



Heritage Vaughan Committee Report

DATE: Wednesday, March 25, 2026

WARD(S): 5

TITLE: YONGE NORTH SUBWAY EXTENSION TRACTION POWER
SUBSTATION (TPSS) BUILDING IN VICINITY OF ROYAL
ORCHARD AND YONGE STREET

FROM:

Vince Musacchio, Deputy City Manager, Planning and Infrastructure Development

ACTION: DECISION

Purpose

Staff is seeking a recommendation of approval in principle from the Heritage Vaughan Committee to Council for the proposed Yonge North Subway Extension Traction Power Substation (TPSS) proposed at 7994 Yonge St., located within the Thornhill Heritage Conservation District, under Section 41, Part V of the *Ontario Heritage Act*. And receive delegated authority for staff to execute and finalize related approvals and agreements.

Report Highlights

- A Traction Power Substation (TPSS) building is proposed in the Thornhill Heritage Conservation District.
- If Metrolinx purchases or leases the property or portion of it, then the Traction Power Substation (TPSS) will be subject to Standards and Guidelines for Provincial Heritage Properties and exempt from the Thornhill Heritage Conservation District policies and guidelines and City's Heritage Permit approval process.
- Metrolinx is finalizing the above agreement, however, would like to move forward with some demolition, site alteration and tree removal to expedite the construction of the Traction Power Substation (TPSS) in advance of the agreement.

Recommendations

1. That Council approves the Traction Power Substation (TPSS) conceptual design in principle.
2. That Council gives delegated authority to Senior Manager of Urban Design and Cultural Heritage to review and approve any demolition, site alteration and new construction related to Royal Orchard station until such time as Metrolinx acquires ownership of the property(ies).
3. That Council gives delegated authority to the Deputy City Manager of Planning and Infrastructure Development to enter into a Municipal Heritage Process Exemption Agreement with Metrolinx for Royal Orchard related infrastructure when the Metrolinx becomes the owner of the related property(ies).

Background

As part of the Moving Ontario Forward Plan, Metrolinx is committed to delivering rapid, more reliable, and seamless transit in the GTA. As part of this plan, four new subway projects are being implemented, including the Yonge North Subway Extension which entails extending the existing Yonge Subway Line 1 from its current terminus at Finch Subway Station in the City of Toronto approximately 8 kilometers north to High Tech Station in the City of Richmond Hill. Royal Orchard Station will be located east of Yonge Street south of Royal Orchard Road in City of Markham. Infrastructure that is required to support the subway line and Royal Orchard Station is proposed to be in a smaller building known as a Traction Power Substation (TPSS) (including an emergency exit for Royal Orchard Station). This small support structure will be located on the west side of Yonge Street within Thornhill Club property located in the Thornhill Heritage Conservation District.

To facilitate this substation Metrolinx must remove 31 mature trees and one utilitarian shed, however, in advance of acquiring ownership, 4 mature trees will need be removed to enable archeological work on the property. The Ministry of Citizenship and Multiculturalism has provided a Letter of Consent concluding that since Metrolinx has executed a Permission to Enter Agreement with property owner, Metrolinx can exercise its rights to control the property under section 25.2(2)b of the *Ontario Heritage Act*, for removing these 4 trees but no other trees or the shed are to be removed. (Attachment 2)

The proposed substation will also require the demolition of an existing shed on the property. Demolition will happen after the transfer of ownership and will not be subject to the Heritage Permit process at that time.

Ontario Heritage Act excerpt

Section 25.2 (2)(b)

Application

(2) This Part applies to property,

(b) that is occupied by a ministry or a prescribed public body if the terms of the occupancy agreement are such that the ministry or public body is entitled to make the alterations to the property that may be required under the heritage standards and guidelines approved under subsection (5). 2005, c. 6, s. 13.

Staff are requesting delegated authority for approval of all demolitions, site alterations and new constructions to advance the project, removing the need for Ministry's Consent Letter for each application.

Previous Reports/Authority

No previous reports.

Analysis and Options

The proposed site for the Traction Power Substation (TPSS) is located west of Yonge Street within the Thornhill Club property at 7994 Yonge St. and will be within the boundaries of the Thornhill Heritage Conservation District.

