701.6
Final Net Funding Shortfall	(190.3)	72.2	16.4	149.1	81.9	(2.3)	2.3	(6.9)	(22.4)	(100.0)	0.0

2.7 B

As reflected in the above table, the TTC's base capital needs require \$9.240 billion in funding over the ten year planning period.

Traditional sources will fund \$6.538 billion in capital expenditures over the 10-Year Capital

Budget & Plan, resulting in a funding shortfall of \$2.702 billion.

A long term funding strategy needs to be developed with the City by 2020 to avoid potential service impact associated with not proceeding with these required investments.

Table 2 provides a summary of the order of magnitude for successive 10-Year Capital Budget & Plan requests relative to this year’s requirements.

Table 2

10 - Year Capital Budget & Plan Comparison				
TTC Base Program				
(\$Billions)				
	2015 - 2024	2016 - 2025	2017 - 2026	2018 - 2027
	<u>Approved</u>	<u>Approved</u>	<u>Approved</u>	<u>Request</u>
Budget/Request	9.268	9.316	9.440	9.240
Funding Available	6.901	6.637	7.005	6.538
Shortfall	<u>2.367</u>	<u>2.679</u>	<u>2.435</u> *	<u>2.702</u> **
Note:				
	* After applying the capacity to spend adjustment of \$482M the net shortfall is \$1.954B			
	** Shortfall includes the capacity to spend adjustment of \$427M and Unfunded Projects of \$2.275B			

The 2018-2027 Capital funding shortfall is comprised of the following:

- \$427 million in capacity to spend adjustments to align annual cash flows with the TTC’s historical spend.
- \$2.275 billion in unfunded capital projects reflecting base capital requirements that will need to be addressed in future budget processes. Unfunded projects are detailed in Appendix C of this report.

In addition to the Base Program, approximately \$0.2 billion will be required over this period for final costs arising from completion of the Toronto-York Spadina Subway Extension. Also, approximately \$3.4 billion is required over the next ten years for the Scarborough Subway Extension project.

At its meeting of November 7, 2017 City Council Meeting, approval was granted to transfer \$55.5 million (gross) from the City’s 2017 Corporate Initiatives Budget Account to the Toronto Transit Commission for the Relief Line expansion project and \$3.6 million (gross) for the Waterfront transit expansion projects. Both initiatives are included as part of the Federal Public Transit Infrastructure Fund.

The Chief Financial Officer has reviewed this report and agrees with the financial summary information.

Accessibility/Equity Matters

Under this 10-year Capital Budget, all required capital expenditures needed to make the TTC fully compliant with AODA requirements and to meet TTC equity goals have been fully provided for with the exception of capital investments for Warden and Islington Stations. These stations will be considered as part of future budget processes once capital requirements are fully defined.

Decision History

The TTC Budget Committee met on September 26th to review and endorse the proposed 2018-2027 TTC Capital Budget & Plan and on November 17th of this year to review and endorse the 2018 TTC and Wheel-Trans Operating Budgets. The links to those meetings are provided below.

September 26, 2017 – TTC Budget Committee Meeting: 2018-2027 TTC Capital Budget & Plan

[http://www.ttc.ca/About the TTC/Commission reports and information/Committee meetings/Budget/2017/September 26/Reports/2018-2027 TTC Capital Budget and Plan Blue Pages.pdf](http://www.ttc.ca/About%20the%20TTC/Commission%20reports%20and%20information/Committee%20meetings/Budget/2017/September%2026/Reports/2018-2027%20TTC%20Capital%20Budget%20and%20Plan%20Blue%20Pages.pdf)

November 17, 2017 – TTC Budget Committee Meeting: 2018 TTC and Wheel-Trans Operating Budgets

[http://www.ttc.ca/About the TTC/Commission reports and information/Committee meetings/Budget/2017/November 17/Reports/1 2018 TTC and Wheel-Trans Operating Budgets.pdf](http://www.ttc.ca/About%20the%20TTC/Commission%20reports%20and%20information/Committee%20meetings/Budget/2017/November%2017/Reports/1%202018%20TTC%20and%20Wheel-Trans%20Operating%20Budgets.pdf)

Details of the Capital Budget have now been updated to reflect more current information.

DISCUSSION

Post TTC Budget Committee (September 26, 2017) Capital Adjustments

The cash flow for the funded portion of each program or project element is contained within the proposed 2018-2027 Base Capital Budget as summarized in Appendix A.

At the September 26, 2017 TTC Budget Committee meeting, staff presented a 10 year funding shortfall of \$97 million (in addition to the \$420.5 million of capacity to spend adjustments and \$2.3 billion of unfunded projects identified).

While the TTC's 10 year base capital request of \$9.240 billion did not change, further internal reviews and refinements to the 2018-2027 Capital Budget were made to yield a balanced budget based on the available funding sources. The following is a summary of those key changes:

- Additional Provincial Funding - \$6.0 million (primarily related to Provincial Gas Tax)
- Additional PTIF Funding - \$36.5 million (initial estimate for 115 buses delivered prior to March 2019)

- 2018 and future year cash flow reductions based on anticipated 2017 underspending in the order of \$52.1 million
- \$2.1 million in added unfunded requirements based on project funding changes. The following is a summary of the changes applied to the unfunded list of projects:
 - Line 2 (BD) ATC resigalling – removed from unfunded list and added back to the Base 10-Year plan (\$111.6 million)
 - Purchase of Future Wheel Trans Buses – removed from the unfunded list and added back to the Base 10 -Year plan (52.8 million)
 - Purchase of New Subway Cars – the portion included in the 10-Year Plan was added to the Unfunded List (\$166.5 million in 2022)

TTC Budget Committee Direction

At the November 17, 2017 TTC Budget Committee meeting, staff were directed to provide additional information on the costs and strategy to complete the Bicycle Parking at Stations project at the remaining TTC stations not addressed in the proposed 10-Year Capital Plan.

