



COMMITTEE REPORT ACTION REQUIRED

2016-2025 TTC Capital Budget

Date:	November 23, 2015
To:	TTC Board
From:	TTC Budget Committee

Summary

The attached report entitled “2016-2025 TTC Capital Budget” was considered by the TTC Budget Committee at its meeting on November 9, 2015.

The Committee approved the report as submitted.

In addition, attached as Exhibit A is the TTC 2016-2025 Capital Budget Program and Project Detailed Listing (commonly known as the ‘Blue Pages’)

Recommendations

It is recommended that the Board:

1. Approve the 2016-2025 TTC Capital Budget (including the Toronto-York Spadina Subway Extension and Scarborough Subway Extension) as summarized in Appendix A; noting that there are almost \$2.8 billion of Unfunded Projects.

Contact

Vincent Rodo – Chief Financial and Administration Officer, Vincent.rodo@ttc.ca, 416-393-3914

Michael Roche – Head of Finance & Treasurer, Michael.roche@ttc.ca, 416-393-3654

November 9, 2015
42-66

Attachments

- 2016-2025 TTC Capital Budget (as submitted to the TTC Budget Committee)
- Exhibit ‘A’ (Blue Pages)



STAFF REPORT ACTION REQUIRED

2016-2025 TTC Capital Budget

Date:	November 9, 2015
To:	TTC Budget Committee
From:	Chief Executive Officer

Summary

The 2016-2025 Capital Budget has been prepared consistent with the Commission's Five Year Corporate Plan and with the 2016 TTC and Wheel-Trans Operating Budgets. While project timing and cash flows have been adjusted to reflect more current information, funding continues to represent the greatest challenge to moving forward with the base capital program. Highlights of the 2016-2025 Capital Budget are as follows:

- \$1.170 billion is planned for 2016 for the Base Capital Program;
- \$9.316 billion is forecasted as the overall requirement for the Base Capital Program for the ten years from 2016 to 2025;
- Based on current funding assumptions, the 2016 budget is fully funded, however, there is a funding shortfall in the order of \$2.785 billion over the next ten years and, therefore, certain projects will not be permitted to proceed pending confirmation of available funding;
- \$320 million is required in 2016 and \$330 million in 2017 for the construction of the Toronto-York Spadina Subway Extension;
- \$142 million is required in 2016 and \$3.521 billion from 2016 to 2025 for the construction of the Scarborough Subway Extension.

Recommendations

It is recommended that the TTC Budget Committee:

1. Approve the 2016-2025 TTC Capital Budget (including the Toronto-York Spadina Subway Extension and Scarborough Subway Extension) as summarized in Appendix A; noting that there are almost \$2.8 billion of Unfunded Projects;
2. Forward the 2016-2025 TTC Capital Budget Report to the Board for approval.

Implementation Points

This report should be considered in concert with the companion report on the “2016 TTC and Wheel-Trans Operating Budgets”.

Financial Summary

The ten year Base Capital Program need is approximately \$9.3 billion; however, only \$6.5 billion of funding is available, leaving approximately \$2.8 billion of required capital projects unfunded. In addition to the Base Program, approximately \$0.7 billion will be required over the next ten years to complete the Toronto-York Spadina Subway Extension. Also, approximately \$3.5 billion is required over the next decade to allow for construction of the Scarborough Subway Extension and the life extension of the SRT until the new subway opens.

The Chief Financial & Administration Officer has reviewed this report and agrees with the financial impact information.

Accessibility/Equity Matters

The Base Capital Program incorporates projects to achieve AODA compliance.

Decision History

The 2016 budgets process formally commenced earlier this year with the submission of the 2016 TTC Budgets Process report to the TTC Board on May 27, 2015.

[http://www.ttc.ca/About the TTC/Commission reports and information/Commission meetings/2015/May 27/Reports/2016 TTC Budgets Process.pdf](http://www.ttc.ca/About%20the%20TTC/Commission%20reports%20and%20information/Commission%20meetings/2015/May%2027/Reports/2016%20TTC%20Budgets%20Process.pdf)

Following the establishment of the TTC Budget Committee, it has held three separate meetings in June, July and September where staff have presented details regarding each of the TTC’s four budgets. The Committee has also received a series of possible fare increase scenarios as well as further service enhancements.

Comments

Funding

The order of magnitude of the ten year Capital Budget request is about the same as in recent budgets as shown in Exhibit 1 below.

Exhibit 1

10 - Year Capital Budget Comparison			
Base Program			
(\$Billions)			
	2014 - 2023	2015 - 2024	2016 - 2025
	<u>Approved</u>	<u>Approved</u>	<u>Request</u>
Budget/Request	9.036	9.268	9.316
Funding Available	<u>6.493</u>	<u>6.901</u>	<u>6.531</u>
Shortfall	<u>2.543</u>	<u>2.367</u>	<u>2.785</u>

The City has increased funding to help mitigate the shortfall that the Commission is facing and all known or expected current funding sources have been incorporated into this ten-year capital plan for the TTC.

Sufficient funds are available to meet the 2016 budget request; however, a \$2.8 billion shortfall exists over the 2016-2025 time frame (almost 70% of this shortfall is in the latter five years) as shown in Appendix B.

Discussion

With investments approaching \$15 billion in existing assets and ridership volumes at record levels, the existing transit network must remain the TTC's first priority. The Base Capital Budget covers the maintenance of existing needs and acquisition of new and replacement transit assets needed by the TTC for the provision of public transit services. In establishing the budget, a life cycle approach is essential. A one year budget, five year program and ten year forecast are developed: all designed to keep the TTC's capital assets in proper working order. The capital plan is constructed using the Commission's long standing capital budget priorities which remain:

- State of Good Repair
- Legislated
- Improvement
- Expansion

Appendix A provides a Summary of the 2016-2025 Capital Budget by program category and the 10 year capital needs for the base system which is pegged at over \$9.3 billion (of which approx. 92% comprises of State of Good Repair and Legislated 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. About \$3.9 billion or 42% of it is to purchase or overhaul the revenue fleet (buses, streetcars, subway trains and Wheel-Trans buses) and the non-revenue fleet (subway work cars and the various trucks, cars and other specialized vehicles needed for the operation of the system).