As this is a project under the control of a Provincial Crown Agency, The Ontario Heritage Act provides the following language: The project will be following the Standards and Guidelines for Conservation of Provincial Heritage Properties, and a Heritage Permit from the City will not be required once Metrolinx formally purchases or leases a portion of the property. The property is currently part of 7994 Yonge St and Metrolinx is currently in discussions with the property owner regarding this project.

The report and attached presentation are to inform the Vaughan Heritage Committee and City Council of the conceptual designs for the Traction Power Substation (TPSS) building and to seek delegated authority for staff to expedite any demolition, site alterations or new construction in the interim until such time as Metrolinx acquires ownership.

The proposed design Principles for the Traction Power Substation (TPSS) building are:

- Maintaining visual rhythm of Yonge Street
- Using classical proportions
- Screening mechanical equipment
- Utilizing local material palette

- Simple vernacular design

City of Vaughan Cultural Heritage staff is in support of the above principles and has worked with Metrolinx staff providing a copy of the Thornhill Heritage Conservation District Plan, information about the subject lands and newer construction along Yonge Street. Cultural Heritage Impact Assessments have been submitted to staff for comment and will be updated once the designs for the construction have been finalized.

The presentation is to provide an overview of the subject lands and some of the proposed designs for the proposed building. Staff and Heritage Vaughan's feedback regarding materials will be provided to Metrolinx. (Attachment 3)

Financial Impact

There are no financial impacts to the City from this report.

Operational Impact

NA

Broader Regional Impacts/Considerations

There are no Regional Impacts from this report

Conclusion

The subject presentation is to provide information to the Heritage Vaughan Committee and Council regarding the future infrastructure project in the Thornhill Heritage Conservation District in the vicinity of Yonge Street and Royal Orchard Drive. As the project will be moving forward under the process outlined in the Provincial Standards and Guidelines, a Heritage Permit approval from the City will not be required.

Nonetheless, the Urban Design and Cultural Heritage Division of the Development and Parks Planning Department is satisfied that the proposed design principles for the Traction Power Substation (TPSS) building meet the intent of the policies and guidelines of the Thornhill Heritage Conservation District Plan. Accordingly, staff can support Council approval of the conceptual design in principle under section 42 of the *Ontario Heritage Act*.

For more information, please contact: (Katrina Guy, Heritage Specialist, ext. 8115