This project was initially included in the City’s Capital Budget program. At the May 24, 2017 meeting, City Council approved the request to transfer the budget and funding to the Toronto Transit Commission’s Base Capital Program.

The TTC currently has 75 stations (including the Toronto York Spadina Subway Extension, slated to open for revenue service on December 17, 2017) but the 2018-2027 Capital Budget and Plan only includes cash flows to complete 40 stations with a total estimated final cost of \$850k.

- Funding for this initiative is sourced through a 50%/50% share between the Federal PTIF Phase I program and City Debt.

With regards to accommodating bicycle stations at the remaining 35 stations:

- The 6 TYSSE stations have bicycle parking infrastructure planned;
- TTC property is not currently available to accommodate for this initiative at the following 20 stations:
 - North York Centre, Lawrence, Eglinton, Bloor-Yonge, Wellesley, College, Dundas, Queen, King, Union, St. Andrew, Osgoode, St. Patrick, Queen’s Park, Museum, St. Clair West, Dundas West, Bay, Sherbourne and Woodbine; and
- There is an opportunity to add Bicycle Parking Stations (repair stands, post and ring parking, double decker racks and a shelter) at the remaining 9 stations:
 - St. Clair, Rosedale, Glencairn, Yorkdale, Lansdowne, Coxwell, Lawrence East, Ellesmere and Midland.

It is anticipated that a total cost of \$0.130 million will be required in 2018 to add bicycle parking at these 9 stations. This project is eligible for PTIF funding that would support 50% of eligible costs.

Provided Board authority is granted to proceed with the procurement of bicycle parking at these additional 9 TTC stations at a cost of \$0.130 million, staff can amend the 2018 Capital Budget through delegated authority provided by City Council for PTIF eligible projects. Funding is available and will be secured from underspending in either TTC or City PTIF projects.

2018 CAPITAL BUDGET

Key elements of the funded \$1.406 billion in the base capital budget for 2018 are shown below in Table 3.

