



Procurement Authorization – Hillcrest Streetcar Maintenance and Storage Facility

Date: September 24, 2024
To: TTC Board
From: Chief Capital Officer

Reason for Confidential Information

This report contains information about a trade secret or scientific, technical, commercial or financial information that belongs to the City or local board and has monetary value or potential monetary value.

Summary

The TTC has procured 60 additional accessible streetcars thanks to cost-shared funding from the Government of Canada, the Province of Ontario, and the City of Toronto. Together with the Federal government, the City/TTC is investing in comprehensive upgrades at the Hillcrest Complex, the TTC's largest maintenance facility, which celebrates its 100th anniversary in 2024.

Currently, the Hillcrest Facility cannot accommodate additional streetcars. The upgrades proposed under the Hillcrest Streetcar Maintenance and Storage Facility construction project will provide storage, servicing, dispatching and light maintenance for 25 of the 60 new streetcars. Part of the scope will include improvements to the landscaping for the surrounding public realm.

The purpose of this report is to obtain authorization for the award of Contract M1-125 – Hillcrest Streetcar Maintenance and Storage Facility for construction of Phases 1 and 2 to Sanscon Construction Ltd. in the amount of \$65,096,334.86, inclusive of taxes, based on the lowest-priced compliant bid.

The work of this contract includes removal, upgrades, and modifications to various areas and systems of the Hillcrest Yard and Harvey Shop Building. This contract 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.

Since the summer of 2023, TTC staff have engaged with the local Councillor and contacted neighbours and stakeholder groups to provide project updates, including local Business Improvement Areas (BIAs), community/resident associations, and local long-term senior care homes.

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

Outreach will continue with the local Councillor, and staff will reach out again to local neighbours and stakeholders to invite them to the next community meeting(s). Upcoming communications in the fall of 2024 include stakeholder meetings and a second virtual community meeting.

Recommendations

It is recommended that the TTC Board:

1. Authorize the award of Contract M1-125 – Hillcrest Streetcar Maintenance and Storage Facility to Sanscon Construction Ltd. in the amount of \$65,096,334.86, inclusive of HST, on the basis of the lowest total compliant bid price.
2. Approve the recommendation contained in the Confidential Attachment 1 and authorize that the information in the Confidential Attachment remains confidential as it contains information about a trade secret or scientific, technical, commercial or financial information that belongs to the City or local board and has monetary value or potential monetary value.

Financial Summary

Based on the expected progress of work, Table 1 below summarizes the annual expenditure forecast between 2024 and 2029 to complete the construction of the Hillcrest Maintenance and Storage Facility project:

Table 1: Contract M1-125, Construction Contract Expenditure Forecast by Year and Total Term (\$000s)

Expense (000)	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 Forecast	Total Contract Amount
Contract Expenditure (without HST)	245.7	5,404.9	9,827.0	14,249.2	16,804.2	11,076.3	0.0	0.0	57,607.3
Non Rebatable HST (1.76%)	4.3	95.1	173.0	250.8	295.8	194.9	0.0	0.0	1,013.9
Total Contract Expense	250.0	5,500.0	10,000.0	14,500.0	17,100.0	11,271.2	0.0	0.0	58,621.2
Rebatable HST	27.6	607.5	1,104.6	1,601.6	1,888.8	1,245.0	0.0	0.0	6,475.1
Total Authority (Including HST)	277.6	6,107.5	11,104.6	16,101.6	18,988.8	12,516.2	0.0	0.0	65,096.3

Sufficient funds for this contract 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 (\$000s)

Project Name	LTD Actuals to 2023	2024 Budget	2025	2026	2027	2028	2029-2033	10-Year Total	Total Project Cost
Hillcrest Streetcar Maintenance & Storage Facility	8,003.5	624.2	23,788.4	44,550.0	42,255.0	28,522.4	-	139,740.0	147,743.5

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

While the scope of Contract M1-125 – Hillcrest Streetcar Maintenance and Storage Facility 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 closeout of 2031.

