



## **Design Services for Hillcrest Streetcar Maintenance and Storage Facility – Procurement Amendment Authorization**

Date: May 16, 2024  
To: TTC Board  
From: Chief Capital Officer

### **Summary**

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With financial support from the Government of Canada and the City of Toronto, the TTC is making a vital investment into comprehensive upgrades at the Hillcrest Complex, its largest maintenance facility, which celebrates its 100th anniversary in 2024.

The TTC is purchasing 60 additional streetcars, and the Hillcrest Complex construction project includes upgrades to allow for the storage and maintenance of 25 of the new low-floor vehicles and much-needed maintenance work. Part of the scope will include improvements to the landscaping for the surrounding public realm. This project is expected to be completed in two phases:

- Phase 1: Storage for 25 streetcars and temporary pre-servicing.
- Phase 2: Permanent pre-servicing, including a sand silo system.

Currently, the facility does not have the capacity to accommodate additional streetcars. Therefore, the new infrastructure will provide storage, servicing, dispatching and light maintenance for 25 of the new streetcars.

The purpose of this report is to request the Board's approval to amend contract M85-29 – Design Services by \$5 million to \$11 million to continue with the consultant services for the Hillcrest Streetcar Maintenance and Storage Facility project. The request is to increase the upset limit of the contract to include additional requirements and increased construction duration, complete support during construction and to extend the contract term to December 31, 2031, from January 23, 2026.

The additional time to December 31, 2031, is required to align the consultant services with the future construction contract and other support associated with this project. This is required to ensure the completion of this project in order to construct the infrastructure required to provide additional capacity for streetcar storage at Hillcrest in support of the purchase of an additional 60 accessible streetcars.

Since the summer of 2023, TTC staff have engaged local Councillor and reached out to local neighbours and stakeholder groups including, local Business Improvement Areas (BIA), community/resident associations, and local long-term/senior care homes by providing project updates (two updates via postcards and emails).

The dedicated project website ([ttc.ca/HillcrestUpgrades](http://ttc.ca/HillcrestUpgrades)) was launched in July 2023. In October 2023, the TTC hosted the first virtual community meeting, shared a project overview, and answered questions related to operational/construction noise and proposed improvements to the public realm.

Upcoming communications include project signage (May 2024), stakeholder meetings (Fall 2024), and a second virtual community meeting (Fall 2024).

Outreach will continue with local Councillor, and staff will reach out again to local neighbours and the following local stakeholders to invite them to the next community meeting(s):

- Dupont by Castle BIA
- Wychwood Heights BIA
- Wychwood Park Ratepayers Association
- Annex Residents Association
- Casa Loma Residents Association
- Tarragon Village Community Association
- Christie Gardens Apartments & Care
- Castlevue Wychwood Towers Long-Term Care Home
- Tollkeepers' Cottage Museum - The Community History Project

## **Recommendations**

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It is recommended that the TTC Board:

1. Approve a contract amendment to AECOM Canada Limited for contract M85-29 – Design Services to include additional requirements and increased construction duration for the Hillcrest Streetcar Maintenance and Storage Facility by:
  - a. Increasing the upset limit amount from \$6 million to \$11 million, inclusive of HST, and;
  - b. Extending the contract term from January 23, 2026 to December 31, 2031.

## **Financial Summary**

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Table 1 below summarizes the annual expenditure forecast between 2024 and 2031 to complete support during construction as well as close-out activities of the Hillcrest Maintenance and Storage Facility project:

**Table 1: Expenditure Forecast – Hillcrest Maintenance and Storage Facility Project**

Expense (000's)	2024	2025	2026	2027	2028	2029	2030	2031	Total Contract Amount
	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast	
Contract Expenditure (without HST)	23	531	796	885	708	664	310	508	4,425
Non Rebatable HST (1.76%)	0	9	14	16	12	12	5	9	78
<b>Total Contract Expense</b>	<b>23</b>	<b>540</b>	<b>810</b>	<b>901</b>	<b>720</b>	<b>675</b>	<b>315</b>	<b>517</b>	<b>4,503</b>
Rebatable HST	3	60	90	99	80	75	35	57	497
<b>Total Authority (Including HST)</b>	<b>26</b>	<b>600</b>	<b>900</b>	<b>1,000</b>	<b>800</b>	<b>750</b>	<b>350</b>	<b>574</b>	<b>5,000</b>

Sufficient funds for this expenditure are included in the TTC’s 2024-2033 Capital Budget and Plan, under Program 1.2, Surface Track Program – Hillcrest Maintenance and Storage Facility Project, which was approved by the TTC Board on December 20, 2023, and by City Council on February 14, 2024.