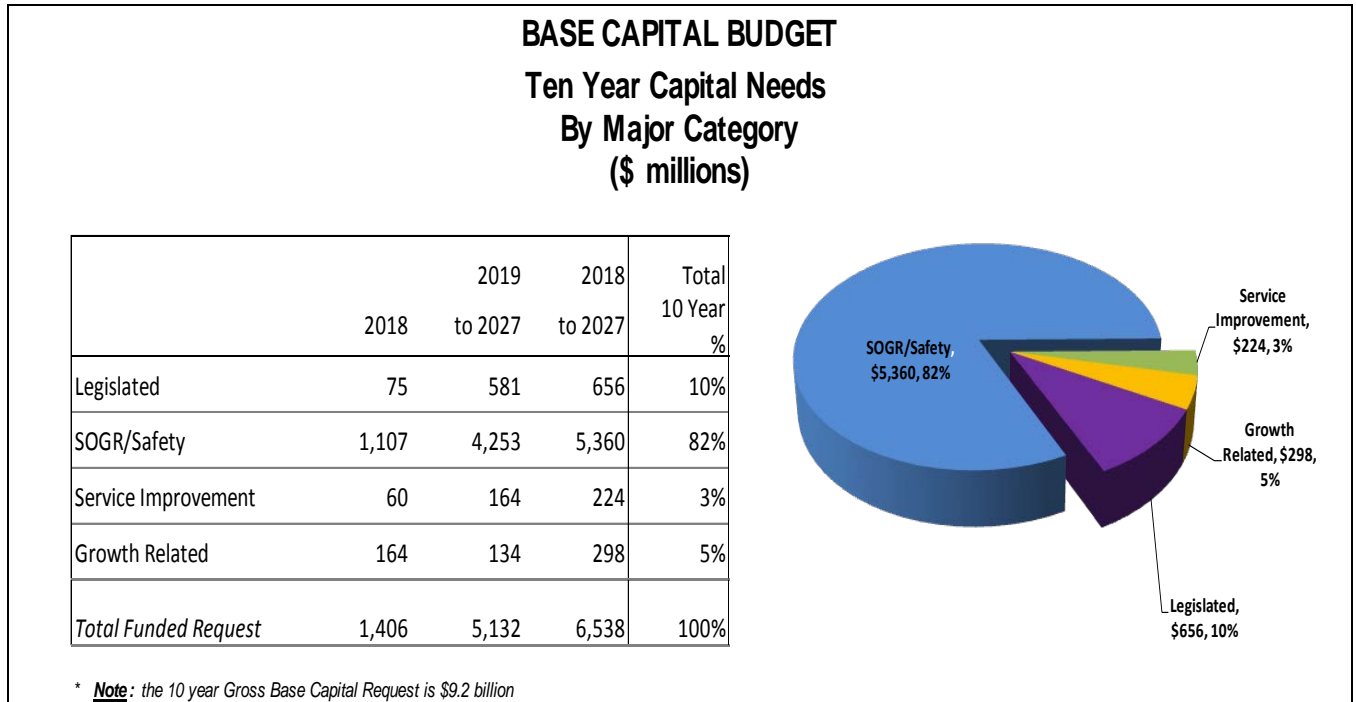
Table 3

<u>TTC 2018 BASE CAPITAL BUDGET (Funded)</u>		(\$Millions)
<u>Vehicles:</u>		
Purchase of Buses - SOGR	212	} \$580 41%
Purchase of Buses - Service Improvements	17	
Purchase of Future Wheel Trans Buses	10	
Purchase of Subway Cars - SOGR	27	
Purchase of Streetcars (204) - SOGR	185	
Vehicle Overhaul Programs (Bus, WT, Subway, Streetcar)	104	
Other (Non-Revenue Vehicle Purchase & Overhaul)	25	
<u>Infrastructure Projects:</u>		
Track Programs	79	} \$826 59%
Electrical Systems	56	
Signal Systems (Incl. Line 1 (YUS \$65M) and Line 2 (BD \$0.2M))	84	
Finishes	20	
Equipment	24	
Yards & Roads	13	
Bridges & Tunnels	30	
Building & Structures:		
- New Subway Maintenance & Storage Facility	120	
- Fire Ventilation Upgrade	16	
- Easier Access Phase III	45	
- TR/T1 Rail Yard Accommodation	34	
- McNicoll Bus Garage	30	
- Surface Way Bldg. Replacement	19	
- Leslie Barns	17	
- Wheel-Trans 10 Yr Transformation Program	11	
- Duncan Shop Ventilation Upgrade	10	
- Stations Transformation	11	
- Other Building & Structure Projects	<u>48</u>	
Revenue and Fare Handling Equipment	12	
Information Technology	101	
Other Projects	46	
Total - Base Funded Program	<u>\$1,406</u>	

2018-2027 CAPITAL BUDGET & PLAN

Funded expenditures in the order of \$6.538 billion for the next 10 years from 2018 to 2027 for TTC's base capital budget are shown in Table 4.

Table 4



As noted above, over \$6.016 billion or about 92% of the 10-Year Capital Budget and Plan is committed to State-of-Good-Repair/Safety (82%) and Legislated (10%) projects. This represents what is needed to keep the Commission's capital assets in good repair and provides for the orderly replacement of assets at the end of their useful life.

Key elements of the base capital program over the next ten years include:

Vehicle acquisitions:

- ✓ Purchase of Low Floor Buses (replacement and service improvements) (\$534 million)
- ✓ Wheel Trans Bus replacement (\$81 million)
- ✓ Balance of the 420 Toronto Rocket Subway car order (\$27 million)
- ✓ Initial Procurement Costs to Replace T1 Subway Cars(\$5 million)
- ✓ 204 LRVs (\$502 million)
- ✓ Vehicle Overhaul Programs (\$732 million comprising of: Bus \$425 million; Streetcar \$83 million; Subway Car \$224 million)
- ✓ Other (\$103 million)

Building and Infrastructure Projects:

Transit Infrastructure Projects

- ✓ Track replacement (\$656 million)
- ✓ Traction Power (\$129 million)
- ✓ Streetcar overhead system rebuild (\$56 million)
- ✓ Power Distribution/Electrical Systems (\$71 million)
- ✓ Communications (\$113 million)
- ✓ Signal Systems (\$80 million)
- ✓ Installation of automatic train control and re-signalling on Line 1 (YUS subway line) (\$180 million)
- ✓ Installation of automatic train control and re-signalling on Line 2 (BD subway line) (\$300 million)
- ✓ Streetcar network upgrades for new LRVs (\$33 million)
- ✓ Various bridges and tunnels infrastructure rehabilitation (\$360 million)

Transit Station and Related Projects

- ✓ Subway Escalator Overhaul and Replacement Programs (\$97 million)
- ✓ Easier Access Phase III (\$473 million)
- ✓ Upgrading of fire ventilation equipment and second exits in the subway (\$112 million)
- ✓ Subway Facility Renewal (\$57 million)
- ✓ Stations Transformation (\$40 million)

Transit Garages/Yards and Related Projects

- ✓ Bus Hoists (\$35 million)
- ✓ Roofing rehabilitation and paving programs (\$253 million)
- ✓ TR/T1 Rail Yard Accommodation (\$277 million)
- ✓ McNicoll Bus Garage (\$157 million)
- ✓ Land Acquisition for the New Subway Maintenance & Storage Facility (\$120 million)
- ✓ Wilson Garage Ventilation Upgrade (\$49 million)
- ✓ LRV Carhouse Facility (\$42 million)

Other Transit Infrastructure Projects

- ✓ Backflow Preventers (\$24 million)
- ✓ Wheel Trans Transformation (\$39 million)
- ✓ TTC Presto and fare and revenue collection and infrastructure needs (\$21 million)
- ✓ Environmental Programs (\$58 million)
- ✓ Upgrades to information technology assets (\$298 million)
- ✓ Service Planning (\$89 million)
- ✓ Other (\$335 million)

Provisional Funding

The TTC is currently engaged in Binding Arbitration associated with contractor claims made against the Leslie Barns project.