The annual cash flow estimates for Contract M1-125 will be updated in the 2025-2034 Capital Budget submission to reflect the distribution of expenditures over the term of the contract.

In addition to the work to implement the Hillcrest Maintenance and Storage Facility project, the TTC is working on the potential installation of solar photovoltaic (PV) systems. PowerON Energy Solutions are delivering the Hillcrest Solar PV project scope and the project is fully funded in the TTC’s 2024-2033 Capital Budget and Plan under the Energy Efficiency Retrofit Program at an estimated cost of \$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 versus monetized benefits result in a net positive return on investment.

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

Equity/Accessibility Matters

Equity, Diversity, Inclusion and Accessibility is a key principle of the TTC's Corporate Plan, 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 accessible streetcars. These 25 additional streetcars will be dispatched to selected routes within Toronto.

Innovation and Sustainability Matters

Design of the works under the Hillcrest Streetcar Maintenance and Storage Facility project complies with Toronto Green Standard and supports the Net Zero mandate. The project will replace existing gas-fired HVAC equipment with electric heating to contribute to the City of Toronto's goal to reduce greenhouse gas (GHG) 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 the facility infrastructure upgrade work of the Hillcrest Maintenance and Storage Facility Project, the TTC has completed a feasibility study for the potential installation of solar photovoltaic (PV) systems and is in the final design stages for Non-Revenue Vehicle (NRV) charging systems at Hillcrest Complex.

The purpose of the solar systems is to maximize renewable energy generation to replace electricity currently consumed at the Hillcrest substation. Given the size of the buildings within the complex, there is significant potential to reduce indirect emissions resulting from the 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 5-Year Corporate Plan, which identifies environmental sustainability as a key priority for the organization. Further, this work is aligned with the TTC's 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 , a subsidiary of Ontario Power Generation, to estimate and commission Phase 1 of the Hillcrest Solar PV project, which will include the installation of solar panels on the roofs of the Harvey Shop, Subway Operations, 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 Electric NRV Charging Systems Program is to implement an electrification infrastructure to support the transition of the non-revenue fleet to zero emissions by the year 2040. Final design for the first group of NRV chargers (four Level 2 and one Level 3) is complete, and construction is scheduled for completion by the end of 2024.

Both of these programs help facilitate and advance the TTC's transition toward a netzero greenhouse gas (GHG) emissions by 2040.

In accordance with the TTC Innovation and Sustainability Strategy, which is before the Board for final approval at its September meeting, 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

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. The increase was due to additional requirements to capitalize on the opportunity to undertake other state-of-good-repair work. This consolidation of improvements and repairs within the same contract leads to a more cost-effective approach.

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

At its meeting on May 16, 2024, the TTC Board approved a contract amendment to AECOM Canada Ltd. for contract M85-29 – Design Services to include additional requirements and increased construction duration for the Hillcrest Streetcar Maintenance and Storage Facility, increasing the upset limit amount to \$11 million from \$6 million, inclusive of HST; and extending the contract term from January 23, 2026 to December 31, 2031.

[Design Services for Hillcrest Streetcar Maintenance and Storage Facility – Procurement Amendment Authorization \(ttc.ca\)](#)

Issue Background

Made possible with cost-shared funding from the Government of Canada, the Province Ontario, and the City of Toronto, the TTC has procured 60 additional accessible streetcars. Together with the Federal Government, the City/TTC is also investing in comprehensive upgrades at Hillcrest Complex, the TTC's largest maintenance facility, celebrating its 100th anniversary in 2024.

The Hillcrest Complex construction project includes upgrades for the storage and maintenance of 25 new low-floor vehicles and much-needed maintenance work.

The work of Contract M1-125 includes removals, upgrades, and modifications to various areas and systems of the Hillcrest Yard and the Harvey Shop Building. The new infrastructure will provide storage, servicing, dispatching, and light maintenance for 25 of the new streetcars. 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.