Attachments

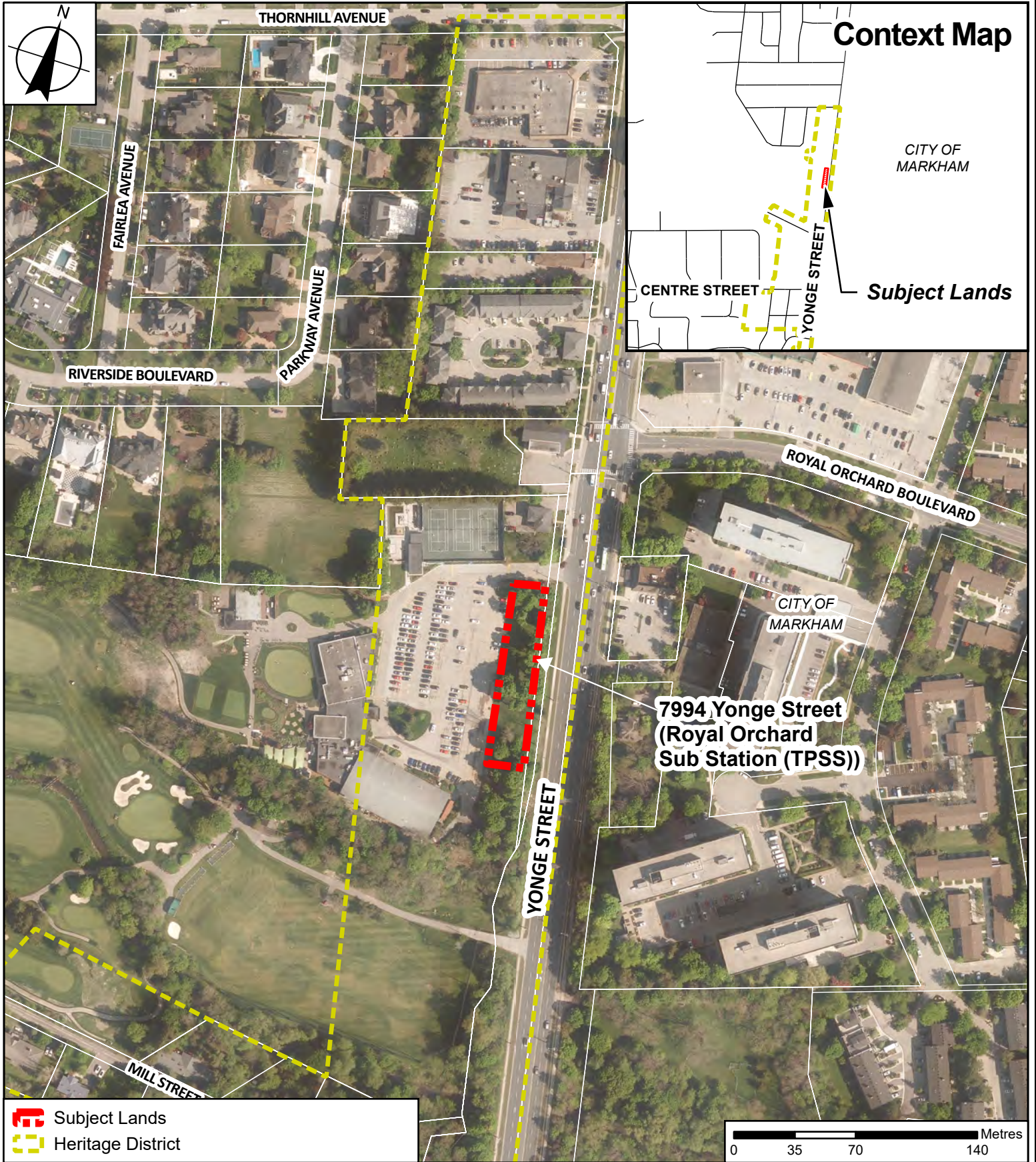
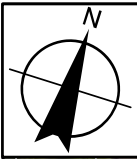
1. Location Map
2. Ministry's Consent Letter
3. Presentation



Prepared by

Katrina Guy, Heritage Specialist, ext. 8115

Shahrzad Davoudi-Strike, Senior Manager of Urban Design and Cultural Heritage, ext. 8653

Nancy Tuckett, Director of Development and Parks Planning, ext. 8529



-  Subject Lands
-  Heritage District

Location Map

Location:
7994 Yonge Street
Part of Lot 32, Concession 1



Attachment

Date:
March 25, 2026

1

Ministry of Citizenship and
Multiculturalism

Ministère des Affaires civiles et
du Multiculturalisme

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February 2, 2026

EMAIL ONLY

Thomas Wicks
Manager, Environmental Programs and Assessment - Cultural Heritage
Metrolinx
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Toronto, ON M5J 2W3
thomas.wicks@metrolinx.com

Proponent : **Metrolinx**
Project : **7994-8000 Yonge Street, Yonge North Subway Extension**
Subject : **Minister's Consent Conditions Project Update**

Dear Thomas Wicks:

Thank you for your email of January 21, 2026, providing the Ministry of Citizenship and Multiculturalism (MCM) with updated information about Metrolinx's plans for the removal of 31 mature trees and the demolition of one utilitarian shed at the Thornhill Club property, 7994-8000 Yonge Street, which is a provincial heritage property of provincial significance.

On December 16, 2026, the Minister of Citizenship and Multiculturalism granted his consent, pursuant to Section F.5 of the *Standards and Guidelines for Conservation of Provincial Heritage Properties* (PHP S&Gs), for the removal of 31 mature trees and the demolition of one utilitarian shed on the Thornhill Club property, 7994-8000 Yonge Street. Metrolinx completed a Heritage Impact Assessment (HIA) for this work (prepared by OneT+, dated August 28, 2025) and submitted it to MCM in support of its application for the Minister's consent.

The Minister's consent was granted subject to conditions, including:

1. Mitigation Measures

That Metrolinx implement the undertaking in a manner consistent with the proposed mitigation measures outlined in Section 1.20 of the Heritage Impact Assessment (prepared by OneT+, dated August 29, 2025).