Provisional funding for this requirement has been included in the Recommended 10-Year Capital Budget and Plan embedded within the Other Buildings and Structures capital project. To protect the interests of the TTC and ensure that the provisional amount remains confidential until the arbitration is settled, these potential costs have been included in Other Buildings and Structures and not in the existing Leslie Barns project.

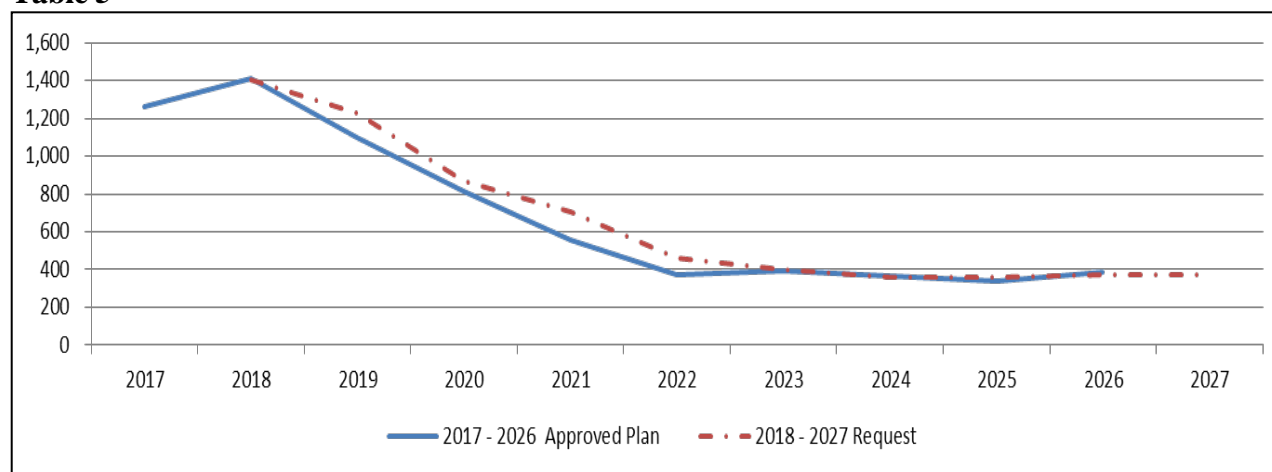
TTC staff will report to the Board once the arbitration is settled and any required funding will be drawn from the Other Building and Structures project

CHANGES FROM THE COUNCIL APPROVED 2017 – 2026 CAPITAL PLAN

Table 5 shows the changes requested in the base Capital Budget and Plan (excluding capacity to spend adjustments and unfunded projects) from that approved by City of Toronto Council on February 15, 2017.

The 2018 – 2027 Proposed Capital Budget and Plan reflects a decrease of \$467 million or 6.6% in capital funding from the 2017 - 2026 Approved Capital Plan. The chart and table below provide a breakdown of this change on an annual basis from 2017 to 2027.

Table 5



Changes to the 2017 - 2026 Approved Capital Budget & Plan												
(\$Millions)	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	10-Year Total
2017 - 2026 Approved Plan	1,264	1,413	1,099	812	556	374	396	367	339	385		7,005
2018 - 2027 Request		1,406	1,227	868	705	464	400	361	360	374	373	6,538
Change	-1,264	-7	128	56	149	90	4	-6	21	-11	373	-467
Change over Nine Common Years		-7	128	56	149	90	4	-6	21	-11		424

The \$467 million decrease in the Capital Program is primarily attributed to the significant difference in funding between the year 2017 with a cash flow of \$1.264 billion and the year 2027 with a proposed cash flow of \$373 million.

This change in funding is not reflective of a decreased capital need but rather the product of:

- a) Increased cash flow of \$615 million for PTIF funded projects in 2017 that does not continue into future years.
- b) Reduced 2027 cash flow as a result of \$265 million of identified capital needs currently unfunded.

Changes over the Nine Common Years (2018 – 2026)

While overall funding has decreased as compared to the 2017 10-Year Plan, funding over the nine years common to both plans (2018 to 2026) has increased by \$424 million.

- This increase in funding is attributed to a combination of \$248 million in anticipated unspent 2017 funding carried forward into 2018 and \$176 million in increased funding for existing capital requirements; capacity to spend adjustments and unfunded projects (\$2.702 billion) as presented in Table 6 below.

Table 6

2018-2027 Capital Budget - Key Project Changes (Excluding New)	
For Presentation to the Board November 28, 2017	
(\$ Millions)	
	Net Increase/(Decrease)
Vehicle Related Programs:	
Purchase of Buses	-25.5
Purchase of WT Buses	-3.1
Bus Overhaul	-8.0
Streetcar Overhaul	36.6
Subway Car Overhaul	-3.4
Other Car Vehicle Projects	-7.1
Sub-Total Vehicle Related Programs	-10.5
Infrastructure Related Programs:	
Subway Track	-13.7
Surface Track	12.7
Traction Power	32.0
Power Distribution	7.2
Communications	-5.4
Signal Systems (Including ATC)	-5.1
Finishes	5.9
Bridges & Tunnels	5.6
Fire Ventilation	25.2
TR/T1 Rail Yard Accommodation	-16.3
Other Buildings & Structures	121.9
Major projects included are:	
- <i>New Subway Maintenance & Storage Facility</i>	<i>113.0</i>
- <i>Retrofit of Carhouse Facility and Shop</i>	<i>6.8</i>
- <i>Bus Maintenance Facility</i>	<i>4.0</i>
- <i>Backflow Preventors</i>	<i>-4.4</i>
- <i>Revenue Operations Facility</i>	<i>-24.8</i>
Shop Equipment	5.1
Revenue and Fare Handling	11.2
Information Technology	-22.1
Service Planning	20.8
Sub-Total Infrastructure Related Programs	185.0
Sub Total - Key Project Changes	174.5
Other Projects	1.1
Total Changes to Existing	175.6