Yard work includes replacement of existing tracks for the streetcar storage areas, brake test area, storm water and sanitary systems, fire mains and water mains, overhead catenary system, electrical duct banks and chambers, track lubricator systems, grading, DC power upgrades and improvements to landscaping for the surrounding public realm.

Harvey Shop work includes new platforms on tracks five and six; new sand silo, sand delivery system and associated equipment; windshield washer fluid storage and dispensing system; new State of Good Repair areas on tracks seven and 34; partial rail replacement on tracks seven, eight, 33 and 34; removal of the existing jib cranes for tracks five and six; removal of existing transfer way table equipment and transfer way pit infill; modification of interior Carhouse OCS conductor structural support; and replacement of existing overhead catenary system. 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's initiative for the reduction of greenhouse gas emissions.

Capitalizing on the opportunity to undertake other state-of-good-repair work within Harvey Shop and the Hillcrest Yard 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.

Comments

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.

The work of Contract M1-125 consists of the supply of all labour, equipment and materials for removals, upgrades, and modifications to various areas and systems of the Hillcrest Yard and Harvey Shop Building.

Bid documents were prepared for Contract M1-125, and a Request for Bids (RFB) was posted on the TTC's website and Merx on June 7, 2024. Sixteen companies downloaded the bid documents. A mandatory site tour was conducted on June 20, 2024. The RFB stated that the Bidder must have a representative present at the mandatory site tour, and have signed the attendance sheet, in order for its bid to be evaluated by the TTC. During the bid period, eight addenda were issued and four companies submitted a bid by the closing date of August 7, 2024, as summarized in the attached Appendix A – Summary of Bids. The bid validity expires on December 5, 2024.

The RFB stated that Bidders must possess a Certificate of Recognition (COR™), as issued by the Infrastructure Health and Safety Association (IHSA), at the time of the RFB closing and for the duration of the contract.

Sanscon Construction Ltd. (Sanscon) submitted the lowest-priced bid, attended the mandatory site tour, and did not state any exceptions or qualifications. Sanscon is COR™ certified with IHSA, as specified in the bid documents. As requested in the RFB documents, Sanscon provided references to demonstrate they have performed work of a similar nature. Reference checks were conducted on all five references, which confirmed Sanscon has satisfactorily performed work of a similar nature. Their bid is considered commercially acceptable.

Maystar General Contractors Inc. submitted the second lowest-priced bid, attended the mandatory site tour, did not state any exceptions or qualifications, and is COR™ certified with IHSA as specified in the bid documents. Their bid is considered commercially acceptable.

EllisDon Corporation submitted the third lowest-priced bid, attended the mandatory site tour, did not state any exceptions or qualifications and is COR™ certified with IHSA as specified in the bid documents. Their bid is considered commercially acceptable.

Black and McDonald Limited submitted the fourth lowest-priced bid, attended the mandatory site tour, did not state any exceptions or qualifications, and is COR™ certified with IHSA as specified in the bid documents. Their bid is considered commercially acceptable.

The Agreement to Bond submitted by Sanscon covers both a Labour and Material Payment Bond and a Performance Bond and was submitted by Intact Insurance Company, who has been verified as a Surety Company licensed to transact business under the Insurance Act of Ontario. As such, they are considered financially capable of performing the work.

The successful Bidder will be required to execute a Performance Bond and Labour and Material Payment Bond each in the amount of 50% of the contract value.

Contact

John Dimovski, Chief Project Manager – Construction
416-590-6533
john.dimovski@ttc.ca

Signature

Gary Downie
Chief Capital Officer

Attachments

Appendix A – Summary of Bids
Attachment 1 – Confidential Information

03075-1717555453-14

APPENDIX A: SUMMARY OF BIDS

Contract M1-25 – Hillcrest Streetcar Maintenance and Storage Facility

Summary of Bids:

Bid No.	Bidder	Total Bid Price
1	Sanscon Construction Ltd. *	\$65,096,334.86
2	Maystar General Contractors Inc.	\$76,133,114.94
3	EllisDon Corporation	\$89,216,617.16
4	Black & McDonald Limited	\$112,572,080.30

*Recommended Company