1,168 city buses and 201 Wheel-Trans buses will be purchased and \$461 million will be spent on mid-life heavy overhauls over the next 10 years. The McNicoll bus garage will be built. Work will continue on smoothing bus purchases as much as practical. The maintenance spares ratio will be increased to the industry standard of 18% and the move to a 15-year useful life for buses (down from the current 18 years) is currently under review. In addition, the CAD/AVL system will be installed to revolutionize how the bus fleet is operated on the street on a day-to-day basis, including state-of-the-art real-time engine diagnostic information. All of this will allow for a marked improvement in bus service to our customers.

The balance of the 204 LRVs (light rail vehicles) will be delivered and the next order for 60 additional ones will subsequently be completed. In addition, streetcar track, poles, overhead and power substations will continue to be rehabilitated when due, resulting in a completely new, more reliable, accessible and modern streetcar system.

The existing order for the Toronto Rockets will be completed and the next order for the replacement of the T1 subway fleet will commence during this timeframe. The work to complete the accommodation of the Toronto Rocket trains on the Yonge line will be completed. ATC (automatic train control) on Line 1 (YUS) will be completed and work on ATC on Line 2 (BD) will be well underway. Subway track, bridges & tunnels, electrical systems, tunnel liners, stations, escalators & elevators, bus terminals, parking lots and all other structural/equipment in the subway system will continue to be kept in proper working order. All of this will underpin the goal of a 50% reduction in subway delays that will yield world-class subway service in Toronto.

PRESTO will be completely implemented throughout the entire system, revolutionizing how our customers pay fares and how we interact with them each and every time they use the system.

The entire transit system will be fully accessible by 2025.

On the administrative side, the TTC will have installed SAP to modernize how the TTC manages budgets and costs.

Unfunded Projects

The current 10 year request of \$9.3 billion is consistent with the past several years. Funding from known sources amounts to almost \$6.5 billion over the next decade but the funding shortfall is increasing as existing funding programs are either winding down or have come to an end. While the Base Capital Program is fully funded in 2016, there is a \$2.8 billion funding shortfall over the next 10 years (see Appendix B). Overall, there is relatively little change to the 10-year base budget plan, and unfortunately, little change to identified capital funding sources at this time. Known funding was about \$2.5 billion short of the needs for the base budget in last year's 10-year plan. Similarly, there is a shortfall over the 2016-2025 period of almost \$2.8 billion.

TTC staff have identified projects to be included on an unfunded list that amount to the \$2.8 billion 10 year shortfall as shown in Exhibit 2.

Exhibit 2

2016-2025 PROPOSED UNFUNDED PROJECTS LIST		
(\$Millions)		
PROJECT	<u>2016-2025</u>	<u>Decision Date</u>
Purchase of 99 40' LF Buses (Service Improvements)	(75)	2016
201 Replacement Wheel-Trans Buses	(100)	2016
Bus Overhaul	(260)	2019
60 New LRVs for Growth	(361)	2016
372 Replacement Subway Cars	(915)	2017
Purchase of 675 40' LF Buses	(546)	2017
Fire Ventilation Upgrade	(182)	2017
Other SOGR Infrastructure Projects	(346)	2016
Total	<u>(2,785)</u>	
Request of \$9.3B versus funding available of \$6.5B = \$2.8B shortfall		

Note: Easier Access III (elevators) has been removed from the list of Unfunded Projects

These unfunded projects predominantly start later on, so there is time available to secure funding necessary to allow them to proceed. Also, staff are working on a prioritized list of projects.

Strategies to close the funding gap include:

- a) Reviewing existing projects to identify incremental development charge opportunities;
- b) Pursuing asset monetization (e.g. property development);
- c) Bundling of projects to apply for Federal funding under the Public Transit Fund.

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: AODA legislation compliance by 2025; Smart Track; Downtown Relief Line. Also, other projects for future consideration amounting to more than \$5.5 billion are not included in the current Capital Budget such as: additional Fire Ventilation Upgrades, Yonge Bloor Capacity Improvements, Platform Edge Doors Bloor, New Rail Maintenance Facility.

Long term stable, sustainable predictable funding is a must and 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 - 2016-2025 Capital Program Summary
Appendix B – 2016-2025 Capital Budget Funding Summary