2. Changes to Project Plans or Proposed Mitigation Measures

Where Metrolinx project plans change as they relate to this Minister's consent or where these conditions cannot be completed as described above, Metrolinx will advise MCM and implement such other requirements or fulfill such other conditions as the Ministry may advise prior to proceeding.

When the Minister's Consent was granted in December 2025, it was understood that Metrolinx would be acquiring ownership of the subject property prior to removal of the trees and demolition of the shed. In a meeting on December 22, 2025, and by email on January 21, 2026, Metrolinx staff informed MCM that, to enable archaeological work on the property, Metrolinx needs to remove 4 of the 31 trees before acquiring these lands. MCM understands that the 4 trees will be removed under a Permission to Enter (PTE) agreement already executed between Metrolinx and the property owner.

Upon review and having discussed this matter with Metrolinx, MCM has concluded that, under the PTE, Metrolinx is exercising 'control' of the property as that term is understood in the context of Section 25.2 (2) b of the *Ontario Heritage Act* (OHA).

MCM understands that no other trees (or the shed) will be removed before Metrolinx acquires all the lands subject to this Minister's Consent. Acquisition of the land is scheduled to occur by July 2026, at which time the remaining trees and shed will be removed. In the January 21 email, Metrolinx confirmed that an expropriation process has been initiated, the Certificate of Approval from the MTO is expected to be received in the coming weeks, and that all conditions of the December 16, 2025 Minister's Consent will be met.

As this proposal is generally consistent with the proposed Metrolinx activities described in the Minister's consent (and with the mitigation measures proposed in the HIA) MCM has no concerns with the above-described revision to Metrolinx's project plan.

Thank you for keeping us updated as this project progresses.

Regards,



James Hamilton
Acting Director, Heritage Operations Branch

Copied to:

Karla Barboza, Team Lead, Heritage Planning Unit, MCM
Liam Smythe, Heritage Advisor, Heritage Planning Unit, MCM

