



For Action with Confidential Attachment

Bloor-Yonge Capacity Improvements Project – Platform Edge Doors and Net Zero

Date: June 3, 2026
To: TTC Board
From: Chief Capital Officer

Reason for Confidential Information

This report contains information about a position, plan, procedure, criteria or instruction to be applied to any negotiations carried on or to be carried on by or on behalf of the City or local board.

Recommendations

It is recommended that the TTC Board:

1. Endorse the inclusion of Net Zero requirements in the Bloor-Yonge Capacity Improvements project.
2. Approve the inclusion of Platform Edge Doors (PEDs) on Line 1 and Line 2 at Bloor-Yonge station as part of the system-wide platform protection program, and funding for enabling PED infrastructure in the amount of \$6.35 million, including HST, for design to 70% as part of the Development Phase for the Bloor-Yonge Capacity Improvements project.
3. Authorize that the information in Confidential Attachment 2 remain confidential as it contains information about a position, plan, procedure, criteria or instruction to be applied to any negotiations carried on or to be carried on by or on behalf of the TTC.

Summary

This report provides an update on the impact assessment of Net Zero and Platform Edge Doors (PEDs) and seeks approval for the inclusion of Net Zero for the Bloor-Yonge Capacity Improvements (BYCI) project as well as PEDs as part of the system-wide Platform Protection Program and enabling PED infrastructure as part of the BYCI project.

This report is a follow up to the February 24, 2025 Board report, Bloor-Yonge Capacity Improvements Project – Progressive Design-Build Development Phase, which authorized the award of the Progressive Design-Build Development Phase Agreement for the BYCI project to Kenaidan Murphy Joint Venture (KMJV), and committed to assess the impacts for PEDs and Net Zero, and report back to the Board by Q2 2026.

Background and Analysis

Bloor-Yonge interchange station is a major transfer point in the TTC subway system. Line 1 and Line 2 are expected to experience significant ridership growth reflecting ridership generated from population growth and from the implementation of transit expansion initiatives on Lines 1 and 2.

Improving the capacity of Bloor-Yonge Station is a key pre-condition for further network expansion planned by Metrolinx and has been identified as a priority project by the City of Toronto, the Province of Ontario, and the Government of Canada. It is anticipated that without modifications to Bloor-Yonge Station, overcrowding will increase dwell times, create bottlenecks, and reduce the level of service to customers at this critical interchange station as well as across Lines 1 and 2.

The current project scope includes a new Line 2 eastbound platform, reconfigured Line 2 westbound platform, new electrical substation building, improved vertical circulation, new accessible entrance at 81 Bloor St. East, new fan plants (8 additional) and modified main entrance at 2 Bloor St. East.

The BYCI project is being delivered using a Progressive Design-Build delivery model, which is a collaborative contracting model between the TTC and contractor/designer (KMJV), involving an initial Development Phase before major construction begins during the Implementation Phase. By bringing in a knowledgeable contractor with expertise delivering in complex environments early in the project's lifecycle, the project can undergo collaborative design iteration and develop construction staging plans that balance trade-offs and achieve the best value-for-money solution for the project.

During the Development Phase, all parties transparently and collaboratively resolve key technical, commercial, and project risk items to ensure alignment before the project progresses further. Unlike a traditional procurement model, this collaborative approach brings the right skill sets together from the TTC and KMJV to help mitigate the realization of risks during construction, at which time solutions would become more costly or time consuming to implement. Throughout the Development Phase, the parties work closely together to develop the design to 70% as well as negotiate the target price, schedule, and project agreement.

Only upon agreement of a satisfactory target price will the Implementation Phase be awarded, which entails finalizing design, undertaking construction, and project closeout. If a satisfactory target price cannot be agreed, the TTC is permitted to return to market for the remaining work, while retaining rights to the design work completed in the Development Phase.

Net Zero

Net Zero requirements as part of the TransformTO Net Zero Strategy are currently unfunded for the BYCI project. There are some additional unfunded costs associated with any applicable changes between the current Toronto Green Standard v4 (TGSv4) and the previous Toronto Green Standard v3 (TGSv3), on which the BYCI original 30% design was established.

KMJV undertook a gap analysis to assess the impact of Net Zero and TGSv4 on the BYCI project including cost, schedule and operational impacts.

Results of this analysis foresee no major cost impacts and no schedule impacts during the Development Phase. Additional costs are anticipated during construction, in the amount of approximately \$4-5 million for embodied carbon modelling, third-party TGS verification post-construction, construction waste diversion, and potentially the use of low embodied carbon concrete mixtures and recycled steel. Further consultation is required with the city to confirm these Net Zero and TGSv4 requirements and associated costs as the design progresses during the Development Phase. The overall project schedule is expected to be unaffected by these requirements.

