



## **Spadina Station Escalator Modernization (2B2E, 2B3E)**

**Date:** July 12, 2023  
**To:** TTC Board  
**From:** Chief Capital Officer

### **Summary**

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The TTC currently operates more than 330 escalators in the subway system of varying ages and models. The TTC undertakes escalator modernizations on a priority basis based on the use and service life of each unit, availability of replacement parts, and condition of the units as confirmed through ongoing maintenance and condition surveys. The Escalator Replacement project, which forms part of the Equipment Program's capital plan, supplements the TTC's in-house escalator maintenance and overhaul program with the replacement of escalator components throughout their life cycle where escalator replacement parts are available. Where parts are no longer available, as is the case with Hitachi units in the system, a complete replacement is necessary.

The two escalators at Spadina Station are more than 45 years old (circa 1978) and have exceeded their useful operating life. These escalators require replacement, as parts for the existing units are no longer available.

The purpose of this report is to obtain authorization for the award of Contract A45-16 – Spadina Station Escalator Modernization (2B2E, 2B3E) to replace the escalator units that serve the Line 2 Bloor-Danforth platform level at a cost of \$5,424,748.00, inclusive all of taxes.

The TTC has strived to keep the procurement of escalator replacement services open to all potential proponents that are considered to be qualified to perform the work based on the TTC's technical requirements and a Certificate of Recognition (COR<sup>TM</sup>), a safety certification that is increasingly being adopted as a common standard. Efforts were taken by staff in 2018, 2020 and again in 2022 to move from traditional procurement methods to a multi-phased bid process that includes the issuance of Expressions of Interest, Requests for Pre-qualification and negotiated Requests for Proposals for the replacement of escalator projects. The TTC has also extended its outreach directly to manufacturers advising them of the opportunities on the MERX website. Despite these concerted efforts, the 2022 pre-qualification process resulted in one qualified bidder, as outlined in this report.

## Recommendations

It is recommended that the TTC Board:

1. Authorize the award of Contract A45-16 – Spadina Station Escalator Modernization (2B2E, 2B3E) to TK Elevator (Canada) Limited (TKE) in the amount of \$5,242,748.00, inclusive of all taxes, on the basis of being the only qualified bidder and providing an acceptable bid.

## Financial Summary

Funds for this expenditure are included in the TTC's 2023-2032 Capital Budget and Plan, under Program 3.2 Equipment – Escalator Replacement Program, which was approved by the TTC Board on January 9, 2023, and by City Council on February 15, 2023.

The 10-Year Capital Plan includes a total of \$38.6 million for the Escalator Replacement Program comprising of annual cash flow funding, as outlined in Table 1 below. The total project cost is \$54.39 million, of which approximately \$19.2 million has been committed to date and which \$15.8 million has been spent. The replacement of the two escalators at Spadina Station is included and funded in the Escalator Replacement project in 2023.

**Table #1 – 2023-2032 Capital Budget and Plan – Escalator Replacement**

Project Name	LTD Actuals to 2022	2023 Budget	2024	2025	2026	2027	2028-2032	10-Year Total	Total Project Cost
Escalator Replacement	15,764	3,497	6,728	2,874	2,403		23,120	38,622	54,386

\*(in thousands)

Based on the expected progress of work, the contract expenditures will be incurred between 2023 and 2026 and will require the following cash flow funding:

**Table #2 – A45-16 – Spadina Station Escalator Modernization Expenditure Forecast**

A45-16 -Spadina Station Escalator Modernization (2B2E, 2B3E)	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	Total Contract Amount
Construction Expenditure(With HST)	786.4	1,730.1	1,363.1	1,363.1	5,242.7
Construction Expenditure(Without HST)	695.9	1,531.1	1,206.3	1,206.3	4,639.6
Non Rebatale HST 1.76	12.2	26.9	21.2	21.2	81.7
Total Construction Expense	708.2	1,558.0	1,227.5	1,227.5	4,721.2
Rebatale HST	78.2	172.1	135.6	135.6	521.5
Total Authority, including HST	786.4	1,730.1	1,363.1	1,363.1	5,242.7

\*(in thousands)

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 Toronto residents and beyond, we are committed to ensuring reliable, safe and inclusive transit services for all our customers. Escalator and elevator reliability are key objectives in the TTC's Multi-Year Accessibility Plan and updates on these elements are provided as part of the annual updates to the Board on this plan.