- At the time of writing, the 2017 Budget is estimated to be under-spent by \$248 million (debt carry forward of \$230 million). These funds will be carried forward to 2018 in order to continue work on previously approved capital projects. Key projects included in \$248 million carry forward are:
 - ✓ Purchase of 204 LRVs (\$31 million)
 - ✓ Purchase of Subway Cars (\$27 million)
 - ✓ Subway Car Overhaul (\$23 million)
 - ✓ Purchase of Buses (\$20 million)
 - ✓ Service Planning Program (\$21 million)
 - ✓ Leslie Barns (\$13 million)
 - ✓ Signal Systems (\$13 million)
 - ✓ Vision Program (\$13 million)
 - ✓ Other Buildings and Structures (\$12 million)
 - ✓ Communications (\$10 million)
 - ✓ Revenue Ops Facility (\$9 million)
 - ✓ Other projects (\$56 million)

In addition to the base capital budget:

- Toronto-York Spadina Subway Extension (TYSSE) - It is projected that expenditures of \$200 million will be incurred in 2018 and is scheduled to open for revenue service on December 17, 2017.
- The Scarborough Subway Extension (SSE) project involves the design and construction of an extension of the Bloor-Danforth subway line, in order to replace the ageing Scarborough RT (SRT). The alignment supported by City Council in October 2013 was to extend the subway approximately 7.6 km north from Kennedy Station, on McCowan Road, with stations at Lawrence, Scarborough Centre and Sheppard Avenue and was budgeted at \$3.560 billion. This estimate, which includes \$132 million to extend the life of the SRT until the SSE commences operation and a further \$123 million to decommission and demolish the SRT, was based on 0% design.
- At its meeting of July 13, 2016, City Council adopted the concept of an express subway extension from Kennedy to Scarborough Centre. At its meeting of March 28, 2017, City Council approved the McCowan alignment and the Triton bus terminal, as well as initiating the Transit Project Assessment Process (TPAP). At this time there has been no change in the overall project cost, and while the Recommended 2018 – 2027 Capital Plan currently includes \$3.420 billion in funding over the 10 year planning period for this project, the project budget and schedule will be rebaselined when design is developed to Stage Gate 3, factoring in delivery strategy and risk.
- Relief Line – At its meeting of November 7, 2017, City Council approved the budget transfer of \$55.5 million (gross) including \$27.8 million in Public Transit Infrastructure Fund funding and \$27.7 million in debt for Relief Line planning, design and engineering from the 2017 Corporate Initiatives Capital Budget Account to the Toronto Transit

Commission. Metrolinx is expected to contribute an additional \$45 million. It is projected that \$40 million will be incurred in 2018 and \$52.5 million will be incurred in 2019.

- **Waterfront Transit Expansion** - At its meeting of November 7, 2017, City Council approved the budget transfer of \$3.6 million (gross) including \$1.8 million in Public Transit Infrastructure Fund funding and \$1.8 million in debt for Waterfront Transit planning, design and engineering from the 2017 Corporate Initiatives Capital Budget Account to the Toronto Transit Commission. The scope of work includes the preliminary design for Exhibition to Dufferin Gate Loop.

UNFUNDED TTC CAPITAL PROJECTS

The 2018-2026 Base Capital needs of \$9.240 billion requires additional funding of \$2.702 billion over the established funding available, resulting in \$2.275 billion in projects to be considered unfunded, after a capacity to spend adjustment is applied. The following table summarizes the projects included on the unfunded list with the cash flow reductions by year.

Table 7 – 2018-2027 Unfunded Projects

Unfunded Projects											
(\$Millions)	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	10-Year Total
Capacity to Spend (CTS) Adjustments (Various Projects)	26.2	30.2	45.1	51.1	48.2	43.2	41.2	42.9	48.3	50.5	426.9
Unfunded Projects:											
Fire Ventilation Upgrades	0.0	0.0	0.0	1.9	50.2	46.8	29.1	20.9	13.1	0.0	162.0
Purchase of Buses	0.0	0.0	5.1	90.4	85.5	53.2	21.9	0.0	14.6	0.0	270.7
Purchase of 372 New Subway Cars	0.0	0.0	0.0	0.0	315.5	171.7	170.1	319.4	290.2	144.3	1,411.2
Ridership Growth for YUS and BD	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	69.8	69.8
Purchase of Streetcars	49.6	0.0	222.1	89.2	0.0	0.0	0.0	0.0	0.0	0.0	361.0
Total CTS Adjustments and Unfunded Projects	75.7	30.2	272.3	232.7	499.4	315.0	262.4	383.2	366.3	264.5	2,701.6

The unfunded list is comprised of \$2.275 billion in unfunded programs/projects and \$427 million in capacity to spend adjustments.