TORONTO TRANSIT COMMISSION
2016-2025 CAPITAL BUDGET SUMMARY
 \$Millions

Programs	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2016 to 2025
Infrastructure Related Programs:											
Tracks:	61,602	104,647	72,605	94,407	62,769	63,851	63,734	65,168	70,816	71,983	731,582
1.1 Subway Track	28,668	42,930	30,208	66,399	30,634	31,444	32,096	32,738	37,293	34,427	366,837
1.2 Surface Track	32,934	61,717	42,397	28,008	32,135	32,407	31,638	32,430	33,523	37,556	364,745
Signals, Electrical, Communications:	132,824	159,915	161,117	143,103	97,294	80,008	66,637	71,209	77,344	79,830	1,069,281
2.1 Traction Power	25,025	21,968	20,732	19,632	18,759	14,448	13,844	14,428	14,574	22,311	185,721
2.2 Power Distribution	7,715	9,993	10,942	8,545	5,796	5,716	5,559	5,679	5,914	7,436	73,295
2.3 Communications	24,410	21,089	16,215	14,588	8,255	6,947	6,703	6,507	6,561	8,246	119,521
2.4 Signal Systems	17,844	23,224	22,794	14,120	3,703	1,459	1,608	1,257	1,296	1,331	88,636
2.4 YUS/BD Resignalling	57,830	83,641	90,434	86,218	60,781	51,438	38,923	43,338	48,999	40,506	602,108
Buildings and Structures:	290,764	426,642	462,367	466,916	409,549	275,361	185,048	157,359	136,456	138,249	2,948,711
3.1 Finishes	14,680	19,673	16,901	21,338	21,462	21,025	21,454	10,900	8,841	7,652	163,926
3.2 Equipment	31,628	48,504	42,060	32,061	30,804	24,886	20,774	14,817	11,526	12,275	269,335
3.3 Yards & Roads	13,210	19,631	26,876	27,590	28,616	16,278	16,284	12,295	12,483	12,672	185,935
3.4 Bridges & Tunnels	50,472	54,667	50,763	47,036	48,594	50,845	51,571	52,298	46,968	49,574	502,788
3.9 Fire Ventilation Upgrade	23,687	22,947	40,659	46,975	48,930	39,704	17,750	13,693	18,104	23,653	296,102
3.9 Easier Access Phase III	35,000	52,044	54,904	55,482	41,417	50,848	46,739	42,041	27,916	22,564	428,955
3.9 Leslie Barns	33,804	27,119	2,200	-	-	-	-	-	-	-	63,123
3.9 Toronto Rocket Yard & Storage Track Accommodation	38,204	65,391	81,357	104,280	69,889	43,390	-	-	-	-	402,511
3.9 McNicoll Bus Garage	2,308	20,500	50,000	50,000	51,950	-	-	-	-	-	174,758
3.9 Other Buildings & Structures	47,771	96,166	96,647	82,154	67,887	28,385	10,476	11,315	10,618	9,859	461,278
Tooling, Machinery and Equipment	68,118	20,781	9,103	4,117	4,419	3,725	4,033	3,527	3,620	4,734	126,177
5.1 Shop Equipment	10,588	4,275	5,067	2,408	3,016	2,321	2,570	2,119	2,160	2,573	37,097
5.2 Revenue & Fare Handling Equipment	36,935	7,675	75	75	250	250	250	250	300	300	46,360
5.3 Other Maintenance Equipment	7,600	1,276	1,225	1,151	1,153	1,154	1,213	1,158	1,160	1,861	18,951
5.4 Fare System	12,995	7,555	2,736	483	-	-	-	-	-	-	23,769
Environmental Issues	10,337	11,773	15,620	8,448	8,488	13,496	6,240	5,676	5,790	5,934	91,802
6.1 Environmental Program	10,337	11,773	15,620	8,448	8,488	13,496	6,240	5,676	5,790	5,934	91,802
Computer Equipment & Software	88,930	88,283	52,687	31,967	48,434	17,998	15,597	15,288	10,798	8,689	378,671
7.1 & 7.2 IT Systems/Infrastructure	88,930	88,283	52,687	31,967	48,434	17,998	15,597	15,288	10,798	8,689	378,671
Other:	7,729	6,521	6,191	5,507	3,518	2,660	2,472	2,727	2,470	2,518	42,313
9.1 Furniture & Office Equipment	209	486	355	272	683	425	237	492	235	483	3,877
9.2 Service Planning	7,520	6,035	5,836	5,235	2,835	2,235	2,235	2,235	2,235	2,035	38,436
Subtotal - Infrastructure Related Programs	660,304	818,562	779,690	754,465	634,471	457,099	343,761	320,954	307,294	311,937	5,388,537
Vehicle Related Programs:											
4.11 Purchase of Buses	78,580	76,131	78,454	88,163	92,098	97,159	105,500	110,000	115,500	120,859	962,444
4.11 Purchase of Future Wheel Trans	-	-	13,900	23,600	14,400	26,000	22,400	-	-	-	100,300
4.12 Purchase of Subway Cars	24,236	9,122	4,325	524	584	1,523	293,407	161,569	158,376	298,699	952,365
4.13 Bus Overhaul	75,970	65,597	42,405	33,869	42,401	33,186	48,343	49,609	33,655	36,146	461,181
4.15 Streetcar Overhaul	10,182	9,024	410	410	1,043	1,315	688	4,241	13,309	18,618	59,240
4.16 Subway Car Overhaul	68,157	48,042	19,002	18,120	17,885	15,297	13,232	17,059	17,373	24,415	258,582
4.18 Purchase of Streetcars	230,247	165,928	157,136	318,201	140,634	6,923	-	-	-	-	1,019,069
4.21 Purchase Non Revenue Vehicles	9,328	3,465	2,472	2,382	3,377	5,877	4,074	5,123	2,064	1,984	40,146
4.22 Rail Non-Revenue Vehicle Overhauls	1,519	2,050	2,075	1,765	1,783	1,669	1,685	1,703	1,718	1,153	17,120
4.23 Purchase Rail Non-Revenue Vehicle	11,853	15,321	14,822	12,891	2,350	-	-	-	-	-	57,237
Subtotal - Vehicle Related Programs	510,072	394,680	335,001	499,925	316,555	188,949	489,329	349,304	341,995	501,874	3,927,684
BASE PROGRAM - TOTAL	1,170,376	1,213,242	1,114,691	1,254,390	951,026	646,048	833,090	670,258	649,289	813,811	9,316,221
Toronto York Spadina Subway Extension (TYSSE)	319,587	329,836	13,962	-	-	-	-	-	-	-	663,385
Scarborough Subway Extension (SSE)	142,058	319,263	430,204	576,210	576,900	582,400	485,220	226,600	38,700	143,635	3,521,190
TOTAL - BASE, TYSSE & SSE Programs	1,632,021	1,862,341	1,558,857	1,830,600	1,527,926	1,228,448	1,318,310	896,858	687,989	957,446	13,500,796

2016-2025 Capital Budget Funding Summary											
\$Millions											
	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total
2016-2025 Gross Budget Request	1,170	1,213	1,115	1,254	951	646	833	670	649	814	9,316
Federal	160	160	167	167	167	167	167	167	167	167	1,659
Provincial	130	197	121	118	71	71	71	71	71	71	993
City Debt	498	530	502	380	139	16	0	0	0	252	2,317
Other Funding	<u>397</u>	<u>325</u>	<u>253</u>	<u>195</u>	<u>152</u>	<u>88</u>	<u>39</u>	<u>43</u>	<u>51</u>	<u>18</u>	<u>1,562</u>
2016-2025 Total Funding Available	1,185	1,211	1,043	861	530	343	277	282	290	508	6,531
Funding (Surplus)/Shortfall	(14)	2	71	393	421	303	556	388	359	306	2,785
<i>Note: Does not include TYSSE, SSE or TTC Projects for Future Consideration</i>											



2016-2025 TTC CAPITAL BUDGET





Capital Request 2016 – 2025

• Base Capital Budget	\$ 9.3B	
• TYSSE	\$ 0.7B	
• Scarborough Subway Extension	<u>\$ 3.5B</u>	
TOTAL REQUEST *		<u>\$13.5B</u>

* **Note:** *does not include Projects for Future Consideration with an Estimated Final Cost (EFC) totaling over \$5.5 billion.*