Since the Net Zero and TGSv4 requirements do not materially impact the BYCI project schedule and are expected to introduce manageable costs, it is recommended that these requirements be added to the BYCI project. Additional funding for design during the Development Phase is not required for Net Zero and TGSv4 requirements. The design will develop further during the Development Phase including further discussion with the City on Net Zero and TGSv4 requirements, so it is recommended that additional funding required for construction be updated following design progression.

Platform Edge Doors (PEDs)

The TTC is advancing safety improvements across the system including safer infrastructure and system design by investing in station and system improvements to help prevent safety and security incidents and support a safer customer experience. Part of these improvements include a system-wide platform protection program with planning for platform edge doors (PEDs) at high priority stations in the context of short-term and long-term actions.

PEDs are currently unfunded for the BYCI project.

KMJV undertook a PEDs implementation report to assess the impact of PEDs on Line 1 and Line 2 for the BYCI project including cost, schedule and operational impacts.

Options for PEDs included:

1. Full implementation of PEDs on Line 1 and Line 2;
2. Enabling infrastructure for future implementation of PEDs on Line 1 and Line 2;
3. Full implementation of PEDs on Line 1 and enabling infrastructure for future implementation of PEDs on Line 2.

Cost and Schedule Impacts:

Based on the report findings, early indications of costs to deliver PEDs as part of the BYCI project are higher than the economies of scale benefits expected from a system-wide platform protection program. However, enabling infrastructure for PEDs such as platform structural modifications to support PEDs are recommended as part of the BYCI project with delivery aligned with the system-wide platform protection program. Staging of PEDs infrastructure, including opportunities to overlap this work with the rest of the

station works will be determined as the design of the BYCI project and the wider platform protection program progress, including alignment with the Line 2 ATC schedule.

Operational Impacts:

Implementing PEDs at Bloor-Yonge station introduces major operational changes affecting train control, rolling stock, platform management, maintenance, and staffing. For Line 2 platforms, the magnitude of operational impacts will be heavily dependent on the timing of completion of the Line 2 Automatic Train Control (ATC) currently under procurement and the New Subway Train (NST) program. While PEDs improve safety and reduce track-level incidents, they also require significant system integration and operational adjustments including:

- Automatic Train Control – PEDs depend on precise train stopping accuracy associated with ATC which may require ATC reprogramming or upgrades on Line 1, and manual operation until ATC and NST are implemented on Line 2.
- Rolling stock – Door spacing must align with PED openings. On Line 1, Toronto Rocket (TR) trains and the future NSTs will have different door spacings. This will require integration work for the system and sizing of the PED openings to ensure compatibility of both vehicles. On Line 2, the current T1 trains are incompatible and will be replaced by the NST fleet, which will have a different door spacing than T1 trains. The PED design also requires finalization of the NST door spacing.

In order to realize the efficiencies and economies of scale benefits of a system-wide platform protection program, it is recommended to include PEDs as part of the system-wide platform protection program at Bloor-Yonge station with enabling PED infrastructure for the platforms to be implemented as part of the BYCI project. This approach will allow planning for PEDs to occur concurrently with the ongoing staging of the other BYCI works. Funding for enabling PED infrastructure in the amount of \$6.35 million (incl. HST) for design to 70% as part of the Development Phase will be required. The remaining design up to 100% and construction costs will be developed further during the Development Phase.

Next Steps

The validation period has been extended to Q2 2026 to further develop value engineering opportunities as part of the Development Phase. It is recommended that additional funding for the remaining design (70-100%) and construction costs for Net Zero and TGSv4 requirements and enabling PED infrastructure be confirmed upon further design progression. In addition to regular reporting including via the quarterly Major Projects Update, updates will be reported to the Board as the Development Phase progresses at key strategic decision points, including, e.g., development of an early works strategy, anticipated in mid-2027.

Diversity, Equity and Inclusion Matters

The TTC is dedicated to promoting and supporting diversity, accessibility and inclusion in all of its corporate policies, programs, and services. A cornerstone of the TTC's current Corporate Plan is universal 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.

The BYCI project is being designed to be accessible in accordance with the Accessibility for Ontarians with Disabilities Act, 2005 (AODA), the Integrated Accessibility Standards Regulation, O. Reg. 191/11 (IASR), and the Ontario Building Code. The design includes wayfinding signage, additional escalators, elevators, and barrier-free entrances for more station accessibility.