- Capacity to spend adjustments do not reflect a decrease in capital need but rather a reduction to ensure cash flows for capital projects (exclusive of buses) are aligned with the TTC's capacity to spend/deliver on each project on an annual basis.
- Capacity to spend adjustments are consistent with Council budget directions that require: *Annual cash flow funding estimates be examined to more realistically match cash flow spending to project activities and timing, especially in the first 5 years of the Capital Plan's timeframe*
- The 2017 to 2026 Capital Budget included adjustments of 15% for the years 2017 to 2020 and 10% for the years 2021 to 2026 as a result of capacity to spend analysis.
- During the 2018 to 2027 Capital Budget process, a detailed analysis was undertaken and

capacity-to-spend adjustments were applied based on project performance and prior year spending rates, resulting in the following cash flow changes:

Capacity to Spend Adjustments (\$427 M)

- Track Replacement Programs (\$94 million)
- Electrical Systems Programs (\$69 million)
- Bus Overhaul (\$63 million)
- Bridges & Tunnels (\$61 million)
- Buildings & Structures Programs (\$40 million)
- Information Technology System (\$26 million)
- Equipment (\$19 million)
- Tools, Machinery and Equipment (\$18 million)
- Finishes (\$16 million)
- Automotive/Rail Non-Revenue Programs (\$11 million)
- Transit Priority Project (\$6 million)
- Environmental Programs (\$4 million)

It is recommended that TTC staff continue to consult with City staff on the development of a financing strategy to address the \$2.275 billion in unfunded base capital requirements as well as projects for future consideration as part of the 2019 Budget process to avoid potential service impact associated with not proceeding with required unfunded capital investments.

Additional Considerations

In considering the base needs and prioritization of our capital budget over the next 10 years, several key issues need to be considered including but not limited to: AODA compliance by 2025; line 2 modernization, new bus technologies, change in bus life (i.e. 18 years to 12 years); replacement of the T1 subway fleet; SmartTrack; Downtown Relief Line, Waterfront and other Transit Expansion projects. In addition, prioritization and ongoing review of those projects included on the Unfunded List and Projects for Future Consideration need to be maintained to ensure critical decision dates based on policy or initiatives are not overlooked.

Long term, stable, sustainable and predictable funding is a must and ongoing strategies to close the funding gap will need to be developed and implemented so that the existing transit network is maintained in a state of good repair and to ensure that the Commission continues to provide efficient, safe and affordable public transit to the residents of the City of Toronto.

Contact

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Attachments

Appendix A - 2018-2027 Capital Budget Summary

Appendix B - 2018-2027 Capital Budget Funding Summary

Appendix C – 2018-2027 Proposed Unfunded Projects

**TORONTO TRANSIT COMMISSION
2018-2027 CAPITAL BUDGET SUMMARY
NET OF CAPACITY-TO-SPEND ADJUSTMENT AND UNFUNDED PROJECTS**