10 - Year Capital Budget Comparison			
Base Program			
	(\$Billions)		
	2014 - 2023	2015 - 2024	2016 - 2025
	<u>Approved</u>	<u>Approved</u>	<u>Request</u>
Budget/Request	9.036	9.268	9.316
Funding Available	<u>6.493</u>	<u>6.901</u>	<u>6.531</u>
Shortfall	<u>2.543</u>	<u>2.367</u>	<u>2.785</u>





FUNDING

- **Short Term - Fully funded for 2016**
- **Long Term - \$2.8 billion shortfall from 2016-2025**
- **Strategy to close the gap:**
 - Review existing projects to identify incremental development charge opportunities
 - Pursue asset monetization (e.g. property development)
 - Bundle projects to apply for Federal funding under the Public Transit Fund



Stable, Sustainable, predictable funding is a must





Base Budget Funding

2016-2025 Capital Budget Funding Summary											
\$Millions											
	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total
2016-2025 Gross Budget Request	1,170	1,213	1,115	1,254	951	646	833	670	649	814	9,316
Federal	160	160	167	167	167	167	167	167	167	167	1,659
Provincial	130	197	121	118	71	71	71	71	71	71	993
City Debt	498	530	502	380	139	16	0	0	0	252	2,317
Other Funding	<u>397</u>	<u>325</u>	<u>253</u>	<u>195</u>	<u>152</u>	<u>88</u>	<u>39</u>	<u>43</u>	<u>51</u>	<u>18</u>	<u>1,562</u>
2016-2025 Total Funding Available	1,185	1,211	1,043	861	530	343	277	282	290	508	6,531
Funding (Surplus)/Shortfall	(14)	2	71	393	421	303	556	388	359	306	2,785

Note: Does not include TYSSE, SSE or TTC Projects for Future Consideration





2016-2025 UNFUNDED PROJECTS LIST		
(\$Millions)		
<u>PROJECT</u>	<u>2016-2025</u>	<u>Decision Date</u>
Purchase of 99 40' LF Buses (Service Improvements)	(75)	2016
201 Replacement Wheel-Trans Buses	(100)	2016
Bus Overhaul	(260)	2019
60 New LRVs for Growth	(361)	2016
372 Replacement Subway Cars	(915)	2017
Purchase of 675 40' LF Buses	(546)	2017
Fire Ventilation Upgrade	(182)	2017
Other SOGR Infrastructure Projects	(346)	2016
Total	<u>(2,785)</u>	
Request of \$9.3B versus funding available of \$6.5B = \$2.8B shortfall		

Note: \$165 million for Easier Access III (elevators) has been removed from the list of Unfunded Projects.

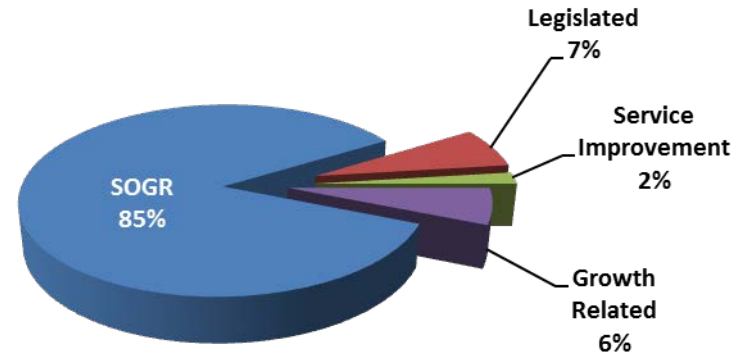




BASE CAPITAL BUDGET

Ten Year Envelope
By Category
(\$Millions)

	<u>2016</u>	<u>2016-2025</u>	
SOGGR	987	7,931	85%
Legislated	74	635	7%
Service Improvement	33	184	2%
Growth Related	76	566	6%
<i>Total</i>	1,170	9,316	100%





TTC PROPOSED 2016-2025 BASE CAPITAL BUDGET

<u>Vehicles:</u>	(\$Millions)		
Purchase of Buses	1,063		
Purchase of Subway Cars	952		
Purchase of LRVs	1,019	\$3,927	42%
Vehicle Overhaul Programs (Bus, Subway, Streetcar)	779		
Purchase of NRV/NRV Overhaul	114		
<u>Infrastructure Projects:</u>			
Track Programs	732		
Electrical Systems	379		
Signal Systems (Incl. YUS (\$302) and BD (\$300))	691		
Finishes	164		
Equipment	269		
Yards & Roads	186		
Bridges & Tunnels	503		
Building & Structures:			
- Fire Ventilation Upgrade	296		
- Easier Access Phase III	429		
- TR/T1 Rail Yard Accommodation	403		
- McNicoll Bus Garage	175	\$5,389	58%
- Leslie Barns	63		
- LRV Carhouse Facility	51		
- Subway Facility Renewal	57		
- Wilson Garage Ventilation Upgrade	50		
- Wilson Backup Centre	30		
- Duncan Shop Ventilation Upgrade	37		
- Backflow Preventers	27		
- Other Building & Structure Projects	<u>209</u>	1,827	
Environmental Projects	92		
Information Technology	379		
Other Projects	167		
Total - Base Program Request	<hr/> <hr/> \$9,316		





Bus Fleet & Facilities (\$Millions)