Innovation and Sustainability Considerations

The Toronto Transit Commission's Innovation and Sustainability Strategy, 2024–2028 (ISS), approved by the Board in September 2024, sets the direction for embedding corporate-wide innovation and environmental sustainability across capital projects (workstreams 2.1 and 2.2).

The BYCI project is being designed with considerations for innovation and sustainability consistent with the TransformTO Net Zero requirements, Toronto Green Standards (TGS v4) and Innovation and Sustainability Strategy (ISS). This includes incorporating low embodied carbon materials and enhanced waste-diversion practices into project delivery and design.

Corporate Plan Alignment

This report aligns with the TTC Corporate Plan, Strategic Direction 3 – Place Transit at the Centre of Toronto's Future Mobility, Objective 3.1 – Build Network Capacity to Support Long-Term Growth to 2041, Action 3.1.2 – Construct Capacity Improvements at Bloor-Yonge Station.

Financial Impact

The total project budget for the BYCI Project is \$1.514 billion, comprising of costs incurred to the end of 2025 of \$205 million and cash flow funding of \$1.309 billion in the 2026-2035 Capital Budget and Plan, which was approved by the TTC Board on January 7, 2026 and City Council on February 10, 2026 under Program 3.9 Buildings and Structures – Bloor-Yonge Capacity Improvements Project. Of the approved funding in the 2026-2035 Capital Budget and Plan, approximately \$347.5 million has been committed to date.

Subject to the approval of Recommendation 3 above, funding in the total amount of \$6.35 million (incl. HST) is required to progress to 70% design of PEDs enabling infrastructure. In order to continue design progress in 2026, funding will be accelerated from future years' approved funding in the BYCI Project, with the in-year budget adjustment included in the Financial and Major Projects Update for the Period Ended - April 26, 2026, subject to Board approval.

The BYCI project will receive intergovernmental funding through the Investing in Canada Infrastructure Program – Public Transit Infrastructure Stream (PTIF Phase 2). In July 2022, the project received approval from all three orders of government for a total estimated cost of \$1.514 billion. The Federal and Provincial governments committed up to \$500 million in federal contributions and \$449.2 million in provincial contributions. The TTC, with the City, have entered into a transfer payment agreement with the Province, which administers the program on behalf of the Federal government.

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

Contact

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Attachments

Attachment 1 – Decision History
Confidential Attachment 2

Attachment 1 – Decision History

On December 8, 2021, the Board approved the Bloor-Yonge Capacity Improvements project – Stage Gate 3, including project preliminary design baselines and the Progressive Design-Build project delivery strategy.

[Bloor-Yonge Station Capacity Improvement Project – Stage Gate 3 – December 8, 2021](#)

On May 1, 2022, under staff authority and based on a competitive procurement process, the TTC awarded the provision of legal services for the Bloor-Yonge Capacity Improvements project to Blake, Cassels & Graydon LLP (Blakes) in the upset limit amount of \$1.695 million, inclusive of HST. In March 2024, under staff authority, the value of the contract with Blakes was increased by \$1 million to \$2.695 million, inclusive of HST.

On May 18, 2022, the Board approved the award of Contract S85-45, Bloor-Yonge Capacity Improvements Owner’s Engineer Consultant Services, to AECOM Canada Ltd.

[Bloor-Yonge Station Capacity Improvements Project – Procurement Authorization for Bloor-Yonge Capacity Improvements Owner’s Engineer Consultant Services – May 19, 2022](#)

On July 12, 2023, the Board approved the award of Contract S40-14, Bloor-Yonge Capacity Improvements – Early Works – Utility Works to Clearway Construction Inc.

[Procurement Authorization for Bloor-Yonge Capacity Improvements – Early Works – Utility Works – July 12, 2023](#)

On November 22, 2023, the Board authorized entering into an “Offer to Connect” (OTC) agreement and award of a contract to Toronto Hydro Electric System Limited in support of the Bloor-Yonge Capacity Improvements project.

[Bloor-Yonge Capacity Improvements – Procurement Authorization for Toronto Hydro Offer to Connect Agreement – November 22, 2023](#)

On November 22, 2023, the Board authorized the execution of the Design and Construction Management Agreement and any other agreements required to enable a new chiller plant to be located at 2 Bloor Street East.

[Bloor Yonge Capacity Improvement – Third Party Construction Co-ordination – November 22, 2023](#)

On February 24, 2025, the Board approved the authorization to award the Progressive Design-Build Development Phase Agreement for the Bloor-Yonge Capacity Improvements project to Kenaidan Murphy Joint Venture (KMJV) in the amount of \$154,600,000.00, inclusive of HST.

[Bloor-Yonge Capacity Improvements Project - Progressive Design-Build Development Phase – February 24, 2025](#)