The total project budget for the Hillcrest Maintenance and Storage Facility is \$147.7 million, comprising of costs to the end of 2023 of \$8.0 million and funding of \$139.7 million, cash-flowed between 2024 and 2028 as presented in Table 2 below:

**Table 2: 2024-2033 Capital Budget and Plan – Hillcrest Maintenance and Storage Facility Project**

Project (000's)	LTD Actuals to 2023	2024 Budget	2025	2026	2027	2028	2029 - 2033	10-Year Total	Total Project Cost
Hillcrest Maintenance & Storage Facility	8,003	624	23,788	44,550	42,255	28,522	-	139,740	147,743

Funding of the Hillcrest Maintenance and Storage Facility project is included in the TTC’s Streetcar Program, in which the Federal and Provincial governments have committed to a contribution of \$180 million each for the modifications at Hillcrest as well as the purchase of 60 accessible streetcars. The balance of funding for the program is being funded by the City/TTC. Of the approved funding in the 2024-2033 Capital Budget and Plan, approximately \$9.35 million has been committed to date.

While the recommended extension of contract M85-29 – Design Services covers all phases of work related to the Hillcrest Maintenance and Storage Facility project, the federally approved scope of work included in the TTC’s Streetcar Program will be completed in advance of the identified project close-out of 2031.

The annual cash flow estimates will be updated and included in the 2025-2034 Capital Budget submission to reflect the distribution of expenditures over the term of the contract.

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

## **Equity/Accessibility Matters**

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A cornerstone of the TTC's current Corporate Plan is accessibility, and as a proud leader in providing accessible public transit to the residents in the city of Toronto and surrounding municipalities, the TTC is committed to ensuring reliable, safe, accessible and inclusive transit services for all of its customers.

This is supported by the Hillcrest Streetcar Maintenance and Storage Facility project, which will provide the infrastructure required to store 25 additional streetcars. These 25 additional streetcars are accessible and will be dispatched to selected routes within the city of Toronto.

## **Innovation and Sustainability Matters**

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Design of the works under this project comply with Toronto Green Standard and in support of the Net-Zero mandate, the project will replace existing gas fired HVAC equipment with electric heating to contribute to the City of Toronto initiative for the reduction of greenhouse gas emissions. In addition, the landscaping design incorporates garden areas consisting of native shrubs and perennials along with a pollinator garden. The pollinator garden consists of a series of planting beds with perennial native species that provide pollinator value.

In addition to work underway to implement the Hillcrest Maintenance and Storage Facility Project, TTC has completed a feasibility study for the potential installation of solar photovoltaic (PV) systems at the TTC Hillcrest complex.

The purpose of the solar systems is to maximize renewable energy generation to replace electricity currently consumed at the Hillcrest complex substation. Given the size of the buildings within the complex, there is significant potential to reduce indirect emissions resulting from generation of grid electricity during the day and to increase our operational resiliency to disruptions in electrical grid supply. These goals are aligned with the TTC's draft 5-Year Corporate Plan, which identifies environmental sustainability as a key priority for the organization. Further, this work is aligned with the TTC's draft Innovation and Sustainability Framework and the City of Toronto's TransformTO Net Zero goal to achieve net zero city-wide emissions by 2040.

The TTC is now working with PowerON Energy Solutions, a subsidiary of Ontario Power Generation, to estimate and commission Phase 1 of the Hillcrest Solar PV Project, which will include installation of solar panels on the roofs for Harvey Shop, Subway Ops, and Streetcar Way buildings. With a total system size of 1 MW and an expected annual generation of 1,300,000 kWh, this system would generate enough electricity to power 140 homes, making it the largest solar PV system on public buildings in the City of Toronto and is tentatively scheduled for completion by the end of 2025.

The scope of the Hillcrest Solar PV Project is fully funded by the City of Toronto under the TTC's 2024-2033 Capital Budget and Plan under the Energy Efficiency Retrofit Program (IO 7280) and is estimated at approximately \$3 million. The system is expected to generate sufficient electricity to reduce electricity costs by approximately \$140,000 annually over the 20 to 30 year life of the assets. This return on investment, not counting the greenhouse gas emissions reductions or the equivalent monetary value of added operational resiliency, would roughly break even with the expected capital cost. As a result, analysis of life cycle costs vs monetized benefits is expected to result in net positive return on investment.

In accordance with the draft TTC Innovation and Sustainability Framework, feasibility studies for the potential deployment of solar PV systems at other TTC properties have been initiated and will be reported out, along with the triple bottom line economic analysis (i.e. social, environmental, and financial), through a TTC Green Facility Plan by the end of 2025.