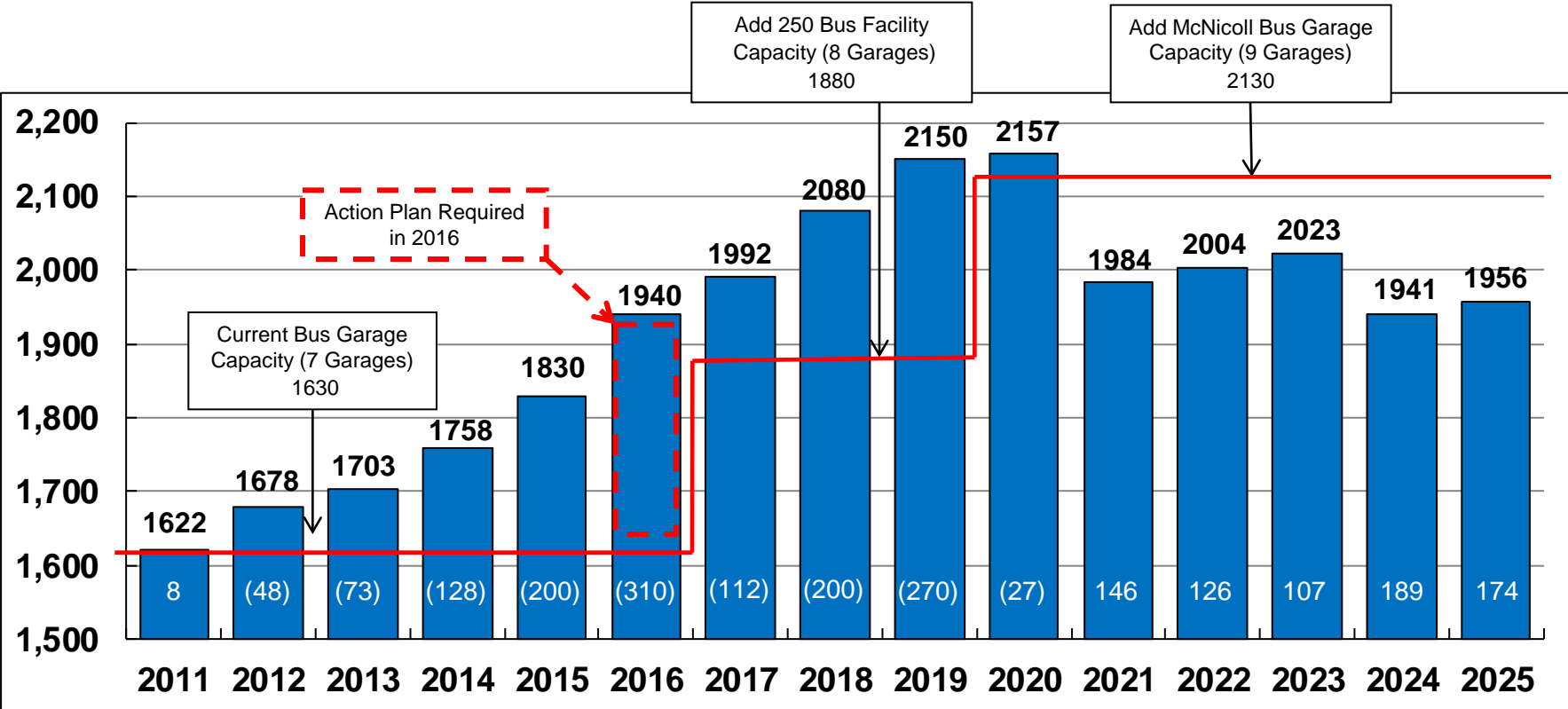
	Program	2016-2025	EFC
Vehicles	Purchase of 153 40' LF Buses (To 2015)	0	129
	Purchase of 55 40' LF Buses (To 2015)	0	33
	Purchase of 380 40' LF Buses (2016 - 2019)	268	268
	Purchase of 675 40' LF Buses (2020 - 2025)	605	605
	Purchase of 50 40' LF Buses - Customer Service Initiatives (2015 - 2016)	14	31
	Purchase of 99 40' LF Buses - Customer Service Initiatives (2017 - 2021)	75	75
	Purchase of 201 Future Wheel-Trans Buses (2018 - 2022)	100	100
	Bus Overhaul	461	610
Facilities	McNicol Garage	175	181
	Bus Garage/Shops Facility Renewal & Modifications	29	182
Other	Bus Cleaning Equipment Programs	13	21
	Bus Hoist	54	76
	Bus Washracks	24	29
	Bus Maintenance & Shop Equipment	18	22
Proposed Total		1,836	2,362





2016-2025 BUS FLEET & FACILITY PLAN

Bus Facility Plan - Interim Garage 2017 & McNicoll Garage 2020





LRV Fleet & Facilities (\$Millions)

	Program	2016-2025	EFC
Vehicles	Purchase of 204 LRVs (To 2019)	658	1,187
	Purchase of 60 LRVs (2016 - 2021)	361	361
	LRV Overhaul	30	30
	ALRV Life Extension	20	26
	AODA Requirements - Streetcars	9	9
Facilities	Leslie Barns	63	517
	Existing Carhouse Modifications	51	90
Other	Surface Track	365	580
	Streetcar Network Upgrades for LRV	45	79
	Reconstruction of Streetcar Overhead	66	123
	Traction Power Substations/Other	107	209
	O/H Pole Replacement	13	54
	Streetcar Trackswitch & Controllers Rehabilitation, Replacement & Equipment	20	27
	Streetcar Shelter Reconstruction	3	4
	Proposed Total	1,811	3,295





Subway Fleet & Facilities (\$Millions)

	Program	2016-2025	EFC
Vehicles	Purchase of 234 New Subway Cars (To 2015)	0	650
	Replacement of 126 H6 Subway Cars (To 2017)	10	295
	Purchase of 60 New Subway Cars (To 2018)	28	222
	Purchase of 372 New Subway Cars (2018 to Post 2025)	915	1,737
	Subway Car Overhaul	259	383
Facilities	Wilson Facility Modifications/Garage Ventilation	50	146
	TR/T1 Rail Yard Accommodation	403	985
	Subway Facility Renewal	70	109
	Subway Equipment	194	312
Other	Subway Track	367	505
	YUS ATC Resignalling	302	563
	BD ATC Resignalling	300	431
Proposed Total		2,898	6,338





ACCESSIBILITY

- AODA Provincial goal of full accessibility by 2025
- Need Provincial commitment to long-term sustainable funding for accessibility
 - Easier Access Phase III
 - AODA Projects
 - Wheel-Trans Operating impact





FARE RELATED ISSUES

PRESTO

- TTC working with Metrolinx, PRESTO and GTA Transit Agencies
- All streetcars by end of 2015
- All buses by mid 2016
- All stations by end of 2016

Faregates

- Replace all faregates by 2017





Information Technology Services (I.T.S.)