ROYAL ORCHARD TRACTION
POWER SUBSTATION
HERITAGE DESIGN



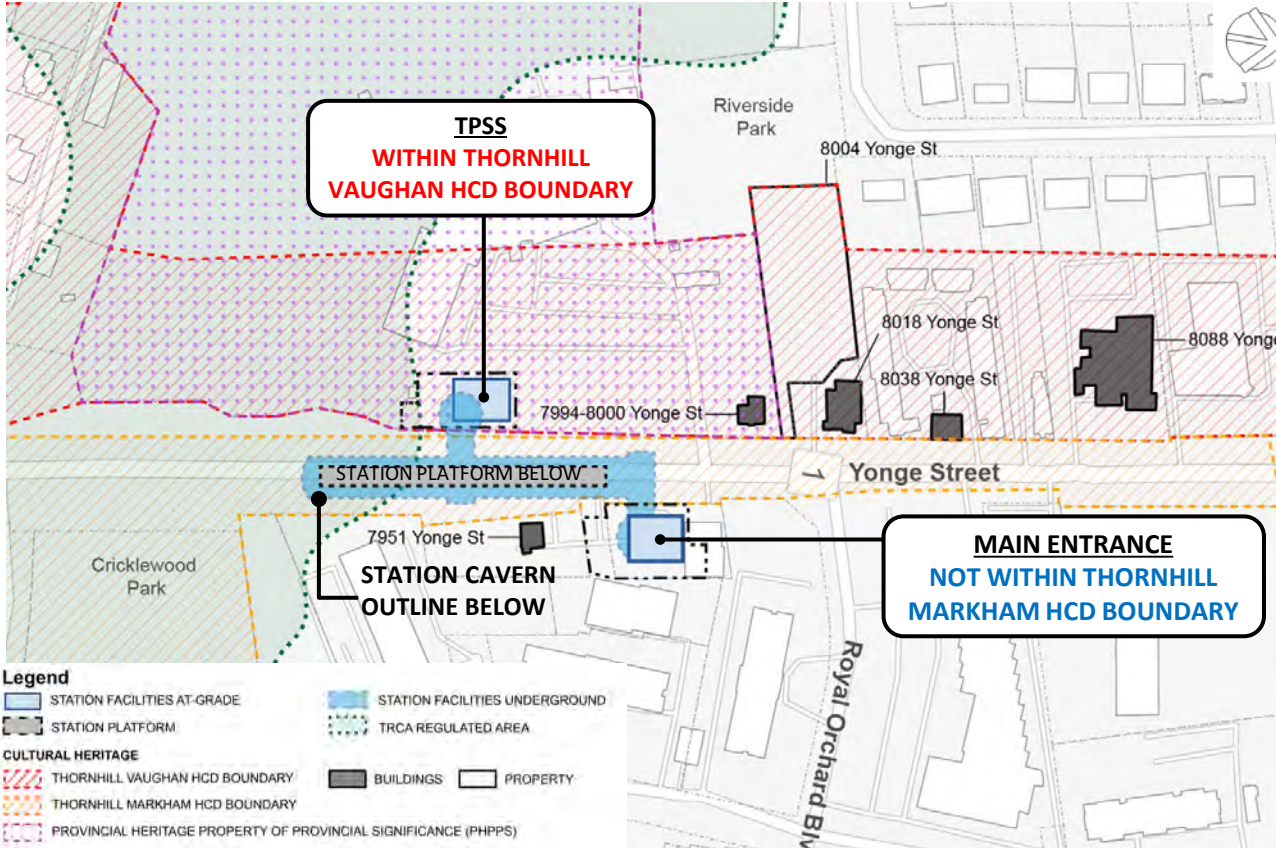
Objective

- To design and construct a **Traction Power Substation (TPSS)** building which will provide necessary power the subway. The building will also integrate with required station egress stairs and ventilation shafts.
- To share potential **Reference Concept Design (RCD) concepts (non-contractually binding)** that align with heritage design guidelines. These are proof-of-concept designs and examples of how the TPSS structure can meet Metrolinx and HCD design objectives.
 - In keeping with Recommendation 2.b.i of the HIA:
 - 2.b.i - *"To align with sections 4.1.1, 4.1.4, 4.1.5, and 4.1.6 of Standards and Guidelines and sections 4.2.2, 6.1.1, 9.1 and 9.5.2.2 of the Thornhill Vaughan HCD, consider redesigning the new TPSS-4 with exterior treatments that are sympathetic with the heritage character of the Thornhill Vaughan HCD."*

*RCD: Reference Concept Design

Background Information

Site Plan



Station Elements

- **Main Entrance:** South of Royal Orchard Blvd, On Yonge Street
- **Traction Power Substation (TPSS) with Emergency Exit Stair:** West side of Yonge Street

Background Information

Heritage Context

*

* 8000 Yonge Street is part of the PHPPS →



Background Information

- HIA has been submitted to City of Vaughan (Feb 2025) and a final HIA was provided on March 2026.
- Royal Orchard Station Main Entrance **does not lie within either the Vaughan's Thornhill Heritage Conservation District or Markham's Thornhill Heritage Conservation District.**
- Royal Orchard TPSS is located within the **City of Vaughan's Thornhill Heritage Conservation District** and on lands identified by Metrolinx as Provincial Heritage Property (PHPPS). As the Province will own the lands, the provincial heritage process applies. Minister's Consent for 7994–8000 Yonge Street was granted by the Minister of Citizenship and Multiculturalism on December 16, 2026
- While TPSS-4 will fall under the provincial heritage process, per HIA recommendations 2.b.i., Metrolinx is looking to consider designs for the TPSS that align with HCD guidelines.
- The TPSS is a mainly utilitarian building housing predominately mechanical/electrical spaces, ventilation and smoke shafts, and an emergency exit stair. **There are no public passenger facilities in this building. This is a low traffic building.**
- Due to the program of the building, elements such as louvres on the façade, rooftop exhaust, hollow metal doors, and screened rooftop equipment might be required and can have impacts to the TPSS aesthetic.