## **Decision History**

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At its meeting on May 25, 2021, the TTC Board approved expenditure and funding adjustments to the TTC's 2021-2030 Capital Budget and Plan to recognize contributions of \$180 million each from the Federal and Provincial governments in support of the TTC's Streetcar Program, which includes the purchase of 60 new accessible streetcars as well as the Hillcrest Streetcar Maintenance and Storage Facility project. As part of the Streetcar Program, the Provincial contribution is in support of the streetcar procurement only, while the Federal contribution is split between the streetcar procurement and Phase 1 of the Hillcrest Streetcar Maintenance and Storage Facility project.

### [TTC Streetcar Program – Procurement of 60 Streetcars](#)

At its meeting on December 20, 2023, the TTC Board approved a 2024-2033 Capital Budget and Plan of \$1.369 billion and future year planned estimates of \$11.029 billion for a total TTC 2024-2033 Capital Budget and Plan of \$12.398 billion, which included a cost estimate increase of \$47 million for the Hillcrest Streetcar Maintenance and Storage Facility project, bringing the total project cost to \$147.7 million.

### [Staff Recommended 2024-2033 Capital Budget and Plan](#)

## **Issue Background**

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With financial support from the Government of Canada and the City of Toronto, the TTC is making a vital investment into comprehensive upgrades at the Hillcrest Complex, its largest maintenance facility, which celebrates its 100th anniversary in 2024.

The TTC is purchasing 60 additional streetcars, and the Hillcrest Complex construction project includes upgrades to allow for the storage and maintenance of 25 of the new low-floor vehicles and much-needed maintenance work. Part of the scope will include

improvements to the landscaping for the surrounding public realm. This project is expected to be completed in two phases:

- Phase 1: Storage for 25 streetcars and temporary pre-servicing.
- Phase 2: Permanent pre-servicing, including a sand silo system.

Currently, the facility does not have the capacity to accommodate additional streetcars. Therefore, the new infrastructure will provide storage, servicing, dispatching and light maintenance for 25 of the new streetcars.

Contract M85-29 – Design Services for Hillcrest Streetcar Maintenance and Storage Facility was awarded to AECOM Canada Limited on February 2022 following a competitive procurement process. The contract was awarded in the amount of \$5 million for a four-year term with an end date of January 23, 2026. The contract includes options that allows the TTC to extend the contract by two additional one-year terms. The award was based on competitive staff rates, technical and subject-matter expertise, and staff resource availability from the design consultant.

The scope of the contract is to provide professional design services and engineering support during construction for work associated with the Hillcrest Streetcar Maintenance and Storage Facility.

Capitalizing on the opportunity to undertake other state-of-good-repair work within Harvey Shop and in the Hillcrest Yard has resulted in additional requirements. This consolidation of improvements and repairs within the same contract leads to a more cost-effective approach to upgrade this 100-year-old infrastructure.

An increase to the upset limit amount of Contract M85-29 to \$6 million from \$5 million was approved under staff authority in February 2024. This was required to support the completion of detailed design services (Stage Gate 4) as a result of the additional requirements identified after the contract was awarded.

These additional requirements resulted in further consultant design efforts and resources related to: landscaping; permitting support; transfer way fill-in; replacement of tracks 7, 8, 33 and 34; signals and switch controls; site investigations; service tunnel repairs; track replacement inside Harvey and Subway Operations Loop, etc.

As a result of the additional requirements, the construction duration has increased with anticipated completion by 2029. The increased construction duration requires additional time for consultant services to align with the future construction contract and other support for closeout activities associated with this project after the construction has been completed.

Approximately \$4.94 million of the current contract upset limit of \$6 million has been committed to date. This \$6 million upset limit is expected to be exceeded as consultant support services are required during construction. The duration of the construction support services is expected to be required until the end of 2031, including project closeout activities. The overall increase from the current upset limit amount is anticipated to be \$5 million.

## **Comments**

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The Hillcrest Streetcar Maintenance and Storage Facility project will provide the infrastructure required to store, service, dispatch and maintain an additional 25 accessible streetcars at Hillcrest. Capitalizing on the opportunity to undertake other state-of-good-repair work has resulted in additional requirements. This consolidation of improvements and repairs within the same contract leads to a more cost-effective approach to upgrading this 100-year-old infrastructure. Therefore, additional time is required to align the consultant services with the future construction contract and other support associated with this project.

Board approval is recommended for a contract amendment to AECOM Canada Limited for Contract M85-29 – Design Services for Hillcrest Streetcar Maintenance and Storage Facility, to increase the upset limit amount from \$6 million to \$11 million, including HST, and extend the contract term to December 31, 2031. The proposed contract extension includes two optional extension years as included in the original contract terms and additional time required to align the design services with the future construction contract and other support associated with this project.

## **Contact**

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## **Signature**

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