- SAP – Modernize back office systems (HR, Finance)
- Computer Aided Dispatch/Automatic Vehicle Locating (CAD/AVL)
 - Replace Communication Information System (CIS)
- Subway Maintenance System (SMS) – Vehicle Maintenance System



2016-2025 TTC CAPITAL BUDGET

(\$ Millions)



SUMMARY OF CHANGES

\$3,490 Total Change 2016-2025 (from 2015-2024 Council Approved)
(\$2,342) Unfunded Projects added back

↳ **\$1,148 Net Increase from 2015-2024 Council Approved**
(\$ 814) 2025 Additional year for existing projects

↳ **\$ 334 Net Increase**
(\$ 22) New Projects (2016-2025)

↳ **\$312 Net Change to 2016-2024**
(\$198) Slippage/Carry Forward

↳ **\$114 Net Change to Existing Projects**





TTC PROPOSED 2016 BASE CAPITAL BUDGET

	<u>(\$Millions)</u>		
<u>Vehicles:</u>			
Purchase of 50 (\$14M) & 380 (\$65M) Low Floor 40' Diesel Buses	79		
Purchase of 126 (\$3M) & 60 (\$21M) Subway Cars	24		
Purchase of 204 (\$158M) & 60 (\$55M) LRV Cars	230	\$510	44%
Vehicle Overhaul Programs (Bus, WT, Subway, Streetcar)	154		
Other (Non-Revenue Vehicle Purchase & Overhaul)	23		
<u>Infrastructure Projects:</u>			
Track Programs	62		
Electrical Systems	57		
Signal Systems (Incl. YUS (\$56M) and BD (\$1.5M))	76		
Finishes	15		
Equipment	32		
Yards & Roads	13		
Bridges & Tunnels	50		
Building & Structures:			
- Fire Ventilation Upgrade	24	\$660	56%
- Easier Access Phase III	35		
- TR/T1 Rail Yard Accommodation	38		
- McNicoll Bus Garage	2		
- Leslie Barns	34		
- Other Building & Structure Projects	<u>48</u>	181	
Environmental Projects	10		
Information Technology	89		
Other Projects	75		
Total - Base Program Request	<u><u>\$1,170</u></u>		





CAPITAL WORKFORCE CHANGES @ Dec. 31, 2016:

• Bus Overhaul Program (6 year)	26
• Toronto Rocket Overhaul	21
• Toronto Rocket – Completion of Testing, Inspection & Modifications	(14)
• Scarborough Subway	18
• Legislative Requirements (Support external stop announcements – AODA)	9
• Fire Prevention Systems	5
• IT Systems (SAP, CAD/AVL)	3
• T1-15 Year Overhaul	3
• LRVs – Inspection & Commissioning	4
• Support ALRV Life Extension Overhaul	2
• <u>Other net workforce changes</u>	<u>7</u>
<u>TOTAL CAPITAL WORKFORCE INCREASE</u>	<u>84</u>





Toronto York Spadina Subway Extension (EFC \$2.78B*)

- The Toronto-York Spadina Subway Extension project is jointly funded by the Government of Canada, the Province of Ontario, the City of Toronto and the Regional Municipality of York;
- The in service date is targeted for late 2017;
- Project “reset” underway;
- Report by year end on the final cost of the project, once detailed evaluation and negotiation has been undertaken on contractor claims.

*Includes \$150 million approved by Council on March 31, 2015





Scarborough Subway Extension (EFC\$3.6B)

- Replace aging Scarborough RT with a 7.6 km Scarborough Subway Extension;
- Scarborough Subway also includes:
 - SRT Life Extension – Facilities, Equipment & Vehicles
 - SRT Decommissioning & Demolition





Projects for Future Consideration – EFC\$5.5B

	<u>(\$Millions)</u>
TTC Recommended Projects:	<u>EFC</u>
Fire Ventilation Upgrade	1,493
Yonge Bloor Capacity Improvements	1,084
Platform Edge Doors Bloor Danforth Line	614
Platform Edge Doors YUS Line	554
New Davisville Facility Detail Design and Construction	400
Station Modernization Program	111
Islington Station Improvements	74
Warden (Phase 1 & 2)	66
Skylights Replacement Project	35
Rail Yard Property Acquisition	TBD
Other	132
TTC Recommended Projects	<u>4,563</u>
Waterfront Initiatives Projects:	
East Bayfront Streetcar, Station Expansion & Purchase of 6 additional LRT Cars	470
Bremner Streetcar Expansion & Purchase of 4 additional LRT Cars	285
Port Lands Streetcar Expansion & Purchase of 5 additional LRT Cars	230
Waterfront Initiative Projects	<u>985</u>
Total - Recommended Projects for Future Consideration	<u><u>5,548</u></u>





Additional Considerations

- AODA compliance by 2025 (including Easier Access, communications upgrade, vehicles, vehicle stops)
- Bus Life Cycle (18 to 15 years)
- 60 Additional LRVs (contract option)
- Fire Ventilation Upgrades
- Smart Track
- Studies underway that could lead to new projects – example:
 - ❖ Interchange Station Rehabilitation–Eglinton Crosstown LRT (\$200K)
 - ❖ Yonge-Bloor Capacity Improvements (Prelim. Design Study (\$6M))
 - ❖ Station Capacity Study for Increased passenger Demand (\$300K)
 - ❖ Downtown Relief Line Study (\$6M)
 - ❖ Platform Edge Doors (PEDs) (\$1M)
 - ❖ Rail Yards Needs Assessment Study
 - ❖ Potential New Maintenance Facility





Traditional Capital Funding Programs

Base Program:

- Bus Purchases - Province & Feds
- Rail Vehicles - Province & Feds
- Infrastructure - Province & Feds
 - All coming to an end

- Capital Project Specific - Province & Feds
 - Expansion lines





RECOMMENDATIONS

- Approve the 2016-2025 TTC Capital Budget (including the TYSSE and Scarborough Subway Extension)
 - ❖ Noting that there are \$2.8 billion of Unfunded Projects
- Forward the 2016-2025 TTC Capital Budget to the Board for approval