This work will further enhance the reliability of the network for both employees and customers.

## **Decision History**

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There are no previous Board decisions related to this matter.

## **Issue Background**

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The TTC currently operates more than 330 escalators in the subway system of varying ages and models. As part of the Escalator Replacement project, the TTC undertakes escalator modernizations on a priority basis based on the use and service life of each unit, availability of replacement parts, and condition of the units as confirmed through ongoing maintenance and condition surveys.

The escalator replacement project supplements the TTC's in-house escalator maintenance and overhaul program, which overhauls the escalators with the replacement of escalator components throughout their life cycle where escalator parts are available. Where parts are no longer available, as is the case with Hitachi units in the system, a complete replacement is necessary.

The TTC recognized through previous procurements and discussions with industry manufacturers that the traditional method to procure escalators was not the best approach and a modified approach was required to be implemented to address the market's feedback. As such, in 2018 staff utilized a Negotiated Request for Proposal (NRFP) template that allowed the TTC to engage in direct negotiations regarding financial and commercial terms and conditions in order to achieve an acceptable agreement with an escalator manufacturer. In 2020, a structured, multi-phase bid process was undertaken for the replacement of two escalators at King Station. Following the completion of this procurement, including negotiations, TKE was awarded the contract, which is currently in the construction phase.

The two existing escalators at Spadina Station are original Hitachi units built and installed in 1978 and serve the Line 2 platform:

- Unit 2B2E serves the eastbound platform.
- Unit 2B3E serves the westbound platform.

The escalators are approximately 45 years old and have exceeded their useful operating life. In addition, replacement parts for these units are no longer available.

The work will be carried out in stages, one escalator at a time, to minimize impacts on the station. The escalator units are long lead items with 10-to-12-month delivery times. The work on site will start in mid-2024 and is expected to be completed in 2026.

In addition to the two escalators being replaced at Spadina Station, the Escalator Program Replacement project includes four escalators that are currently being replaced at Yorkdale and King Stations, and one escalator at Broadview Station, which is currently in the tender phase.

Future funded work for this program includes escalator replacements at Ossington (one unit) and Dundas West (one unit). Designs are being finalized for both subway stations.

An additional 20 escalator units have been identified in the program. However, they are currently unfunded. Table 3 below summarizes the unfunded quantities by location:

**Table 3 – Unfunded Escalator Replacement Units and Locations**

Wellesley (2 units)	High Park (1 unit)	King (3 units)
Yonge (2 units)	Museum (1 unit)	Christie (1 unit)
Queen’s Park (2 units)	Osgoode (2 units)	St Patrick (2 units)
St Andrew (2 units)	Greenwood (1 unit)	Bay (1 unit)

**Comments**

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Pre-Qualification Process

A Request for Pre-Qualification (RFPQ) statements was issued in order to establish a list of pre-qualified bidders to participate in the procurement process for the procurement of Escalator Modernization services.

The RFPQ was publicly advertised on the MERX website as well as the TTC’s website as of June 20, 2022. During the pre-qualification submission period, one addendum was issued. The objective of the RFPQ was to identify pre-qualified contractors that would be eligible to enter into a master service agreement for escalator replacement (EMA) with the TTC and be eligible to participate in subsequent procurement processes for the Escalator Modernization Program for a period of up to three years.

TTC staff will be seeking to add more pre-qualified contractors to the EMA on an annual basis or on an as-required basis by continual market sounding with escalator installation contractors.

Eight companies downloaded copies of the pre-qualifications documents by the closing date of July 19, 2022, out of which two submitted a package through Bonfire by the closing date of July 19, 2022:

- TK Elevator (Canada) Limited (TKE).
- Buttcon Limited for Buttcon/Trist Joint Venture (Buttcon/Trist JV).

The submissions were evaluated in accordance with the following four steps outlined in the RFPQ:

**Step 1 – Mandatory Pass/Fail Requirements:** Review of the submissions to ensure all respondents submitted: a signed copy of the declaration form, the joint ventures form (if applicable), their qualifications and experience, and a copy of their valid COR™ certificate issued by the Infrastructure Health and Safety Association (IHSA). As of January 1, 2022, the TTC has required all contractors performing construction contracts for TTC to be COR™ certified. This certification demonstrates that the companies have a health and safety management system that has been developed, implemented, and evaluated on an ongoing basis through comprehensive internal audits and audits by IHSA.