TPSS DESIGN OPTIONS



Design Principles and precedent images

(Adapted from 7.9.4 Traction Power Substation (TPS) and Large Ancillary Structures)

- **Integration with context to reduce impact**
 - Integrated with station facilities such as **ventilation shafts, EEBs**, or entrances where space permits
 - TPSS shall be integrated with urban fabric through study of building proportions and massing
 - “If adjacent to significant buildings or structures, [the TPSS] shall reflect the design language and rhythm of its context using kit of parts materials”
- **Consistent, low-impact, and durable materials**
 - **Precast concrete panels and perforated metal panels**
 - “... **perforated metal** shall be used in a creative way to contribute to its surroundings by patterning, or printing of imagery on the perforated screen”
 - Cladding or screening of the TPSS shall be **secure, climb-proof, cut-proof, and vandal-proof.**
- **Roofs shall be flat**, and rooftop equipment shall be **screened and consolidated**



Precedent image from DS-09 showing a TPSS. Brunswick East, Australia. Image Credit: *Beca*.

Design Principles and precedent images

Heritage work implemented:

- Cultural Heritage Impact Assessment
- Archeological assessment

Design Principles and precedent images

- Maintain **visual rhythm** of Yonge St by breaking façade down into 6-8m sections
- Use **classical proportions** (base 1/3, middle and top) and emphasize horizontality in keeping with traditional main street typologies
- Screen rooftop mechanical equipment
- Utilize local material palette, of its own time
- Simple, vernacular design language

Artwork and Motifs

- Suggestion to integrate motifs or artwork into the façade. Can pay homage to significant local figures such as Stanley Thompson, Canadian golf course architect and architect of the Thornhill Golf Club.

Heritage Studies

Heritage studies completed:

- Cultural Heritage Evaluation Report (completed 2022)
- Heritage Impact Assessment (completed 2025)
- Stage 1 and 2 Archaeological Assessments (completed 2025)

Heritage reports in progress:

- Stage 3 Archaeological Assessment with MCM for final approval
- Stage 4 Archaeological Assessment to be Started in April 2026

Approvals obtained:

- Heritage Impact Assessment approved by MCM (2025)
- Stage 1 and 2 Archaeological Assessments approved by MCM (2025)
- Minister's Consent from the Ministry of Citizenship and Multiculturalism (MCM) was obtained on December 16, 2025 for the removal of 31 mature trees and demolition of one utilitarian shed

Heritage Material Palette



Wood Siding
(painted or stained)



Red Brick

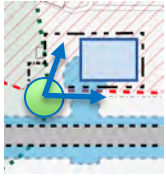


Flagstone

Locations

- 1 The Thornhill Club
- 2 8000 Yonge St.
- 3 Thornhill Baptist Church, 8018 Yonge St
- 4 TD Bank, 7967 Yonge St
- 5 8054 Yonge St

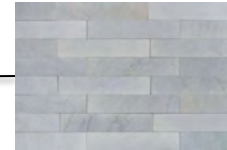
Option 1 – Brick Veneer



Materials



Running bond precast brick panels



Stone veneer

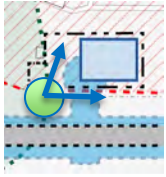


Green wall with suitable indigenous species



Bell Telephone company, Toronto

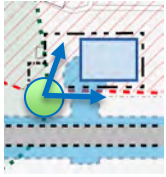
Option 1 – Brick Veneer



Design Elements

- 1 Brick precast panels
- 2 Green wall
- 3 Mechanical louvre
- 4 Equipment removal doors
- 5 Emergency exit door
- 6 Landscape Buffer
- 7 Retaining Wall

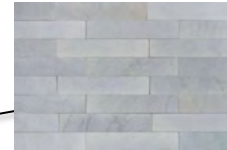
Option 2 – Wood-Effect Siding



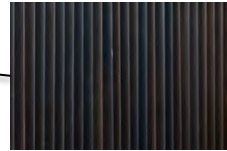
Materiality



Diagonal wood-effect siding



Stone veneer

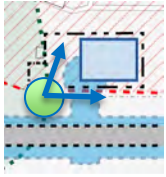


Vertical aluminum fins



Green wall with suitable indigenous species

Option 2 – Wood-Effect Siding



Design Elements

- 1 Diagonal Wood-Effect Siding
- 2 Vertical aluminum fins
- 3 Green wall
- 4 Mechanical louvre
- 5 Equipment removal doors
- 6 Emergency exit door
- 7 Landscape Buffer
- 8 Retaining Wall

Next Steps

1. Work with City of Vaughan on detail design of TPSS-4



**THANK YOU
FOR YOUR SUPPORT
AND ATTENTION**