**CAPITAL BUDGET SUBMISSION
FOR PRESENTATION TO THE BOARD NOVEMBER 23, 2015**

**TORONTO TRANSIT COMMISSION 2016-2025 CAPITAL BUDGET
PROGRAM AND PROJECT DETAILED LISTING
(\$000's)**

Category	Br/Dpt	Type	Ref.	2016		CITY										PROBABLE			EFC	Request	CITY Approval								
				Page		to 2014	2015	2016	2017	2018	2019	2020	2016-2020	2021	2022	2023	2024	2025				POST 2025	2021-2025	2015-2024	2016-2025				
				CTT No.	WO #																					DESCRIPTION	B	P	C
SOG	OPNS	ONGOING	69	CTT003	6320	Replace Surface Traction Power Distribution	B	17,607	1,450	869	727	603	561	500	3,260	500	580	680	700			2,460	7,170	5,720	24,777	20,924	CITY		
				CTT003	P	17,878	1,450	869	727	603	561	500	3,260	500	580	580	529	1,898	-	4,087	6,899	7,347	4,877	7,347	26,675				
				CTT003	C	271	-	-	-	-	-	-	-	-	-	(100)	(171)	1,898	-	1,627	(271)	1,627	1,898	-	-			1,898	
Sub-Total Traction Power							SB	179,342	21,999	19,651	19,213	16,048	15,775	11,332	82,019	11,240	11,916	13,879	14,009	-	-	51,044	155,062	133,063	334,404				
							SP	173,364	26,548	25,025	21,968	20,732	19,632	18,759	106,116	14,448	13,844	14,428	14,574	22,311	-	-	79,605	189,958	185,721	385,633	248,664		
							SC	(5,978)	4,549	5,374	2,755	4,684	3,857	7,427	24,097	3,208	1,928	549	565	22,311	-	-	28,561	34,896	52,658	51,229			
2.2 Power Distribution/Electric Systems																													
Existing Projects																													
SOG	OPNS	ONGOING	131	CTT005	6540	Replace Lighting & Receptacles in Tunnels / Vent Shafts	B	10,579	691	706	722	752	689	689	3,558	704	564	600	640			2,508	6,757	6,066	17,336	12,771	CITY		
				CTT005	P	10,215	1,055	706	795	679	689	689	3,558	704	564	600	640	675	-	3,183	7,121	6,741	18,011	6,757	6,741			18,011	
				CTT005	C	(364)	364	-	73	(73)	-	-	-	-	-	-	-	675	-	675	-	-	675	-	675			364	675

Resp.		2016 Page		CITY		PROBABLE													CITY Approval						
Category	Br/Dpt	Type	Ref.	CTT No.	WO #	DESCRIPTION	to 2014	2015	2016	2017	2018	2019	2020	2016-2020	2021	2022	2023	2024	2025	POST 2025	2021-2025	2015-2024	2016-2025	EFC	Request
EC&E				CTT110			C	146	741	(3,125)	(3,751)	(2,206)	1,435	1,800	(5,847)	-	486	2,122	-	3,252	-	5,860	(2,498)	13	900

Resp.		2016 Page		CITY		PROBABLE													CITY Approval						
Category	Br/Dpt	Type	Ref.	CTT No.	WO #	DESCRIPTION	to 2014	2015	2016	2017	2018	2019	2020	2016-2020	2021	2022	2023	2024	2025	POST 2025	2021-2025	2015-2024	2016-2025	EFC	Request

Resp.		2016 Page		CITY		PROBABLE														CITY Approval					
Category	Br/Dpt	Type	Ref.	CTT No.	WO #	DESCRIPTION	to 2014	2015	2016	2017	2018	2019	2020	2016-2020	2021	2022	2023	2024	2025	POST 2025	2021-2025	2015-2024	2016-2025	EFC	Request
IMPROV	ST&CE	FINITE		CTT063	P		-	495	1,085	-	-	-	-	1,085	-	-	-	-	-	-	-	1,580	1,085	1,580	1,580
	ST&CE			CTT063	C		(160)	160	-	-	-	-	-	-	-	-	-	-	-	-	-	160	-	-	-

2016		CITY		PROBABLE																	CITY					
Resp.	Page			to 2014	2015	2016	2017	2018	2019	2020	2016-2020	2021	2022	2023	2024	2025	POST 2025	2021-2025	2015-2024	2016-2025	EFC	Request				
Category	Br/Dpt	Type	Ref.	CTT No.	WO #	DESCRIPTION																				
SOGR	ST&CE	FINITE	957	CTT063	6418	Platform Modifications to Accommodate Articulated Buses	B	500	750	750	-	-	-	-	-	-	-	-	-	1,500	750	2,000				
SOGR	ST&CE	FINITE		CTT063			P	-	1,250	750	-	-	-	-	-	-	-	-	-	2,000	750	2,000	2,000			
	ST&CE			CTT063			C	(500)	500	-	-	-	-	-	-	-	-	-	-	500	-	-				
IMPROV	ST&CE	ONGOING	959	CTT063	6462	Automatic Passenger Counting (APC) on Future Bus and Streetcar Orders	B	-	-	450	800	600	600	600	3,050	-	-	-	-	3,050	3,050	3,050				
IMPROV	ST&CE	ONGOING		CTT063			P	-	773	327	150	600	600	600	2,277	-	-	-	-	3,050	2,277	3,050	1,250			
	ST&CE			CTT063			C	-	773	(123)	(650)	-	-	-	(773)	-	-	-	-	-	(773)	-				
LEGIS	ST&CE	FINITE	963	CTT063	6712	Bus Stop Improvements for Accessibility	B	-	200	200	200	200	200	200	1,000	200	200	200	200	2,000	1,800	2,000				
LEGIS	ST&CE	FINITE		CTT063			P	-	200	200	200	200	200	200	1,000	200	200	200	200	2,000	1,800	2,000	2,000			
	ST&CE			CTT063			C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
IMPROV	ST&CE	FINITE	965	CTT063	6713	Opportunities to Improve Transit Service - Transit Priority Measures (Item 5)	B	-	2,400	2,400	2,400	2,400	2,400	-	9,600	-	-	-	-	12,000	9,600	12,000				
IMPROV	ST&CE	FINITE		CTT063			P	-	2,400	2,400	2,400	2,400	2,400	-	9,600	-	-	-	-	12,000	9,600	12,000	12,000			
	ST&CE			CTT063			C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
<i>Sub-Total Other - Service Planning</i>							SB	8,720	8,891	7,520	6,035	5,836	5,235	2,835	27,461	2,235	2,235	2,235	2,235	-	-	8,940	45,292	36,401	54,012	
							SP	7,114	10,495	7,520	6,035	5,836	5,235	2,835	27,461	2,235	2,235	2,235	2,235	2,035	-	10,975	46,896	38,436	56,045	54,245
							SC	(1,606)	1,604	-	-	-	-	-	-	-	-	-	-	2,035	-	2,035	1,604	2,035	2,033	
FUNDED BASE CAPITAL PROGRAM								5,935,372	1,075,083	1,147,510	1,062,906	992,318	868,128	536,128	4,606,990	346,444	285,968	291,404	295,299	-	-	1,219,115	6,901,188	5,826,105	12,836,560	
								5,769,563	1,042,677	1,170,376	1,213,242	1,114,691	1,254,390	951,026	5,703,725	646,048	833,090	670,258	649,289	813,811	1,549,442	3,612,496	9,545,087	9,316,221	17,677,903	13,230,005
								(165,809)	(32,406)	22,866	150,336	122,373	386,262	414,898	1,096,735	299,604	547,122	378,854	353,990	813,811	1,549,442	2,393,381	2,643,899	3,490,116	4,841,343	
COMPL	VAR					Various Completed Project Items - details available from Finance Capital Accounting	CB	724,532	-	-	-	-	-	-	-	-	-	-	-	-	-	724,532				
COMPL	VAR						CP	722,221	-	-	-	-	-	-	-	-	-	-	-	-	-	722,221	722,221			
	VAR						CC	(2,311)	-	-	-	-	-	-	-	-	-	-	-	-	-	(2,311)				
TOTAL - FUNDED BASE CAPITAL PROGRAM								6,659,904	1,075,083	1,147,510	1,062,906	992,318	868,128	536,128	4,606,990	346,444	285,968	291,404	295,299	-	-	1,219,115	6,901,188	5,826,105	13,561,092	
								6,491,784	1,042,677	1,170,376	1,213,242	1,114,691	1,254,390	951,026	5,703,725	646,048	833,090	670,258	649,289	813,811	1,549,442	3,612,496	9,545,087	9,316,221	18,400,124	13,952,226
								(168,120)	(32,406)	22,866	150,336	122,373	386,262	414,898	1,096,735	299,604	547,122	378,854	353,990	813,811	1,549,442	2,393,381	2,643,899	3,490,116	4,839,032	