**Step 2 – Recertification Period:** The submissions were reviewed for any deficiencies within their mandatory submission, such as but not limited to, missing signatures or failure to include information required for the evaluation of their submission. A recertification period was provided to allow respondents to correct deficiencies in their submission for any of the above-mentioned gaps identified.

**Step 3 – Verification of the Respondents’ Qualifications and Experience:** Reference checks were conducted on the projects provided. Respondents were to provide a minimum of three to a maximum of five reference projects for which the Respondent was the manufacturer and installer of escalators and type of escalators supplied for a transit facility with a value of \$1 million or more.

Once it was determined that the proponent’s reference projects met the requirements, the Respondent’s qualifications and experience was then evaluated. The references were contacted and required to answer all questions that were provided under Appendix D – Reference Check Questionnaire Form included in the RFPQ.

It was pre-determined that a Respondent would receive a “PASS” score if they achieved a minimum score of 60% for each reference check completed by the TTC. The Respondent’s references were required to answer a list of 20 questions covering five categories:

Part 1 – General/Safety.

Part 2 – Quality - Compliance with Contract Documents.

Part 3 – Organization - Construction Management.

Part 4 – Execution - Work Performance.

Part 5 – Administration - Contract Administration.

A response of “NO” received during the verification of Part 1 – General/Safety would result in an automatic “FAIL”. As such, the Respondent would automatically be disqualified and would not be evaluated any further.

**Step 4 – Notification to Respondents:** Upon completion of the reference checks and their submitted COR™ certificate, the Respondents who adequately demonstrated that they possessed all the necessary qualifications and experience to be able to perform contracts of similar size, nature and complexity would be considered pre-qualified.

TKE’s pre-qualification submission was reviewed for commercial compliancy and the submission was rated by the evaluation team. TKE provided four reference projects for which the Respondent was the manufacturer and installer of escalators in a transit facility. TKE adequately demonstrated that they possess all the necessary qualifications and experience to be able to perform a contract for escalator modernization. All four reference projects demonstrated association with American Public Transportation Association (APTA) and TKE is COR™ certified. TKE met all the requirements of Steps 1 though 4 of the evaluation process, and was considered to be pre-qualified.

Buttcon/Trist JV submitted five reference projects, out of which the Respondent was the installer of an escalator in only one of the five projects.

In accordance with the RFPQ submission requirements, respondents were required to provide a minimum of three reference projects for which the Respondent was the manufacturer and installer of escalators in a transit facility. Neither Buttcon Limited nor Trist Construction is a manufacturer of escalators. Buttcon/Trist JV did not demonstrate that they have the necessary qualifications and experience in accordance with the evaluation process set out in the RFPQ, and were not considered to be pre-qualified.

### **Procurement Process for Contract A45-16, Spadina Station Escalator Modernization (2B2E, 2B3E)**

Following the completion of the pre-qualification process, specifications and drawings were prepared for Contract A45-16, and a Request for Bids was posted on MERX as of April 14, 2023, and was sent to TKE as the only pre-qualified contractor under the G60-355 Escalators Modernization Agreement (G60-355 EMA). During the bid period, three addenda were issued.

The RFB stated that the Bidder must have a Certificate of Recognition (COR™) as issued by IHSA, at the time of bid closing and for the duration of the term of the Contract.

TKE submitted a bid by the closing date of May 24, 2023. The bid validity expires on August 31, 2023.

TKE submitted a list of qualifications with their bid, which formed the basis of negotiations between the TTC and TKE in accordance with Section 00 21 00, Article 9 – Bid Evaluation, Negotiation, and Acceptance. Following negotiations, the TTC incorporated the agreed upon terms, which included revisions to the timelines by which

the work is required to be completed by TKE and other requirements of a technical nature as they relate to the work. The bid submitted by TKE is commercially acceptable.

The Agreement to Bond submitted by TKE covers both a Labour and Material Payment Bond and a Performance Bond and was issued by Intact Insurance Company, who have 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.

TK Elevator (Canada) Limited will be required to execute a Performance Bond and Labour and Material Payment Bond in the amount of \$2,621,374.00, respectively.

## **Contact**

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## **Signature**

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Gary Downie  
Chief Capital Officer