Appendix A

\$Millions

Programs	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2018 to 2027
Infrastructure Related Programs:											
Tracks:	79,175	72,288	60,952	74,687	56,757	59,965	56,847	60,901	66,790	68,127	656,489
1.1 Subway Track	38,671	34,642	35,370	43,079	30,865	32,400	33,027	33,653	34,229	34,914	350,850
1.2 Surface Track	40,504	37,646	25,582	31,608	25,892	27,565	23,820	27,248	32,561	33,213	305,639
Signals, Electrical, Communications:	139,304	126,530	105,001	77,806	65,616	76,411	78,080	79,120	85,812	94,890	928,570
2.1 Traction Power	21,045	19,007	18,094	15,932	15,745	16,528	17,556	18,287	19,485	23,140	184,819
2.2 Power Distribution	7,367	6,750	11,216	6,543	6,945	6,050	6,008	6,023	6,780	7,226	70,908
2.3 Communications	27,384	13,719	12,049	12,169	8,077	7,969	5,838	5,987	8,620	11,126	112,938
2.4 Signal Systems	18,134	15,744	14,822	14,154	4,009	3,582	3,412	2,062	2,179	2,163	80,261
2.4 YUS/BD Resignalling	65,374	71,310	48,820	29,008	30,840	42,282	45,266	46,761	48,748	51,235	479,644
Buildings and Structures:	448,605	394,714	428,540	383,450	230,235	157,247	132,416	116,601	83,664	88,040	2,463,512
3.1 Finishes	20,203	21,083	12,607	16,157	21,277	10,755	7,515	6,504	7,926	6,854	130,881
3.2 Equipment	24,255	27,578	35,358	27,187	15,512	14,410	12,029	11,463	11,279	22,410	201,484
3.3 Yards & Roads	13,080	20,129	27,321	26,064	16,747	10,860	10,532	10,675	11,214	11,042	157,664
3.4 Bridges & Tunnels	30,455	33,169	33,588	34,054	34,482	36,710	37,216	39,473	40,059	40,657	359,863
3.9 Fire Ventilation Upgrade	15,760	18,110	33,221	45,092	-	-	-	-	-	-	112,183
3.9 Easier Access Phase III	44,824	56,114	62,164	71,822	71,263	66,151	54,960	39,637	6,000	-	472,935
3.9 Leslie Barns	16,829	7,048	-	-	-	-	-	-	-	-	23,877
3.9 Toronto Rocket Yard & Storage Track Accommodation	33,851	49,480	75,497	69,273	43,890	4,425	125	-	-	-	276,541
3.9 McNicoll Bus Garage	30,000	45,000	52,974	28,807	-	-	-	-	-	-	156,781
3.9 Other Buildings & Structures	219,348	117,003	95,810	64,994	27,064	13,936	10,039	8,849	7,186	7,074	571,303
Tooling, Machinery and Equipment	26,313	6,306	3,038	5,758	2,845	2,386	2,445	2,497	2,655	2,843	57,086
5.1 Shop Equipment	4,910	3,010	2,055	4,774	1,823	1,400	1,407	1,363	1,506	1,670	23,918
5.2 Revenue & Fare Handling Equipment	12,457	175	250	250	250	250	300	300	300	300	14,832
5.3 Other Maintenance Equipment	3,253	2,996	733	734	772	736	738	834	849	873	12,518
5.4 Fare System	5,693	125	-	-	-	-	-	-	-	-	5,818
Environmental Programs	7,838	9,067	8,017	10,371	4,210	3,805	3,600	3,690	3,780	3,870	58,248
6.1 Environmental Program	7,838	9,067	8,017	10,371	4,210	3,805	3,600	3,690	3,780	3,870	58,248
Computer Equipment & Software	100,791	52,287	40,778	10,659	8,031	12,566	9,536	11,482	26,502	25,547	298,179
7.1 & 7.2 IT Systems/Infrastructure	100,791	52,287	40,778	10,659	8,031	12,566	9,536	11,482	26,502	25,547	298,179
Other:	23,257	24,103	23,190	8,350	3,040	2,154	1,948	2,166	1,969	1,959	92,136
9.1 Furniture & Office Equipment	288	210	546	340	190	394	188	406	209	199	2,970
9.2 Service Planning	22,969	23,893	22,644	8,010	2,850	1,760	1,760	1,760	1,760	1,760	89,166
Subtotal - Infrastructure Related Programs	825,283	685,295	669,516	571,081	370,734	314,534	284,872	276,457	271,172	285,276	4,554,220
Vehicle Related Programs:											
4.11 Purchase of Buses	229,425	137,298	108,783	38,000	11,626	9,300	-	-	-	-	534,432
4.11 Purchase of Wheel Trans Buses	10,380	7,629	2,003	8,411	8,831	6,955	7,303	7,668	10,735	11,271	81,186
4.12 Purchase of Subway Cars	26,949	524	584	1,523	2,120	-	-	-	-	-	31,700
4.13 Bus Overhaul	45,885	35,863	33,231	42,162	42,604	43,095	42,872	43,363	49,337	47,002	425,414
4.15 Streetcar Overhaul	12,473	2,864	1,866	1,704	617	3,424	5,019	12,647	24,224	18,602	83,440
4.16 Subway Car Overhaul	45,560	30,057	22,133	24,913	19,103	18,142	19,058	18,390	17,153	9,015	223,524
4.18 Purchase of Streetcars	184,961	304,553	12,117	-	-	-	-	-	-	-	501,631
4.21 Purchase Non Revenue Vehicles	4,331	2,940	2,528	2,170	2,310	2,380	1,470	1,470	1,470	1,470	22,539
4.22 Rail Non-Revenue Vehicle Overhauls	4,415	3,275	3,219	5,385	1,200	392	400	412	266	443	19,407
4.23 Purchase Rail Non-Revenue Vehicle	15,993	16,834	11,692	9,543	4,830	1,992	-	-	-	-	60,884
Subtotal - Vehicle Related Programs	580,372	541,837	198,156	133,811	93,241	85,680	76,122	83,950	103,185	87,803	1,984,157
TOTAL - BASE PROGRAM	1,405,655	1,227,132	867,672	704,892	463,975	400,214	360,994	360,407	374,357	373,079	6,538,377
Toronto York Spadina Subway Extension (TYSSE)	200,394	-	-	-	-	-	-	-	-	-	200,394
Scarborough Subway Extension (SSE)	113,251	119,768	179,602	252,844	471,830	1,022,350	633,625	301,910	140,900	183,670	3,419,750
Downtown Relief Line	40,000	52,500	-	-	-	-	-	-	-	-	92,500
Waterfront Transit	720	-	-	-	-	-	-	-	-	-	720
TOTAL - BASE & TRANSIT EXPANSION PROGRAMS	1,760,020	1,399,400	1,047,274	957,736	935,805	1,422,564	994,619	662,317	515,257	556,749	10,251,741