2016		CITY		PROBABLE																	CITY				
Resp.	Page					to 2014	2015	2016	2017	2018	2019	2020	2016-2020	2021	2022	2023	2024	2025	POST 2025	2021-2025	2015-2024	2016-2025	EFC	Request	
971		SCARBOROUGH SUBWAY EXTENSION																							
975	CTT147	531x	Scarborough Subway	B	1,446	33,758	101,118	167,550	252,162	741,903	697,403	1,960,136	605,395	451,992	207,773	31,000	13,500	-	1,309,660	3,290,054	3,269,796	3,305,000		145,368	
	CTT147			P	1,205	24,290	119,873	301,263	414,204	561,210	562,900	1,959,450	569,400	472,220	219,100	38,700	20,635	-	1,320,055	3,283,160	3,279,505	3,305,000			
	CTT147			C	(241)	(9,468)	18,755	133,713	162,042	(180,693)	(134,503)	(686)	(35,995)	20,228	11,327	7,700	7,135	-	10,395	(6,894)	9,709	-			
977	CTT147	6901	SRT Life Extension - Facilities, Equipment & Vehicles	B	-	16,500	19,000	18,000	16,000	15,000	14,000	82,000	13,000	13,000	7,500	-	-	-	33,500	132,000	115,500	132,000		35,500	
	CTT147	6902		P	13	13,302	22,185	18,000	16,000	15,000	14,000	85,185	13,000	13,000	7,500	-	-	-	33,500	131,987	118,685	132,000			
	CTT147	6903		C	13	(3,198)	3,185	-	-	-	-	3,185	-	-	-	-	-	-	-	(13)	3,185	-			
979	CTT147	TBD	SRT Decommissioning & Demolition	B	-	-	-	-	-	-	-	-	-	-	-	-	123,000	-	123,000	-	123,000	123,000		-	
	CTT147			P	-	-	-	-	-	-	-	-	-	-	-	-	123,000	-	123,000	-	123,000	123,000			
	CTT147			C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
<i>Sub-Total Scarborough Subway Extension</i>				SB	1,446	50,258	120,118	185,550	268,162	756,903	711,403	2,042,136	618,395	464,992	215,273	31,000	136,500	-	1,466,160	3,422,054	3,508,296	3,560,000			
				SP	1,218	37,592	142,058	319,263	430,204	576,210	576,900	2,044,635	582,400	485,220	226,600	38,700	143,635	-	1,476,555	3,415,147	3,521,190	3,560,000		180,868	
				SC	(228)	(12,666)	21,940	133,713	162,042	(180,693)	(134,503)	2,499	(35,995)	20,228	11,327	7,700	7,135	-	10,395	(6,907)	12,894	-			
WATERFRONT INITIATIVES COORDINATED BY WATERFRONT TORONTO																									
981		563X	Union Station New Platform		124,890	18,160	5,400	-	-	-	-	5,400	-	-	-	-	-	-	-	23,560	5,400	148,450			
					136,748	752	-	-	-	-	-	-	-	-	-	-	-	-	-	752	-	137,500			
					11,858	(17,408)	(5,400)	-	-	-	-	(5,400)	-	-	-	-	-	-	-	(22,808)	(5,400)	(10,950)			
987		543X	East Bayfront Streetcar and Station Expansion		3,869	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3,869			
					3,850	19	-	-	-	-	-	-	-	-	-	-	-	-	-	19	-	3,869			
					(19)	19	-	-	-	-	-	-	-	-	-	-	-	-	-	19	-	-			
989		541X	West Don Lands Streetcars		5,245	500	-	-	-	-	-	-	-	-	-	-	-	-	-	500	-	5,745			
					3,627	2,118	-	-	-	-	-	-	-	-	-	-	-	-	-	2,118	-	5,745			
					(1,618)	1,618	-	-	-	-	-	-	-	-	-	-	-	-	-	1,618	-	-			
<i>Total Waterfront Initiatives</i>					134,004	18,660	5,400	-	-	-	-	5,400	-	-	-	-	-	-	-	-	24,060	5,400	158,064		
					144,225	2,889	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,889	-	147,114		
					10,221	(15,771)	(5,400)	-	-	-	-	(5,400)	-	-	-	-	-	-	-	-	(21,171)	(5,400)	(10,950)		