TTC 2018-2027 CAPITAL BUDGET REQUIREMENTS & SOURCES OF FUNDING

APPENDIX B

For Presentation to the Board on November 28, 2017

	\$Millions										
	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>	<u>2027</u>	<u>2018-2027</u>
2018-2027 Proposed Capital Budget Request	1,481.4	1,257.3	1,139.9	937.6	963.4	715.2	623.3	743.6	740.7	637.6	9,240.0
Capacity to Spend Budget Adjustment	(26.2)	(30.2)	(45.1)	(51.1)	(48.2)	(43.2)	(41.2)	(42.9)	(48.3)	(50.5)	(426.9)
Net 2018-2027 Proposed Budget Request	1,455.2	1,227.1	1,094.8	886.4	915.2	671.9	582.1	700.7	692.4	587.1	8,813.1
Funding Sources											
Provincial Gas Tax	75.2	78.8	75.2	75.2	75.2	75.2	75.2	75.2	75.2	75.2	755.8
Canada Strategic Infrastructure Fund (CSIF) - Interest			15.6								15.6
Metrolinx - PRESTO Faregates	2.9										2.9
Capital Reserve			57.9								57.9
Metrolinx Quick Wins											
204 LRV Funding	58.6	94.2									152.7
Total Provincial Funding	136.7	173.0	148.8	75.2	75.2	75.2	75.2	75.2	75.2	75.2	985.1
Base Federal Gas Tax - 5 cent (population)	167.4	167.4	167.4	167.4	167.4	167.4	167.4	167.4	167.4	167.4	1,674.2
Canada Strategic Infrastructure Fund (CSIF)											
Public Transit Infrastructure Fund (PTIF)	222.5	56.1									278.6
Public Transit Infrastructure Fund (PTIF) - additional 115 buses	9.1	27.4									36.5
Total Federal Funding	399.1	250.9	167.4	167.4	167.4	167.4	167.4	167.4	167.4	167.4	1,989.3
TTC Internal (Depreciation)	29.3	18.1	11.9	13.5	9.7	12.0	9.3	10.6	18.8	18.4	151.7
Other Reserves / Funding Partners (Water; Roads DC - Transit Priorities)	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	17.6
Development Charges - Transit	131.0	63.2	64.1	63.4	62.9	41.3	27.2	28.1	7.4	10.2	498.8
Total Other Funding	162.1	83.1	77.8	78.6	74.4	55.1	38.2	40.4	27.9	30.4	668.1
City Debt Target - CFO Recommended	596.5	491.4	419.6	234.6	65.1	104.8	77.9	84.2	126.2	200.0	2,400.2
Other Funding (LRV LDs)	1.8										1.8
City Funding - Capital Financing Reserve Fund (re: asset monetization)	70.3	156.5	37.6								264.4
Total Carryforward Funding (Debt Portion)	229.6										229.6
Total City / Other Funding	1,060.2	731.0	535.0	313.1	139.5	159.8	116.1	124.6	154.1	230.4	3,564.0
Total Funding	1,595.9	1,154.9	851.3	555.8	382.1	402.5	358.7	367.3	396.8	473.1	6,538.4
Funding Shortfall/(Surplus)	(140.7)	72.2	243.6	330.7	533.1	269.5	223.4	333.4	295.6	114.1	2,274.7
Unfunded Projects - Refer to Appendix C	(49.6)	0.0	(227.2)	(181.5)	(451.2)	(271.7)	(221.2)	(340.3)	(318.0)	(214.1)	(2,274.7)
Net Funding Shortfall/(Surplus)	(190.3)	72.2	16.4	149.1	81.9	(2.3)	2.3	(6.9)	(22.4)	(100.0)	(0.0)

TTC 2018-2027 CAPITAL BUDGET & PLAN												
Proposed Unfunded List of Projects												
(\$000s)												
(\$000's)	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2018-2027	2017-2026
2018-2027 Gross Budget - For Presentation to the Board November 28, 2017	1,481.4	1,257.3	1,139.9	937.6	963.4	715.2	623.3	743.6	740.7	637.6	9,240.0	9,440.2
2018-2027 Funding Available	1,366.4	1,154.9	851.3	555.8	382.1	402.5	358.7	367.3	396.8	473.1	6,308.8	6,882.1
2017 Debt Carry Forward	229.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	229.6	123.2
Funding (Surplus)/Shortfall	(114.6)	102.4	288.7	381.8	581.3	312.7	264.6	376.3	343.9	164.5	2,701.6	2,435.0
Capacity to Spend Budget Adjustment *	26.2	30.2	45.1	51.1	48.2	43.2	41.2	42.9	48.3	50.5	426.9	481.5
Net Funding (Surplus)/Shortfall	(140.7)	72.2	243.6	330.7	533.1	269.5	223.4	333.4	295.6	114.1	2,274.7	1,953.4
<u>2018 to 2027 Capital Budget - Unfunded Projects</u>												
<u>Finite Projects:</u>												
3.9 Fire Ventilation Upgrade	0.0	0.0	0.0	1.9	50.2	46.8	29.1	20.9	13.1	0.0	162.1	162.7
4.11 Purchase of Buses	0.0	0.0	5.1	90.4	85.5	53.2	21.9	0.0	14.6	0.0	270.6	244.6
4.12 Purchase of New Subway Cars	0.0	0.0	0.0	0.0	315.5	171.7	170.1	319.4	290.2	144.3	1,411.2	1,185.2
4.12 Ridership Growth for YUS and BD	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	69.8	69.8	0.0
4.18 Purchase of Streetcars	49.6	0.0	222.1	89.2	0.0	0.0	0.0	0.0	0.0	0.0	360.9	360.9
Sub-Total: Finite Projects Unfunded	49.6	0.0	227.2	181.5	451.2	271.7	221.2	340.3	318.0	214.1	2,274.7	1,953.4
TTC 2018-2027 Funding net of Unfunded Projects (surplus)/shortfall	(190.3)	72.2	16.4	149.1	81.9	(2.3)	2.3	(6.9)	(22.4)	(100.0)	(0.0)	0.0
Note:												
* The Capacity to Spend adjustment is calculated based on ongoing funded projects. Capacity to Spend adjustments are applied based on project performance and prior year spending rates. Details of the reductions are noted in the blue/green pages on a project specific basis where applicable.												